



Dustin Schroeder

Assistant Professor of Geophysics and, by courtesy, of Electrical Engineering and Center Fellow, by courtesy, at the Woods Institute for the Environment

 Curriculum Vitae available Online

Bio

BIO

My research focuses on advancing the scientific and technical foundations of geophysical ice penetrating radar and its use in observing and understanding the interaction of ice and water in the solar system. I am primarily interested in the subglacial and englacial conditions of rapidly changing ice sheets and their contribution to global sea level rise. However, a growing secondary focus of my work is the exploration of icy moons. I am also interested in the development and application of science-optimized geophysical radar systems. I consider myself a radio glaciologist and strive to approach problems from both an earth system science and a radar system engineering perspective. I am actively engaged with the flow of information through each step of the observational science process; from instrument and experiment design, through data processing and analysis, to modeling and inference. This allows me to draw from a multidisciplinary set of tools to test system-scale and process-level hypotheses. For me, this deliberate integration of science and engineering is the most powerful and satisfying way to approach questions in Earth and planetary science.

ACADEMIC APPOINTMENTS

- Assistant Professor, Geophysics
- Assistant Professor (By courtesy), Electrical Engineering
- Center Fellow (By courtesy), Stanford Woods Institute for the Environment
- Faculty Affiliate, Institute for Human-Centered Artificial Intelligence (HAI)

ADMINISTRATIVE APPOINTMENTS

- Assistant Professor, Department of Geophysics, Stanford University, (2016- present)
- Assistant Professor (by courtesy), Department of Electrical Engineering, Stanford University, (2017- present)
- Center Fellow (by courtesy), Stanford Woods Institute for the Environment, (2020- present)
- Faculty Affiliate, Stanford Institute for Human-Centered Artificial Intelligence, (2020- present)
- Faculty Affiliate, Stanford Woods Institute for the Environment, (2016-2020)
- Radar Systems Engineer, Jet Propulsion Laboratory, California Institute of Technology, (2014-2016)

HONORS AND AWARDS

- Symposium Prize Paper Award, IEEE Geoscience and Remote Sensing Society (2021)
- Excellence in Teaching Award, Stanford School of Earth, Energy, and Environmental Sciences (2020)
- Senior Member, Institute of Electrical and Electronics Engineers (2019)
- CAREER Award, National Science Foundation (2018)
- LInC Fellow, Stanford Woods Institute for the Environment (2018)

- Fredrick E. Terman Fellowship, Stanford University (2016)
- Science Team Member, Mini-RF Radar, Lunar Reconnaissance Orbiter, NASA (2016)
- Science Team Member, REASON Radar Sounder, Europa Mission, NASA (2015)
- JPL Team Award, Europa Mission Instrument Proposal (2015)
- Best Graduate Student Paper Award, Jackson School of Geosciences (2014)
- Heart of Gold Award for Service to Science Education, National Science Olympiad (2014)
- Best Ph.D. Student Poster Award, Jackson School of Geosciences (2013)
- Best Ph.D. Student Speaker Award, Jackson School of Geosciences (2013)
- NASA Group Achievement Award, Operation Ice Bridge (2012)
- David Brunton Jr. Fellowship, University of Texas Graduate School (2012)
- Gale White Fellowship, University of Texas Institute for Geophysics (2012)
- Antarctic Service Medal, National Science Foundation (2011)
- The Friar Society, University of Texas (2010)
- Graduate Research Fellowship Program, National Science Foundation (2009)
- Recruiting Fellowship, University of Texas Graduate School (2008)
- Thelma Johnson Showalter Prize, Bucknell University (2007)
- Phi Beta Kappa, Bucknell University (2007)
- Tau Beta Pi, Bucknell University (2006)
- Sigma Pi Sigma, Bucknell University (2006)
- Meritorious Winner, COMAP Mathematical Contest in Modeling (2005)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Co-Chair, Interiors Working Group, Europa Clipper Mission, NASA (2020 - present)
- Co-Lead, Active Microwave - Radar and SAR Working Group, Instruments & Future Technologies Comm. IEEE GRSS (2020 - present)
- Associate Editor, IEEE Transactions on Geoscience and Remote Sensing (2020 - present)
- Council Member, International Glaciological Society (2019 - present)
- Scientific Editor, Journal of Glaciology (2019 - present)
- Senator, School of Earth, Energy, and Environmental Sciences, Stanford Faculty Senate (2018 - present)
- Member, Solid Earth Response and influence on Cryosphere Evolution Steering Committee, Scientific Committee on Antarctic Research (2016 - present)
- Member, Interiors Working Group, Europa Mission, NASA (2015 - present)
- Lead, Passive Sounding Working Group, Radar for Icy Moon Exploration, ESA (2015 - 2018)
- Chair, National Science Olympiad Earth and Space Science Committee (2014 - present)
- Member, International Glaciological Society (2008 - present)
- Member, American Geophysical Union (2008 - present)
- Member, IEEE Antennas and Propagation Society (2008 - present)
- Member, Society of Exploration Geophysicists (2008 - present)
- Member, IEEE Geoscience and Remote Sensing Society (2008 - present)

