Jennifer Leigh Whitten

Department of Earth and Environmental Sciences | Tulane University | New Orleans, LA
206 Blessey Hall | 504−862−3257 | jwhitten1@tulane.edu
ORCID ID: 0000-0001-8068-9597

EDUCATION

Brown University, Providence, Rhode Island
Planetary Geosciences Group, Department of Geological Sciences
PhD, Advisor: Dr. James W. Head (May 2014)

Brown University, Providence, Rhode Island
Planetary Geosciences Group, Department of Geological Sciences
Master of Science, Advisor: Dr. James W. Head (May 2011)

The College of William and Mary, Williamsburg, Virginia
Magna Cum Laude, Phi Beta Kappa
Bachelor of Science, Geology, Advisor: Dr. Gregory Hancock (May 2009)
Bachelor of Arts, Art History (May 2009)

PROFESSIONAL EXPERIENCE

Assistant Professor, Tulane University (January 2019-present)

NASA Discovery mission (official)
VERITAS mission (Jet Propulsion Laboratory, CA): Orbital spacecraft to Venus.

Mission/instrument teams (unofficial)

2015–present	SHARAD
2010–2014	MESSENGER, Mercury Dual Imaging System
2009–2013	Chandrayaan-1, Moon Mineralogy Mapper

Postdoctoral Fellow, Smithsonian Institution (September 2014–December 2018)
Analyzed radar properties of the Mars, Moon, & Venus with orbital and ground-based datasets.

Telescope Observations
Arecibo Observatory: Venus (August 2015, March 2017)
Green Bank Telescope: Moon (March 2015, June 2015, April 2017)

Field research
Iceland (August 2017, May 2018): Used ground penetrating radar to detect the soil-bedrock interface to better characterize morphometry of pits in tectonic pit chains. Research will validate remote/orbital regolith measurement techniques for icy satellites (i.e., Enceladus).
Antarctic Dry Valleys (October–December 2011): Measured retreat rates of glaciers using cosmogenic radionuclides at three sites in the McMurdo Dry Valleys.

JPL Planetary Science Summer School, Io flyby mission concept (July 2012)

NASA Planetary Volcanology Field Workshop (July 2010)

Research Assistant to Dr. James W. Head III, Brown University: 2009–2014

PROFESSIONAL SERVICE

AGU Planetary Sciences Section Secretary, January 2021–present

Planetary Sciences Decadal Survey Venus Panel member, 2020–present

Venus Exploration Analysis Group steering committee at-large member, July 2020–present

NASA Proposal Reviewer, 2015–present, panelist and external reviewer for multiple programs

Journal Reviewer, 2015–present: Icarus (Recognized Reviewer), Journal of Geophysical Research-Planets, Planetary & Space Science, Geophysical Research Letters, Nature Astronomy, Earth and Planetary Science Letters, Earth and Space Science, Nature, AAS Planetary Science, Nature Scientific Reports

7th International Conference on Mars Polar Science and Exploration Science Organizing Committee, 2019

Lunar and Planetary Science Conference Planning Committee, 2016

Center for Earth and Planetary Studies Data Repository, 2016, establishing a Smithsonian National Air and Space Museum data repository to comply with NASA data sharing regulations

Tulane University Professional Service

University Libraries Senate Committee, member, (May 2019–present)

Undergrad Committee, Dept. Earth & Environ. Sciences, member, (February 2020–present)

GIS Certification Committee, Dept. Earth & Environ. Sciences, member, (June 2020–present)

HONORS AND AWARDS

2020 **Ken & Ruth Arnold Early Career Professorship, Earth & Ecological Sci.** (2020–2022)

2017 **Early Career Fellow**, NASA

2017 **NASA Group Achievement Award**, MESSENGER Project Team

2015 **Peer Recognition Team Award**, Smithsonian National Museum of Natural History

2012 **U.S. Congressional Antarctic Service Medal**, United States Antarctic Program

2011 **National Association of Geoscience Teachers Outstanding Teacher Award**

PUBLICATIONS

Whitten, J.L., Campbell, B.A., Plaut, J.J. (2020) The ice content of the Dorsa Argentea Formation from radar sounder data, *Geophys. Res. Lett.* 47, e2020GL090705. doi:10.1029/2020GL090705.

