

Steven A. Hauck, II

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Education

- Washington University in St. Louis Earth and Planetary Sciences Ph.D. – 2001
- Washington University in St. Louis Earth and Planetary Sciences A.M. – 1998
- University of Minnesota Aerospace Engineering and Mechanics B.A.E.M. – 1996

Appointments

- Assistant Professor Case Western Reserve University 2003 – Present
- Postdoctoral Associate Carnegie Institution of Washington 2001 – 2003
- Graduate Research Assistant Washington University in St. Louis 1996 – 2001
- Graduate Teaching Assistant Washington University in St. Louis 1996 – 1999
- Undergraduate Teaching Assistant University of Minnesota 1995 – 1996
- Undergraduate Research Assistant University of Minnesota 1994

Honors

- Carl Tolman Outstanding Graduate Teaching Assistant Award 1998 – 1999
 - *Department of Earth and Planetary Sciences, Washington University*
- Letter of Recognition - Teaching Assistant 1996 – 1997
 - *Department of Earth and Planetary Sciences, Washington University*
- Stephen E. Dwornik Planetary Geoscience Student Paper Award – Honorable Mention 1997
 - *Geological Society of America.*
- National Merit Scholar 1992

Service to Community

- Associate Editor, *Journal of Geophysical Research – Planets* 2003 – Present
- NASA Venus Exploration Analysis Group – *Planetary Formation and Evolution Focus Group* 2005 – Present
- Session Organizer, Fall 2005 AGU Meeting, *Diversity of Planetary Magnetic Fields in the Solar System* 2005
- Member, NASA Mars Fundamental Research Program Review Panel 2003, 2004
- Member, NASA Mars Data Analysis Program Review Panel 2001
- Proposal Reviewer, NASA, NSF, Netherlands Organization for Scientific Research (NWO)
- Peer Reviewer, *Astrobiology, Astrophysical Journal, Earth and Planetary Science Letters, Geophysical Research Letters, Icarus, Journal of Geophysical Research, Planetary and Space Science*

Institutional Service

- University Undergraduate Faculty Curriculum Committee 2005 – 2007
- Advisory Committee on Research Computing 2005 – 2007
- Case High Performance Computing Technical Working Group 2004 – 2005

Department Service

- Faculty Search Committee 2004 – 2005
- Department Seminar Coordinator 2004 – 2006
- Graduate Admissions Committee 2003 – Present
- Journal Club Coordinator 2003 – Present

Advising and mentoring

- Masters: J. Andreas Ritzer (Fall 2004 – Present)
- Undergraduate research: Derek Smith (Summer 2005), David Blair (Fall 2005 – Present)
- Thesis Advising/Examination committees: Molly Yunker (M.S. 2005)
- Case Western Reserve University Geological Society (CWRUGS) Advisor 2005 – Present

Professional Society Memberships

- American Geophysical Union 1994 – Present

Invited Professional Presentations

- JASON Project Professional Development Workshop 2005
- Case Western Reserve University – Department of Astronomy 2004
- University of Illinois – Chicago 2003
- Case Western Reserve University 2003
- 34th Interface Foundation Symposia, Montreal 2002
- Princeton University 2001
- Brown University – Vernadsky Institute Microsymposium 1999

Invited Public Lectures

- Frontiers of Astronomy Lecture Series, Case Dept. of Astronomy, Cleveland Astronomical Society, and Cleveland Museum of Natural History 2005
- Cleveland Astronomical Society 2005
- Ecophilia 2004
- Northern Ohio Geological Society 2004

Workshops

- Early Career Faculty Workshop: Teaching, Research, and Managing Your Career, College of William and Mary 2004

Peer-reviewed Publications (Hauck, his students and post-docs in bold)