PROFESSIONAL EDUCATION

- Ph.D., University of Texas at Austin , Geophysics (2014)

- B.S., Bucknell University , Electrical Engineering (2007)
- B.A., Bucknell University , Physics (2007)

LINKS

- Stanford Radio Glaciology: <https://earth.stanford.edu/radio-glaciology/>

Teaching

COURSES

2021-22

- Citizenship in the 21st Century: COLLEGE 102 (Win)
- Introduction to Planetary Science: GEOLSCI 124 (Spr)
- Introduction to the Foundations of Contemporary Geophysics: GEOPHYS 110 (Win)
- Radio Glaciology: GEOPHYS 385G (Aut, Win, Spr, Sum)

2020-21

- Introduction to the Foundations of Contemporary Geophysics: EARTHSYS 110, GEOPHYS 110 (Aut)
- Radio Glaciology: GEOPHYS 385G (Aut, Win, Spr, Sum)
- Senior Seminar: Issues in Earth Sciences: GEOPHYS 199 (Aut)
- The Space Mission to Europa: GEOPHYS 54N (Aut)

2019-20

- Frontiers of Geophysical Research at Stanford: GEOPHYS 101, GEOPHYS 201 (Aut)
- Ice Penetrating Radar: GEOPHYS 230 (Spr)
- Introduction to the Foundations of Contemporary Geophysics: EARTHSYS 110, GEOPHYS 110 (Spr)
- Radio Glaciology: GEOPHYS 385G (Aut, Win, Spr, Sum)

2018-19

- Frontiers of Geophysical Research at Stanford: GEOPHYS 101, GEOPHYS 201 (Aut)
- Introduction to the Foundations of Contemporary Geophysics: EARTHSYS 110, GEOPHYS 110 (Spr)
- Radio Glaciology: GEOPHYS 385G (Aut, Win, Spr, Sum)
- The Space Mission to Europa: GEOPHYS 54N (Aut)

STANFORD ADVISEES

Doctoral Dissertation Reader (AC)

Nurbek Tazhimbetov

Doctoral Dissertation Advisor (AC)

Nicole Bienert, Anna Broome, Riley Culberg, Eliza Dawson, Danny May, Thomas Teisberg

Publications

PUBLICATIONS

- **Passive Synthetic Aperture Radar Imaging Using Radio-Astronomical Sources** *IEEE TRANSACTIONS ON GEOSCIENCE AND REMOTE SENSING*
Peters, S. T., Schroeder, D. M., Haynes, M. S., Castelletti, D., Romero-Wolf, A.
2021; 59 (11): 9144-9159

