

# Anthony W. Case - *Curriculum Vitae*

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Astrophysicist  
Harvard-Smithsonian Center for Astrophysics  
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## Education

- Ph.D., M.A. Astronomy, Boston University, Boston, MA  
2005-2010
  - Dissertation: "Galactic Cosmic Ray Variations at the Moon".  
Advisor: Prof. Harlan Spence
- B.S. Physics, University of Oregon, Eugene, OR  
2002-2004

## Research Experience

- Astrophysicist, Harvard-Smithsonian Center for Astrophysics  
2012–Present
  - As institutional PI for multiple projects: scheduling, budgeting, and directing work.
  - Design, technology development, and testing as Co-I/Instrument Scientist for the Solar Probe Cup to fly on Parker Solar Probe
  - Test lead for re-certification of Deep-Space Climate Observatory Faraday Cup
  - Analysis of data from the Cosmic Ray Telescope for the Effects of Radiation
  - Co-investigator for the Plasma Instrument for Magnetic Sounding on Europa Clipper
  - Development of new operational techniques for next generation Faraday cups
- Postdoctoral Research Fellow, Harvard-Smithsonian Center for Astrophysics, Advisor: Justin Kasper  
2010–2012
  - Analysis of data from the Cosmic Ray Telescope for the Effects of Radiation
  - Preliminary design and technology development for the Solar Probe Cup to fly on Parker Solar Probe
- Research Assistant, Boston University, Advisor: Harlan Spence  
2005–2010
  - Analysis of data from the Cosmic Ray Telescope for the Effects of Radiation (CRaTER): magnetotail shielding of galactic cosmic rays, corotating interactions regions and their influence on galactic cosmic rays (2009–2010)
  - Quantifying the ambient solar wind's effect on coronal mass ejections (CME): using global MHD models to quantify the solar wind's effect on CME transit times (2005–2009)

## Spacecraft Mission Participation

- HelioSwarm (Heliophysics Medium Explorer, currently in Phase A)  
2019–Present
  - Faraday Cup Instrument Lead / Institutional PI
  - Science Co-investigator
  - Responsibilities:
    - \* Proposal preparation
    - \* Initial instrument design

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- Solar Wind Electrons Alphas and Protons Suite (SWEAP) on Parker Solar Probe  
2010–Present
  - Solar Probe Cup (SPC) Instrument Scientist and Deputy-PI (2011–Present)
  - Team Member (2010–2011)
  - Responsibilities:
    - \* Science data analysis
    - \* Presentations at major instrument reviews (PDR, CDR, etc.)
    - \* Directing engineering support of instrument build
    - \* Design support and definition of instrument requirements
    - \* Test planning, test software development, laboratory testing
    - \* Budget and schedule development
- Plasma Instrument for Magnetic Sounding (PIMS) on Europa Clipper  
2014–Present
  - Co-Investigator / Institutional PI
  - Responsibilities:
    - \* Preliminary instrument design
    - \* Science team member
- Faraday Cup (FC) on Deep Space Climate Observatory (DSCOVR)  
2012–Present
  - Faraday Cup Refurbishment Testing Lead
  - Responsibilities
    - \* Instrument commissioning and data pipeline development
    - \* Developing ground-support software for beam testing of Faraday Cup
    - \* Ion beam testing for calibration/characterization of Faraday Cup
- Cosmic Ray Telescope for the Effects of Radiation (CRaTER) on Lunar Reconnaissance Orbiter  
2007–Present
  - Co-Investigator / Institutional PI (2011–Present)
  - Core Team Member (2007–2011)
  - Responsibilities:
    - \* Preparation of extended mission proposal for senior review
    - \* Calibration and characterization of the CRaTER instrument: energy calibration using particle beams and radioactive sources, thermal calibration, thermal-vacuum testing, development of testing software
    - \* Attending and presenting at NASA/LRO project science working group meetings and instrument team meetings

## Honors, Awards, and Recognitions

- NASA Silver Achievement Medal for work on Parker Solar Probe, 2019
- American Astronautical Soc. Neil Armstrong Spaceflight Achievement Award (to PSP Mission Team), 2018
- American Astronautical Soc. Neil Armstrong Spaceflight Achievement Award (to LRO Mission Team), 2016
- NASA Group Achievement Award for exceptional achievements during the LRO extended mission, 2015
- Outstanding Service award from Smithsonian Astrophysical Observatory for outstanding performance and dedication to the SWEAP project, 2015
- NASA Group Achievement Award for exceptional accomplishments in operating the LRO spacecraft and instruments during the life of the LRO Science Mission, 2013