Byrne, P.K., Ghail, R.C., Gilmore, M.S., Şengör, A.M.C., Klimczak, C., Solomon, S.C., Senske, D.A., **Whitten, J.L.**, Khawja, S., Ernst, R.E. (2020) Venus tesserae feature layered, folded, and eroded rocks, *Geology*, doi:10.1130/G47940.1.

Whitten, J.L., Martin, E.S., (2019) Icelandic pit chains as planetary analogs: Using morphologic measurements of pit chains to determine regolith thickness, *J. Geophys. Res.* 124, 2983–2999, doi:10.1029/2019JE006099.

Campbell, B.A., Perrilat, P., **Whitten, J.,** Margot, J.-L., Carter, L., Giorgini, J., Campbell, D., Morgan, G., Chandler, J., Nolan, M. (2019) The mean rotation rate of Venus from 29 years of Earth-based radar observations, *Icarus* 332, 19–23, doi:10.1016/j.icarus.2019.

Whitten, J.L., Campbell, B.A. (2018) Lateral continuity of layering in the Mars South Polar Layered Deposits from SHARAD sounding data, *J. Geophys. Res.* 123, 1541–554, doi:10.1029/2018JE005578.

Campbell, B., Weitz, C., Morgan, G., **Whitten, J.** (2018) Evidence for Impact Melt Sheets in Lunar Highland Smooth Plains and Implications for Polar Landing Sites, *Icarus* 314, 294–298, doi:10.1016/j.icarus.2018.05.025.

Eppes, M.C., Hancock, G.S., Chen, X., Arey, J., Dewers, T., Huettenmoser, J., Kiessling, S., Moser, F., Tannu, N., Weiserbs, B., **Whitten, J.** (2018) Rates of subcritical cracking and long-term rock erosion, *Geology* 46, doi:10.1130/G45256.1.

Whitten, J.L., Campbell, B.A., Morgan, G.A. (2017) A subsurface depocenter in the South Polar Layered Deposits of Mars, *Geophysical Research Letters* 44, doi:10.1002/2017GL074069.

Campbell, B.A., Schroeder, D.M., **Whitten, J.L.** (2017) Mars radar clutter and surface roughness characteristics from MARSIS data, and inferences regarding Europa Sounder Flybys, *Icarus* 299, 22-30, doi:10.1016/j.icarus.2017.07.011.

Suer, T.-A., Padovan, S., **Whitten, J.L**., Potter, R.W., Shkolyar, S., Cable, M., Walker, C.C., Szalay, J., Parker, C., Cumbers, J., Gentry, D., Harrison, T., Naidu, S., Trammel, H., Reimuller, J., Budney, C., Lowes, L.L. (2017) FIRE – Flyby of Io with Repeat Encounters: A conceptual design for a New Frontiers mission to Io, *Advances in Space Research* 60, 1080–1100, doi:10.1016/j.asr.2017.05.019.

Campbell, B.A., Morgan, G.A., **Whitten, J.L.**, Carter, L.M., Glaze, L.S., Campbell, D.B. (2017) Pyroclastic flow deposits on Venus as indicators of renewed plume activity, *J. Geophys. Res.* 122, doi:10.1002/2017JE005299.

Whitten, J.L., Campbell, B.A. (2016) Recent volcanic resurfacing of Venusian craters, *Geology* G3768-1, doi:10.1130/G37681.1. **Cover Image,** Geology July 2016.

