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**EDUCATION**

- Ph.D. (Aerospace Engineering and Scientific Computing), The University of Michigan, 1993.
- M.S. (Aerospace Engineering), The University of Michigan, 1990.
- B.S. (Civil Engineering), Calvin College, 1988.

**EMPLOYMENT**

- *Associate Research Scientist*, The University of Michigan, 2000–present.
- *Assistant Research Scientist*, The University of Michigan, 1996–2000.
- *Research Investigator*, The University of Michigan, 1994–1996.
- *Research Fellow*, The University of Michigan, 1993–1994.

**SERVICE**

- *University of Michigan Committees*
  - Member, Center for Advanced Computing (CAC) Executive Committee, 2004-present.
  - Member, AOSS Database Committee, 2006-present.
  - Member, AOSS Network Advisory Committee, 1995-2005.
  - Chair, AOSS Network Advisory Committee, 1998–2001.
  - Member, AOSS Awards Committee, 2000-2001.
  - Member, AOSS Department Homepage Group, 1996–1998.
  - Member, Rackham Distinguished Dissertation Award Committee, 1995.

**MEMBERSHIPS IN SCIENTIFIC SOCIETIES**

- American Geophysical Union.
- Senior Member, American Institute of Aeronautics and Astronautics.

**AWARDS & RECOGNITIONS**

- Team Excellence Award, College of Engineering, The University of Michigan, 1999.

# TALKS AND PUBLICATIONS

Darren L. De Zeeuw

## Articles in Peer Reviewed Journals

1. G. Toth, B. van der Holst, I.V. Sokolov, D.L. De Zeeuw, T.I. Gombosi, F. Fang, W.B. Manchester, X. Meng, D. Najib, K.G. Powell, Q.F. Stout, A. Glocer, Y.-J. Ma, M. Opher, Adaptive Numerical Algorithms in Space Weather Modeling, *J. Comput. Phys.*, in press.
2. J.U. Kozyra, N. Buzulukova, D. De Zeeuw, M.C. Fok, W. Gonzalez, T. Gombosi, R. Ilie, M.W. Liemohn, L. Rastaetter, A. Ridley, M. Thomsen, B. Tsurutani, New features of 22 Jan 2005 high speed stream-driven activity, MHD results including a self-consistent inner magnetosphere solution. submitted to *J. Geophys. Res.*, 2010.
3. B. Zieger, K.C. Hansen, T.I. Gombosi, D.L. De Zeeuw (2010), Periodic plasma escape from the mass-loaded Kronian magnetosphere, *J. Geophys. Res.*, *115*, A08208, doi:10.1029/2009JA014951
4. I.J. Rae, K. Kabin, J.Y. Lu, R. Rankin, S.E. Milan, F.R. Fenrich, C.E.J. Watt, J.-C. Zhang, A.J. Ridley, T.I. Gombosi, C.R. Clauer, G. Toth, and D.L. De Zeeuw (2010), Comparison of the Open-Closed Separatrix in a Global Magnetospheric Simulation with Observations: the role of the ring current, *J. Geophys. Res.*, *115*, A08216, doi:10.1029/2009JA015068.
5. I.J. Ray, K. Kabin, J.-Y. Lu, R. Rankin, S.E. Milan, F.R. Fenrich, C.E.J. Watt, J. Zhang, T.I. Gombosi, D.L. De Zeeuw, A.J. Ridley, K.G. Powell, C.R. Clauer, Open-Closed Separatrix Determination using Global Magnetospheric Simulation and Observational Data, submitted to *Annales Geophysicae*, 2009.
6. B. van der Holst, W.B. Manchester, I.V. Sokolov, G. Tóth, T.I. Gombosi, D.L. DeZeeuw, O. Cohen, Breakout coronal mass ejection or streamer blowout: The bugle effect, *Astrophysical Journal*, *693*, 1178–1187, 2009.
7. W.B. Manchester IV, A. Vourlidas, G. Toth, N. Lugaz, I.I. Roussev, I.V. Sokolov, T.I. Gombosi, D.L. De Zeeuw, and M. Opher, Three-Dimensional MHD Simulation of the 2003 October 28 Coronal Mass Ejection: Comparison with LASCO Coronagraph Observations, *Astrophysical Journal*, *684*, 1448–1460, 2008. (paper)
8. A. Taktakishvili, M.M. Kuznetsova, M. Hesse, M.-C. Fok, L. Rastatter, M. Maddox, A. Chulaki, G. Toth, T.I. Gombosi, and D.L. De Zeeuw (2008), The Role of Periodic Loading-Unloading in the Magnetotail versus IMF Bz Flipping in the Ring Current Buildup, *J. Geophys. Res.*, *113*, A03206, doi:10.1029/2007JA012845.
9. X. Fang, M.W. Liemohn, A.F. Nagy, Y. Ma, D.L. De Zeeuw, J.U. Kozyra, and T.H. Zurbuchen (2008), Pickup oxygen ion velocity space and spatial distribution around Mars, *J. Geophys. Res.*, *113*, A02210, doi:10.1029/2007JA012736
10. K. Kabin, M.H. Heimpel, R. Rankin, J.M. Aurnou, N. Gomez-Perez, J. Paral, T.I. Gombosi, T.H. Zurbuchen, P.L. Koehn, and D.L. De Zeeuw (2008), Global MHD modeling of Mercury's magnetosphere with applications to the MESSENGER mission and dynamo theory, *Icarus* (2008), doi:10.1016/j.icarus.2007.11.028 (paper)
11. G. Tóth, D.L. De Zeeuw, T.I. Gombosi, W.B. Manchester, A.J. Ridley, I.V. Sokolov, and I.I. Roussev (2007), Sun to Thermosphere Simulation of the October 28–30, 2003 Storm with the Space Weather Modeling Framework, *Space Weather*, (5), S06003, doi:10.1029/2006SW000272. (paper)