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- NASA Group Achievement Award from for outstanding accomplishments of the seven LRO instrument teams and the LRO Project Science Team at GSFC, 2011
- NASA Group Achievement Award from for exceptional accomplishments in operating the LRO spacecraft and instruments, 2011
- NASA Group Achievement Award from for exceptional accomplishments in developing and operating the LRO spacecraft and instruments, 2010
- “Ambient solar wind’s effect on ICME transit times”, highlighted in *Space Weather Quarterly* as an editor’s choice article, December 2008.

## Teaching Experience

- Guest Lecturer, Lunar Science Symposium, McAuliffe-Shepard Discovery Center/UNH, June 2011
- Grading Assistant, Boston University, Core Science Program - CC105, Fall 2009, Fall 2008, Fall 2007

## Specialized Training

- Cleanroom, magnetics, and ESD, APL/GSFC, 2017
- Electrostatic Discharge (ESD) Control, SAO, 2012, 2015
- Earned Value Management: Microsoft Project, wlnsight, SAO, 2012
- Earned Value Management Basics, SAO, 2011
- Suborbital Spaceflight Training for Scientists, NASTAR Center, 2010
- Radiation Worker I and NASA Space Radiation Lab. Training, Brookhaven National Lab. (2006–2015)

## Professional Activities

- **Scientific Organization Membership**
  - American Geophysical Union, 2006–Present
- **Reviewing**
  - *Astrophysical Journal*
  - *Journal of Geophysical Research - Space Physics*
  - *Space Weather*
  - NASA Proposal Selections
  - Nuclear and Space Radiation Effects Conference
  - Solar Wind 13 Conference Proceedings

## Education and Public Outreach Activities

- “Space on the Hill: Destination Moon”, presentation of cosmic ray science and LRO/CRaTER, July 2019
- US House of Representatives Technology Demo for NASA and Johns Hopkins University, June 2019
- Skype-A-Scientist; interactive remote discussions with elementary school children, Feb 2019
- Smithsonian National Air and Space Museum, December 2018
- Youtube appearance on “Smarter Every Day”, August 2018, [link1, link2]
- “Extreme Spacecrafting” - Presentation at CfA Observatory Night, May 2018, link
- Presentation at AIAA - Mid Atlantic Section, Laurel, MD, October, 2014
- Appearance in “Chemistry: Challenges and Solutions”, Annenberg Learner, November, 2013, [link]
- Presentation at the Aldrich Astronomical Society (Paxton, MA), May, 2013

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- International Observe the Moon Night at Mcauliffe-Shepard Discovery Center (NH), September 2012
- Live presentation, TV broadcast and podcast from the Boston Museum of Science, October 2009, [link]
- “Alumni Under the Stars” public observing night, Boston University Observatory, August 2009
- “Lunar Science, a Live Presentation”, Boston Museum of Science, July 2009
- “To the Moon and Beyond”, a live presentation, Plymouth (MA) Public Library, November 2008

## Computer Languages

- **Advanced:** Python, IDL, LaTeX
- **Some Experience:** Javascript, PHP, Windows Batch, SQL, Perl, Assembly, ITOS, GSEOS