Smith, D.E., Zuber, M.T., Meumann, G.A., Mazarico, E., Lemoine, F.G., Head, J.W., Lucey, P.G., Aharonson, O., Robinson, M.S., Sun, X., Torrence, M.H., Barker, M.K., Oberst, J., Duxbury, T.C., Mao, D., Barnouin, O.S., Jha, K., Rowlands, D.D., Goossens, S., Baker, D.H., Bauer, S., Gläser, P., Lemelin, M., Rosenburg, M., Sori, M.M., **Whitten, J.**, McClanahan, T.P. (2016) Summary of the results from the Lunar Orbiter Laser Altimeter after seven years in lunar orbit, *Icarus* 283, 70–91, doi:10.1016/j.icarus.2016.06.006.

Prissel, T.C., **Whitten, J.L.,** Parman, S.W., Head, J.W. (2016) On the potential for lunar highlands Mg-suite extrusive volcanism and implications concerning crustal evolution, *Icarus* 277, 319–329, doi:10.1016/j.icarus.2016.05.018.

Whitten, J.L., Head, J.W. (2015c) Rembrandt basin: Distinguishing between volcanic and impact-produced plains, *Icarus* 258, 350–365, doi:10.1016/j.icarus.2015.06.022.

Whitten, J.L., Head, J.W. (2015b) Lunar cryptomaria: Mineralogy and composition of ancient volcanic deposits, *PSS* 106, 67–81, doi:10.1016/j.pss.2014.11.027.

Ostrach, L.R., Robinson, M.S., **Whitten, J.L.**, Fassett, C.I., Strom, R.G., Head, J.W., Solomon, S.C. (2015) Extent, age, and resurfacing history of the northern smooth plains on Mercury from MESSENGER observations, *Icarus* 250, 602–622, doi:10.1016/j.icarus.2014.11.010.

Whitten, J.L., Head, J.W. (2015a) Lunar cryptomaria: Physical characteristics, distribution and implications for ancient volcanism, *Icarus* 247, 150–171, doi:10.1016/j.icarus.201409.031.

Whitten, J.L., Head, J.W, Denevi, B.W., Solomon, S.C. (2014) Intercrater plains units on Mercury: Insights into unit definition, characterization and origin using MESSENGER datasets, *Icarus* 241, 97–113, doi:10.1016/j.icarus.2014.06.013.

Whitten, J.L. and Head, J.W. (2013) Detecting volcanic resurfacing of heavily cratered terrain: Flooding simulations on the Moon using Lunar Orbiter Laser Altimeter (LOLA) data, *PSS* 85, 24–37, doi:10.1016/j.pss.2013.05.013.

Cheek, L., Donaldson Hanna, K., Pieters, C.M., Head, J.W., and **Whitten, J.L**. (2013) The distribution and purity of anorthosite across the Orientale Basin: New perspectives from Moon Mineralogy Mapper data, *J. Geophys. Res*. 118, doi:10.1002/jgre.20126.

Denevi, B.W., Ernst, C.M., Meyer, H.M., Robinson, M.S., Murchie, S.L., **Whitten, J.L.**, Head, J.W., Watters, T.R., Solomon, S.C., Ostrach, L.R., Chapman, C.R., Byrne, P.K., Klimczak, C., and Peplowski, P.N. (2013) The distribution and origin of smooth plains on Mercury, *J. Geophys. Res*. 118, doi:10.1002/jgre.20075.

Head, J.W., Chapman, C.R., Strom, R.G., Fassett, C.I., Denevi, B.W., Blewett, D.T., Ernst, C.M., Watters, T.R., Solomon, S.C., Murchie, S.L., Prockter, L.M., Chabot, N.L., Gillis-Davis, J.J., **Whitten, J.L.**, Goudge, T. A., Baker, D.M.H., Hurwitz, D.M., Ostrach, L.R., Xiao, Z., Merline, W.J., Kerber, L., Dickson, J.L., Oberst, J., Byrne, P.K., Klimczak, C., Nittler, L.R. (2011) Flood Volcanism in the Northern High Latitudes of Mercury Revealed by MESSENGER, *Science 333*, 1853–1856, doi:10.1126/science.1211997.

