

## *Curriculum Vitae*

### **John W. "Jack" Holt**

John A. and Katherine G. Jackson School of Geosciences  
University of Texas at Austin  
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### **Professional Positions**

2015 – pres    **Research Professor**  
Institute for Geophysics and Dept. of Geological Sciences, UT Austin  
2012 – 2015    **Research Associate Professor**  
Institute for Geophysics and Dept. of Geological Sciences, UT Austin  
2006 – 2012    **Research Scientist**  
Institute for Geophysics, UT Austin  
May 2012    **Visiting Professor**, Deep Springs College, CA  
2008, 2011    **Lecturer**, Department of Geological Sciences, University of Texas at Austin  
April 2008    **Visiting Professor**, Deep Springs College, CA  
2000 - 2006    **Research Associate**, Institute for Geophysics, University of Texas at Austin  
July 2004    **Visiting Scholar**, University of Paris, Orsay  
2003    **Herbert J. Reich Professor of Natural Sciences**, Deep Springs College, CA  
1998 - 2000    **Research Scientist/Associate V**, Institute for Geophysics, Univ. of Texas  
1997 - 1998    **Caltech Postdoctoral Scholar at JPL**, Jet Propulsion Laboratory, Pasadena, CA  
1988 - 1990    **Member of Technical Staff**, Jet Propulsion Laboratory, Pasadena, CA

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### **Education**

1997    **Ph.D., Geology**, California Institute of Technology  
1993    **M.S., Geology**, California Institute of Technology  
1988    **B.S., Electrical Engineering**, Rice University

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### **Awards and honors**

2013    UT Institute for Geophysics Director's Circle of Excellence  
2012    UT Institute for Geophysics Director's Circle of Excellence  
2011    Nominated for UT's Best Research Paper award for 2010  
2011    NASA Group Achievement Award, SHARAD Radar Sounder Team  
2010    Discover Magazine Top 100 Science Stories (#40)  
2010    UT Institute for Geophysics Outstanding Researcher Award, 2009  
2010    UT Institute for Geophysics Director's Circle of Excellence, 2009  
2010    Outstanding Oral Presentation, Session 13, SCAR Open Science Conference  
2009    NASA Group Achievement Award, SHARAD Radar Sounder Team  
2008    UT Jackson School of Geosciences Outstanding Research Award for 2008  
2001    Antarctic Service Medal  
1997 - 98    Caltech Post-Doctoral Scholar at JPL  
1992    Koons Field Research Fellowship, California Institute of Technology  
1992    NASA Technical Achievement Award  
1990    NASA Technical Achievement Award  
1984 - 88    President's Honor Roll, Rice University

1984 - 88 National Merit Scholar

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**Field Experience**

Summer, 2015 Alaska: surface geophysics of debris-covered glaciers, airborne radar  
 Summer, 2014 Alaska: surface geophysics of debris-covered glaciers, airborne radar  
 Feb, 2014 Eastern California: airborne lidar and photogrammetry of glaciers, fault zones, landslides, volcanic craters and dunefields.  
 Aug, 2013 Utah: surface geophysics on a debris-covered glacier in the Uinta Mountains  
 May, 2013 Alaska: airborne radar over glaciers of the Wrangell-St. Elias range  
 Feb, 2013 Eastern California: airborne lidar of debris-covered glaciers and faults  
 2011, 2012 Death Valley, California: sampling for geomagnetism/paleomagnetism study.  
 2009 - 10 Antarctica: E. Antarctic Ice Sheet and Dry Valleys, Expedition Co-Leader.  
 2008 - 09 Antarctica: E. Antarctic Ice Sheet, Expedition Co-Leader; airborne geophysics.  
 2004 - 05 Antarctica: Amundsen Sea Embayment, Expedition Leader, airborne geophys.  
 2001 - 02 Antarctica: Dry Valleys, Ice Stream D, South Pole; airborne radar development.  
 2000 - 01 Antarctica: Vostok; Expedition Leader, airborne geophysics.  
 1999 - 00 Antarctica: Dome C, Ross Embayment; Expedition Leader, airborne geophys.  
 1998 - 99 Antarctica: Marie Byrd Land, S. Pole; Expedition Leader, airborne geophysics.  
 1998 Amazon Basin, Brazil, airborne optical measurements for satellite calibration.  
 1995 - 98 Baja California, Mexico, thesis research, class field trips.  
 1990 - 97 Death Valley and Mojave Desert, thesis research, class field trips.  
 1993 South Africa and Namibia, thesis research.  
 1990 Belize, airborne SAR calibration deployment.  
 1989 Scotland, airborne SAR calibration deployment.

