

# Dustin M. Schroeder

Assistant Professor of Geophysics

Department of Geophysics, School of Earth, Energy, and Environmental Sciences  
397 Panama Mall, Mitchell Building 361, Stanford University, Stanford, CA 94305  
dustin.m.schroeder@stanford.edu, 440.567.8343

## EDUCATION

- 2014 Jackson School of Geosciences, University of Texas, Austin, TX  
Doctor of Philosophy (Ph.D.) in Geophysics
- 2007 Bucknell University, Lewisburg, PA  
Bachelor of Science in Electrical Engineering (B.S.E.E.), departmental honors, magna cum laude  
Bachelor of Arts (B.A.) in Physics, magna cum laude, minors in Mathematics and Philosophy

## PROFESSIONAL EXPERIENCE

- 2016 – present Assistant Professor of Geophysics, Stanford University
- 2017 – present Assistant Professor (by courtesy) of Electrical Engineering, Stanford University
- 2020 – present Center Fellow (by courtesy), Stanford Woods Institute for the Environment
- 2020 – present Faculty Affiliate, Stanford Institute for Human-Centered Artificial Intelligence
- 2021 – present Senior Member, Kavli Institute for Particle Astrophysics and Cosmology
- 2016 – 2020 Faculty Affiliate, Stanford Woods Institute for the Environment
- 2014 – 2016 Radar Systems Engineer, Jet Propulsion Laboratory, California Institute of Technology
- 2012 Graduate Researcher, Applied Physics Laboratory, Johns Hopkins University
- 2008 – 2014 Graduate Researcher, University of Texas Institute for Geophysics
- 2007 – 2008 Platform Hardware Engineer, Freescale Semiconductor

## SELECTED AWARDS

- 2021 Symposium Prize Paper Award, IEEE Geoscience and Remote Sensing Society
- 2020 Excellence in Teaching Award, Stanford School of Earth, Energy, and Environmental Sciences
- 2019 Senior Member, Institute of Electrical and Electronics Engineers
- 2018 CAREER Award, National Science Foundation
- 2018 LInC Fellow, Woods Institute, Stanford University
- 2016 Frederick E. Terman Fellow, Stanford University
- 2015 JPL Team Award, Europa Mission Instrument Proposal
- 2014 Best Graduate Student Paper, Jackson School of Geosciences
- 2014 National Science Olympiad Heart of Gold Award for Service to Science Education
- 2013 Best Ph.D. Student Speaker, Jackson School of Geosciences
- 2013 Jackson School of Geosciences Research Symposium, 1<sup>st</sup> Place Late-Career Ph.D.
- 2012 NASA Group Achievement Award: Operation Ice Bridge
- 2012 Gale White Fellowship, University of Texas Institute for Geophysics
- 2011 National Science Foundation Antarctic Service Medal
- 2010 The Friar Society, The University of Texas
- 2009 NSF Graduate Research Fellowship
- 2008 University of Texas Graduate School Recruiting Fellowship
- 2007 Phi Beta Kappa, Bucknell University
- 2006 Tau Beta Pi, Bucknell University

## PUBLICATIONS

### Journal Articles in Review (\* student advisee, \*\* postdoctoral advisee, senior author is 2<sup>nd</sup> after advisees)

- [84] A.O. Hager, M.J. Hoffman, S.F. Price, **D.M. Schroeder**, Extensive Channelized Drainage Modeled Beneath Thwaites Glacier, West Antarctica.
- [83] M.R. Siegfried, R.A. Venturelli, M.O. Patterson, W. Arnuk, T.D. Campbell, C. D. Gustafson, A.B. Michaud, B. Galton-Fenzi, M.B. Hausner, S.N. Holzschuh, B. Huber, K.D. Mankoff<sup>1</sup>, **D.M. Schroeder**, P. Summers, S. Tyler, S. P. Carter, H.A. Fricker, D.M. Harwood<sup>1</sup>, A. Leventer, B.E. Rosenheim, M.L. Skidmore, J.C. Priscu, the SALSA Science Team. The Life and Death of a Subglacial Lake in West Antarctica.
- [82] E.J. Dawson<sup>\*</sup>, **D.M. Schroeder**, W.Chu, E. Mantelli, H el ene Seroussi, Basal Thaw Could Drive Widespread Mass Loss from the Antarctic Ice Sheet.
- [81] R. Culberg<sup>\*</sup>, **D.M. Schroeder**, G. Steinbr uggen<sup>\*\*</sup>. Double Ridge Formation Over Shallow Water Sills.
- [80] **D.M. Schroeder**, A. Broome<sup>\*</sup>, A. Conger<sup>\*</sup>, A. Lynch<sup>\*</sup>, E.J. MacKie<sup>\*</sup>, A. Tarzona<sup>\*</sup>. Radiometric Analysis of Digitized Z-Scope Records in Archival Radar Sounding Film.
- [79] J.Z. Miller, R. Culberg<sup>\*</sup>, D.G. Long, C.A. Schuman, P.K. Munneke, M.R. Brodzik, **D.M. Schroeder**, M.J. Brodzik. An Empirical Algorithm to Map Perennial Firn Aquifers, Ice Slabs, and Perched Firn Aquifers within the Greenland Ice Sheet using Satellite L-band Microwave Radiometry.
- [78] G. Steinbr uggen<sup>\*\*</sup>, M. Haynes, **D.M. Schroeder**, K.M. Scanlan, A. Stark, D.A. Young, C. Grima, S. Kempf, G. Ng. D. Buhl, J.R.C. Voigt, T. Roatsch, D.D. Blankenship. Altimetry Measurements from Planetary Radar Sounders and Application to SHARAD on Mars.
- [77] G. Steinbr uggen<sup>\*\*</sup>, **D.M. Schroeder**, D. Castelletti<sup>\*\*</sup>, S. Turner, R. Jensen, G.W. Paterson. Polarimetric Bistatic Synthetic Aperture Radar Observations of the Moon Using Mini-RF.
- [76] N.L. Bienert<sup>\*</sup>, **D.M. Schroeder**, S.T. Peters<sup>\*</sup>, E.J. MacKie<sup>\*</sup>, E.J. Dawson<sup>\*</sup>, M.R. Siegfried<sup>\*\*</sup>, P. Christoffersen. Direct Path Synchronized Bistatic Radar for Long Offset Glacial Temperature Tomography.
- [75] T.M. Jordan<sup>\*\*</sup>, C. Martin, A.M. Brisbourne, **D.M. Schroeder**, A.M. Smith. Radar Characterization of Ice Crystal Orientation Fabric and Anisotropic Rheology within an Antarctic Ice Stream.

### Published Journal Articles (\* student advisee, \*\* postdoctoral advisee, senior author is 2<sup>nd</sup> after advisees)

- [74] M.G.P. Cavitte, D.A. Young, R. Mulvaney, C. Ritz, J.S. Greenbaum, G. Ng, S.D. Kempf, E. Quartini, G.R. Muldoon, J.D. Paden, M. Frezzotti, J.L. Roberts, C.R. Tozer, **D.M. Schroeder**, and D.D. Blankenship, A Detailed Radiostratigraphic Data Set for the Central East Antarctic Plateau Spanning the Last Half Million Years, *Earth System Science Data*, [doi.org/10.5194/essd-2020-393](https://doi.org/10.5194/essd-2020-393)
- [73] W. Chu<sup>\*\*</sup>, A. Hilger<sup>\*</sup>, R. Culberg<sup>\*</sup>, **D.M. Schroeder**, T.M. Jordan<sup>\*\*</sup>, H. Seroussi, D.A. Young, D.D. Blankenship, D.G. Vaughan. Multi-System Synthesis of Radar Sounding Observations of the Amundsen Sea Sector from the 2004-2005 Field Season, *Journal of Geophysical Research*, [doi.org/10.1029/2021JF006296](https://doi.org/10.1029/2021JF006296)
- [72] **D.M. Schroeder**, G. Steinbr uggen<sup>\*\*</sup>, Alternatives to Liquid Water Beneath the South Polar Ice Cap of Mars, *Geophysical Research Letters*, 2021, [doi.org/10.1029/2021GL095912](https://doi.org/10.1029/2021GL095912)
- [71] T.M. Roberts, A. Romero-Wolf, L. Bruzzone, L. Carrer, S.T. Peters, **D.M. Schroeder**. Conditioning Jovian Burst Signals for Passive Sounding Applications, *IEEE Transactions on Geoscience and Remote Sensing*, 2021, [doi.org/10.1109/TGRS.2021.3109106](https://doi.org/10.1109/TGRS.2021.3109106)