- **A detailed radiostratigraphic data set for the central East Antarctic Plateau spanning from the Holocene to the mid-Pleistocene** *EARTH SYSTEM SCIENCE DATA*
Cavitte, M. P., Young, D. A., Mulvaney, R., Ritz, C., Greenbaum, J. S., Ng, G., Kempf, S. D., Quartini, E., Muldoon, G. R., Paden, J., Frezzotti, M., Roberts, J. L., Tozer, et al
2021; 13 (10): 4759-4777
- **Alternatives to Liquid Water Beneath the South Polar Ice Cap of Mars** *GEOPHYSICAL RESEARCH LETTERS*
Schroeder, D. M., Steinbrugge, G.
2021; 48 (19)
- **Multisystem Synthesis of Radar Sounding Observations of the Amundsen Sea Sector From the 2004-2005 Field Season** *JOURNAL OF GEOPHYSICAL RESEARCH-EARTH SURFACE*
Chu, W., Hilger, A. M., Culberg, R., Schroeder, D. M., Jordan, T. M., Seroussi, H., Young, D. A., Blankenship, D. D., Vaughan, D. G.
2021; 126 (10)
- **Permanent Scatterers in Repeat-Pass Airborne VHF Radar Sounder for Layer-Velocity Estimation** *IEEE GEOSCIENCE AND REMOTE SENSING LETTERS*
Castelletti, D., Schroeder, D. M., Jordan, T. M., Young, D.
2021; 18 (10): 1766-1770
- **Rapid and accurate polarimetric radar measurements of ice crystal fabric orientation at the Western Antarctic Ice Sheet (WAIS) Divide ice core site** *CRYOSPHERE*
Young, T., Martin, C., Christoffersen, P., Schroeder, D. M., Tulaczyk, S. M., Dawson, E. J.
2021; 15 (8): 4117-4133
- **Glaciological Monitoring Using the Sun as a Radio Source for Echo Detection** *GEOPHYSICAL RESEARCH LETTERS*
Peters, S. T., Schroeder, D. M., Chu, W., Castelletti, D., Haynes, M. S., Christoffersen, P., Romero-Wolf, A.
2021; 48 (14)
- **Radar-Sounding Characterization of the Subglacial Groundwater Table Beneath Hiawatha Glacier, Greenland** *GEOPHYSICAL RESEARCH LETTERS*
Bessette, J. T., Schroeder, D. M., Jordan, T. M., MacGregor, J. A.
2021; 48 (10)
- **Inferring Ice Fabric From Birefringence Loss in Airborne Radargrams: Application to the Eastern Shear Margin of Thwaites Glacier, West Antarctica** *JOURNAL OF GEOPHYSICAL RESEARCH-EARTH SURFACE*
Young, T. J., Schroeder, D. M., Jordan, T. M., Christoffersen, P., Tulaczyk, S. M., Culberg, R., Bienert, N. L.
2021; 126 (5)
- **Analysis of Temporal and Structural Characteristics of Jovian Radio Emissions for Passive Radar Sounding of Jupiters Icy Moons** *IEEE TRANSACTIONS ON GEOSCIENCE AND REMOTE SENSING*
Carrer, L., Schroeder, D. M., Romero-Wolf, A., Ries, P. A., Bruzzone, L.
2021; 59 (5): 3857-3874
- **Extreme melt season ice layers reduce firn permeability across Greenland.** *Nature communications*
Culberg, R., Schroeder, D. M., Chu, W.
2021; 12 (1): 2336
- **Stochastic modeling of subglacial topography exposes uncertainty in water routing at Jakobshavn Glacier** *JOURNAL OF GLACIOLOGY*
MacKie, E. J., Schroeder, D. M., Zuo, C., Yin, Z., Caers, J.
2021; 67 (261): 75-83
- **Interpreting englacial layer deformation in the presence of complex ice flow history with synthetic radargrams** *ANNALS OF GLACIOLOGY*
Elsworth, C. W., Schroeder, D. M., Siegfried, M. R.
2020; 61 (81): 206-13
- **Automated detection and characterization of Antarctic basal units using radar sounding data: demonstration in Insite Ice Stream, West Antarctica** *ANNALS OF GLACIOLOGY*
Goldberg, M. L., Schroeder, D. M., Castelletti, D., Mantelli, E., Ross, N., Siegert, M. J.
2020; 61 (81): 242-48
- **Five decades of radioglaciology** *ANNALS OF GLACIOLOGY*