Whitten, J.L., Head, J.W., Staid, M.I., Pieters, C.M., Mustard, J.F., Clark, R., Nettles, J., Klima, R.L., Taylor, L.A. (2011) Lunar mare deposits associated with the Orientale impact basin: New insights into mineralogy, history, mode of emplacement, and relation to Orientale Basin evolution from Moon Mineralogy Mapper (M3) data from Chandrayaan-1, *J. Geophys. Res. 116*, E00G09, doi:10.1029/2010JE003736.

Pieters, C.M., Besse, S., Boardman, J., Buratti, B., Cheek, L., Clark, R.N., Combe, J.-P., Dhingra, D., Goswami, J.N., Green, R.O., Head, J.W., Isaacson, P., Klima, R.L., Kramer, G., Lundeen, S., Malaret, E., McCord, T., Mustard, J., Nettles, J., Petro, N., Runyon, C., Staid, M.I., Sunshine, J., Taylor, L.A., Thaisen, K., Tompkins, S., **Whitten, J.L.** (2011) Mg-spinel lithology: A new rock type on the lunar farside, *J. Geophys. Res. 116*, E00G08, doi:10.1029/2010JE003727.

BOOK CHAPTERS

MESSENGER Mercury Book, The Volcanic Character of Mercury, Chap. 11, Lead: P.K. Byrne, 2018, Cambridge Univ. Press, doi:10.1017/9781316650684.

New Views of the Moon 2, Volcanism Chapter, Leads: H.H. Hiesinger and J.W. Head, in prep.

GRANTS AND FELLOWSHIPS

2021–2024	**NASA Planetary Data Archiving, Restoration, and Tools Program: Co-I** "A Revised Geologic Map of the South Polar Layered Deposits, Mars"
2020–2023	**NASA Lunar Data Analysis Program: Co-I funded proposal** "Unraveling the extent of basaltic volcanism in the South Pole-Aitken Basin"
2020–2023	**NASA Mars Data Analysis Program: Co-I funded proposal** "Analysis of Mars surface roughness, dielectric losses, and polar layering from multi-band SHARAD data analysis"
2019–2022	**NASA Solar System Workings Program: PI funded proposal** "Characterization of Tesserae on Venus"
2018–2021	**NASA Mars Data Analysis Program: PI funded proposal** "Determining the radar loss properties of the south polar layered deposits on Mars"
2017–2020	**NASA Discovery Data Analysis Program: PI funded proposal** "Analysis of large-scale resurfacing processes on Mercury"
2017	**Smithsonian Scholarly Studies Proposal: PI funded proposal** "Using Icelandic Pit Chains to Constrain Regolith Thickness on Enceladus"
2014	**Dissertation Fellowship** Brown University merit scholarship
2011–2013	**Rhode Island Space Grant Fellow** Brown University (Summer 2011–Summer 2012; Summer 2013)
2008	**Chappell Research Fellowship** The College of William and Mary Research Fellowship, merit scholarship
2008	**Dr. Ellen Stofan Research Scholarship** The College of William and Mary, Geology Dept., merit scholarship
2007	**VTCA/ACPA/VDOT Highway Workers' Memorial Scholar**, merit scholarship

INVITED PRESENTATIONS AND PUBLISHED ABSTRACTS

INVITED TALKS

AAS 238th Meeting, Lab. Astrophysics Division: Venus Science & Sample Return, June 2021.
Tennessee Tech, Department of Earth Sciences Seminar, April 2021.
Tulane University, Earth and Environmental Sciences Department Seminar, October 2020.
Louisiana State University, Geology & Geophysics Dept. Seminar, November 2019.
Tulane University, Physics Dept. Seminar, October 2019.
University of New Orleans, Dept. Seminar, October 2019.
University of Illinois, Chicago, Dept. Seminar, February 2019.
University of Maryland, Planetary Astronomy Late-morning Seminar, October 2018.
The Johns Hopkins Univ. Applied Physics Laboratory, July 2018.
Tulane University, Earth and Environmental Sciences Department Seminar, June 2018.
Mt. Holyoke College, Guest Lecture in Dr. Darby Dyar's seminar class, November 2016.
National Air and Space Museum, Smithsonian Stars Lecture Series, January 2016.
Arecibo Observatory, August 2015.