- [70] A. Broome<sup>\*</sup>, **D.M. Schroeder**. A Radiometrically Precise Multi-frequency Ice-Penetrating Radar Architecture, *IEEE Transactions on Geoscience and Remote Sensing*, 2021, [doi.org/10.1109/TGRS.2021.3099801](https://doi.org/10.1109/TGRS.2021.3099801)
- [69] S.T. Peters<sup>\*</sup>, **D.M. Schroeder**, W. Chu<sup>\*\*</sup>, D. Castelletti<sup>\*\*</sup>, M.S. Haynes, A. Romero-Wolf. Glaciological Monitoring Using the Sun as a Radio Source for Echo Detection, *Geophysical Research Letters*, 2021, [doi.org/10.1029/2021GL092450](https://doi.org/10.1029/2021GL092450)
- [68] R. Culberg<sup>\*</sup>, **D.M. Schroeder**, W. Chu<sup>\*\*</sup>. Extreme Melt Season Ice Layers Reduce Firn Permeability Across Greenland, *Nature Communications*, 2021, [doi.org/10.1038/s41467-021-22656-5](https://doi.org/10.1038/s41467-021-22656-5)
- [67] T.J. Young, **D.M. Schroeder**, T.M. Jordan, P. Christoffersen, S.M. Tulaczyk, R. Culberg<sup>\*</sup>, N.L. Bienert<sup>\*</sup>. 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*, 2021, [doi.org/10.1029/2020JF006023](https://doi.org/10.1029/2020JF006023)
- [66] J.T. Bessette<sup>\*</sup>, **D.M. Schroeder**, T.M. Jordan<sup>\*\*</sup>, J.A. MacGregor. Radar-Sounding Characterization of the Subglacial Groundwater Table Beneath Hiawatha Glacier, Greenland, *Geophysical Research Letters*, 2021, [doi.org/10.1029/2020GL091432](https://doi.org/10.1029/2020GL091432)
- [65] T.J. Young, C. Martin, P. Christoffersen, **D.M. Schroeder**, S. Tulaczyk, E. Dawson<sup>\*</sup>. Rapid and Accurate Polarimetric Radar Measurements of Ice Crystal Fabric Orientation at the Western Antarctic Ice Sheet (WAIS) Divide Deep Ice Core Site, *The Cryosphere*, 2021, [doi.org/10.5194/tc-15-4117-2021](https://doi.org/10.5194/tc-15-4117-2021)
- [64] S.T. Peters<sup>\*</sup>, **D.M. Schroeder**, M.S. Haynes, A. Romero-Wolf. Passive Synthetic Aperture Radar Imaging Using Radio-Astronomical Sources, *IEEE Transactions on Geoscience and Remote Sensing*, 2021, [doi.org/10.1109/TGRS.2021.3050429](https://doi.org/10.1109/TGRS.2021.3050429)
- [63] G. Steinbrügge<sup>\*\*</sup>, M. Dumberry, A. Rivoldini, G. Schubert, H. Cao, **D.M. Schroeder**, K.M. Soderlund. Challenges on Mercury's Interior Structure Posed by the New Measurements of its Obliquity and Tides, *Geophysical Research Letters*, 2021, [doi.org/10.1029/2020GL089895](https://doi.org/10.1029/2020GL089895)
- [62] E.J. MacKie<sup>\*</sup>, **D.M. Schroeder**, C. Hou, Z. Yin, J. Caers. Stochastic Modeling of Subglacial Topography Exposes Uncertainty in Water Routing at Jakobshavn Glacier, *Journal of Glaciology* 2021, [doi.org/10.1017/jog.2020.84](https://doi.org/10.1017/jog.2020.84)
- [61] G. Steinbrügge<sup>\*\*</sup>, J.R.C. Voigt, N.S. Wolfenbarger, C.W. Hamilton, K.M. Soderlund, D.A. Young, D.D. Blankenship, S.D. Vance, **D.M. Schroeder**. Brine Migration and Impact-Induced Cryovolcanism on Europa, *Geophysical Research Letters*, 2020, [doi.org/10.1029/2020GL090797](https://doi.org/10.1029/2020GL090797)
- [60] **D.M. Schroeder**, R.G. Bingham, D.D. Blankenship, K. Christianson, O. Eisen, G.E. Flowers, N.B. Karlsson, M.R. Koutnick, J.D. Paden, M.J. Siegert. Five Decades of Radioglaciology, *Annals of Glaciology*, 2020, [doi.org/10.1017/aog.2020.11](https://doi.org/10.1017/aog.2020.11)
- [59] L. Carrer, **D.M. Schroeder**, A. Romero-Wolf, P.A. Ries, L. Bruzzone. Analysis of Temporal and Structural Characteristics of Jovian Radio Emissions for Passive Radar Sounding of Jupiter's Icy Moons, *IEEE Transactions on Geoscience and Remote Sensing*, 2020, [doi.org/10.1109/TGRS.2020.3023249](https://doi.org/10.1109/TGRS.2020.3023249)
- [58] R. Delf, **D.M. Schroeder**, A. Curtis, A. Giannopoulos, R.G. Bingham. A Comparison of Automated Approaches to Extracting Englacial-Layer Geometry Across Ice Sheets, *Annals of Glaciology*, 2020, [doi.org/10.1017/aog.2020.42](https://doi.org/10.1017/aog.2020.42)
- [57] S.T. Peters<sup>\*</sup>, **D.M. Schroeder**, A. Romero-Wolf. Passive Radio Sounding to Correct for Europa's Ionospheric Distortion of VHF Signals, *Planetary and Space Science*, 2020, [doi.org/10.1016/j.pss.2020.104925](https://doi.org/10.1016/j.pss.2020.104925)

- [56] O. Bartlett, S.J. Palmer, **D.M. Schroeder**, E.J. MacKie\*, T.T. Barrows, S.L. Cornford, A.G.C. Graham. Geospatial Simulations of Airborne Ice-Penetrating Radar Surveying Reveal Elevation Under-Measurement Bias for Ice Sheet Bed Topography, *Annals of Glaciology*, 2020, [doi.org/10.1017/aog.2020.35](https://doi.org/10.1017/aog.2020.35)
- [55] R. Culberg\*, **D.M. Schroeder**. Near-Surface Clutter Constraints on Orbital Radar Sounder Design and Performance, *IEEE Transactions on Geoscience and Remote Sensing*, 2020, [doi.org/10.1109/TGRS.2020.2976666](https://doi.org/10.1109/TGRS.2020.2976666)
- [54] M. Goldberg\*, **D.M. Schroeder**, D. Castelletti\*\*, E. Mantelli\*\*, N. Ross, M.J. Siegert. Automated Detection and Characterization of Antarctic Basal Units Using Radar Sounding Data: Demonstration in Institute Ice Stream, West Antarctica, *Annals of Glaciology*, 2020, [doi.org/10.1017/aog.2020.27](https://doi.org/10.1017/aog.2020.27)
- [53] E. J. MacKie\*, **D. M. Schroeder**, J. Caers, M. R. Siegfried\*\*, C. Scheidt. Antarctic Topographic Realizations and Geostatistical Modeling Used to Map Subglacial Lakes, *Journal of Geophysical Research: Earth Surface*, 2020, [doi.org/10.1029/2019JF005420](https://doi.org/10.1029/2019JF005420)
- [52] I.M. Shoemaker, A. Kusenko, P.K. Munneke, A. Romero-Wolf, **D.M. Schroeder**, M.J. Siegert. Reflections on the Anomalous ANITA Events: The Antarctic Subsurface as a Possible Explanation, *Annals of Glaciology*, 2020, [doi.org/10.1017/aog.2020.19](https://doi.org/10.1017/aog.2020.19)
- [51] D. Castelletti\*\*, **D.M. Schroeder**, T.M. Jordan\*\*, D.A. Young. Permanent Scatterers in Repeat-pass Airborne VHF Radar Sounder for Layer Velocity Estimation, *IEEE Geoscience and Remote Sensing Letters*, 2020, [doi.org/10.1109/LGRS.2020.3007514](https://doi.org/10.1109/LGRS.2020.3007514)
- [50] T.M. Jordan\*\*, **D.M. Schroeder**, C.W. Elsworth\*, J. Dall, M.R. Siegfried\*\*. Estimation of Ice Fabric within the Whillans Ice Stream Using Polarimetric Phase-Sensitive Radar Sounding, *Annals of Glaciology*, 2020, [doi.org/10.1017/aog.2020.6](https://doi.org/10.1017/aog.2020.6)
- [49] G. Steinbrügge\*\*, J.R.C. Voight, **D.M. Schroeder**, A. Stark, M.S. Haynes, K.M. Scanlan, C.W. Hamilton, D.A. Young, H. Hussman, C. Grima, D.D. Blankenship. The Surface Roughness of Europa derived from Galileo Stereo Images, *Icarus*, 2020, [doi.org/10.1016/j.icarus.2020.113669](https://doi.org/10.1016/j.icarus.2020.113669)
- [48] C. Ellworth\*, **D.M. Schroeder**, M.R. Siegfried\*\*. Interpreting Englacial Layer Deformation in the Presence of Complex Ice Flow History with Synthetic Radargrams, *Annals of Glaciology*, 2020, [doi.org/10.1017/aog.2019.41](https://doi.org/10.1017/aog.2019.41)
- [47] C. Culha\*, **D.M. Schroeder**, T.M. Jordan\*\*, M. Haynes. Assessing the Detectability of Europa's Eutectic Zone Using Radar Sounding, *Icarus*, 2020, [doi.org/10.1016/j.icarus.2019.113578](https://doi.org/10.1016/j.icarus.2019.113578)
- [46] **D.M. Schroeder**, E.M. MacKie\*, T.T. Creyts, J.B. Anderson. A Subglacial Hydrologic Drainage Hypothesis for Silt Sorting and Deposition During Retreat in Pine Island Bay, *Annals of Glaciology*, 2019, [doi.org/10.1017/aog.2019.44](https://doi.org/10.1017/aog.2019.44)
- [45] K. Winter, J. Woodward, N. Ross, S.A. Dunning, A.S. Hein, M.J. Westoby, R. Culberg\*, S. Marrero, **D.M. Schroeder**, S.M. Marrero, D.M. Schroeder, D.E. Sugden, M.J. Siegert. Radar-Detected Englacial Debris in the West Antarctic Ice Sheet, *Geophysical Research Letters*, 2019, [doi.org/10.1029/2019GL084012](https://doi.org/10.1029/2019GL084012)
- [44] M.A. Cooper, T.M. Jordan\*\*, **D.M. Schroeder**, M.J. Siegert, C.N. Williams, J.L. Bamber. Subglacial Roughness of the Greenland Ice Sheet: Relationship with Contemporary Ice Velocity and Geology, *The Cryosphere*, 2019, [doi.org/10.5194/tc-13-3093-2019](https://doi.org/10.5194/tc-13-3093-2019)