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- Schroeder, D. M., Bingham, R. G., Blankenship, D. D., Christianson, K., Eisen, O., Flowers, G. E., Karlsson, N. B., Koutnik, M. R., Paden, J. D., Siegert, M. J.
2020; 61 (81): 1–13
- **A comparison of automated approaches to extracting englacial-layer geometry from radar data across ice sheets** *ANNALS OF GLACIOLOGY*
Delf, R., Schroeder, D. M., Curtis, A., Giannopoulos, A., Bingham, R. G.
2020; 61 (81): 234–41
 - **Reflections on the anomalous ANITA events: the Antarctic subsurface as a possible explanation** *ANNALS OF GLACIOLOGY*
Shoemaker, I. M., Kusenko, A., Kuipers Munneke, P., Romero-Wolf, A., Schroeder, D. M., Siegert, M. J.
2020; 61 (81): 92–98
 - **Geospatial simulations of airborne ice-penetrating radar surveying reveal elevation under-measurement bias for ice-sheet bed topography** *ANNALS OF GLACIOLOGY*
Bartlett, O. T., Palmer, S. J., Schroeder, D. M., MacKie, E. J., Barrows, T. T., Graham, A. C.
2020; 61 (81): 46–57
 - **Estimation of ice fabric within Whillans Ice Stream using polarimetric phase-sensitive radar sounding** *ANNALS OF GLACIOLOGY*
Jordan, T. M., Schroeder, D. M., Elsworth, C. W., Siegfried, M. R.
2020; 61 (81): 74–83
 - **Assessing the detectability of Europa’s eutectic zone using radar sounding** *Icarus*
Culha, C., Schroeder, D. M., Jordan, T. M., Haynes, M. S.
2020; 339 (0019-1035)
 - **A NARROWBAND MULTI-FREQUENCY RADAR SOUNDING ARCHITECTURE TO CORRECT SUBSURFACE INTERFACE ROUGHNESS EFFECTS**
Broome, A. L., Schroeder, D. M., IEEE
IEEE.2020: 1428-1431
 - **GEOSTATISTICALLY SIMULATING SUBGLACIAL TOPOGRAPHY WITH SYNTHETIC TRAINING DATA**
MacKie, E. J., Schroeder, D. M., IEEE
IEEE.2020: 2991-2994
 - **STRONG POTENTIAL FOR THE DETECTION OF REFROZEN ICE LAYERS IN GREENLAND'S FIRN BY AIRBORNE RADAR SOUNDING**
Culberg, R., Schroeder, D. M., IEEE
IEEE.2020: 7033-7036
 - **PATHWAYS TO MULTITEMPORAL RADAR SOUNDING IN TERRESTRIAL GLACIOLOGY**
Schroeder, D. M., IEEE
IEEE.2020: 3731-3734
 - **PROCESSING-BASED SYNCHRONIZATION APPROACH FOR BISTATIC RADAR GLACIAL TOMOGRAPHY**
Bienert, N. L., Schroeder, D. M., Peters, S. T., Siegfried, M. R., IEEE
IEEE.2020: 1420-1423
 - **Firn Clutter Constraints on the Design and Performance of Orbital Radar Ice Sounders** *IEEE Transactions on Geoscience and Remote Sensing*
Culberg, R., Schroeder, D. M.
2020: 1-18
 - **Passive radio sounding to correct for Europa's ionospheric distortion of VHF signals** *Planetary and Space Science*
Peters, S. T., Schroeder, D. M., Romero-Wolf, A.
2020
 - **Layer optimized SAR processing and slope estimation in radar sounder data** *JOURNAL OF GLACIOLOGY*
Castelletti, D., Schroeder, D. M., Mantelli, E., Hilger, A.
2019; 65 (254): 983–88
 - **A subglacial hydrologic drainage hypothesis for silt sorting and deposition during retreat in Pine Island Bay** *ANNALS OF GLACIOLOGY*
Schroeder, D. M., MacKie, E. J., Creyts, T. T., Anderson, J. B.
2019; 60 (80): 14–20