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**Student Supervision**Graduate supervision, current

Dan Lalich Ph.D., Geophysics, supervisor, 2012 – present  
*Recipient of NASA Earth and Space Sciences Fellowship*  
 Eric Petersen Ph.D., Geophysics, supervisor, 2013 – present  
*Recipient of NASA Earth and Space Sciences Fellowship*  
 Stefano Nerozzi Ph.D., Geophysics, supervisor, 2014 – present  
*Recipient of Jackson School of Geosciences Fellowship*  
 Cassie Stuurman M.S., Geophysics, supervisor, 2015 – present  
*Recipient of Jackson School of Geosciences Fellowship*

Graduate supervision, completed

T. Charles Brothers Ph.D., Geophysics, supervisor, 2008 – 2015  
 Isaac Smith Ph.D., Geophysics, supervisor, 2008 – 2013  
*Recipient of NASA Earth and Space Sciences Fellowship*  
*Recipient of Fulbright Postdoctoral Scholar Fellowship*  
*Now Associate Scientist at Southwest Research Institute, Boulder, CO*  
 Augustine Chavez Masters in Science Education, co-supervisor, UTeach, 2010-2011  
 Hunter Danque M.S., Geophysics, co-supervisor, 2004 - 2007.

Non-UT graduate students (served as Research Supervisor)

Stefano Nerozzi M.Sc. Geophysics, Univ. Bologna, 2012 – 2014  
Enrica Quartini M.Sc. Geophysics, Univ. Bologna (visiting UT), 2009 – 2011

Graduate committees

David Tang Chair of Ph.D. examining committee, Fall 2015  
Mason Fried Ph.D. examining and thesis committees, 2014 – present  
Justin Hiester Ph.D. examining committee, 2015  
Meredith Bush Ph.D. examining committee, 2013 - 2014  
Sarah Christian Ph.D. examining and thesis committees, 2012 – present  
Mackenzie Day Ph.D. examining committees, 2013 – present  
Romy Hanna Ph.D. examining and thesis committees, 2012 – present  
Edward Marshall Ph.D., examining committee chair, 2014  
Erick Leuro Ph.D. examining and thesis committees, 2005 – 2014  
Justin Finch M.S. committee, 2011 – 2013.  
Zhang Gang Chair of Ph.D. examining committee, 2012.  
John Hooker Ph.D. examining committee, 2010.  
Irina Filina Ph.D. examining and thesis committee, 2004 - 08.

Undergraduate supervision

Austin Moore Honors Thesis, Geology, completed 2015  
Elizabeth McKinnon Senior Thesis, Geology, completed 2015  
Cassie Stuurman Undergraduate Thesis, Western Ontario University, current  
Jesse Berney Honors Thesis, Geology/Plan II, completed 2013  
Elisabeth Steel Honors Thesis, Geology, completed 2012  
Thomas Cowan Honors Thesis, Geophysics, completed 2012  
Sarah Christian Honors Thesis, Bryn Mawr College, completed 2011  
Mark Moore Research project, Env. Sci./Astronomy, 2010 – 2011  
Prateek Choudhary Honors Thesis, Physics/EE, completed 2010  
Katherine Dlubac Geophysics Honors Thesis, completed 2007  
Kevin Carver Research project, Geology, 2007  
Stephanie Mills Research project, Geology, 2007  
Natasha Putman Outreach project, Huston-Tillotson College, 2006-07  
Tomoko Iwata Web outreach project, Computer Science, 2005-06  
Jeremy Krimmel Web outreach project, Geology, 2005-06  
Holden Hanna Web outreach project, Geology, 2004  
Brandon Johnson Research project, Geology, 2003