- [43] **D.M. Schroeder**, J.A. Dowdeswell, M.J. Siegert, R.G. Bingham, W. Chu \*\*, E.J. MacKie \*, M.R. Siegfried \*\*, K.I. Vega \*, J.R. Emmons, K. Winstein. Multi-Decadal Observations of the Antarctic Ice Sheet from Restored Analog Radar Records, *Proceedings of the National Academy of Sciences*, 2019, [doi.org/10.1073/pnas.1821646116](https://doi.org/10.1073/pnas.1821646116)
- [42] D. Castelletti \*, **D.M. Schroeder**, E. Mantelli \*\*, A.M. Hilger \*, Layer Optimized SAR Processing and Slope Estimation in Radar Sounder Data. *Journal of Glaciology*, 2019, [doi.org/10.1017/jog.2019.72](https://doi.org/10.1017/jog.2019.72)
- [41] M.C. Kennicutt, D. Bromwich, D. Liggett, B. Njåstad, L. Peck, S.R. Rintoul ... **D.M. Schroeder** ... A.T. Weatherwax, H. Yang, S.L. Chown. Sustained Antarctic Research: A 21st Century Imperative, *One Earth*, 2019, [doi.org/10.1016/j.oneear.2019.08.014](https://doi.org/10.1016/j.oneear.2019.08.014)
- [40] C. Grima, I. Koch, J.S. Greenbaum, K.S. Soderlund, D.D. Blankenship, D.A. Young, **D.M. Schroeder**, S. Fitzsimmons. Surface and Basal Boundary Conditions at the Southern McMurdo and Ross Ice Shelves, Antarctica, *Journal of Glaciology*, 2019, [doi.org/10.1017/jog.2019.44](https://doi.org/10.1017/jog.2019.44)
- [39] T.M. Jordan \*\*, **D.M. Schroeder**, D. Castelletti \*\*, J. Li, J. Dall. 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*, 2019, [doi.org/10.1109/TGRS.2019.2921980](https://doi.org/10.1109/TGRS.2019.2921980)
- [38] R. Michaelides \*, **D.M. Schroeder**. Doppler-Based Discrimination of Radar Sounder Target Scattering Properties: A Case Study of Resolving Subsurface Water Geometry in Europa's Icy Shell, *Icarus*, 2019, [doi.org/10.1016/j.icarus.2019.02.037](https://doi.org/10.1016/j.icarus.2019.02.037)
- [37] K. Wang, W.L. Ellsworth, G.C. Beroza, G. Williams, M. Zhang, **D.M. Schroeder**, J. Rubinstein. Seismology with Dark Data: Image-Based Processing of Analog Records Using Machine Learning for the Rangely Earthquake Control Experiment, *Seismological Research Letters*, 2019, [doi.org/10.1785/0220180298](https://doi.org/10.1785/0220180298)
- [36] W. Chu \*\*, **D.M. Schroeder**, M.R. Siegfried \*\*. Retrieval of Englacial Firn Aquifer Thickness from Ice-Penetrating Radar Sounding in Southeastern Greenland, *Geophysical Research Letters*, 2018, [doi.org/10.1029/2018GL079751](https://doi.org/10.1029/2018GL079751)
- [35] A.K. Kendrick \*, **D.M. Schroeder**, W. Chu \*\*, T.J. Young, P. Christoffersen, S.H. Doyle, J.E. Box, A. Hubbard, B. Hubbard, P.V. Brennan, K.W. Nicholls, L.B. Lok. Surface Meltwater Impounded by Seasonal Englacial Storage in West Greenland, *Geophysical Research Letters*, 2018, [doi.org/10.1029/2018GL079787](https://doi.org/10.1029/2018GL079787)
- [34] T.M. Jordan \*\*, C.N. Williams, **D.M. Schroeder**, Y.M. Martos, M.A. Cooper, M.J. Siegert, J.D. Paden, P. Huybrechts, J.L. Bamber. A Constraint Upon the Basal Water Distribution and Basal Thermal State of the Greenland Ice Sheet from Radar Bed-Echoes, *The Cryosphere*, 2018, [doi.org/10.5194/tc-12-2831-2018](https://doi.org/10.5194/tc-12-2831-2018)
- [33] S.T. Peters \*, **D.M. Schroeder**, D. Castelletti \*\*, M. Haynes, A. Romero-Wolf. In-Situ Demonstration of a Passive Radio Sounding Approach Using the Sun for Echo Detection, *IEEE Transactions in Geoscience and Remote Sensing*, 2018, [doi.org/10.1109/TGRS.2018.2850662](https://doi.org/10.1109/TGRS.2018.2850662)
- [32] T.J. Young, **D.M. Schroeder**, P. Christoffersen, L. Lok, K.W. Nicholls, P.V. Brennan, S.H. Doyle, B. Hubbard, A. Hubbard. Resolving the Internal and Basal Geometry of Ice Masses Using Imaging Phase-Sensitive Radar, *Journal of Glaciology*, 2018, [doi.org/10.1017/jog.2018.54](https://doi.org/10.1017/jog.2018.54)
- [31] M.S. Haynes, E. Chapin, **D.M. Schroeder**. Geometric Power Fall-off in Radar Sounding, *IEEE Transactions in Geoscience and Remote Sensing*, 2018, [doi.org/10.1109/TGRS.2018.2840511](https://doi.org/10.1109/TGRS.2018.2840511)

- [30] W. Chu \*\*, **D.M. Schroeder**, H. Seroussi, T. Creyts, R.E. Bell. Complex Basal Thermal Transition Near the Onset of Petermann Glacier, Greenland, *Journal of Geophysical Research: Earth Surface*, 2018, [doi.org/10.1029/2017JF004561](https://doi.org/10.1029/2017JF004561)
- [29] A. Rutishauser, D.D. Blankenship, M. Sharp, M.L. Skidmore, J.S. Greenbaum, C. Grima, **D.M. Schroeder**, J.A. Dowdeswell, D.A. Young. Discovery of a Hypersaline Subglacial Lake Complex Beneath Devon Ice Cap, Canadian Arctic, *Science Advances*, 2018, [doi.org/10.1126/sciadv.aar4353](https://doi.org/10.1126/sciadv.aar4353)
- [28] G. Steinbrügge, **D.M. Schroeder**, M.S. Haynes, H. Hussmann, C. Grima, D.D. Blankenship. Assessing the Potential for Measuring Europa's Tidal Love Number  $h_2$  Using Radar Sounder and Topographic Imager Data, *Earth and Planetary Science Letters*, 2018, [doi.org/10.1016/j.epsl.2017.11.028](https://doi.org/10.1016/j.epsl.2017.11.028)
- [27] B.A. Campbell, **D.M. Schroeder**, J.L. Whitten. Mars Radar Clutter and Surface Roughness Characteristics from MARSIS Data, *Icarus*, 2018, [doi.org/10.1016/j.icarus.2017.07.011](https://doi.org/10.1016/j.icarus.2017.07.011)
- [26] **D.M. Schroeder**, A.M. Hilger \*, J.D. Paden, D.A. Young, H.F.J. Corr. Ocean Access Beneath the Southwest Tributary of Pine Island Glacier, West Antarctica, *Annals of Glaciology*, 2018, [doi.org/10.1017/aog.2017.45](https://doi.org/10.1017/aog.2017.45)
- [25] D. Castelletti, **D.M. Schroeder**, S. Hensley, C. Grima, G. Ng, D.A. Young, Y. Gim, L Bruzzone, A. Moussessian, D.D. Blankenship. An Interferometric Approach to Cross-Track Clutter Detection in Two-Channel VHF Radar Sounders, *IEEE Transactions on Geoscience and Remote Sensing*, 2017, [doi.org/10.1109/TGRS.2017.2721433](https://doi.org/10.1109/TGRS.2017.2721433)
- [24] T.M. Jordan, M.A. Cooper, **D.M. Schroeder**, C.N. Williams, J.D. Paden, M.J. Siegert, J.L. Bamber. Self-Affine Subglacial Roughness: Consequences for Radar Scattering and Basal Water Discrimination in Northern Greenland, *The Cryosphere*, 2017, [doi.org/10.5194/tc-11-1247-2017](https://doi.org/10.5194/tc-11-1247-2017)
- [23] K. Kalousova, **D.M. Schroeder**, K. Soderlund. Radar Attenuation in Europa's Ice Shell: Obstacles and Opportunities for Constraining the Shell Thickness and its Thermal Structure, *Journal of Geophysical Research: Planets*, 2017, [doi.org/10.1002/2016JE005110](https://doi.org/10.1002/2016JE005110)
- [22] Y. Aglyamov \*, **D.M. Schroeder**, S.D. Vance. Bright Prospects for Radar Detection of Europa's Ocean, *Icarus*, 2017, [doi.org/10.1016/j.icarus.2016.08.014](https://doi.org/10.1016/j.icarus.2016.08.014)
- [21] W. Chu, **D.M. Schroeder**, H. Seroussi, T. Creyts, S. J. Palmer, R. E. Bell. Extensive Winter Subglacial Water Storage Beneath the Greenland Ice Sheet, *Geophysical Research Letters*, 2016, [doi.org/10.1002/2016GL071538](https://doi.org/10.1002/2016GL071538)
- [20] **D.M. Schroeder**, H. Seroussi, W. Chu, D.A. Young. Adaptively Constraining Radar Attenuation and Temperature Across the Thwaites Glacier Catchment Using Bed Echoes, *Journal of Glaciology*, 2016, [doi.org/10.1017/jog.2016.100](https://doi.org/10.1017/jog.2016.100)
- [19] A. Khazendar, E. Rignot, **D.M. Schroeder**, H. Seroussi, M.P. Schodlok, B. Scheuchl, J. Mouginot, T. Sutterley, I. Velicogna. Rapid Submarine Ice Melting in the Grounding Zones of Ice Shelves in West Antarctica, *Nature Communications*, 2016, [doi: 10.1038/ncomms13243](https://doi.org/10.1038/ncomms13243)
- [18] **D.M. Schroeder**, A. Romero-Wolf, L. Carrer, C. Grima, B.A. Campbell, W. Kofman, L. Bruzzone, D.D. Blankenship. Assessing the Potential for Passive Radio Sounding of Europa and Ganymede with RIME and REASON, *Planetary and Space Science*, 2016, [doi.org/10.1016/j.pss.2016.10.007](https://doi.org/10.1016/j.pss.2016.10.007)
- [17] A. Romero-Wolf, **D.M. Schroeder**, P. Ries, B.G. Bills, C. Naudet, B.R. Scott, R. Treuhaft, S. Vance. Prospects of Passive Radio Detection of a Subsurface Ocean on Europa with a Lander, *Planetary and Space Science*, 2016, [doi.org/10.1016/j.pss.2016.06.010](https://doi.org/10.1016/j.pss.2016.06.010)