The Johns Hopkins Univ. Applied Physics Laboratory, May 2015.
National Radio Astronomy Observatory at Green Bank West Virginia, March 2015.
NASA Museum Alliance Professional Development Conversation, October 2014.
Brown Annual Fund Volunteer Summit, October 2013.

FIRST-AUTHORED ABSTRACTS

Whitten, J.L., Campbell, B.A. (2021) Mead crater ejecta: Distribution of ejecta-derived regolith on Venus, GSA Southeastern Section Meeting, #362228.

Whitten, J.L., Campbell, B.A. (2021) Variations in Venusian tesserae: Local and global variations in backscatter coefficient, Lunar & Planetary Science Conf., #2514.

Whitten, J.L., Campbell, B.A. (2020) Analyzing local variation in Venus tessera backscatter coefficient, AGU Fall Meeting, #P026-0009.

Whitten, J.L., Fassett, C.I., Ostrach, L.R. (2020) The Derain (H-10) quadrangle on Mercury, Planetary Geologic Mappers Meeting, #7049.

Whitten, J.L., Campbell, B.A., Plaut, J.J. (2020) Placing constraints on the composition and emplacement of the Dorsa Argentea Formation, Mars Polar Conf., #6057.

Whitten, J.L., Ostrach, L.R., Fassett, C.I. (2019) Ancient volcanic resurfacing on Mercury?: Analysis of the formation of the intercrater plains, GSA Annual Meeting, #170-1.

Whitten, J.L., Fassett, C.I., Ostrach, L.R. (2019) Can the intercrater plains be meaningfully subdivided?: Characterization of the Derain (H-10) quadrangle intercrater plains, Planetary Geologic Mappers Meeting, #7016.

Whitten, J.L., Campbell, B.A. (2019) Variations in the radar properties of tesserae across Venus as observed with Magellan data, Lunar & Planetary Science Conf. L, #2558.

Whitten, J.L., Campbell, B.A. Plaut, J.J. (2018) Radar properties of the Dorsa Argentea Formation, Mars determined from SHARAD and MARSIS data, AGU Fall Meeting, #P51G-2961.

Whitten, J.L., Campbell, B.A. (2018) Radar backscatter variations in tesserae across Venus, 16th VEXAG meeting.

Whitten, J.L., Martin, E.S. (2018) Analyzing pit chains in Iceland to constrain regolith thickness on Enceladus, European Planetary Science Congress, #2632.

Whitten, J.L., Fassett, C.I., Ostrach, L.R. (2018) Geologic map of the Derain (H-10) quadrangle of Mercury: The challenges of consistently mapping the intercrater plains unit, Planetary Geologic Mappers Meeting, #7027.

Whitten, J.L., Ostrach, L.R., Fassett, C.I. (2018) Analysis of large-scale resurfacing processes on Mercury: Mapping the Derain (H-10) quadrangle, Mercury: Current and Future Science Meeting, #6086.

Whitten, J.L., Campbell, B.A. (2018) Internal Stratigraphy of the South Polar Layered Deposits, Mars from SHARAD data, Lunar & Planetary Science Conf. XLIX, #1238.

Whitten, J.L., Campbell, B.A., Plaut, J.J. (2018) Defining the material properties of the Dorsa Argentea Formation using MARSIS radar sounder data, Lunar & Planetary Science Conf. XLIX, #2632.

Whitten, J.L., Needham, D.H., Fassett, C.I., Head, J.W. (2018) Exploring the volcanic and impact histories of the Moon through analyses of material in western Orientale, Lunar Science for Landed Missions.

Whitten, J.L., Campbell, B.A. (2017) Internal Stratigraphy of the South Polar Layered Deposits, Mars from SHARAD data, AGU Fall Meeting, #P43C-2293.