- **Hauck, S. A., II**, J. M. Aurnou, and A. J. Dombard, Sulfur's impact on core evolution and magnetic field generation on Ganymede, *Journal of Geophysical Research*, 111, E09008, doi:10.1029/2005JE002557, 2006.
- Zuber, M.T., O Aharonson, J. M. Aurnou, A. F. Cheng, **S. A. Hauck, II**, M. H. Heimpel, G. A. Neumann, S. J. Peale, R. J. Phillips, D. E. Smith, S. C. Solomon, and S. Stanley, The geophysics of Mercury: Current knowledge and future opportunities, *Space Science Reviews*, *under review*.
- Tarter, J., Backus, P., Mancinelli, R., Aurnou, J., Backman, D., Basri, G., Boss, A., Clarke, A., Deming, D., Doyle, L., Feigelson, E., Freund, F., Grinspoon, D., Haberle, R., **Hauck, S.**, Heath, M., Henry, T., Hollingsworth, J., Joshi, M., Kilston, S., Liu, M., Meikle, E., Reid, I, Rothschild, L., Scalo, J., Segura, A., Tang, C., Tiedje, J., Turnbull, M., Walkowicz, L., Weber, A., Young, R., A re-appraisal of the habitability of planets around M dwarf stars, *Astrobiology*, *under review*.
- Solomon, S. C., O. Aharonson, J. M. Aurnou, W. B. Banerdt, M. H. Carr, A. J. Dombard, H. V. Frey, M. P. Golombek, **S. A. Hauck, II**, J. W. Head, III, B. M. Jakosky, C. L. Johnson, P. J. McGovern, G. A. Neumann, R. J. Phillips, D. E. Smith, and M. T. Zuber, New perspectives on ancient Mars, *Science*, 307, 1214-1220, 2005.

- **Hauck, S. A., II**, A. J. Dombard, R. J. Phillips, S. C. Solomon, Internal and tectonic evolution of Mercury, *Earth and Planetary Science Letters*, 222, 713-728, 2004.
- **Hauck, S. A., II**, R. J. Phillips, Thermal and crustal evolution of Mars, *Journal of Geophysical Research*, 107, 5052, 10.1029/2001JE001801, 2002.
- Phillips, R. J., M. A. Bullock, **S. A. Hauck, II**, Climate and interior coupled evolution on Venus, *Geophysical Research Letters*, 28, 1779-1782, 2001.
- Phillips, R. J., M. T. Zuber, S. C. Solomon, M. P. Golombek, B. M. Jakosky, W. B. Banerdt, D. E. Smith, R. M. Williams, B. Hynek, O. Aharonson, **S. A. Hauck, II**, Ancient geodynamics and global-scale hydrology on Mars, *Science*, 291, 2587-2591, 2001.
- **Hauck, S. A., II**, R. J. Phillips, A. M. Hofmeister, Variable conductivity: Effects on the thermal structure of subducting slabs, *Geophysical Research Letters*, 26, 3257-3260, 1999.
- Smith, D. E., M. T. Zuber, S. C. Solomon, R. J. Phillips, J. W. Head, J. B. Garvin, W. B. Banerdt, D. O. Muhleman, G. H. Pettengill, G. A. Neumann, F. G. Lemoine, J. B. Abshire, O. Aharonson, C. D. Brown, **S. A. Hauck**, A. B. Ivanov, P. J. McGovern, H. J. Zwally, and T. C. Duxbury, The global topography of Mars and implications for surface evolution, *Science*, 284, 1495-1503, 1999.
- **Hauck, S. A., II**, R. J. Phillips, M. H. Price, Venus: Crater distribution and plains resurfacing models, *Journal of Geophysical Research*, 103, 13,635-13,642, 1998.

Published Abstracts

(§ = Graduate student author)

