References

[1] Abdalla, H. (2025), Multi-TeV Gamma Rays from GRB 221009A: Challenges for Emission Mechanisms, EBL Opacity, and Fundamental Physics, *Galaxies*, **13**(4), 95, 10.3390/galaxies13040095.

[2] Abdullrahman, M., A. H. Hya, and A. Aied (2025), Exploring daily fluctuations of cosmic ray muon components at a low latitude site and their associations with space weather variables, *J. Astrophys. Astron.*, **46**(1), 10, 10.1007/s12036-024-10034-8.

[3] Abid, A. A., K. Qamar, N. Ahmad, A. Waheed, M. S. Hussain, M. N. S. Qureshi, A. Esmaeili, B. M. Alotaibi, O. Ishaque, X. Li, G.-R. Yao, and Y.-F. Ji (2025), Magnetospheric multiscale observations of electromagnetic ion cyclotron waves associated with cold ion heating in the Earth's magnetosphere, *AIP Advances*, **15**(7), 075237, 10.1063/5.0287326.

[4] Abu-Shaar, Z., T. Podladchikova, A. M. Veronig, M. Dumbović, and S. J. Hofmeister (2025), Coronal Mass Ejection Arrival Forecasting with the Drag-based Assimilation of Satellite Observations, *Astrophys. J. Suppl.*, **281**(2), 29, 10.3847/1538-4365/ae0d8a.

[5] Afanasiev, A., N. Wijsen, and R. Vainio (2025), Towards advanced forecasting of solar energetic particle events with the PARASOL model, *J. Space Weather Space Clim.*, **15**, 3, 10.1051/swsc/2024039.

[6] Agarwal, A., and W. Mishra (2025), Disparities in Magnetic Cloud Observations between Two Spacecraft Having Small Radial and Angular Separations near 1 au, *Astrophys. J.*, **982**(2), 183, 10.3847/1538-4357/adbaeb.

[7] Agarwal, S., J. A. Aguilar, S. Ali, P. Allison, M. Betts, D. Besson, A. Bishop, O. Botner, S. Bouma, S. Buitink, M. Cataldo, B. A. Clark, A. Coleman, K. Couberly, S. de Kockere, K. D. de Vries, C. Deaconu, M. A. DuVernois, C. Glaser, T. Glüsenkamp, A. Hallgren, S. Hallmann, J. C. Hanson, B. Hendricks, J. Henrichs, N. Heyer, C. Hornhuber, K. Hughes, T. Karg, A. Karle, J. L. Kelley, M. Korntheuer, M. Kowalski, I. Kravchenko, R. Krebs, R. Lahmann, U. Latif, P. Laub, C.-H. Liu, M. J. Marsee, Z. S. Meyers, M. Mikhailova, C. Monstein, K. Mulrey, M. Muzio, A. Nelles, A. Novikov, A. Nozdrina, E. Oberla, B. Oeyen, N. Punsuebsay, L. Pyras, M. Ravn, D. Ryckbosch, F. Schlüter, O. Scholten, D. Seckel, M. F. H. Seikh, J. Stoffels, K. Terveer, S. Toscano, D. Tosi, D. J. Van Den Broeck, N. van Eijndhoven, A. G. Vieregg, A. Vijai, C. Welling, D. R. Williams, P. Windischhofer, S. Wissel, R. Young, and A. Zink (2025), Solar flare observations with the Radio Neutrino Observatory Greenland (RNO-G), *Astroparticle Physics*, **164**, 103024, 10.1016/j.astropartphys.2024.103024.

[8] Ahamed, A. A., S. P. Subramanian, A. M. Rahman, A. K. Raja, K. Mahalakshmi, and T. Thirumalaisamy (2025), Study of solar activities associated with a Halo CME on 17 Feb 2023 event, *New Astron.*, **114**, 102312, 10.1016/j.newast.2024.102312.

[9] Aharonian, F., A. Archaryya, J. Aschersleben, H. Ashkar, M. Backes, V. Barbosa Martins, R. Batzofin, Y. Becherini, D. Berge, K. Bernlöhr, M. Böttcher, C. Boisson, J. Bolmont, M. de Bony de Lavergne, J. Borowska, F. Bradascio, R. Brose, A. Brown, F. Brun,

B. Bruno, C. Burger-Scheidlin, S. Casanova, J. Celic, M. Cerruti, T. Chand, S. Chandra, A. Chen, J. Chibueze, O. Chibueze, J. Damascene Mbarubucyeye, J. de Assis Scarpin, A. Djannati-Ataï, J. Djuvsland, A. Dmytriiev, K. Egberts, S. Einecke, J.-P. Ernenwein, C. Escañuela Nieves, M. Filipovic, G. Fontaine, S. Funk, S. Gabici, J. F. Glicenstein, J. Glombitza, G. Grolleron, B. Heß, W. Hofmann, T. L. Holch, M. Holler, D. Horns, Z. Huang, A. Jaitly, M. Jamrozy, F. Jankowsky, I. Jung-Richardt, E. Kasai, K. Katarzyński, D. Kerszberg, R. Khatoon, B. Khélifi, W. Kluźniak, N. Komin, K. Kosack, D. Kostunin, A. Kundu, R. G. Lang, S. Le Stum, A. Lemière, M. Lemoine-Goumard, J.-P. Lenain, A. Luashvili, J. Mackey, D. Malyshev, V. Marandon, R. Marx, A. Mehta, M. Meyer, A. Mitchell, R. Moderski, M. O. Moghadam, E. Moulin, M. de Naurois, J. Niemiec, P. O'Brien, L. Olivera-Nieto, E. de Ona Wilhelmi, M. Ostrowski, S. Panny, M. Panter, R. D. Parsons, U. Pensec, S. Pita, G. Pühlhofer, M. Punch, A. Quirrenbach, S. Ravikularaman, M. Regeard, O. Reimer, H. Ren, B. Reville, F. Rieger, G. Rowell, B. Rudak, K. Sabri, V. Sahakian, H. Salzmann, A. Santangelo, M. Sasaki, J. Schäfer, F. Schüssler, H. M. Schutte, J. N. S. Shapopi, A. Sharma, S. Spencer, Ł. Stawarz, R. Steenkamp, S. Steinmassl, C. Steppa, T. Takahashi, T. Tanaka, M. Tsirou, C. van Eldik, M. Vecchi, C. Venter, T. Wach, S. J. Wagner, A. Wierzcholska, A. A. Zdziarski, A. Zech, N. Żywucka, and The H. E. S. S. collaboration (2025), H.E.S.S. programme searching for VHE gamma rays associated with FRBs, *J. Cosmo. Astropart. Phys.*, **2025**(7), 086, 10.1088/1475-7516/2025/07/086.

[10] Ahmed, L., M. L. Stevens, K. Paulson, A. W. Case, and S. T. Badman (2025), Bayesian and Deterministic Neural Network Approaches to Faraday Cup Calibration and Plasma Parameter Estimation, *Astrophys. J.*, **995**(2), 141, 10.3847/1538-4357/ae14ee.

[11] Ahmed, O., B. Badruddin, and M. Derouich (2025), Forbush decreases during strong geomagnetic storms: time delays, rigidity effects, and ICME-driven modulation, *Astrophys. Space Sci.*, **370**(8), 86, 10.1007/s10509-025-04477-w.

[12] Ahn, S., J. Son, Y.-J. Moon, and H.-J. Jeong (2025), Comparison of Empirical and Deep Learning Models for Solar Wind Speed Prediction, *Astrophys. J.*, **987**(2), 179, 10.3847/1538-4357/ade0b4.

[13] Akhavan-Tafti, M., S. L. Soni, C. Higgins, S. Fung, S. Lepri, J. Lux, J. Lazio, and A. Romero-Wolf (2025), SunRISE Ground Radio Lab: Monitoring Solar Radio Bursts With an Expansive Array of Antennae at High Schools Nationwide, *Earth Space Sci.*, **12**(6), e2024EA004114, 10.1029/2024EA004114.

[14] Ala-Lahti, M., T. I. Pulkkinen, J. Suni, H. Hietala, S. W. Good, M. Akhavan-Tafti, M. Palmroth, and E. K. J. Kilpua (2025), Magnetic Reconnection in the Heliospheric Current Sheet Embedded in an Interplanetary Coronal Mass Ejection Sheath, *Astrophys. J. Lett.*, **994**(1), L30, 10.3847/2041-8213/ae1d44.

[15] Alberti, T. (2025), Alberti, T., and Cliver, E.W. 2025, "Microwave Spectra for Groups of Confined and Eruptive Solar Flares", Harvard Dataverse dataset, 10.7910/DVN/MNJ9AV.

[16] Alda, J., G. Levati, P. Paradisi, S. Rigolin, and N. Selimović (2025), Collider and astrophysical signatures of light scalars with enhanced τ couplings, *Journal of High Energy Physics*, **2025**(6), 8, 10.1007/JHEP06(2025)008.

[17] Alenazi, M. S., H. M. Nooreldeen, A. M. Ahmed, M. Yossuf, S. O. Lomotey, A. Yassen, and A. Mahrous (2025), Investigation of ionospheric response to a moderate geomagnetic storm over the mid-latitude of Saudi Arabia, *Open Astronomy*, **34**(1), 20240009, 10.1515/astro-2024-0009.

[18] Allen, R. C., S. K. Vines, and G. C. Ho (2025), Solving the Mystery of the Electron Radiation Belt at Uranus: Leveraging Knowledge of Earth's Radiation Belts in a Re-Examination of Voyager 2 Observations, *Geophys. Res. Lett.*, **52**(22), e2025GL119311, 10.1029/2025GL11931110.22541/essoar.175795073.33601382/v1.

[19] Allen, R. C., V. Toy-Edens, S. K. Vines, S. Eriksson, J. M. Raines, S. Lepri, G. Li, Y. Wu, A. Russell, and G. C. Ho (2025), Spatial Variability and Correlation Lengths Within Stream Interaction Regions at 1 au: Comparison Between ACE and Wind, *J. Geophys. Res.*, **130**(11), e2025JA034468, 10.1029/2025JA03446810.22541/essoar.175795086.60217162/v1.

[20] Alotaibi, W., B. Badruddin, and M. Derouich (2025), Analysis of Recovery Phase Characteristics for Different ICME Polarities (1995–2015), *Astron. Rep.*, **69**(8), 729–748, 10.1134/S1063772925600207.

[21] Alotaibi, W., B. Badruddin, and M. Derouich (2025), Geo-effectiveness of ICMES/MCs of different magnetic-polarity configurations, *Astrophys. Space Sci.*, **370**(9), 102, 10.1007/s10509-025-04487-8.

[22] Alterman, B. L. (2025), Characterizing the Impact of Alfvén Wave Forcing in Interplanetary Space on the Distribution of Near-Earth Solar Wind Speeds, *Astrophys. J. Lett.*, **984**(2), L64, 10.3847/2041-8213/add0a6.

[23] Alterman, B. L., and R. D'Amicis (2025), Cross Helicity and the Helium Abundance as an In Situ Metric of Solar Wind Acceleration, *Astrophys. J. Lett.*, **982**(2), L40, 10.3847/2041-8213/adb48e.

[24] Alterman, B. L., Y. J. Rivera, S. T. Lepri, and J. M. Raines (2025), The transition from slow to fast wind as observed in composition observations, *Astron. & Astrophys.*, **694**, A265, 10.1051/0004-6361/202451550.

[25] Alterman, B. L., Y. J. Rivera, S. T. Lepri, J. M. Raines, and R. D'Amicis (2025), Heavy ion abundances evolve with solar activity, *Astron. & Astrophys.*, **700**, A23, 10.1051/0004-6361/202554299.

[26] Amaechi, P. O., H. Messanga, F. O. Grodji, A. Akala, I. Despirak, C. M. Ngwira, E. Oyeyemi, and C. Amory-Mazaudier (2025), Risk Assessment of the Ground Magnetic Response to the March and April 2023 Geomagnetic Storms Using Geomagnetically Induced Currents Indices, *Space Weather*, **23**(4), e2024SW004324, 10.1029/2024SW004324.

[27] Ambili, K. M., R. K. Choudhary, A. Ashok, A. Potdar, C. Vineeth, and T. K. Pant (2025), The Impact of 11 May 2024 Great Geomagnetic Storm on the Plasma Distribution Over the Indian Equatorial/Low Latitude Ionospheric Region, *J. Geophys. Res.*, **130**(4), e2024JA033368, 10.1029/2024JA033368.

[28] Amin, E. A., A. M. K. Shaltout, A. G. A. Abdelkawy, M. M. Beheary, R. Abdelhamid, and A. Shimeis (2025), The influence of solar activity on geomagnetic disturbances over cycles 23 and 24, *Adv. Space Res.*, **75**(8), 6553–6570, 10.1016/j.asr.2025.02.030.

[29] Anderson, G. E., G. P. Lamb, B. P. Gompertz, L. Rhodes, A. Martin-Carrillo, A. J. van der Horst, A. Rowlinson, M. E. Bell, T.-W. Chen, H. M. Fausey, M. Ferro, P. J. Hancock, S. R. Oates, S. Schulze, R. L. C. Starling, S. Yang, K. Ackley, J. P. Anderson, A. Andersson, J. F. Agüí Fernández, R. Brivio, E. Burns, K. C. Chambers, T. de Boer, V. D'Elia, M. De Pasquale, A. de Ugarte Postigo, Dimple, R. Fender, M. D. Fulton, H. Gao, J. H. Gillanders, D. A. Green, M. Gromadzki, A. Gulati, D. H. Hartmann, M. E. Huber, N. J. Klingler, N. P. M. Kuin, J. K. Leung, A. J. Levan, C.-C. Lin, E. Magnier, D. B. Malesani, P. Minguez, K. P. Mooley, T. Mukherjee, M. Nicholl, P. T. O'Brien, G. Pugliese, A. Rossi, S. D. Ryder, B. Sbarufatti, B. Schneider, F. Schüssler, S. J. Smartt, K. W. Smith, S. Srivastav, D. Steeghs, N. R. Tanvir, C. C. Thoene, S. D. Vergani, R. J. Wainscoat, Z.-N. Wang, R. A. M. J. Wijers, D. Williams-Baldwin, I. Worssam, and T. Zafar (2025), The Radio Flare and Multiwavelength Afterglow of the Short GRB 231117A: Energy Injection from a Violent Shell Collision, *Astrophys. J.*, **994**(1), 5, 10.3847/1538-4357/adfed7.

[30] Antonik, M., P. Swaczyna, D. J. McComas, H. A. Elliott, and M. Bzowski (2025), Ionization Rate of Interstellar Neutral Helium from New Horizons/SWAP Observations, *Astrophys. J.*, **995**(1), 57, 10.3847/1538-4357/ae1605.

[31] Archer, M. O., V. Evans, J. P. Eastwood, L. A. Camus, C. L. Waters, P. Brown, and F. Armogathe (2025), First Detection of Field Aligned Currents Using Engineering Magnetometers From the OneWeb Mega Constellation, *Space Weather*, **23**(10), e2025SW004573, 10.1029/2025SW00457310.22541/essoar.175008962.22694192/v1.

[32] Arutyunyan, S., A. Kodukov, M. Subbotin, and D. Pavlov (2025), MHD Forecasting of Solar Wind With Coronal Mass Ejections, *Space Weather*, **23**(12), e2025SW004403, 10.1029/2025SW004403.

[33] Aryan, A., T.-W. Chen, S. Yang, J. H. Gillanders, A. K. H. Kong, S. J. Smartt, H. F. Stevance, Y.-J. Yang, A. Aamer, R. Gupta, L. Fan, W.-J. Hou, H.-Y. Hsiao, A. Kumar, C.-H. Lai, M.-H. Lee, Y.-H. Lee, H.-C. Lin, C.-S. Lin, C.-C. Ngeow, M. Nicholl, Y.-C. Pan, S. B. Pandey, A. K. Sankar, S. Srivastav, G. Sun, and Z.-N. Wang (2025), Search for the Optical Counterpart of Einstein Probe–discovered Fast X-Ray Transients from the Lulin Observatory, *Astrophys. J. Suppl.*, **281**(1), 20, 10.3847/1538-4365/adfc69.

[34] Ashok, A., K. M. Ambili, and R. K. Choudhary (2025), Do the Vertical Movements of the Peak Height of F Region Truly Represent the Vertical $\mathbf{E} \times \mathbf{B}$ Plasma Drift Velocity Over the Dip Equator?, *J. Geophys. Res.*, **130**(1), 2024JA033,202, 10.1029/2024JA033202.

[35] Atteia, J.-L., L. Bouchet, J.-P. Dezalay, F. Fortin, O. Godet, S. Guillot, A. Klotz, F. Daigne, R. Mochkovitch, and D. Turpin (2025), GRB 221009A and the Apparently Most Energetic Gamma-Ray Bursts, *Astrophys. J.*, **980**(2), 241, 10.3847/1538-4357/adadef.

[36] Axelsson, M., M. Ajello, M. Arimoto, L. Baldini, J. Ballet, M. G. Baring, C. Bartolini, D. Bastieri, J. Becerra Gonzalez, R. Bellazzini, B. Berenji, E. Bissaldi, R. D. Blandford, R. Bonino, P. Bruel, S. Buson, R. A. Cameron, R. Caputo, P. A. Caraveo, E. Cavazzuti, C. C. Cheung, G. Chiaro, N. Cibrario, S. Ciprini, G. Cozzolongo, P. Cristarella Orestano, M. Crnogorcevic, A. Cuoco, S. Cutini, F. D'Ammando, S. De Gaetano, N. Di Lalla, A. Dinesh, R. Di Tria, L. Di Venere, A. Domínguez, S. J. Fegan, E. C. Ferrara, A. Fiori, A. Franckowiak, Y. Fukazawa, S. Funk, P. Fusco, G. Galanti, F. Gargano, C. Gasbarra, S. Germani, F. Giacchino, N. Giglietto, M. Giliberti, R. Gill, F. Giordano, M. Giroletti, J. Granot, D. Green, I. A. Grenier, S. Guiriec, M. Gustafsson, M. Hashizume, E. Hays, J. W. Hewitt, D. Horan, T. Kayanoki, M. Kuss, A. Laviron, J. Li, I. Liodakis, F. Longo, F. Loparco, L. Lorusso, B. Lott, M. N. Lovellette, P. Lubrano, S. Maldera, D. Malyshev, A. Manfreda, G. Martí-Devesa, R. Martinelli, I. Martinez Castellanos, M. N. Mazziotta, J. E. McEnery, I. Mereu, M. Meyer, P. F. Michelson, N. Mirabal, W. Mitthumsiri, T. Mizuno, P. Monti-Guarnieri, M. E. Monzani, T. Morishita, A. Morselli, I. V. Moskalenko, M. Negro, R. Niwa, N. Omodei, M. Orienti, E. Orlando, D. Paneque, G. Panzarini, M. Persic, M. Pesce-Rollins, V. Petrosian, R. Pillera, F. Piron, T. A. Porter, G. Principe, J. L. Racusin, S. Rainò, R. Rando, B. Rani, M. Razzano, S. Razzaque, A. Reimer, O. Reimer, F. Ryde, M. Sánchez-Conde, P. M. Saz Parkinson, D. Serini, C. Sgrò, V. Sharma, E. J. Siskind, G. Spandre, P. Spinelli, D. J. Suson, H. Tajima, D. Tak, J. B. Thayer, D. F. Torres, J. Valverde, G. Zaharijas, Fermi LAT Collaboration, S. Lesage, M. S. Briggs, E. Burns, S. Bala, P. N. Bhat, W. H. Cleveland, S. Dalessi, C. de Barra, M. Gibby, M. M. Giles, R. Hamburg, B. A. Hristov, D. Kocevski, C. M. Hui, B. Mailyan, C. Malacaria, S. McBreen, S. Poolakkil, O. J. Roberts, L. Scotton, P. Veres, A. von Kienlin, C. A. Wilson-Hodge, J. Wood, and Fermi GBM Collaboration (2025), GRB 221009A: The B.O.A.T. Burst that Shines in Gamma Rays, *Astrophys. J. Suppl.*, **277**(1), 24, 10.3847/1538-4365/ada272.

[37] Azzollini, F., and E. P. Kontar (2025), A Multispacecraft Analysis and Modeling of Type III Radio Burst Exciter Deceleration in Inhomogeneous Heliospheric Plasma, *Astrophys. J.*, **989**(1), 118, 10.3847/1538-4357/adee22.

[38] Badman, S. T., M. L. Stevens, S. D. Bale, Y. J. Rivera, K. G. Klein, T. Niembro, R. Chhiber, A. Rahmati, P. L. Whittlesey, R. Livi, D. E. Larson, C. J. Owen, K. W. Paulson, T. S. Horbury, J. Morris, H. O'Brien, J.-B. Dakeyo, J. L. Verniero, M. Martinovic, M. Pulupa, and F. Fraschetti (2025), Multispacecraft Measurements of the Evolving Geometry of the Solar Alfvén Surface over Half a Solar Cycle, *Astrophys. J. Lett.*, **995**(2), L37, 10.3847/2041-8213/ae0e5c.

[39] Bag, T., and V. Singh (2025), The Mother's Day Storm of 2024 Triggered the Strongest Nighttime Radiative Emission of the SABER Era, *Geophys. Res. Lett.*, **52**(20), e2025GL118286, 10.1029/2025GL118286.

[40] Bai, D., Y. Fu, C. Yang, K. Zhang, and Y. Cui (2025), The Poleward Shift of the Equatorial Ionization Anomaly During the Main Phase of the Superstorm on 10 May 2024, *Remote Sensing*, **17**(15), 2616, 10.3390/rs17152616.

[41] Bai, S.-C., R. Guo, Q. Shi, A. Tian, H. Zhang, S. Qin, and A. W. Degeling (2025), Statistical Analysis of the Short Large-Amplitude Magnetic Structures: Evolution and Ion Resonance, *Geophys. Res. Lett.*, **52**(13), e2025GL116547, 10.1029/2025GL116547.

[42] Balan, S., R. Sarkar, and N. Srivastava (2025), Assessing Dst prediction models for forecasting the geoeffectiveness of ICME structures, *J. Astrophys. Astron.*, **46**(2), 54, 10.1007/s12036-025-10082-8.

[43] Banerjee, B., S. Macera, A. L. De Santis, A. Mei, J. Tissino, G. Oganesyan, D. D. Frederiks, A. L. Lysenko, D. S. Svinkin, A. E. Tsvetkova, and M. Branchesi (2025), Observation of the spectral turnover in the afterglow emission of GRB 221009A, *Astron. & Astrophys.*, **701**, A68, 10.1051/0004-6361/202554813.

[44] Banu, S. A., N. Lugaz, B. Zhuang, N. Al-Haddad, C. J. Farrugia, and A. B. Galvin (2025), Investigating Coronal Mass Ejections through Multispacecraft Measurements: STEREO-A and L1 in 2022–2023, *Astrophys. J.*, **982**(1), 47, 10.3847/1538-4357/adb60c.

[45] Baratashvili, T., B. Popescu Braileanu, F. Bacchini, R. Keppens, and S. Poedts (2025), Icarus 3.0: Dynamic heliosphere modelling, *Astron. & Astrophys.*, **694**, A306, 10.1051/0004-6361/202452705.

[46] Bargiacchi, G., M. G. Dainotti, and S. Capozziello (2025), High-redshift cosmology by Gamma-Ray Bursts: An overview, *New Astron. Rev.*, **100**, 101712, 10.1016/j.newar.2024.101712.

[47] Barik, K. C., and C. C. Chaston (2025), Broadband Kinetic Alfvén Waves and the Pitch Angle Distribution of Relativistic Electrons, *Geophys. Res. Lett.*, **52**(10), e2025GL115046, 10.1029/2025GL115046.

[48] Bazilevskaya, G. A., N. A. Vlasova, E. A. Ginzburg, E. I. Daibog, K. B. Kaportseva, Y. I. Logachev, and I. N. Myagkova (2025), Some Features of the Solar Proton Event of August 27, 2022, *Bull. Russian Academy Sci. Phys.*, **89**(6), 839–842, 10.1134/S1062873825711262.

[49] Beedle, J. M. H., K. J. Genestreti, J. R. Shuster, R. C. Rice, S. A. Fuselier, T. D. Phan, M. Øieroset, W. Sun, H. Gurram, L.-J. Chen, K. J. Trattner, R. G. Gomez, B. Burkholder, A. Marshall, D. J. Gershman, S. K. Vines, M. Lindberg, K. Cantwell, J. L. Burch, and R. B. Torbert (2025), MMS Observations of a Compressed, Strongly Driven Magnetopause During the 2024 Mother's Day Storm, *Geophys. Res. Lett.*, **52**(24), e2025GL118368, 10.1029/2025GL118368.

[50] Belova, E., S. N. Persson, V. Barabash, and S. Kirkwood (2025), Polar Mesospheric Winter Echoes Observed with ESRAD in Northern Sweden During 1996–2021, *Atmos.*, **16**(8), 898, 10.3390/atmos16080898.

[51] Benella, S., M. Laurenza, M. Martucci, D. Ruffolo, Q. Hu, G. Nicolaou, C. J. Owen, M. Stumpo, C. Plainaki, F. Palma, M. Piersanti, M. Sorbara, A. Sotgiu, and R. Sparvoli (2025), Multipoint Observations and Modeling of the 2021 November 4 Forbush Decrease Using Solar Orbiter, CSES-01, and Ground-based Neutron Monitor Data, *Astrophys. J.*, **986**(2), 142, 10.3847/1538-4357/add329.

[52] Beniamini, P., Z. Wadiasingh, A. Trigg, C. Chirenti, E. Burns, G. Younes, M. Negro, and J. Granot (2025), Extragalactic Magnetar Giant Flares: Population Implications, Rates, and Prospects for Gamma-Rays, Gravitational Waves, and Neutrinos, *Astrophys. J.*, **980**(2), 211, 10.3847/1538-4357/ada947.

[53] Bera, R. K., F. Fraternale, N. V. Pogorelov, V. Roytershteyn, M. Gedalin, and G. P. Zank (2025), The Role of Pickup Ions in the Interaction of the Solar Wind with the Local Interstellar Medium. II. Effects of Solar Cycle, *Astrophys. J.*, **990**(1), 5, 10.3847/1538-4357/adec86.

[54] Bergman, S., T. Karlsson, T. K. Wong Chan, and H. Trollvik (2025), Statistical Properties of Short Large-Amplitude Magnetic Structures (SLAMS) in the Foreshock of Earth From Cluster Measurements, *J. Geophys. Res.*, **130**(3), 2024JA033,568, 10.1029/2024JA033568.

[55] Bernoux, G., G. Nguyen, A. Sicard, and V. Maget (2025), Automatic Identification of Past Radiation Belts Electron Enhancement Events Using a Ground-Based Parameter, *Earth Space Sci.*, **12**(4), e2024EA003945, 10.1029/2024EA003945.

[56] Bershadskii, A. (2025), Chaotic variability of the magnetic field at Earth's surface driven by ionospheric and space plasmas, *J. Atmos. Solar-Terr. Phys.*, **269**, 106456, 10.1016/j.jastp.2025.106456.

[57] Bhattacharjee, D., S. Majumder, and P. Subramanian (2025), Characterizing proton polytropic indices inside near-Earth magnetic clouds and ICME sheaths, *J. Astrophys. Astron.*, **46**(2), 82, 10.1007/s12036-025-10103-6.

[58] Bhattacharjee, D., P. Subramanian, S. Majumder, and W. Mishra (2025), Proton heating estimates from near-Earth observations of coronal mass ejections in solar cycle 24, *Mon. Not. Roy. Astron. Soc.*, **540**(3), 2810–2819, 10.1093/mnras/staf860.

[59] Bhattacharjee, S., M. N. Shrivastava, U. Pandey, B. Brawar, K. Nanda, S. K. Panda, S. M. Potirakis, S. Sasmal, A. Datta, and A. K. Maurya (2025), Contrasting Low-Latitude Ionospheric Total Electron Content Responses to the 7–8 and 10–11 October 2024 Geomagnetic Storms, *Atmos.*, **16**(12), 1364, 10.3390/atmos16121364.

[60] Bhunia, S., L. A. Hayes, K. Ludwig Klein, N. Vilmer, S. A. Maloney, and P. T. Gallagher (2025), Bursty acceleration and 3D trajectories of electrons in a solar flare, *Astron. & Astrophys.*, **695**, A136, 10.1051/0004-6361/202451426.

[61] Bian, N. H., and G. Li (2025), Gaussian Mixtures in Solar Wind Plasma Turbulence, *Astrophys. J.*, **988**(2), 173, 10.3847/1538-4357/ade80b.

[62] Billett, D. D., R. A. Rohel, C. J. Martin, K. A. McWilliams, and K. M. Laundal (2025), The Fast Borealis Ionosphere: High Time-Resolution Mapping of Polar Ionospheric Flows With SuperDARN, *Earth Space Sci.*, **12**(6), e2024EA003876, 10.1029/2024EA003876.

[63] Birch, M. J. (2025), A model to estimate energy deposition within the geomagnetosphere using D_{st} as a proxy for the Akasofu ε parameter, *J. Atmos. Solar-Terr. Phys.*, **270**, 106480, 10.1016/j.jastp.2025.106480.

[64] Biswas, S., A. Bhaskar, A. Raghav, A. Kumar, K. Ghag, S. V. Thampi, and V. K. Yadav (2025), Pinching of ICME Flux Rope: Unprecedented Multipoint Observations of Internal Magnetic Reconnection during Gannon's Superstorm, *Astrophys. J. Lett.*, **991**(1), L15, 10.3847/2041-8213/adfe60.

[65] Blanchfield, E. J., B. A. Carter, J. L. Currie, J. M. Weygand, and G. N. Iles (2025), Thermospheric Density Disturbances During the 2015 St. Patrick's Day Geomagnetic Storm: Model–Observation Comparisons and Analysis of Intense Polar Density Spikes, *Space Weather*, **23**(10), e2025SW004472, 10.1029/2025SW004472.

[66] Bordoloi, P. P., and S. Iyyani (2025), Identification and Modeling of Optically Thin Inverse Compton Scattering in the Prompt Emission of GRB 131014A, *Astrophys. J.*, **994**(1), 10, 10.3847/1538-4357/ae073a.

[67] Bower, G. E., S. E. Milan, S. Imber, A. Schillings, A. Fleetham, C. Beggan, and J. W. Gjerloev (2025), Asymmetry in the Ring Current During Geomagnetic Disturbances, *J. Geophys. Res.*, **130**(3), 2024JA033,492, 10.1029/2024JA033492.

[68] Bright, J. S., F. Carotenuto, R. Fender, C. Choza, A. Mummery, P. G. Jonker, S. J. Smartt, D. R. DeBoer, W. Farah, J. Matthews, A. W. Pollak, L. Rhodes, and A. Siemion (2025), The Radio Counterpart to the Fast X-Ray Transient EP240414a, *Astrophys. J.*, **981**(1), 48, 10.3847/1538-4357/adaaef.

[69] Brivio, R., S. Campana, S. Covino, M. Ferro, G. Gianfagna, M. G. Bernardini, P. D'Avanzo, S. Giarratana, G. Ghirlanda, Y.-D. Hu, A. Melandri, L. Nava, L. Piro, A. Rossi, O. S. Salafia, C. Salvaggio, R. Salvaterra, T. Sbarrato, B. Sbarufatti, G. Tagliaferri, A. L. Thakur, G. Tovmassian, J. F. Agüí Fernández, G. Bruni, A. J. Castro-Tirado, V. D'Elia, M. De Pasquale, A. de Ugarte Postigo, S. de Wet, D. H. Hartmann, S. Klose, S. Kobayashi, E. Maiorano, D. B. Malesani, E. Marini, A. Martin-Carrillo, A. Nicuesa Guelbenzu, S. B. Pandey, D. Paris, G. Pugliese, A. Rau, R. Ricci, A. Saccardi, R. Sánchez-Ramírez, N. R. Tanvir, C. C. Thöne, and T. Zafar (2025), A comprehensive broadband analysis of the high-redshift GRB 240218A, *Astron. & Astrophys.*, **695**, A239, 10.1051/0004-6361/202452748.

[70] Brown, C. P., B. A. Maruca, V. Prabakaran, R. A. Qudsi, B. M. Walsh, B. L. Alterman, and P. A. Isenberg (2025), Evaluating the Parker Model With the Trans-Heliospheric Survey, *Geophys. Res. Lett.*, **52**(12), e2025GL115186, 10.1029/2025GL115186.

[71] Bruno, A., M. Pesce-Rollins, S. Dalla, N. Omodei, I. G. Richardson, and J. M. Ryan (2025), The 2024 July 16 solar event: a challenge to the coronal mass ejection origin of long-duration gamma-ray flares, *Astron. & Astrophys.*, **704**, A140, 10.1051/0004-6361/202556879.

