

# James M. Weygand

- Started in IGPP/UCLA in Dec 2000
- Presently a Associate Researcher  
Geophysicist
- Ph.D. University of Calgary, 1998

# Honors and Awards

- Invited Speaker,
  - IGPP Seminar, 2010.
  - Cluster, THEMIS, Double Star Workshop, September 2010.
- Active Grants
  - Studies of plasmas in the terrestrial magnetosphere using data from the Cluster II mission. NASA grant NNX09AH01G.
  - Magnetometer team at UCLA for the Cluster II missions. NASA NNG05GF56G.
  - The Virtual Magnetospheric Observatory. NASA grant NNX07AC93G.
  - Continuation of RSSW@1AU project: statistical characterization of solar wind fluctuations at 1 AU using multi spacecraft data. NASA Subgrant.
  - GEM: Influence of solar wind and modes of geomagnetic activity on plasma sheet turbulence. NSF GEM grant ATM-0702916.

# Teaching and Service

- 2 papers reviewed
  - Annales Geophys. and Astrophysical Journal Letters.
- 4 Conference and Workshop Presentations
  - Gem Workshop, Fall AGU Conference, Dynamics of Space Plasmas.
- Advised 3 undergraduate students.
  - Students analyzed ground magnetometer data for the THEMIS mission and VMO.

# Activities

- Turbulence:
  - Presented results at: Fall AGU and Dynamics of Space Plasmas Conference.
  - Gave invited IGPP Seminar.
  - Published a study on the anisotropy observed in magnetic field fluctuations in the solar wind and plasma sheet turbulence.
  - One in review study on the anisotropy observed in magnetic field fluctuations in the plasma sheet turbulence as a function of auroral electrojet activity.
  - Another manuscript submitted to co-authors on the anisotropy observed in magnetic field fluctuations in the solar wind as a function of solar wind speed.
- THEMIS:
  - Presented results at the GEM workshop and Fall AGU conference.
  - One manuscript submitted to co-authors on equivalent ionospheric currents calculated from North American and Greenland ground magnetometer data and another manuscript in the works.
  - Calculated equivalent ionospheric currents for at least 5 different people.
  - Building an archive of equivalent ionospheric currents calculated from North American and Greenland ground magnetometer data.
- VMO:
  - Submitted meta data for a number of different spacecraft including Cluster, Double Star, GOES 1-7, and CRRES.
- Antarctica:
  - Reinstalled WSD magnetometer.
  - Submitted NSF Antarctica proposal.
  - Constructed southern AE index data for Zesta and Boudouridis

# Publications

- Weygand, J.M., W.H. Matthaeus, S. Dasso, M.G. Kivelson, Anisotropy of the Taylor scale and the correlation scale in the plasma sheet and solar wind magnetic field fluctuations, *J. Geophys. Res.*, 114, doi:10.1029/2008JA013766, 2009.
- Wang, C.-P., L.R. Lyons, R.A. Wolf, T. Nagai, J.M. Weygand, and A.T.Y. Liu, The plasma sheet  $PV^{5/3}$  and nV associated plasma and energy transport for different convection strengths and AE levels, *J. Geophys. Res.*, 114, A00D02, doi:10.1029/2008JA013849, 2009.
- Keiling, A., V. Angelopoulos, A. Runov, J. Weygand, S.V. Apatenkov, S. Mende, J. McFadden, D. Larson, O. Amm, K.-H., Glassmeier, Substorm current wedge driven by plasma flow vortices: THEMIS observations, *J. Geophys. Res.*, 114, A00C22, doi:10.1029/2008JA013558, 2009.
- Ruiz, M.E., S. Dasso, E. Marsch, and J.M. Weygand, *Proceedings of the Twelfth International Solar Wind Conference*, AIP Conference Proceedings, edited by M. Maksimovic, N. Meyer-Vernet, M. Moncuquet, F. Pantellini, American Institute of Physics, New York 2009.
- Zhang, H., M. G. Kivelson, K. K. Khurana, J. McFadden R. J., Walker, V. Angelopoulos, J. M. Weygand, T. Phan, J. McFadden, D. Larson, K. H. Glassmeier, and H. U. Auster, Evidence that Crater FTEs are Initial Stages of Typical FTEs, *J. Geophys. Res.*, doi:10.1029/2009JA015013, 2010.
- Gjerloev, J.W., R. A. Hoffman, S. Ohtani, J. Weygand, and R. Barnes, *Ann. Geophys.*, 28, 1167-1182, 2010.
- Wang, C.-P., L.R. Lyons, T. Nagai, J.M. Weygand, A.T.Y. Lui, Evolution of plasma sheet particle content under different interplanetary magnetic field conditions, *J. Geophys. Res.*, 115, A06210, doi:10.1029/2009JA015028, 2010.