12. A. Taktakishvili, M.M. Kuznetsova, M. Hesse, M.-C. Fok, L. Rastatter, M. Maddox, A. Chulaki, T.I. Gombosi, and D.L. De Zeeuw (2007), Buildup of the Ring Current During Periodic Loading-Unloading Cycles in the Magnetotail Driven by Steady Southward IMF, *J. Geophys. Res.*, *112*, A09203, doi:10.1029/2007JA012317
13. M.M. Kuznetsova, M. Hesse, L. Rastatter, A. Taktakishvili, G. Tóth, D.L. De Zeeuw, A.J. Ridley, and T.I. Gombosi (2007), Multi-Scale Modeling of Magnetospheric Reconnection, *J. Geophys. Res.*, *112*, A10210, doi:10.1029/2007JA012316
14. J. Zhang, M.W. Liemohn, D.L. De Zeeuw, J.E. Borovsky, A.J. Ridley, G. Toth, S. Sazykin, M.F. Thomsen, J.U. Kozyra, T.I. Gombosi, and R.A. Wolf (2007), Understanding storm-time ring current development through data-model comparisons of a moderate storm, *J. Geophys. Res.*, *112*, A04208, doi:10.1029/2006JA011846 (paper)
15. W.B. Manchester IV, A.J. Ridley, T.I. Gombosi, and D.L. De Zeeuw, Modeling the Sun-to-Earth propagation of a very fast CME, *Adv. Space Res.*, *38*(2), 253–262, 2006. (paper)
16. A.J. Ridley, D.L. De Zeeuw, W.B. Manchester, and K.C. Hansen, The magnetospheric and ionospheric response to a very strong interplanetary shock and coronal mass ejection, *Adv. Space Res.*, *38*(2), 263–272, 2006. (paper)
17. G. Tóth, D. L. De Zeeuw, T. I. Gombosi, and K. G. Powell, A Parallel Explicit/Implicit Time Stepping Scheme on Block-Adaptive Grids, *J. Comput. Phys.*, *217*, 722–758, 2006. (paper)
18. G. Tóth, I. V. Sokolov, T. I. Gombosi, D. R. Chesney, C. R. Clauer, D. L. De Zeeuw, K. C. Hansen, K. J. Kane, W. B. Manchester, R. C. Oehmke, K. G. Powell, A. J. Ridley, I. I. Roussev, Q. F. Stout, O. Volberg, R. A. Wolf, S. Sazykin, A. Chan, and Bin Yu, Space Weather Modeling Framework: A new tool for the space science community, *J. Geophys. Res.*, *110*, A12226, doi:10.1029/2005JA011126, 2005. (paper)
19. W. B. Manchester, T. I. Gombosi, D. L. De Zeeuw, I. V. Sokolov, I. I. Roussev, K. G. Powell, J. Kóta, G. Tóth, and T. H. Zurbuchen, Coronal Mass Ejection Shock and Sheath Structures relevant to particle acceleration, *Astrophys. J.*, *622*, 1225–1239, 2005. (paper)
20. K.A. Keller, M.C. Fok, A. Narock, M. Hesse, L. Rastaetter, M.M. Kuznetsova, T.I. Gombosi, D.L. De Zeeuw, Effect of Multiple Substorms on the Buildup of the Ring Current, *J. Geophys. Res.*, *110*, A08202, doi:10.1029/2004JA010747, 2005. (paper)
21. M. Opher, P.C. Liewer, M. Velli, L. Bettarini, T.I. Gombosi, W. Manchester, D.L. DeZeeuw, G. Toth, I. Sokolov, Magnetic effects at the edge of the solar system: MHD instabilities, the de Laval nozzle effect and an extended jet, *Astrophys. J.*, *611*, 575-586, 2004. (paper)
22. D.L. De Zeeuw, S. Sazykin, R.A. Wolf, T.I. Gombosi, A.J. Ridley, G. Toth, Coupling of a Global MHD Code and an Inner Magnetosphere Model: Initial Results, *J. Geophys. Res.*, *109*, A12219, doi:10.1029/2003JA010366, 2004. (paper)
23. K. Kabin, R. Rankin, G. Rostoker, R. Marchand, I.J. Rae, A.J. Ridley, T.I. Gombosi, C.R. Clauer, D.L. De Zeeuw, Open-closed field line boundary position: A parametric study using an MHD model, *J. Geophys. Res.*, *109*, A05222, doi:10.1029/2003JA010168, 2004. (paper)
24. W.B. Manchester, T.I. Gombosi, D.L. De Zeeuw, and Y. Fan, Eruption of a Buoyantly Emerging Magnetic Flux Rope *Astrophys. J.*, *610*, 588-596, 2004. (paper)