- [16] M.J. Siegert, N. Ross, J. Li, **D.M. Schroeder**, D. Rippin, D. Ashmore, R. Bingham, P. Gogineni. Subglacial Controls on the Flow of Institute Ice Stream, West Antarctica, *Annals of Glaciology*, 2016, [doi.org/10.1017/aog.2016.17](https://doi.org/10.1017/aog.2016.17)
- [15] M.G.P. Cavitte, D.D. Blankenship, D.A. Young, **D.M. Schroeder**, F. Parrenin, E. LeMeur, J.A. MacGregor, M.J. Siegert. Deep Radiostratigraphy of the East Antarctic Plateau: Connecting the Dome C and Vostok Ice Core Sites, *Journal of Glaciology*, 2016, [doi.org/10.1017/jog.2016.11](https://doi.org/10.1017/jog.2016.11)
- [14] **D.M. Schroeder**, C. Grima, D.D. Blankenship. Evidence for Variable Grounding-Zone and Shear-Margin Basal Conditions Across Thwaites Glacier, West Antarctica, *Geophysics*, 2016, [doi.org/10.1190/geo2015-0122.1](https://doi.org/10.1190/geo2015-0122.1)
- [13] D.A. Young, **D.M. Schroeder**, D.D. Blankenship, S.D. Kempf, E. Quartini. The Distribution of Basal Water Between Antarctic Subglacial Lakes from Radar Sounding, *Philosophical Transactions of the Royal Society of London A: Mathematical, Physical and Engineering Sciences*, 2016 [doi.org/10.1098/rsta.2014.0297](https://doi.org/10.1098/rsta.2014.0297)
- [12] C. Grima, D.D. Blankenship, **D.M. Schroeder**. Radar Signal Propagation Through the Ionosphere of Europa, *Planetary and Space Science*, 2015, [doi.org/10.1016/j.pss.2015.08.017](https://doi.org/10.1016/j.pss.2015.08.017)
- [11] J.S. Greenbaum, D.D. Blankenship, D.A. Young, A.R.A. Aitken, B. Legresy, **D.M. Schroeder**, T.G. Richter, J.L. Roberts, R.C. Warner, T.D. van Ommen, M.J. Siegert. Ocean Access to a Cavity Beneath Totten Glacier in East Antarctica, *Nature Geoscience*, 2015, [doi.org/10.1038/ngeo2388](https://doi.org/10.1038/ngeo2388)
- [10] **D.M. Schroeder**, D.D. Blankenship, R.K. Raney, C. Grima. Estimating Subglacial Water Geometry Radar Bed Echo Specularity: Application to Thwaites Glacier, West Antarctica. *IEEE Geoscience and Remote Sensing Letters*, 2015, [doi.org/10.1109/LGRS.2014.2337878](https://doi.org/10.1109/LGRS.2014.2337878)
- [9] **D.M. Schroeder**, D.D. Blankenship, D.A. Young, A.E. Kirshner, J.B. Anderson. Airborne Radar Sounding Evidence for Deformable Sediments and Outcropping Bedrock Beneath Thwaites Glacier, West Antarctica, *Geophysical Research Letters*, 2014, [doi.org/10.1002/2014GL061645](https://doi.org/10.1002/2014GL061645)
- [8] C. Grima, D.D. Blankenship, D.A. Young, **D.M. Schroeder**. Surface Slope Control on Firn Density at Thwaites Glacier, West Antarctica: Results from Airborne Radar Sounding, *Geophysical Research Letters*, 2014, [doi.org/10.1002/2014GL061635](https://doi.org/10.1002/2014GL061635)
- [7] **D.M. Schroeder**, D.D. Blankenship, D.A. Young, E. Quartini. Evidence for Elevated and Spatially Variable Geothermal Flux Beneath the West Antarctic Ice Sheet, *Proceedings of the National Academy of Sciences*, 2014, [doi.org/10.1073/pnas.1405184111](https://doi.org/10.1073/pnas.1405184111)
- [6] C. Grima, **D.M. Schroeder**, D.D. Blankenship, D.A. Young. Planetary Landing-Zone Reconnaissance Using Ice-Penetrating Radar Data: Concept Validation in Antarctica, *Planetary and Space Science*, 2014, [doi.org/10.1016/j.pss.2014.07.018](https://doi.org/10.1016/j.pss.2014.07.018)
- [5] A.E. Witus, C.M. Branecky, J.B. Anderson, W. Szczucinski, **D.M. Schroeder**, D.D. Blankenship, M. Jakobsson. Meltwater Intensive Glacial Retreat in Polar Environments and Investigation of Associated Sediments: Example from Pine Island Bay, West Antarctica, *Quaternary Science Reviews*, 2014, [doi.org/10.1016/j.quascirev.2013.11.021](https://doi.org/10.1016/j.quascirev.2013.11.021)
- [4] **D.M. Schroeder**, D.D. Blankenship, D.A. Young. Evidence for a Water System Transition Beneath Thwaites Glacier, West Antarctica, *Proceedings of the National Academy of Sciences*, 2013, [doi.org/10.1073/pnas.1302828110](https://doi.org/10.1073/pnas.1302828110)
- [3] J.A. MacGregor, G.A. Catania, H.B. Conway, **D.M. Schroeder**, I.R. Joughin, D.A. Young, S.D. Kempf, D.D. Blankenship. Weak Bed Control of the Eastern Shear Margin of Thwaites Glacier, West Antarctica, *Journal of Glaciology*, 2013, [doi.org/10.3189/2013JG13J050](https://doi.org/10.3189/2013JG13J050)

- [2] A.P. Wright, D.A. Young, J.L. Roberts, **D.M. Schroeder**, J.L. Bamber, J.A. Dowdeswell, N.W. Young, A.M. Le Brocq, R.C. Warner, A.J. Payne, D.D. Blankenship, T.D. van Ommen, M.J. Siegert. Evidence of a Hydrological Connection Between the Ice Divide and Ice Sheet Margin in the Aurora Subglacial Basin, East Antarctica, *Journal of Geophysical Research: Earth Surface*, 2012 [doi.org/10.1029/2011JF002066](https://doi.org/10.1029/2011JF002066)
- [1] D.A. Young, A.P. Wright, J.L. Roberts, R.C. Warner, N.W. Young, J.S. Greenbaum, **D.M. Schroeder**, D.E. Sugden, J.W. Holt, D.D. Blankenship, T. Van Ommen, M.J. Siegert. A Dynamic Early East Antarctic Ice Sheet Suggested by Ice-Covered Fjord Landscapes, *Nature*, 2011, [doi.org/10.1038/nature10114](https://doi.org/10.1038/nature10114)

**Refereed Conference Papers** (\* student advisee, \*\* postdoctoral advisee, senior author is 2<sup>nd</sup> after advisees)

- [C20] M.R. Siegfried, **D.M. Schroeder**, W. Sauthoff, Investigating a Large Subglacial Lake Drainage in East Antarctica with Ice-Penetrating Radar, *First International Meeting for Applied Geoscience & Energy Expanded Abstracts*, 2021, [doi.org/10.1190/segam2021-3582777.1](https://doi.org/10.1190/segam2021-3582777.1)
- [C19] **D.M. Schroeder**, N.L. Bienert\*, R. Culberg\*, E.J. MacKie\*, T.O. Teisberg\*, W. Chu, D.A. Young. Glaciological Constraints on Link Budgets for Orbital Radar Sounding of Earth's Ice Sheets, *IEEE Symposium on Geoscience & Remote Sensing*, 2021, [doi.org/10.1109/IGARSS47720.2021.9553237](https://doi.org/10.1109/IGARSS47720.2021.9553237)
- [C18] S.T. Peters\*, **D.M. Schroeder**, A. Romero-Wolf. Adaptive Single-Channel Direct Signal Suppression for Ambient Noise Passive Radar Sounding, *IEEE Symposium on Geoscience & Remote Sensing*, 2021, [doi.org/10.1109/IGARSS47720.2021.9554427](https://doi.org/10.1109/IGARSS47720.2021.9554427)
- [C17] R. Culberg\*, **D.M. Schroeder**. Simulations of Englacial Radiostratigraphy from Ice Core Measurements, *IEEE Symposium on Geoscience & Remote Sensing*, 2021, [doi.org/10.1109/IGARSS47720.2021.9553760](https://doi.org/10.1109/IGARSS47720.2021.9553760)
- [C16] A. Broome\*, **D.M. Schroeder**, J. Johnson. Measuring Englacial Temperatures with a Combined Radar-Radiometer, *IEEE Symposium on Geoscience & Remote Sensing*, 2021, [doi.org/10.1109/IGARSS47720.2021.9554375](https://doi.org/10.1109/IGARSS47720.2021.9554375)
- [C15] T.O. Teisberg\*, **D.M. Schroeder**, E.J. MacKie\*. A Machine Learning Approach to Mass-Conserving Ice Thickness Interpolation, *IEEE Symposium on Geoscience & Remote Sensing*, 2021, [doi.org/10.1109/IGARSS47720.2021.9555002](https://doi.org/10.1109/IGARSS47720.2021.9555002) (**2nd Place, IGARSS Best Student Paper Competition**)
- [C14] E.J. MacKie\*, **D.M. Schroeder**, G. Steinbrügge\*\*, R. Culberg\*. Quantifying Spatial Relationships in Ice Penetrating Radar Measurement Uncertainty Through Clutter Simulation, *IEEE Symposium on Geoscience & Remote Sensing*, 2021, [doi.org/10.1109/IGARSS47720.2021.9553045](https://doi.org/10.1109/IGARSS47720.2021.9553045) (**Finalist, IGARSS Best Student Paper Competition**)
- [C13] P.T. Summer\*, **D.M. Schroeder**, M.R. Siegfried. Constraining Ice Sheet Basal Sliding and Horizontal Velocity Profiles Using a Stationary Phase-Sensitive Radar Sounder, *IEEE Symposium on Geoscience & Remote Sensing*, 2021, [doi.org/10.1109/IGARSS47720.2021.9554535](https://doi.org/10.1109/IGARSS47720.2021.9554535)
- [C12] **D.M. Schroeder**. Pathways to Multitemporal Radar Sounding in Terrestrial Glaciology, *IEEE Symposium on Geoscience and Remote Sensing*, 2020, [doi.org/10.1109/IGARSS39084.2020.9323765](https://doi.org/10.1109/IGARSS39084.2020.9323765)
- [C11] R. Culberg\*, **D.M. Schroeder**. Strong Potential for the Detection of Refrozen Ice Layers in Greenland's Firn by Airborne Radar Sounding, *IEEE Symposium on Geoscience & Remote Sensing*, 2020, (**Mikio Takagi Student Prize, 1st Place IGARSS Best Student Paper**) [doi.org/10.1109/IGARSS39084.2020.9324268](https://doi.org/10.1109/IGARSS39084.2020.9324268)
- [C10] A. Broome\*, **D.M. Schroeder**. A Narrowband Multi-Frequency Radar Sounding Architecture to Correct Subsurface Interface Roughness Effects, *IEEE Symposium on Geoscience and Remote Sensing*, 2020, [doi.org/10.1109/IGARSS39084.2020.9324683](https://doi.org/10.1109/IGARSS39084.2020.9324683)