[72] Burkholder, B. L., L.-J. Chen, D. Lin, S. K. Vines, K. A. Sorathia, and C. F. Bowers (2025), Field-Aligned Currents and Auroral Precipitation During the Terrestrial Alfvén Wing State, *Geophys. Res. Lett.*, **52**(12), e2025GL115910, 10.1029/2025GL115910.

[73] Buschmann, L. M., K. Asamura, L. B. N. Clausen, Y. Jin, H. Kojima, A. Kumamoto, S. Kurita, Y. Ogawa, K. Oksavik, Y. Saito, A. Spicher, S. Yokota, and W. J. Miloch (2025), Plasma structuring within an expanded polar cap and cusp studied with the SS-520-3 sounding rocket, *Earth, Planets and Space*, **77**(1), 76, 10.1186/s40623-025-02189-7.

[74] Busmann, M., B. O'Connor, J. Sommer, D. Gruen, P. Beniamini, R. Gill, M. J. Moss, A. Palmese, A. Riffeser, Y.-H. Yang, E. Troja, S. Dichiara, R. Ricci, N. Klingler, C. Gössl, L. Hu, A. Rau, C. Ries, G. Ryan, M. Schmidt, M. Yadav, and G. R. Zeimann (2025), The curious case of EP241021a: Unraveling the mystery of its exceptional rebrightening, *Astron. & Astrophys.*, **701**, A225, 10.1051/0004-6361/202554626.

[75] Bučík, R., G. M. Mason, S. M. Mulay, G. C. Ho, R. F. Wimmer-Schweingruber, and J. Rodríguez-Pacheco (2025), Origin of the Unusual Composition of ^{3}He-rich Solar Energetic Particles, *Astrophys. J.*, **981**(2), 178, 10.3847/1538-4357/adb48d.

[76] Bučík, R., S. T. Hart, M. A. Dayeh, M. I. Desai, G. M. Mason, and M. E. Wiedenbeck (2025), Helium-3 Enrichment in Gradual Solar Energetic Particle Events: Evidence for a Jet-supplied Seed Population, *Astrophys. J.*, **994**(2), 252, 10.3847/1538-4357/ae12a3.

[77] Cañizares, L. A., S. T. Badman, N. Chrysaphi, S. Bhunia, B. Sánchez-Cano, S. A. Maloney, and P. T. Gallagher (2025), Electron beam propagation and radio-wave scattering in the inner heliosphere using five spacecraft, *Astron. & Astrophys.*, **696**, A124, 10.1051/0004-6361/202452877.

[78] Cai, C., Y.-Q. Zhang, S.-L. Xiong, J.-P. Zhang, P. Wang, S.-J. Zheng, S. Xiao, Q.-B. Yi, Y. Zhao, H.-X. Guo, S.-L. Xie, W.-C. Xue, C. Zheng, J.-C. Liu, C.-W. Wang, W.-J. Tan, Y. Wang, P.-Y. Feng, Z.-H. Yu, P. Zhang, Y.-T. Zhang, W.-L. Zhang, X.-Y. Zhao, Z. Zhang, X. Ma, Y. Huang, X.-B. Li, C.-K. Li, M.-Y. Ge, S.-X. Yi, H.-S. Zhao, J. Wang, B. Li, L.-M. Song, L. Tao, S. Zhang, and S.-N. Zhang (2025), Energetic Transients Joint Analysis System for Multi-INstrument (ETJASMIN) for GECAM. II. Search, Verification, and Classification of Bursts, *Astrophys. J. Suppl.*, **277**(1), 9, 10.3847/1538-4365/adacdf.

[79] Capannolo, L., Y. Chen, W. Li, N. Sivadas, L. Blum, D. Freund, S. Vidal-Luengo, A. Staff, X. Shen, M. Qin, Q. Ma, and L. Gan (2025), Statistical Properties of Solar Wind Parameters Driving Relativistic Electron Precipitation, *J. Geophys. Res.*, **130**(12), e2025JA034548, 10.1029/2025JA03454810.22541/essoar.175516507.78884910/v1.

[80] Carella, F., G. Lapenta, A. Bemporad, S. Eriksson, M. E. Innocenti, S. Köhne, and J. Magdalenić (2025), Clustering Wind data at 1 AU to contextualize magnetic reconnection in the solar wind, *Astron. & Astrophys.*, **701**, A212, 10.1051/0004-6361/202554265.

[81] Carnevale, G., M. Regi, S. Lepidi, and P. Francia (2025), On the Relationship Between Solar Wind High-Speed Stream Waves and Geomagnetic Pc5 Activity From Mid to High Latitudes: A Case Study on January 5-12 2008, *J. Geophys. Res.*, **130**(4), e2024JA033645, 10.1029/2024JA033645.

[82] Carney, J., I. Andreoni, B. O'Connor, J. Freeburn, H. Skobe, L. Westcott, M. Busmann, A. Palmese, X. J. Hall, R. Gill, P. Beniamini, E. R. Coughlin, C. D. Kilpatrick, A. Anumarlapudi, N. M. Law, H. Corbett, T. Ahumada, P. Chen, C. Conselice, G. Damke, K. K. Das, A. Gal-Yam, D. Gruen, S. Heathcote, L. Hu, V. Karambelkar, M. Kasliwal, K. Labrie, D. Pasham, A. Riffeser, M. Schmidt, K. Sharma, S. Wilke, and W. Zang (2025), Optical/Infrared Observations of the Extraordinary GRB 250702B: A Highly Obscured Afterglow in a Massive Galaxy Consistent with Multiple Possible Progenitors, *Astrophys. J. Lett.*, **994**(2), L46, 10.3847/2041-8213/ae1d67.

[83] Carter, J. A., S. Sembay, S. Nitti, M.-T. Walach, S. Milan, Y. Soobiah, K. Oksavik, C. Forsyth, and M. G. G. T. Taylor (2025), A Holistic Approach to the SMILE Mission and SMILE Public Engagement, *Space Sci. Rev.*, **221**(4), 53, 10.1007/s11214-025-01175-5.

[84] Casaburo, F., S. Ciprini, D. Gasparrini, and F. Giacchino (2025), Sixteen Years of Gamma-Ray Discoveries and AGN Observations with Fermi-LAT, *Particles*, **8**(1), 17, 10.3390/particles8010017.

[85] Casentini, C., F. Verrecchia, M. Tavani, M. Pilia, and L. Pacciani (2025), AGILE Observations of a Sample of Repeating Fast Radio Burst Sources, *Astrophys. J.*, **983**(1), 85, 10.3847/1538-4357/adbe6f.

[86] Castaño, J. M., A. Meza, and M. P. Natali (2025), Ionospheric TEC response at mid and low latitudes to Solar wind oscillations on November 5th, 1997, *Adv. Space Res.*, **76**(5), 2876–2884, 10.1016/j.asr.2025.06.031.

[87] Cavus, H., G. C. Coban, H. Wang, A.-u. Raheem, J. T. L. Wang, and M. Asgari-Targhi (2025), Statistical examination of the correlations among active regions, flares, coronal mass ejections and interplanetary shocks, *Adv. Space Res.*, **76**(6), 3726–3742, 10.1016/j.asr.2025.06.071.

[88] Chakraborty, S., N. Nishitani, X. Shi, P. Ponomarenko, J. M. Ruohoniemi, J. B. H. Baker, A. J. Coster, and I. Häggström (2025), Solar Flare Induced Gradient Drift Instability Observed by SuperDARN HF Radars, *J. Geophys. Res.*, **130**(10), e2025JA033824, 10.1029/2025JA033824.

[89] Chakraborty, S., I. R. Mann, L. Olifer, R. Black, O. Allanson, I. J. Rae, L. G. Ozeke, and C. E. J. Watt (2025), Diagnosing the Rapid Loss of Outer Radiation Belt Electrons Due To Strong Chorus-Driven Wave-Particle Interactions

Along an Electron Injection Path, *J. Geophys. Res.*, **130**(8), e2025JA034045, 10.1029/2025JA03404510.22541/essoar.174405188.89584578/v1.

[90] Chen, C., Y. Su, W. Chen, J. Li, F. Yu, and W. Gan (2025), Intense Hard X-Ray Emissions in C-class Flares: A Statistical Study with ASO-S/HXI Data, *Astrophys. J. Lett.*, **987**(1), L4, 10.3847/2041-8213/addf2f.

[91] Chen, C. N., Q. G. Zong, and Z. Y. Liu (2025), Nightside Ionospheric Oxygen Outflows During Geomagnetic Storms: Van Allen Probes Statistics, *J. Geophys. Res.*, **130**(10), e2025JA034349, 10.1029/2025JA034349.

[92] Chen, H., N. Sachdeva, Z. Huang, B. Holst, W. Manchester, A. Jivani, S. Zou, Y. Chen, X. Huan, and G. Toth (2025), Decent Estimate of CME Arrival Time From a Data-Assimilated Ensemble in the Alfvén Wave Solar Atmosphere Model (DECADE-AWSoM), *Space Weather*, **23**(1), 2024SW004,165, 10.1029/2024SW004165.

[93] Chen, H., G. Toth, Y. Chen, S. Zou, Z. Huang, and X. Huan (2025), GeoDGP: One-Hour Ahead Global Probabilistic Geomagnetic Perturbation Forecasting Using Deep Gaussian Process, *Space Weather*, **23**(6), e2024SW004301, 10.1029/2024SW00430110.22541/essoar.173499121.15272711/v1.

[94] Chen, J.-M., K.-R. Zhu, X.-Z. Chang, Z.-Y. Peng, and L. Zhang (2025), GRB 240619A: Evidence for a Compact Star Merger Origin, *Astrophys. J.*, **993**(1), 147, 10.3847/1538-4357/ae0938.

[95] Chen, S., F. Yu, H. Yuan, G. Yang, K. Fan, P. Zhang, and Y. Wei (2025), Effect of the 1 December 2023 Geomagnetic Storm on SPP Performance in China, *Space Weather*, **23**(9), e2025SW004389, 10.1029/2025SW004389.

[96] Chen, X., C. Li, Z. Xu, G. Nicolaou, A. Kollhoff, G. C. Ho, R. F. Wimmer-Schweingruber, and C. J. Owen (2025), Local Particle Acceleration in an ICME-in-Sheath Structure Observed by Solar Orbiter, *Astrophys. J.*, **994**(2), 211, 10.3847/1538-4357/ae1476.

[97] Chen, Y., S. K. Morley, M. R. Carver, A. S. Hoover, C. J. Delzer, K. E. Gattiker, and E. C. Auden (2025), Predicting cutoff L-shells of solar protons using the GPPSn particle dataset, *Front. Astron. Space Sci.*, **12**, 1630911, 10.3389/fspas.2025.1630911.

[98] Chen, Y., C. Dong, L.-J. Chen, M. Sarantos, and B. L. Burkholder (2025), Interplanetary Magnetic Field B_y Controlled Alfvén Wings at Earth During an Encounter of a Coronal Mass Ejection, *Geophys. Res. Lett.*, **52**(6), 2024GL113,416, 10.1029/2024GL113416.

[99] Cheng, L., M. Zhang, R. Y. Kwon, and D. Lario (2025), Simulation of Solar Energetic Particle Events Originated from Coronal Mass Ejection Shocks with a Data-driven Physics-based Transport Model, *Astrophys. J.*, **987**(2), 151, 10.3847/1538-4357/add892.

[100] Cheng, Q., H. Wang, and K. Zhang (2025), Longitudinal Differences in the Response of Equatorial Electrojet to the Sudden Decrease of Solar Wind Dynamic Pressure, *J. Geophys. Res.*, **130**(5), e2024JA033636, 10.1029/2024JA033636.

[101] Cheng, S., S. Fu, H. Zhang, B. Ni, T. Jin, Y. Lou, Y. Cheng, L. Jia, X. Yun, S. Pang, X. Tong, Q. Zhang, and X. Ma (2025), Statistical Analysis of ∼100 Hz Whistler-mode Waves near the Moon Using ARTEMIS Observations, *Astrophys. J.*, **992**(1), 141, 10.3847/1538-4357/ae0714.

[102] Cherkos, A. M. (2025), Effect of prompt penetration electric field on ionospheric EEJ variations and TEC depletion over the Peruvian and Brazilian region during the Mother's day storm on May 10–12, 2024, *Adv. Space Res.*, **76**(12), 7453–7470, 10.1016/j.asr.2025.09.093.

[103] Chernogor, L. F., V. T. Rozumenko, M. B. Shevelev, J. Wang, and Y. Zheng (2025), Global geomagnetic response to the extreme geospace storm of May 10–11, 2024, *Adv. Space Res.*, **76**(2), 939–967, 10.1016/j.asr.2025.05.004.

[104] Chilingarian, A. (2025), Variations of the near-surface electric field measured at Aragats during geomagnetic storms, *Phys. Rev. D*, **111**(12), 123012, 10.1103/p4ql-v1mb.

[105] Choudhary, M., B. R. Kalita, B. Rai, D. Chakrabarty, M. L. Huy, D. N. Thanh, K. Wang, K. Hozumi, A. Baruah, and N. U. Ahmed (2025), Hemispherically and Longitudinally Asymmetric Ionospheric Response to the 23–24 March 2023 Geomagnetic Disturbances at Three Pairs of Conjugate Stations, *J. Geophys. Res.*, **130**(7), e2024JA033520, 10.1029/2024JA033520.

[106] Chu, X., L. Jia, R. L. McPherron, X. Li, and J. Bortnik (2025), Imbalanced Regression Artificial Neural Network Model for Auroral Electrojet Indices (IRANNA): Can We Predict Strong Events?, *Space Weather*, **23**(5), e2024SW004236, 10.1029/2024SW004236.

[107] Clarkson, D. L., E. P. Kontar, N. Chrysaphi, A. G. Emslie, N. L. S. Jeffrey, V. Krupar, and A. Vecchio (2025), Tracing the heliospheric magnetic field via anisotropic radio-wave scattering, *Sci. Rep.*, **15**(1), 11335, 10.1038/s41598-025-95270-w.

[108] Cliver, E. W., M. Kazachenko, H. S. Hudson, T. Alberti, M. Laurenza, S. M. White, and P. T. Gallagher (2025), Signatures of Confined and Eruptive Solar Flares in Microwave Spectra, *Astrophys. J.*, **994**(1), 103, 10.3847/1538-4357/adfbe5.

[109] Cliver, E. W., I. G. Richardson, and S. F. Martin (2025), Slow Solar Wind: Origin in an Independent Small-Scale Solar Dynamo, *Geophys. Res. Lett.*, **52**(13), e2024GL113791, 10.1029/2024GL113791.

[110] Collin, D., Y. Shprits, S. J. Hofmeister, S. Bianco, and G. Gallego (2025), Forecasting High-Speed Solar Wind Streams From Solar Images, *Space Weather*, **23**(1), 2024SW004,125, 10.1029/2024SW004125.

[111] Colón-Rodríguez, S., M. W. Liemohn, J. M. Raines, and S. T. Lepri (2025), Solar Wind Heavy Ions and Alpha Particles Within Earth's Magnetosphere and Their Variability With Upstream Conditions, *J. Geophys. Res.*, **130**(8), e2025JA033852, 10.1029/2025JA033852.

[112] Covino, S. (2025), Extreme value distribution for gamma-ray-burst prompt data: How unexpected was the BOAT event?, *Astron. & Astrophys.*, **701**, A109, 10.1051/0004-6361/202555059.

[113] Cribb, V., T. I. Pulkkinen, L. Kepko, B. Gallardo-Lacourt, N. Partamies, M. Vokhmyanin, and S. Apatenkov (2025), Inner Magnetospheric and Geomagnetic Responses to Solar Wind Driving During Omega Band Events, *J. Geophys. Res.*, **130**(11), e2025JA033987, 10.1029/2025JA03398710.22541/essoar.174309724.41608145/v1.

[114] da Silva, D. E., L. J. Chen, S. A. Fuselier, K. J. Trattner, B. L. Burkholder, I. M. Desjardin, N. Buzulukova, and J. C. Dorelli (2025), Calculation of the dayside reconnection rate from cusp ion-energy dispersion, *Front. Astron. Space Sci.*, **12**, 1607611, 10.3389/fspas.2025.1607611.

[115] da Silva, L. A., J. Shi, L. R. Alves, L. C. A. Resende, L. E. A. Vieira, J. E. R. Costa, J. P. Marchezi, O. V. Agapitov, D. G. Sibeck, A. M. dos Santos, V. F. Andrioli, P. R. Jauer, V. Deggeroni, C. d. S. do Carmo, P. K. Nyassor, S. S. Chen, T. T. Ayorinde, K. J. C. Ferreira, J. Moro, C. Wang, H. Li, and Z. Liu (2025), Space weather effects over SAMA during the extreme geomagnetic storm on May 10-11, 2024: disturbances of the neutral and ionized atmosphere, *Front. Astron. Space Sci.*, **12**, 1550635, 10.3389/fspas.2025.1550635.

[116] Dainotti, M. G., S. Bhardwaj, C. Cook, J. Ange, N. Lamichhane, M. Bogdan, M. McGee, P. Nadolsky, M. Sarkar, A. Pollo, and S. Nagataki (2025), GRB Redshift Classifier to Follow up High-redshift GRBs Using Supervised Machine Learning, *Astrophys. J. Suppl.*, **277**(1), 31, 10.3847/1538-4365/adafa9.

[117] Dalessi, S., P. Veres, C. M. Hui, S. Bala, S. Lesage, M. S. Briggs, A. Goldstein, E. Burns, C. A. Wilson-Hodge, C. Fletcher, O. J. Roberts, P. N. Bhat, E. Bissaldi, W. H. Cleveland, M. M. Giles, M. Godwin, R. Hamburg, B. A. Hristov, D. Kocevski, B. Mailyan, C. Malacaria, O. Mukherjee, L. Scotton, A. von Kienlin, and J. Wood (2025), Fermi-GBM Observations of GRB 230307A: An Exceptionally Bright Long-duration Gamma-ray Burst with an Associated Kilonova, *Astrophys. J.*, **994**(1), 17, 10.3847/1538-4357/ae0a1d.

[118] Das, S. K., C. Stolle, Y. Yamazaki, J. Rodríguez-Zuluaga, X. Wan, G. Kervalishvili, J. Rauberg, J. Zhong, and S. Perwitasari (2025), On the F-Region Ionospheric Plasma Density Distribution and Irregularities Response During the May-2024 Geomagnetic Storm Observed by LEO Satellites, *Geophys. Res. Lett.*, **52**(10), e2025GL115780, 10.1029/2025GL11578010.22541/essoar.172857108.85912085/v1.

[119] Davidson, K., G. Lu, and M. Conde (2025), Effects of High-Latitude Input on Neutral Wind Structure and Forcing During the 17 March 2013 Storm, *J. Geophys. Res.*, **130**(3), 2024JA033,366, 10.1029/2024JA033366.

[120] Davidson, K., Y. Zou, L. Lamarche, A. Bhatt, and M. Conde (2025), Characterization of F-region neutral wind response times and its controlling factors during substorms, *Front. Astron. Space Sci.*, **12**, 1601296, 10.3389/fspas.2025.1601296.

[121] Dayeh, M. A., M. J. Starkey, G. Livadiotis, S. T. Hart, A. A. Shmies, R. C. Allen, R. Bučik, and H. A. Elliott (2025), Polytropic Behavior in Corotating Interaction Regions: Evidence of Alfvénic Heating, *Astrophys. J. Lett.*, **984**(1), L33, 10.3847/2041-8213/adc4d7.

[122] Dayeh, M. A., M. J. Starkey, H. A. Elliott, R. Attie, C. E. DeForest, R. Bučik, and M. I. Desai (2025), Forecasting Shock-Associated Energetic Particle Intensities in the Inner Heliosphere: A Proof-of-Concept Capability for the PUNCH Mission, *Solar Phys.*, **300**(1), 1, 10.1007/s11207-024-02409-5.

[123] Dazzi, P., K. Issautier, N. Meyer-Vernet, P. Henri, and M. M. Martinović (2025), Quasi-Thermal Noise Spectroscopy in Magnetized Space Plasma: Theory and Model, *J. Geophys. Res.*, **130**(3), 2024JA033,325, 10.1029/2024JA033325.

[124] Dazzi, P., K. Issautier, P. Henri, and B. Verkampt (2025), Quasi-Thermal Noise Spectroscopy in Magnetized Space Plasma: Analysis of Wind/WAVES Measurements in Earth's Magnetosphere, *J. Geophys. Res.*, **130**(11), e2025JA033930, 10.1029/2025JA033930.

[125] de Oliveira, M. N., C. E. Navia, and A. A. Nepomuceno (2025), Multi-point observation of a CME on August 16, 2020, *New Astron.*, **121**, 102446, 10.1016/j.newast.2025.102446.

[126] Delano, K., E. Zesta, D. M. Oliveira, M. Martínez Ledesma, and S. Mutschler (2025), Temporal and Spatial Dynamics of Nitric Oxide Production at High Latitudes Caused by an ICME-Driven Storm onDec. 14, 2006, *J. Geophys. Res.*, **130**(4), e2024JA033406, 10.1029/2024JA033406.

[127] Delzanno, G. L., B. Isola, C. Lao, J. E. Borovsky, K. Sorathia, V. G. Merkin, O. Koshkarov, A. McCubbin, J. Garretson, H. Arnold, and D. Lin (2025), Validation of a Global Geospace Model With a Systems Science Approach Based on Canonical Correlation Analysis, *Geophys. Res. Lett.*, **52**(19), e2025GL115589, 10.1029/2025GL11558910.22541/essoar.174188262.22365937/v1.

[128] Deshpande, K., J. Magdalenic, I. Christopher Jebaraj, S. Pavai Valliappan, A. Niemela, L. Rodriguez, and V. Krupar (2025), Coronal electron density: Insights from radio and in situ observations, and EUHFORIA modeling, *Astron. & Astrophys.*, **704**, A95, 10.1051/0004-6361/202555142.

[129] Despirak, I., P. Setsko, A. Lubchich, Y. Sakharov, and V. Selivanov (2025), Geomagnetically Induced Currents (GICs) during strong geomagnetic storm on 10–12 May 2024, *Adv. Space Res.*, **76**(12), 7546–7563, 10.1016/j.asr.2025.06.081.

[130] Despirak, I. V., P. V. Setsko, A. A. Lubchich, Y. A. Sakharov, and V. N. Selivanov (2025), Pulses in Solar Wind Pressure and the Occurrence of Intense Geomagnetically Induced Currents, *Bull. Russian Academy Sci. Phys.*, **89**(5), 649–660, 10.1134/S1062873825710967.

[131] Despirak, I. V., N. G. Kleimenova, A. A. Lubchich, P. V. Setsko, and L. M. Malysheva (2025), "Polar" Substorms During Slow Solar Wind, *J. Geophys. Res.*, **130**(2), 2024JA033,555, 10.1029/2024JA033555.

[132] Devaraj, A., S. Narendranath, S. S. Kartha, M. Sarantos, K. R. Akhil, B. Mathew, T. Sivarani, S. Nidhi, P. Anbazhagan, and G. Selvakumar (2025), Non-linear solar EUV-driven sodium release from the lunar surface: a contrast to the linear PSD model, *Mon. Not. Roy. Astron. Soc.*, **543**(2), 1079–1091, 10.1093/mnras/staf1447.

[133] Dhanya, M. B., C. M. Yadav, S. V. Thampi, T. P. Das, R. S. Thampi, and A. Bhardwaj (2025), Impact of a Coronal Mass Ejection on the Lunar Exosphere as Observed by CHACE-2 on the Chandrayaan-2 Orbiter, *Geophys. Res. Lett.*, **52**(15), e2025GL115737, 10.1029/2025GL115737.

[134] Di Matteo, S., and U. Villante (2025), Simultaneous Occurrence of Magnetospheric Fluctuations at Different Discrete Frequencies (f $\approx$ 1 – 5 mHz): A Review, *Space Sci. Rev.*, **221**(4), 40, 10.1007/s11214-025-01166-6.

[135] Dimple, B. P. Gompertz, A. J. Levan, D. B. Malesani, T. Laskar, S. Bala, A. A. Chrimes, K. Heintz, L. Izzo, G. P. Lamb, D. O'Neill, J. T. Palmerio, A. Saccardi, G. E. Anderson, C. De Barra, Y. Huang, A. Kumar, H. Li, S. McBreen, O. Mukherjee, S. R. Oates, U. Pathak, Y. Qiu, O. J. Roberts, R. Sonawane, P. Veres, K. Ackley, X. Han, Y. Julakanti, J. Wang, P. D'Avanzo, A. Martin-Carrillo, M. E. Ravasio, A. Rossi, N. R. Tanvir, J. P. Anderson, M. Arabsalmani, S. Belkin, R. P. Breton, R. Brivio, E. Burns, J. Casares, S. Campana, S. I. Chastain, V. D'Elia, V. S. Dhillon, M. J. Dyer, J. P. U. Fynbo, D. K. Galloway, A. Gulati, B. Godson, A. J. Goodwin, M. Gromadzki, D. H. Hartmann, P. Jakobsson, T. L. Killestein, R. Kotak, J. K. Leung, J. D. Lyman, A. Melandri, S. Mattila, S. McGee, C. Morley, T. Mukherjee, T. E. Müller-Bravo, K. Noysena, L. K. Nuttall, P. O'Brien, M. De Pasquale, G. Pignata, D. Pollacco, G. Pugliese, G. Ramsay, A. Sahu, R. Salvaterra, P. Schady, B. Schneider, D. Steeghs, R. L. C. Starling, K. Tsalapatas, K. Ulaczyk, A. J. van der Horst, C. Wang, K. Wiersema, I. Worssam, M. E. Wortley, S. Xiong, and T. Zafar (2025), GRB 241105A: a test case for GRB classification and rapid r-process nucleosynthesis channels, *Mon. Not. Roy. Astron. Soc.*, **544**(1), 548–571, 10.1093/mnras/staf1574.

[136] Doepke, N., E. A. Kronberg, K. Li, A. Smirnov, R. Ilie, and F. Scheipl (2025), Predictive analytics of cold ion outflow from the Earth's ionosphere, *Front. Astron. Space Sci.*, **12**, 1646575, 10.3389/fspas.2025.1646575.

[137] Doronin, G., I. Mironova, and E. Rozanov (2025), Comparison of the Chemical Composition of the Middle Atmosphere During Energetic Particle Precipitation in January 2005 and 2012, *Atmos.*, **16**(5), 506, 10.3390/atmos16050506.

[138] Dresing, N., I. C. Jebaraj, N. Wijsen, E. Palmerio, L. Rodríguez-García, C. Palmroos, J. Gieseler, M. Jarry, E. Asvestari, J. G. Mitchell, C. M. S. Cohen, C. O. Lee, W. Wei, R. Ramstad, E. Riihonen, P. Oleynik, A. Kouloumvakos, A. Warmuth, B. Sánchez-Cano, B. Ehresmann, P. Dunn, O. Dudnik, and C. Mac Cormack (2025), The reason for the

widespread energetic storm particle event of 13 March 2023, *Astron. & Astrophys.*, **695**, A127, 10.1051/0004-6361/202453596.

[139] Du, X. Y., Z. B. Zhang, W. C. Du, G. A. Li, Y. Liu, and H. C. Liu (2025), Correlations between Event Rates of Short Gamma-Ray Bursts and Star Formation Rates with/without Time Delay, *Astrophys. J. Lett.*, **987**(1), L13, 10.3847/2041-8213/ade1d0.

[140] Duan, S., A. Zhang, L. Dai, Y. Hou, Z. He, and C. Wang (2025), Observations of Energetic O^+ Ions With Strong Velocity Shear in the Low Latitude Boundary Layer During an Intense Storm Main Phase, *J. Geophys. Res.*, **130**(2), 2024JA033,127, 10.1029/2024JA033127.

[141] Dupertuis, M., J. Zhang, E. Nikou, and S. K. Dhakal (2025), HeXCor: A Hybrid Magnetic Flux-rope Model of Coronal Mass Ejections Combining In Situ Measurements with Remote Sensing Observations, *Astrophys. J.*, **993**(1), 135, 10.3847/1538-4357/ae09a6.

[142] Dutta, S., J. Gruenwald, and P. K. Karmakar (2025), A bifluidic model formalism analyzing sheath plasma resonance in inverted fireballs, *Results in Physics*, **76**, 108413, 10.1016/j.rinp.2025.108413.

[143] Ellis, J. A., D. J. Emmons, and M. B. Cohen (2025), Global Sporadic-E Prediction and Climatology Using Deep Learning, *Space Weather*, **23**(5), e2025SW004366, 10.1029/2025SW004366.

[144] Engebretson, M. J., S. B. Mende, J. M. Weygand, E. H. Kebede, J. A. Ochoa, S. Tian, E. S. Steinmetz, M. B. Moldwin, M. D. Hartinger, C. M. Ngwira, and J. W. Gjerloev (2025), IMAGE Satellite and Ground-Based Magnetometer Observations of Large Geomagnetic Disturbances and Rapid Variations in Ionospheric and Vertical Currents, *J. Geophys. Res.*, **130**(8), e2025JA033769, 10.1029/2025JA03376910.22541/essoar.173775840.01470211/v1.

[145] Engebretson, M. J., J. M. Weygand, Y. Nishimura, M. B. Moldwin, E. S. Steinmetz, J. A. Ochoa, V. A. Pilipenko, and J. Gjerloev (2025), Mesoscale Ionospheric Structures and Very Large Geomagnetic Disturbances at High Latitudes, *J. Geophys. Res.*, **130**(8), e2025JA033818, 10.1029/2025JA03381810.22541/essoar.173888363.32871755/v1.

[146] Eriksen, N. K., Y. Nishimura, M. Zettergren, D. A. Lorentzen, K. Oksavik, L. J. Baddeley, K. Hosokawa, K. Shiokawa, L. Lamarche, M. E. Redden, and A. Bhatt (2025), Evolution and decay of a stable and a dynamic airglow patch, *J. Atmos. Solar-Terr. Phys.*, **275**, 106593, 10.1016/j.jastp.2025.106593.

[147] Eriksson, S., A. Chasapis, A. Mallet, and M. Swisdak (2025), Ubiquitous Occurrences of Multiscale Layers of Magnetic Reconnection across a Solar Wind Stream Interaction Region at 1 au, *Astrophys. J. Lett.*, **990**(2), L41, 10.3847/2041-8213/adfa90.

[148] Espinoza, J. M., and J. E. Borovsky (2025), The connection of the Ions and electrons in the Earth's central plasma sheet to the solar wind, *Front. Astron. Space Sci.*, **12**, 1672108, 10.3389/fspas.2025.1672108.

[149] Eyelade, A. V., B. Zenteno-Quinteros, P. S. Moya, J. I. Silva, B. A. Urra, M. Lazar, and A. F. Viñas (2025), Characterizing solar wind electrons with the core-strahlo model: WIND-SWE-VEIS observations, *Astron. & Astrophys.*, **702**, A198, 10.1051/0004-6361/202555368.

[150] Farwa, G. U., N. Dresing, J. Gieseler, L. Vuorinen, I. G. Richardson, C. Palmroos, S. Valkila, B. Heber, S. Jensen, P. Kühl, L. Rodríguez-García, and R. Vainio (2025), Electron and proton peak intensities as observed by a five-spacecraft fleet in solar cycle 25, *Astron. & Astrophys.*, **693**, A198, 10.1051/0004-6361/202450945.

[151] Feng, T., M. Liu, H. Feng, D. Han, C. Zhou, B. Xu, T. Xu, Z. Ding, and Z. Zhao (2025), A Statistical Analysis of Auroral-Enhanced Plasma Lines Observed by EISCAT During One Solar Cycle, *J. Geophys. Res.*, **130**(2), 2024JA032,574, 10.1029/2024JA032574.

[152] Finley, A. J. (2025), Reconstructing the Sun's Alfvén surface and wind braking torque with Parker Solar Probe, *Astron. & Astrophys.*, **702**, A252, 10.1051/0004-6361/202556391.

[153] Fiore, A., L. Crosato Menegazzi, and G. Stratta (2025), Exploring the GRB–Supernova Connection: Does a Superluminous Hypernova Population Exist?, *Galaxies*, **13**(3), 57, 10.3390/galaxies13030057.

[154] Flández, E., and V. Muñoz (2025), A Prediction of Solar Cycle Maxima Using Visibility Graphs, *Astrophys. J.*, **990**(1), 21, 10.3847/1538-4357/adef43.

[155] Fleishman, G. D., G. G. Motorina, S. Yu, and G. M. Nita (2025), Energy Budget in the 2017 September 7 "Cold" Solar Flare, *Astrophys. J.*, **988**(2), 260, 10.3847/1538-4357/ade983.