25. A.J. Ridley, T.I. Gombosi, D.L. De Zeeuw, Ionospheric control of the magnetosphere: Conductance, *Annales Geophysicae*, 22, 567-584, 2004. (paper)
26. T.I. Gombosi, K.G. Powell, D.L. De Zeeuw, C.R. Clauer, K.C. Hansen, W.B. Manchester, A.J. Ridley, I.I. Roussev, I.V. Sokolov, Q.F. Stout, and G. Tóth, Solution Adaptive MHD for Space Plasmas: Sun-to-Earth Simulations, *Computing in Science and Engineering*, 6, No 2, 14-35, 2004. (paper)
27. W.B. Manchester, T.I. Gombosi, A.J. Ridley, I. Roussev, D.L. De Zeeuw, I.V. Sokolov, K.G. Powell, G. Tóth, Modeling a space weather event from the Sun to the Earth: CME generation and interplanetary propagation *J. Geophys. Res.*, 109(A2), A02107, doi:10.1029/2003JA010150, 2004. (paper)
28. W.B. Manchester, T.I. Gombosi, I. Roussev, D.L. De Zeeuw, I.V. Sokolov, K.G. Powell, G. Tóth, and M. Opher, Three-dimensional MHD simulation of a flux-rope driven CME, *J. Geophys. Res.*, 109(A1), A01102, doi:10.1029/2002JA009672, 2004. (paper)
29. I.J. Rae, K. Kabin, R. Rankin, F.R. Fenrich, W. Liu, J.A. Wanliss, A.J. Ridley, T.I. Gombosi, and D.L. De Zeeuw, Comparison of Photometer and Global MHD determination of the Open-Closed Field Line Boundary, *J. Geophys. Res.*, 109(A1), A01204, doi:10.1029/2003JA009968, 2004. (paper)
30. I.I. Roussev, T.I. Gombosi, I.V. Sokolov, M. Velli, W. Manchester, D.L. De Zeeuw, P. Liewer, G. Tóth, and J.G. Luhmann, A Three-Dimensional Model of Solar Wind Incorporating Solar Magnetogram Observations, *Astrophys. J.*, 595, L57-L61, 2003. (paper)
31. A.J. Ridley, T.I. Gombosi, D.L. De Zeeuw, C.R. Clauer, A.D. Richmond, Ionospheric control of the magnetospheric configuration: Thermospheric neutral winds, *J. Geophys. Res.*, 108(A8), 1328, doi:10.1029/2002JA009464, 2003. (paper)
32. M. Opher, P.C. Liewer, T.I. Gombosi, W. Manchester, D. L. De Zeeuw, I. Sokolov, G. Toth, Probing the Edge of the Solar System: Formation of an Unstable Jet-Sheet, *Astrophys. J.*, 591, L61-L65, 2003. (paper)
33. K. Kabin, R. Rankin, R. Marchand, T.I. Gombosi, C.R. Clauer, A.J. Ridley, V.O. Papitashvili, D.L. De Zeeuw, Dynamic response of the Earth's magnetosphere to  $B_y$  reversals, *J. Geophys. Res.*, 108(A3), 1132, doi:10.1029/2002JA009480, 2003. (paper)
34. I. Roussev, T.G. Forbes, T.I. Gombosi, I.V. Sokolov, D.L. De Zeeuw, and J. Birn, A Three-Dimensional Flux Rope Model for Coronal Mass Ejections Based on a Loss of Equilibrium, *Astrophys. J.*, 588, L45-L48, 2003. (paper)
35. A.J. Ridley, K.C. Hansen, G. Toth, D.L. De Zeeuw, T.I. Gombosi, and K.G. Powell, University of Michigan MHD results of the GGCM metrics challenge, *J. Geophys. Res.*, 107(A10), 1290, doi:10.1029/2001JA000253, 2002. (paper)
36. Y. Ma, A.F. Nagy, K.C. Hansen, D.L. De Zeeuw, T.I. Gombosi, and K.G. Powell, Three-dimensional multispecies MHD studies of the solar wind interaction with Mars in the presence of crustal fields, *J. Geophys. Res.*, 107(A10), 1282, doi:10.1029/2002JA009293, 2002. (paper)
37. S. Sazykin, R.A. Wolf, R.W. Spiro, T.I. Gombosi, D.L. De Zeeuw, and M.F. Thomsen, Interchange instability in the inner magnetosphere associated with geosynchronous particle flux decreases, *Geophys. Res. Lett.*, 29(10), doi:10.1029/2001GL014416, 2002. (paper)