## Refereed Publications

2020

1. Adhikari, Laxman, [5 authors], **A. W. Case**, [2 authors], “Turbulence Transport Modeling and First Orbit Parker Solar Probe (PSP) Observations”, 2020, *Astrophys. J. Supp.*, doi:10.3847/1538-4365/ab5852
2. Agapitov, O.V., [9 authors], **A. W. Case**, [14 authors], “Sunward propagating whistler waves collocated with localized magnetic field holes in the solar wind: Parker Solar Probe observations at 35.7  $R_{\odot}$  radii”, 2020, *Astrophys. J. Lett.*, doi:10.3847/2041-8213/ab799c
3. Allen, R. C., [12 authors], **A. W. Case**, [21 authors], “Solar wind streams and stream interaction regions observed by Parker Solar Probe with Corresponding Observations at 1 au”, 2020, *Astrophys. J. Supp.*, doi:10.3847/1538-4365/ab578f
4. Badman, S. T., [8 authors], **A. W. Case**, [12 authors], “Magnetic Connectivity of the Ecliptic Plane within 0.5 au: PFSS Modeling of the First PSP Encounter”, 2020, *Astrophys. J. Supp.*, doi:10.3847/1538-4365/ab4da7
5. Bandyopadhyay, R., [19 authors], **A. W. Case**, [7 authors], “Enhanced Energy Transfer Rate in Solar Wind Turbulence Observed near the Sun from Parker Solar Probe”, 2020, *Astrophys. J. Supp.*, doi:10.3847/1538-4365/ab5dae
6. Bandyopadhyay, R., [31 authors], **A. W. Case**, [1 author], “Observations of Energetic-Particle Population Enhancements along Intermittent Structures near the Sun from Parker Solar Probe”, 2020, *Astrophys. J. Supp.*, doi:10.3847/1538-4365/ab6220
7. Berčič, L., [8 authors], **A. W. Case**, [10 authors], “Coronal Electron Temperature inferred from the Strahl Electrons in the Inner Heliosphere: Parker Solar Probe and Helios observations”, 2020, *Astrophys. J.*, doi:10.3847/1538-4357/ab7b7a
8. Bowen, T., [7 authors], **A. W. Case**, [15 authors], “Ion Scale Electromagnetic Waves in the Inner Heliosphere”, 2020, *Astrophys. J. Supp.*, doi:10.3847/1538-4365/ab6c65
- ⇒9. **Case, A. W.**, [20 authors], “The Solar Probe Cup on the Parker Solar Probe”, 2020, *Astrophys. J. Supp.*, doi:10.3847/1538-4365/ab5a7b
10. Chaston C. C., [12 authors], **A. W. Case**, [5 authors], “MHD mode composition in the inner Heliosphere from Parker Solar Probe’s 1<sup>st</sup> Perihelion”, 2020, *Astrophys. J. Supp.*, doi:10.3847/1538-4365/ab745c
11. Chen C., [5 authors], **A. W. Case**, [17 authors], “The Evolution and Role of Solar Wind Turbulence in the Inner Heliosphere”, 2020, *Astrophys. J. Supp.*, doi:10.3847/1538-4365/ab60a3

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12. Chhiber, R., [18 authors], **A. W. Case**, [6 authors], "Clustering of Intermittent Magnetic and Flow Structures near Parker Solar Probe's First Perihelion – A Partial-Variance-of-Increments Analysis", 2020, *Astrophys. J. Supp.*, doi:10.3847/1538-4365/ab53d2
13. Cohen, C. M. S., [30 authors], **A. W. Case**, [5 authors], "Energetic Particle Increases Associated with Stream Interaction Regions", 2020, *Astrophys. J. Supp.*, doi:10.3847/1538-4365/ab4c38
14. Duan, D., [9 authors], **A. W. Case**, [10 authors], "The Radial Dependence of Proton-scale Magnetic Spectral Break in Slow Solar Wind during PSP Encounter 2", 2020, *Astrophys. J. Supp.*, doi:10.3847/1538-4365/ab672d
15. Finley, A. J., [6 authors], **A. W. Case**, [4 authors], "The Solar Wind Angular Momentum Flux as Observed by Parker Solar Probe", 2020, *Astrophys. J. Lett.*, [in press]
16. Giacalone, J., [14 authors], **A. W. Case**, [18 authors], "Solar Energetic Particles Produced by a Slow Coronal Mass Ejection at  $\sim 0.25$  AU", 2020, *Astrophys. J. Supp.*, doi:10.3847/1538-4365/ab5221
17. Halekas, J. S., [6 authors], **A. W. Case**, [9 authors], "Electrons in the Young Solar Wind: First Results from the Parker Solar Probe", 2020, *Astrophys. J. Supp.*, doi:10.3847/1538-4365/ab4cec
18. Huang, J., [10 authors], **A. W. Case**, [18 authors], "Proton Temperature Anisotropy Variations in Inner Heliosphere Estimated with First Parker Solar Probe Observations", 2020, *Astrophys. J. Supp.*, doi:10.3847/1538-4365/ab74e0
19. Kim T. K., [16 authors], **A. W. Case**, [5 authors], "Predicting the Solar Wind at the Parker Solar Probe using an Empirically Driven MHD Model", 2020, *Astrophys. J. Supp.*, doi:10.3847/1538-4365/ab58c9
20. Korreck, K. E., [14 authors], **A. W. Case**, [14 authors], "Source and Propagation of a Streamer Blowout Coronal Mass Ejection Observed by Parker Solar Probe", 2020, *Astrophys. J. Supp.*, doi:10.3847/1538-4365/ab6ff9
21. Krupar, V., [15 authors], **A. W. Case**, [6 authors], "Density Fluctuations in the Solar Wind Based on Type III Radio Bursts Observed by the Parker Solar Probe", 2020, *Astrophys. J. Supp.*, doi:10.3847/1538-4365/ab65bd
22. Leske, R. A., [29 authors], **A. W. Case**, [5 authors], "Observations of the 2019 April 4 Solar Energetic Particle Event at the Parker Solar Probe", 2020, *Astrophys. J. Supp.*, doi:10.3847/1538-4365/ab5712
23. Livi, R., [4 authors], **A. W. Case**, [16 authors], "The Solar Probe ANalyzer - Ions on the Parker Solar Probe", 2020, *Astrophys. J. Supp.*, doi:10.3847/xxxx [submitted]
24. Looper, M. [7 authors], **A. W. Case**, [3 authors], "Long-Term Observations of Galactic Cosmic Ray LET Spectra in Lunar Orbit by LRO/CRaTER", 2020, *Space Weather*, [in press]
25. Maksimovich, M., [3 authors], **A. W. Case**, [23 authors], "Anticorrelation between the Bulk Speed and the Electron Temperature in the Pristine Solar Wind: First Results from the Parker Solar Probe and Comparison with Helios", 2020, *Astrophys. J. Supp.*, doi:10.3847/1538-4365/ab61fc
26. Malaspina, D. M., [14 authors], **A. W. Case**, [4 authors], "Plasma Waves near the Electron Cyclotron Frequency in the Near-Sun Solar Wind", 2020, *Astrophys. J. Supp.*, doi:10.3847/1538-4365/ab4c3b
27. Martinovic, M., [2 authors], **A. W. Case**, [17 authors], "The Enhancement of Proton Stochastic Heating in the Near-Sun Solar Wind", 2020, *Astrophys. J. Supp.*, doi:10.3847/1538-4365/ab527f
28. McManus, M. D., [17 authors], **A. W. Case**, [1 authors], "Cross Helicity Reversals In Magnetic Switchbacks", 2020, *Astrophys. J. Supp.*, doi:10.3847/1538-4365/ab6dce

