

Lan Jian

Annual Report: July 2009 – June 2010

- Position: Assistant Research Geophysicist, IGPP, UCLA
- Education: PhD in Geophysics and Space Physics, UCLA, 2008



Honors and Awards

- AGU/SPA Scarf Award – 2009
- 4 Invited Talks
 - **L.K. Jian**, C.T. Russell, J.G. Luhmann, *Ion cyclotron waves in the solar wind from 0.3 to 1 AU*, presented at the Joint Meeting of the ACE/SOHO/STEREO/WIND Spacecraft Teams, Kennebunkport, ME, June 2010.
 - **L.K. Jian**, C.T. Russell, J.G. Luhmann, A.B. Galvin, D. Odstrcil, P.J. MacNeice, *Plasma and magnetic field observations of stream interaction regions near 1 AU*, presented at the Joint Meeting of the ACE/SOHO/STEREO/WIND Spacecraft Teams, Kennebunkport, ME, June 2010.
 - **L.K. Jian**, C.T. Russell, J.G. Luhmann, B.J. Anderson, S. Boardsen, T.L. Zhang, A. Wennmacher, *Observations of ion cyclotron waves in the inner heliosphere*, presented at the 9th Annual International Astrophysics Conference, Maui, HA, Mar. 2010.
 - **L. Jian**, *Radial evolution of large-scale solar wind structures*, presented at the Fall AGU Meeting, San Francisco, CA, Dec. 2009.

Research Activity

- I have worked on the following research topics
 - Providing the Level 3 event lists for STEREO mission
 - Helping STEREO data process
 - Studying the multi-spacecraft observations of stream interaction regions, and comparing them with solar observations and heliospheric model results
 - Studying the unusually deep and quiet solar minimum 23/24
 - Studying the radial variation of ion cyclotron waves in the inner heliosphere, using data from STEREO, MESSENGER, Helios, and Venus Express missions
- Within this year, I have attended 6 national and international meetings, and made 32 presentations (14 first-authored) for 8 meetings

Service

- Member of the IGPP Seminar Committee for the academic year of 2009 – 2010
- ICME session organizer for the Joint Meeting of the ACE/SOHO/STEREO/WIND Spacecraft Teams in June 2010

Publications

14 peer-reviewed papers, 2 first-authored

Selected Papers

- **L.K. Jian**, C.T. Russell, J.G. Luhmann, A.B. Galvin, P.J. MacNeice, Multi-Spacecraft Observations: Stream Interactions and Associated Structures, *Solar Phys.*, 259, 345-360, doi: 10.1007/s11207-009-9445-3, 2009.
- **L.K. Jian**, C.T. Russell, J.G. Luhmann, R.J. Strangeway, J.S. Leisner, A.B. Galvin, Ion Cyclotron Waves in the Solar Wind Observed by STEREO near 1 AU, *Astrophys. J.*, 701, L105-L109, doi: 10.1088/0004-637X/701/2/L105, 2009.
- C.T. Russell, **L.K. Jian**, H.R. Lai, T.L. Zhang, A. Wennmacher, and J.G. Luhmann, Interplanetary Field Enhancements: Observations from 0.3 AU to 1 AU, *Amer. Inst. Phys. Proceedings of Solar Wind 12, 1216*, 522-525, 2010.
- C.T. Russell, J.G. Luhmann, **L.K. Jian**, How Unprecedented A Solar Minimum?, *Rev. Geophys.*, 48, RG2004, doi: 10.1029/2009RG000316, 2010.
- C.T. Russell, D.R. Weimer, N. Omid, **L.K. Jian**, J.G. Luhmann, and R.J. Strangeway, Interplanetary Field Enhancements Travel at the Solar Wind Speed, *Geophys. Res. Lett.*, 37, L07204, doi: 10.1029/2010GL042618, 2010.
- T.L. Zhang, W. Baumjohann, C.T. Russell, **L.K. Jian**, C. Wang, J.B. Cao, M. Balikhin, X. Blanco-Cano, M. Delva, and M. Volwerk, Mirror Mode Structures in the Solar Wind at 0.72 AU, *J. Geophys. Res.*, 114, A10107, doi: 10.1029/2009JA014103, 2009.