38. L. Rastätter, M. Hesse, M. Kuznetsova, T.I. Gombosi, and D.L. De Zeeuw, Magnetic field topology during July 14-16, 2000 (Bastille Day) solar CME event, *Geophys. Res. Lett.*, 29(15), doi:10.1029/2001GL04136, 2002. (paper)
39. K.A. Keller, M. Hesse, M. Kuznetsova, L. Rstätter, T. Moretto, T.I. Gombosi, and D.L. De Zeeuw, Global MHD modeling of the impact of a solar wind pressure change, *J. Geophys. Res.*, 107(A7), doi:10.1029/2001JA000060, 2002. (paper)
40. T.I. Gombosi, G. Tóth, D.L. De Zeeuw, K.C. Hansen, K. Kabin, and K. G. Powell, Semi-relativistic magnetohydrodynamics and physics-based convergence acceleration, *J. Computational Phys.*, 177, 176-205, 2002. (paper)
41. A.J. Ridley, D.L. De Zeeuw, T.I. Gombosi, and K.G. Powell, Using steady-state MHD results to predict the global state of the magnetosphere-ionosphere system, *J. Geophys. Res.*, 106, 30,067-30,076, 2001. (paper)
42. P. Song, D.L. De Zeeuw, T.I. Gombosi, J.U. Kozyra, K.G. Powell, Global MHD simulations for southward IMF: A pair of wings in the flanks, *Adv. Space Res.*, 28(12), 1763-1771, 2001. (paper)
43. P.L. Israelevich, T.I. Gombosi, A.I. Ershkovich, K.C. Hansen, C.P.T. Groth, D.L. De Zeeuw, and K.G. Powell, MHD simulation of the three-dimensional structure of the heliospheric current sheet, *Astron. Astrophys.*, 376(1), 288-291, 2001. (paper)
44. Y. Liu, A.F. Nagy, T.I. Gombosi, D.L. De Zeeuw, and K.G. Powell, The solar wind interaction with Mars: Results of three-dimensional three-species MHD studies, *Adv. Space Res.*, 27(11), 1837-1846, 2001. (paper)
45. A.F. Nagy, Y. Liu, K.C. Hansen, K. Kabin, T.I. Gombosi, M.R. Combi, D.L. De Zeeuw, K.G. Powell, and A.J. Kliore, The interaction between the magnetosphere of Saturn and Titan's ionosphere, *J. Geophys. Res.*, 106, 6151-6160, 2001. (paper)
46. K. Kabin, M.R. Combi, T.I. Gombosi, D.L. De Zeeuw, K.C. Hansen, and K.G. Powell, Io's magnetospheric interaction: an MHD model with day-night asymmetry, *Planetary and Space Sci.*, 49, 337-344, 2001. (paper)
47. C.R. Clauer, T.I. Gombosi, D.L. De Zeeuw, A.J. Ridley, K.G. Powell, B. van Leer, Q.F. Stout, C.P.T. Groth, and T.E. Holzer, High-performance computer methods applied to predictive space weather simulations, *IEEE Trans. Plasma Sci.*, 28, 1931-1937, 2000. (paper)
48. D.L. De Zeeuw, T.I. Gombosi, C.P.T. Groth, K.G. Powell, and Q.F. Stout, An Adaptive MHD Method for Global Space Weather Simulations, *IEEE Trans. Plasma Sci.*, 28, 1956-1965, 2000. (paper)
49. P.L. Israelevich, T.I. Gombosi, A.I. Ershkovich, D.L. De Zeeuw, and K.G. Powell, Magnetic field structure at the diamagnetic cavity boundary (numerical simulations) *Geophys. Res. Lett.*, 27, 3817-3820, 2000. (paper)
50. R. Bauske, A.F. Nagy, D.L. De Zeeuw, T.I. Gombosi, and K.G. Powell, 3D multiscale mass loaded MHD simulations of the solar wind interaction with Mars, *Adv. Space Res.*, 26(10), 1571-1575, 2000. (paper)
51. M. Tátrallyay, M.I. Verigin, K Szegő, T.I. Gombosi, K.C. Hansen, D.L. De Zeeuw, K. Schwingenshuh, M. Delva, A.P. Remizov, I. Apáthy, and T. Szemerey, Interpretation of VEGA observations at Comet