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**Courses Taught at University of Texas**

Field Methods in Polar and Planetary Geology (Geo 371C/391) Summer 2015  
*Included a full week in the field, co-taught with Joe Levy*  
Introduction to the Cryosphere (Geo 371C/391) Fall 2014  
*Co-taught with Ginny Catania, Joe Levy*  
Planetary Geology and Geophysics (Geo 371C/391) Spring 2014  
*Included a 4-day field trip to Death Valley*

Paleomagnetism Seminar (Geo 171/191) <i>Co-taught with Brian Horton</i>	Spring 2014
Hydrogeophysics (Geo 382W/476W) <i>Included 6 field days, co-taught with Jack Sharp, Jeff Paine</i>	Fall 2008, 2011, 2012, 2013
Field Methods in Planetary Geology (Geo 371C/391) <i>Included a full week in the field, co-taught with Joe Levy</i>	Summer 2013
Planetary Geology and Geophysics (Geo 371C/391) <i>Included a 3-day field trip to Northern Arizona</i>	Spring 2012

### **Courses Taught at Deep Springs College**

Introductory Geology (7 weeks) <i>Included 3 field trips in the Deep Springs area</i>	May-June, 2012
Introductory Geology (1 week) <i>Included multiple field days in Deep Springs Valley</i>	March, 2008
Hydrology: Science and Society <i>Co-taught with Ross Petersen</i>	Spring semester, 2003
Physics According to Feynman	Spring semester, 2003
Geology of Eastern California <i>Included 6 field trips in eastern California</i>	Fall semester, 2003
Planetary Science <i>Included field trip to JPL</i>	Fall semester, 2003

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### **National/International Service**

2015	Member of high-level NASA space mission review panel
2004-15	Reviewed papers for <i>Nature</i> , <i>Science</i> , <i>Journal of Geophysical Research</i> , <i>Geophysical Research Letters</i> , <i>Geology</i> , <i>Icarus</i> , <i>Planetary and Space Science</i> , <i>IEEE Transactions on Remote Sensing</i> , <i>Tectonics</i> .
2004-14	Reviewed proposals for NASA and National Science Foundation.
2014	Co-convened SHARAD-MARSIS Data Users' Workshop at the 45 <sup>th</sup> Lunar and Planetary Science Conference.
2013	Member of NASA review panel (chaired subpanel)
2012	Taught geology short course at Deep Springs College, California, an underserved educational institution.
2011	Member of Organizing Committee, 42 <sup>nd</sup> Lunar and Planetary Science Conference Member of Scientific Advisory Committee, Fifth International Conference on Mars Polar Science and Exploration Member of two NASA review panels
2010	Hosted MRO/SHARAD Team meeting at UTIG, October 20-21.
2009	Co-convened the first University of Texas Planetary Science Symposium, October 2, 2009, with 26 oral presentations and 54 participants.
2008	Taught geology short course at Deep Springs College, California, an underserved educational institution.

- 2007 Co-convenor of international workshop: West Antarctic Links to Sea-level Estimation (WALSE), hosted by the Jackson School of Geosciences and the UK Consulate, March 25-28, 2007.  
Co-chaired Planetary Radar Sounding session at Fall AGU meeting.  
Member of NASA review panel
- 2004 – 2007 Developed physics and earth science high school educational materials with undergraduate education students and graduate geoscience students.
- 2003 Taught science courses to undergraduate students at Deep Springs College, an underserved educational institution, engaging them in field-based research projects and exposing them to major research facilities (Owens Valley Radio Observatory, Jet Propulsion Laboratory, Caltech Paleomagnetism Laboratory.)
- 1998 – 2002 Project Manager of Support Office for Aerogeophysical Research (SOAR), an NSF facility. Managed the acquisition, reduction, and distribution of 100,000 line-km of airborne radar, laser altimetry, gravity, and magnetics data from Antarctica for 15 investigators at 10 institutions. Spent 10 months in Antarctica in support of these activities.