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29. Mozer, F. S., [4 authors], **A. W. Case**, [17 authors], "Switchbacks in the solar magnetic field: their evolution, their content, and their effects on the plasma", 2020, *Astrophys. J. Supp.*, doi:10.3847/1538-4365/ab7196
30. Nieves-Chinchilla, T., [14 authors], **A. W. Case**, [16 authors], "Analysis of the Internal Structure of the Streamer Blow Out Observed by the Parker Solar Probe during the First Solar Encounter", 2020, *Astrophys. J. Supp.*, doi:10.3847/1538-4365/ab61f5
31. Panasenco, O., [16 authors], **A. W. Case**, [4 authors], "Exploring Solar Wind Origins and Connecting Plasma Flows from the Parker Solar Probe to 1 au: Nonspherical Source Surface and Alfvénic Fluctuations", 2020, *Astrophys. J. Supp.*, doi:10.3847/1538-4365/ab61f4
32. Parashar, T. N., [20 authors], **A. W. Case**, [6 authors], "Measures of Scale Dependent Alfvénicity in the first PSP Solar Encounter", 2020, *Astrophys. J. Supp.*, doi:10.3847/1538-4365/ab64e6
33. Phan, T. D., [9 authors], **A. W. Case**, [15 authors], "Parker Solar Probe In-Situ Observations of Magnetic Reconnection Exhausts During Encounter 1", 2020, *Astrophys. J. Supp.*, doi:10.3847/1538-4365/ab55ee
34. Pulupa, M., [3 authors], **A. W. Case**, [18 authors], "Statistics and Polarization of Type III Radio Bursts Observed in the Inner Heliosphere", 2020, *Astrophys. J. Supp.*, doi:10.3847/1538-4365/ab5dc0
35. Qudsi, R., [X authors], **A. W. Case**, [Y authors], "Observations of heating along intermittent structures in the inner heliosphere from PSP data", 2020, *Astrophys. J. Supp.*, doi:10.3847/1538-4365/ab5c19
36. Réville, V., [10 authors], **A. W. Case**, [9 authors], "The Role of Alfvén Wave Dynamics on the Large-scale Properties of the Solar Wind: Comparing an MHD Simulation with PSP E1 Data", 2020, *Astrophys. J. Supp.*, doi:10.3847/1538-4365/ab4fef
37. Rouillard, A. P., [23 authors], **A. W. Case**, [12 authors], "Relating Streamer Flows to Density and Magnetic Structures at the Parker Solar Probe", 2020, *Astrophys. J. Supp.*, doi:10.3847/1538-4365/ab579a
38. Schwadron, N. A., [2 authors], **A. W. Case**, [42 authors], "Seed Population Pre-Conditioning and Acceleration Observed by the Parker Solar Probe", 2020, *Astrophys. J. Supp.*, doi:10.3847/1538-4365/ab5527
39. Szabo, A., [16 authors], **A. W. Case**, [10 authors], "The Heliospheric Current Sheet in the Inner Heliosphere Observed by the Parker Solar Probe", 2020, *Astrophys. J. Supp.*, doi:10.3847/1538-4365/ab5dac
40. Tenerani, A., [7 authors], **A. W. Case**, [12 authors], "Magnetic Field Kinks and Folds in the Solar Wind", 2020, *Astrophys. J. Supp.*, doi:10.3847/1538-4365/ab53e1
41. Vech, D., [4 authors], **A. W. Case**, [13 authors], "Kinetic Scale Spectral Features of Cross Helicity and Residual Energy in the Inner Heliosphere", 2020, *Astrophys. J. Supp.*, doi:10.3847/1538-4365/ab60a2
42. Verniero, J., [14 authors], **A. W. Case**, [7 authors], "Parker Solar Probe observations of proton beams simultaneous with ion-scale waves", 2020, *Astrophys. J. Supp.*, doi:10.3847/1538-4365/ab86af
43. Whittlesey, P. L., [6 authors], **A. W. Case**, [14 authors], "The Solar Probe ANALYZERS - Electrons on the Parker Solar Probe", 2020, *Astrophys. J. Supp.*, doi:10.3847/1538-4365/ab7370
44. Wiedenbeck, M. E., [25 authors], **A. W. Case**, [6 authors], "<sup>3</sup>He-rich Solar Energetic Particle Observations at the Parker Solar Probe and near Earth", 2020, *Astrophys. J. Supp.*, doi:10.3847/1538-4365/ab5963
45. Woolley, T., [7 authors], **A. W. Case**, [4 authors], "Proton Core Behaviour Inside Magnetic Field Switchbacks", 2020, *MNRAS*, doi:TBD [in press]
46. Zhao, L., [6 authors], **A. W. Case**, [12 authors], "Identification of Magnetic Flux Ropes from Parker Solar Probe Observations during the First Encounter", 2020, *Astrophys. J. Supp.*, doi:10.3847/1538-4365/ab4ff1