- [C9] E.J. MacKie<sup>\*</sup>, **D.M. Schroeder**. Geostatistically Simulating Subglacial Topography with Synthetic Training Data, *IEEE Symposium on Geoscience and Remote Sensing*, 2020, [doi.org/10.1109/IGARSS39084.2020.9324563](https://doi.org/10.1109/IGARSS39084.2020.9324563)
- [C8] N. Bienert<sup>\*</sup>, **D.M. Schroeder**, S.T. Peters<sup>\*</sup>, M.R. Siegfried<sup>\*\*</sup>. Processing-Based Synchronization Approach for Bistatic Radar Glacial Tomography, *IEEE Symposium on Geoscience and Remote Sensing*, 2020, (**Symposium Prize Paper Award, Best Paper IGARSS 2020**), [doi.org/10.1109/IGARSS39084.2020.9323969](https://doi.org/10.1109/IGARSS39084.2020.9323969)
- [C7] S.T. Peters<sup>\*</sup>, **D.M. Schroeder**, D. Castelletti<sup>\*</sup>, M. Haynes, A. Romero-Wolf. Two-Dimensional Image Formation with Passive Radar Using the Sun for Echo Detection, *IEEE Geoscience and Remote Sensing Symposium*, 2019, (**2<sup>nd</sup> Place, IGARSS Best Student Paper**), [doi.org/10.1109/IGARSS.2019.8897880](https://doi.org/10.1109/IGARSS.2019.8897880)
- [C6] R. Culberg<sup>\*</sup>, **D.M. Schroeder**. Radar Scattering in Firn and its Implications for VHF/UHF Orbital Ice Sounding, *IEEE Geoscience and Remote Sensing Symposium*, 2019, [doi.org/10.1109/IGARSS.2019.8898991](https://doi.org/10.1109/IGARSS.2019.8898991)
- [C5] **D.M. Schroeder**, D. Castelletti<sup>\*\*</sup>, I Pena<sup>\*</sup>. Revisiting the Limits of Azimuth Processing Gain for Radar Sounding, *IEEE Geoscience and Remote Sensing Symposium*, 2019, [doi.org/10.1109/IGARSS.2019.8898737](https://doi.org/10.1109/IGARSS.2019.8898737)
- [C4] D. Castelletti<sup>\*\*</sup>, **D.M. Schroeder**, E. Mantelli<sup>\*\*</sup>, A.M. Hilger<sup>\*</sup>. Unfocused SAR Processing for Englacial Layer Slope Estimation Using Radar Sounder Data, *IEEE Geoscience and Remote Sensing Symposium*, 2018, [doi.org/10.1109/IGARSS.2018.8518928](https://doi.org/10.1109/IGARSS.2018.8518928)
- [C3] L. Carrer<sup>\*</sup>, **D.M. Schroeder**, A. Romero-Wolf, P.A. Reis, L. Bruzzone. Noise Character Constraints on Passive Radio Soundings of Jupiter's Icy Moons Using Jovian Decametric Radiation, *IEEE Geoscience and Remote Sensing Symposium*, 2018, [doi.org/10.1109/IGARSS.2018.8517931](https://doi.org/10.1109/IGARSS.2018.8517931)
- [C2] S.T. Peters<sup>\*</sup>, **D.M. Schroeder**, D. Castelletti<sup>\*\*</sup>, M.S. Haynes, A. Romero-Wolf. First In-Situ Demonstration of Passive Radio Sounding Using the Sun as a Source for Echo Detection, *IEEE Geoscience and Remote Sensing Symposium*, 2018, [doi.org/10.1109/IGARSS.2018.8517970](https://doi.org/10.1109/IGARSS.2018.8517970)
- [C1] D. Castelletti, **D.M. Schroeder**, S. Hensley, C. Grima, G. Ng, D. Young, Yonggyu Gim, L. Bruzzone, A. Moussessian, D. D. Blankenship. Clutter Detection Using Two-Channel Radar Sounder Data, *IEEE Geoscience and Remote Sensing Symposium*, 2015, [doi.org/10.1109/IGARSS.2015.7325950](https://doi.org/10.1109/IGARSS.2015.7325950)

## INVITED TALKS

- 2021 Department of Earth and Planetary Sciences, Harvard University
- 2021 Applied Electromagnetics Seminar, University of Southern California
- 2021 Department of Atmospheric, Oceanic, and Earth Sciences, George Mason University
- 2021 International Glaciological Society
- 2020 National Academies Board on Energy and Environmental Systems
- 2020 IEEE Geoscience and Remote Sensing Symposium
- 2020 University of California San Diego Scripps Institute of Oceanography
- 2020 European Geosciences Union
- 2020 Radiation Laboratory, University of Michigan
- 2020 Department of Geophysics, Colorado School of Mines
- 2019 Rosenthal School of Marine and Atmospheric Science, University of Miami
- 2019 Department of Mathematics and Physics, Roma Tre University
- 2019 Institute of Geophysics, ETH Zurich
- 2019 National Space Institute, Technical University of Denmark
- 2019 Progress in Electromagnetics Research Symposium, Rome

## Schroeder C.V. November 2021

- 2019 Department of Climate and Space Sciences and Engineering, University of Michigan
- 2019 Department of Earth Sciences, University of Oregon
- 2018 Department of Earth and Planetary Science, Harvard University
- 2018 Department of Earth, Planetary, and Space Sciences, UCLA
- 2018 Jones Seminar, Dartmouth University Thayer School of Engineering
- 2018 Center for the Origin, Dynamics, and Evolution of the Planets, UC Santa Cruz
- 2018 Department of Earth, Environmental, and Planetary Sciences, Brown University
- 2018 Department of Aerospace Engineering, University of Texas at Austin
- 2018 American Physical Society April Meeting, Columbus
- 2018 Department of Earth and Planetary Sciences, Washington University in Saint Louis
- 2018 Keynote, Taking the Temperature of the Antarctic Continent Workshop, Hobart
- 2018 Department of Earth System Science, Stanford University
- 2017 Europa Science Series, Jet Propulsion Laboratory, Caltech
- 2017 Department of Earth and Planetary Science, Johns Hopkins University
- 2017 Berkeley Seismology Lab, University of California, Berkeley
- 2017 Keynote, International Glaciological Society Symposium, Boulder
- 2017 Advanced Instrumentation Seminar, SLAC National Accelerator Laboratory
- 2017 School of Geosciences, University of Edinburgh
- 2017 Keynote, Canadian Geophysical Union and CSAFM Joint Annual Scientific Meeting, Vancouver
- 2017 Symposium Keynote, Department of Electronic and Electrical Engineering, University College London
- 2017 Department of Earth and Space Sciences, University of Washington
- 2016 Institute of Planetary Research, German Aerospace Center
- 2016 Glaciology Center Seminar, Bristol University
- 2016 Remote Sensing Laboratory, University of Trento
- 2016 Physics Department, Bucknell University
- 2016 Planetary Seminar Series, Georgia Institute of Technology
- 2016 Institute for Geophysics and Planetary Physics, UC Santa Cruz
- 2016 Lamont-Doherty Earth Observatory, Columbia University
- 2015 Scripps Institute of Oceanography, University of California San Diego
- 2015 AGU Fall Meeting, San Francisco
- 2015 Climate Center Seminar, Jet Propulsion Laboratory
- 2015 Department of Geophysics, Stanford University
- 2015 Radar Science and Engineering Section, Jet Propulsion Laboratory, Caltech
- 2015 Department of Electrical Engineering, University of Colorado, Boulder
- 2014 Department of Geophysics, Stanford University
- 2014 Workshop on Instruments for Polar Geology and Geophysics Research, NASA/NSF
- 2014 Norwegian Polar Research Institute, Tromso
- 2014 Department of Geology, University of Kansas
- 2013 Earth and Planetary Science, Johns Hopkins University
- 2013 Radar Science and Engineering Section, Jet Propulsion Laboratory, Caltech
- 2012 Institute for Geophysics, University of Texas at Austin
- 2012 Space Research Group, Applied Physics Lab, Johns Hopkins University
- 2011 AGU Fall Meeting, San Francisco

## Schroeder C.V. November 2021

### CONFERENCE PARTICIPATION (\* student advisee, \*\* postdoctoral advisee, senior author is 2<sup>nd</sup> after advisees)

- 2021 **D.M. Schroeder**, R. Culberg\*, Constraining Englacial Attenuation in the Absence of Continuous Reflecting Interfaces, AGU Fall Meeting, New Orleans, December 13<sup>th</sup> - 17<sup>th</sup>.
- 2021 E. Dawson\*, **D.M. Schroeder**, W. Chu, E. Mantelli, H.L. Seroussi, Investigating Basal Thaw as a Driver of Mass Change Across Antarctica, AGU Fall Meeting, New Orleans, December 13<sup>th</sup> - 17<sup>th</sup>.
- 2021 M.R. Siegfried, R.A. Venturelli, M.O. Patterson, W. Arnuk, T.D. Campbell, C. D. Gustafson, A.B. Michaud, B. Galton-Fenzi, M.B. Hausner, S.N. Holzschuh, B. Huber, K.D. Mankoff1, **D.M. Schroeder**, P. Summers, S. Tyler, S. P. Carter, H.A. Fricker, D.M. Harwood1, A. Leventer, B.E. Rosenheim, M.L. Skidmore, J.C. Priscu, the SALSA Science Team. The Life and Death of a Subglacial Lake in West Antarctica, AGU Fall Meeting, New Orleans, December 13<sup>th</sup> - 17<sup>th</sup>.
- 2021 R. Culberg\*, W. Chu, **D.M. Schroeder**, Meltwater Infiltration and Refreezing Beneath Ice Slabs In Northwest Greenland, AGU Fall Meeting, New Orleans, December 13<sup>th</sup> - 17<sup>th</sup>.
- 2021 J.Z. Miller, T.A. Scambos, R. Culberg\*, C.A. Shuman, D.G. Long, M. Brogioni, K.C. Jezek, M.J. Brodzik, M. Mousavi, A. Colliander, **D.M. Schroeder**, M. Drinkwater, Firn Aquifer-Induced Disintegration of Antarctic Ice Shelves, AGU Fall Meeting, New Orleans, December 13<sup>th</sup> - 17<sup>th</sup>.
- 2021 A. Romo\*, **D.M. Schroeder**, R. Culberg\*, Surface Expressions of Surface Water Storage in Northwest Greenland, AGU Fall Meeting, New Orleans, December 13<sup>th</sup> - 17<sup>th</sup>.
- 2021 A. Conger\*, J.S. Greenbaum, **D.M. Schroeder**, C.F. Dow, F. McCormack, T. Pelle, L.M. Jong, J.L. Roberts, D.D. Blankenship, Investigating a Subglacial Hydrology Transition Near the Grounding Zone of Totten Glacier, East Antarctica, AGU Fall Meeting, New Orleans, December 13<sup>th</sup> - 17<sup>th</sup>.
- 2021 L. Schwebs\*, E. Dawson\*, **D.M. Schroeder**, T. Teisberg\*, Investigating Near-Thawed Basal Conditions in East Antarctica using Archival and Modern Ice Penetrating Radar Sounding Data, AGU Fall Meeting, New Orleans, December 13<sup>th</sup> - 17<sup>th</sup>.
- 2021 E. MacKie, **D.M. Schroeder**, L. Wang, D.Z. Yin, C. Zuo, J. Caers, The Parallel Worlds of DEMOGORGN Greenland, AGU Fall Meeting, New Orleans, December 13<sup>th</sup> - 17<sup>th</sup>.
- 2021 T. Teisberg\*, **D.M. Schroeder**, M.J. Kochenderfer, A. Broome\*, D. Woo\*, Development of a Fixed-wind UAV for Ice-Penetrating Radar Data Collection, AGU Fall Meeting, New Orleans, December 13<sup>th</sup> - 17<sup>th</sup>.
- 2021 J.D. Paden, K.J. Tinto, D.A. Young, K.A. Christianson, **D.M. Schroeder**, M. Rahnemoonfar, J. Li, H.M. Talasila, O. Eisen, T.A. Jordan, AGU Fall Meeting, New Orleans, December 13<sup>th</sup> - 17<sup>th</sup>.
- 2021 T. Teisberg, **D.M. Schroeder**, radarfilm.studio: An Online Open-Source Tool for Exploring Archival Ice-Penetrating Radar Data of Antarctica in the 1970s, AGU Fall Meeting, New Orleans, December 13<sup>th</sup> - 17<sup>th</sup>.
- 2021 B. Amaro\*, T. Teisberg\*, **D.M. Schroeder**, Automated Identification of Ice Sheet Surface and Bed from Archival Radar Film Data, AGU Fall Meeting, New Orleans, December 13<sup>th</sup> - 17<sup>th</sup>.
- 2021 N.L. Bienert\*, **D.M. Schroeder**, R. Sanda\*, E. Dawson\*, E.J. MacKie, S.T. Peters, M.R. Siegfried, Passively Synchronized Bistatic Radar System for Subsurface Tomography of Glaciers, AGU Fall Meeting, New Orleans, December 13<sup>th</sup> - 17<sup>th</sup>.
- 2021 A. Broome\*, **D.M. Schroeder**, J. Johnson, An Integrated Radar-Radiometer System for Probing Englacial Temperatures, AGU Fall Meeting, New Orleans, December 13<sup>th</sup> - 17<sup>th</sup>.
- 2021 M. Altenburg\*, R. Culberg\*, **D.M. Schroeder**, Characterizing Crevasse Clutter in Radar Sounding Data from Ice Sheets, AGU Fall Meeting, New Orleans, December 13<sup>th</sup> - 17<sup>th</sup>.
- 2021 R. Sanda\*, **D.M. Schroeder**, N.L. Bienert\*, T.J. Young, P. Summers, S.M. Tulaczyk, P. Christoffersen, and the TIME Team, Informing Bistatic Radar Experiments at Thwaites Glacier Using Bistatic Data from Greenland and West Antarctica, AGU Fall Meeting, New Orleans, December 13<sup>th</sup> - 17<sup>th</sup>.