- **Subglacial roughness of the Greenland Ice Sheet: relationship with contemporary ice velocity and geology** *CRYOSPHERE*
Cooper, M. A., Jordan, T. M., Schroeder, D. M., Siegert, M. J., Williams, C. N., Bamber, J. L.
2019; 13 (11): 3093–3115
- **A Polarimetric Coherence Method to Determine Ice Crystal Orientation Fabric From Radar Sounding: Application to the NEEM Ice Core Region** *IEEE TRANSACTIONS ON GEOSCIENCE AND REMOTE SENSING*
Jordan, T. M., Schroeder, D. M., Castelletti, D., Li, J., Dall, J.
2019; 57 (11): 8641–57
- **Sustained Antarctic Research: A 21st Century Imperative** *ONE EARTH*
Kennicutt, M. C., Bromwich, D., Liggett, D., Njastad, B., Peck, L., Rintoul, S. R., Ritz, C., Siegert, M. J., Aitken, A., Brooks, C. M., Cassano, J., Chaturvedi, S., Chen, et al
2019; 1 (1): 95-113
- **Radar-Detected Englacial Debris in the West Antarctic Ice Sheet** *GEOPHYSICAL RESEARCH LETTERS*
Winter, K., Woodward, J., Ross, N., Dunning, S. A., Hein, A. S., Westoby, M. J., Culberg, R., Marrero, S. M., Schroeder, D. M., Sugden, D. E., Siegert, M. J.
2019
- **Seismology with Dark Data: Image-Based Processing of Analog Records Using Machine Learning for the Rangely Earthquake Control Experiment** *SEISMOLOGICAL RESEARCH LETTERS*
Wang, K., Ellsworth, W. L., Beroza, G. C., Williams, G., Zhang, M., Schroeder, D., Rubinstein, J.
2019; 90 (2): 553–62
- **Doppler-based discrimination of radar sounder target scattering properties: A case study of subsurface water geometry in Europa's ice shell** *Icarus*
Michaelides, R., Schroeder, D. M.
2019
- **REVISITING THE LIMITS OF AZIMUTH PROCESSING GAIN FOR RADAR SOUNDING**
Schroeder, D. M., Castelletti, D., Pena, I., IEEE
IEEE.2019: 994–96
- **RADAR SCATTERING IN FIRN AND ITS IMPLICATIONS FOR VHF/UHF ORBITAL ICE SOUNDING**
Culberg, R., Schroeder, D. M., IEEE
IEEE.2019: 4137–40
- **TWO DIMENSIONAL IMAGE FORMATION WITH PASSIVE RADAR USING THE SUN FOR ECHO DETECTION**
Peters, S. T., Schroeder, D. M., Castelletti, D., Haynes, M. S., Romero-Wolf, A., IEEE
IEEE.2019: 10091–94
- **Multidecadal observations of the Antarctic ice sheet from restored analog radar records.** *Proceedings of the National Academy of Sciences of the United States of America*
Schroeder, D. M., Dowdeswell, J. A., Siegert, M. J., Bingham, R. G., Chu, W. n., MacKie, E. J., Siegfried, M. R., Vega, K. I., Emmons, J. R., Winstein, K. n.
2019
- **In Situ Demonstration of a Passive Radio Sounding Approach Using the Sun for Echo Detection** *IEEE TRANSACTIONS ON GEOSCIENCE AND REMOTE SENSING*
Peters, S. T., Schroeder, D. M., Castelletti, D., Haynes, M., Romero-Wolf, A.
2018; 56 (12): 7338–49
- **Geometric Power Fall-Off in Radar Sounding** *IEEE TRANSACTIONS ON GEOSCIENCE AND REMOTE SENSING*
Haynes, M. S., Chapin, E., Schroeder, D. M.
2018; 56 (11): 6571–85
- **A constraint upon the basal water distribution and thermal state of the Greenland Ice Sheet from radar bed echoes** *CRYOSPHERE*
Jordan, T. M., Williams, C. N., Schroeder, D. M., Martos, Y. M., Cooper, M. A., Siegert, M. J., Paden, J. D., Huybrechts, P., Bamber, J. L.
2018; 12 (9): 2831–54
- **Resolving the internal and basal geometry of ice masses using imaging phase-sensitive radar** *JOURNAL OF GLACIOLOGY*
Young, T., Schroeder, D. M., Christoffersen, P., Lok, L., Nicholls, K. W., Brennan, P. V., Doyle, S. H., Hubbard, B., Hubbard, A.
2018; 64 (246): 649–60