- Halley applying three-dimensional MHD simulations, *Phys. Chem. Earth (C)*, 25, 153–156, 2000. (paper)
52. K.C. Hansen, T.I. Gombosi, D.L. De Zeeuw, C.P.T. Groth, and K.G. Powell, A 3D global MHD simulation of Saturn's magnetosphere, *Adv. Space Res.*, 26(10), 1681–1690, 2000. (paper)
  53. Y. Liu, A.F. Nagy, K. Kabin, M.R. Combi, D.L. De Zeeuw, T.I. Gombosi, and K.G. Powell, Two species, 3D, MHD simulation of Europa's interaction with Jupiter's magnetosphere, *Geophys. Res. Lett.*, 27, 1791, 2000. (paper)
  54. T.I. Gombosi, D.L. De Zeeuw, C.P.T. Groth, K.G. Powell, and Q.F. Stout, Multiscale MHD simulation of a coronal mass ejection and its interaction with the magnetosphere-ionosphere system, *J. Atmos. Solar Terrestrial Phys.*, 62, 1515-1525, 2000. (paper)
  55. C.P.T. Groth, D.L. De Zeeuw, T.I. Gombosi, and K.G. Powell, Global 3D MHD simulation of a space weather event: CME formation, interplanetary propagation, and interaction with the magnetosphere, *J. Geophys. Res.*, 105, 25,053-25,078, 2000. (paper)
  56. K. Kabin, P.L. Israelevich, A.I. Ershkovich, F.M. Neubauer, T.I. Gombosi, D.L. De Zeeuw, and K.G. Powell, Titan's magnetic wake: Atmospheric or magnetospheric interaction, *J. Geophys. Res.*, 105, 10,761-10,770, 2000. (paper)
  57. K. Kabin, K.C. Hansen, T.I. Gombosi, M.R. Combi, T.J. Linde, D.L. De Zeeuw, C.P.T. Groth, K.G. Powell, and A.F. Nagy, Global MHD simulations of space plasma environments, Heliosphere, comets, magnetospheres of planets and satellites, *Astrophys. Space Sci.*, 274, 407-421, 2000. (paper)
  58. C.P.T. Groth, D.L. De Zeeuw, T.I. Gombosi, and K.G. Powell, Three-Dimensional MHD Simulation of Coronal Mass Ejections, *Adv. Space Res.*, 26(5), 793-800, 2000. (paper)
  59. T.I. Gombosi, D.L. De Zeeuw, C.P.T. Groth, and K.G. Powell, Magnetospheric configuration for Parker-spiral IMF conditions: Results of a 3D AMR MHD simulation, *Adv. Space Res.*, 26(1), 139-149, 2000. (paper)
  60. K. Kabin, T.I. Gombosi, D.L. De Zeeuw, and K.G. Powell, Interaction of Mercury with the solar wind, *Icarus*, 143, 397-406, 2000. (paper)
  61. P. Song, T.I. Gombosi, D.L. De Zeeuw, and K.G. Powell, A model of solar wind –magnetosphere – ionosphere coupling for northward IMF, *Planet. Space Sci.*, 48, 29-39, 2000. (paper)
  62. T.I. Gombosi, K.C. Hansen, D.L. De Zeeuw, M.R. Combi, and K.G. Powell, MHD simulation of comets: The plasma environment of comet Hale-Bopp, *Earth, Moon and Planets*, 79 179-207, 1999. (paper)
  63. P.L. Israelevich, T.I. Gombosi, A.I. Ershkovich, D.L. De Zeeuw, F.M. Neubauer, and K.G. Powell, The induced magnetosphere of comet Halley, 4.: Comparison of *in situ* observations and numerical simulations, *J. Geophys. Res.*, 104, 28,309 - 28,319, 1999. (paper)
  64. P. Song, D.L. De Zeeuw, T.I. Gombosi, C.P.T. Groth, and K.G. Powell, A numerical study of solar wind-magnetosphere interaction for northward IMF, *J. Geophys. Res.*, 104, 28,361 - 28,378, 1999. (paper)
  65. C.P.T. Groth, D.L. De Zeeuw, T.I. Gombosi, and K.G. Powell, A parallel adaptive 3D MHD scheme for modeling coronal and solar wind plasma flows, *Space Sci. Rev.*, 87, 193-198, 1999. (paper)