[156] Flossie, M., A. Maharana, L. Linan, K. Plets, A. Isavnin, and S. Poedts (2025), Optimization of the FRi3D CME Model in EUHFORIA, *Space Weather*, **23**(9), e2025SW004401, 10.1029/2025SW004401.

[157] Foffano, L., and M. Tavani (2025), TeV Afterglows of Gamma-Ray Bursts: Theoretical Analysis and Prospects for Future Observations, *Astrophys. J.*, **991**(1), 82, 10.3847/1538-4357/adf8e3.

[158] Fogg, A. R., D. Healy, C. M. Jackman, A. C. Parnell, M. J. Rutala, S. C. McEntee, S. J. Walker, P. T. Gallagher, and C. F. Bowers (2025), Bivariate Extreme Value Analysis for Space Weather Risk Assessment: Solar Wind–Magnetosphere Driving in the Terrestrial System, *Space Weather*, **23**(5), e2024SW004176, 10.1029/2024SW004176.

[159] Fraija, N., B. B. Kamenetskaia, A. Galván, A. Montalvo, A. C. C. Do E. S. Pedreira, P. Veres, R. L. Becerra, M. G. Dainotti, S. Dichiara, and H. L. Vargas (2025), Late-afterglow emission from a quasi-spherical outflow in a stratified environment, *Mon. Not. Roy. Astron. Soc.*, **543**(3), 2686–2705, 10.1093/mnras/staf1595.

[160] Fredrick, E., Y. Hong, R. Lopez, and Y. Deng (2025), The Impact of OMNI Data Accuracy on Thermospheric Neutral Density Simulations at Grid Cell Resolutions, *Space Weather*, **23**(7), e2025SW004374, 10.1029/2025SW004374.

[161] Fu, Z., N. Wang, X. Shen, and A. Li (2025), Temporal and Spatial Analysis of the Impact of the 2015 St. Patrick's Day Geomagnetic Storm on Ionospheric TEC Gradients and GNSS Positioning in China Using GIX and ROTI Indices, *Remote Sensing*, **17**(12), 2027, 10.3390/rs17122027.

[162] Fuselier, S. A., et al. (2025), *The Next Decade of Discovery in Solar and Space Physics: Exploring and Safeguarding Humanity's Home in Space*, 10.17226/27938.

[163] Gao, H.-X., J.-J. Geng, Y.-F. Liang, H. Sun, F. Xu, X.-F. Wu, Y.-F. Huang, Z.-G. Dai, and W.-M. Yuan (2025), The Soft X-Ray Aspect of Gamma-Ray Bursts in the Einstein Probe Era, *Astrophys. J.*, **986**(1), 106, 10.3847/1538-4357/adceb1.

[164] Gao, X., H. Cao, R. Shen, M. Xin, P. Tian, and L. Pan (2025), Analysis of Ionospheric TEC Anomalies Using BDS High-Orbit Satellite Data: A Regional Statistical Study and a Case Study of the 2023 Jishishan Ms6.2 Earthquake, *Remote Sensing*, **17**(24), 4032, 10.3390/rs17244032.

[165] Gao, Z., Y. Chen, X. Ao, F. Yue, H. Chen, H. Deng, B. Luo, X. Wang, and T. Yuan (2025), ISNet: Decomposed Dynamic Spatio-Temporal Neural Network for Ionospheric Scintillation Forecasts, *Space Weather*, **23**(6), e2024SW004239, 10.1029/2024SW004239.

[166] Gasparini, S., L. Kepko, K. A. Sorathia, A. Michael, V. G. Merkin, K. M. Laundal, and C. Norgren (2025), A New Approach to Data Model Comparisons: Using MAGE and Lompe to Unravel Ionosphere Magnetosphere Electrodynamics, *J. Geophys. Res.*, **130**(10), e2025JA034033, 10.1029/2025JA034033.

[167] Gautam, S. P., G. P. Zank, L. Adhikari, A. Pitňa, and A. Silwal (2025), Influence of Solar Cycle on Magnetohydrodynamic Turbulent Modes at 1 au, *Astrophys. J.*, **989**(1), 62, 10.3847/1538-4357/adee86.

[168] Gautam, S. P., G. P. Zank, A. Pitňa, L. Adhikari, L. Zhao, A. Silwal, P. Baruwal, P. Baruwal, M. Karki, I. Tasnim, and B. Adhikari (2025), Characterization of the Transmission and Generation of Turbulence at Interplanetary Shocks, *Astrophys. J.*, **989**(1), 82, 10.3847/1538-4357/adeb86.

[169] Ghag, K., A. Raghav, Z. Shaikh, G. Nicolaou, O. Dhamane, M. Shah, U. Panchal, P. Tari, and K. Kumbhar (2025), Distinct polytropic behavior of plasma during ICME-HSS interaction, *Adv. Space Res.*, **75**(1), 1371–1377, 10.1016/j.asr.2024.09.073.

[170] Ghuge, D., D. Bhattacharjee, and P. Subramanian (2025), Turbulent Power: A Discriminator Between Sheaths and CMEs, *Solar Phys.*, **300**(4), 47, 10.1007/s11207-025-02457-5.

[171] Gianfagna, G., L. Piro, G. Bruni, A. L. Thakur, H. Van Eerten, M. D. Caballero-García, A. Castro-Tirado, Y. Chen, Y.-h. Cheng, M. Gritsevich, S. Guziy, H. He, Y.-D. Hu, S. Jia,

Z. Ling, E. Maiorano, R. Paladino, S. B. Pandey, R. Tripodi, A. Rossi, R. Sánchez-Ramírez, S. Yang, J. Yuan, W. Yuan, and C. Zhang (2025), The soft X-ray transient EP241021A: A cosmic explosion with a complex off-axis jet and cocoon from a massive progenitor, *Astron. & Astrophys.*, **703**, A92, 10.1051/0004-6361/202555450.

[172] Goldstein, J., M. J. Kim, S. A. Fuselier, J. Mukherjee, C. A. Gonzalez, R. Gomez, and J. L. Burch (2025), Fine Scale Structure in Plasmaspheric Plumes From GEO to the Magnetopause: Observations by Magnetospheric Multiscale, *J. Geophys. Res.*, **130**(10), e2025JA034042, 10.1029/2025JA034042.

[173] Gomez Socola, J., F. S. Rodrigues, J. Sousasantos, M. R. Quesada, R. Heelis, Y. Otsuka, A. Shinbori, M. Nishioka, and S. Perwitasari (2025), On the Extraordinary L-Band Scintillation Event Observed in the American Sector During the 23-24 March 2023 Geomagnetic Storm, *Space Weather*, **23**(6), e2024SW004213, 10.1029/2024SW004213.

[174] Gong, Y., T. Sun, B. Tang, Y. Guo, S. Sembay, and C. Wang (2025), Dynamic X-ray imaging of the magnetosheath expected during a super storm, *Front. Astron. Space Sci.*, **12**, 1563653, 10.3389/fspas.2025.1563653.

[175] Gonzalez Esparza, J. A., E. Sanchez Garcia, M. Sergeeva, P. Corona Romero, V. J. Gatica Acevedo, C. I. Castellanos, and L. X. Gonzalez Mendez (2025), Characterization of Regional Space Weather Conditions in Mexico During Solar Minimum 24/25: Baseline for Severity Scale Development, *Space Weather*, **23**(10), e2025SW004516, 10.1029/2025SW004516.

[176] Good, S. W., K. J. Palmunen, C. H. K. Chen, E. K. J. Kilpua, T. V. Mäkelä, J. Ruohotie, C. P. Sishtla, and J. E. Soljento (2025), Residual energy of magnetohydrodynamic shocks, *Mon. Not. Roy. Astron. Soc.*, **543**(4), 3447–3455, 10.1093/mnras/staf1644.

[177] Gopalswamy, N., S. Akiyama, S. Yashiro, P. Mäkelä, and H. Xie (2025), Annotated catalog of intense geomagnetic storms including their solar and interplanetary causes, *J. Astrophys. Astron.*, **46**(2), 78, 10.1007/s12036-025-10091-7.

[178] Gottlieb, O. (2025), The Landscape of Collapsar Outflows: Structure, Signatures, and Origins of Einstein Probe Relativistic Supernova Transients, *Astrophys. J. Lett.*, **992**(1), L3, 10.3847/2041-8213/ae09af.

[179] Goyal, S. K., N. K. Tiwari, A. R. Patel, M. Shanmugam, S. V. Vadawale, D. Chakrabarty, J. Sebastian, B. Dalal, P. Sharma, A. Sarkar, A. Sarda, T. Ladiya, A. J. Verma, N. Singh, S. Kumar, D. K. Painkra, P. Kumar, M. S. Shah, P. R. Adhyaru, H. L. Adalja, S. B. Banerjee, K. P. Subramanian, B. Bapat, M. B. Dadhania, A. Kumar, P. Janardhan, and A. Bhardwaj (2025), Aditya Solar Wind Particle Experiment on Board Aditya–L1: The Supra-Thermal and Energetic Particle Spectrometer, *Solar Phys.*, **300**(3), 35, 10.1007/s11207-025-02441-z.

[180] Graham, D. B., and Y. V. Khotyaintsev (2025), The Structure and Kinetic Ion Behavior of Low Mach Number Shocks, *J. Geophys. Res.*, **130**(5), e2024JA033283, 10.1029/2024JA033283.

[181] Granovsky, S., A. G. Kosovichev, V. M. Sadykov, G. S. Kerr, and J. C. Allred (2025), Strong Photospheric Heating Indicated by Fe I 6173 Å Line Emission during White-light Solar Flares, *Astrophys. J.*, **988**(1), 74, 10.3847/1538-4357/addd1e.

[182] Gray, C. L., K. Peter, M. Pätzold, S. Tellmann, T. Nordheim, C. Schmidt, N. J. Chanover, and P. Withers (2025), Venus' O 5577 Å Oxygen Green Line: A Global Diffuse Proton-Induced Aurora, *J. Geophys. Res.*, **130**(2), 2024JA032,851, 10.1029/2024JA032851.

[183] Grechnev, V. V., V. I. Kiselev, A. M. Uralov, N. S. Meshalkina, and A. L. Lysenko (2025), Mysteries of the 17 May 2012 Solar Event Responsible for GLE71: II. Features of the Flare and Its Atypical Microwave Emission, *Solar Phys.*, **300**(3), 29, 10.1007/s11207-025-02437-9.

[184] Grimmich, N., A. Settino, H. K. Nykyri, M. O. Archer, K.-A. Blasl, A. Pöppelwerth, R. Nakamura, and F. Plaschke (2025), Comparison of Kelvin–Helmholtz waves observed simultaneously at the dawn and dusk flanks of the Earth's magnetopause, *Planet. Space Sci.*, **267**, 106182, 10.1016/j.pss.2025.106182.

[185] Grison, B., F. Darrouzet, R. Maggiolo, M. Hajoš, M. Dvořák, M. Švanda, A. Jeřábková, M. G. G. T. Taylor, D. Herment, A. Masson, J. Souček, O. Santolík, and J. De Keyser (2025), Localization of the Cluster satellites in the geospace environment, *Sci. Data*, **12**(1), 327, 10.1038/s41597-025-04639-z.

[186] Gu, Y., Y. Wang, F. Wei, X. Feng, B. Wang, L. Wang, W. Zhang, Z. Xu, Z. Chen, Y. Lu, X. Song, P. Zuo, X. Xu, and Z. Zhou (2025), Observational Evidence for the Modulation of Magnetopause Position by Solar Wind Turbulence, *Astrophys. J. Lett.*, **990**(1), L4, 10.3847/2041-8213/adf7a6.

[187] Gu, Y., Y. Wang, F. Wei, X. Feng, A. Samsonov, X. Song, B. Wang, P. Zuo, C. Jiang, Y. Chen, X. Xu, and Z. Zhou (2025), A time-dependent three-dimensional dayside magnetopause model based on quasi-elastodynamic theory, *Geoscientific Model Development*, **18**(13), 4215–4229, 10.5194/gmd-18-4215-2025.

[188] Guidorzi, C., R. Maccary, M. Maistrello, S. Kobayashi, M. Bulla, and F. Frontera (2025), Gamma-ray burst X-ray plateaus as evidence of pre-prompt afterglow, *Astron. & Astrophys.*, **703**, A101, 10.1051/0004-6361/202556663.

[189] Gupta, S., R. Gupta, T. Chattopadhayay, S. Sahayanathan, D. Frederiks, D. Svinkin, D. Bhattacharya, J. Racusin, S. Vadawale, V. Bhalerao, A. Lysenko, A. Ridnaia, A. Tsvetkova, and M. Ulanov (2025), Time-resolved spectro-polarimetric analysis of extremely bright GRB 230307A: Possible evidence of evolution from photospheric to synchrotron dominated emission, *Astron. & Astrophys.*, **701**, A172, 10.1051/0004-6361/202555055.

[190] Han, H., H. R. Lai, Y.-D. Jia, C. T. Russell, M. Connors, G. Toth, and J. Cui (2025), Prolonged Magnetopause Recovery From the Impact of a Strong Stream Interaction Region, *J. Geophys. Res.*, **130**(12), e2025JA034695, 10.1029/2025JA034695.

[191] Han, T., H. Le, Y. Yang, W. Li, W. Sun, H. Ma, Y. Zhou, B. Liu, R. Du, L. Liu, Y. Chen, and R. Zhang (2025), Characteristics of Large Scale Traveling Ionospheric Disturbances During the 10 May 2024 Geomagnetic Storm, *Space Weather*, **23**(10), e2024SW004283, 10.1029/2024SW004283.

[192] Han, Y., B. Han, and Z. Hu (2025), A Tailored Deep Learning Network with Embedded Space Physical Knowledge for Auroral Substorm Recognition: Validation Through Special Case Studies, *Universe*, **11**(8), 265, 10.3390/universe11080265.

[193] Hayakawa, H., Y. Ebihara, A. Mishev, S. Koldobskiy, K. Kusano, S. Bechet, S. Yashiro, K. Iwai, A. Shinbori, K. Mursula, F. Miyake, D. Shiota, M. V. D. Silveira, R. Stuart, D. M. Oliveira, S. Akiyama, K. Ohnishi, V. Ledvina, and Y. Miyoshi (2025), The Solar and Geomagnetic Storms in 2024 May: A Flash Data Report, *Astrophys. J.*, **979**(1), 49, 10.3847/1538-4357/ad9335.

[194] Hegde, D. V., T. K. Kim, N. V. Pogorelov, S. I. Jones, and C. N. Arge (2025), Ensemble Modeling of the Solar Wind Flow with Boundary Conditions Governed by Synchronic Photospheric Magnetograms. I. Multipoint Validation in the Inner Heliosphere, *Astrophys. J.*, **988**(2), 154, 10.3847/1538-4357/addf33.

[195] Hegy, M., E. Ghamry, I. El-Hamaly, S. Abd El Nabi, A. Helaly, A. Fathy, and T. A. Nahool (2025), Investigation of double geomagnetic storms on 3 and 4 February 2022 using machine learning approach, *NRIAG J. Astron. Geophys.*, **14**(1), 1–9, 10.1080/20909977.2025.2458944.

[196] Hertle, L., S. Zacharias, N. Larsen, D. Rasche, D. McJannet, and M. Schrön (2025), Neutron Monitor Based Incoming Flux Correction for Cosmic-Ray Neutron Sensing of Environmental Water, *Water Resources Research*, **61**(9), e2025WR040527, 10.1029/2025WR04052710.22541/essoar.174309437.75116268/v1.

[197] Hirai, A., F. Tsuchiya, T. Obara, Y. Miyoshi, Y. Katoh, Y. Kasaba, K. Shiokawa, A. Kumamoto, Y. Kasahara, S. Matsuda, H. Misawa, S. Kurita, C.-W. Jun, H. Ohya, and M. G. Connors (2025), Properties of EMIC Waves and EMIC Wave-Driven Electron Precipitation in Subauroral Latitudes Observed at Athabasca, Canada, *J. Geophys. Res.*, **130**(3), 2024JA033,357, 10.1029/2024JA033357.

[198] Hiyadutuje, A., D. Bilitza, T. Ojebisi, M. Kelelue, S. Degefa, and K. Webber (2025), Assessment of the performance of the IRI's auroral oval boundary model as applied to the Mother's Day G5 storm during 10–13 May 2024, *Adv. Space Res.*, **76**(12), 7241–7250, 10.1016/j.asr.2025.04.003.

[199] Hodnett, R. M., S. E. Milan, S. Nozawa, T. Raita, J. W. Gjerloev, S. K. Vines, and L. J. Paxton (2025), Omega Bands as a Source of Large dB/dt in the Dawn Sector, *J. Geophys. Res.*, **130**(11), e2025JA034342, 10.1029/2025JA034342.

[200] Hong, Y., Y. Deng, L. Cai, A. Ridley, G. Lu, A. Maute, C. Waters, and D. Rowland (2025), Temporal and Spatial Variability of Multiscale Neutral Density Perturbations

During Storm-Time: Insights From Multi-Satellite Observations, *Space Weather*, **23**(6), e2025SW004406, 10.1029/2025SW00440610.22541/essoar.174231279.96079481/v1.

[201] Horvath, I., and B. C. Lovell (2025), Multi-Point Satellites Observed Dawnside Sub-auroral Polarization Streams (SAPS) Developed on a Short Timescale Under Weak-Storm and Non-Storm Substorm Conditions, *J. Geophys. Res.*, **130**(6), e2025JA033755, 10.1029/2025JA033755.

[202] Houeibib, A., F. Pantellini, and L. Griton (2025), Dynamics of energetic electrons scattered in the solar wind: Magnetohydrodynamics and test-particle simulations, *Astron. & Astrophys.*, **694**, A211, 10.1051/0004-6361/202451436.

[203] Hu, C.-P., Z. Wadiasingh, W. C. G. Ho, M. G. Baring, G. A. Younes, T. Enoto, S. Guillot, T. Güver, M. L. Bause, R. Stewart, A. Van Kooten, and C. Kouveliotou (2025), Rapid Spectral Evolution of SGR 1935+2154 during Its 2022 Outburst, *Astrophys. J.*, **989**(1), 63, 10.3847/1538-4357/adea4e.

[204] Huang, Y., F. Guo, E. J. Zirnstein, S. J. Noh, H. Li, D. B. Reisenfeld, and J. Heerikhuisen (2025), A Numerical Model for the Dynamics of Pickup Ions Outside the Heliopause and IBEX "Ribbon" Observation, *Astrophys. J.*, **987**(2), 192, 10.3847/1538-4357/addbe3.

[205] Huang, Z., M. Velli, B. D. G. Chandran, C. Shi, Y. Ding, L. Matteini, and K.-E. Choi (2025), Two Types of 1/f Range in Solar Wind Turbulence, *Astrophys. J. Lett.*, **990**(2), L34, 10.3847/2041-8213/adfa13.

[206] Ibrahim, S. F., M. H. Habashy, M. A. El-Borie, A. A. Bishara, and A. M. El-Taher (2025), The spiral interplanetary magnetic field: a polarity sense and solar plasma indices during three solar cycles (22-24) using the wavelet transforms, *Phys. Scripta*, **100**(7), 075016, 10.1088/1402-4896/adde97.

[207] Illarionov, E., A. Tlatov, I. Berezin, and N. Skorbezh (2025), Correlation of Coronal Hole Area Indices and Solar Wind Speed, *Solar Phys.*, **300**(9), 123, 10.1007/s11207-025-02530-z.

[208] Ippolito, A., B. Sánchez-Cano, and Y. Harada (2025), Effects of the September 2014 coronal mass ejection chain in the inner Solar System and the response of the Martian ionosphere, *Astron. & Astrophys.*, **695**, A225, 10.1051/0004-6361/202453169.

[209] Irwin, C. M., and K. Hotokezaka (2025), Revisiting GRB 060218: new insights into low-luminosity gamma-ray bursts from a revised shock breakout model, *Mon. Not. Roy. Astron. Soc.*, **542**(2), 1269–1286, 10.1093/mnras/staf1309.

[210] Iyemori, T., Y. Yokoyama, and T. Aoyama (2025), A short period and compressional Pc3 magnetic pulsation possibly caused by a lamb wave and plasmaspheric cavity resonance, *Earth, Planets and Space*, **77**(1), 75, 10.1186/s40623-025-02205-w.

[211] Jackson, B. V., M. Bracamontes, A. Buffington, S. Volkow, S. White, M. M. Bisi, E. Stephan, P. Leblanc, and R. Quillin (2025), ASHI: The All Sky Heliospheric Imager:

August 22 – 26, 2022, NASA Balloon Flight and Image Data Reduction Analysis, *Solar Phys.*, **300**(3), 32, 10.1007/s11207-025-02448-6.

[212] Jasinski, J. M., and M. Velli (2025), The Sun Reversed Its Decades-long Weakening Trend in 2008, *Astrophys. J. Lett.*, **990**(2), L55, 10.3847/2041-8213/adf3a6.

[213] Jasinski, J. M., H. Melin, J. A. Sinclair, S. Zomerdijk-Russell, N. Achilleos, and C. Paty (2025), Uranus' Long-Term Thermospheric Cooling Is Unlikely to Be Primarily Driven by the Solar Wind, *Geophys. Res. Lett.*, **52**(24), e2025GL119362, 10.1029/2025GL119362.

[214] Jee, G., J. S. Shim, I.-S. Song, Y.-S. Kwak, I. Tsagouri, L. Goncharenko, D. Singh, L. Rastaetter, J. Yue, M. Chou, D. Bilitza, M. Codrescu, M. Fedrizzi, and T. J. Fuller-Rowell (2025), Assessment of Current Capabilities in Modeling the Ionospheric Climatology for Space Weather Applications: foF2 and hmF2-II, *Space Weather*, **23**(6), e2024SW004166, 10.1029/2024SW004166.

[215] Ji, J., and Y. Huang (2025), Impact of small- and meso-scale electromagnetic field variability on the high-latitude energy input, *Frontiers in Physics*, **13**, 1569257, 10.3389/fphy.2025.1569257.

[216] Jia, C., S. T. Lepri, L. Zhao, J. M. Raines, D. Welling, J. A. Carter, and S. Nitti (2025), Geoeffectivity of Solar Wind Heavy Ions, *J. Geophys. Res.*, **130**(10), e2025JA034257, 10.1029/2025JA034257.

[217] Jiang, L.-Y., Y. Wang, Y.-J. Wei, D.-M. Wei, X. Li, H.-N. He, J. Ren, Z.-Q. Shen, and Z.-P. Jin (2025), Probable evidence for a transient mega-electron volt emission line in the GRB 221023A, *Nature Comm.*, **16**(1), 2668, 10.1038/s41467-025-57791-w.

[218] Jiang, W., H. Li, Z. Yang, D. Verscharen, and C. Wang (2025), Spatial Dependence of Ion-Kinetic Instabilities in the Earth's Magnetosheath: MMS Observations, *J. Geophys. Res.*, **130**(3), 2024JA033,463, 10.1029/2024JA033463.

[219] Jin, Y., D. Kotova, L. B. N. Clausen, and W. J. Miloch (2025), Significant Plasma Density Depletion From High- to Mid-Latitude Ionosphere During the Super Storm in May 2024, *Geophys. Res. Lett.*, **52**(5), 2024GL113,997, 10.1029/2024GL113997.

[220] Jun, C.-W., Y. Miyoshi, T. Hori, J. Bortnik, L. Lyons, K.-H. Kim, T. Mitani, T. Takashima, I. Shinohara, N. Higashio, A. Matsuoka, K. Yamamoto, and M. Teramoto (2025), In Situ Observations of the Influence of Nonlinear EMIC Waves on Relativistic Electrons in the Outer Radiation Belt, *Geophys. Res. Lett.*, **52**(9), e2024GL113855, 10.1029/2024GL113855.

[221] Jung, J., H. K. Connor, J. A. Carter, D. Koutroumpa, and C. Pagani (2025), Exospheric neutral density at the 10 R E subsolar point during solar maximum: estimates from XMM soft X-ray observations, *Front. Astron. Space Sci.*, **12**, 1568929, 10.3389/fspas.2025.1568929.

[222] Juusola, L., I. Virtanen, S. M. Hatch, H. Vanhamäki, M. Grandin, N. Partamies, U. Ganse, I. Honkonen, A. Workayehu, A. Kero, and M. Palmroth (2025), An empirical model of high-latitude ionospheric conductances based on EISCAT observations, *Ann. Geophys.*, **43**(2), 755–781, 10.5194/angeo-43-755-2025.

[223] Kandekar, J., and A. Kumari (2025), On the limitations of using metric radio bursts as diagnostic tools for interplanetary coronal mass ejections, *Astron. & Astrophys.*, **697**, L9, 10.1051/0004-6361/202553735.

[224] Kang, S.-B., M.-C. Fok, A. Glocer, C. Ferradas, J. D. Huba, and L.-J. Chen (2025), Plasmaspheric-Origin Ions as a Major Source of Plasma Sheet Pressure During Storm Early Main Phase, *Geophys. Res. Lett.*, **52**(21), e2025GL117657, 10.1029/2025GL117657.

[225] Kang, Y., J.-P. Zhu, Y.-H. Yang, Z. Wang, E. Troja, B. Zhang, L. Shao, and Z. Li (2025), Shared properties of merger-driven long-duration gamma-ray bursts, *Astron. & Astrophys.*, **698**, A250, 10.1051/0004-6361/202554448.

[226] Karakhanyan, A. A., and S. I. Molodykh (2025), The influence of the ionospheric electric potential on outgoing longwave radiation in the troposphere during the May 11, 2024 geomagnetic superstorm, *J. Atmos. Solar-Terr. Phys.*, **277**, 106658, 10.1016/j.jastp.2025.106658.

[227] Karki, M., G. P. Zank, L. Adhikari, A. Silwal, S. P. Gautam, P. Baruwal, P. Baruwal, I. Tasnim, L. Zhao, and A. Pitňa (2025), Investigation of Turbulent Fluctuations in the Fast and Alfvénic Slow Solar Wind at 1 au, *Astrophys. J.*, **995**(2), 212, 10.3847/1538-4357/ae1a85.

[228] Karna, N., and M. P. Miralles (2025), Multispacecraft Observations of 2022 February 8 Prominence Cavity Eruption, *Astrophys. J.*, **993**(1), 7, 10.3847/1538-4357/ae07d1.

[229] Kataoka, R., S. Nakano, S. Uchino, and S. A. Reddy (2025), Extended red aurora associated with super substorm igniting the October 10, 2024 magnetic storm as revealed by citizen science, *Earth, Planets and Space*, **77**(1), 64, 10.1186/s40623-025-02178-w.

[230] Katsavrias, C., G. Nicolaou, G. Livadiotis, A. Vourlidas, L. B. Wilson, III, and I. Sandberg (2025), The Polytropic Index of Interplanetary Coronal Mass Ejections near L1, *Astron. & Astrophys.*, **695**, A146, 10.1051/0004-6361/202452984.

[231] Katsavrias, C., S. Di Matteo, L. Kepko, and N. M. Viall (2025), The dependence of periodic density structures' amplitude and length scale on solar wind density within stream interaction regions, *Astron. & Astrophys.*, **696**, L20, 10.1051/0004-6361/202554483.

[232] Katsavrias, C., G. Nicolaou, D. Verscharen, and G. Livadiotis (2025), Effective polytropic index in stream interaction regions near L1 and the effect of temperature anisotropy and plasma β, *Astron. & Astrophys.*, **701**, A151, 10.1051/0004-6361/202556105.

[233] Khanal, K., Y. Zou, and G. P. Zank (2025), Suppression of Magnetopause Reconnection in the Presence of Cold Magnetospheric Plasma, *Earth Space Sci.*, **12**(9), e2025EA004408, 10.1029/2025EA004408.

[234] Khuntia, S., and W. Mishra (2025), Thermal and turbulence characteristics of fast and slow coronal mass ejections at 1 AU, *J. Astrophys. Astron.*, **46**(2), 70, 10.1007/s12036-025-10085-5.

[235] Khuntia, S., W. Mishra, and A. Agarwal (2025), Evolution of the interacting coronal mass ejections that drove the great geomagnetic storm of 10 May 2024, *Astron. & Astrophys.*, **698**, A79, 10.1051/0004-6361/202452866.

[236] Kilpua, E., S. Good, J. Soljento, D. Trotta, T. Bäcker, J. Ruohotie, J. Pomoell, C. Sishtla, and R. Vainio (2025), Effect of interplanetary shock waves on turbulence parameters, *Ann. Geophys.*, **43**(2), 489–510, 10.5194/angeo-43-489-2025.

[237] Kim, J.-H., and Y.-S. Kwak (2025), Validating the IRI-2020 model for ionospheric storms over the North-East Asian sector induced by extreme geomagnetic storms, *Adv. Space Res.*, **75**(5), 4347–4369, 10.1016/j.asr.2024.07.032.

[238] Kim, T. K., D. B. Reisenfeld, E. J. Zirnstein, P. H. Janzen, A. S. Merrill, S. J. Noh, N. K. Walia, Y. Chen, F. Guo, D. Osthus, L. J. Beesley, D.-K. Shin, J. M. Sokół, M. Bzowski, M. A. Kubiak, C. Porowski, and H. O. Funsten (2025), Spectral Properties of Globally Distributed ENA Fluxes across Diverse Regions of the Heliosphere, *Astrophys. J.*, **992**(1), 119, 10.3847/1538-4357/ae0183.

[239] Kitajima, R., M. Nowada, and R. Kamimura (2025), Dependence of the solar wind plasma density on moderate- and extremely high-geomagnetic activity elucidated by potential learning, *Progress in Earth and Planetary Science*, **12**(1), 80, 10.1186/s40645-025-00749-9.

[240] Kleimenova, N., L. Gromova, S. Gromov, and L. Malysheva (2025), Ground-based geomagnetic disturbances and Pi2 pulsations in the main phase of the superstorm on May 10, 2024, *Adv. Space Res.*, **76**(12), 7533–7545, 10.1016/j.asr.2025.04.025.

[241] Kleimenova, N. G., L. I. Gromova, S. V. Gromov, and L. M. Malysheva (2025), Planetary feature of the ionospheric current activity during 10–11 October 2024 extremely strong magnetic storm, *J. Atmos. Solar-Terr. Phys.*, **277**, 106631, 10.1016/j.jastp.2025.106631.

[242] Klein, K. G., and D. Verscharen (2025), The dielectric response of plasmas with arbitrary gyrotropic velocity distributions, *Physics of Plasmas*, **32**(9), 092104, 10.1063/5.0286477.

[243] Klimov, P., V. Nikolaeva, K. Shchelkanov, R. Saraev, K. Sigaeva, A. Kotikov, A. Belov, B. Kozelov, A. Murashov, and A. Roldugin (2025), Optical measurements of precipitating relativistic electron microbursts during geomagnetic disturbance and pulsating aurora, *Adv. Space Res.*, **75**(3), 3210–3219, 10.1016/j.asr.2024.11.035.

[244] Klingenstein, L., N. Grimmich, Y. Y. Shprits, A. Pöppelwerth, and F. Plaschke (2025), Parameterization of the subsolar standoff distance of Earth's magnetopause based on results from machine learning, *Ann. Geophys.*, **43**(2), 835–854, 10.5194/angeo-43-835-2025.

[245] Klowss, J. J., and D. H. Mackay (2025), Investigating the Possible Contribution of Helicity Condensation to the Ambient Increase in Solar Open Flux, *Astrophys. J.*, **987**(1), 32, 10.3847/1538-4357/add533.

[246] Koban, G., J. Szente, B. van der Holst, G. Toth, and E. Landi (2025), Validation of Long-term Solar Coronal Modeling Using FORWARD, *Astrophys. J. Suppl.*, **280**(2), 51, 10.3847/1538-4365/adf63f.

[247] Koikkalainen, V., E. Kilpua, S. Good, and A. Osmane (2025), Exploring complexity measures for analysis of solar wind structures and streams, *Nonlinear Processes in Geophysics*, **32**(3), 309–327, 10.5194/npg-32-309-2025.

[248] Koller, F., C. S. Wedlund, M. Temmer, I. Svenningsson, L. Preisser, A. Pöppelwerth, P. A. Simon, Z. Vörös, C. H. K. Chen, O. W. Roberts, and F. Plaschke (2025), Stability of the Earth's Dayside Magnetosheath: Effects of Upstream Solar Wind Structures and Downstream Jets, *J. Geophys. Res.*, **130**(9), e2025JA034098, 10.1029/2025JA034098.