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#### UT Administrative and Committee Service

- 2011-15 Theme Leader for Planetary Sciences, Jackson School  
2011-15 Graduate Admissions and Support Committee, Jackson School  
2009-15 Graduate Studies Committee, Jackson School  
2007-15 Director, JSG Paleomagnetism Laboratory  
2010-13 JSG Equipment Committee (Chair, 2012-13)  
2012-14 UTIG Fellowship Committee  
2010-13 UTIG Seminar Committee  
2009-11 UTIG Annual Performance Evaluation Committee  
2008-10 UTIG Science Advisory Council  
2010-12 UTIG Postdoc Committee  
2009-12 Chair, UTIG Field Safety Committee

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#### Outreach & Invited lectures

- 2015 Invited seminar, York University Planetary Sciences Colloquium Series  
2014 Keynote speaker for special session of 8<sup>th</sup> International Conference on Mars  
2013 Invited seminar, Manchester University Dept. of Applied Mathematics, England  
2012 Invited seminar, Caltech Planetary Sciences  
Invited seminar, Deep Springs College, California  
2011 Invited seminar, Hokkaido University Inst. for Low Temp Studies, Japan  
Presentations to students at Brentwood Elementary, Austin  
Phone/video interview with Coppas Middle School 6<sup>th</sup> grade science class  
2010 Invited seminar, Baylor University Department of Geology  
2010 Two invited seminars, University of Arizona Lunar and Planetary Laboratory  
2010 Numerous print articles on Mars polar findings, including New York Times.

- 2009 Public lecture at UT to over 500 people, “Icy Mysteries of Mars Revealed.”  
2009 Lecture on Mars science to TEXESS Revolution course (teacher training)  
2009 Leading role in ABC (Australia) documentary on Antarctic Science  
2009 Webcast video interview in Antarctica with San Francisco Exploratorium  
2008 Radio interview with Planetary Society  
2008 Numerous print articles on Mars glacier findings, including New York Times, Science News, London Times, Telegraph, Discover, etc.  
2003 - 07 NASA-funded Education and Public Outreach Project  
2006 Presentations to Matthews Elementary, Austin, TX; 3<sup>rd</sup> grade and kindergarten  
2005 BBC news article, *Antarctica's ice bottom exposed*, Dec. 6, 2005.  
  
2005 Guardian news article, *I'm a scientist, get me out of here*, Feb. 24, 2005  
2005 AAAS press conference, Feb. 18, 2005, Washington D.C.  
2004 Interview for Antarctic Sun article, published Dec. 26, 2004.  
2002 Classroom visit and talk, Martin Jr. High, Austin, Texas (8th grade).  
2001 - 02 Email dialogue from Antarctica with 6th grade class, Martin Jr. High.  
2001 Interview with Australian National Public Radio (Lake Vostok survey).

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### Professional Societies

American Geophysical Union  
International Glaciological Society  
Geological Society of America

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### Publications (student authors underlined, advisees with \*)

Google Scholar h-index = 26

### In Review

- \*Brothers, T.C., and **J.W. Holt**, 3-dimensional structure and origin of a 1.8-km-thick ice dome within Korolev Crater, Mars, *Geophysical Research Letters*, accepted with minor revisions.  
\*Stuurman, C.,G. Osinski, **J.W. Holt**, T.C. Brothers, J.S. Levy, and M. Kerrigan, SHARAD Detection and Characterization of Thick Subsurface Water Ice Deposits in Utopia Planitia, Mars, *Geophysical Research Letters*, in review  
Parsons, R.A. and **J.W. Holt**, Constraints on the Formation and Properties of a Martian Lobate Debris Apron: Insights from High-Resolution Topography, SHARAD Radar Data and a Numerical Ice Flow Model, *Journal of Geophysical Research*, in review.

### Published

- \*Brothers, T.C., **J.W. Holt**, and A. Spiga, Planum Boreum basal unit topography, Mars: Irregularities and insights from SHARAD, *J. Geophys. Res. Planets*, 120(7), 1357–1375, 2015.