Whitten, J.L., Campbell, B.A., Morgan, G.A. (2017) Detection of a subsurface dome in the South Polar Layered Deposits of Mars, Lunar & Planetary Science Conf. XLVIII, #1255.

Whitten, J.L., Campbell, B.A. (2016) Detection of recent volcanism on Venus using Magellan SAR data, GSA Annual Meeting, #285051. *Invited talk*.

Whitten, J.L., Campbell, B.A., Morgan, G.A. (2016) Evaluating the structure of the South Pole Layered Deposits on Mars using SHARAD data, Lunar & Planetary Science Conf. XLVII, #1487.

Whitten, J.L., Campbell, B.A. (2015) Detection of crater ejecta in Venus tessera terrain using Magellan SAR data, AGU Fall Meeting, #P53G-09. *Invited talk.*

Whitten, J.L., Campbell, B.A. (2015) Distribution of Venusian impact crater ejecta within tessera, Lunar & Planetary Science Conf. XLVI, #1458.

Whitten, J.L., Head, J.W. (2015) Rembrandt impact basin on Mercury: Determining the origin of low- and high-albedo smooth plains, Lunar & Planetary Science Conf. XLVI, #1128.

Whitten, J.L., Head, J.W. (2014) Ancient lunar volcanism: Distribution and mineralogy of cryptomaria, AGU Fall Meeting, #P12B-05.

Whitten, J.L., Head, J.W. (2014) Lunar cryptomaria: The distribution and composition of ancient volcanic deposits on the Moon, SSERVI NASA Exploration Science Forum 2014.

Whitten, J.L., Head, J.W. Helbert, J., Solomon, S.C., (2014) Rembrandt basin: Distinguishing between volcanic and impact-produced smooth plains deposits on Mercury, Lunar & Planetary Science Conf. XLV, #1289.

Whitten, J.L., Head, J.W. Denevi, B.W., Solomon, S.C., (2014) Formation of intercrater plains on Mercury, Lunar & Planetary Science Conf. XLV, #1219.

Whitten, J.L., Head, J.W. (2013) Determining the mineralogy of mare and cryptomare basalts: Application of the Modified Gaussian Model (MGM) to Moon Mineralogy Mapper (M^3) spectra, SSERVI NASA Exploration Science Forum 2013.

Whitten, J.L. (2013) Exploration of Lunar Volcanic Terrains: Doing Apollo Sorties with Today's Instrumentation, International Space Development Conf. *Invited talk*.

Whitten, J.L., Head, J.W. (2013) Ancient lunar mare volcanism: Identification, distribution, and composition of cryptomare deposits, Lunar & Planetary Science Conf. XLIV, #1247.

Whitten, J.L., Head, J.W., Pieters, C.M., Vaughan, W.M. (2013) Mafic anomaly in Ptolemaeus

crater, Lunar & Planetary Science Conf. XLIV, #2461.

Whitten, J.L., Head, J.W., Pieters, C.M., Kreslavksy, M., Hiesinger, H. (2012) Lunar cryptomare: Analysis of mineralogy and distribution of ancient volcanic deposits, AGU Fall Meeting, #P43B-1916.

Whitten, J.L., Head, J.W., Pieters, C.M., Murchie, S.L., Blewett, D.T., Denevi, B.W., Neumann, G.A., Zuber, M.T., Smith, D.E., Solomon, S.C. (2012) Understanding early volcanism on the terrestrial planets: Comparison of lunar cryptomare deposits and intercrater plains on Mercury, GSA Annual Meeting, #212486.

Whitten, J.L., Head, J.W., Zuber, M.T., Smith, D.E., Neumann, G.A. (2012) Lunar light plains and cryptomare: Analysis of compositions and distribution of early volcanic deposits, NLSI Lunar Science Forum 2012, #592.