[249] Kontar, E. P., A. G. Emslie, D. L. Clarkson, and A. Pitňa (2025), Ion-scale Turbulence and Energy Cascade Rate in the Solar Corona and Inner Heliosphere, *Astrophys. J. Lett.*, **991**(2), L57, 10.3847/2041-8213/ae09b0.

[250] Koukras, A., L. Dolla, and R. Keppens (2025), Estimating uncertainties in the back-mapping of the fast solar wind, *Astron. & Astrophys.*, **694**, A134, 10.1051/0004-6361/202244327.

[251] Koutroumpa, D., K. D. Kuntz, J. A. Carter, J. Raines, S. T. Lepri, and L. Zhao (2025), Empirical Functions for Highly Charged Ion Abundances in Solar Wind Charge Exchange Models: Addressing Post-2011 ACE Data Limitations, *Geophys. Res. Lett.*, **52**(8), e2024GL114374, 10.1029/2024GL114374.

[252] Krämer, E., M. Hamrin, H. Gunell, L. Baddeley, N. Partamies, S. Raptis, K. Herlingshaw, and A. Schillings (2025), Magnetosheath Jet-Triggered ULF Waves: Energy Deposition in the Ionosphere, *J. Geophys. Res.*, **130**(4), e2025JA033792, 10.1029/2025JA033792.

[253] Krämer, E., F. Koller, J. Suni, A. T. LaMoury, A. Pöppelwerth, G. Glebe, T. Mohammed-Amin, S. Raptis, L. Vuorinen, S. Weiss, N. Xirogiannopoulou, M. Archer, X. Blanco-Cano, H. Gunell, H. Hietala, T. Karlsson, F. Plaschke, L. Preisser, O. Roberts, C. Simon Wedlund, M. Temmer, and Z. Vörös (2025), Jets Downstream of Collisionless Shocks: Recent Discoveries and Challenges, *Space Sci. Rev.*, **221**(1), 4, 10.1007/s11214-024-01129-3.

[254] Krishnan, L. G., K. Shiokawa, T. K. Pant, G. Lu, P. R. Shreedevi, Y. Otsuka, and S. Sunda (2025), Responses of the Daytime Low and Equatorial Ionosphere and Thermosphere Over the Indian Region During the Geomagnetic Storm of April 2023, *J. Geophys. Res.*, **130**(3), 2024JA033,141, 10.1029/2024JA033141.

[255] Krupar, V., E. P. Kontar, J. Soucek, L. B. Wilson, A. Szabo, O. Kruparova, H. A. S. Reid, M. Hajos, D. Pisa, O. Santolik, M. Maksimovic, and J. S. Pickett (2025), First

Detection of Low-frequency Striae in Interplanetary Type III Radio Bursts, *Astrophys. J. Lett.*, **985**(2), L27, 10.3847/2041-8213/add688.

[256] Kruparova, O., A. Szabo, L. K. Jian, F. Němec, J. Šafránková, Z. Němeček, J. Pasanen, A. Narock, and V. Krupar (2025), Radial Evolution of Interplanetary Shock Properties with Heliospheric Distance: Observations from Parker Solar Probe, *Astrophys. J. Lett.*, **979**(1), L10, 10.3847/2041-8213/ada558.

[257] Kryakunova, O., B. Seifullina, M. Abunina, N. Shlyk, A. Abunin, N. Nikolayevskiy, and I. Tsepakina (2025), Forbush Effects Associated with Disappeared Solar Filaments, *Atmos.*, **16**(6), 735, 10.3390/atmos16060735.

[258] Kryakunova, O. N., B. B. Seifullina, I. L. Tsepakina, N. S. Shlyk, A. A. Abunin, M. A. Abunina, A. V. Belov, and N. F. Nikolayevskiy (2025), On solar sources of interplanetary disturbances leading to high-energy magnetospheric electron enhancements in geostationary orbit, *Mon. Not. Roy. Astron. Soc.*, **541**(2), 911–918, 10.1093/mnras/staf850.

[259] Kumar, A., B. P. Gompertz, B. Schneider, S. Belkin, M. E. Wortley, A. Saccardi, D. O'Neill, K. Ackley, B. Rayson, A. d. U. Postigo, A. Gulati, D. Steeghs, D. B. Malesani, J. R. Maund, M. J. Dyer, S. Giarratana, M. Serino, Y. Julakanti, B. Kumar, D. Xu, R. A. J. Eyles-Ferris, Z.-P. Zhu, B. Warwick, Y.-D. Hu, I. Allen, G. Ramsay, R. L. C. Starling, J. Lyman, K. Ulaczyk, B. Godson, D. K. Galloway, V. S. Dhillon, P. O'Brien, K. Noysena, R. Kotak, R. P. Breton, L. K. Nuttall, D. Pollacco, J. Casares, T. L. Killestein, M. R. Kennedy, N. Habeeb, S. Moran, K. Wiersema, I. Worssam, D. L. Coppejans, C. A. Phillips, A. Martin-Carrillo, N. S. Pankov, J. F. Agüí Fernández, M. A. Aloy, J. An, G. E. Anderson, A. Bochenek, A. J. Castro-Tirado, X. Chen, L. Cotter, R. Dastidar, M. De Pasquale, V. D'Elia, Y. Fang, S. Y. Fu, J. P. U. Fynbo, D. H. Hartmann, L. B. He, L. Izzo, S. Q. Jiang, Y. Kawakubo, E. V. Klunko, A. J. Levan, X.-W. Liu, X. Liu, G. Lombardi, E. Maiorano, J. T. Palmerio, D. A. Perley, D. L. A. Pieterse, A. S. Pozanenko, G. Pugliese, A. Rossi, B. Sbarufatti, S. B. Seshashayana, N. R. Tanvir, C. C. Thöne, A. J. van der Horst, S. D. Vergani, A. A. Volnova, R. A. M. J. Wijers, and J. L. Wise (2025), Discovery and analysis of afterglows from poorly localized GRBs with the Gravitational-wave Optical Transient Observer (GOTO) All-sky Survey, *Mon. Not. Roy. Astron. Soc.*, **544**(2), 1541–1587, 10.1093/mnras/staf1689.

[260] Kumar, P., J. T. Karpen, and J. T. Dahlin (2025), X-Ray/Radio Quasiperiodic Pulsations Associated with Plasmoids in Solar Flare Current Sheets, *Astrophys. J.*, **980**(2), 158, 10.3847/1538-4357/ada293.

[261] Kumar, P., J. T. Karpen, P. K. Manoharan, and N. Gopalswamy (2025), Imaging and Radio Signatures of Shock–Plasmoid Interaction, *Astrophys. J. Lett.*, **991**(1), L3, 10.3847/2041-8213/ae0009.

[262] Kumar, P., J. T. Karpen, P. F. Wyper, D. Lario, S. K. Antiochos, and C. R. DeVore (2025), Solar Eruption Onset and Particle Acceleration in Nested-null Topologies, *Astrophys. J.*, **994**(2), 180, 10.3847/1538-4357/ae0e65.

[263] Kumar, P., M. Pal, and S. Singh (2025), Analysis of intense geomagnetic storm on 24 April 2023 with interplanetary parameters, *J. Atmos. Solar-Terr. Phys.*, **269**, 106481, 10.1016/j.jastp.2025.106481.

[264] Kumar, P., B. Bapat, M. S. Shah, H. L. Adalja, A. R. Patel, P. R. Adhyaru, M. Shanmugam, D. Chakrabarty, S. B. Banerjee, K. P. Subramanian, A. Sarkar, T. Ladiya, J. Sebastian, A. Kumar, S. Kumar, N. Singh, M. B. Dadhania, S. V. Vadawale, S. K. Goyal, N. K. Tiwari, A. Sarda, D. K. Painkra, P. Sharma, A. J. Verma, Yogesh, P. Janardhan, and A. Bhardwaj (2025), Aditya Solar Wind Particle Experiment (ASPEX) on Board Aditya–L1: The Solar Wind Ion Spectrometer (SWIS), *Solar Phys.*, **300**(4), 37, 10.1007/s11207-025-02443-x.

[265] Kumar, S., and M. B. Moldwin (2025), Magnetic Field Dynamics in MAAX Satellite's Circular Polar Orbit: A Magnetic Model Comparison, *J. Geophys. Res.*, **130**(7), e2025JA033975, 10.1029/2025JA033975.

[266] Kumar, S., and T. I. Pulkkinen (2025), Statistical Analysis Of Magnetopause Response During Substorm Phases, *Ann. Geophys.*, **43**, 137–149, 10.5194/angeo-43-137-2025.

[267] Kumbhar, K., A. Raghav, Z. Shaikh, O. Dhamane, K. Ghag, P. Choudhari, and S. Kolekar (2025), Kinetic instabilities constraining proton temperature anisotropy in corotating interaction regions at 1 AU, *Adv. Space Res.*, **76**(2), 1060–1067, 10.1016/j.asr.2025.05.007.

[268] Kunduri, B. S. R., J. B. H. Baker, J. M. Ruohoniemi, J. P. St. Maurice, Y. Nishimura, P. J. Erickson, J. C. Foster, S. E. Milan, K. T. Sterne, and E. G. Thomas (2025), Unusual SuperDARN Backscatter During the 11 May 2024 Geomagnetic Storm, *Space Weather*, **23**(12), e2025SW004701, 10.1029/2025SW004701.

[269] Laitinen, J., L. Holappa, H. Vanhamäki, and S. E. Milan (2025), Timescales of Asymmetries in Magnetospheric Dynamics Induced by the IMF By Component, *J. Geophys. Res.*, **130**(12), e2025JA034401, 10.1029/2025JA034401.

[270] Lakshmi, V. K. Soni, and A. Kumar (2025), Digisonde based inter-analysis of ionospheric TEC during the major solar eclipse of 8 April 2024 over North/South American sites, *Adv. Space Res.*, **76**(7), 3893–3913, 10.1016/j.asr.2024.12.040.

[271] Lalti, A., Y. V. Khotyaintsev, D. B. Graham, and A. Vaivads (2025), Debye-Scale Electrostatic Waves Across Quasi-Perpendicular Shocks, *J. Geophys. Res.*, **130**(7), e2025JA033881, 10.1029/2025JA033881.

[272] Lamb, G. P., T. Baxter, C. M. B. Omand, Dimple, Z. McGrath, C. Turnbull, E. Burns, H. Hamidani, I. Mandel, K. L. Page, S. Rosswog, N. Sarin, A. Blain, L. Datrier, S. Kobayashi, A. Levan, R. Starling, B. Gompertz, N. Habeeb, K. Nguyen, and N. Tanvir (2025), Prompt periodicity in the GRB 211211A precursor: black-hole or magnetar engine?, *Mon. Not. Roy. Astron. Soc.*, **540**(3), 2727–2744, 10.1093/mnras/staf892.

[273] Lanabere, V., A. P. Dimmock, L. Richard, S. Buchert, Y. V. Khotyaintsev, and O. Marghitu (2025), Variability in footpoint mapping of bursty bulk flows using Tsyganenko models: impact on swarm conjunctions, *J. Space Weather Space Clim.*, **15**, 41, 10.1051/swsc/2025035.

[274] Lapenta, G., J. Berchem, M. El-Alaoui, R. Walker, H. Aravindakshan, N. Reisinger, F. Pucci, G. Arrò, and F. Bacchini (2025), A Lagrangian-frame technique for investigating plasma turbulence in complex underlying system-scale structures, *Fundamental Plasma Physics*, **15**, 100099, 10.1016/j.fpp.2025.100099.

[275] Lario, D., I. G. Richardson, A. Aran, and N. Wijsen (2025), VizieR Online Data Catalog: ¿40MeV proton intensities from 43yr near Earth obs. (Lario+, 2023), VizieR On-line Data Catalog: J/ApJ/950/89. Originally published in: 2023ApJ...950...89L.

[276] Lee, C. H., J. Seon, W. H. Seol, K. H. Kim, D. E. Larson, G. K. Parks, H. U. Auster, W. Magnes, S. Kraft, D. Y. Lee, A. Boudouridis, P. T. M. Loto'aniu, and J. V. Rodriguez (2025), Electron Phase Space Densities in Geostationary Orbits as Measured With GK2A, GOES-16, and GOES-17 Satellites, *J. Geophys. Res.*, **130**(4), e2024JA033161, 10.1029/2024JA033161.

[277] Lee, W., G. Liu, D. L. Wu, and D. E. Rowland (2025), Ionospheric Response to the 10 May 2024 Geomagnetic Storm as Observed in GNSS Radio Occultation Electron Density, *J. Geophys. Res.*, **130**(3), 2024JA033,489, 10.1029/2024JA033489.

[278] Levan, A. J., A. Martin-Carrillo, T. Laskar, R. A. J. Eyles-Ferris, A. Sneppen, M. E. Ravasio, J. C. Rastinejad, J. S. Bright, F. Carotenuto, A. A. Chrimes, G. Corcoran, B. P. Gompertz, P. G. Jonker, G. P. Lamb, D. B. Malesani, A. Saccardi, J. Sánchez-Sierras, B. Schneider, S. Schulze, N. R. Tanvir, S. D. Vergani, D. Watson, J. An, F. E. Bauer, S. Campana, L. Cotter, J. N. D. van Dalen, V. D'Elia, M. De Pasquale, A. de Ugarte Postigo, Dimple, D. H. Hartmann, J. Hjorth, L. Izzo, P. Jakobsson, A. Kumar, A. Melandri, P. O'Brien, S. Piranomonte, G. Pugliese, J. Quirola-Vásquez, R. Starling, G. Tagliaferri, D. Xu, and M. E. Wortley (2025), The Day-long, Repeating GRB 250702B: A Unique Extragalactic Transient, *Astrophys. J. Lett.*, **990**(1), L28, 10.3847/2041-8213/adf8e1.

[279] Levan, A. J., P. G. Jonker, A. Saccardi, D. B. Malesani, N. R. Tanvir, L. Izzo, K. E. Heintz, D. Mata Sánchez, J. Quirola-Vásquez, M. A. P. Torres, S. D. Vergani, S. Schulze, A. Rossi, P. D'Avanzo, B. P. Gompertz, A. Martin-Carrillo, A. de Ugarte Postigo, B. Schneider, W. Yuan, Z. Ling, W. Zhang, X. Mao, Y. Liu, H. Sun, D. Xu, Z. Zhu, J. F. Agüí Fernández, L. Amati, F. E. Bauer, S. Campana, F. Carotenuto, A. Chrimes, J. N. D. van Dalen, V. D'Elia, M. Della Valle, M. De Pasquale, V. S. Dhillon, L. Galbany, N. Gaspari, G. Gianfagna, A. Gomboc, N. Habeeb, D. Hartmann, A. P. C. van Hoof, Y. Hu, P. Jakobsson, Y. Julakanti, J. Korth, C. Kouveliotou, T. Laskar, S. P. Littlefair, E. Maiorano, J. Mao, A. Melandri, M. C. Miller, T. Mukherjee, S. R. Oates, P. O'Brien, J. T. Palmerio, H. Parviainen, D. L. A. Pieterse, S. Piranomonte, L. Piro, G. Pugliese, M. E. Ravasio, B. Rayson, R. Salvaterra, R. Sánchez-Ramírez, N. Sarin, S. P. R. Shilling, R. L. C. Starling, G. Tagliaferri, A. L. Thakur, C. C. Thöne, K. Wiersema, I. Worssam, and T. Zafar

(2025), Fast X-ray transient EP240315A from a Lyman-continuum-leaking galaxy at z ≈ 5, *Nature Astron.*, **9**, 1375–1386, 10.1038/s41550-025-02612-9.

[280] Li, C., Z. Shen, M. Zhang, and X. Feng (2025), Application of a Low-dissipation HLLD Approximate Riemann Solver to Solar Wind Simulations, *Astrophys. J.*, **986**(1), 89, 10.3847/1538-4357/add018.

[281] Li, C. Y., Y. Wang, F. S. Wei, X. S. Feng, Z. K. Xu, Y. X. Lu, B. Y. Wang, P. B. Zuo, C. W. Jiang, X. J. Xu, and Z. L. Zhou (2025), Review of recent observations of magnetic holes in the solar wind, *Discover Space*, **129**(1), 10, 10.1007/s11038-025-09571-1.

[282] Li, D. (2025), Localizing short-period pulsations in hard X-rays and γ-rays during an X9.0 flare, *Astron. & Astrophys.*, **695**, L4, 10.1051/0004-6361/202453613.

[283] Li, D. (2025), Detecting fast-variation pulsations in solar hard X-ray and radio emissions, *Mon. Not. Roy. Astron. Soc.*, **542**(1), L48–L52, 10.1093/mnrasl/slaf066.

[284] Li, G., S. Fu, X. C. Guo, J. Tacza, T. Chen, and J. W. Yue (2025), Magnetopause Location and Solar Wind Turbulence Level During FDs and Their Impacts on the Global Electric Circuit, *Space Weather*, **23**(6), e2025SW004453, 10.1029/2025SW004453.

[285] Li, H., F. Dai, C. Wang, W. Jiang, and H. Li (2025), Contribution of Alfvénic Waves on the Formation and Deflection of Switchbacks: Insights from Two Decades of WIND Spacecraft Data, *Astrophys. J. Lett.*, **984**(1), L4, 10.3847/2041-8213/adc9a9.

[286] Li, H., X. Liu, and C. Wang (2025), Enhanced Spacecraft Charging Risks by Interplanetary Alfvén Waves During Geomagnetic Storms, *Space Weather*, **23**(9), e2024SW004216, 10.1029/2024SW004216.

[287] Li, J., G. Ma, J. Fan, Q. Wan, T. Maruyama, J. Zhang, C.-K. Chao, L. Dong, D. Wang, Y. Gao, and L. Zhang (2025), The Characteristics and Possible Mechanisms of the Strongest Ionospheric Irregularities in March 2024, *Atmos.*, **16**(2), 218, 10.3390/atmos16020218.

[288] Li, J., X.-C. Shen, W. Li, and Q. Ma (2025), Global Survey of Whistler Mode Waves in the Earth's Magnetosheath Using THEMIS Observations, *Geophys. Res. Lett.*, **52**(24), e2025GL120404, 10.1029/2025GL120404.

[289] Li, J., H. Chen, J. Wang, Y. Chen, B. Luo, and H. Deng (2025), A Novel Convolutional Neural Network–Long Short-term Memory Model for Interplanetary Coronal Mass Ejection Detection, *Astrophys. J. Suppl.*, **279**(1), 24, 10.3847/1538-4365/adde54.

[290] Li, M. L., A. Y. Q. Ho, G. Ryan, D. A. Perley, G. P. Lamb, A. J. Nayana, I. Andreoni, G. C. Anupama, E. C. Bellm, E. Berger, J. S. Bloom, E. Burns, I. Caiazzo, P. Chandra, M. W. Coughlin, K. El-Badry, M. J. Graham, M. Kasliwal, G. K. Keating, S. R. Kulkarni, H. Kumar, F. J. Masci, R. A. Perley, J. Purdum, R. Rao, A. C. Rodriguez, B. Rusholme, N. Sarin, J. Sollerman, G. P. Srinivasaragavan, V. Swain, and Z. Vanderbosch (2025), The Nature of Optical Afterglows without Gamma-Ray Bursts: Identification of AT2023lcr and Multiwavelength Modeling, *Astrophys. J.*, **985**(1), 124, 10.3847/1538-4357/adc800.

[291] Li, Q.-M., Q.-B. Sun, S.-B. Qian, and F.-X. Li (2025), Detection of Low-redshift Excess in Supernova-linked Gamma-Ray Bursts, *Astrophys. J. Lett.*, **990**(2), L54, 10.3847/2041-8213/adf20e.

[292] Li, W., L. Wang, W. Wang, Y. Su, S. Krucker, and G. M. Mason (2025), Solar energetic electron events with a spectral bump break, *Astron. & Astrophys.*, **699**, A2, 10.1051/0004-6361/202453398.

[293] Li, X., X. Wang, Y. Lin, C.-P. Wang, S. Wing, G. Cucho-Padin, and H. Chen (2025), Dayside Reconnection and Associated Cusp Structure in Response to Solar Wind Rotational Discontinuity (RD) in ANGIE3D Simulation, *J. Geophys. Res.*, **130**(9), e2025JA033811, 10.1029/2025JA033811.

[294] Li, Y., H. Zhang, F. Xu, Q. Ding, and L. Tang (2025), Super Equatorial Plasma Bubbles Observed Over South America During the October 10 and 11, 2024 Strong Geomagnetic Storm, *IEEE Geoscience and Remote Sensing Letters*, **22**, LGRS.2025, 10.1109/LGRS.2025.3603418.

[295] Li, Y.-X., C. Yue, J. Liu, Z. Hu, Q. Zong, X. Zhou, S. Wang, Y. Sun, Y. Liu, H. Zou, Y. Wang, and Y. Ye (2025), The Characteristics of Energetic Electron Precipitation Based on Low Altitude FY-3E Satellite Measurements, *Geophys. Res. Lett.*, **52**(14), e2025GL117526, 10.1029/2025GL117526.

[296] Li, Z., Y. Su, W. Liu, W. Chen, F. Yu, and W. Gan (2025), Spectral Cross-Calibrations of ASO-S/HXI with Other X-ray Missions, *Solar Phys.*, **300**(5), 56, 10.1007/s11207-025-02465-5.

[297] Liang, H., L.-J. Chen, S. A. Fuselier, R. G. Gomez, B. Burkholder, N. Bessho, H. Gurram, R. C. Rice, J. Shuster, and A. S. Ardakani (2025), Observation of O+ Characteristics During the Terrestrial Alfvén Wing State Induced by the April 2023 Coronal Mass Ejection, *J. Geophys. Res.*, **130**(4), e2025JA033915, 10.1029/2025JA033915.

[298] Liang, J., J. Xu, Y. Zhang, S. R. Zhang, K. Wu, W. Yuan, Y. Zhu, G. Li, and X. Liu (2025), Evolution of the Mid Latitude Red Aurora Over Northern China During the 5 November 2023 Geomagnetic Storm, *J. Geophys. Res.*, **130**(10), e2024JA032729, 10.1029/2024JA032729.

[299] Lin, Y., H. Fang, D. Duan, H. Huang, C. Xiao, G. Ren, C. Li, and C. Zhou (2025), Enhancing Deep Learning Ionospheric Modeling With Solar Radiation and Flare Classes, *J. Geophys. Res.*, **130**(2), 2024JA033,319, 10.1029/2024JA033319.

[300] Lindberg, M., A. Wallner, S. Berglund, and A. Vaivads (2025), Statistical Study of Electron Kinetic Entropy Generation at Earth's Quasi-Perpendicular Bow Shock, *J. Geophys. Res.*, **130**(1), 2024JA033,049, 10.1029/2024JA033049.

[301] Lindberg, M., H. Hietala, K. Shirazul, D. Trotta, A. H. Sulaiman, B. L. Burkholder, and A. Dimmock (2025), Statistical Study of Magnetic Overshoots at Collisionless Shocks, *J. Geophys. Res.*, **130**(5), e2024JA033659, 10.1029/2024JA033659.

[302] Lindberg, M., X. Shi, H. Hietala, L. Vuorinen, S. Raptis, F. Koller, and A. Lalti (2025), Fermi Acceleration of Electrons at Earth's Bow Shock Due To Current Sheet Interaction, *J. Geophys. Res.*, **130**(9), e2025JA034314, 10.1029/2025JA034314.

[303] Lipsanen, V., L. Turc, S. Hoilijoki, D. M. Oliveira, S. Dahani, S. Tao, M. Kalliokoski, M. Ojuva, and E. K. J. Kilpua (2025), Local Time Dependence of High Latitude Pc5 Wave Activity Driven by Interplanetary Shocks and Foreshock Transients, Using a New ULF Index, *J. Geophys. Res.*, **130**(10), e2025JA034378, 10.1029/2025JA034378.

[304] Liu, H.-J., T.-L. Chen, Y.-Q. Guo, Z.-H. Zhang, Y.-H. Yao, C. Liu, Q.-Y. Hou, Q.-Q. Zhou, M.-Y. Liu, Q. Gao, X.-L. Qian, J.-D. Xie, S.-J. Shu, Y.-Q. Liu, W.-Q. Han, S.-H. Zhang, Y.-N. Wang, Q.-J. Fang, Z.-Q. Zhu, B.-Z. Liu, and Y.-L. Feng (2025), Simulation Study of Optical Band Radiation during the Afterglow Phase of Gamma-Ray Bursts Based on the HADAR Experiment, *Astrophys. J.*, **985**(2), 155, 10.3847/1538-4357/adcf99.

[305] Liu, J., R. Rankin, A. W. Degeling, and F. Fenrich (2025), Analytical Model of a Toroidal Mode Field Line Resonance and Its Drift-Resonant Interaction With Energetic Electrons, *J. Geophys. Res.*, **130**(12), e2025JA034496, 10.1029/2025JA034496.

[306] Liu, J., Y. Jin, X. Chen, Z. Wang, F. He, Z. Hu, A. S. Yukimatu, W. Bristow, H. Hu, and B. Zhang (2025), The Propagation and Evolution of Polar Cap Patches During Auroral Substorm Activity, *J. Geophys. Res.*, **130**(5), e2025JA033814, 10.1029/2025JA033814.

[307] Liu, J., F. He, X. Chen, B. Li, L. Zheng, X. Zhao, Z. Zhu, Z. Hu, D. Huang, and H. Hu (2025), Auroral Ionosphere Responses to Solar Wind Perturbations: A Case Study Utilizing the Polar Regions Monitoring Subsystem of the Chinese Meridian Project, *Space Weather*, **23**(11), e2025SW004601, 10.1029/2025SW004601.

[308] Liu, T. C., T. Pitkänen, S. Nilsson, A. Kullen, J.-S. Park, M. Hamrin, W. S. Shang, H. Z. Wang, and S. T. Yao (2025), IMF B_y influence on fast earthward convection flows in the near-lunar magnetotail, *Geoscience Letters*, **12**(1), 6, 10.1186/s40562-025-00379-5.

[309] Liu, W., I. V. Sokolov, L. Zhao, T. I. Gombosi, N. Sachdeva, X. Chen, G. Tóth, D. Lario, W. B. Manchester, K. Whitman, C. M. S. Cohen, A. Bruno, M. L. Mays, and H. M. Bain (2025), Physics-based Simulation of the 2013 April 11 Solar Energetic Particle Event, *Astrophys. J.*, **985**(1), 82, 10.3847/1538-4357/adc4e3.

[310] Liu, Y., H. Sun, D. Xu, D. S. Svinkin, J. Delaunay, N. R. Tanvir, H. Gao, C. Zhang, Y. Chen, X.-F. Wu, B. Zhang, W. Yuan, J. An, G. Bruni, D. D. Frederiks, G. Ghirlanda, J.-W. Hu, A. Li, C.-K. Li, J.-D. Li, D. B. Malesani, L. Piro, G. Raman, R. Ricci, E. Troja, S. D. Vergani, Q.-Y. Wu, J. Yang, B.-B. Zhang, Z.-P. Zhu, A. de Ugarte Postigo, A. G. Demin, D. Dobie, Z. Fan, S.-Y. Fu, J. P. U. Fynbo, J.-J. Geng, G. Gianfagna, Y.-D. Hu, Y.-F. Huang, S.-Q. Jiang, P. G. Jonker, Y. Julakanti, J. A. Kennea, A. A. Kokomov, E. Kuulkers, W.-H. Lei, J. K. Leung, A. J. Levan, D.-Y. Li, Y. Li, S. P. Littlefair, X. Liu, A. L. Lysenko, Y.-N. Ma, A. Martin-Carrillo, P. O'Brien, T. Parsotan, J. Quirola-Vásquez, A. V. Ridnaia, S. Ronchini, A. Rossi, D. Mata-Sánchez, B. Schneider, R.-F. Shen, A. L.

Thakur, A. Tohuvavohu, M. A. P. Torres, A. E. Tsvetkova, M. V. Ulanov, J.-J. Wei, D. Xiao, Y.-H. I. Yin, M. Bai, V. Burwitz, Z.-M. Cai, F.-S. Chen, H.-L. Chen, T.-X. Chen, W. Chen, Y.-F. Chen, Y.-H. Chen, H.-Q. Cheng, B. Cordier, C.-Z. Cui, W.-W. Cui, Y.-F. Dai, Z.-G. Dai, J. Eder, R. A. J. Eyles-Ferris, D.-W. Fan, C. Feldman, H. Feng, Z. Feng, P. Friedrich, X. Gao, J.-F. Gonzalez, J. Guan, D.-W. Han, J. Han, D.-J. Hou, H.-B. Hu, T. Hu, M.-H. Huang, J. Huo, I. Hutchinson, Z. Ji, S.-M. Jia, Z.-Q. Jia, B.-W. Jiang, C.-C. Jin, G. Jin, J.-J. Jin, A. Keereman, H. Lerman, J.-F. Li, L.-H. Li, M.-S. Li, W. Li, Z.-D. Li, T.-Y. Lian, E.-W. Liang, Z.-X. Ling, C.-Z. Liu, H.-Y. Liu, H.-Q. Liu, M.-J. Liu, Y.-R. Liu, F.-J. Lu, H.-J. Lü, L.-D. Luo, F. L. Ma, J. Ma, J.-R. Mao, X. Mao, M. McHugh, N. Meidinger, K. Nandra, J. P. Osborne, H.-W. Pan, X. Pan, M. E. Ravasio, A. Rau, N. Rea, U. Rehman, J. Sanders, A. Santovincenzo, L.-M. Song, J. Su, L.-J. Sun, S.-L. Sun, X.-J. Sun, Y.-Y. Tan, Q.-J. Tang, Y.-H. Tao, J.-Z. Tong, C.-Y. Wang, H. Wang, J. Wang, L. Wang, W.-X. Wang, X.-F. Wang, X.-Y. Wang, Y.-L. Wang, Y.-S. Wang, D.-M. Wei, R. Willingale, S.-L. Xiong, H.-T. Xu, J.-J. Xu, X.-P. Xu, Y.-F. Xu, Z. Xu, C.-B. Xue, Y.-L. Xue, A.-L. Yan, F. Yang, H.-N. Yang, X.-T. Yang, Y.-J. Yang, Y.-W. Yu, J. Zhang, M. Zhang, S.-N. Zhang, W.-D. Zhang, W.-J. Zhang, Y.-H. Zhang, Z. Zhang, Z. Zhang, Z.-L. Zhang, D.-H. Zhao, H.-S. Zhao, X.-F. Zhao, Z.-J. Zhao, L.-X. Zhou, Y.-L. Zhou, Y.-X. Zhu, Z.-C. Zhu, and X.-X. Zuo (2025), Soft X-ray prompt emission from the high-redshift gamma-ray burst EP240315a, *Nature Astron.*, **9**, 564–576, 10.1038/s41550-024-02449-8.

[311] Livadiotis, G., and D. J. McComas (2025), What Defines Stationarity in Space Plasmas, *Astrophys. J.*, **982**(2), 169, 10.3847/1538-4357/adb8d2.

[312] Livadiotis, G., and D. J. McComas (2025), Stability of Adiabatic Processes and Evolution of Pickup Ion Dimensionality, *Astrophys. J.*, **995**(1), 49, 10.3847/1538-4357/ae1d56.

[313] Lkhagvadorj, M., G. Facskó, A. Opitz, P. Kovács, and D. G. Sibeck (2025), Propagation of Interplanetary Shocks in the Inner Heliosphere, *Astrophys. J.*, **980**(1), 137, 10.3847/1538-4357/ad9d12.

[314] Lockwood, M., M. J. Owens, W. Brown, and M. Vázquez (2025), The 2024 May event in the context of auroral activity over the past 375 yr, *Mon. Not. Roy. Astron. Soc.*, **540**(4), 3596–3624, 10.1093/mnras/staf827.

[315] Lodkina, I. G., Y. I. Yermolaev, and A. A. Khokhlachev (2025), Catalogs of Solar Wind Types and Their Role in Solar–Terrestrial Physics, *Cosmic Res.*, **63**(2), 115–131, 10.1134/S0010952524600215.

[316] Lomidze, L., J. K. Burchill, and D. J. Knudsen (2025), Artificial Neural Network Model of High-Latitude Ionospheric Electric Potential: Hemispheric and Equinoctial Asymmetries, *Earth Space Sci.*, **12**(10), e2025EA004331, 10.1029/2025EA00433110.22541/essoar.174164123.34596718/v1.

[317] Loyd, R. O. P., E. L. Shkolnik, J. Lazio, G. W. Hallinan, J. Alvarado-Gómez, L. Amaral, I. Davis, A. Farrish, J. Green, D. Brain, B. Chen, C. Cohen, S. Curry, K. Dissauer,

A. Egan, N. Gopalswamy, G. Gronoff, S. Habbal, R. Hu, M. Jin, J. P. Mason, R. Murray-Clay, K. Namekata, R. Osten, A. Segura, A. Veronig, A. Vidotto, M. Wilson, and Y. Xu (2025), The Exospace Weather Frontier, Report prepared for the W. M. Keck Institute for Space Studies (KISS), California Institute of Technology, by R.O.P. Loyd et al, 2025., 10.26206/gmhk5-amp17.