- **§Ritzer, J. A., and S. A. Hauck, II**, Crustal and lithospheric structure at Isidis Planitia, Mars, North Central Section GSA Meeting, GSA Abstracts with Programs Vol. 38, No. 4, 2006.
- **§Ritzer, J. A., and S. A. Hauck, II**, Crustal and lithospheric structure at Isidis Planitia, Mars, Fall AGU Meeting, San Francisco, CA, P51B-0923 (cdrom), December 2005.
- **Hauck, S. A., II**, J. M. Aurnou, and A. J. Dombard, Sulfur's impact on core evolution and magnetic field generation on Ganymede, Fall AGU Meeting, San Francisco, CA, GP43A-0889 (cdrom), December 2005.
- Solomon, S. C., O. Aharonson, **S.A. Hauck, II**, B.M. Jakosky, R. J. Phillips, and M. T. Zuber, Why the Martian mantle is (mostly) wet, *36th Lunar and Planetary Science Conference*, Houston, TX, 1689 (cdrom), March 2005.
- Solomon, S. C with **S.A. Hauck, II** and 15 others, New perspectives on early Mars, Second Conference on Early Mars, Jackson Hole, WY, 8087 (cdrom), October 2004.
- **Hauck, S. A., II**, S. C. Solomon, Mercury: Determination of internal structure and evolution, *35th Lunar and Planetary Science Conference*, Houston, TX, March 2004.
- **Hauck, S. A., II**, S. C. Solomon, A. J. Dombard, R. J. Phillips, Internal and tectonic evolution of Mercury, AGU-EGS-EUG, Nice, France, April 2003.
- **Hauck, S. A., II**, S. C. Solomon, R. J. Phillips, Potential sources of Hesperian contractional tectonics on Mars, *34th Lunar and Planetary Science Conference*, Houston, TX, March 2003.
- Solomon, S. C., with **S. A. Hauck, II** and 11 others, Why are there so few magnetic anomalies in Martian lowlands and basins?, *34th Lunar and Planetary Science Conference*, Houston, TX, March 2003.
- **Hauck, S. A., II**, Statistics on Venus: Craters and Catastrophes (?), Interface Foundation Symposia, Montreal, Canada, April 2002.
- **Hauck, S. A., II**, A. J. Dombard, S. C. Solomon, J. M. Aurnou, Internal structure and mechanisms of core convection on Ganymede, *33rd Lunar and Planetary Science Conference*, Houston, TX, March 2002.
- Solomon, S. C. with **S. A. Hauck, II** and 17 others, Insights into the earliest history of Mars: A new synthesis, *33rd Lunar and Planetary Science Conference*, Houston, TX, March 2002.

- **Hauck, S. A., II**, A. J. Dombard, R. J. Phillips, S. C. Solomon, Mercury's thermal, tectonic, and magmatic evolution, *Mercury: Space Environment, Surface and Interior*, Chicago, IL, October 2001.
- Dombard, A. J., **S. A. Hauck, II**, S. C. Solomon, R. J. Phillips, Potential for long-wavelength folding on Mercury, *32nd Lunar and Planetary Science Conference*, Houston, TX, March 2001.
- **Hauck, S. A., II**, R. J. Phillips, Partial melting, crustal differentiation, and the thermo-magmatic evolution of Mars, AGU Fall Meeting, San Francisco, CA, December 2000.
- Phillips, R. J., M. A. Bullock, D. H. Grinspoon, B. M. Hynek, O. Aharonson, R. M. Williams, **S. A. Hauck, II**, Did Tharsis influence climate and fluvial activity on Mars?, AGU Fall Meeting, San Francisco, CA, December 2000.
- **Hauck, S. A., II**, A. J. Dombard, R. J. Phillips, S. C. Solomon, Thermo-compressional evolution of Mercury, AGU Spring Meeting, Washington, DC, June 2000.
- **Hauck, S. A., II**, R. J. Phillips, "Mars' Dirty Little Secret", *31st Lunar and Planetary Science Conference*, Houston, TX, March 2000.
- Phillips, R. J., M. T. Zuber, **S. A. Hauck, II**, R. M. Williams, K. B. Portle, Why is there a negative gravity ring around Tharsis on Mars?, *31st Lunar and Planetary Science Conference*, Houston, TX, March 2000.
- **Hauck, S. A., II**, R. J. Phillips, A. M. Hofmeister, Effects of temperature- and pressure-dependent thermal conductivity and the thermal structure of subducting slabs, AGU Fall Meeting, San Francisco, CA, December, 1998.
- Phillips, R. J., C. D. Brown, **S. A. Hauck, II**, B. W. Harrington, M. A. Wieczorek, Channel and valley networks on Mars: Results from the MGS MOLA experiment, AGU Spring Meeting, Boston, MA, May, 1998.
- Phillips, R. J., C. D. Brown, **S. A. Hauck, II**, B. W. Harrington, M. A. Wieczorek, Preliminary geomorphology results from the MGS MOLA experiment, *29th Lunar and Planetary Science Conference*, Houston, TX, March 1998.
- **Hauck, S. A., II**, R. J. Phillips, M. H. Price, Venus craters and resurfacing: More realistic constraints and models, *AGU Chapman Conference - Geodynamics of Venus*, Snowmass, CO, September, 1997.
- **Hauck, S. A., II**, R. J. Phillips, M. H. Price, Implications for Venusian plains resurfacing from geomorphic mapping and impact crater densities, *28th Lunar and Planetary Science Conference*, Houston, TX, March 1997.