- \*Smith, I.B., A. Spiga, and **J.W. Holt**, Aeolian processes as drivers of landform evolution at the south pole of Mars, *Geomorphology*, [doi:10.1016/j.geomorph.2014.08.026](https://doi.org/10.1016/j.geomorph.2014.08.026), 2015.
- Bramson, A. M., S. Byrne, N. E. Putzig, S. Sutton, J. J. Plaut, \*T.C. Brothers, and **J.W. Holt**, Widespread excess ice in Arcadia Planitia, Mars, *Geophys. Res. Lett.*, 42(16), 6566–6574, 2015.
- Putzig, N.E., B. Campbell, R. Phillips, M. Mellon, **J.W. Holt**, and \*T.C. Brothers, SHARAD soundings and surface roughness at past, present, and proposed landing sites on Mars: Reflections at Phoenix may be attributable to deep ground ice, *Journal of Geophysical Research*, 119, [doi:10.1002/2014JE004646](https://doi.org/10.1002/2014JE004646), 2014.
- \*Brothers, T.C., **J.W. Holt**, and A. Spiga, Orbital radar, imagery, and atmospheric modeling reveal an aeolian origin for Abalos Mensa, Mars, *Geophysical Research Letters*, 40, [doi:10.1002/grl.50293](https://doi.org/10.1002/grl.50293), 2013.
- \*Christian, S., **J.W. Holt**, S. Byrne, and K. Fishbaugh, Integrating radar stratigraphy with high resolution visible stratigraphy of the northern polar layered deposits, Mars, *Icarus*, 226 (2), 1241-1251, [doi:10.1016/j.icarus.2013.07.003](https://doi.org/10.1016/j.icarus.2013.07.003), 2013.
- \*Smith, I.B., **J.W. Holt**, A. Spiga, A. D. Howard, and G. Parker, The spiral troughs of Mars as cyclic steps, *Journal of Geophysical Research*, 118, [doi:10.1002/jgre.20142](https://doi.org/10.1002/jgre.20142), 2013.
- Le Meur, E.M. Sacchetti, S. Garambois, E. Berthier, A.S. Drouet, G. Durand, D. Young, J.S. Greenbaum, D.D. Blankenship, **J.W. Holt**, E. Rignot, J. Mouginot, Y. Gim, D. Kirchner, B. de Fleurian, O. Gagliardini, and F. Gillet-Chaulet, Two independent methods for mapping the grounding line of an outlet glacier—example from the Astrolabe Glacier, Terre Adelie, Antarctica, *The Cryosphere Discussions*, Vol. 7, Issue 4, 3969-4014, [doi:10.5194/tcd-7-3969-2013](https://doi.org/10.5194/tcd-7-3969-2013), 2013.
- Fretwell, P., H.D. Pritchard, D.G. Vaughan, J.L. Bamber, N.E. Barrand, R. Bell, C. Bianchi, R.G. Bingham, D. D. Blankenship, G. Casassa, G. Catania, D. Callens, H. Conway, A.J. Cook, H.F.J. Corr, D. Damaske, V. Damm, F. Ferraccioli, R. Forsberg, S. Fujita, P. Gogineni, J.A. Griggs, R.C.A. Hindmarsh, P. Holmlund, **J. W. Holt**, R.W. Jacobel, A. Jenkins, W. Jokat, T. Jordan, E.C. King, W. Krabill, M. Riger-Kusk, , K.A. Langley, G. Leitchenkov, C. Leuschen, B.P. Luyendyk, K. Matsuoka, Y. Nogi, O.A. Nost, S.V. Popov, E. Rignot, D.M. Rippin, A. Riviera, N. Ross, M.J. Siegert, A.M. Smith, D. Steinhage, M. Studinger, B. Sun, B. K.Tinto, Welch, D. A. Young, C. Xiangbin, A. Zirizzotti, Bedmap2: improved ice bed, surface and thickness datasets for Antarctica, *The Cryosphere*, [doi:10.5194/tc-7-375-2013](https://doi.org/10.5194/tc-7-375-2013), 2013.
- Beyer, R., K. Stack, K. Griffes, R. Milliken, K. Herkenhoff, S. Byrne, **J.W. Holt**, and J. Grotzinger, An atlas of Mars sedimentary rocks as seen by HiRISE, in Grotzinger, J.P. and R.E. Milliken, eds., *Sedimentary Geology of Mars*, SEPM Special Publication 102, 2012.
- \*Karlsson, N.B., **J.W. Holt**, R.C.A. Hindmarsh, A test of past flow in the north polar layered deposits on Mars using internal radar stratigraphy, *Geophysical Research Letters*, Vol. 38, No. 24, L24204, <http://dx.doi.org/10.1029/2011GL049630>, 2011.
- Young, D. A., A. P. Wright, J. L. Roberts, R. C. Warner, N. Young, J. C. Greenbaum, D. M. Schroeder, **J.W. Holt**, D. E. Sugden, D. D. Blankenship, T. van Ommen, and M. J. Siegert, A dynamic early East Antarctic Ice Sheet suggested by ice covered fjord landscape, *Nature*, 474, 72-75, [doi:10.1038/nature10114](https://doi.org/10.1038/nature10114), 2011.
- Phillips, R.J., B.J. Davis, K.L. Tanaka, S. Byrne, M.T. Mellon, N.E. Putzig, R.M. Haberle, M.A. Kahre, B.A. Campbell, L.M. Carter, I.B. Smith, **J.W. Holt**, S.E. Smrekar, D.C. Nunes, J.J. Plaut, A.F. Egan, T.T. Titus, R. Seu, Massive CO<sub>2</sub> Ice Deposits Sequestered in the South