Whitten, J.L., Head, J.W., Neumann, G.A., Zuber, M.T., Smith, D.E. (2012), Volcanic flooding experiments in impact basins and heavily cratered terrain using LOLA data: Patterns of resurfacing and crater loss, Lunar & Planetary Science Conf. XLIII, #1470.

Whitten, J.L., J.W. Head, S.L. Murchie, D.T. Blewett, B.W. Denevi, G.A. Neumann, M.T. Zuber, D.E. Smith and S.C. Solomon (2012), Intercrater plains on Mercury: Topographic assessment with MESSENGER data, Lunar & Planetary Science Conf. XLIII, #1479.

Whitten, J.L., and J.W. Head (2011) Relationship between basin formation and mare emplacement: Examining mare basalt deposits in the lunar Orientale basin, AGU Fall Meeting, #P31E−1734.

Whitten, J.L., Head, J.W., Zuber, M.T., Smith, D.E. and G.A. Neumann (2011) Volcanic Resurfacing of Heavily Cratered Terrain: Flooding Experiments on the Moon using Lunar Orbiter Laser Altimeter (LOLA) Data, NLSI Lunar Science Forum 2011, #360.

Whitten, J.L., Head, J.W., Pieters, C.M., Mustard, J.F., and M^3 Team (2011) Maunder and Kopff craters: Windows into the upper lunar crust, Lunar & Planetary Science Conf. XLII, #2168.

Whitten, J.L., Head, J.W., Staid, M.I., Pieters, C.M., and M^3 Team (2011) Volcanism in the Orientale Basin: A comparison to other nearside basins, Lunar & Planetary Science Conf. XLII, #2245.

Whitten, J.L. and G. Hancock (2010), Using summit erosion rates measured with ^{10}Be to assess landscape disequilibrium in the Blue Ridge, Shenandoah National Park, Virginia, GSA Northeast and Southeast Section Annual Joint Meeting.

Whitten, J.L., Head, J.W., Staid, M., Pieters, C., Mustard, J., Taylor, L., McCord, T., Isaacson, P., Klima, R., Nettles, J., and the M^3 team (2010), Characteristics, affinities and ages of volcanic deposits associated with the Orientale basin from Chandrayaan-1 Moon Mineralogy Mapper (M^3) data: Mare Stratigraphy, Lunar & Planetary Science Conf. XLI, #1841.

Whitten, J.L., Head. J.W., Pieters, C., Staid, M., and M^3 team (2009), Onset and evolution of volcanism in impact basins: Morphology and distribution of volcanic vents in the lunar Orientale basin from Moon Mineralogy Mapper (M^3) data, Brown University-Vernadsky Institute Microsymposium 50.

STUDENT ABSTRACTS

Abu Hashmeh*, N., **Whitten, J.L.,** Russell*, A.T., Putzig, N.E., Campbell, B.A. (2021) SHARAD radar attenuation in the south polar layered deposits of Mars, Lunar & Planetary Science Conf., #2522.

Albach*, R.S., **Whitten, J.L.,** (2021) Global morphologic map of tesserae on Venus, Lunar & Planetary Science Conf., #2232.

Russell*, A.T., Putzig, N.E., Abu Hashmeh*, N., **Whitten, J.L.** (2021) SHARAD radar attenuation in the south polar layered deposits of Mars, Lunar & Planetary Science Conf., #2536.

Abu Hashmeh*, N., **Whitten, J.L.,** Putzig, N.E., Russell*, A.T. (2020) A radar-derived 3-D basal map of the south polar layered deposits on Mars, AGU Fall Meeting #P016-001.

Russell*, A.T., Putzig, N.E., **Whitten, J.L.,** Abu Hashmeh*, N. (2020) Assessment of features within the south polar layered deposits of Mars with 3D radar imaging, AGU Fall Meeting #P016-002.

Abu Hashmeh*, N., **Whitten, J.L.,** Campbell, B.A., (2020) Areal extent of subsurface basal reflectors within the south polar layered deposits, Mars Polar Conf., #6047.

