## **Publications**

My name is written in bold font (e.g., **Phipps, Phillip H.**).

- 1. Schmidt, Carl, Sharov, Mikhail, de Kleer, Katherine, Schneider, Nick, de Pater, Imke, **Phipps, Phillip H.,** Conrad, Al, Moore, Luke, Spencer, John, Morgenthaler, Jeff, Ilyin, Ilya, Strassmeier, Klaus, Veillet, Christian, Hill, John, and Brown, Michael (2023) Io's Optical Aurorae in Jupiter's Shadow, The Planetary Science Journal, Vol4, 36, doi:10.3847/PSJ/ac85b0
- 2. **Phipps, Phillip H.**, Withers, Paul, Buccino, Dustin R., Yang, Yu-Ming, and Parisi, Marzia (2021), Two years of observations of the Io plasma torus by Juno radio occultations: Results from Perijoves 1 to 15, J. Geophys. Res Space Physics, 126, e2020JA028710
- 3. **Phipps, Phillip H.**, and Bagenal, Frances (2021), Centrifugal Equator in Jupiter's Plasma Sheet, J. Geophys. Res Space Physics, 126, e2020JA028713
- 4. **Phipps, Phillip H.**, Withers, Paul, Vogt, Marissa, Buccino, Dustin R., Yang, Yu-Ming, Parisi, Marzia, Ranquist, Drake, Kollmann, Peter, and Bolton, Scott (2020), Where is the Io plasma torus? A comparison of observations by Juno radio occultations to predictions from Jovian Magnetic field models, J. Geophys. Res. Space Physics, DOI: 10.1029/2019JA027633
- 5. **Phipps, Phillip H.**, Withers, Paul, Buccino, Dustin R., Yang, Yu-Ming, and Parisi, Marzia (2019), Variations in the density distribution of the Io plasma torus as seen by radio occultations on Juno Perijoves 3, 6, and 8, J. Geophys. Res. Space Physics, 124, DOI: 10.1029/2018JA026297
- 6. **Phipps, Phillip H.**, Withers, Paul, Buccino, Dustin R., and Yang, Yu-Ming (2018), Distribution of plasma in the Io plasma torus during *Juno* Perijove 1, J. Geophys. Res. Space Physics, 123, DOI:10.1029/2017JA025113
- 7. **Phipps, Phillip H.** and Withers, Paul (2017), Radio occultations of the Io plasma torus by *Juno* are feasible, J. Geophys. Res. Space Physics, 122, DOI: 10.1002/2016JA023447

## White Paper Participation

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- 1. Ahrens, Caitlin, Fagan, A., Petro, N., **Phipps, P. H.**, Stubbs, T., Saxena, P., and Waller, D., (2022), Space Weathering at the Moon: Priorities for Interdisciplinary Heliophysical and Planetary Science, 2023-2033 Heliophysics Decadal Survey
- 2. Kollman, Peter, Allegini, F., Allen, R. C., Andre, N., Azari, A. R., Bagenal, F., Beddingfield, C. B, ..., **Phipps, P. H.,** et al. (2021), Magnetospheric Studies: A requirement for addressing interdisciplinary mysteries in the Ice Giant systems, Bulletin of the American Astronomical Society, vol. 53, doi:10.3847/25c2cfeb.d955f654

## **Abstracts**

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- 1. Looper, M.D., Mazur, J., Blake, J, Spence, H., Schwadron, N. Wilson, J., Jordan, A., Zeitlin, C., Case, A., Kasper, J., Townsend, L., Stubbs, T., **Phipps, P.H.**, Ma(2023), GLACE (Geant4 Lunar Albedo Computed Environment): A Freely-Available Model of Lunar Energetic-Particle Secondary Radiation and Its Variation with Regolith Hydrogen, ASEC 2023, Huntsville, AL, Oct. 9-13
- 2. **Phipps, P.H.,** Stubbs, T. J., Looper, M. D., Spence, H.E., and Townsend, L. W. (2023), Primary Radiation Dose Around the Artemis III Candidate Landing Sites, Lunar Exploration Analysis Group, JHU-APL, Laurel, MD, Sept 20-22
- 3. **Phipps, P.H.,** Stubbs, T. J., Looper, M. D., Spence, H.E., and Townsend, L. W. (2023), Radiation Dose around the 13 Candidate Artemis III Landing Sites, NESF 2023, College Park, MD, Jul. 18-20

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4. Nerney, E, Bagenal, F., Wilson, R., and **Phipps, P.H.**, (2023), Model Comparisons with Juno Observations of the Io Plasma Torus, EGU23, Vienna, Austria, Apr. 23-28