- Polar Layered Deposits of Mars, *Science*, 332, 838-841, [doi:10.1126/science.1203091](https://doi.org/10.1126/science.1203091), 2011.
- Nunes, G. T., S. E. Smrekar, A. Safaeinili, **J.W. Holt**, R. J. Phillips, and R. R. Seu, SHARAD, pedestal craters, and the lost Martian layers - initial assessments, *J. Geophys. Res.*, 115, E10004, [doi:10.1029/2009JE003509](https://doi.org/10.1029/2009JE003509), 2010.
- Holt, J.W.**, K.E. Fishbaugh, S. Byrne, S. Christian, K. Tanaka, P. Russell, K. Herkenhoff, A. Safaeinili, N. Putzig and R. Phillips, The Construction of Chasma Boreale on Mars, *Nature*, 465, 446-449, [doi:10.1038/nature09050](https://doi.org/10.1038/nature09050), 2010.
- \*Smith, I.B. and **J.W. Holt**, Onset and migration of spiral troughs on Mars revealed by orbital radar, *Nature*, 465, 450-453, [doi:10.1038/nature09049](https://doi.org/10.1038/nature09049), 2010.
- Quidelleur, X., **J.W. Holt**, T. Salvany, and H. Bouquerel, The double structure of the Réunion geomagnetic event based on new K-Ar ages from the type locality, massif de la Montagne, Réunion Island (Indian Ocean), *Geophysical Journal International*, 182 (2), 699-710, [doi: 10.1111/j.1365-246X.2010.04651.x](https://doi.org/10.1111/j.1365-246X.2010.04651.x), 2010.
- Jordan, T. A., F. Ferraccioli, D. G. Vaughan, **J. W. Holt**, H. F. J. Corr, D. D. Blankenship, and T. M. Diehl, Aerogravity evidence for major crustal thinning under the Pine Island Glacier region (west Antarctica), *Geol. Soc. Amer. Bull.*, 122, 714-726, [doi:10.1130/B26417.1](https://doi.org/10.1130/B26417.1), 2010.
- Carter, L., B.A. Campbell, **J.W. Holt**, R.J. Phillips, N.E. Putzig, S. Mattei, R. Seu, C.H. Okubo, A. Egan, Dielectric properties of lava flows west of Ascraeus Mons, Mars, *Geophysical Research Letters*, *Geophys. Res. Lett.*, 36, L23204, doi:10.1029/2009GL041234, 2009.
- Carter, S.P., D.D. Blankenship, D.A. Young, and **J.W. Holt**, Using radar-sounding data to identify the distribution and sources of subglacial water: application to Dome C, East Antarctica, *Journal of Glaciology*, 55, 1025-1040, doi:10.3189/002214309790794931, 2009.
- Joughin, I., S. Tulaczyk, J.L. Bamber, D. Blankenship, **J.W. Holt**, T. Scambos, D.G. Vaughan, Basal Conditions for Pine Island and Thwaites Glaciers Determined using Satellite and Airborne Data, *Journal of Glaciology*, 55, 245-257, doi:10.3189/002214309788608705, 2009.
- Putzig, N.E., R.J. Phillips, B.A. Campbell, **J.W. Holt**, J.J. Plaut, L.M. Carter, A.F. Egan, F. Bernardini, A. Safaeinili, and R. Seu, Subsurface structure of Planum Boreum from Mars Reconnaissance Orbiter Shallow Radar soundings, *Icarus*, 204, 443-457, doi: 10.1016/j.icarus.2009.07.034, 2009
- Carter, S.P., D.D. Blankenship, D.A. Young, M.E. Peters, **J.W. Holt**, and M.J. Siegert, Dynamic distributed drainage implied by the flow evolution of the 1996-1998 Adventure Subglacial Trench subglacial lake discharge, *Earth and Planetary Science Letters*, 283, doi: 10.1016/j.epsl.2009.03.019, 2009.
- Plaut, J.J., A. Safaeinili, **J.W. Holt**, R.J. Phillips, J.W. Head, III, R. Seu, N.E. Putzig, and A. Frigeri, Radar evidence for ice in lobate debris aprons in the mid-northern latitudes of Mars, *Geophysical Research Letters*, 36, L02203, doi:10.1029/2008GL036379, 2009.
- Holt, J.W.**, A. Safaeinili, J.J. Plaut, J.W. Head, R.J. Phillips, R. Seu, S.D. Kempf, P. Choudhary, D. A. Young, N. Putzig, D. Biccari, Y. Gim, Radar sounding evidence for buried glaciers in the southern mid-latitudes of Mars, *Science*, Vol. 322 (5905), pp. 125-1238, doi: 10.1126/science.1164246, 2008.
- R. J. Phillips, M.T. Zuber, S.E. Smrekar, M.T. Mellon, J.W. Head, K.L. Tanaka, N.E. Putzig, S. M. Milkovich, B.A. Campbell, J.J. Plaut, A. Safaeinili, R. Seu, D. Biccari, L. M. Carter, G. Picardi, R. Orosei, P. S. Mohit, E. Heggy, R. W. Zurek, A. F. Egan, E. Giacomoni, F.