TEACHING AND OUTREACH

Undergraduate Committee, Tulane Dept. Earth & Enviro. Sci. (Sept. 2020–present)
Hosted an event for department undergrads "How to Apply To Grad School"

Judge, Greater New Orleans Science and Engineering Fair (Feb. 2019, 2020, 2021)
Judging middle school science fair projects focused on environmental science topics.

Guest speaker, Sky Night co-hosted by the Tulane Astronomy Club & Earth Science Club (Nov. 2019)

Exhibit script writer, National Air and Space Museum (2015–Dec. 2018)
"Exploring the Planets" gallery redesign: Led design and script writing for the unit on terrestrial planets and their geological processes. Largest unit in the gallery.

Presenter, GEARUP, Lafayette, LA (Jan. 2017, Jan. 2018)
Taught 9th graders a lesson on Force and Motion as part of a federal program to introduce low-income students to jobs available through postsecondary education.

Blogger, Various Outlets

Dec. 6, 2017	How Iceland helps us understand Saturn's icy moon
May 4, 2017	Using a world class telescope to spy on Venus
March 7, 2016	Observing the surface of Venus with the Arecibo Telescope
Nov. 18, 2014	Women eXploring Space: Dr. Jenny Whitten, Planetary Geologist

Panelist, Space Day, National Air and Space Museum (May 2017)
Participated on a panel with NASA Planetary Science Division director Jim Green and Museum Curator Valerie Neal.

Mentor, National Air and Space Museum (March 2017)
Facilitating and providing student experiences for exploring careers in space sciences.

Presenter, Astronomy Chat (March 2017, Nov. 2017)
Remote discussion with NASM visitors about the Arecibo Observatory.

Speaker, Ask an Expert, National Air and Space Museum (Oct. 5, 2016)
Discussed the Lunar Roving Vehicle and the geology of the Apollo 15 landing site.

Webcast scientist, STEM in 30, National Air and Space Museum (Oct. 2015, March, May 2016, April 2017) Answer questions from online viewers about episode topic (e.g., Mars Rovers, the Moon)

Volunteer, Mars Day!, National Air and Space Museum (July 2015, 2016, 2017)
Discussed recent Mars space mission results with the public.

Mentor, Summer STEM Institute, National Air and Space Museum (June 2015, 2016, 2017)
Assisted DC public school teachers with developing field trip and/or classroom activities.

Mentor, Carnegie Academy for Science First Light Program, (May 2016)
Hosted middle school students underrepresented in STEM fields. Gave a museum tour, discussed my research, and did an activity investigating ice at Mercury's north pole.

Mentor, SSEAT program, Smithsonian Science Education Center (2015, 2017)
Assisted K-12 teachers with incorporating concepts and activities into their curricula.

Sheridan Center Teaching Certificate Programs, Brown University
Certificate I: Sheridan Teaching Seminar- Reflective Teaching (2009–2010)
Certificate III: The Professional Development Seminar (2013–2014)
Certificate IV: The Teaching Consultant Program (2012–2013)

Co-founder of Brown Univ. Graduate Women in Science and Engineering (GWiSE) group
Started in 2013; focusing on building a community of female scientists on campus and conducting outreach activities to encourage young women to pursue STEM fields.

Volunteer counselor, RI Natural History Museum Space and Science Camp (Summer 2013)
STEM summer camp directed at elementary school students

Instructor, Brown University SPARK program (July 2012 and July 2014)
Taught middle school students about planetary geology.

Science volunteer, Vartan Gregorian Elementary School (2010–2014)
Taught 2nd grade science lessons

Teaching Assistant, Brown University (Fall 2010)
GEOL 50 Introduction to the Geology of the Solar System, Instructor: James Head

PROFESSIONAL MEMBERSHIPS

Phi Beta Kappa Member, The College of William and Mary Alpha Chapter (2008–present)
Geological Society of America (2010–present)
American Geophysical Union (2011–present)
Association for Women Geoscientists (2011–present)
National Association of Geoscience Teachers (2020–present)