- 5. **Phipps, P.H.,** Stubbs, T. J., Looper, M. D., Spence, H.E., and Townsend, L. W. (2023), Radiation Dose Around the Lunar South Pole Near the Candidate Landing Sites for the Artemis III Mission, LPSC 2023, The Woodlands, TX, Mar. 13-17
- 6. **Phipps, P.H.,** Stubbs, T. J., Looper, M. D., Spence, H.E., and Townsend, L. W. (2022), Solar Energetic Particle Radiation Dose Around the Lunar South Pole, AGU Fall Meeting 2022, Chicago, IL, Dec 12-16
- 7. **Phipps, P.H.,** Stubbs, T. J., Looper, M. D., Spence, H.E., and Townsend, L. W. (2022), Solar Energetic Particle Radiation Dose Around the Lunar South Pole, AGU Fall Meeting 2022, Chicago, IL, Dec 12-16
- 8. Yang, Y-M., Buccino, D., Parisi, M., Oudrhiri, K., Park, R., **Phipps, P.H.**, and Withers, P., (2022), Radio Occultations of the Io Plasma Torus and Gravity Science Calibrations for the Juno Prime Mission's 35 Orbits of Jupiter, AGU Fall Meeting 2022, Chicago, IL, Dec 12-16
- 9. Looper, M.D., Mazur, J., Blake, J, Spence, H., Schwadron, N. Wilson, J., Jordan, A., Zeitlin, C., Case, A., Kasper, J., Townsend, L., Stubbs, T., **Phipps, P.H.**, (2022), GLACE (Geant4 Lunar Albedo Computed Environment): A Model of Lunar Energetic-Particle Secondary Radiation and its Variation with Regolith Hydrogen, AGU Fall Meeting 2022, Chicago, IL, Dec 12-16
- 10. **Phipps, P.H.,** Stubbs, T. J., Looper, M. D., Spence, H.E., and Townsend, L. W. (2022), Mapping Biologically Relevant Radiation Dose Around the Lunar South Pole, Lunar Exploration Analysis Group, JHU-APL, Laurel, MD, Aug 23-25
- 11. **Phipps, P.H.,** Withers, P., Buccino, D.R., Parisi, M., Park, R.S., and Bolton, S. J. (2022), Juno Radio Occultations of the Io Plasma Torus through Perijove 25, COSPAR 2022, Athens, Greece, Jul 16 Jul 24
- 12. **Phipps, P.H.,** Stubbs, T. J., Looper, M. D., Spence, H.E., and Townsend, L. W. (2022), Solar Energetic Particle Radiation Dosage Around a Simple Lunar Crater, COSPAR 2022, Athens, Greece, Jul 16 Jun 24
- 13. **Phipps, P.H.,** Withers, P., Buccino, D.R., Parisi, M., Park, R.S., and Bolton, S. J. (2022), Io Plasma Torus Properties Through Perijove 25 from Juno Radio Occultations, MOP 2022, Liege, Belgium, Jul 10 Jul 15
- 14. **Phipps, P.H.,** Stubbs, T. J., Looper, M. D., Spence, H.E., and Townsend, L. W. (2021), Solar Energetic Particle Radiation Dosage in Biological Systems Around a Lunar Crater, AGU Fall Meeting 2021, New Orleans, Dec 13 Dec 17
- 15. **Phipps, P.H.,** Stubbs, T. J., Looper, M. D., Spence, H.E., and Townsend, L. W. (2021), Radiation Dosage from Solar Energetic Particles Around a Lunar Crater, LEAG 2021, Virtual, Aug 31 Sept. 2
- 16. **Phipps, P.H.,** Stubbs, T. J., Looper, M. D., Spence, H.E., and Townsend, L. W. (2021), Solar Energetic Particle Radiation Dosage Near a Simple Lunar Crater, NESF 2021, Virtual, Jul 20-23
- 17. **Phipps, P.H.,** Stubbs, T. J., Looper, M. D., and Spence, H.E. (2021), Galactic Cosmic Ray Proton Radiation Dosage Near a Simple Lunar Crater, LPSC 2021, Virtual, Mar 15-19
- 18. **Phipps, P.H.,** Stubbs, T. J., Looper, M. D., and Spence, H.E. (2020), Radiation Exposure in the Vicinity of a Simple Crater on the Moon, 2020 AGU Fall Meeting, Virtual, Dec 1-17
- 19. Yang, Y-M, Buccino, D., Parisi, M., **Phipps, P. H.**, Folkner, W. M., Kahan, D. S., Withers, P., & Oudrhiri, K., (2020) Recent Advances in the Io Plasma Torus Calibrations for Galileo, Juno, and Europa Clipper Radio Science Measurements, 2020 AGU Fall meeting, Virtual, Dec. 1-17
- 20. **Phipps, P.H.,** Stubbs, T. J., Looper, M. D., and Spense, H.E. (2020), Variations in Radiation Exposure Near a Simple Lunar Crater, Annual Meeting of the Lunar Exploration and Analysis Group 2020 Meeting, Virtual, Sept. 14-16
- 21. **Phipps, P.H.,** Withers, P., Buccino, D. R., Yang, Y-M., Parisi, M., Hinton, P. C., & Bagenal, F. (2019), Io Plasma Torus Variability During the Juno Mission, 2019 AGU Fall meeting abstracts, San Francisco, CA, Dec. 9 13