[318] Lugaz, N., N. Al-Haddad, B. Zhuang, C. Möstl, E. E. Davies, C. J. Farrugia, S. A. Banu, E. Weiler, and A. B. Galvin (2025), The Need for a Sub-L1 Space Weather Research Mission: Current Knowledge Gaps on Coronal Mass Ejections, *Space Weather*, **23**(2), 2024SW004,189, 10.1029/2024SW004189.

[319] Lyons, L. R., Y. Nishimura, J. Liu, S. Yadav, Y. Zou, W. A. Bristow, E. Donovan, N. Nishitani, K. Shiokawa, and K. Hosokawa (2025), Strong Substorm Development From Polar Cap Arc Laydown Along the Auroral Poleward Boundary, *J. Geophys. Res.*, **130**(10), e2025JA034161, 10.1029/2025JA034161.

[320] Lyons, L. R., S. Yadav, H.-J. Kim, S. Tian, J. Liu, Y. Nishimura, Y. Zou, V. Angelopoulos, and E. F. Donovan (2025), Connection of Equatorward-Extending Auroral Streamers and Their Ground Magnetic Depressions to Radiation Belt Injections, *J. Geophys. Res.*, **130**(11), e2025JA034480, 10.1029/2025JA034480.

[321] Lysenko, A. L., D. S. Svinkin, D. D. Frederiks, A. V. Ridnaia, A. E. Tsvetkova, and M. V. Ulanov (2025), The third Konus-Wind catalogue of short gamma-ray bursts, *Publ. Astron. Soc. Australia*, **42**, e063, 10.1017/pasa.2025.10027.

[322] Ma, B., L. Chen, D. Wu, Z. Ning, M. Pulupa, and S. D. Bale (2025), Type IV-like Solar Radio Burst Consisting of a Series of Short-time Bursts Observed by PSP, *Astrophys. J.*, **979**(1), 22, 10.3847/1538-4357/ad9b7e.

[323] Ma, C., H. Fu, M. S. Madjarska, Z. Huang, H. Xie, and L. Xia (2025), The Temperature and First Ionization Potential Bias of Active Regions and Their Relations to In Situ Solar Wind, *Astrophys. J.*, **984**(1), 38, 10.3847/1538-4357/adc1b8.

[324] Ma, L., Y. Ji, C. Shen, G. Zeng, P. E, Y. Yang, S. Ti, and N. Ahmad (2025), Predicting the SYM-H Index Using the Ring Current Energy Balance Mechanism, *Space Weather*, **23**(3), 2024SW004,160, 10.1029/2024SW004160.

[325] Ma, X., L. Yang, X. Feng, H. Tian, H. Wu, F. Shen, W. Zhang, M. Ma, X. Zhang, and Z. Wang (2025), Backmapping of the High- and Low-latitude Solar Wind under Multiple Heliospheric and Coronal Magnetic Field Configurations, *Astrophys. J.*, **994**(2), 160, 10.3847/1538-4357/ae0f1e.

[326] Madanian, H., D. B. Graham, and A. Lalti (2025), Properties of Earth's bow shock at large geocentric distances: A case study, *Planet. Space Sci.*, **269**, 106214, 10.1016/j.pss.2025.106214.

[327] Majirský, A., Š. Mackovjak, S. Kostárová, E. Magli, P. Butka, and N. Longépé (2025), Combining Solar Imagery and In Situ Data for Prediction of Geomagnetic Storms, *Astrophys. J.*, **995**(1), 50, 10.3847/1538-4357/ae1cc7.

[328] Majirský, A., Š. Mackovjak, S. Kostárová, and S. Amrich (2025), Extreme Space Weather Events of the Past 30 Years: Preparation for Data From Mission Vigil, *Earth Space Sci.*, **12**(2), 2024EA003,937, 10.1029/2024EA003937.

[329] Majumdar, S., M. A. Reiss, K. Muglach, and C. N. Arge (2025), What Causes Errors in Wang–Sheeley–Arge Solar Wind Modeling at L1?, *Astrophys. J.*, **988**(2), 239, 10.3847/1538-4357/ade3d5.

[330] Malesani, D. B., A. J. Levan, L. Izzo, A. de Ugarte Postigo, G. Ghirlanda, K. E. Heintz, D. A. Kann, G. P. Lamb, J. Palmerio, O. S. Salafia, R. Salvaterra, N. R. Tanvir, J. F. Agüí Fernández, S. Campana, A. A. Chrimes, P. D'Avanzo, V. D'Elia, M. Della Valle, M. De Pasquale, J. P. U. Fynbo, N. Gaspari, B. P. Gompertz, D. H. Hartmann, J. Hjorth, P. Jakobsson, E. Palazzi, E. Pian, G. Pugliese, M. E. Ravasio, A. Rossi, A. Saccardi, P. Schady, B. Schneider, J. Sollerman, R. L. C. Starling, C. C. Thöne, A. J. van der Horst, S. D. Vergani, D. Watson, K. Wiersema, D. Xu, T. Zafar, and S. Y. Zheng (2025), The brightest GRB ever detected: GRB 221009A as a highly luminous event at z = 0.151, *Astron. & Astrophys.*, **701**, A134, 10.1051/0004-6361/202346146.

[331] Manninen, J. T., H. Vanhamäki, A. T. Aikio, and J. Gjerloev (2025), Statistical Modeling and Prediction of Ionospheric Equivalent Currents Based on SuperMAG Data, *J. Geophys. Res.*, **130**(10), e2025JA034125, 10.1029/2025JA034125.

[332] Mao, D., C. Shen, Y. Chi, J. Liu, M. Xu, Z. Zhong, Z. Zhang, C. Wang, and Y. Wang (2025), Inferring the Magnetic Field Configuration of an ICME From the In Situ Observations at Different Points, *Astrophys. J.*, **994**(1), 72, 10.3847/1538-4357/ae0ca1.

[333] Martin, M., R. Canu-Blot, G. Stenberg Wieser, H. Nilsson, M. Wieser, C. Simon Wedlund, and M. Rubin (2025), High charge-state solar wind ions interacting with comet 67P/Churyumov-Gerasimenko: Observations and comet activity estimates, *Astron. & Astrophys.*, **704**, A160, 10.1051/0004-6361/202557620.

[334] Martinez-Calderon, C., K. Shiokawa, O. Santolík, S. Kurita, K. Keika, M. Connors, I. Schofield, M. Hanzelka, and W. S. Kurth (2025), Simultaneous ground-satellite observations of ELF/VLF emissions generated by a strong magnetospheric compression, *Earth, Planets and Space*, **77**(1), 49, 10.1186/s40623-025-02170-4.

[335] Matsuoka, A., S. Yokota, N. Murata, Y. Harada, S. Imajo, N. Terada, K. Keika, K. Masunaga, S. Sakai, H. Nakagawa, K. Asamura, S. Kasahara, and Y. Saito (2025), Magnetic field experiment at Phobos and in space around Mars by the Martian Moons eXploration (MMX) mission, *Progress in Earth and Planetary Science*, **12**(1), 67, 10.1186/s40645-025-00738-y.

[336] Maunder, M. L., C. Foullon, R. Forsyth, D. Barnes, and J. A. Davies (2025), Longitudinally Spaced Observations Of A Magnetic-Cloud-Like Structure Embedded In A Co-Rotating Interaction Region, *Ann. Geophys.*, **43**, 37–54, 10.5194/angeo-43-37-2025.

[337] Mayank, P., E. Camporeale, A. K. Shrivastav, T. E. Berger, and C. N. Arge (2025), Neural Enhancement of the Traditional Wang–Sheeley–Arge Solar Wind Relation, *Astrophys. J. Lett.*, **994**(1), L5, 10.3847/2041-8213/ae1735.

[338] Maynadié, T., Y. Futaana, S. Barabash, M. Wieser, S. Fatemi, A. Vorburger, A. Bhardwaj, P. Wurz, and K. Asamura (2025), Global Effects of Magnetic Anomalies on the Near-Surface Lunar Plasma Environment, *J. Geophys. Res.*, **130**(9), e2025JA034163, 10.1029/2025JA034163.

[339] Mayorov, A. G., A. A. Leonov, S. Y. Aleksandrin, V. V. Alexeev, I. V. Arkhangelskaja, A. I. Arkhangelskiy, A. V. Bakaldin, I. V. Chernysheva, O. D. Dalkarov, M. D. Kheymits, M. G. Korotkov, A. V. Kuznetsov, V. V. Malakhov, A. G. Malinin, P. Y. Minaev, D. N. Morozova, N. Y. Pappe, M. V. Razumeyko, S. A. Siruk, Y. I. Stozhkov, S. I. Suchkov, and Y. T. Yurkin (2025), Capabilities of the GAMMA-400 gamma-ray telescope to study the relationship between high-energy particle precipitation from the Earth's inner radiation belt and electromagnetic radiation of gamma-ray bursts, *Adv. Space Res.*, **76**(1), 286–297, 10.1016/j.asr.2025.04.026.

[340] Mejia-Ott, J. R., and B. M. Randol (2025), Diffusion Coefficients of WIND/STICS Protons from Diffusive Shock Acceleration with Finite Escape Boundaries, *Astrophys. J.*, **994**(2), 137, 10.3847/1538-4357/ae0acf.

[341] Meng, W., J. Guo, Y. Chen, Z. Wang, H. Fu, Y. Wang, and Y. Wei (2025), Betatron Cooling of Halo and Strahl Electrons in the Solar Wind, *Astrophys. J. Lett.*, **983**(1), L14, 10.3847/2041-8213/adbff5.

[342] Meredith, N. P., J. Bortnik, M. Hua, T. E. Cayton, M. A. Clilverd, T. A. Daggitt, and K. A. Bunting (2025), Solar Wind and Geomagnetic Conditions That Lead to the Largest Relativistic Electron Fluxes in GPS Orbit, *Space Weather*, **23**(11), e2025SW004633, 10.1029/2025SW004633.

[343] Milan, S. E., M. K. Mooney, G. E. Bower, G. Kennedy, B. J. Anderson, S. K. Vines, and M. R. Hairston (2025), Reconnection and Viscous Control of Dayside Field Aligned Currents for Northward Interplanetary Magnetic Field, *J. Geophys. Res.*, **130**(10), e2025JA034547, 10.1029/2025JA034547.

[344] Milošić, D., M. Temmer, S. G. Heinemann, S. Hofmeister, and E. Asvestari (2025), Case study on the evolution of corotating interaction regions for the "smiley coronal holes": 0.3 to 1 AU, *Astron. & Astrophys.*, **699**, A267, 10.1051/0004-6361/202453096.

[345] Minaev, P. Y., D. S. Svinkin, A. S. Pozanenko, and D. D. Frederiks (2025), GRB 241105A–The Most Distant Short Gamma-Ray Burst?, *Astron. Lett.*, **51**(6), 327–348, 10.1134/S1063773725700483.

[346] Mishra, S. S., N. S. Kavya, P. K. Sahoo, and V. Venkatesha (2025), Impact of Teleparallelism on Addressing Current Tensions and Exploring the GW Cosmology, *Astrophys. J.*, **981**(1), 13, 10.3847/1538-4357/adabc6.

[347] Mitchell, L. J., J. D. Finke, B. Phlips, W. N. Johnson, and E. Kong (2025), SIRI-2 Detection of the Gamma-Ray Burst 221009A, *Astrophys. J.*, **979**(2), 153, 10.3847/1538-4357/ad9ea3.

[348] Miyashita, Y., A. Ieda, and S. Machida (2025), Evolution of the near-Earth magnetotail associated with substorm onsets: revisiting the issues of onset timing and substorm triggering mechanism, *Earth, Planets and Space*, **77**(1), 15, 10.1186/s40623-025-02139-3.

[349] Mkrtchyan, A. A., A. S. Pozanenko, P. Y. Minaev, and D. D. Frederiks (2025), Simulation of the Recording of the Brightest Gamma-ray Burst GRB 221009A by a Segmented Scintillation Detector, *Astron. Lett.*, **51**(5), 262–277, 10.1134/S1063773725700410.

[350] Mo, W., S. Raptis, V. Toy-Edens, K. Yeakel, and D. L. Turner (2025), A Comparison of Modeled and Observed Dayside Bow Shock Locations in 8 Years of MMS Data, *J. Geophys. Res.*, **130**(11), e2025JA033966, 10.1029/2025JA033966.

[351] Moissard, C., C. Butcher, E. Ruler, J. Richardson, B. Michotte de Welle, W. Steward, M. Pritchard, D. Gonzalez Del Valle, V. Defayet, A. Bernal, V. Cavicchi, and V. David (2025), The Speed of Interplanetary Shocks Through the Magnetosheath: A Toy Model, *Geophys. Res. Lett.*, **52**(7), 2024GL113,488, 10.1029/2024GL113488.

[352] Montagud-Camps, V., S. Toledo-Redondo, J. Goldstein, S. A. Fuselier, M. André, I. F. Albert, A. Castilla, A. Salinas, J. Portí, and E. A. Navarro (2025), Statistical Analysis of the Warm Plasma Cloak in the Dayside Magnetosphere: 9 Years of MMS Observations, *Geophys. Res. Lett.*, **52**(13), e2025GL116933, 10.1029/2025GL116933.

[353] Mooney, M. K., S. E. Milan, M. Lester, I. Dandouras, C. Carr, and A. N. Fazakerley (2025), Cluster Observations of Plasma in the High Latitude Magnetotail Associated With Cusp-Aligned Arcs, *J. Geophys. Res.*, **130**(4), e2024JA033252, 10.1029/2024JA033252.

[354] Mooney, M. K., S. E. Milan, G. E. Bower, G. Kennedy, and X. Y. Wang (2025), A Statistical Study of the Distant Magnetotail Under Northward Interplanetary Magnetic Field, *J. Geophys. Res.*, **130**(10), e2025JA034308, 10.1029/2025JA034308.

[355] Morosan, D. E., N. Dresing, C. Palmroos, J. Gieseler, I. C. Jebaraj, A. Warmuth, A. Fedeli, S. Normo, J. Pomoell, E. K. J. Kilpua, P. Zucca, B. Dabrowski, A. Krankowski, G. Mann, C. Vocks, and R. Vainio (2025), Determining the acceleration regions of in situ electrons using remote radio and X-ray observations, *Astron. & Astrophys.*, **693**, A296, 10.1051/0004-6361/202452511.

[356] Morton, R. J., M. J. Weberg, N. Balodhi, and J. A. McLaughlin (2025), Estimating the Poynting Flux of Alfvénic Waves in Polar Coronal Holes across Solar Cycle 24, *Astrophys. J.*, **985**(1), 13, 10.3847/1538-4357/adc568.

[357] Mostafavi, P., L. Adhikari, B. L. Shrestha, G. P. Zank, M. Opher, M. E. Hill, H. A. Elliott, P. C. Brandt, R. L. McNutt, D. J. McComas, A. R. Poppe, E. Provornikova, R. Nikoukar, P. Kollmann, S. A. Stern, K. N. Singer, A. Verbiscer, and J. Parker (2025), PUI Heating in the Supersonic Solar Wind, *Astrophys. J.*, **979**(2), 222, 10.3847/1538-4357/ada891.

[358] Motoba, T., Y. Ebihara, and Y. Ogawa (2025), Dayside Shock Aurora at the Beginning of the May 2024 Superstorm: South Pole–THEMIS Spacecraft Conjunction, *J. Geophys. Res.*, **130**(8), e2025JA034054, 10.1029/2025JA034054.

[359] Mubashir, A., A. Ashok, M. Connors, X. He, H. A. T. G. Hettiarachchi, P. Martens, E. H. Mudiyanselage, U. A. G. Perera, E. Potdevin, V. M. Sadykov, M. Sarsour, M. Savić, and N. Veselinović (2025), Time lag analysis of the space weather effects on muon and neutron flux at different geomagnetic cutoff rigidities, *Adv. Space Res.*, **76**(12), 7587–7599, 10.1016/j.asr.2025.04.032.

[360] Murphy, K., A. J. Halford, V. Liu, J. Klenzing, J. Smith, K. Garcia-Sage, J. Pettit, and I. J. Rae (2025), Understanding and Modeling the Dynamics of Storm-Time Atmospheric Neutral Density Using Random Forests, *Space Weather*, **23**(1), 2024SW003,928, 10.1029/2024SW003928.

[361] Myint, L. M. M., S. Perwitasari, M. Nishioka, S. Saito, R. Kaewthongrach, and P. Supnithi (2025), Analysis of ionospheric and geomagnetic fields changes in Thailand during the May 2024 geomagnetic storm, *Adv. Space Res.*, **76**(12), 7508–7520, 10.1016/j.asr.2025.01.071.

[362] Nair, M., M. Fillion, A. Chulliat, and S. Califf (2025), Global Geomagnetic Model Errors as a Function of Altitude and Geomagnetic Activity, *Space Weather*, **23**(10), e2025SW004579, 10.1029/2025SW004579.

[363] Nakamura, R., T. Dudok de Wit, G. H. Jones, M. G. G. T. Taylor, N. André, C. Goetz, L. Z. Hadid, L. A. Hayes, H. Hietala, C. M. Jackman, L. Kepko, A. Marchaudon, A. Masters, M. Owens, N. Partamies, S. Poedts, J. Rae, Y. Shprits, M. Temmer, D. Verscharen, and R. F. Wimmer-Schweingruber (2025), Establishing a European Heliophysics Community (EHC), *Ann. Geophys.*, **43**(2), 855–879, 10.5194/angeo-43-855-2025.

[364] Nakano, S., R. Kataoka, and M. Nosé (2025), Climatology of Pi2 Pulsations Deduced From the Wp Index, *J. Geophys. Res.*, **130**(12), e2025JA034345, 10.1029/2025JA034345.

[365] Nakano, S., S. A. Reddy, R. Kataoka, A. Nakamizo, S. Fujita, and A. S. Yukimatu (2025), Data Assimilation Into a Machine Learning-Based Emulator of a Global MHD Simulation for Analyzing the Polar Ionosphere, *Space Weather*, **23**(11), e2025SW004488, 10.1029/2025SW004488.

[366] Nandy, D., V. Pant, M. Anand, J. J. Athalathil, A. K. Awasthi, K. Bane, D. Banerjee, B. Ravindra, A. Bhaskar, R. Bhattacharyya, P. Bhowmik, R. Chandra, P. Chatterjee, S. Chatterjee, A. P. Dimri, S. A. Gokani, S. Hanasoge, S. Hazra, R. Jain, B. Joshi, K. Nagaraju, D. Kansabanik, B. B. Karak, C. Kathiravan, R. Khan, H. Krishnan, B. Kumar, S. Kumar, A. Kumari, S. Majumdar, P. Mayank, S. Mishra, W. Mishra, A. Mohan, S. Mondal, V. Mugundhan, S. Narendranath, D. Oberoi, M. Pandya, R. Patel, A. Paul, A. Prasad, K. S. Raja, A. Rajhans, R. Ramesh, C. Saha, K. Sankarasanubramanian, R. Selvakumaran, R. Sharma, R. Sharma, A. K. Shrivastav, N. Singh, S. Lata Soni, A. K. Srivastava, N. Srivastava, D. Tripathi, W. Uddin, B. Vaidya, P. Vemareddy, G. Vichare, G. Vigeesh, N. Yadav, and V. K. Yadav (2025), Indian solar and heliospheric physics

vision: Fundamental science to a space weather resilient society, *J. Astrophys. Astron.*, **46**(2), 51, 10.1007/s12036-025-10064-w.

[367] Narendra, A., M. G. Dainotti, M. Sarkar, A. Ł. Lenart, M. Bogdan, A. Pollo, B. Zhang, A. Rabeda, V. Petrosian, and K. Iwasaki (2025), Gamma-ray burst redshift estimation using machine learning and the associated web app, *Astron. & Astrophys.*, **698**, A92, 10.1051/0004-6361/202452651.

[368] Nguyen, G., G. Bernoux, and A. Ferlin (2025), Simultaneous multi-class detection of interplanetary space weather events, *J. Space Weather Space Clim.*, **15**, 21, 10.1051/swsc/2025016.

[369] Ngwira, C. M., Y. Nishimura, J. M. Weygand, L. J. Landwer, D. C. Bush, J. C. Foster, and P. J. Erickson (2025), Evaluating the geomagnetic response to the May 2024 super storm – observations and interpretations, *Front. Astron. Space Sci.*, **12**, 1652705, 10.3389/fspas.2025.1652705.

[370] Ngwira, C. M., Y. Nishimura, J. M. Weygand, M. J. Engebretson, A. Pulkkinnen, and P. W. Schuck (2025), Observations of Localized Horizontal Geomagnetic Field Variations Associated With a Magnetospheric Fast Flow Burst During a Magnetotail Reconnection Event Detected by the THEMIS Spacecraft, *J. Geophys. Res.*, **130**(1), 2024JA032,651, 10.1029/2024JA032651.

[371] Nishiyama, T., M. Kagitani, T. Bag, T. T. Tsuda, Y. Iwasa, Y. Ogawa, and F. Sigernes (2025), Thermospheric Orthohelium, He (2^3S), Variations Associated With a Moderate Storm in February 2023: The NIRAS-2 Observations at the Kjell Henriksen Observatory (78.1°N, 16.0°E), Svalbard, *Space Weather*, **23**(5), e2024SW004161, 10.1029/2024SW00416110.22541/essoar.172745030.03956869/v1.

[372] Nitti, S., J. A. Carter, S. F. Sembay, R. Saxton, C. Pagani, S. E. Milan, and K. D. Kuntz (2025), SMILE SXI can be used to track solar wind composition, *RAS Techniques and Instruments*, **4**, rzaf047, 10.1093/rasti/rzaf047.

[373] Noh, S. J., S. K. Morley, M. M. Cowee, and V. K. Jordanova (2025), A Probabilistic Model for Global EMIC Wave Activity Using Van Allen Probes Observations, *Earth Space Sci.*, **12**(11), e2025EA004633, 10.1029/2025EA004633.

[374] Nordin, G., M. Hamrin, E. Krämer, P. Dredger, S. Fatemi, R. E. Lopez, S. E. Milan, T. Pitkänen, T. Karlsson, and O. Goncharov (2025), Statistical Observations in Support of Bow Shock Current Closure to Earth's High-Latitude Ionosphere During Non-Zero IMF B_y, *J. Geophys. Res.*, **130**(6), e2024JA033599, 10.1029/2024JA033599.

[375] O'Brien, C., B. M. Walsh, and E. G. Thomas (2025), Magnetosheath Control of the Cross Polar Cap Potential: Correcting for Measurement Uncertainty in Space Weather, *J. Geophys. Res.*, **130**(3), 2024JA033,468, 10.1029/2024JA033468.

[376] O'Connor, B., D. Pasham, I. Andreoni, J. Hare, P. Beniamini, E. Troja, R. Ricci, D. Dobie, J. Chakraborty, M. Ng, N. Klingler, V. Karambelkar, S. Rose, S. Schulze, G. Ryan,

S. Dichiara, I. Monageng, D. Buckley, L. Hu, G. P. Srinivasaragavan, G. Bruni, T. Cabrera, S. B. Cenko, H. v. Eerten, J. Freeburn, E. Hammerstein, M. Kasliwal, C. Kouveliotou, K. Kunnumkai, J. K. Leung, A. Lien, A. Palmese, and T. Sakamoto (2025), Characterization of a Peculiar Einstein Probe Transient EP240408a: An Exotic Gamma-Ray Burst or an Abnormal Jetted Tidal Disruption Event?, *Astrophys. J. Lett.*, **979**(2), L30, 10.3847/2041-8213/ada7f5.

[377] O'Connor, B., P. Beniamini, E. Troja, M. Busmann, S. Dichiara, R. Gill, J. Granot, M. J. Moss, X. J. Hall, A. Palmese, N. Passaleva, and Y.-H. Yang (2025), The Redshift Distribution of Einstein Probe Transients Supports Their Relation to Gamma-Ray Bursts, *Astrophys. J. Lett.*, **993**(1), L37, 10.3847/2041-8213/ae146b.

[378] O'Connor, B., R. Gill, J. DeLaunay, J. Hare, D. Pasham, E. R. Coughlin, A. Bandopadhyay, A. Anumarlapudi, Paz Beniamini, J. Granot, I. Andreoni, J. Carney, M. J. Moss, E. Göğüş, J. A. Kennea, M. Busmann, S. Dichiara, J. Freeburn, D. Gruen, X. J. Hall, A. Palmese, T. Parsotan, S. Ronchini, A. Tohuvavohu, and M. A. Williams (2025), Comprehensive X-Ray Observations of the Exceptional Ultralong X-Ray and Gamma-Ray Transient GRB 250702B with Swift, NuSTAR, and Chandra: Insights from the X-Ray Afterglow Properties, *Astrophys. J. Lett.*, **994**(1), L17, 10.3847/2041-8213/ae1741.

[379] Ogunjobi, O., and W. T. Sivla (2025), Modulation of cosmic-ray ground-level enhancements by solar-wind stream interfaces: a case study, *Ann. Geophys.*, **43**(2), 579–592, 10.5194/angeo-43-579-2025.

[380] Ohtani, S., Y. Zou, V. G. Merkin, M. Wiltberger, K. H. Pham, S. Raptis, M. Friel, and J. W. Gjerloev (2025), Ground Magnetic Response to an Extraordinary IMF B_Y Flip During the May 2024 Storm: Travel Time From the Magnetosheath to Dayside High Latitudes, *J. Geophys. Res.*, **130**(5), e2024JA033691, 10.1029/2024JA033691.

[381] Ohtani, S., S. Raptis, A. P. Devanandan, T. Motoba, Y. Zou, J. W. Gjerloev, and V. G. Merkin (2025), Stormtime Magnetospheric Processes Associated With the Dawnside Current Wedge, *J. Geophys. Res.*, **130**(12), e2025JA034418, 10.1029/2025JA034418.

[382] Oka, M., T. D. Phan, M. Øieroset, D. J. Gershman, R. B. Torbert, J. L. Burch, and V. Angelopoulos (2025), Scaling of Particle Heating in Shocks and Magnetic Reconnection, *Astrophys. J.*, **984**(2), 150, 10.3847/1538-4357/adc5e5.

[383] Olifer, L., P. Manavalan, D. Headrick, S. Palmers, B. Harbarenko, J. Cai, J. Fourie, O. Bauer, and I. R. Mann (2025), Low-Cost Monitoring of Energetic Particle Precipitation: Weather Balloon-Borne Timepix Measurements During the May 2024 Superstorm, *J. Geophys. Res.*, **130**(4), e2024JA033626, 10.1029/2024JA033626.

[384] Oliveira, D. M., E. Zesta, and D. Nandy (2025), The 10 October 2024 geomagnetic storm may have caused the premature reentry of a Starlink satellite, *Front. Astron. Space Sci.*, **11**, 1522139, 10.3389/fspas.2024.1522139.

[385] Onubogu, C., M. Opher, M. Kornbleuth, G. Tóth, and V. Florinski (2025), Exploring the Complex Heliotail Boundary by an Extended Level Set Approach, *Astrophys. J. Lett.*, **980**(2), L19, 10.3847/2041-8213/ada68e.

[386] Paiva, F. S., and S. Sinibaldi (2025), Can Spacecraft-Borne Contamination Compromise Our Understanding of Lunar Ice Chemistry?, *J. Geophys. Res.*, **130**(11), e2025JE009132, 10.1029/2025JE00913210.22541/essoar.174586298.85002167/v2.

[387] Pal, S., C. Mac Cormack, E. K. J. Kilpua, Yogesh, L. K. Jian, and T. Nieves-Chinchilla (2025), Magnetic interaction analysis of multiple interplanetary coronal mass ejections that led to a historic geomagnetic storm in May 2024, *Astron. & Astrophys.*, **702**, A150, 10.1051/0004-6361/202555908.

[388] Panda, S. K., S. S. K. Rajana, C. G. Vivek, R. Vankadara, and P. Jamjareegulgarn (2025), Multi-instrument observations of unseasonal post-sunset equatorial plasma bubbles during two moderate geomagnetic storms in May and June 2024 over East/Southeast Asia, *Adv. Space Res.*, **76**(11), 7013–7030, 10.1016/j.asr.2025.09.049.

[389] Pandya, M., A. Bhaskar, M. Samara, R. Michell, E. Mirizio, S.-B. Kang, and L. W. Blum (2025), Spatio-temporal evolution of pulsating aurora observed using a ground-based imagers, *Front. Astron. Space Sci.*, **12**, 1561439, 10.3389/fspas.2025.1561439.

[390] Pandya, M., Y. Ebihara, D. M. Oliveira, M. Samara, M.-C. Fok, A. Bhaskar, C. P. Ferradas, T. Tanaka, R. Michell, G. Reeves, and J. W. Manweiler (2025), First Simultaneous Multi-Point Observation of the Local-Time Asymmetry of keV Ions in the Dayside Magnetosphere During the Main Phase of the Geomagnetic Storm, *J. Geophys. Res.*, **130**(6), e2025JA033793, 10.1029/2025JA033793.

[391] Pandya, M., G. Le, Q. Ma, Y. Ebihara, H. Laakso, S. A. Boardsen, S.-Y. Lee, L. C. Porter, A. Breneman, S.-B. Kang, M.-C. Fok, G. Reeves, J. W. Manweiler, R. Kessel, R. Michell, and M. Samara (2025), Local-Time Asymmetries in Particle Pitch Angle Distributions and Waves During the September 2017 Geomagnetic Storm: MMS-RBSP Conjunction, *J. Geophys. Res.*, **130**(12), e2025JA034818, 10.1029/2025JA034818.

[392] Panov, E. V., M. V. Kubyshkina, V. A. Sergeev, E. E. Grigorenko, A. Y. Malykhin, R. Nakamura, W. Baumjohann, and L. J. Paxton (2025), Are there ballooning-interchange heads in the midtail?, *Earth, Planets and Space*, **77**(1), 152, 10.1186/s40623-025-02285-8.

[393] Panpiboon, P., K. Noysena, and T. Yeeram (2025), Empirical mode decomposition feature based Bi-LSTM and GRU neural network predictions of thermospheric density during rising and minimum solar activity from 2018 to 2022, *Earth Science Informatics*, **18**(2), 218, 10.1007/s12145-025-01698-z.

[394] Pant, C., B. Pande, and S. Pande (2025), Characteristics of decametric hectometric (DH) type IIs, CMEs and flares of geoeffective and non-geoeffective storm events in Solar Cycle 24, *J. Atmos. Solar-Terr. Phys.*, **268**, 106440, 10.1016/j.jastp.2025.106440.

[395] Paouris, E., A. Vourlidas, M. K. Georgoulis, P. Hess, and G. Stenborg (2025), How the CME on 2023 April 21 Triggered the First Severe Geomagnetic Storm of Solar Cycle 25, *Astrophys. J.*, **982**(2), 194, 10.3847/1538-4357/adb8d3.

[396] Park, B., A. Pitňa, J. Šafránková, and Z. Němeček (2025), Modification of the Power Spectral Density of Magnetic Field Fluctuations by Quasi-perpendicular Interplanetary Shocks, *Astrophys. J. Lett.*, **986**(2), L30, 10.3847/2041-8213/ade25b.

[397] Park, J.-S., Q. Shi, J. Seough, H. Zhang, T. Tang, R. Guo, K.-S. Cho, D.-H. Lee, and K.-H. Kim (2025), Non-Parker Spiral Interplanetary Magnetic Field Configurations Observed in Near-Earth Space: Statistical Features of Their Occurrence and Solar Wind Conditions, *Astrophys. J. Suppl.*, **280**(1), 2, 10.3847/1538-4365/adea79.

[398] Patgiri, D., Y. Otsuka, P. R. Shreedevi, G. Kakoti, A. K. Ranjan, R. Rathi, A. Shinbori, M. Nishioka, and S. Perwitasari (2025), Unusual Phase Alignment of Nighttime Electrified Medium-Scale Traveling Ionospheric Disturbance After Moderate Geomagnetic Storms and Response to Substorms, *Geophys. Res. Lett.*, **52**(20), e2025GL116392, 10.1029/2025GL116392.

[399] Paul, K. S., H. Haralambous, M. Moses, C. Oikonomou, S. M. Potirakis, N. Bergeot, and J.-M. Chevalier (2025), Investigation of the Ionospheric Response on Mother's Day 2024 Geomagnetic Superstorm over the European Sector, *Atmos.*, **16**(2), 180, 10.3390/atmos16020180.