66. K.G. Powell, P.L. Roe, T.J. Linde, T.I. Gombosi, and D.L. De Zeeuw, A Solution-Adaptive Upwind Scheme for Ideal Magnetohydrodynamics, *J. Computational Phys.*, *154*, 284-309, 1999. (paper)
67. K. Kabin, M.R. Combi, T.I. Gombosi, A.F. Nagy, D.L. De Zeeuw, and K.G. Powell, On Europa's magnetospheric interaction: an MHD simulation of the E4 flyby, *J. Geophys. Res.*, *104*, 19,983-19,992, 1999. (paper)
68. Y. Liu, A.F. Nagy, C.P.T. Groth, D.L. De Zeeuw, T.I. Gombosi, and K.G. Powell, 3D Multi-fluid MHD studies of the solar wind interaction with Mars, *Geophys. Res. Lett.*, *26*, 2689-2692, 1999. (paper)
69. K. Kabin, T.I. Gombosi, D.L. De Zeeuw, K.G. Powell, and P.L. Israelevich, Interaction of Saturnian magnetosphere with Titan: Results from a 3D MHD simulation, *J. Geophys. Res.*, *104*, 2451-2458, 1999. (paper)
70. T.I. Gombosi, D.L. De Zeeuw, C.P.T. Groth, K.G. Powell, and P. Song, The length of the magnetotail for northward IMF: Results of 3D MHD simulations, *Phys. Space Plasmas (1998)*, *15*, 121-128, 1998. (paper)
71. Bauske, R., A.F. Nagy, T.I. Gombosi, D.L. De Zeeuw, K.G. Powell, J.G. Luhmann, A three-dimensional MHD study of solar wind mass loading processes at Venus: Effects of photoionization, electron impact ionization, and charge exchange, *J. Geophys. Res.*, *103*, 23625-23638, 1998. (paper)
72. Combi, M.R., K. Kabin, T.I. Gombosi, D.L. De Zeeuw, and K.G. Powell, Io's plasma environment during the Galileo flyby: Global three-dimensional MHD modeling with adaptive mesh refinement, *J. Geophys. Res.*, *103*, 9071-9081, 1998. (paper)
73. T.J. Linde, T.I. Gombosi, P.L. Roe, K.G. Powell, D.L. De Zeeuw, The heliosphere in the magnetized local interstellar medium: Results of a 3D MHD simulation, *J. Geophys. Res.*, *103*, 1889-1904, 1998. (paper)
74. M.R. Combi, K. Kabin, D.L. De Zeeuw, T.I. Gombosi, and K.G. Powell, Dust-gas interaction in comets: Observations and theory, *Earth, Moon and Planets*, *79*, 275-306, 1997. (paper)
75. R. Häberli, M.R. Combi, T.I. Gombosi, D.L. De Zeeuw, and K.G. Powell, Quantitative analysis of H<sub>2</sub>O<sup>+</sup> coma images using a multiscale MHD model with detailed ion chemistry, *Icarus*, *130*, 373-386, 1997. (paper)
76. R.M. Häberli, T.I. Gombosi, M.R. Combi, D.L. De Zeeuw, and K.G. Powell, Modeling of cometary X-rays caused by solar wind minor ions, *Science*, *276*, 939-942, 1997. (paper)
77. M. Tótrallyay, T.I. Gombosi, D.L. De Zeeuw, M.I. Verigin, A.P. Remizov, and I. Apáthy, Plasma flow in the cometsheath of comet Halley, *Adv. Space Res.*, *20(2)*, 275-278, 1997. (paper)
78. T.I. Gombosi, D.L. De Zeeuw, R. Häberli, and K.G. Powell, A 3D multiscale MHD model of cometary plasma environments, *J. Geophys. Res.*, *101*, 15,233-15,253, 1996. (paper)
79. D.L. De Zeeuw, T.I. Gombosi, A.F. Nagy, K.G. Powell, and J.G. Luhmann, A new axisymmetric MHD model of the interaction of the solar wind with Venus, *J. Geophys. Res.*, *101*, 4,547-4,556, 1996. (paper)
80. T.I. Gombosi, K.G. Powell and D.L. De Zeeuw, Axisymmetric modeling of cometary mass loading on an adaptively refined grid: MHD results, *J. Geophys. Res.*, *99*, 21,525-21,539, 1994. (paper)