## Schroeder C.V. November 2021

- 2021 A. Lynch<sup>\*</sup>, **D.M. Schroeder**, A. Broome<sup>\*</sup>, Radiometric Calibration of Archival Radar Sounding Data, AGU Fall Meeting, New Orleans, December 13<sup>th</sup> - 17<sup>th</sup>.
- 2021 S. Kapai<sup>\*</sup>, **D.M. Schroeder**, A. Broome<sup>\*</sup>, T.J. Young, C. Steward, Focusing of Mobile ApRES Surveys, AGU Fall Meeting, New Orleans, December 13<sup>th</sup> - 17<sup>th</sup>.
- 2021 G. Steinbruegge<sup>\*</sup>, M. Dumberry, A. Rivoldini, G. Schubert, H. Cao, **D.M. Schroeder**, K.M. Soderlund, Investigating the Thermal Evolution of Mercury's Fe-S-Si Core, AGU Fall Meeting, New Orleans, December 13<sup>th</sup> - 17<sup>th</sup>.
- 2021 S.T. Peters, **D.M. Schroeder**, A. Romero-Wolf, Direct Signal Suppression Approach for Passive Radar Sounding, AGU Fall Meeting, New Orleans, December 13<sup>th</sup> - 17<sup>th</sup>.
- 2021 I. Xia<sup>\*</sup>, G. Steinbrügge<sup>\*</sup>, **D.M. Schroeder**, Using Radar Sounding and Topographic Imager Data to Measure Europa's Tides, AGU Fall Meeting, New Orleans, December 13<sup>th</sup> - 17<sup>th</sup>.
- 2021 **D.M. Schroeder**, N.L. Bienert<sup>\*</sup>, R. Culberg<sup>\*</sup>, E.J. MacKie<sup>\*</sup>, T.O. Teisberg<sup>\*</sup>, W. Chu, D.A. Young Glaciological Constraints on Link Budgets for Orbital Radar Sounding of Earth's Ice Sheets, West Antarctic Ice Sheet Workshop, Sterling, VA, September 20<sup>th</sup> - 23<sup>rd</sup>.
- 2021 A. Broome<sup>\*</sup>, **D.M. Schroeder**, A Multi-frequency Radar Sounder and Integrated Radiometer for Measuring Ice Sheet Englacial and Basal Conditions, West Antarctic Ice Sheet Workshop, Sterling, VA, September 20<sup>th</sup> - 23<sup>rd</sup>.
- 2021 R. Culberg<sup>\*</sup>, J.Z. Miller, **D.M. Schroeder**, C.A. Shuman, M. Brogioni, D.G. Long, T.A. Scambos, Flow-Driven Boundary Conditions on the Wilkins Ice Shelf Firn Aquifer, West Antarctic Ice Sheet Workshop, Sterling, VA, September 20<sup>th</sup> - 23<sup>rd</sup>.
- 2021 E. Dawson<sup>\*</sup>, **D.M. Schroeder**, W. Chu, E. Mantelli, H. Seroussi, Investigating basal thaw as a driver of mass loss across Antarctica, West Antarctic Ice Sheet Workshop, Sterling, VA, September 20<sup>th</sup> - 23<sup>rd</sup>.
- 2021 A. Hager, M. Hoffman, S. Price, **D.M. Schroeder**, M. Perego, L. Bertagna, Stable channelized subglacial drainage modeled beneath Thwaites Glacier, West Antarctica, West Antarctic Ice Sheet Workshop, Sterling, VA, September 20<sup>th</sup> - 23<sup>rd</sup>.
- 2021 E.J. MacKie<sup>\*</sup>, **D.M. Schroeder**, Z. Yin, C. Zou, J. Caers, Geostatistical simulation reveals subglacial hydrologic and geologic boundary conditions in the Amundsen Sea Embayment, West Antarctic Ice Sheet Workshop, Sterling, VA, September 20<sup>th</sup> - 23<sup>rd</sup>.
- 2021 J. Z. Miller, T. Scambos, R. Culberg<sup>\*</sup>, C. Shuman, D. Long, M. Brogioni, K. Jezek, J. Johnson, **D.M. Schroeder**, M. Brodik, M. Drinkwater, Firn Aquifer-Induced Disintegration of Antarctic Ice Shelves, West Antarctic Ice Sheet Workshop, Sterling, VA, September 20<sup>th</sup> - 23<sup>rd</sup>.
- 2021 P. Summers<sup>\*</sup>, **D.M. Schroeder**, J. Suckale, Evidence for Temperate Ice in Shear Margins of Antarctic Ice Streams from Airborne Radar Surveys, West Antarctic Ice Sheet Workshop, Sterling, VA, September 20<sup>th</sup> - 23<sup>rd</sup>.
- 2021 T. Teisberg, E.J. MacKie<sup>\*</sup>, **D.M. Schroeder**, Ice thickness interpolation with physics-informed neural networks, West Antarctic Ice Sheet Workshop, Sterling, VA, September 20<sup>th</sup> - 23<sup>rd</sup>.
- 2021 D. Woo<sup>\*</sup>, T. Teisberg<sup>\*</sup>, **D.M. Schroeder**, M.J. Kochenderfer, A. Broome<sup>\*</sup>, West Antarctic Ice Sheet Workshop, Sterling, VA, September 20<sup>th</sup> - 23<sup>rd</sup>.
- 2021 **D.M. Schroeder**, N.L. Bienert<sup>\*</sup>, R. Culberg<sup>\*</sup>, E.J. MacKie<sup>\*</sup>, T.O. Teisberg<sup>\*</sup>, W. Chu, D.A. Young Glaciological Constraints on Link Budgets for Orbital Radar Sounding of Earth's Ice Sheets, IEEE Symposium on Geoscience and Remote Sensing, Online, July 12<sup>th</sup> - July 16<sup>th</sup>.
- 2021 S.T. Peters<sup>\*</sup>, **D.M. Schroeder**, A. Romero-Wolf. Adaptive Single-Channel Direct Signal Suppression for Ambient Noise Passive Radar Sounding, IEEE Symposium on Geoscience and Remote Sensing, Online, July 12<sup>th</sup> - July 16<sup>th</sup>.

## Schroeder C.V. November 2021

- 2021 R. Culberg\*, **D.M. Schroeder**. Simulations of Englacial Radiostratigraphy from Ice Core Measurements, IEEE Symposium on Geoscience and Remote Sensing, Online, July 12<sup>th</sup> - July 16<sup>th</sup>.
- 2021 A. Broome\*, **D.M. Schroeder**, J. Johnson. Measuring Englacial Temperatures with a Combined Radar-Radiometer, IEEE Symposium on Geoscience and Remote Sensing, Online, July 12<sup>th</sup> - July 16<sup>th</sup>.
- 2021 T.O. Teisberg\*, **D.M. Schroeder**, E.J. MacKie\*. A Machine Learning Approach to Mass-Conserving Ice Thickness Interpolation, IEEE Symposium on Geoscience and Remote Sensing, Online, July 12<sup>th</sup> - July 16<sup>th</sup>.
- 2021 E.J. MacKie\*, **D.M. Schroeder**, G. Steinbrügge\*\*, R. Culberg\*. Quantifying Spatial Relationships in Ice Penetrating Radar Measurement Uncertainty Through Clutter Simulation, IEEE Symposium on Geoscience and Remote Sensing, Online, July 12<sup>th</sup> - July 16<sup>th</sup>.
- 2021 P.T. Summer\*, **D.M. Schroeder**, M.R. Siegfried. Constraining Ice Sheet Basal Sliding and Horizontal Velocity Profiles Using a Stationary Phase-Sensitive Radar Sounder, IEEE Symposium on Geoscience and Remote Sensing, Online, July 12<sup>th</sup> - July 16<sup>th</sup>.
- 2021 T.J. Young, T. Jordan, C. Martin, **D.M. Schroeder**, P. Christoffersen, S. Tulaczyk, R. Culberg\*, N.L. Bienert\*, Polarimetric Radar-Sounding to Infer and Quantify Shear Margin Ice Fabric Anisotropy, EGU, virtual
- 2021 A.R. Aitken, L. Li, B. Kulesa, T. Jordan, J. Whittaker, S. Anandakrishnan, J.S. Greenbaum, **D.M. Schroeder**, P. Whitehouse, O. Eisen, M.J. Siegert, Antarctic Sedimentary Basins: Defining Crucial Constraints on Ice-Sheet and Solid-Earth Dynamic Interaction, EGU, virtual
- 2020 **D.M. Schroeder**, Radiometric Calibration and Analysis of Radar Sounding Observations of Ice-Sheet Subsurface Conditions from Archival Radar Film, AGU Fall Meeting, Online, December 1<sup>st</sup> - 17<sup>th</sup>.
- 2020 R. Culberg\*, **D.M. Schroeder**, W. Chu, Extreme Melt Season Ice Layers Reduce Firn Permeability in Greenland's Interior, AGU Fall Meeting, Online, December 1<sup>st</sup> - 17<sup>th</sup>.
- 2020 E.J. Mackie\*, **D.M. Schroeder**, C. Zuo, D.Z. Yin, J. Caers, Quantifying Subglacial Hydrologic Uncertainty with Stochastic Simulation, AGU Fall Meeting, Online, December 1<sup>st</sup> - 17<sup>th</sup>.
- 2020 A. Tarzona\*, E.J. MacKie\*, **D.M. Schroeder**, Archival Radar Sounding Observations of Multi-Decadal Subsurface Changes Along the East Antarctic Coast, AGU Fall Meeting, Online, December 1<sup>st</sup> - 17<sup>th</sup>.
- 2020 A. Hager, M.J. Hoffman, S.F. Price, E.J. MacKie\*, **D.M. Schroeder**, Subglacial Channelization and Spatially Variable Bed Properties are Critical to Modeling Thwaites Glacier Ice Dynamics, AGU Fall Meeting, Online, December 1<sup>st</sup> - 17<sup>th</sup>.
- 2020 E. Dawson\*, **D.M. Schroeder**, W. Chu, Investigating Basal Thaw as a Mechanism of Ice Mass Loss in Antarctica, AGU Fall Meeting, Online, December 1<sup>st</sup> - 17<sup>th</sup>.
- 2020 A. McLeod\*, S.T. Peters, **D.M. Schroeder**, N.L. Bienert\*, T.J. Young, P. Christoffersen, An Automated Approach to Processing and Detection of Artifacts in Phase-Sensitive Ice Penetrating Radar Data, AGU Fall Meeting, Online, December 1<sup>st</sup> - 17<sup>th</sup>.
- 2020 A. Broome\*, **D.M. Schroeder**, Improving Radiometric Resolution for High Fidelity Measurements of Subglacial Conditions, AGU Fall Meeting, Online, December 1<sup>st</sup> - 17<sup>th</sup>.
- 2020 N.L. Bienert\*, **D.M. Schroeder**, S.T. Peters\*, E.J. MacKie\*, M.R. Siegfried\*, E. Dawson, Design of a Direct Path Synchronized Bistatic Radar Technique for Long Offset Glacial Temperature Tomography, AGU Fall Meeting, Online, December 1<sup>st</sup> - 17<sup>th</sup>.
- 2020 A. Conger\*, **D.M. Schroeder**, E.J. MacKie\*, R. Culberg\*, Subglacial Lake-Floor Characterization in Radar Data: from Archival to Modern, AGU Fall Meeting, Online, December 1<sup>st</sup> - 17<sup>th</sup>.
- 2020 G. Steinbrügge\*\*, M. Dumberry, A. Rivoldini, G. Schubert, H. Cao, **D.M. Schroeder**, K.M. Soderlund, Challenges on Mercury's Interior Structure, AGU Fall Meeting, Online, December 1<sup>st</sup> - 17<sup>th</sup>.