[400] Paul, K. S., M. Moses, H. Haralambous, and C. Oikonomou (2025), Effects of the Mother's Day Superstorm (10-11 May 2024) over the Global Ionosphere, *Remote Sensing*, **17**(5), 859, 10.3390/rs17050859.

[401] Paul, K. S., H. Haralambous, M. Moses, and S. C. Tripathi (2025), Effects of the October 2024 Storm over the Global Ionosphere, *Remote Sensing*, **17**(13), 2329, 10.3390/rs17132329.

[402] Pearlman, A. B., P. Scholz, S. Bethapudi, J. W. T. Hessels, V. M. Kaspi, F. Kirsten, K. Nimmo, L. G. Spitler, E. Fonseca, B. W. Meyers, I. H. Stairs, C. M. Tan, M. Bhardwaj, S. Chatterjee, A. M. Cook, A. P. Curtin, F. A. Dong, T. Eftekhari, B. M. Gaensler, T. Güver, J. Kaczmarek, C. Leung, K. W. Masui, D. Michilli, T. A. Prince, K. R. Sand, K. Shin, K. M. Smith, and S. P. Tendulkar (2025), Multiwavelength constraints on the origin of a nearby repeating fast radio burst source in a globular cluster, *Nature Astron.*, **9**, 111–127, 10.1038/s41550-024-02386-6.

[403] Peng, J.-H., J.-X. Zhang, W. Hong, W. Su, Y. Ni, J. Guo, and R. Zheng (2025), Acceleration noise due to space magnetic field for heliocentric gravitational wave detector, *Sci. Rep.*, **15**(1), 23287, 10.1038/s41598-025-04287-8.

[404] Peng, Y., W. Li, Q. Ma, and X.-C. Shen (2025), Statistical Properties of Dayside Whistler-Mode Waves at Low Latitudes Under Various Solar Wind Conditions, *J. Geophys. Res.*, **130**(4), e2024JA033225, 10.1029/2024JA033225.

[405] Perley, D. A., A. Y. Q. Ho, M. Fausnaugh, G. P. Lamb, M. M. Kasliwal, T. Ahumada, S. Anand, I. Andreoni, E. Bellm, V. Bhalerao, B. Bolin, T. G. Brink, E. Burns, S. B. Cenko, A. Corsi, A. V. Filippenko, D. Frederiks, A. Goldstein, R. Hamburg, R. Jayaraman, P. G. Jonker, E. C. Kool, S. R. Kulkarni, H. Kumar, R. Laher, A. Levan, A. Lysenko, R. A. Perley, G. R. Ricker, R. Riddle, A. Ridnaia, B. Rusholme, R. Smith, D. Svinkin, M. Ulanov, R. Vanderspek, G. Waratkar, and Y. Yao (2025), The luminous, slow-rising orphan afterglow AT2019pim as a candidate moderately relativistic outflow, *Mon. Not. Roy. Astron. Soc.*, **537**(3), 2362–2379, 10.1093/mnras/staf125.

[406] Petrie, G. J. D., J. Blanco Rodríguez, V. Martínez Pillet, H. Uitenbroek, and P. H. Scherrer (2025), Calibrating HMI Magnetograms Using an End-to-end Magnetograph Model, *Astrophys. J. Suppl.*, **278**(2), 55, 10.3847/1538-4365/adcf9f.

[407] Petrinec, S. M., C. A. Kletzing, D. M. Miles, S. A. Fuselier, I. W. Christopher, D. Crawford, S. Omar, S. R. Bounds, J. W. Bonnell, J. S. Halekas, G. B. Hospodarsky, R. J. Strangeway, Y. Lin, K. J. Trattner, J. W. Labelle, M. Øieroset, O. Santolik, J. Moen, K. Oksavik, T. K. Yeoman, I. H. Cairns, and D. Mark (2025), The Tandem Reconnection and Cusp Electrodynamics Reconnaissance Satellites (TRACERS) Mission Design, *Space Sci. Rev.*, **221**(5), 60, 10.1007/s11214-025-01185-3.

[408] Pierrard, V., T. G. W. Verhulst, J.-M. Chevalier, N. Bergeot, and A. Winant (2025), Effects of the Geomagnetic Superstorms of 10-11 May 2024 and 7-11 October 2024 on the Ionosphere and Plasmasphere, *Atmos.*, **16**(3), 299, 10.3390/atmos16030299.

[409] Piersanti, M., G. D'Angelo, D. Recchiuti, F. Lepreti, P. Cusano, E. De Lauro, V. Carbone, P. Ubertini, and M. Falanga (2025), On the Ionosphere-Atmosphere-Lithosphere Coupling During the 9 November 2022 Italian Earthquake, *Geosciences*, **15**(1), 22, 10.3390/geosciences15010022.

[410] Pillas, M., S. Antier, K. Ackley, T. Ahumada, D. Akl, L. de Almeida, S. Anand, C. Andrade, I. Andreoni, K. A. Bostroem, M. Bulla, E. Burns, T. Cabrera, S. Chang, H. Choi, B. O'Connor, M. W. Coughlin, W. Corradi, A. R. Gibbs, T. Dietrich, D. Dornic, J.-G. Ducoin, P.-A. Duverne, H.-B. Eggenstein, M. Freeberg, M. Dyer, M. Fausnaugh, W.-f. Fong, F. Foucart, D. Frostig, N. Guessoum, V. Gupta, P. Hello, G. Hosseinzadeh, L. Hu, T. Hussenot-Desenonges, M. Im, R. Jayaraman, M. Jeong, V. Karambelkar, M. Kasliwal, S. Kim, C. D. Kilpatrick, N. Kochiashvili, S. Karpov, K. Kunnumkai, M. Lamoureux, C. U. Lee, N. Lourie, J. Lyman, M. Mašek, F. Magnani, G. Mo, M. Molham, A. H. Nitz, M. Nicholl, F. Navarete, K. Noysena, D. O'Neill, G. S. H. Paek, A. Palmese, R. Poggiani, T. Pradier, O. Pyshna, Y. Rajabov, J. C. Rastinejad, D. J. Sand, P. Shawhan, M. Shrestha, R. Simcoe, S. J. Smartt, D. Steeghs, R. Stein, H. F. Stevance, A. Takey, M. Sun, A. Toivonen, D. Turpin, K. Ulaczyk, A. Wold, and T. Wouters (2025), Limits on the ejecta mass during the search for kilonovae associated with neutron star-black hole mergers: A case study of S230518h, GW230529, S230627c and the low-significance candidate S240422ed, *Phys. Rev. D*, **112**(8), 083002, 10.1103/6ld6-95xh.

[411] Pitsis, V., D. Vassiliadis, A. Z. Boutsi, G. Balasis, and I. A. Daglis (2025), Latitudinal range of geospace currents inferred from correlation matrix analysis of ground

magnetic variations during magnetic storms, *J. Atmos. Solar-Terr. Phys.*, **270**, 106488, 10.1016/j.jastp.2025.106488.

[412] Podladchikova, T., A. M. Veronig, M. Temmer, and S. J. Hofmeister (2025), Simulating high-speed solar wind streams from coronal holes using an L5-L1 configuration of Lagrangian points, *Sci. Rep.*, **15**(1), 12991, 10.1038/s41598-025-97246-2.

[413] Pohjolainen, S. (2025), Two-Part Interplanetary Type II Solar Radio Bursts, *Solar Phys.*, **300**(3), 25, 10.1007/s11207-025-02449-5.

[414] Posner, A., I. G. Richardson, and C. J. Zeitlin (2025), Mars Ground Level Enhancements in the Context of the Solar Energetic Particle Clock, *Solar Phys.*, **300**(8), 102, 10.1007/s11207-025-02482-4.

[415] Prasad, A., W. Li, Q. Ma, X.-C. Shen, A. Artemyev, A. R. Poppe, Y. Harada, M. Qin, V. Angelopoulos, and M.-Y. Lin (2025), Global Survey of Whistler-Mode Waves in the Lunar Plasma Environment: Insights From 11 Years of ARTEMIS Observations, *J. Geophys. Res.*, **130**(6), e2025JA033820, 10.1029/2025JA033820.

[416] Prikryl, P., and V. Rušin (2025), Occurrence of tornado outbreaks influenced by solar wind–magnetosphere–ionosphere–atmosphere coupling, *Advances in Science and Research*, **22**, 19–38, 10.5194/asr-22-19-2025.

[417] Prikryl, P., D. R. Themens, J. Chum, S. Chakraborty, R. G. Gillies, and J. M. Weygand (2025), Observations of traveling ionospheric disturbances driven by gravity waves from sources in the upper and lower atmosphere, *Ann. Geophys.*, **43**(2), 511–534, 10.5194/angeo-43-511-2025.

[418] Pu, W., Y. Yang, R. Yan, S.-R. Zhang, C. Xiong, R. Battiston, Z. Zhima, P. Mirko, H. Huang, G. D'Angelo, X. Sun, Y. Huang, and Z. Wang (2025), Four-Peak Structure on Equatorial Ionization Anomaly Crests During the May 2024 Geomagnetic Storms, *Space Weather*, **23**(12), e2025SW004542, 10.1029/2025SW004542.

[419] Qu, Y.-K., Z.-X. Man, Y.-P. Yang, S.-X. Yi, M. Du, and F.-y. Wang (2025), The Redshift Evolution of the Luminosity Function of Type II Gamma-Ray Bursts, *Astrophys. J.*, **982**(2), 148, 10.3847/1538-4357/adb849.

[420] Qu, Y.-K., Z.-X. Man, Y.-P. Yang, S.-X. Yi, and F.-Y. Wang (2025), Luminosity function of Type II GRBs – differences from long GRBs, *Mon. Not. Roy. Astron. Soc.*, **540**(1), L91–L97, 10.1093/mnrasl/slaf037.

[421] Quirola-Vásquez, J., F. E. Bauer, P. G. Jonker, A. Levan, W. N. Brandt, M. Ravasio, D. Eappachen, Y. Q. Xue, and X. C. Zheng (2025), New JWST redshifts for the host galaxies of CDF-S XT1 and XT2: Understanding their nature, *Astron. & Astrophys.*, **695**, A279, 10.1051/0004-6361/202451825.

[422] Radhakrishnan, D. K. V., S. A. Fuselier, K. Nykyri, K.-J. Hwang, S. M. Petrinec, D. J. Gershman, and J. L. Burch (2025), KHI Development Between Inner LLBL and Magnetosphere on the Far Flanks as Observed by the MMS Mission, *Geophys. Res. Lett.*, **52**(20), e2025GL116901, 10.1029/2025GL116901.

[423] Raj, J. K., V. Manu, N. Balan, Q.-H. Zhang, and Z.-Y. Xing (2025), Capability of Revised Intensity and Impulsive Strength of Geomagnetic Storms and Activities to Identify Severe Space Weather, *Space Weather*, **23**(7), e2025SW004399, 10.1029/2025SW004399.

[424] Rakhmanova, L., M. Riazantseva, Y. Yermolaev, A. Khokhlachev, and G. Zastenker (2025), Turbulence Evolution Between 0.5 and 1 AU for the Solar Wind of Various Origins, *Solar Phys.*, **300**(4), 44, 10.1007/s11207-025-02458-4.

[425] Ramana, G. V., M. Sridhar, T. V. Rao, and D. V. Ratnam (2025), Superposed epoch analysis of GPS ionospheric TEC and scintillations over low latitude Indian region during multiple geomagnetic storm events, *Earth Science Informatics*, **18**(1), 51, 10.1007/s12145-024-01604-z.

[426] Rankin, J. S., D. J. McComas, M. Alimaganbetov, N. Angold, G. F. Dunn, H. A. Elliott, D. Everett, J. D. Escobar, M. B. Galvin, L. Y. Khoo, J. T. Letzer, E. M. Roemer, B. Savage, M. Shaw-Lecerf, M. M. Shen, B. L. Shrestha, J. Teifert, S. E. Weidner, E. J. Zirnstein, E. R. Christian, M. Gkioulidou, G. Nicolaou, N. A. Schwadron, P. Swaczyna, and M. B. Tapley (2025), Solar Wind and Pickup Ion (SWAPI) Instrument on NASA's Interstellar Mapping and Acceleration Probe (IMAP), *Space Sci. Rev.*, **221**(8), 108, 10.1007/s11214-025-01229-8.

[427] Rao, S. S., N. Srivastava, and D. Chakrabarty (2025), Variation in horizontal component of geomagnetic field during the April 2023 space weather event over ±75° longitude sectors: Insights, *J. Astrophys. Astron.*, **46**(2), 37, 10.1007/s12036-025-10066-8.

[428] Raptis, S., M. Lindberg, T. Z. Liu, D. L. Turner, A. Lalti, Y. Zhou, P. Kajdič, A. Kouloumvakos, D. G. Sibeck, L. Vuorinen, A. Michael, M. Shumko, A. Osmane, E. Krämer, L. Turc, T. Karlsson, C. Katsavrias, L. B. Wilson, H. Madanian, X. Blanco-Cano, I. J. Cohen, and C. P. Escoubet (2025), Multimission Observations of Relativistic Electrons and High-speed Jets Linked to Shock-generated Transients, *Astrophys. J. Lett.*, **981**(1), L10, 10.3847/2041-8213/adb154.

[429] Raptis, S., A. Lalti, M. Lindberg, D. L. Turner, D. Caprioli, and J. L. Burch (2025), Revealing an unexpectedly low electron injection threshold via reinforced shock acceleration, *Nature Comm.*, **16**(1), 488, 10.1038/s41467-024-55641-9.

[430] Rastinejad, J. C., W. Fong, C. D. Kilpatrick, M. Nicholl, and B. D. Metzger (2025), Uniform Modeling of Observed Kilonovae: Implications for Diversity and the Progenitors of Merger-driven Long Gamma-Ray Bursts, *Astrophys. J.*, **979**(2), 190, 10.3847/1538-4357/ad9c77.

[431] Raza, S. A. Z., T. Singh, and N. V. Pogorelov (2025), The Effect of Uncertainties in Reproducing the Ambient Solar Wind at Earth on Forecasting CME Arrival Times, *Space Weather*, **23**(9), e2025SW004371, 10.1029/2025SW004371.

[432] Reames, D. V. (2025), Solar Particle Acceleration, *Astronomy*, **4**(1), 5, 10.3390/astronomy4010005.

[433] Recchiuti, D., R. Battiston, G. D'Angelo, E. Papini, C. Neubüser, W. J. Burger, and M. Piersanti (2025), Automatic Detection of Whistler Waves in the Top-Side Ionosphere: The WhISPER Technique, *Atmos.*, **16**(5), 522, 10.3390/atmos16050522.

[434] Reeves, G. D., J.-F. Ripoll, L. W. Blum, C. M. Cully, C. A. Colpitts, M. Cosmides, S. S. Elliot, R. Ghaffari, A. D. Greeley, R. B. Horne, K. Hosokawa, A. N. Jaynes, Y. Kasahara, S. Kasahara, K. Keika, S. Kurita, D. M. Malaspina, A. T. Michael, R. M. Millan, T. Mitani, Y. Miyoshi, V. Pierrard, D. L. Turner, H. N. Nesse, A. Y. Ukhorskiy, M. E. Usanova, M. Voskresenskaya, and S. Yokota (2025), Multi-Platform Observations of the Radial Penetration of Substorm Injected Electrons and Subsequent Slot-Filling Event, *J. Geophys. Res.*, **130**(11), e2025JA034329, 10.1029/2025JA034329.

[435] Rehan, N. S., and A. I. Ibrahim (2025), A New X-Ray and Radio Burst Activity from the Magnetar SGR 1935+2154, *Astrophys. J. Suppl.*, **276**(2), 60, 10.3847/1538-4365/ad95f9.

[436] Remya, B., A. J. Halford, S. J. Noh, P. A. Fernandes, B. Grison, D. Wang, J. Himmelsbach, T. Esman, D. B. Graham, D. G. Sibeck, T. Raita, and A. P. Dimri (2025), (Un)Explained EMIC Waves: Understanding Quiet Time EMIC Wave Drivers, *J. Geophys. Res.*, **130**(8), e2024JA033125, 10.1029/2024JA033125.

[437] Remya, S. N., K. Unnikrishnan, S. V. Thampi, and H. Sreekumar (2025), Ionospheric Responses to Two Consecutive Geomagnetic Storms of the Ascending Phase of the Solar Cycle 25 Over the Indian Sector, *J. Geophys. Res.*, **130**(6), e2024JA033159, 10.1029/2024JA033159.

[438] Ren, J., Q.-G. Zong, Y. Wang, X. Yu, Z.-J. Feng, T.-Y. Xiang, and X.-Y. Ai (2025), Large-Scale Field-Aligned Currents Around the High-Latitude Energetic Electron Boundary: FY-3E Observations, *J. Geophys. Res.*, **130**(3), 2025JA033,710, 10.1029/2025JA033710.

[439] Ridley, A. J., and A. Alhothali (2025), Comparisons Between the Global Ionosphere Thermosphere Model and HIWIND Measurements, *J. Geophys. Res.*, **130**(7), e2024JA033521, 10.1029/2024JA033521.

[440] Ridnaia, A., D. Frederiks, A. Lysenko, D. Svinkin, A. Tsvetkova, M. Ulanov, and T. Cline (2025), FRB 20250316A: Upper limits from Konus-Wind observations, *The Astronomer's Telegram*, **17090**, 1.

[441] Roberts, O. W., Z. Vörös, A. Settino, F. Koller, S. Raptis, M. Temmer, C. S. Wedlund, X. Li, and R. Nakamura (2025), Energy Conversion and Exchange in a Magnetosheath Jet, *J. Geophys. Res.*, **130**(11), e2025JA034414, 10.1029/2025JA034414.

[442] Rodi, J. C., D. P. Pacholski, S. Mereghetti, E. Arrigoni, A. Bazzano, L. Natalucci, R. Salvaterra, and P. Ubertini (2025), GRB 241107A: A Giant Flare from a Close-by Extragalactic Magnetar?, *Astrophys. J. Lett.*, **979**(2), L25, 10.3847/2041-8213/ada6b7.

[443] Rodkin, D., V. Lukmanov, V. Slemzin, and I. Chashei (2025), Observation and modeling of complex transient structure in heliosphere followed by geomagnetic storm on May 10–11, 2024, *Adv. Space Res.*, **76**(12), 7230–7240, 10.1016/j.asr.2024.12.068.

[444] Rodriguez, J. V., B. T. Kress, N. Y. Buzulukova, and R. J. Redmon (2025), Solar Wind and Magnetospheric Conditions for Satellite Anomalies Attributed to Shallow Internal Charging, *Space Weather*, **23**(2), 2024SW004,112, 10.1029/2024SW004112.

[445] Rodríguez-García, L., R. Gómez-Herrero, N. Dresing, L. A. Balmaceda, E. Palmerio, A. Kouloumvakos, I. C. Jebaraj, F. Espinosa Lara, M. Roco, C. Palmroos, A. Warmuth, G. Nicolaou, G. M. Mason, J. Guo, T. Laitinen, I. Cernuda, T. Nieves-Chinchilla, A. Fedeli, C. O. Lee, C. M. S. Cohen, C. J. Owen, G. C. Ho, O. Malandraki, R. Vainio, and J. Rodríguez-Pacheco (2025), Solar energetic particles injected inside and outside a magnetic cloud: The widespread solar energetic particle event on 2022 January 20, *Astron. & Astrophys.*, **694**, A64, 10.1051/0004-6361/202452158.

[446] Rodríguez-García, L., E. Palmerio, M. Pinto, N. Dresing, C. M. S. Cohen, R. Gómez-Herrero, J. Gieseler, F. Santos, F. Espinosa Lara, I. Cernuda, M. Mewes, C. Vallat, O. Witasse, and N. Altobelli (2025), Comparing observations of closely located JUICE and STEREO-A spacecraft during the widespread 13 May 2024 solar energetic particle event, *Astron. & Astrophys.*, **701**, A13, 10.1051/0004-6361/202555301.

[447] Rollero, U., S. Rojas Mata, T. Zhang, M. Persson, S. Bergman, and Y. Futaana (2025), Empirical Parametric Model for Venus Plasma Boundaries Based on Venus Express Data, *Astrophys. J.*, **986**(1), 65, 10.3847/1538-4357/add14d.

[448] Rossi, M., S. Guastavino, M. Piana, and A. M. Massone (2025), Extended drag-based model for better predicting the evolution of coronal mass ejections, *Astron. & Astrophys.*, **694**, A247, 10.1051/0004-6361/202452288.

[449] Ruan, M., P. Zuo, Z. Zhou, J. Wei, X. Feng, Y. Wang, Q. Xu, X. Xu, Z. Zou, and Z. Shen (2025), Similarities and Differences between ICME-driven Shocks Observed by VEX (∼0.72 au) and WIND (∼1.0 au), *Astrophys. J.*, **980**(1), 9, 10.3847/1538-4357/ada35b.

[450] Runov, A., V. Angelopoulos, A. V. Artemyev, X. Shi, and C. Gabrielse (2025), Prolonged Intervals of Relativistic Electron Storm-Time Flux Enhancements in the Magnetotail at Lunar Distance, *Geophys. Res. Lett.*, **52**(16), e2025GL116847, 10.1029/2025GL116847.

[451] Runov, A., V. Angelopoulos, A. V. Artemyev, J. Birn, M. J. Engebretson, J. M. Weygand, and Z. Xu (2025), THEMIS Observations of Relativistic Electrons at the Nightside Transition Region During HILDCAA Events, *J. Geophys. Res.*, **130**(2), 2024JA033,179, 10.1029/2024JA033179.

[452] Rutala, M. J., C. M. Jackman, C. K. Louis, A. R. Azari, F. Bagenal, S. P. Joy, W. S. Kurth, T. B. Keebler, R. S. Giles, R. W. Ebert, C. F. Bowers, and M. F. Vogt (2025), New Models of Jupiter's Magnetopause and Bow Shock Through the Juno Prime Mission: Probabilistic Location, Shape, and Internally-Driven Variation, *J. Geophys. Res.*, **130**(5), e2025JA033842, 10.1029/2025JA033842.

[453] Sabri, S., A. Mahmoudian, and S. Poedts (2025), Investigation of the May 2024 Solar Storm Through EUHFORIA/Gorgon-Space Simulations and Global SuperDARN Observations, *J. Geophys. Res.*, **130**(11), e2024JA033554, 10.1029/2024JA033554.

[454] Saha, S., D. Pallamraju, S. Kumar, V. L. Narayanan, and S. Sunda (2025), Cross-equatorial travelling ionospheric disturbances and changes in background ionospheric densities over Indian longitudes during geomagnetic storm of 20–21 December 2015, *Adv. Space Res.*, **75**(10), 7696–7710, 10.1016/j.asr.2025.02.066.

[455] Saiz, E., and C. Cid (2025), Alfvénic Contribution From the Solar Wind to Magnetospheric Dynamics, *Space Weather*, **23**(10), e2025SW004522, 10.1029/2025SW004522.

[456] Samara, E., E. Provornikova, C. N. Arge, A. J. McCubbin, and V. G. Merkin (2025), Why Do Solar Wind Models Get It Wrong? Understanding the Capabilities of Time-dependent Solar Wind Simulations, *Astrophys. J.*, **994**(2), 236, 10.3847/1538-4357/ae0b67.

[457] Saraogi, D., S. Bala, J. Joshi, S. Iyyani, V. Bhalerao, J. V. Aditya, D. S. Svinkin, A. Tsvetkova, D. D. Frederiks, A. L. Lysenko, A. V. Ridnaia, A. S. Kozyrev, D. V. Golovin, I. G. Mitrofanov, M. L. Litvak, A. B. Sanin, T. Chattopadyay, S. Gupta, G. Waratkar, D. Bhattacharya, S. Vadawale, and G. Dewangan (2025), Investigating polarization characteristics of GRB 200503A and GRB 201009A, *J. Astrophys. Astron.*, **46**(2), 38, 10.1007/s12036-025-10071-x.

[458] Saurav, S. K., A. Silwal, S. P. Gautam, B. Adhikari, M. Karki, L. A. Magrini, E. Echer, O. Mendes, and M. O. Domingues (2025), Investigation of Pc5 pulsations and their correlation with solar wind parameters during intense geomagnetic storms, *J. Atmos. Solar-Terr. Phys.*, **274**, 106534, 10.1016/j.jastp.2025.106534.

[459] Schmieder, B., J. Guo, G. Aulanier, A. Maharana, and S. Poedts (2025), Flare Energetics, CME Launch and Heliospheric Propagation for the May 2024 Events, as Derived from Ensemble MHD Modelling, *Solar Phys.*, **300**(9), 132, 10.1007/s11207-025-02553-6.

[460] Schmölter, E., and J. Berdermann (2025), The Impact of the 2024 Mother's Day Storm on Aircraft Surveillance Across Europe, *Space Weather*, **23**(12), e2025SW004718, 10.1029/2025SW004718.

[461] Schösser, E. C., J. M. Burgess, and J. Greiner (2025), Misidentification of short GRBs as magnetars in nearby galaxies, *Mon. Not. Roy. Astron. Soc.*, **537**(2), 1430–1443, 10.1093/mnras/staf067.

[462] Schroeder, G., W.-f. Fong, C. D. Kilpatrick, A. Rouco Escorial, T. Laskar, A. E. Nugent, J. Rastinejad, K. D. Alexander, E. Berger, T. G. Brink, R. Chornock, C. R. de Bom,

Y. Dong, T. Eftekhari, A. V. Filippenko, C. Fuentes-Carvajal, W. V. Jacobson-Galán, M. Malkan, R. Margutti, J. Pearson, L. Rhodes, R. Salinas, D. J. Sand, L. Santana-Silva, A. Santos, H. Sears, M. Shrestha, N. Smith, W. Webb, S. de Wet, and Y. Yang (2025), The Long-lived Broadband Afterglow of Short Gamma-Ray Burst 231117A and the Growing Radio-detected Short Gamma-Ray Burst Population, *Astrophys. J.*, **982**(1), 42, 10.3847/1538-4357/ada9e5.

[463] Scolini, C., B. Zhuang, N. Lugaz, R. M. Winslow, C. J. Farrugia, N. Magyar, and F. Bacchini (2025), Can Alfvénic Fluctuations Affect the Correlation and Complexity of Magnetic Field of Magnetic Ejecta? A Case Study Based on Multi-spacecraft Measurements at 1 au, *Astrophys. J.*, **978**(2), 146, 10.3847/1538-4357/ad9a55.

[464] Selvakumaran, R., S. A. Gokani, and S. L. Soni (2025), Detailed understanding of reduced geoeffectiveness of solar cycle 24 in association with geomagnetic storms, *Front. Astron. Space Sci.*, **12**, 1488696, 10.3389/fspas.2025.1488696.

[465] Shah, T., V. Bhaskara, Y. Omura, B. Ojha, S. Singh, R. Bhanu, and Y. Ebihara (2025), Magnetic field fluctuations coinciding with substorm events, *Earth, Planets and Space*, **77**(1), 198, 10.1186/s40623-025-02320-8.

[466] Shakya, P. J., B. Adhikari, A. Calabia, and A. Panthi (2025), Magnetospheric Pc5 pulsation generated by interplanetary shocks during the geomagnetic storms, *Astrophys. Space Sci.*, **370**(12), 131, 10.1007/s10509-025-04521-9.

[467] Sharma, K., V. Ravi, D. Z. Dong, G. Hallinan, C. Law, D. Levine, J. J. Somalwar, J. Miller, N. Kosogorov, and S. T. Myers (2025), Fast Luminous Extragalactic Transients in the VLA Sky Survey: Implications for the Rates of Accretion-induced Collapse Events, Fast Blue Optical Transients and Gamma Ray Burst Afterglows, *Publ. Astron. Soc. Pacific*, **137**(8), 084102, 10.1088/1538-3873/adf359.

[468] Sharykin, I. N., and I. V. Zimovets (2025), Statistics of Coronal Mass Ejections in Solar Flares with Helioseismic Response, *Astrophys. Bull.*, **80**(2), 294–311, 10.1134/S1990341324600856.

[469] She, Z., H. Zhu, X. Kong, Y. Chen, Y. Zhao, H. Chen, Z. Qin, and W. Ma (2025), Solar Energetic Particle Events During May 2024 Geomagnetic Superstorm, *Geophys. Res. Lett.*, **52**(24), e2025GL119559, 10.1029/2025GL119559.

[470] Shen, X.-C., W. Li, Q. Ma, M. Qin, L. Capannolo, M. Hanzelka, V. Angelopoulos, A. V. Artemyev, C. Wilkins, J. Liu, and E. Tsai (2025), Whistler Mode Wave-Driven Electron Scattering Properties From ELFIN Measurements of the Precipitation Ratio, *J. Geophys. Res.*, **130**(4), e2024JA033363, 10.1029/2024JA033363.

[471] Shi, X., H. Fu, Z. Huang, L. Yan, Q. Liu, and L. Xia (2025), Influence of Magnetic Complexity of Active Regions on Solar Wind Properties during Solar Cycles 23 and 24, *Astrophys. J. Suppl.*, **281**(2), 40, 10.3847/1538-4365/ae1007.

[472] Shimna, K., R. K. Archana, C. Vineeth, G. Lu, T. K. Pant, and M. S. M. Vijayan (2025), Impact of the Gannon Superstorm on the Equatorial Ionization Anomaly Dynamics During Its Recovery Phase on 11 May 2024, *Space Weather*, **23**(11), e2025SW004428, 10.1029/2025SW004428.

[473] Shinbori, A., N. Kitamura, K. Yamamoto, A. Kumamoto, F. Tsuchiya, S. Matsuda, Y. Kasahara, M. Teramoto, A. Matsuoka, T. Sori, Y. Otsuka, M. Nishioka, S. Perwitasari, Y. Miyoshi, and I. Shinohara (2025), Characteristics of temporal and spatial variation of the electron density in the plasmasphere and ionosphere during the May 2024 super geomagnetic storm, *Earth, Planets and Space*, **77**(1), 181, 10.1186/s40623-025-02317-3.

[474] Shoda, M., K. Tokoro, D. Shiota, and S. Imada (2025), Empirical Optimization of the Source-surface Height in the Potential Field Source Surface Extrapolation, *Astrophys. J.*, **993**(2), 242, 10.3847/1538-4357/ae10ba.

[475] Shu, X., L. Yang, H. Yang, F. Xu, J.-H. Chen, R. A. J. Eyles-Ferris, L. Dai, Y. Yu, R.-F. Shen, L. Sun, H. Ding, W. Zheng, N. Jiang, W. Li, N.-C. Sun, D. Xu, Z. Zhang, C. Jin, A. Rau, T. Wang, X.-f. Wu, W. Yuan, B. Zhang, K. Nandra, A. V. Filippenko, F. Poidevin, R. Soria, A. Kumar, D. S. Aguado, F. An, T. An, J. An, M. Andrews, R. Anutarawiramkul, P. Baldini, T. G. Brink, P. Butpan, Z. Cai, A. J. Castro-Tirado, H. Cheng, W. Cui, J. Farah, S. Fu, J. P. U. Fynbo, X. Gao, D. Han, X. Han, D. A. Howell, J. Hu, S. Jiang, B. Kumar, W. Lei, D. Li, C. Li, H. Liu, X. Liu, Y. Liu, X. Liu, A. López-Oramas, D. López Fernández-Nespral, J. R. Maund, C. McCully, Z. Niu, M. Newsome, P. O'Brien, H. Pan, Y. Pan, E. Padilla Gonzalez, I. Pérez-Fournon, W. Silima, H. Sun, S. Sun, X. Sun, G. Terreran, S. Tinyanont, J. Wang, Y. Wang, Y. Wang, K. Wiersema, Y. Xu, Y. Xue, Y. Yang, F. Zhang, J. Zhang, P. Zhang, W. Zhang, Y. Zhang, H. Zhao, Z. Zhu, L. Xin, Z. Yao, B. Cordier, J. Wei, Y. Qiu, and F. Daigne (2025), EP241021a: A Months-duration X-Ray Transient with Luminous Optical and Radio Emission, *Astrophys. J. Lett.*, **990**(1), L29, 10.3847/2041-8213/adf4cd.

[476] Shumko, M., A. Artemyev, S. Raptis, Y. Zou, D. L. Turner, A. Y. Ukhorskiy, C. Gabrielse, G. K. Stephens, I. J. Cohen, C. Wilkins, E. Tsai, S. Ohtani, B. Gallardo-Lacourt, K. Sorathia, V. Sergeev, J. W. Gjerloev, E. Donovan, E. Spanswick, V. Angelopoulos, and A. N. Jaynes (2025), On the Spatial Relationship Between the Aurora and Relativistic Electron Precipitation During a Storm-Time Substorm, *Geophys. Res. Lett.*, **52**(17), e2025GL116477, 10.1029/2025GL116477.