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### Peer Reviewed Book Chapters and Conference Proceedings

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### Invited Talks

1. J.U. Kozyra, V. Angelopoulos, P.C. Brandt, N. Buzulukova, C.A. Cattell, D. De Zeeuw, C.P. Escoubet, M.-C. Fok, H.U. Frey, J. Goldstein, W.D. Gonzalez, R. Ilie, M.W. Liemohn, D.J. McComas, S.B. Mende, L.J. Paxton, J.D. Perez, W.K. Peterson, L. Rastaetter, A.J. Ridley, T. Sotirelis, M.F. Thomsen, B. Tsurutani, P.W. Valek, Magnetosphere Response to High-Speed Solar Wind Streams *IAGA*, Melbourne, Australia, June 28-July 7, 2011.
2. J.U. Kozyra, P.C. Brandt, N. Buzulukova, C.A. Cattell, D. De Zeeuw, C.P. Escoubet, M.-C. Fok, H.U. Frey, J. Goldstein, W.D. Gonzalez, M.W. Liemohn, D.J. McComas, S.B. Mende, L.J. Paxton, J.D. Perez, W.K. Peterson, L. Rastaetter, A.J. Ridley, T. Sotirelis, M.F. Thomsen, B. Tsurutani, P.W.

- Valek, Effects of IMF-By on High Speed Stream Activity: Simulation of the 22-24 Jan 2005 high-speed stream and new TWINS observations, *Latin American Conference of Space Geophysics*, Costa Rica, April 5-10, 2011.
3. J.U. Kozyra, P.C. Brandt, N. Buzulukova, C.A. Cattell, D. DeZeeuw, C.P. Escoubet, M.H. Fok, H.U. Frey, J. Goldstein, W.D. Gonzalez, M.W. Liemohn, D.J. McComas, S.B. Mende, L.J. Paxton, J.D. Perez, W.K. Peterson, L. Rastaetter, A.J. Ridley, T. Sotirelis, M.F. Thomsen, B. Tsurutani, P.W. Valek, High Speed Stream Activity in an IMF-By magnetosphere, *2010 Fall AGU Meeting*, San Francisco, CA, December 13-17, 2010.
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  5. X. Jia, K.C. Hansen, T.I. Gombosi, M.G. Kivelson, G. Toth, D. DeZeeuw, A.J. Ridley, Global MHD simulations of the interaction between Saturn's magnetosphere and the solar wind, *2010 Fall AGU Meeting*, San Francisco, CA, December 13-17, 2010.
  6. T. Gombosi, G. Toth, I. Sokolov, D. De Zeeuw, B. Van Der Holst, A. Ridley, W. Manchester, The Space Weather Modeling Framework (SWMF): Models and Validation, *38th COSPAR Scientific Assembly*, Bremen, Germany, July 15-18, 2010.
  7. D. De Zeeuw, A. Ridley, and V. Bashkurov, The Virtual Model Repository (VMR), *4th International Conference on Numerical Modeling of Space Plasma Flows (ASTRONUM-2009)*, Chamonix, France, June 28-July 3, 2009.
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  10. D. De Zeeuw, Graphical User Interface - Virtual Modeling Repository - Visualization, *CCHM/CWMM Pre-Review Project Meeting*, Maui, HI, February 23-25, 2009.
  11. D. De Zeeuw, G. Toth, A. Ridley, T.I. Gombosi, Adaptive grid MHD and Visualization using the Space Weather Modeling Framework, *3rd International Conference on Numerical Modeling of Space Plasma Flows (ASTRONUM-2008)*, U.S. Virgin Islands, June 8-14, 2008.
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  42. W.B. Manchester IV, A.J. Ridley, T. Gombosi, D. De Zeeuw, I.V. Sokolov, G. Toth, Modeling the Carrington Event: sun-to-earth propagation of a very fast CME, *2004 Spring CGU/AGU/SEG/EEGS Meeting*, Montreal, Canada, May 17-21, 2004.
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### Contributed Talks

