

Curriculum Vitae: Catherine Louise Johnson

Address: Dept. Earth, Ocean and Atmospheric Sciences **Email:** cjohnson@eoas.ubc.ca
University of British Columbia Vancouver. **Citizenship:** USA / UK
Planetary Science Institute, Tucson, AZ **Email:** cjohnson@psi.edu

Employment History

2010 – present: *University of British Columbia, Vancouver.* Professor of Geophysics
2010 – present: *Planetary Science Institute, Tucson.* Senior Scientist
2006 – 2010: *University of British Columbia, Vancouver.* Associate Professor of Geophysics
2003 – 2007: *Scripps Institution of Oceanography.* Associate Professor of Geophysics
2001 – 2003: *Scripps Institution of Oceanography.* Assistant Professor of Geophysics
1998 – 2001: *Incorporated Research Institutions for Seismology (IRIS)*
Education & Outreach Program Manager
1995 – 1997: *Carnegie Institution of Washington.* Postdoctoral Researcher

Education

1989 – 1994: *Scripps Institution of Oceanography, UCSD.* PhD in Geophysics
1985 – 1989: *University of Edinburgh, Edinburgh, Scotland.* B. Sc. Honors, Geophysics
1987 – 1988: *University of Pennsylvania, Philadelphia.* Junior year abroad

Major Areas of Research Contributions:

Comparative planetary geophysics; the magnetic fields of Mercury, Mars, Earth and the Moon.

Mission Experience

2012 – present: Co-I, InSight Discovery Mission. Chair: magnetic field working group.
2011 – present: Co-I, OSIRIS-REx Mission.
2015 – 2019: OSIRIS-REx Laser Altimeter (OLA) Deputy Instrument Scientist.
2007 – 2016: Participating Scientist, MESSENGER Mission. Vice Chair, Geophysics Group, MESSENGER Science Steering committee (2013-2016).

Selected Honors

2019: Price Medal, Royal Astronomical Society
2019: Shen Kuo Award, International Association of Geomagnetism and Aeronomy, IUGG.
2018: Editor's Citation for Excellence in Refereeing, *J. Geophys. Res. Planets.*
2014: Bullard Lecturer, American Geophysical Union (AGU) Fall Meeting.
2013: Fellow, American Geophysical Union.

Recent Service to the Community (excludes university service)

2019 – 2024: Member, Scientific Committee, UnivEarthS Laboratory of Excellence, Paris.
2019 – 2020: President, Geomagnetism, Paleomagnetism and Electromagnetism (GPE) Section, AGU.
2018: Member, Preliminary Design Review Board for ICEMAG, Europa Clipper Mission.
2017 – 2018: President-Elect; Chair, Fellows and Gilbert Award Committees, GPE Section, AGU.
2014 – 2015: NSERC Discovery Grants Panel, Geosciences Evaluation Group.

Invited Appointments and Lectureships

2020: Meierjürgen Faculty Fellow, University of Oregon. Postponed due to Covid-19.
2019 – 2020: Green Scholar, IGPP, Scripps Institution of Oceanography.

Curriculum Vitae: Catherine Louise Johnson

2013: African Institute for Mathematical Sciences, Cape Town, South Africa.
2012 – 2013: Visiting Scientist, Southwest Research Institute, Boulder.
2006: Invited Professor, Institut de Physique du Globe de Paris, Paris, France.

Selected Invited Seminars (last ~5 yrs)

2019: Walter Munk Memorial Lecture, IGPP, Scripps Institution of Oceanography.
2019: Plenary Lecture, German Geophysical Society (DGG), 2019 Kongress.
2018: Dept. of Earth and Planetary Sciences, Johns Hopkins University
2017: William P. Smith Meeting, The Geological Society, London UK
2017: Massachusetts Institute of Technology, MA.
2016: Hampton University / National Institute of Aerospace, VA.

Mentoring (as primary supervisor): Research associates (2), postdocs (6) graduate students (9) undergraduates (13), K-12 teachers (3), high school students (1).

Outreach: Numerous interviews with TV and radio. Consultant: Discovery Channel, Science Museum of Minnesota, and WNET, Public Television. Recent public talks include: Nerd Night, Vancouver; Macdonald Space Center, Vancouver.

Selected Recent Publications (115 referred publications total) - bold font indicates a mentee.

1. **Peterson, G. A., C. L. Johnson, P. B. Byrne and R. J. Phillips** (2018). Distribution of Areal Strain on Mercury: Insights into the Interaction of Volcanism and Global Contraction, *Geophys. Res. Lett.*, <https://doi.org/10.1029/2018GL080749>.
2. Hauck II, S. A., **C. L. Johnson** (2019). Mercury: Inside the Iron Planet, *Elements Magazine*, 15.
3. Scheeres, D. J., and 41 others including **C. L. Johnson, M. M. Al Asad, H. C. M. Susorney**, (2019). The dynamic geophysical environment of (101955) Bennu based on OSIRIS-REx measurements. *Nature Astronomy*, 3, 352-361, <https://doi.org/10.1038/s41550-019-0721-3>.
4. Watters, T., R. C. Weber, G. C. Collins, I. J. Howley, N. Schmerr, and **C. L. Johnson**, (2019). Shallow seismic activity and young thrust faults on the Moon. *Nature Geoscience*, 12, 411-417.
5. **Hanneson, C., C. L. Johnson, M. M. Al Asad, A. Mittelholz** and C. Goldblatt (2020). Dependence of the Interplanetary Magnetic Field on Heliospheric Distance from MESSENGER, ACE and MAVEN data, *J. Geophys. Res: Space Physics*, e2019JA027139. <https://doi.org/10.1029/2019JA027139>.
6. **Johnson, C. L., A Mittelholz** and 21 others, (2020). Crustal and Time-Varying Magnetic Fields at the Insight Landing Site, *Nature Geoscience*, 13, 199–204, doi:10.1038/s41561-020-0537-x.
7. Banerdt, W. B. and 69 others including **C. L. Johnson, A. Mittelholz** (2020). Early Results from the InSight Mission: Mission Overview and Global Seismic Activity, *Nature Geoscience*, doi:10.1038/s41561-020-0544-y.
8. **Philpott, L. C., C. L. Johnson, B. J. Anderson, and R. M. Winslow**, The shape of Mercury's Magnetopause: The picture from MESSENGER magnetometer observations and future prospects for BepiColombo, *JGR: Space Physics*, 125, <https://doi.org/10.1029/2019JA027544>.
9. **Mittelholz, A, C. L. Johnson, B. Langlais, R. Phillips and J. Feinberg**, Timing of the Martian Dynamo: New Constraints for a Core Field at 4.5 Ga and 3.7 Ga., *Science Advances*, 6, no. 18, doi:10.1126/sciadv.aba0513.