[477] Sierra-Porta, D., M. C. Verdugo, and D. D. Herrera Acevedo (2025), Global complexity signatures of solar cycles: A unified Entropy-Fractal survey of OMNI solar wind data (1964–2025), *Adv. Space Res.*, **76**(11), 7190–7204, 10.1016/j.asr.2025.09.072.

[478] Simon, P. A., C. H. K. Chen, M. J. Owens, and C. Sishtla (2025), Analog Ensemble Forecasts of Solar Wind Parameters: Quantification of the Predictability and Time-Domain Spectral Performance, *Space Weather*, **23**(7), e2025SW004473, 10.1029/2025SW004473.

[479] Singh, R., D. E. Scipión, K. Kuyeng, P. Condor, R. Flores, E. Pacheco, C. La Jara, and E. Manay (2025), Ionospheric Responses to an Extreme (G5-Level) Geomagnetic Storm

Using Multi-Instrument Measurements at the Jicamarca Radio Observatory on 10–11 October 2024, *J. Geophys. Res.*, **130**(4), e2024JA033642, 10.1029/2024JA033642.

[480] Sinha, S., D. G. Sibeck, M.-c. Fok, D. Oliveira, and A. K. Sinha (2025), Anomalous Substorm Signatures During Sudden Solar-Wind Pressure Enhancements, *J. Geophys. Res.*, **130**(6), e2025JA033758, 10.1029/2025JA033758.

[481] Sioulas, N., T. Zikopoulos, C. Shi, M. Velli, T. A. Bowen, A. Mallet, B. D. G. Chandran, L. Sorriso-Valvo, M. M. Martinović, S. S. Cerri, A. Verdini, N. Davis, and C. Dunn (2025), Higher-order Analysis of Three-dimensional Anisotropy in Imbalanced Alfvénic Turbulence, *Astrophys. J.*, **993**(1), 142, 10.3847/1538-4357/ae0934.

[482] Sitnov, M. I., G. K. Stephens, T. Motoba, and N. A. Tsyganenko (2025), The Substorms of 26 February 2008: A Data-Mining Perspective, *Geophys. Res. Lett.*, **52**(20), e2025GL116865, 10.1029/2025GL116865.

[483] Sitnov, M. I., G. K. Stephens, A. V. Artemyev, T. Motoba, and N. A. Tsyganenko (2025), Global Structure of the Cislunar Magnetotail and Its Evolution During Substorms, *J. Geophys. Res.*, **130**(7), e2025JA034018, 10.1029/2025JA03401810.22541/essoar.174366379.95432068/v1.

[484] Slyunyaev, N. N., F. G. Sarafanov, N. V. Ilin, E. A. Mareev, E. M. Volodin, A. V. Frank-Kamenetsky, and E. R. Williams (2025), The Seasonal Variation of the Direct Current Global Electric Circuit: 1. A New Analysis Based on Long-Term Measurements in Antarctica, *J. Geophys. Res.*, **130**(6), 2024JD042,633, 10.1029/2024JD042633.

[485] Slyunyaev, N. N., F. G. Sarafanov, N. V. Ilin, E. A. Mareev, E. M. Volodin, A. V. Frank-Kamenetsky, and E. R. Williams (2025), The Seasonal Variation of the Direct Current Global Electric Circuit: 2. Further Analysis Based on Simulations, *J. Geophys. Res.*, **130**(8), e2024JD042634, 10.1029/2024JD042634.

[486] Son, J., Y.-J. Moon, Y.-S. Kwak, K. S. Park, and H.-J. Jeong (2025), Six-hour Prediction of Interplanetary Magnetic Field B_z Profiles for Strong Southward Cases by Deep Learning, *Astrophys. J.*, **984**(1), 67, 10.3847/1538-4357/adc445.

[487] Sonawane, R., S. Iyyani, S. Gupta, T. Chattopadhyay, D. Bhattacharya, V. B. Bhalerao, S. V. Vadawale, and G. C. Dewangan (2025), Spectropolarimetry of GRB 180427A: Evidence for Distinct Emission Sites with Varying Polarization, *Astrophys. J.*, **990**(2), 215, 10.3847/1538-4357/adf43e.

[488] Song, X., R. Huo, S. Xu, X. Chen, and X. Luo (2025), The SDEMMA model for galactic cosmic ray and its dosimetric application, *Front. Astron. Space Sci.*, **12**, 1383946, 10.3389/fspas.2025.1383946.

[489] Soni, S. L., R. S. Gupta, and P. L. Verma (2025), Erratum: "Interplanetary Consequences and Geoeffectiveness of CME Associated with Major Solar Flare from NOAA AR 12673" (2020, RAA, 20, 23), *Res. Astron. Astrophys.*, **25**(3), 039601, 10.1088/1674-4527/adc36f.

[490] Sow Mondal, S., A. Sarkar, and S. Bourouaine (2025), Wave–Particle Interaction in the Upstream of Interplanetary Coronal Mass Ejection Shocks, *Astrophys. J.*, **987**(1), 55, 10.3847/1538-4357/add3f0.

[491] Srinivasaragavan, G. P., D. A. Perley, A. Y. Q. Ho, B. O'Connor, A. de Ugarte Postigo, N. Sarin, S. B. Cenko, J. Sollerman, L. Rhodes, D. A. Green, D. S. Svinkin, V. Bhalerao, G. Waratkar, A. J. Nayana, P. Chandra, M. C. Miller, D. B. Malesani, G. Ryan, S. Srijan, E. C. Bellm, E. Burns, D. J. Titterington, M. B. Stone, J. Purdum, T. Ahumada, G. C. Anupama, S. Barway, M. W. Coughlin, A. Drake, R. Fender, J. F. Agüí Fernández, D. D. Frederiks, S. Geier, M. J. Graham, M. M. Kasliwal, S. R. Kulkarni, H. Kumar, M. L. Li, R. R. Laher, A. L. Lysenko, G. Parwani, R. A. Perley, A. V. Ridnaia, A. Salgundi, R. Smith, N. Sravan, V. Swain, C. C. Thöne, A. E. Tsvetkova, M. V. Ulanov, J. Vail, J. L. Wise, and A. Wold (2025), Multiwavelength analysis of AT 2023sva: a luminous orphan afterglow with evidence for a structured jet, *Mon. Not. Roy. Astron. Soc.*, **538**(1), 351–372, 10.1093/mnras/staf290.

[492] Srivastav, S., T.-W. Chen, J. H. Gillanders, L. Rhodes, S. J. Smartt, M. E. Huber, A. Aryan, S. Yang, A. Beri, A. J. Cooper, M. Nicholl, K. W. Smith, H. F. Stevance, F. Carotenuto, K. C. Chambers, A. Aamer, C. R. Angus, M. D. Fulton, T. Moore, I. A. Smith, D. R. Young, T. de Boer, H. Gao, C.-C. Lin, T. Lowe, E. A. Magnier, P. Minguez, Y.-C. Pan, and R. J. Wainscoat (2025), Identification of the Optical Counterpart of the Fast X-Ray Transient EP240414a, *Astrophys. J. Lett.*, **978**(2), L21, 10.3847/2041-8213/ad9c75.

[493] Starodubtsev, S. (2025), MHD waves in the pre-front region of the interplanetary shock on May 10, 2024, *Solar-Terrestrial Physics*, **11**(3), 50–58, 10.12737/stp-113202507.

[494] Stephens, G. K., M. I. Sitnov, N. A. Tsyganenko, and R. S. Weigel (2025), Empirical Reconstruction of Pre-1995 Extreme Storms Using ML-Derived Solar Wind Inputs, *Space Weather*, **23**(6), e2024SW004293, 10.1029/2024SW00429310.22541/essoar.173559680.05171890/v1.

[495] Stumpo, M., M. Laurenza, S. Benella, A. Milillo, C. Plainaki, M. J. West, P. Zucca, S. Barabash, D. Heyner, A. Varsani, G. Murakami, S. Narendranath, A. Aronica, H. U. Auster, L. Biasiotti, A. Brin, L. Colasanti, D. Constantinescu, E. De Angelis, P. P. Di Bartolomeo, D. Fischer, S. Ivanovski, H. Jeszenszky, A. Kazakov, G. Laky, V. Mangano, S. Massetti, M. Moroni, A. Mura, L. Narici, H. Nilsson, R. Noschese, S. Orsini, G. Richards, I. Richter, R. Rispoli, B. Sanchez-Cano, R. Sordini, S. P. Tadepalli, N. Vertolli, M. Wieser, and H. Williamson (2025), In-depth Analysis of the 2022 March 28 ^{3}He-rich Solar Energetic Particle Event, *Astrophys. J.*, **987**(1), 80, 10.3847/1538-4357/add5f1.

[496] Sun, H., C.-W. Wang, J. Yang, B.-B. Zhang, S.-L. Xiong, Y.-H. I. Yin, Y. Liu, Y. Li, W.-C. Xue, Z. Yan, C. Zhang, W.-J. Tan, H.-W. Pan, J.-C. Liu, H.-Q. Cheng, Y.-Q. Zhang, J.-W. Hu, C. Zheng, Z.-H. An, C. Cai, Z.-M. Cai, L. Hu, C. Jin, D.-Y. Li, X.-Q. Li, H.-Y. Liu, M. Liu, W.-X. Peng, L.-M. Song, S.-L. Sun, X.-J. Sun, X.-L. Wang, X.-Y. Wen, S. Xiao, S.-X. Yi, F. Zhang, W.-D. Zhang, X.-F. Zhang, Y.-H. Zhang, D.-H.

Zhao, S.-J. Zheng, Z.-X. Ling, S.-N. Zhang, W. Yuan, and B. Zhang (2025), Magnetar emergence in a peculiar gamma-ray burst from a compact star merger, *National Science Review*, **12**(3), nwae401, 10.1093/nsr/nwae401.

[497] Sun, H., W.-X. Li, L.-D. Liu, H. Gao, X.-F. Wang, W. Yuan, B. Zhang, A. V. Filippenko, D. Xu, T. An, S. Ai, T. G. Brink, Y. Liu, Y.-Q. Liu, C.-Y. Wang, Q.-Y. Wu, X.-F. Wu, Y. Yang, B.-B. Zhang, W.-K. Zheng, T. Ahumada, Z.-G. Dai, J. Delaunay, N. Elias-Rosa, S. Benetti, S.-Y. Fu, D. A. Howell, Y.-F. Huang, M. M. Kasliwal, V. Karambelkar, R. Stein, W.-H. Lei, T.-Y. Lian, Z.-K. Peng, D. D. Frederiks, A. V. Ridnaia, D. S. Svinkin, X.-Y. Wang, A.-L. Wang, D.-M. Wei, J. An, M. Andrews, J.-M. Bai, C.-Y. Dai, S. A. Ehgamberdiev, Z. Fan, J. Farah, H.-C. Feng, J. P. U. Fynbo, W.-J. Guo, Z. Guo, M.-K. Hu, J.-W. Hu, S.-Q. Jiang, J.-J. Jin, A. Li, J.-D. Li, R.-Z. Li, Y.-F. Liang, Z.-X. Ling, X. Liu, J.-R. Mao, C. McCully, D. Mirzaqulov, M. Newsome, E. Padilla Gonzalez, X. Pan, G. Terreran, S. Tinyanont, B.-T. Wang, L.-Z. Wang, X.-D. Wen, D.-F. Xiang, S.-J. Xue, J. Yang, Z.-P. Zhu, Z.-M. Cai, A. J. Castro-Tirado, F.-S. Chen, H.-L. Chen, T.-X. Chen, W. Chen, Y.-H. Chen, Y.-F. Chen, Y. Chen, H.-Q. Cheng, B. Cordier, C.-Z. Cui, W.-W. Cui, Y.-F. Dai, D.-W. Fan, H. Feng, J. Guan, D.-W. Han, D.-J. Hou, H.-B. Hu, M.-H. Huang, J. Huo, S.-M. Jia, Z.-Q. Jia, B.-W. Jiang, C.-C. Jin, G. Jin, E. Kuulkers, C.-K. Li, D.-Y. Li, J.-F. Li, L.-H. Li, M.-S. Li, W. Li, Z.-D. Li, C.-Z. Liu, H.-Y. Liu, H.-Q. Liu, M.-J. Liu, F.-J. Lu, L.-D. Luo, J. Ma, X. Mao, K. Nandra, P. O'Brien, H.-W. Pan, A. Rau, N. Rea, J. Sanders, L.-M. Song, S.-L. Sun, X.-J. Sun, Y.-Y. Tan, Q.-J. Tang, Y.-H. Tao, H. Wang, J. Wang, L. Wang, W.-X. Wang, Y.-L. Wang, Y.-S. Wang, D.-R. Xiong, H.-T. Xu, J.-J. Xu, X.-P. Xu, Y.-F. Xu, Z. Xu, C.-B. Xue, Y.-L. Xue, A.-L. Yan, H.-N. Yang, X.-T. Yang, Y.-J. Yang, C. Zhang, J. Zhang, M. Zhang, S.-N. Zhang, W.-D. Zhang, W.-J. Zhang, Y.-H. Zhang, Z. Zhang, Z. Zhang, Z.-L. Zhang, D.-H. Zhao, H.-S. Zhao, X.-F. Zhao, Z.-J. Zhao, Y.-L. Zhou, Y.-X. Zhu, Z.-C. Zhu, and H. Zou (2025), A fast X-ray transient from a weak relativistic jet associated with a type Ic-BL supernova, *Nature Astron.*, **9**, 1073–1085, 10.1038/s41550-025-02571-1.

[498] Sun, X., R. Lin, S. Liu, B. Luo, S. Liu, and X. Dong (2025), Enhancing ≥2 MeV Electron Fluence Predictions in GEO Orbit Through Three Deep Learning Strategies, *Space Weather*, **23**(8), e2025SW004519, 10.1029/2025SW004519.

[499] Sun, Y., and H. Wang (2025), Interplanetary Magnetic Field Bx Effect on Field-Aligned Currents in Different Local Times, *Remote Sensing*, **17**(6), 1007, 10.3390/rs17061007.

[500] Sun, Y.-J., Q.-H. Zhang, Z.-Y. Xing, X.-Y. Wang, D. Zhang, B.-B. Tang, S. Lu, Y.-Z. Ma, Y. Wang, Z.-F. Xiu, X.-M. Chen, T. Xu, S.-J. Sun, J. Wang, and V. Manu (2025), Characteristics of multiple transpolar arcs motion and its corresponding magnetospheric dynamic process, *Front. Astron. Space Sci.*, **12**, 1589264, 10.3389/fspas.2025.1589264.

[501] Sur, D., R. Robinson, and K. Garcia-Sage (2025), Intercomparison of Model Determinations of Auroral Electrodynamic Parameters, *Space Weather*, **23**(3), 2024SW004,023, 10.1029/2024SW004023.

[502] Svenningsson, I., E. Yordanova, Y. V. Khotyaintsev, M. André, and G. Cozzani (2025), Classifying the Magnetosheath Using Local Measurements From MMS, *J. Geophys. Res.*, **130**(1), 2024JA033,272, 10.1029/2024JA033272.

[503] Svertilov, S. I., V. V. Bogomolov, A. V. Bogomolov, A. F. Iyudin, V. V. Kalegaev, V. I. Osedlo, and M. Korzhik (2025), Monitoring of space radiation and electromagnetic transients by Moscow State University nano-satellites, *Adv. Space Res.*, **75**(9), 6608–6622, 10.1016/j.asr.2024.08.025.

[504] Tachi, K., Y. Katoh, and O. Santolík (2025), Whistler-Mode Chorus Wave Duct Propagation Caused by Ultralow Frequency Wave: Event Analysis and Ray-Tracing Simulation, *Geophys. Res. Lett.*, **52**(17), e2025GL116840, 10.1029/2025GL116840.

[505] Taguchi, S., T. Oigawa, Y. Nagafusa, H. Shinagawa, K. Hosokawa, Y. Ogawa, and H. Koike (2025), Suppression of ion heating in the cusp during plasma flow burst, *Earth, Planets and Space*, **77**(1), 136, 10.1186/s40623-025-02264-z.

[506] Tahir, A., F. Wu, M. Shah, P. Jamjareegulgarn, and M. A. Ameen (2025), Hemispheric responses of ionosphere-thermosphere to intense geomagnetic storms over the East Asian-Australian sector, *Adv. Space Res.*, **76**(10), 6238–6255, 10.1016/j.asr.2025.08.063.

[507] Tan, L. C. (2025), Proton Intensity Dropout in Isotropic Turbulence Regime during Gradual Solar Energetic Particle Events in Solar Cycle 23, *Astrophys. J.*, **983**(1), 4, 10.3847/1538-4357/adba50.

[508] Tan, W.-J., C.-W. Wang, P. Zhang, W.-C. Xue, S.-L. Xiong, B.-B. Wu, J.-C. Liu, Y. Wang, S.-L. Xie, Z.-H. Yu, J.-P. Zhang, W.-L. Zhang, Y.-Q. Zhang, and C. Zheng (2025), Search for Type IL Gamma-Ray Bursts: Criterion, Results, Verification, and Physical Implication, *Astrophys. J.*, **993**(1), 89, 10.3847/1538-4357/ae0456.

[509] Tang, J., S. Wang, J. Wang, M. Hu, and C. Xu (2025), Analysis of Ionospheric Disturbances in China During the December 2023 Geomagnetic Storm Using Multi-Instrument Data, *Remote Sensing*, **17**(9), 1629, 10.3390/rs17091629.

[510] Tang, Y. T., S. Y. Huang, Z. G. Yuan, K. Jiang, Z. Wang, Q. Y. Xiong, R. T. Lin, L. Yu, and H. Bai (2025), Observations of Intense Energy Conversion Events in the Earth's Magnetotail, *J. Geophys. Res.*, **130**(4), e2024JA033416, 10.1029/2024JA033416.

[511] Tao, X., F. Shen, and X. Luo (2025), Modeling Energetic Proton Transport from a Stream Interaction Region to Compound Streams, *Astrophys. J.*, **978**(2), 143, 10.3847/1538-4357/ad96ae.

[512] Tao, X., F. Shen, X. Feng, W. Lian, B. Tang, and Y. Yang (2025), Simulation of the 2010 September 9 Solar Energetic Particle Event by Using a Data-constrained Transport Model, *Astrophys. J.*, **995**(1), 77, 10.3847/1538-4357/ae17bd.

[513] Teklu, T., N. Gopalswamy, P. Mäkelä, S. Yashiro, S. Akiyama, and H. Xie (2025), On the Hierarchical Relationship Between Type-II Radio Bursts and the Associated Coronal Mass Ejections, *Solar Phys.*, **300**(2), 13, 10.1007/s11207-024-02422-8.

[514] Temmer, M., M. Dumbović, K. Martinić, G. M. Cappello, A. K. Remeshan, F. Matković, D. Milošić, F. Koller, J. Čalogović, R. Susino, and M. Romoli (2025), Comparative analysis of two episodes of strongly geoeffective coronal mass ejection events in November and December 2023, *Astron. & Astrophys.*, **695**, A58, 10.1051/0004-6361/202451479.

[515] Terauchi, K., T. Oka, and K. Asano (2025), Evidence for GeV Gamma-Ray Emission from Intense GRB 240529A During the Afterglow's Shallow Decay Phase, *Astrophys. J.*, **986**(2), 189, 10.3847/1538-4357/add113.

[516] Thakur, P., and G. Vichare (2025), Some Interesting Observations of Cosmic Ray Variations during the Extreme Solar Storm on 2024 May 10–11, *Astrophys. J.*, **991**(1), 50, 10.3847/1538-4357/adf32c.

[517] Thampi, S. V., A. Bhaskar, I. Venugopal, S. Biswas, and V. K. Yadav (2025), Extreme Geoeffectiveness by the Turbulent Sheath of the ICME of the 2024 October Space Weather Event, *Astrophys. J.*, **995**(2), 226, 10.3847/1538-4357/ae1974.

[518] Thapa, T., and Y. Yan (2025), Statistical Study of DH Type II Bursts and Associated CMEs During Solar Cycle 24, *Res. Astron. Astrophys.*, **25**(9), 095002, 10.1088/1674-4527/ade58e.

[519] Tian, X., H. Lü, W. Tan, S. Xiong, H. Yuan, W. Yu, S. Zhong, W. Zhang, and E. Liang (2025), Signature of Strange Star as the Central Engine of GRB 240529A, *Astrophys. J.*, **982**(1), 19, 10.3847/1538-4357/adb711.

[520] Tokumaru, M., N. Nozaki, and K. Fujiki (2025), Linear Correlation Between Radial and Normal Component Fluctuations of the Interplanetary Magnetic Field, *Solar Phys.*, **300**(5), 71, 10.1007/s11207-025-02475-3.

[521] Tonoian, D. S., X.-J. Zhang, A. Artemyev, Q. Ma, R. W. Ebert, and F. Allegrini (2025), Parametric Regimes of Thin Current Sheets in Planetary Magnetospheres and Solar Wind, *J. Geophys. Res.*, **130**(6), e2025JA033942, 10.1029/2025JA033942.

[522] Toy Edens, V., S. Raptis, D. L. Turner, W. Mo, and S. A. Q. Young (2025), Automated Bow Shock Identification and Multi Spacecraft Timing Using Magnetospheric Multiscale (MMS) Observations, *J. Geophys. Res.*, **130**(10), e2025JA034252, 10.1029/2025JA034252.

[523] Trattner, K. J., S. M. Petrinec, S. A. Fuselier, B. Michotte de Welle, B. Lavraud, N. Aunai, R. Ergun, and J. L. Burch (2025), The Motion of the Primary Dayside Reconnection X-Line, *J. Geophys. Res.*, **130**(12), e2025JA034645, 10.1029/2025JA034645.

[524] Trattner, K. J., J. LaBelle, O. Santolik, C. A. Kletzing, D. M. Miles, S. A. Fuselier, J. W. Bonnell, S. R. Bounds, I. Kolmasova, S. M. Petrinec, R. P. Sawyer, S. K. Vines, C. Moser-Gauthier, I. H. Cairns, and T. K. Yeoman (2025), From the TRICE-2 Investigations to the TRACERS Mission, *Space Sci. Rev.*, **221**(4), 52, 10.1007/s11214-025-01178-2.

[525] Tripathi, S. C., H. Haralambous, and T. Biswas (2025), Ionospheric Variability During the 10 October 2024 Geomagnetic Storm: A Regional Analysis Across Europe, *Atmos.*, **16**(9), 1029, 10.3390/atmos16091029.

[526] Trotta, D., T. S. Horbury, and J. Giacalone (2025), Variability in energetic particle observations at strong interplanetary shocks: Multi-spacecraft observations, *Astron. & Astrophys.*, **702**, A31, 10.1051/0004-6361/202555771.

[527] Trueba, N., J. C. Raymond, C. Downs, S. T. Lepri, K. K. Reeves, Y. J. Rivera, M. L. Wilson, and C. Shen (2025), A 3D Nonequilibrium Ionization Model of a Shock Wave in the Low Corona. I. Extreme-ultraviolet Emission and Inefficient Electron Heating, *Astrophys. J.*, **989**(2), 175, 10.3847/1538-4357/ade682.

[528] Tsvetkova, A., L. Amati, M. Bulla, L. Burderi, D. Frederiks, F. Frontera, C. Guidorzi, A. Riggio, T. di Salvo, A. Sanna, and F. Sviridov (2025), Gamma-ray burst taxonomy: Looking for the third class on the spectral peak energy-duration plane in the rest frame, *Astron. & Astrophys.*, **698**, A169, 10.1051/0004-6361/202452673.

[529] Tsyganenko, N. A., N. T. Gubaidulin, V. S. Semenov, and N. V. Erkaev (2025), Magnetosheath Proton Density and Temperature as Derived From Data-Constrained Modeling, *J. Geophys. Res.*, **130**(12), e2025JA034343, 10.1029/2025JA034343.

[530] Turc, L., K. Takahashi, P. Kajdič, E. K. J. Kilpua, T. Sarris, M. Palmroth, J. Soucek, Y. Pfau-Kempf, A. Dimmock, and N. Takahashi (2025), From Foreshock 30-Second Waves to Magnetospheric Pc3 Waves, *Space Sci. Rev.*, **221**(2), 26, 10.1007/s11214-025-01152-y.

[531] Turkmen, M. C., Y. H. Lee, and E. L. Tan (2025), IonoBench: Evaluating Spatiotemporal Models for Ionospheric Forecasting Under Solar-Balanced and Storm-Aware Conditions, *Remote Sensing*, **17**(15), 2557, 10.3390/rs17152557.

[532] Turner, H., M. Owens, L. Barnard, M. Lang, E. Henley, F.-X. Bocquet, S. Gonzi, C. N. Arge, R. Biddiscombe, and T. Baratashvili (2025), Using Solar Wind Data Assimilation Results to Drive Dynamic Solar Wind Models, *Space Weather*, **23**(9), e2025SW004559, 10.1029/2025SW00455910.22541/essoar.174914334.47766586/v1.

[533] Uga, C. I., C. Y. Goshu, and K. S. Rikitu (2025), Solar Wind Energy Coupling and Cosmic Ray Intensity: A Study of Key Solar Parameters, *Radio Science*, **60**(11), e2025RS008233, 10.1029/2025RS008233.

[534] Ugwu, C. J., J. A. Alhassan, O. Okike, F. M. Menteso, N. M. Ugwu, A. E. Chukwude, E. U. Iyida, I. O. Eya, R. E. Ugwoke, D. C. Obiegbuna, F. C. Odo, and O. P. Orji (2025), Effect of solar wind disturbances on small-amplitude simultaneous Forbush events during solar cycle 23, *Adv. Space Res.*, **75**(1), 1354–1370, 10.1016/j.asr.2024.09.011.

[535] Umuhire, A. C., N. Gopalswamy, and J. Uwamahoro (2025), An assessment of potentially space weather causing CMEs through analysis of associated interplanetary type II solar radio bursts and solar energetic particle events, *J. Atmos. Solar-Terr. Phys.*, **274**, 106579, 10.1016/j.jastp.2025.106579.

[536] Usmanov, A. V., R. Chhiber, W. H. Matthaeus, S. Roy, and M. L. Goldstein (2025), A Unified Three-dimensional Magnetohydrodynamic Model of the Solar Corona, Solar Wind, and Global Heliosphere with Turbulence Transport, *Astrophys. J.*, **993**(1), 87, 10.3847/1538-4357/ae019c.

[537] van Dalen, J. N. D., A. J. Levan, P. G. Jonker, D. B. Malesani, L. Izzo, N. Sarin, J. Quirola-Vásquez, D. Mata Sánchez, A. de Ugarte Postigo, A. P. C. van Hoof, M. A. P. Torres, S. Schulze, S. P. Littlefair, A. Chrimes, M. E. Ravasio, F. E. Bauer, A. Martin-Carrillo, M. Fraser, A. J. van der Horst, P. Jakobsson, P. O'Brien, M. De Pasquale, G. Pugliese, J. Sollerman, N. R. Tanvir, T. Zafar, J. P. Anderson, L. Galbany, A. Gal-Yam, M. Gromadzki, T. E. Müller-Bravo, F. Ragosta, and J. H. Terwel (2025), The Einstein Probe Transient EP240414a: Linking Fast X-Ray Transients, Gamma-Ray Bursts, and Luminous Fast Blue Optical Transients, *Astrophys. J. Lett.*, **982**(2), L47, 10.3847/2041-8213/adbc7e.

[538] van der Merwe, F. H., and N. E. Engelbrecht (2025), Revisiting the Winding Angle of the Heliospheric Magnetic Field: Investigating the Influence of Turbulence, *Solar Phys.*, **300**(6), 80, 10.1007/s11207-025-02490-4.

[539] van Hazendonk, C. M., L. Baddeley, K. M. Laundal, and D. A. Lorentzen (2025), A statistical study of optical signatures of high-latitude Pc5 waves, *J. Atmos. Solar-Terr. Phys.*, **274**, 106585, 10.1016/j.jastp.2025.106585.

[540] Čalogović, J., M. Dumbović, K. Martinić, M. Temmer, and B. Vršnak (2025), Constraints to the drag-based reverse modeling, *Astron. & Astrophys.*, **695**, A64, 10.1051/0004-6361/202346874.

[541] Veenadhari, B., S. Tulasi Ram, S. Mukherjee, T. Shah, N. Bhosale, and A. P. Dimri (2025), The Role of Solar Wind Dynamic Pressure in Determining the Intensity of the Geomagnetic Storm, *J. Geophys. Res.*, **130**(11), e2025JA034324, 10.1029/2025JA034324.

[542] Vemareddy, P., and K. Selva Bharathi (2025), An Intense Geomagnetic Storm Originated from Stealth Coronal Mass Ejection: Remote and In Situ Observations by Near Radially Aligned Spacecraft, *Astrophys. J.*, **994**(1), 3, 10.3847/1538-4357/ae0992.

[543] Wada, T., and K. Asano (2025), Radiative Acceleration and X-ray Spectrum of an Outflowing Pure Electron-Positron Pair Fireball in Magnetar Bursts, *Progress of Theoretical and Experimental Physics*, **2025**(3), 033E01, 10.1093/ptep/ptaf033.

[544] Waghule, B., D. J. Knipp, G. K. Stephens, and D. M. Malaspina (2025), Linking Very Near-Earth Reconnection (VNERX) to Mid-Latitude GICs: Evidence From the 7 September 2017 Storm, *Geophys. Res. Lett.*, **52**(20), e2025GL117714, 10.1029/2025GL117714.

[545] Wahlund, J.-E., J. E. S. Bergman, L. Åhlén, W. Puccio, B. Cecconi, Y. Kasaba, I. Müller-Wodarg, H. Rothkaehl, M. Morawski, O. Santolik, J. Soucek, J. Grygorczuk, Ł. Wisniewski, P. Henri, J. L. Rauch, O. Le Duff, A. Retinò, M. Mansour, S. Stverak, J. Laifr,

D. Andrews, M. André, I. Benko, M. Berglund, V. Cripps, C. Cully, J. Davidsson, A. Dimmock, N. J. T. Edberg, A. I. Eriksson, J. Fredriksson, R. Gill, S. Gomis, B. Holback, S.-E. Jansson, F. Johansson, E. P. G. Johansson, Y. Khotyaintsev, B. Mårtensson, M. W. Morooka, T. Nilsson, D. Ohlsson, D. Pelikan, L. Richard, F. Shiwa, E. Vigren, H. C. Wong, X. Bonnin, J. N. Girard, L. Grosset, F. Henry, L. Lamy, J.-P. Lebreton, P. Zarka, Y. Katoh, H. Kita, A. Kumamoto, H. Misawa, F. Tsuchiya, M. Galand, T. Barcinski, J. Baran, T. Kowalski, P. Szewczyk, B. Grison, J. Jansky, I. Kolmasova, R. Lan, D. Pisa, U. Taubenschuss, L. Uhlir, K. Bochra, M. Borys, M. Duda, T. Kucinski, M. Ossowski, P. Palma, M. Tokarz, F. Colin, P. Dazzi, E. De Léon, T. Hachemi, A.-L. Millet, O. Randrianboarisson, O. Sene, T. Chust, O. Le Contel, P. Canu, L. Hadid, F. Sahraoui, Y. Zouganelis, D. Alison, N. Ba, A. Jeandet, M. Lebassard, J.-D. Techer, F. Mehrez, L. Varizat, A. V. Sumant, G. Sou, P. Hellinger, P. Travnicek, L. Bylander, G. Giono, N. Ivchenko, A. Kullen, L. Roth, A. Vaivads, K. Tanimoto, H. Mizuno, A. Sawamura, T. Suzuki, M. Namiki, S. Fujishima, K. Asai, T. Shimoyama, M. Fujii, Y. Sato, J. Birch, B. Bakhit, G. Greczynski, P. Gare, S. Landström, R. LeLetty, E. Ryszawa, I. Torralba, J. L. Trescastro, S. Osipenco, U. Wiklund, A. Roos, J. C. Söderström, O. Björneholm, G. Fischer, T. Nyberg, K. K. Kovi, M. Balikhin, K. H. Yearby, M. Holmberg, C. M. Jackman, C. K. Louis, A. Rhouni, V. Leray, N. Geyskens, C. Berthod, B. Lemaire, A. Clémencon, G. Wattieaux, N. André, P. Garnier, V. Génot, P. Louarn, A. Marchaudon, R. Modolo, C.-A. Baskevitch, L. G. Hess, L. Leclercq, J. Saur, T. Kimura, H. Kojima, S. Yagitani, and Y. Miyoshi (2025), The Radio & Plasma Wave Investigation (RPWI) for the JUpiter ICy moons Explorer (JUICE), *Space Sci. Rev.*, **221**(1), 1, 10.1007/s11214-024-01110-0.