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2. D. DeZeeuw, A.J. Ridley, L. Rastaetter, J.D. Vandegriff, R.S. Weigel, The Virtual Model Repository: Data/Model Visualization Benefits of Collaboration, *2010 Fall AGU Meeting*, San Francisco, CA, December 13-17, 2010.
3. J.D. Vandegriff, L.E. Brown, M. Johnson, D. DeZeeuw, Uniform Access to Heliophysics Time Series Data, *2010 Fall AGU Meeting*, San Francisco, CA, December 13-17, 2010.
4. M.W. Liemohn, R. Ilie, D. DeZeeuw, N.Y. Ganushkina, Comparing Magnetospheric Cross-Field Current Systems In ICME And CIR/HSS Driven Storms, *2010 Fall AGU Meeting*, San Francisco, CA, December 13-17, 2010.
5. M.M. Kuznetsova, M. Hesse, L. Rastaetter, G. Toth, D. DeZeeuw, T.I. Gombosi, Multi-Scale Modeling of Global Magnetosphere Structure and Dynamics, *2010 Fall AGU Meeting*, San Francisco, CA, December 13-17, 2010.
6. J. Kozyra, M. Liemohn, P. Brandt, N. Buzulukova, C. Cattell, D. De Zeeuw, P. Escoubet, M.-C. Fok, H. Frey, W. Gonzalez, T. Gombosi, R. Ilie, S. Mende, L. Paxton, L. Rastaetter, A. Ridley, T. Sotirelis, M. Thomsen, B. Tsurutani, New Features in High Speed Stream Activity *High Speed Stream Workshop*, Boulder, CO, Sept. 1-3, 2010
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### Colloquia and Seminars

1. D.L. De Zeeuw, *Supercomputers and Space Physics*, University of Michigan, AOSS Space Science Seminar, February 15, 2002.
2. D.L. De Zeeuw, *RCM Reformulation and Coupling to BATSRUS*, Rice University, Department of Physics and Astronomy Seminar, November 29, 2001.

### K-12 Outreach Talks

1. D. De Zeeuw, The Earth's Magnetosphere, *Ann Arbor Christian School 7th Grade Class*, Ann Arbor, MI, January 30, 2008.
2. D. De Zeeuw, The Earth's Magnetosphere, *Ann Arbor Christian School 6th Grade Class*, Ann Arbor, MI, January 30, 2008.
3. D. De Zeeuw, The Earth's Magnetosphere, *Ann Arbor Christian School 7th Grade Class*, Ann Arbor, MI, December 13, 2005.
4. D. De Zeeuw, The Earth's Magnetosphere, *Ann Arbor Christian School 6th Grade Class*, Ann Arbor, MI, December 13, 2005.
5. D. De Zeeuw, Our Star The Sun, *Ann Arbor Christian School 4th Grade Class*, Ann Arbor, MI, November 21, 2005.
6. D. De Zeeuw, The Earth's Magnetosphere, *Ann Arbor Christian School 7th Grade Class*, Ann Arbor, MI, March 22, 2005.
7. D. De Zeeuw, Let's Talk About The Sun, *Ann Arbor Christian School 4th Grade Class*, Ann Arbor, MI, November 18, 2004.
8. D. De Zeeuw, The Earth's Magnetosphere, *Ann Arbor Christian School 7th Grade Class*, Ann Arbor, MI, November 11, 2003.
9. D. De Zeeuw, Let's Talk About The Sun, *Ann Arbor Christian School 4th Grade Class*, Ann Arbor, MI, October 13, 2003.