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## 2019

47. Bale, S.D., [4 authors], **A. W. Case**, [42 authors], "Highly structured slow solar wind emerging from an equatorial coronal hole", 2019, *Nature*, doi:10.1038/s41586-019-1818-7
48. Kasper, J. C., [3 authors], **A. W. Case**, [36 authors], "Alfvénic velocity spikes and rotational flows in the near-Sun solar wind", 2019, *Nature*, doi:10.1038/s41586-019-1813-z
49. McComas, D. J., [26 authors], **A. W. Case**, [5 authors], "Probing the Energetic Particle Environment near the Sun", 2019, *Nature*, doi:10.1038/s41586-019-1811-1
50. Wilson, J. K., H. E., Spence, N. A. Schwadron, **A. W. Case**, M. D. Looper, A. P. Jordan, W. de Wet, J. C. Kasper, "Precise Detections of Solar Particle Events and a New View of the Moon", 2019, *Geophys. Res. Lett.*, doi:10.1029/2019GL085522

## 2018

51. Schwadron, N. A., [6 authors], **A. W. Case**, [13 authors], "Update on the Worsening Particle Radiation Environment Observed by CRaTER and Implications for Future Human Deep-Space Exploration", 2018, *Space Weather*, doi:10.1002/2017SW001803

## 2017

52. Kasper, J. C., [7 authors], **A. W. Case**, "A Zone of Preferential Ion Heating Extends Tens of Solar Radii from Sun", 2017 *Astrophysical Journal*, doi:10.3847/1538-4357/aa84b1
53. Quinn, P. R., [4 authors], **A. W. Case**, [3 authors], "Modeling the Effectiveness of Shielding in the Earth-Moon-Mars Radiation Environment Using PREDICCS: Five Solar Events in 2012", 2017, *Journal of Space Weather and Space Climate*, doi:10.1051/swsc/2017014