## Schroeder C.V. November 2021

- 2020 S.T. Peters<sup>\*</sup>, **D.M. Schroeder**, A. Romero-Wolf, G. Steinbrügge<sup>\*\*</sup>, Passive Radar Investigations of Io Using Jupiter's Radio Emissions as a Source for Echo Detection AGU Fall Meeting, Online, December 1<sup>st</sup> – 17<sup>th</sup>.
- 2020 T.M. Jordan<sup>\*\*</sup>, C. Martin, A. Brisbourne, R. Schlegel, **D.M. Schroeder**, A. Smith, Radar Characterization of Ice Crystal Orientation Fabric and Anisotropic Rheology within an Antarctic Ice Stream, AGU Fall Meeting, Online, December 1<sup>st</sup> – 17<sup>th</sup>.
- 2020 **D.M. Schroeder**, Pathways to multitemporal radar sounding in terrestrial glaciology, IEEE Symposium on Geoscience and Remote Sensing, Online, September 26<sup>th</sup> - October 2<sup>nd</sup>.
- 2020 R. Culberg<sup>\*</sup>, **D.M. Schroeder**, Strong potential for the detection of frozen ice layers in Greenland's firn by airborne radar sounding, IEEE Symposium on Geoscience and Remote Sensing, Online, September 26<sup>th</sup> - October 2<sup>nd</sup>.
- 2020 A. Broome<sup>\*</sup>, **D.M. Schroeder**, A narrowband multi-frequency radar sounding architecture to correct subsurface interface roughness effects, IEEE Symposium on Geoscience and Remote Sensing, Online, September 26<sup>th</sup> - October 2<sup>nd</sup>.
- 2020 E.J. MacKie<sup>\*</sup>, **D.M. Schroeder**, Geostatistically simulating subglacial topography with synthetic training data, IEEE Symposium on Geoscience and Remote Sensing, Online, September 26<sup>th</sup> - October 2<sup>nd</sup>.
- 2020 N. Bienert<sup>\*</sup>, **D.M. Schroeder**, S.T. Peters<sup>\*</sup>, M.R. Siegfried<sup>\*\*</sup>, Processing-based synchronization approach for bistatic radar glacial tomography, IEEE Symposium on Geoscience and Remote Sensing, Online, September 26<sup>th</sup> - October 2<sup>nd</sup>.
- 2020 S.T. Peters<sup>\*</sup>, **D.M. Schroeder**, A. Romero-Wolf, Passive radar investigations of Europa's Ionosphere: a low-resource approach for VHF dispersion correction and ionospheric tomography, IEEE Symposium on Geoscience and Remote Sensing, Online, September 26<sup>th</sup> - October 2<sup>nd</sup>.
- 2020 **D.M. Schroeder**, Observing Evolving Subglacial Conditions with Muti-Temporal Radar Sounding, SCAR Open Science Conference, Online, August 3<sup>rd</sup> - 7<sup>th</sup>.
- 2020 E. Dawson<sup>\*</sup>, **D.M. Schroeder**, W. Chu<sup>\*\*</sup>, E. Mantelli<sup>\*\*</sup>, H. Seroussi, Investigating basal thaw as a mechanism of ice flow changes in Antarctica, SCAR Open Science Conference, Online, August 3<sup>rd</sup> - 7<sup>th</sup>.
- 2020 E. Mackie<sup>\*</sup>, **D.M. Schroeder**, C. Zou, Z. Yin, J. Caers, Geostatistical Simulations of Subglacial Topography and Implications for Water Routing, SCAR Open Science Conference, Online, August 3<sup>rd</sup> - 7<sup>th</sup>.
- 2020 T. Tesiberg<sup>\*</sup>, **D.M. Schroeder**, An adaptive sampling approach for optimizing radar sounder flight paths for use in mass conservation models of bed topography, SCAR Open Science Conference, Online, August 3<sup>rd</sup> - 7<sup>th</sup>.
- 2020 E. Mantelli<sup>\*\*</sup>, **D.M. Schroeder**, J. Suckale, D. Castelletti<sup>\*\*</sup>, L. Raess, M. Bryant, H. Seroussi, M.J. Siegert, Spatial distribution of englacial layer slope as a constraint on ice sheet basal conditions, SCAR Open Science Conference, Online, August 3<sup>rd</sup> - 7<sup>th</sup>.
- 2020 **D.M. Schroeder**, Observing Evolving Subglacial Conditions with Multitemporal Radar Sounding, EGU General Assembly, Online, May 4<sup>th</sup> - 8<sup>th</sup> (invited keynote)
- 2020 T.M. Jordan<sup>\*\*</sup>, A. Brisbourne, C. Martin, R. Schlegel, **D.M. Schroeder**, A. Smith, Relating polarimetric radar measurements of ice fabric to ice-flow enhancement of Rutford Ice Stream, EGU General Assembly, Online, May 4<sup>th</sup> - 8<sup>th</sup>
- 2020 E. Dawson<sup>\*</sup>, **D.M. Schroeder**, W. Chu<sup>\*\*</sup>, E. Mantelli<sup>\*\*</sup>, H. Seroussi, Investigating basal thaw as a potential driver of ice flow acceleration in Antarctica, EGU General Assembly, Online, May 4<sup>th</sup> - 8<sup>th</sup>
- 2020 S.T. Peters<sup>\*</sup>, **D.M. Schroeder**, A. Romero-Wolf, G. Steinbrügge<sup>\*\*</sup>, Passive Radar Investigations of Io Using Jupiter's Radio Emissions, LPSC, Online, March 16<sup>th</sup> - 20<sup>th</sup>.
- 2020 G. Steinbrügge<sup>\*\*</sup>, A. Rivoldini, M. Dumberry, G. Schubert, **D.M. Schroeder**, K.M. Soderlund, The (Still) Problematic Case of Mercury's Interior Structure, LPSC, Online, March 16<sup>th</sup> - 20<sup>th</sup>.

## Schroeder C.V. November 2021

- 2020 J.H. Roberts, A.M. Rymer, M.L. Cabel, F. Nimmo, C.S. Paty, M.T. Bland, C.M. Elder, H. Korth, T.B. McCord, W.B. McKinnon, R.T. Pappalardo, C.A. Raymond, L. Roth, J. Saur, **D.M. Schroeder**, G. Steinbrügge \*\*, K.M. Soderlund, G. Tobie, S.D. Vance, D.A. Young, D.A. Senske, Integrated Europa Interior Science with Europa Clipper, LPSC, Online, March 16<sup>th</sup> - 20<sup>th</sup>.
- 2020 J.R.C. Voigt, G. Steinbrügge \*\*, N.S. Wolfenbarger, C.W. Hamilton, K.M. Soderlund, D.A. Young, S. Vance, **D.M. Schroeder**, D.D. Blankenship, Melt Mobilization on Europa and its Application to Mannan Crater, LPSC, Online, March 16<sup>th</sup> - 20<sup>th</sup>.
- 2020 A. Romero-Wolf, C. Devin, G. Franklin, D. Hawkins, M. Haynes, M. Lee, J. Lasio, J.Liu, K. Mitchell, S.T. Peters, **D.M. Schroeder**, Passive Sounding of Lunar Lava Tubes, Planetary Caves Conference, February 18<sup>th</sup> - 21<sup>st</sup>, San Antonio, TX
- 2020 J. McCullough, B. Macintosh, M. Milar-Blanchaer, L. Schaefer, **D.M. Schroeder**, D. De Rosa, Detection Sensitivity for the Gemini Planet Imager (GPI) to Potential Europa Plumes, AGU Fall Meeting, San Francisco, December 9<sup>th</sup> - 13<sup>th</sup>
- 2019 A. Broome \*, **D.M. Schroeder**, Constraining and Correcting Surface and Bed Roughness Effects in Multi-frequency Radar Sounding Data, AGU Fall Meeting, San Francisco, December 9<sup>th</sup> - 13<sup>th</sup>
- 2019 H. Tran \*, **D.M. Schroeder**, N. Bienert \*, Improvements to MIMO Radio Echo Sounder Array Design for Subsurface Imaging, AGU Fall Meeting, San Francisco, December 9<sup>th</sup> - 13<sup>th</sup>
- 2019 N.L. Bienert \*, **D.M. Schroeder**, S.T. Peters \*, E. Dawson \*, E.J. MacKie \*, M.R. Siegfried \*, Inferring Temperature Distribution in Shear Margins from Large-Offset Bistatic Radar Sounding, AGU Fall Meeting, San Francisco, December 9<sup>th</sup> - 13<sup>th</sup>
- 2019 T.M. Jordan \*\*, **D.M. Schroeder**, A. Brisbourne, C. Martin, C.W. Elsworth \*, M.R. Siegfried \*\*, R. Schlegel, A. Smith, Measurement of Ice Fabric within Ice Streams using Polarimetric Phase-Sensitive Radar Sounding, AGU Fall Meeting, San Francisco, December 9<sup>th</sup> - 13<sup>th</sup>
- 2019 J. Jones \*, **D.M. Schroeder**, A. Broome \*, Mobilizing an ApRES through Quasi-Pulsed Operation, AGU Fall Meeting, San Francisco, December 9<sup>th</sup> - 13<sup>th</sup>
- 2019 J. McCullough, B. Macintosh, M. Millar-Blanchaer, L. Schaefer, **D.M. Schroeder**, R. De Rosa, Detection Sensitivity for the Gemini Planet Imager (GPI) to Potential Europa Plumes, AGU Fall Meeting, San Francisco, December 9<sup>th</sup> - 13<sup>th</sup>
- 2019 J. Bessette \*, T.M. Jordan \*\*, **D.M. Schroeder**, J.A. MacGregor, Radar-sounding evidence for a subglacial groundwater table in Hiawatha Crater, Greenland, AGU Fall Meeting, San Francisco, December 9<sup>th</sup> - 13<sup>th</sup>
- 2019 A. Conger \*, **D.M. Schroeder**, E.J. MacKie \*, Radiometric Characterization of Subglacial Lake Floors from Archival Radar Data, AGU Fall Meeting, San Francisco, December 9<sup>th</sup> - 13<sup>th</sup>
- 2019 **D.M. Schroeder**, E.J. MacKie \*, A. Conger \*, Radiometric signature of subglacial conditions in archival radar sounding data recovered from optical film, AGU Fall Meeting, San Francisco, December 9<sup>th</sup> - 13<sup>th</sup>
- 2019 G. Steinbrügge \*\*, M. Haynes, K.M. Scanlan, D.A. Young, S.D. Kempf, **D.M. Schroeder**, D.D. Blankenship, SHARAD Altimetry on Mars: Towards an improved, global digital terrain model, AGU Fall Meeting, San Francisco, December 9<sup>th</sup> - 13<sup>th</sup>
- 2019 E. Mantelli \*\*, M. Bryant, **D.M. Schroeder**, J. Suckale, D. Castelletti \*\*, L. Raess, H. Seroussi, M.J. Siegert, Spatial distribution of englacial layer slope as a constraint on ice sheet basal conditions, AGU Fall Meeting, San Francisco, December 9<sup>th</sup> - 13<sup>th</sup>
- 2019 R. Culberg \*, **D.M. Schroeder**, Spatial Extension of Deep Ice Core Electrical Stratigraphy by Radar Sounding, AGU Fall Meeting, San Francisco, December 9<sup>th</sup> - 13<sup>th</sup>