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- 23. **Phipps, P.H.,** Withers, P., Buccino, D. R., Yang, Y-M., Parisi, M., Hinton, P. C., & Bagenal, F. (2019), Juno Radio Occultations of the Io Plasma Torus, NEROC Symposium, MIT Haystack Observatory, Westford, MA, Nov 1
- 24. Molrano, A., Zannoni, M., Gomez Casajus, L., Tortora, P., Withers, P., **Phipps, P. H.**, Buccino, D., & Oudrhiri, K. Morphology of the Io Plasma Torus inferred from Dual Uplink-Dual Downlink calibration during Juno Mission, EPSC-DPS Joint Meeting 2019, Geneva, Switzerland, 15-20 Sept.
- 25. **Phipps, P.H.,** Withers, P., Hinton, P. C., Bagenal, F., Buccino, D. R., Yang, Y-M., & Parisi, M. (2019), The Centrifugal Equator as Seen by Juno Radio Occultations of the Io Plasma Torus, Magnetospheres of the Outer Planets meeting, Sendai, Japan, 3-7 June.
- 26. Zannoni, M., Gomez Casajus, L., Molrano, A., Tortora, P., **Phipps, P. H.**, Withers, P., Buccino, D., Oudrhiri, K., Durante, D., & Iess, L., (2019), Observations of the Io Plasma Torus with Juno radio science experiment, 21<sup>st</sup> EGU General Assembly, Vienna, Austria, 7-12 Apr.
- 27. **Phipps, P.H.,** Withers, P., Buccino, D. R., Yang, Y-M., Hinton, P. C., & Bagenal, F. (2018), Variability in the Io Plasma Torus as Seen by Juno Radio Occultations, Abstract 438966 presented at 2018 Fall Meeting, AGU, Washington, DC, 10-14 Dec.
- 28. Yang, Y-M, Buccino, D., Parisi, M., Folkner, W. M., **Phipps, P. H.**, Withers, P., Kahan, D. S., & Oudrhiri, K., (2018) Juno Radio Science Observations and Gravity Science Calibrations of Io Plasma Torus and its Impact on Telecommunications Links for Future Missions, 2018 AGU Fall meeting abstracts, Washington, DC, 10-14 Dec.
- 29. **Phipps, P.H.,** Withers, P., Buccino, D. R., Yang, Y-M., Hinton, P. C., & Bagenal, F. (2018), Io plasma torus geometry from *Juno* radio occultations, Magnetospheres of Outer Planets meeting, Boulder, CO, 9-13 Jul
- 30. **Phipps, P. H.**, Withers, P., Buccino, D. R., Yang, Y-M., & Hinton, P. C. (2017). Juno Perijove 1 radio occultation of the Io plasma torus, Abstract 279802 presented at 2017 Fall Meeting, AGU, New Orleans, LA, 11-15 Dec.
- 31. Yang, Y-M, Buccino, D., Folkner, W. M., Oudrhiri, K., **Phipps, P. H.**, Parisi, M., & Kahan, D. S. (2017), Juno Radio Science Observations and Gravity Science Calibrations of Plasma Electron Content in Io Plasma Torus, 2017 AGU Fall Meeting Abstracts, New Orleans, LA, 11-15 Dec.
- 32. **Phipps, P.H.** & Withers, P. (2017), Radio occultations of the Io plasma torus with the *Juno* Spacecraft: A study of feasibility, Magnetospheres of Outer Planets meeting, Uppsala, Sweden, 12-16 June
- 33. **Phipps, P.H.** & Withers, P. (2016). Feasibility of Juno radio occultations of the Io plasma torus, Abstract 178300 presented at 2016 Fall Meeting, AGU, San Francisco, Calif., 12-16 Dec.
- 34. **Phipps, P.H.** & Clarke, J.T. (2015). Calculation of the Auroral Color Ratio of the Gas Giants Using Images, IAU General Assembly, Meeting #29, #2258018