# Michael T. Bland

Postdoctoral Associate
Department of Earth and Planetary Sciences (314) 935-4810
Washington University mbland@levee.wustl.edu
St. Louis, MO 63130


## Appointments:

08/2008 – present: Postdoctoral Associate (Washington University)
05/2003 – 08/2008: Research Associate (University of Arizona)
08/2002 - 05/2003: Teaching Assistant (University of Arizona)

## Education:

05/2008: University of Arizona — Ph.D., Planetary Science
06/2002: Gustavus Adolphus College — B.A., Physics, Geology

## Publications:

**Bland, M. T.**, W. B. McKinnon 2009. Modeling fold formation in ice lithospheres: A search for Europa's missing contractional strain. In prep.

**Bland, M. T.**, W. B. McKinnon, A. P. Showman 2009. The effects of strain localization on the formation of Ganymede's grooved terrain. *Icarus*, submitted.

Mitri, G., **M. T. Bland**, A. P. Showman, J. Radebaugh, B. Stiles, R. M. C. Lopes, J. I. Lunine, R. T. Pappalardo, and the Cassini RADAR Team 2008. Mountains on Titan. *J. Geophys. Res. (Planets)*, submitted.

**Bland, M. T.**, A. P. Showman, and G. Tobie 2008. The orbital-thermal evolution and global expansion of Ganymede. *Icarus*, **200**, 207-221.

**Bland, M. T.**, A. P. Showman, and G. Tobie 2008. The production of Ganymede's magnetic field. *Icarus,* **198**, 384-399.

**Bland, M. T.** 2008. The tectonic, thermal, and magnetic evolution of icy satellites. Ph.D. Dissertation, University of Arizona.

**Bland, M. T.**, A. P. Beyer, and A. P. Showman 2007. Unstable extensional of Enceladus' lithosphere. *Icarus*, **192**, 92-105.

**Bland, M. T.** and A. P. Showman 2007. The formation of Ganymede's grooved terrain: Numerical modeling of extensional necking instabilities. *Icarus*, **189**, 439-456.

## Awards, Fellowships, and Scholarships:

2008: *U. of Arizona College of Science Outstanding Scholar Nominee*
2007: *NASA Earth and Space Science Fellowship*
2007: *Gerard P. Kuiper Award, University of Arizona*
2005: *Galileo Circle Scholarship*
2003, 2004, 2005, 2006, 2007: *Graduate Fee Waiver Scholarship*
2002: *Member, PHI BETA KAPPA Honorary Society*
2001: *Academic Assistanceship in Department of Physics, Gustavus Adolphus College*
1998, 1999, 2000, 2001: *Partners in Scholarship Award, Gustavus Adolphus College*
1998, 1999, 2000, 2001: *3M Merit Scholarship*

## Invited Seminars:

2009: Southwest Research Institute, Boulder
2008: Washington University, St. Louis
Jet Propulsion Laboratory, Pasadena
2007: Planetary Science Institute, Tucson

## Professional Service:

2009: Peer reviewer (book chapter: "Titan from Cassini-Huygens"),
NASA peer review panel (CDAP)
Session Chair (LPSC)
Peer reviewer (JGR-Planets)
2008: NASA peer review panel (JDAP/CDAP),
Peer reviewer (book chapter: "Saturn from Cassini-Huygens").
2007: NASA external peer reviewer (CDAP)

## Professional Memberships:

American Geophysical Union (since 2005)
American Astronomical Society (since 2006)
Division for Planetary Science (since 2006)

## Current and Pending Support:

*Current*
Title: Numerical Studies of Convection and Tectonics in Icy Satellites
Role: Postdoctoral Associate
Program: NASA Outer Planets Research
Period: 5/1/2008 – 4/30/2011
Effort: 0.5 FTE

## Selected Conference Abstracts:

Bland, M.T., W.B. McKinnon (2009). Numerical models of folding on Europa and the mystery of Europa's surface area balance. *DPS conf.*, #66.06.

Bland, M.T. A.P. Showman, G. Tobie (2009). The generation of Ganymede's magnetic field (Invited). *European Planetary Science Congress,* #556.

Bland, M,T., W.B. McKinnon and A.P. Showman (2009). Forming Ganymede's grooves: Producing large-amplitude, complex deformation. *LPSC 40, #*1690.

Bland, M,T., W.B. McKinnon and A.P. Showman (2008). The formation of Ganymede's grooved terrain: The importance of strain weakening. *Fall AGU conf.,* #P23A-1358.

Bland, M.T., A.P. Showman, and G. Tobie (2008). The production of Ganymede's magnetic field. *DPS conf., #*59.02.

Bland, M.T., A.P. Showman, and G. Tobie (2007). The global expansion and resurfacing of Ganymede. *Fall AGU conf.,* #P13F-02.

Bland, M.T., A.P. Showman, and G. Tobie (2007). Ganymede's thermal and orbital evolution. *DPS conf.,* #11.02.

Bland, M.T., A.P. Showman (2007). Coupled orbital and thermal evolution of Ganymede: Implications for resurfacing and magnetic field generation. *Workshop on Ices, Oceans, and Fire: Satellites of the Outer Solar System.* #1609.

Bland, M.T., R.A. Beyer, and A.P. Showman (2007). The ancient heat flow and elastic thickness on Enceladus: Constraints from photoclinometry and numerical modeling. *LPSC 38*, #1653.
Bland, M.T. and A.P. Showman (2006). Unstable extensional tectonics on Enceladus. *DPS conf.,* #24.04.
Bland, M.T. and A.P. Showman (2006). Tectonic resurfacing of icy satellites: Application to Ganymede and Enceladus. *LPSC 37*, #1417.
Bland, M.T. and A.P. Showman (2005). Tectonic resurfacing of icy satellites via extensional necking instabilities: application to Ganymede's grooved terrain. *Fall AGU conf.,* #P11B-0108.
Bland, M. and A.P. Showman (2004). Numerical modeling of extensional necking instabilities: application to Ganymede's grooved terrain. *DPS conf.*, #16.13.
Bland, M., Dehn, J. and Dean, K (2001). Thermal time series of the 2000 eruption of Bezymianny volcano, an attempt at thermal interferometry. *Fall AGU conf.*, #V42C-103.

## References

For letters of recommendation please contact:

William B. McKinnon (mckinnon@wustl.edu)
(314) 935-5604
Washington University
Campus Box 1169
1 Brookings Dr.
St. Louis MO 63130

H. Jay Melosh (jmelosh@purdue.edu)
(765) 494-3290
Department of Earth and Atmospheric Science
550 Stadium Mall Dr.
Purdue University
West Lafayette, IN 47907

Robert Pappalardo (robert.pappalardo@jpl.nasa.gov)
(818) 354-5837
Jet Propulsion Laboratory
M/S 183-301
4800 Oak Grove Dr.
Pasadena, CA, 91109

Geoffrey Collins (gcollins@wheatoncollege.edu)
(508) 286-5626
Department of Physics and Astronomy
26 East Main St.
Wheaton College
Norton, MA 02766