- Russo, M. Cutigni, E. Pettinelli, **J.W. Holt**, C. J. Leuschen, and L. Marinangeli, Mars North Polar Deposits: Stratigraphy, Age, and Geodynamical Response, *Science*, Vol. 320, pp. 1182-1185, doi: 10.1126/science.1157546, 2008.
- Young, D. A., S. D. Kempf, D. D. Blankenship, **J.W. Holt**, and D. L. Morse, New airborne laser altimetry over the Thwaites Glacier catchment, West Antarctica, *Geochemistry, Geophysics, Geosystems*, 9, Q06006, 2008.
- Diehl, T. M., **J.W. Holt**, D. D. Blankenship, D. A. Young, T. A. Jordan, and F. Ferraccioli, First airborne gravity results over the Thwaites Glacier catchment, West Antarctica, *Geochemistry, Geophysics, Geosystems*, 9, Q0401, 2008.
- Kirschvink, J. L., R. E. Kopp, T. D. Raub, C. T. Baumgartner, and **J.W. Holt**, Rapid, precise, and High-sensitivity acquisition of paleomagnetic and rock-Magnetic data: Development of a low-noise automatic sample changing system for superconducting rock magnetometers, *Geochemistry, Geophysics, Geosystems*, 9, Q05Y01, 2008.
- Diehl, T.M., D.D. Blankenship, **J.W. Holt**, D.A. Young, T. Jordan, and F. Ferraccioli, Locating Subglacial Sediments Across West Antarctica with Isostatic Gravity Anomalies, in Antarctica: A Keystone in a Changing World – Online Proceedings of the 10th ISAES X, edited by A. K. Cooper and C. R. Raymond et al., USGS Open-File Report 2007-1047, 4 pp, 2007.
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