## 2016

54. Zeitlin, C., **A. W. Case**, [13 authors], "Solar modulation of the deep space galactic cosmic ray lineal energy spectrum measured by CRaTER, 2009-2014", 2016, *Space Weather*, doi:10.1002/2015SW001314

## 2015

55. Kasper, J. C., [11 authors], **A. W. Case**, [66 authors], "Solar Wind Electrons Alphas and Protons (SWEAP) Investigation: Design of the Solar Wind and Coronal Plasma Instrument Suite for Solar Probe Plus", 2015, *Space Science Reviews*, doi:10.1007/s11214-015-0206-3
56. Joyce, C. J., [5 authors], **A. W. Case**, [5 authors], "Analysis of the potential radiation hazard of the 23 July 2012 SEP event observed by STEREO A using the EMMREM model and LRO/CRaTER", 2015, *Space Weather*, doi:10.1002/2015SW001208

## 2014

57. Joyce, C. J., [7 authors], **A. W. Case**, [3 authors], "Radiation modeling in the Earth and Mars atmospheres using LRO/CRaTER with the EMMREM Module", 2014, *Space Weather*, doi:10.1002/2013SW000997
58. Porter, J., [5 authors], **A. W. Case**, [2 authors], "Radiation environment at the Moon: Comparisons of transport code modeling and measurements from the CRaTER instrument", 2014, *Space Weather*, doi:10.1002/2013SW000994
59. Schwadron, N. A., J. B. Blake, **A. W. Case**, [13 authors], "Does the worsening radiation environment preclude future manned deep-space exploration?", 2014, *Space Weather*, doi:10.1002/2014SW001084

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## 2013

- ⇒60. **Case, A. W.**, [10 authors], "The Deep-space Galactic Cosmic Ray Lineal Energy Spectrum", 2013, *Space Weather*, doi:10.1002/swe.20051
61. Joyce, C., [8 authors], **A. W. Case**, [3 authors], "Validation of PREDICCS Using LRO/CRaTER Observations During Three Major Solar Events in 2012", 2013, *Space Weather*, doi:10.1002/swe.20059
62. Looper, M., [5 authors], **A. W. Case**, [2 authors], "The Radiation Environment Near the Lunar Surface: CRaTER Observations and Geant4 Simulations", 2013, *Space Weather*, doi:10.1002/swe.20034
63. Zeitlin, C., **A. W. Case**, [9 authors], "Measurements of Galactic Cosmic Ray Shielding with the CRaTER Instrument", 2013, *Space Weather*, doi:10.1002/swe.20043

## 2012

- ⇒64. **Case, A. W.**, [16 authors], "Designing a Sun-pointing Faraday Cup for Solar Probe Plus", 2012, *Solar Wind 13 Conference Proceedings*, doi:10.1063/1.4811083
65. Schwadron, N. A., [2 authors], **A. W. Case**, [15 authors], "Lunar radiation environment and space weathering from the Cosmic Ray Telescope for the Effects of Radiation (CRaTER)", 2012, *J. Geophys. Res. - Planets*, doi:10.1029/2011JE003978
66. Wilson, J. K., H. E. Spence, J. C. Kasper, M. J. Golightly, J. B. Blake, J. E. Mazur, L. W. Townsend, **A. W. Case**, M. D. Looper, C. J. Zeitlin, N. A. Schwadron, "The First Cosmic Ray Albedo Proton Map of the Moon", 2012, *J. Geophys. Res. - Planets*, doi:10.1029/2011JE003921

## 2011

67. Mazur, J. E., W. R. Crain, M. D. Looper, D. J. Mabry, J. B. Blake, **A. W. Case**, M. J. Golightly, J. C. Kasper, H. E. Spence, "New Measurements of Total Ionizing Dose in the Lunar Environment", 2011, *Space Weather*, doi:10.1029/2010SW000641R