- **Discovery of a hypersaline subglacial lake complex beneath Devon Ice Cap, Canadian Arctic** *Science Advances*
Rutishauser, A., Blankenship, D. D., Sharp, M., Skidmore, M. L., Greenbaum, J. S., Grima, C., Schroeder, D. M., Dowdeswell, J. A., Young, D. A.
2018: eaar4353
- **UNFOCUSED SAR PROCESSING FOR ENGLACIAL LAYER SLOPE ESTIMATION USING RADAR SOUNDER DATA**
Castelletti, D., Schroeder, D. M., Mantelli, E., Hilger, A., IEEE
IEEE.2018: 4150–53
- **FIRST IN-SITU DEMONSTRATION OF PASSIVE RADIO SOUNDING USING THE SUN AS A SOURCE FOR ECHO DETECTION**
Peters, S. T., Schroeder, D. M., Castelletti, D., Haynes, M., Romero-Wolf, A., IEEE
IEEE.2018: 4154–57
- **Retrieval of Englacial Firn Aquifer Thickness from Ice-Penetrating Radar Sounding in Southeastern Greenland** *Geophysical Research Letters*
Chu, W., Schroeder, D. M., Siegfried, M. R.
2018
- **Discovery of a hypersaline subglacial lake complex beneath Devon Ice Cap, Canadian Arctic.** *Science advances*
Rutishauser, A. n., Blankenship, D. D., Sharp, M. n., Skidmore, M. L., Greenbaum, J. S., Grima, C. n., Schroeder, D. M., Dowdeswell, J. A., Young, D. A.
2018; 4 (4): eaar4353
- **Surface Meltwater Impounded by Seasonal Englacial Storage in West Greenland** *Geophysical Research Letters*
Kendrick, A. K., Schroeder, D. M., Chu, W., Young, T. J., Christoffersen, P., Todd, J., Doyle, S. H., Box, J. E., Hubbard, A., Hubbard, B., Brennan, P. V., Nicholls, K. W., Lok, et al
2018
- **A Constraint Upon the Basal Water Distribution and Basal Thermal State of the Greenland Ice Sheet from Radar Bed-Echoes** *The Cryosphere*
Jordan, T. M., Williams, C. N., Schroeder, D. M., Martos, Y. M., Cooper, M. A., Siegert, M. J., Paden, J. D., Hyybrechts, P., Bamber, J. L.
2018
- **Geometric Power Fall-off in Radar Sounding** *IEEE Transactions in Geoscience and Remote Sensing*
Haynes, M., Chapin, E., Schroeder, D. M.
2018
- **Resolving the internal and basal geometry of ice masses using imaging phase-sensitive radar** *Journal of Glaciology*
Young, T., Schroeder, D. M., Christoffersen, P. V., Lok, L., Nicholls, K. W., Brennan, P. V., Doyle, S. H., Hubbard, B., Hubbard, A.
2018
- **In-Situ Demonstration of a Passive Radio Sounding Approach Using the Sun for Echo Detection,** *IEEE Transactions in Geoscience and Remote Sensing*
Peters, S. T., Schroeder, D. M., Castelletti, D., Haynes, M., Romero-Wolf, A.
2018
- **Complex Basal Thermal Transition Near the Onset of Petermann Glacier, Greenland** *Journal of Geophysical Research*
Chu, W., Schroeder, D. M., Seroussi, H., Creyts, T. T., Bell, R. E.
2018
- **Radar attenuation in Europa's ice shell: Obstacles and opportunities for constraining the shell thickness and its thermal structure** *JOURNAL OF GEOPHYSICAL RESEARCH-PLANETS*
Kalousova, K., Schroeder, D. M., Soderlund, K. M.
2017; 122 (3): 524-545
- **Bright prospects for radar detection of Europa's ocean** *ICARUS*
Aglyamov, Y., Schroeder, D. M., Vance, S. D.
2017; 281: 334-337
- **An Interferometric Approach to Cross-Track Clutter Detection in Two-Channel VHF Radar Sounders** *IEEE Transactions on Geoscience and Remote Sensing*
Castelletti, D., Schroeder, D. M., Hensley, S., Grima, C., Ng, G., Young, D., Gim, Y., Bruzzone, L., Moussessian, A., Blankenship, D. D.
2017
- **Ocean access beneath the southwest tributary of Pine Island Glacier, West Antarctica** *Annals of Glaciology*

