

Ashraf Moradi

Lunar and Planetary Laboratory
University of Arizona

amoradi@lpl.arizona.edu
ashrafmoradi@email.arizona.edu

RESEARCH INTERESTS

Transport of Solar Energetic Particles into the Interplanetary Space, Modeling the Photospheric Surface Flows. Expansion of the open magnetic fluxtubes into the inner corona.

EDUCATION:

- 2016 – 2019 University of Alabama in Huntsville, Space Science Department, PhD in Space Science.
- 2012 - 2017 University of Alabama in Huntsville, Physics Department, M.S. in Physics.
- 2007 Shahid Beheshti University, Laser and Plasma Research Institute, Tehran, Iran. M.S. in Photonics.
- 2001 Shahid Beheshti University, Physics Department, Tehran, Iran, B.S. in Physics.

COMPUTER SKILLS:

- **Computer Languages:** C programming, IDL, C++, Mathematica, VisIt.
- **Parallel Computing:** MPI, pthreads, GPU programming (CUDA).

PUBLICATIONS

- 2019 Moradi, A., Li, G., 2019, ApJ, 887, 102, “Propagation of the Scatter-free Solar Energetic Electrons in a Meandering Magnetic Field.
- 2019 Zhao, L., et al., 2019, ApJ, 878, 2, 109. “Statistical analysis of interplanetary Magnetic field path length from solar energetic electron events observed by wind”.

POSTER PRESENTATIONS

- December 2019 AGU Fall meeting, “Comparison of the path length distributions and latitudinal and longitudinal displacement distribution of the solar energetic electrons in the meandering magnetic field with the electron events observed by WIND”
- August 2019 Shine Conference 2019, “Propagation of Scatter-free Energetic Electrons in a meandering Interplanetary Magnetic Field”
- December 2018 AGU Fall meeting. “The random walk of Interplanetary Magnetic Field lines due to the intersupergranular magnetic flux tubes and its effect on the transport of the Solar Energetic Particles in the inner Heliosphere”
- August 2018 Shine Conference 2018, “Modeling the effect of photospheric surface

- December 2016 flows on the Interplanetary Magnetic Field and propagation of Solar Energetic Particles”
- July 2016 AGU Fall meeting, “Particles Transport in the Solar Wind”
- December 2015 Shine Conference 2016, “Transport of Solar Energetic Particles in the realistic interplanetary magnetic field.”
- July 2015 AGU Fall meeting 2015, “Particles Transport in a Realistic Interplanetary Magnetic Field.
- July 2015 Shine Conference 2015, “Modeling the effect of Granular flow on Interplanetary Magnetic Field”

TALKS

- July 2019 Asia Oceania Geosciences Society (AOGS), Singapor, “How Meandering are Interplanetary Magnetic Field Lines?”, Gang Li, Lulu Zhao, Linghua Wang, Ashraf Moradi.
- October 2018 Council of Science, University of Alabama in Huntsville. “Propagation of Solar Energetic Particles in Interplanetary Magnetic Field”
- July 2018 Joint Space Weather Summer Camp 2018, Center for Space Plasma and Aeronomy Center, University of Alabama in Huntsville. “Propagation of Solar Energetic Particles in Interplanetary Magnetic Field”
- July 2017 Joint Space Weather Summer Camp 2017, Center for Space Plasma and Aeronomy Center, University of Alabama in Huntsville.”Propagation of Solar Energetic Particles in Interplanetary Magnetic Field”

RESEARCH EXPERIENCES

- March 2020 – present Postdoctoral Research Associate, Lunar and Planetary Laboratory, University of Arizona.
Supervisor: Joe Giacalone.
- 2014 – 2015 Research Assistant, Center for Space Plasma and Aeronomy Center
2016 – 2019 University of Alabama in Huntsville.
- 2002 -2004 Research Assistant, Laser and Plasma Research Institute, Shahid Beheshti University, Tehran, Iran.
- 2008-2009 Research Assistant, Eksir Teb Saba Company, Exclusive Agent of SMI of Belgium in Iran, Project: Optimizing Surgical Sutures.

TEACHING EXPERIENCES:

- 2012 – 2015 Teaching Assistant, Physics Department, University of Alabama in Huntsville.