## 2010

- ⇒68. **Case, A. W.**, "Variations in the Galactic Cosmic Ray Flux at the Moon", 2010, Dissertation, link:proquest.com
- ⇒69. **Case, A. W.**, H. E. Spence, M. J. Golightly, J. C. Kasper, J. B. Blake, J. E. Mazur, L. W. Townsend, C. J. Zeitlin, "GCR Access to the Moon as Measured by the CRaTER Instrument on LRO", 2010, *Geophys. Res. Lett.*, doi:10.1029/2010GL045118
70. Spence, H. E., **A. W. Case**, [26 authors], "CRaTER: The Cosmic Ray Telescope for the Effects of Radiation Experiment on the Lunar Reconnaissance Orbiter Mission", 2010, *Space Sci. Rev.*, doi:10.1007/s11214-009-9584-8

## 2008

- ⇒71. **Case, A. W.**, H. E. Spence, M. J. Owens, P. Riley, and D. Odstrcil, "Ambient solar wind's effect on ICME transit times", 2008, *Geophys. Res. Lett.*, doi:10.1029/2008GL034493

## Scientific Presentations (Presenting Author Only)

### • Oral Presentations

- "Alfvénic Velocity Spikes and Rotational Flows in the Near-Sun Solar Wind", J. C. Kasper, **A. W. Case**, SWEAP and FIELDS teams, AAS Winter Meeting, Honolulu, HI, January 2020



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- “Solar Probe Cup - First Results”, **A. W. Case**, [19 authors], AAS Winter Meeting, Honolulu, HI, January 2020
- “Observed Properties of Solar Wind Jets inside 0.25 AU”, **A. W. Case**, [19 authors], AGU Fall Meeting, San Francisco, CA, December 2019
- “Resurrecting the DSCOVR Faraday Cup”, **A. W. Case**, Kasper, J. C., Stevens, M. L., and Szabo, A., First Solar Probe Plus Workshop, Pasadena, CA, March 2013
- “Predicting Inner Heliospheric Solar Wind Conditions in Advance of Solar Probe Plus”, **A. W. Case**, Kasper, J. C., Korreck, K. E., Stevens, M. L., Cohen, O., Salem, C. S., Halekas, J. S., Larson, D. E., and Maruca, B. A., AGU Fall Meeting, San Francisco, CA, December 2012.
- “The Cosmic Ray Telescope for the Effects of Radiation”, Spence, H. E. and **A. W. Case** on behalf of the CRaTER team. LPSC Meeting, Houston, Texas, March 2010.
- “The Ambient Solar Wind’s Effect on ICME Propagation”, **Case, A. W.**, H. E. Spence, M. J. Owens, P. Riley, and D. Odstrcil, AOGS Meeting, Bangkok, Thailand, August 2007.
- **Poster Presentations (selected)**
  - “Solar Probe Cup Design, Operation, and Calibration”, **Case, A. W.**, J. C. Kasper, K. E. Korreck, M. L. Stevens, D. Larson, R. Livi, P. L. Whittlesey, AGU Fall Meeting, Washington DC, December 2018
  - “The Solar Probe Cup on Parker Solar Probe”, **Case, A. W.**, J. C. Kasper, K. E. Korreck, M. L. Stevens, D. Larson, K. H. Wright, P. L. Whittlesey, R. Livi, Solar Wind 15, Brussels, Belgium, June 2018
  - “Solar Probe Cup: Laboratory Performance”, **Case, A. W.**, “Solar Probe Cup: Laboratory Performance”, J. C. Kasper, K. E. Korreck, M. L. Stevens, D. Larson, K.H. Wright, D. L. Gallagher, P. L. Whittlesey, AGU Fall Meeting, New Orleans, December 2017
  - “First DSCOVR/PlasMag Observations of Magnetic Reconnection in the Solar Wind”, **Case, A. W.**, M. L. Stevens, J. C. Kasper, A. Szabo, A. Koval, D. Biesecker, AGU Fall Meeting, San Francisco, December 2015
  - “Solar Wind Speed-Temperature-Acceleration Relation”, Kasper, J. C., **A. W. Case**, AGU Fall Meeting, San Francisco, December 2014
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- **Seminars**
  - “Initial Results from Parker Solar Probe”, Boston University, Boston, MA, USA, Feb 2020

# Anthony W. Case - *Curriculum Vitae*

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- “The Solar Probe Cup on Parker Solar Probe”, Boston College, Boston, MA, USA, March 2019
- “The Solar Probe Cup on Parker Solar Probe”, University of Massachusetts - Lowell, Lowell, MA, USA, October 2018
- “Solar Wind and Development of Solar Probe Plus”, University of New Hampshire, Durham, NH, USA, May 2014
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