- Schroeder, D. M., Hilger, A. M., Paden, J. D., Young, D. A., Corr, H. F.
2017
- **Assessing the potential for measuring Europa's tidal Love number h2 using radar sounder and topographic imager data** *Earth and Planetary Science Letters*
Steinbruegge, G., Schroeder, D. M., Haynes, M. S., Hussmann, H., Grima, C., Blankenship, D. D.
2017
 - **Mars radar clutter and surface roughness characteristics from MARSIS data** *Icarus*
Campbell, B. A., Schroeder, D. M., Whitten, J. L.
2017
 - **Self-affine subglacial roughness: consequences for radar scattering and basal water discrimination in northern Greenland** *The Cryosphere*
Jordan, T. M., Cooper, M. A., Schroeder, D. M., Williams, C. N., Paden, J. D., Siegert, M. J., Bamber, J. L.
2017
 - **Radar attenuation in Europa's ice shell: Obstacles and opportunities for constraining the shell thickness and its thermal structure** *Journal of Geophysical Research: Planets*
Kalousova, K., Schroeder, D. M., Soderlund, K. M.
2017
 - **Extensive winter subglacial water storage beneath the Greenland Ice Sheet** *GEOPHYSICAL RESEARCH LETTERS*
Chu, W., Schroeder, D. M., Seroussi, H., Creyts, T. T., Palmer, S. J., Bell, R. E.
2016; 43 (24): 12484-12492
 - **Assessing the potential for passive radio sounding of Europa and Ganymede with RIME and REASON** *PLANETARY AND SPACE SCIENCE*
Schroeder, D. M., Romero-Wolf, A., Carrer, L., Grima, C., Campbell, B. A., Kofman, W., Bruzzone, L., Blankenship, D. D.
2016; 134: 52-60
 - **Prospects of passive radio detection of a subsurface ocean on Europa with a lander** *PLANETARY AND SPACE SCIENCE*
Romero-Wolf, A., Schroeder, D. M., Ries, P., Bills, B. G., Naudet, C., Scott, B. R., Treuhaft, R., Vance, S.
2016; 129: 118-121
 - **Subglacial controls on the flow of Institute Ice Stream, West Antarctica** *ANNALS OF GLACIOLOGY*
Siegert, M. J., Ross, N., Li, J., Schroeder, D. M., Rippin, D., Ashmore, D., Bingham, R., Gogineni, P.
2016; 57 (73): 19-24
 - **Evidence for Variable Grounding-Zone and Shear-Margin Basal Conditions Across Thwaites Glacier, West Antarctica** *Geophysics*
Schroeder, D. M., Grima, G., Blankenship, D. D.
2016; 81 (1)
 - **Adaptively constraining radar attenuation and temperature across the Thwaites Glacier catchment using bed echoes** *JOURNAL OF GLACIOLOGY*
Schroeder, D. M., Seroussi, H., Chu, W., Young, D. A.
2016; 62 (236): 1075-1082
 - **Rapid submarine ice melting in the grounding zones of ice shelves in West Antarctica** *Nature Communications*
Khazendar, A., Rignot, E., Schroeder, D. M., Seroussi, H., Seuchl, B., Mouginot, J., Sutterley, T. C., Velicogna, I.
2016
 - **Deep radiostratigraphy of the East Antarctic plateau: connecting the Dome C and Vostok ice core sites** *JOURNAL OF GLACIOLOGY*
Cavitte, M. G., Blankenship, D. D., Young, D. A., Schroeder, D. M., Parrenin, F., Lemeur, E., MacGregor, J. A., Siegert, M. J.
2016; 62 (232): 323-334
 - **Assessing the potential for passive radio sounding of Europa and Ganymede with RIME and REASON** *Planetary and Space Science*
Schroeder, D. M., Romero-Wolf, A., Carrer, L., Grima, C., Campbell, B. A., Kofman, W., Bruzzone, L., Blankenship, D. D.
2016
 - **Radar signal propagation through the ionosphere of Europa** *PLANETARY AND SPACE SCIENCE*
Grima, C., Blankenship, D. D., Schroeder, D. M.
2015; 117: 421-428

- **Ocean access to a cavity beneath Totten Glacier in East Antarctica** *NATURE GEOSCIENCE*
Greenbaum, J. S., Blankenship, D. D., Young, D. A., Richter, T. G., Roberts, J. L., Aitken, A. R., Legresy, B., Schroeder, D. M., Warner, R. C., van Ommen, T. D., Siegert, M. J.
2015; 8 (4): 294-298
- **Estimating Subglacial Water Geometry Using Radar Bed Echo Specularity: Application to Thwaites Glacier, West Antarctica** *IEEE GEOSCIENCE AND REMOTE SENSING LETTERS*
Schroeder, D. M., Blankenship, D. D., Raney, R. K., Grima, C.
2015; 12 (3): 443-447
- **The distribution of basal water between Antarctic subglacial lakes from radar sounding** *Philosophical Transactions of the Royal Society A*
Young, D. A., Schroeder, D. M., Blankenship, D. D., Kempf, S. D., Quartini, E.
2015; 374 (2059)
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