[546] Walach, M.-T., and A. Grocott (2025), Modeling the Time-Variability of the Ionospheric Electric Potential (TiVIE), *Space Weather*, **23**(7), e2024SW004139, 10.1029/2024SW004139.

[547] Walach, M.-T., A. R. Fogg, J. C. Coxon, A. Grocott, S. E. Milan, H. K. Sangha, K. A. McWilliams, S. K. Vines, M. Lester, and B. J. Anderson (2025), Reliability of Matching AMPERE Field-Aligned Current Boundaries With SuperDARN Lower Latitude Ionospheric Convection Boundaries During Geomagnetic Storms, *J. Geophys. Res.*, **130**(1), 2024JA033,253, 10.1029/2024JA033253.

[548] Walker, S., S. Hatch, K. Laundal, J. Reistad, A. Ohma, and C. M. Jackman (2025), Predictors of Substorm Onset Conjugate Displacement, *J. Geophys. Res.*, **130**(3), 2024JA033,408, 10.1029/2024JA033408.

[549] Wallace, S., N. Zambrana Prado, I. Gershkovich, N. M. Viall, P. Young, T. A. Kucera, S. T. Lepri, S. L. Yardley, J. M. Raines, S. A. Livi, and R. M. Dewey (2025), Connecting Solar Orbiter and L1 Measurements of Mesoscale Solar Wind Structures to Their Coronal Source Using the ADAPT-WSA Model, *Astrophys. J.*, **990**(2), 97, 10.3847/1538-4357/adec6c.

[550] Wang, B., M. Fang, M. He, Y. Ma, and R. Chen (2025), Real-time forecasting of ring current proton flux during geomagnetic storms using LSTM networks, *Adv. Space Res.*, **76**(9), 5556–5565, 10.1016/j.asr.2025.07.068.

[551] Wang, B., M. Fang, M. He, and Y. Ma (2025), LSTM-Based Modeling of Radiation Belt Electrons Using MagEIS Observations From RBSP Satellites, *Space Weather*, **23**(9), e2025SW004492, 10.1029/2025SW004492.

[552] Wang, C., G. Branduardi-Raymont, C. P. Escoubet, and C. Forsyth (2025), Solar Wind Magnetosphere Ionosphere Link Explorer (SMILE): Science and Mission Overview, *Space Sci. Rev.*, **221**(1), 9, 10.1007/s11214-024-01126-6.

[553] Wang, C. Z., and H. Wang (2025), Local Time and Hemispheric Asymmetries of Ionospheric Electromagnetic Ion Cyclotron Waves During May 2024 Superstorm Periods, *J. Geophys. Res.*, **130**(10), e2025JA034501, 10.1029/2025JA034501.

[554] Wang, H., L. Yang, S. Poedts, A. Lani, Y. Zhou, Y. Gao, L. Linan, J. Lv, T. Baratashvili, J. Guo, R. Lin, Z. Su, C. Li, M. Zhang, W. Wei, Y. Yang, Y. Li, X. Ma, E. Husidic, H.-J. Jeong, M. Najafi-Ziyazi, J. Wang, and B. Schmieder (2025), SIP-IFVM: A Time-evolving Coronal Model with an Extended Magnetic Field Decomposition Strategy, *Astrophys. J. Suppl.*, **278**(2), 59, 10.3847/1538-4365/add0b1.

[555] Wang, H. P., S. Poedts, A. Lani, M. Brchnelova, T. Baratashvili, L. Linan, F. Zhang, D. W. Hou, and Y. H. Zhou (2025), Efficient magnetohydrodynamic modelling of the time-evolving corona by COCONUT, *Astron. & Astrophys.*, **694**, A234, 10.1051/0004-6361/202452279.

[556] Wang, H. P., S. Poedts, A. Lani, L. Linan, T. Baratashvili, F. Zhang, D. Sorokina, H.-J. Jeong, Y. C. Li, M. Najafi-Ziyazi, and B. Schmieder (2025), Time-evolving coronal modelling of the solar maximum around the solar storms in May 2024 by COCONUT, *Astron. & Astrophys.*, **702**, A37, 10.1051/0004-6361/202555760.

[557] Wang, J., J. Tang, C. Xu, L. Zhang, and Y. Wang (2025), Ionospheric Disturbances Detection Based on BDS-GEO Observations With Prophet Model Over China: A Case Study of May 2017 Geomagnetic Storm, *J. Geophys. Res.*, **130**(3), 2024JA033,472, 10.1029/2024JA033472.

[558] Wang, L. D., Y. Wang, F. S. Wei, X. S. Feng, B. Y. Wang, P. B. Zuo, Y. L. Chen, X. J. Xu, and Z. L. Zhou (2025), Turbulence-driven Anisotropic Acceleration of Energetic Electrons in Solar Wind Current Sheets, *Astrophys. J. Lett.*, **994**(1), L25, 10.3847/2041-8213/ae1b92.

[559] Wang, M., B. Chen, T. Knuth, C. Cohen, J. Lee, H. Wang, and S. Yu (2025), Two Phases of Particle Acceleration of a Solar Flare Associated with In Situ Energetic Particles, *Astrophys. J.*, **983**(1), 33, 10.3847/1538-4357/adbdd0.

[560] Wang, Q., L. Xie, Y. Xiong, and S. Fu (2025), Real-Time Forecasting of Pitch Angle-Resolved Differential Electron Flux at MEO Using Solar Wind and Geomagnetic Indices, *Space Weather*, **23**(9), e2025SW004339, 10.1029/2025SW004339.

[561] Wang, T., C. Xiao, W. Chen, X. Qin, X. Dong, G. Ren, H. Huang, D. Duan, and Y. Xu (2025), The Density of the Earth's Cusp Region: Three-Dimensional Distribution, Formation, and Influencing Factors, *J. Geophys. Res.*, **130**(3), 2024JA033,413, 10.1029/2024JA033413.

[562] Wang, X., E. Aa, Y. Chen, J. Zhang, Y. Zhu, L. Cai, X. Lu, B. Luo, S. Liu, M. Li, H. Shen, and T. Yuan (2025), Midlatitude Neutral Wind Response During the Mother's Day Super-Intense Geomagnetic Storm in 2024 Using Observations From the Chinese Meridian Project, *J. Geophys. Res.*, **130**(4), e2024JA033574, 10.1029/2024JA033574.

[563] Wang, X., L. Dai, T. Wang, Y. Ren, M. Zhu, X. Yang, C. Wang, and W. Gonzalez (2025), Inner Magnetospheric Convection Electric Fields and Corresponding Geomagnetic Indices During High-Speed Solar Wind Streams, *Space Weather*, **23**(8), e2025SW004548, 10.1029/2025SW004548.

[564] Wang, Y., and D. Han (2025), PAOPS (Prenoon Auroral Oval Poleward Shift): A Novel Prenoon-Postnoon Auroral Asymmetry Phenomenon Revealed by Simultaneous Interhemispheric Observations, *Geophys. Res. Lett.*, **52**(15), e2025GL117293, 10.1029/2025GL117293.

[565] Wang, Y., L. D. Wang, F. S. Wei, X. S. Feng, W. Y. Zhang, B. Y. Wang, P. B. Zuo, X. J. Xu, and Z. L. Zhou (2025), Two Pathways of Turbulent Energy Processing in Solar Wind Current Sheets: Confined Fragmentation versus Organized Transport, *Astrophys. J.*, **994**(1), 15, 10.3847/1538-4357/ae1010.

[566] Wang, Y., P. T. Jayachandran, Q. H. Zhang, Y. Chen, Z. Y. Xing, Y. Z. Ma, W. F. Nie, B. L. Zhao, J. C. Sun, S. R. Zhang, S. Shepherd, and S. Koustov (2025), Morphological Comparison of Standard Scintillation Indices at the Canadian Arctic During a Strong Geomagnetic Storm: A Case Study, *J. Geophys. Res.*, **130**(11), e2025JA034211, 10.1029/2025JA034211.

[567] Wang, Y., D.-S. Han, H.-T. Feng, Y.-T. Xiong, H.-X. Qiu, and Y.-L. Zhang (2025), A Study on the Potential Mechanisms Underlying the Seasonal Dependence of 15MLT-PCA, *J. Geophys. Res.*, **130**(1), 2024JA033,376, 10.1029/2024JA033376.

[568] Wang, Y.-M., and N. R. Sheeley (2025), Predicting the Solar Wind Speed and Interplanetary Sector Structure during Solar Cycles 21–25, *Astrophys. J.*, **985**(1), 54, 10.3847/1538-4357/adcbaa.

[569] Wang, Z., D. Han, X. Chen, R. Shi, S. Teng, J. Zhang, J. Liu, Q. Zhang, and H. Qiu (2025), Observations of a Throat Aurora Directly Driven by Magnetosheath High-Speed Jet, *J. Geophys. Res.*, **130**(1), 2024JA033,276, 10.1029/2024JA033276.

[570] Wang, Z., D. Han, S. Zhou, S. Teng, J. Zhang, Q. Zhang, J. Liu, and X. Chen (2025), Impact of Warm Plasma Cloak Ions on EMIC Waves and Detached Auroral Arc, *J. Geophys. Res.*, **130**(8), e2025JA033736, 10.1029/2025JA033736.

[571] Wang, Z.-Q., X.-L. Huang, and E.-W. Liang (2025), Shear Particle Acceleration in Structured Gamma-Ray Burst Jets. III. The Radiation Physics of Bright Prompt Optical Flash, *Astrophys. J.*, **990**(2), 157, 10.3847/1538-4357/adfa1b.

[572] Warmuth, A., F. Schuller, R. Gómez-Herrero, I. Cernuda, F. Carcaboso, G. M. Mason, N. Dresing, D. Pacheco, L. Rodríguez-García, M. Jarry, M. Kretzschmar, K. Barczynski, D. Shukhobodskaia, L. Rodriguez, S. Tan, D. Paipa-Leon, N. Vilmer, A. P. Rouillard, C. Sasso, S. Giordano, G. Russano, C. Grimani, F. Landini, C. Mac Cormack, J. A. J. Mitchell, A. Fedeli, L. Vuorinen, D. Lario, H. A. S. Reid, F. Effenberger, S. Musset, K. Riebe, A. Galkin, K. Makan, S. Reusch, A. Vecchio, O. Dudnik, S. Krucker, M. Maksimovic, J. Rodríguez-Pacheco, M. Romoli, and R. F. Wimmer-Schweingruber (2025), CoSEE-Cat: A Comprehensive Solar Energetic Electron event Catalogue obtained from combined in situ and remote-sensing observations from Solar Orbiter: Catalogue description and first statistical results, *Astron. & Astrophys.*, **701**, A20, 10.1051/0004-6361/202554830.

[573] Watari, S., Y. Ebihara, and A. Nakamizo (2025), Statistical analysis of geomagnetically induced current data measured around Tokyo, Japan, *Earth, Planets and Space*, **78**(1), 11, 10.1186/s40623-025-02340-4.

[574] Waters, J. E., L. Lamy, S. Milan, M.-T. Walach, and E. Chané (2025), Auroral Acceleration at the Northern Magnetic Pole During Sub-Alfvénic Solar Wind Flow at Earth, *J. Geophys. Res.*, **130**(1), 2024JA033,056, 10.1029/2024JA033056.

[575] Waters, J. E., L. Lamy, J. Coxon, C. M. Jackman, C. J. Lao, C. Forsyth, and A. R. Fogg (2025), AKR Observations From All Local Times Indicate Substorm Activity, *J. Geophys. Res.*, **130**(9), e2025JA033955, 10.1029/2025JA033955.

[576] Watson, S., C. Scott, M. Owens, L. Barnard, and M. Lang (2025), Statistical Analysis of Comet Disconnection Events Using STEREO HI and a Data-assimilative Solar Wind Model, *Astrophys. J.*, **982**(2), 66, 10.3847/1538-4357/adb978.

[577] Wellbrock, A., and G. H. Jones (2025), Observations of a Disconnection Event and Other Large-Scale Disturbances in the Ion Tail of Comet C/2022 E3 (ZTF), *J. Geophys. Res.*, **130**(5), e2024JA033623, 10.1029/2024JA033623.

[578] Weston, D. J., I. J. Rae, A. W. Smith, K. R. Murphy, C. E. J. Watt, F. X. Bocquet, S. Bingham, and E. M. Henley (2025), VAMPIRE: Using a Random Forest to Forecast Earth's Outer Van Allen Radiation Belt, *Space Weather*, **23**(12), e2025SW004607, 10.1029/2025SW00460710.22541/essoar.175611399.91318861/v1.

[579] Wilson, L. B., J. G. Mitchell, A. Szabo, I. C. Jebaraj, M. L. Stevens, D. M. Malaspina, G. D. Berland, A. Kouloumvakos, S. D. Bale, R. Livi, J. S. Halekas, and C. M. S. Cohen (2025), Large-amplitude Whistler Precursors and ¿MeV Particles Observed at a Weak Interplanetary Shock by Parker Solar Probe, *Astrophys. J.*, **987**(1), 31, 10.3847/1538-4357/add6a8.

[580] Wistemar, O., F. Ryde, and F. Alamaa (2025), A Generalized Method to Measure the Lorentz Factor from Gamma-Ray Burst Photospheric Emission, *Astrophys. J.*, **986**(2), 118, 10.3847/1538-4357/add52d.

[581] Wood, B. E., and P. Hess (2025), Testing the Flux Rope Paradigm for Coronal Mass Ejections Using a Three-spacecraft Encounter Event, *Astrophys. J.*, **980**(1), 113, 10.3847/1538-4357/adad5c.

[582] Wrench, D., and T. N. Parashar (2025), Debiasing Structure Function Estimates from Sparse Time Series of the Solar Wind: A Data-driven Approach, *Astrophys. J.*, **987**(1), 28, 10.3847/1538-4357/addc6a.

[583] Wu, G.-L., Y.-W. Yu, L.-D. Liu, Z.-G. Dai, W.-H. Lei, X.-F. Wu, D. Xu, B. Zhang, J.-P. Zhu, and Y.-C. Zou (2025), EP241021a: A Catastrophic Collapse/Merger of Compact Star Binary Leading to the Formation of a Remnant Millisecond Magnetar?, *Astrophys. J.*, **991**(1), 115, 10.3847/1538-4357/adfbf0.

[584] Wu, H., S. Huang, J. He, L. Yang, L. Sorriso-Valvo, X. Wang, and Z. Yuan (2025), A new scenario with two subranges in the inertial regime of solar wind turbulence, *Astron. & Astrophys.*, **697**, A187, 10.1051/0004-6361/202553848.

[585] Wu, H., S. Huang, L. Yang, J. He, and Z. Yuan (2025), Spectral Features of the Energy-containing Range and the Inertial Range in Fast Solar Wind Turbulence, *Astrophys. J.*, **984**(2), 167, 10.3847/1538-4357/adcd67.

[586] Wu, Y., Y.-P. Yang, F.-Y. Wang, and Z.-G. Dai (2025), On Fast-radio-burst-associated X-Ray Bursts: Inverse Compton Scattering of Radio Photons by an Extreme Pair Flow During Magnetosphere Activities, *Astrophys. J.*, **988**(2), 274, 10.3847/1538-4357/ade884.

[587] Xiang, T.-Y., J. Ren, Q.-G. Zong, Z.-J. Feng, and X.-Y. Ai (2025), Periodic Density Structures Around the Plasmaspheric Plume Boundary and Their Association With ULF Waves, *J. Geophys. Res.*, **130**(6), e2025JA034044, 10.1029/2025JA034044.

[588] Xiao, S., Y.-T. Zhang, Y. Wang, Y.-Q. Zhang, S.-L. Xiong, S.-N. Zhang, S.-J. Zheng, J.-P. Zhang, P. Zhang, C.-K. Li, X.-B. Li, S.-X. Yi, Z. Zhang, B. Li, H. Feng, C.-Z. Liu, M.-Y. Ge, X.-F. Li, Z.-W. Li, Y.-P. Xu, X.-Y. Wen, J.-C. Sun, L. Tao, Q.-B. Yi, C. Cai, Y. Zhao, W.-C. Xue, J.-C. Liu, C. Zheng, C.-W. Wang, W.-J. Tan, Y.-L. Tuo, L.-M. Song, F.-J. Lu, and T.-P. Li (2025), The First Insight-HXMT Localization Catalog of Short-duration Gamma-Ray Bursts: The First Six Years, *Astrophys. J. Suppl.*, **278**(2), 60, 10.3847/1538-4365/add5ee.

[589] Xiu, Z.-F., Y.-Z. Ma, Q.-H. Zhang, Z.-Y. Xing, L. Lyons, K. Oksavik, Y.-L. Zhang, M. Hairston, Y. Wang, D. Zhang, and S. Lu (2025), How Do Space Hurricanes Disturb the Polar Thermosphere: A Statistical Survey, *Geophys. Res. Lett.*, **52**(8), e2025GL115160, 10.1029/2025GL115160.

[590] Xu, F., Y.-F. Huang, L. Li, J.-J. Geng, X.-F. Wu, S.-B. Zhang, C. Deng, C.-R. Hu, X.-F. Dong, and H.-X. Gao (2025), Softness Ratio of SWIFT Gamma-Ray Bursts and Relevant Correlations, *Astrophys. J.*, **987**(1), 76, 10.3847/1538-4357/add5e1.

[591] Yadav, M., E. Troja, R. Ricci, Y.-H. Yang, M. H. Wieringa, B. O'Connor, Y. Kang, R. L. Becerra, G. Ryan, and M. Busmann (2025), Radio Observations Point to a Moderately Relativistic Outflow in the Fast X-Ray Transient EP241021a, *Astrophys. J.*, **995**(2), 216, 10.3847/1538-4357/ae1746.

[592] Yan, Y., Z.-K. Xie, C. Yue, J.-T. Zhao, F. Yang, L. Xie, Q.-G. Zong, X.-Z. Zhou, and S. Wang (2025), Storm-Time Ring Current Plasma Pressure Prediction Based on the Multi-Output Convolutional Neural Network Model, *Space Weather*, **23**(1), 2024SW003,947, 10.1029/2024SW003947.

[593] Yang, H., Y. Huang, P. Zuo, K. Zhang, M. Shao, and H. Shi (2025), Prediction of thermospheric temperature over the South Pole based on two-layer LSTM network, *Frontiers in Physics*, **13**, 1547350, 10.3389/fphy.2025.1547350.

[594] Yang, L., L. Li, and J. Cao (2025), Prediction of Energetic Electrons in the Inner Radiation Belt and Slot Region With a Double-Layer LSTM Neural Network Model, *Space Weather*, **23**(2), 2024SW004,141, 10.1029/2024SW004141.

[595] Ye, Y., J. Liu, Y. Hao, J. Cui, and X. Feng (2025), Assessing the Geoeffectiveness of Stream Interaction Regions through Physically Interpretable Machine Learning, *Astrophys. J.*, **993**(1), 10, 10.3847/1538-4357/ae0454.

[596] Ye, Y., J. Liu, Y. Hao, X. Feng, and J. Cui (2025), Robust Forecasting and Physical Interpretability of Geomagnetic Storms Using XGBoost and SHAP, *Astrophys. J. Suppl.*, **281**(2), 41, 10.3847/1538-4365/ae0b6b.

[597] Yeakel, K. L., I. Cohen, and D. L. Turner (2025), Variability of Earth's Magnetopause and Bow Shock Locations Modeled via Multi-Decade Solar Wind Observations, *Geophys. Res. Lett.*, **52**(10), e2025GL115462, 10.1029/2025GL115462.

[598] Yeeram, T. (2025), Contribution of Alfvén, Chorus, and ULF waves to high-energy electron flux at geostationary orbit in HILDCAA events during 2015 to 2017, *Astrophys. Space Sci.*, **370**(11), 126, 10.1007/s10509-025-04516-6.

[599] Yoo, J.-H., D.-Y. Lee, and K.-C. Kim (2025), Response of energetic neutral atom flux in the heliosheath to fast variations in the solar wind and its dependence on pickup ion distribution models, *Astron. & Astrophys.*, **699**, A72, 10.1051/0004-6361/202451747.

[600] Younas, W., M. Khan, C. Amory-Mazaudier, Y. Nishimura, and M. Kamran (2025), Spatio-temporal features of ionospheric disturbances resulting from March 2023 geomagnetic storm: Comparisons with March 2015 St. Patrick's Day storm, *Adv. Space Res.*, **75**(2), 2433–2448, 10.1016/j.asr.2024.10.042.

[601] Yu, L., S. Y. Huang, Z. G. Yuan, K. Jiang, H. H. Wu, Q. Y. Xiong, R. T. Lin, Z. Wang, Y. T. Tang, and H. Bai (2025), Kinetic-scale Mirror Mode Storm Embedded in a Flux Rope in the Solar Wind, *Astrophys. J.*, **984**(2), 133, 10.3847/1538-4357/adc72e.

[602] Yu, T., X. Cai, Z. Ren, H. Liu, L. Qiu, H. Ma, S. Li, and K. Wu (2025), Local Time Variations of Quiet Time Meridional Winds During Solar Minimum Solstices Based on ICON Observations and Numerical Simulations, *Earth Space Sci.*, **12**(2), 2024EA003,880, 10.1029/2024EA003880.

[603] Yu, Y., J. Zhao, C. Shi, and H. Xie (2025), Electron Instabilities Driven by Beaming Electrons with Anisotropic Temperatures in High-beta Plasmas, *Astrophys. J.*, **995**(1), 69, 10.3847/1538-4357/ae1f0d.

[604] Yuan, A., R. Tang, H. Li, B. Feng, Z. Ouyang, Y. Xiong, and X. Deng (2025), Influence of Solar Wind Dynamic Pressure on Hiss Waves: Based on Satellite Observations and Ray Tracing Simulations, *J. Geophys. Res.*, **130**(12), e2025JA034449, 10.1029/2025JA034449.

[605] Zamora, D. J., F. Abaca, B. S. Zossi, and A. G. Elias (2025), Evidence of nonlinear signatures in the solar wind proton density at the L1 Lagrange point, *Astron. & Astrophys.*, **700**, A166, 10.1051/0004-6361/202555358.

[606] Zhang, D., W. Liu, X. Li, T. E. Sarris, Y. Hao, L. Yan, X. Sun, and Z. Zhang (2025), How Can Propagation Speed of Interplanetary Shocks Affect the Radiation Belts Dynamic: A Comparative Observational and Statistical Investigation, *J. Geophys. Res.*, **130**(11), e2025JA034535, 10.1029/2025JA034535.

[607] Zhang, D., J. Wang, K. Oksavik, Q.-H. Zhang, Z.-Y. Xing, X.-Y. Wang, L. R. Lyons, J.-J. Zhang, H.-G. Yang, Y. Wang, Y.-Z. Ma, B.-L. Zhao, S. Lu, Z.-F. Xiu, J.-C. Zhao, and Y.-J. Sun (2025), Multi-Instrument Observations of the Relationships Between Polar Cap Patches and Arcs for Changing IMF Bz Orientation, *J. Geophys. Res.*, **130**(11), e2025JA034186, 10.1029/2025JA034186.

[608] Zhang, H., J. Y. Lu, Z. H. Zhong, B. P. Feng, M. Wang, R. X. Tang, and X. H. Deng (2025), The Wave Normal Angle Characteristic of Whistler-Mode Waves in the Dayside Terrestrial Space Based on MMS Observations, *J. Geophys. Res.*, **130**(4), e2025JA033789, 10.1029/2025JA033789.

[609] Zhang, J., B.-C. Qin, L.-L. Zhang, and F.-W. Zhang (2025), Comprehensive Statistical Analysis of Initial Lorentz Factor and Jet Opening Angle of Gamma-Ray Bursts, *Astrophys. J.*, **991**(2), 209, 10.3847/1538-4357/adfc46.

[610] Zhang, K., H. Wang, J. Liu, H. Song, and H. Xia (2025), The Quasi-Periodic Nighttime Traveling Ionospheric Disturbances on 13 May 2024 During the Recovery Phase of a SuperStorm, *J. Geophys. Res.*, **130**(1), 2024JA033,257, 10.1029/2024JA033257.

[611] Zhang, M., X. Feng, C. Li, L. Yang, Y. Zhou, X. Liu, and Y. Bai (2025), Discontinuous Galerkin method with constrained transport for modelling solar wind in spherical coordinates, *Mon. Not. Roy. Astron. Soc.*, **536**(4), 3631–3646, 10.1093/mnras/stae2802.

[612] Zhang, R., L. Liu, X. Yue, J. Zhang, N. Zhang, Y. Chen, H. Le, and W. Li (2025), The Penetration Electric Fields During the 10 May 2024 Superstorm Observed by ISRs Over Sanya and Jicamarca, *Geophys. Res. Lett.*, **52**(6), 2024GL114,543, 10.1029/2024GL114543.

[613] Zhang, T., Y. Yuan, X. Huo, M. Li, and K. Wang (2025), Exploring Two Dimensional and Three Dimensional Propagation of Large Scale Traveling Ionospheric Disturbances During the May 2024 Geomagnetic Storm Main Phase, *Space Weather*, **23**(10), e2025SW004534, 10.1029/2025SW004534.

[614] Zhang, W., Y. Nishimura, Y. Chen, P. A. Cassak, G. Poh, and N. Nishitani (2025), Evolution of the Magnetopause X-Line Extent and Dayside Convection During IMF Southward Turning, *J. Geophys. Res.*, **130**(12), e2025JA034528, 10.1029/2025JA034528.

[615] Zhang, X.-F., R.-Y. Liu, H.-M. Zhang, Y.-Y. Huang, B. T. Zhang, and X.-Y. Wang (2025), Constraints on Cosmic-Ray Acceleration in Bright Gamma-Ray Bursts with Observations of Fermi, *Astrophys. J.*, **980**(2), 188, 10.3847/1538-4357/ada941.

[616] Zhang, Y.-Q., W.-C. Xue, J.-P. Zhang, C. Cai, S.-L. Xiong, C.-K. Li, Y. Liu, C.-W. Wang, H.-X. Guo, S. Xiao, W.-J. Tan, C. Zheng, J.-C. Liu, S.-L. Xie, P. Zhang, W.-L. Zhang, Y. Wang, Z.-H. Yu, Y.-Z. Ren, P. Wang, Y. Huang, X.-B. Li, X.-Y. Zhao, S.-J. Zheng, Z. Zhang, S.-X. Yi, L.-M. Song, and S.-N. Zhang (2025), Multi-instrument Search for Gamma-Ray Counterpart of X-Ray Transients Detected by EP/WXT, *Astrophys. J. Lett.*, **987**(2), L38, 10.3847/2041-8213/ade0aa.

[617] Zhang, Z., W. Liu, and D. Zhang (2025), Statistical Study of Convection Electric Field in the Inner Magnetosphere Responding to the Southward Turnings of Interplanetary Magnetic Field, *J. Geophys. Res.*, **130**(12), e2025JA034663, 10.1029/2025JA034663.

[618] Zhang, Z., F. Zhang, L. Wang, X. Li, Z. Zhima, Y. Wang, Y. Yang, D. Yang, S. Li, W. Chu, N. Zhou, D. Wang, D. Zhang, R. Battiston, R. Iuppa, and X. Shen (2025), The Magnetosphere-Ionosphere-Ground Responses to the May 2024 Super Solar Storm, *Space Weather*, **23**(4), e2024SW004197, 10.1029/2024SW004197.

[619] Zhang, Z., A. V. Artemyev, V. Angelopoulos, and I. Vasko (2025), Solar Wind Discontinuities in the Outer Heliosphere: Spatial Distribution Between 1 and 5 AU, *J. Geophys. Res.*, **130**(7), e2025JA034039, 10.1029/2025JA034039.

[620] Zhao, H., H. Yang, X. Chen, Z. Xing, Z. Hu, D. Huang, B. Li, B. Zhang, and J. Liu (2025), Magnetospheric and ionospheric vortices response to positive solar wind dynamic pressure pulse, *Front. Astron. Space Sci.*, **12**, 1679345, 10.3389/fspas.2025.1679345.

[621] Zhao, H., H. Yang, Z. Hu, D. Huang, B. Li, B. Zhang, and J. Liu (2025), Magnetospheric and ionospheric vortices response to negative solar wind dynamic pressure pulse, *Front. Astron. Space Sci.*, **12**, 1679376, 10.3389/fspas.2025.1679376.

[622] Zhao, L., X. Zhu, A. Silwal, G. P. Zank, and A. PitÅa (2025), Theory and observations of the interaction between magnetohydrodynamic waves and shocks, *Proc. Natl. Academy Sci.*, **122**(20), e2425668122, 10.1073/pnas.2425668122.

[623] Zhao, M.-X., and G.-M. Le (2025), Dependence of SYMH Change Rate on Dynamic Pressure during the Main Phases of Storms: A Comparative Analysis of the 2024 May and 2003 November Superstorms, *Astrophys. J.*, **978**(2), 157, 10.3847/1538-4357/ada15c.

[624] Zhou, J., H. Cai, X. Yan, H.-w. Xu, K. Hu, and C. Xiong (2025), ED-Autoformer: A New Model for Precise Global TEC Forecast, *Space Weather*, **23**(6), e2025SW004356, 10.1029/2025SW004356.

[625] Zhou, X., X. Gao, Q. Lu, R. Hajra, and J. Ma (2025), Response of Electric Field Pulse and Particle Dynamics in Earth's Magnetosphere to Enhanced Solar Wind Dynamic Pressure With Varied IMF Directions: A Statistical Study, *J. Geophys. Res.*, **130**(7), e2024JA033701, 10.1029/2024JA033701.

[626] Zhou, Y.-Q., S.-X. Yi, Y.-P. Yang, J.-L. Li, J.-P. Hu, Y.-K. Qu, and F.-Y. Wang (2025), Reconstruction of X-Ray Afterglow Light Curves of Gamma-Ray Bursts and Its Implication on Constraining Cosmological Parameters, *Astrophys. J.*, **991**(2), 145, 10.3847/1538-4357/adfd4f.

[627] Zhu, S.-Y., L. Shao, P.-H. T. Tam, and F.-W. Zhang (2025), Unsupervised machine learning classification of gamma-ray bursts based on the rest-frame prompt emission parameters, *Astron. & Astrophys.*, **702**, A173, 10.1051/0004-6361/202556274.

[628] Zhu, X., G. P. Zank, L. Zhao, and A. Silwal (2025), Radial Evolution of MHD Turbulence Anisotropy in Low Mach Number Solar Wind, *Astrophys. J. Lett.*, **978**(2), L34, 10.3847/2041-8213/ada354.

[629] Zirnstein, E. J., and M. A. Dayeh (2025), Distance to the IBEX Ribbon beyond the Heliopause, *Astrophys. J.*, **995**(2), 208, 10.3847/1538-4357/ae2269.

[630] Zirnstein, E. J., J. Heerikhuisen, D. J. McComas, J. Bower, G. Clark, M. A. Dayeh, H. O. Funsten, M. Gkioulidou, D. G. Mitchell, D. B. Reisenfeld, and N. A. Schwadron (2025), Viewing Global Changes in the Heliosheath with IMAP's Energetic Neutral Atom Imagers, *Astrophys. J.*, **985**(2), 188, 10.3847/1538-4357/adceb4.

[631] Zirnstein, E. J., D. J. McComas, J. Giacalone, G. P. Zank, F. Guo, J. Heerikhuisen, H. Li, and D. B. Reisenfeld (2025), Slab Turbulence in the Very Local Interstellar Medium and the IBEX Ribbon, *Astrophys. J.*, **993**(2), 219, 10.3847/1538-4357/ae12a1.

[632] Zirnstein, E. J., R. Kumar, B. L. Shrestha, P. Swaczyna, M. A. Dayeh, J. Heerikhuisen, and J. R. Szalay (2025), Global heliospheric termination shock strength in the solar-interstellar interaction, *Nature Astron.*, **9**, 1495–1510, 10.1038/s41550-025-02634-3.

[633] Zou, Y., O. Shin, J. W. Gjerloev, B. J. Anderson, C. L. Waters, C.-P. Wang, J. Liang, L. L. Lyons, and A. Bhatt (2025), Are Supersubstorms Substorms? Extreme Nightside Auroral Electrojet Activities During the May 2024 Geomagnetic Storm, *J. Geophys. Res.*, **130**(3), 2024JA033,303, 10.1029/2024JA033303.

[634] Zou, Y., B. M. Walsh, Y. Chen, H. Zhou, and S. Raptis (2025), Control of Solar Wind on Magnetic Field Fluctuations in the Subsolar Magnetosheath, *J. Geophys. Res.*, **130**(6), e2025JA033856, 10.1029/2025JA033856.