## Schroeder C.V. November 2021

- 2019 W. Chu<sup>\*</sup>, **D.M. Schroeder**, S. Livingstone, S. Vijay, M. King, R. Culberg<sup>\*</sup>, N. Karlsson, A. Messerli, 25 years of airborne radar sounding: Insights into the time varying changes in Greenland glacial hydrology, AGU Fall Meeting, San Francisco, December 9<sup>th</sup> – 13<sup>th</sup>
- 2019 E.J. MacKie<sup>\*</sup>, **D.M. Schroeder**, Paleo Observations Used to Geostatistically Simulate the Subglacial Geology of Thwaites Glacier, AGU Fall Meeting, San Francisco, December 9<sup>th</sup> – 13<sup>th</sup>
- 2019 S.T. Peters<sup>\*</sup>, **D.M. Schroeder**, W. Chu<sup>\*</sup>, M. Haynes, A. Romero-Wolf, Passive radio sounding with ambient signals of opportunity to monitor cryospheric subsurface conditions, AGU Fall Meeting, San Francisco, December 9<sup>th</sup> – 13<sup>th</sup>
- 2019 M. Altenburg<sup>\*</sup>, **D.M. Schroeder**, R. Culberg<sup>\*</sup>, N.L. Bienert<sup>\*</sup>, Testing the Feasibility of Orbital Altitude Radar Sounding using a Multi-frequency Radar System, AGU Fall Meeting, San Francisco, December 9<sup>th</sup> – 13<sup>th</sup>
- 2019 N. Bienert<sup>\*</sup>, **D.M. Schroeder**, S.T. Peters<sup>\*</sup>, M.R. Siegfried<sup>\*\*</sup>, E.J. MacKie<sup>\*</sup>, E. Dawson<sup>\*</sup>, Inferring Temperature Distribution in Shear Margins using an ApRES and Software Defined Radio in a Bistatic Configuration, WAIS Workshop, Julian, October 16<sup>th</sup> – 18<sup>th</sup>
- 2019 W.Chu<sup>\*\*</sup>, **D.M. Schroeder**, H. Seroussi, M. Morlighem, M. Siegery, Using radar sounding observations to improve numerical models' estimates on ice sheet temperatures in West Antarctica, WAIS Workshop, Julian, October 16<sup>th</sup> – 18<sup>th</sup>
- 2019 R. Culberg<sup>\*</sup>, **D.M. Schroeder**, Englacial Layers in Radar Sounding Data Modeled from Ice Core Electrical Stratigraphy, WAIS Workshop, Julian, October 16<sup>th</sup> – 18<sup>th</sup>
- 2019 E. Dawson<sup>\*</sup>, **D.M. Schroeder**, W. Chu<sup>\*\*</sup>, E. Mantelli<sup>\*\*</sup>, A. Miltenberger<sup>\*</sup>, H. Seroussi, Vulnerability of the Antarctic ice sheet to basal thermal regime change: Integrating observations and models, WAIS Workshop, Julian, October 16<sup>th</sup> – 18<sup>th</sup>
- 2019 E.J. MacKie<sup>\*</sup>, **D.M. Schroeder**, Geostatistically Simulating the Topography and Geology of the Amundsen Sea Embayment, WAIS Workshop, Julian, October 16<sup>th</sup> – 18<sup>th</sup>
- 2019 S.T. Peters<sup>\*</sup>, **D.M. Schroeder**, W. Chu<sup>\*\*</sup>, M. Haynes, A. Romero-Wolf, Passive radio sounding using the Sun as a signal to monitor subsurface processes, WAIS Workshop, Julian, October 16<sup>th</sup> – 18<sup>th</sup>
- 2019 D.A. Young, J.A. Bodart, E. Quartini, R.G. Bingham, **D.M. Schroeder**, D.D. Blankenship, Integrating englacial reflectors across the Amundsen Sea Embayment: A progress report, WAIS Workshop, Julian, October 16<sup>th</sup> – 18<sup>th</sup>
- 2019 G. Steinbrügge<sup>\*\*</sup>, J.R.C. Voigt, **D.M. Schroeder**, A. Stark, M.S. Haynes, K.M. Scanlan, C.W. Hamilton, D.A. Young, H. Hussmann, C. Grima, D.D. Blankenship, Reassessing Europa's Surface Roughness, EPSC-DPS Joint Meeting, Geneva, September 15<sup>th</sup> – 20<sup>th</sup>
- 2019 G.W. Patterson, L.M. Carter, A.M. Stickle, J.T Cahill, M.C. Nolan, G.A. Morgan, **D.M. Schroeder**, the Mini RF Team, Mini-RF S- and X-band Bistatic Observations of the Moon, EPSC-DPS Joint Meeting, Geneva, September 15<sup>th</sup> – 20<sup>th</sup>
- 2019 F. Turner, G.W. Patterson, R. Jensen, D. Castelletti<sup>\*\*</sup>, **D.M. Schroeder**, Empirical Noise Estimation in Time-Doman Back Projection, IGARSS, Yokohama, July 28<sup>th</sup> – August 2<sup>nd</sup>
- 2019 D. Castelletti<sup>\*\*</sup>, **D.M. Schroeder**, T.M. Jordan<sup>\*</sup>, D.A. Young, Repeat-Pass Interferometry Applied to Englacial Layer Velocity Estimation Using Radar Sounding Data, IGARSS, Yokohama, July 28<sup>th</sup> – August 2<sup>nd</sup>
- 2019 S.T. Peters<sup>\*</sup>, **D.M. Schroeder**, D. Castelletti<sup>\*\*</sup>, M. Haynes, A. Romero-Wolf, Two Dimensional Image Formation with Passive Radar Using the Sun for Echo Detection, IGARSS, Yokohama, July 28<sup>th</sup> – August 2<sup>nd</sup>
- 2019 R. Culberg<sup>\*</sup>, **D.M. Schroeder**, Radar Scattering in Firn and its Implications for VHF/UHF Orbital Ice Sounding, IGARSS, Yokohama, July 28<sup>th</sup> – August 2<sup>nd</sup>



- 2019 **D.M. Schroeder**, D. Castelletti \*\*, I Pena \*, Revisiting the Limits of Azimuth Processing Gain for Radar Sounding, IGARSS, Yokohama, July 28<sup>th</sup> – August 2<sup>nd</sup>
- 2019 S.T. Peters \*, **D.M. Schroeder**, W. Chu \*\*, D. Castelletti \*\*, M. Haynes, A. Romero-Wolf, Passive radio sounding for glaciological investigations of subsurface processes, IGS Symposium on Five Decades of Radioglaciology, Stanford, July 8<sup>th</sup> – 12<sup>th</sup>
- 2019 T.M. Jordan \*\*, **D.M. Schroeder**, D. Castelletti \*\*, J. Li, J. Dall, A polarimetric coherence method to determine ice crystal orientation fabric from radar sounding: application to the NEEM ice core region, IGS Symposium on Five Decades of Radioglaciology, Stanford, July 8<sup>th</sup> – 12<sup>th</sup>
- 2019 T.M. Jordan \*\*, **D.M. Schroeder**, C. Elsworth \*, J. Dall, M. Siegfried \*, Estimation of ice fabric within the Whillans Ice Stream using polarimetric phase-sensitive radar sounding, IGS Symposium on Five Decades of Radioglaciology, Stanford, July 8<sup>th</sup> – 12<sup>th</sup>
- 2019 T.M. Jordan \*\*, D. Besson, A. Romero-Wolf, **D.M. Schroeder**, Measuring and modelling the effects of fabric anisotropy on oblique radio wave propagation at the South Pole Ice Core Experiment (SPICE) for neutrino detection, IGS Symposium on Five Decades of Radioglaciology, Stanford, July 8<sup>th</sup> – 12<sup>th</sup>
- 2019 A. Romero-Wolf, **D.M. Schroeder**, S.T. Peters \*, B. Bills, D.M. Blankenship, L. Bruzzone, B. Campbell, L. Carrer, C. Grima, E. Heggy, Status and prospects of passive sounding with radio astronomical sources, IGS Symposium on Five Decades of Radioglaciology, Stanford, July 8<sup>th</sup> – 12<sup>th</sup>
- 2019 M. Goldberg \*, **D.M. Schroeder**, D. Castelletti \*\*, N. Ross, M. Siegert, Automated detection and characterization of Antarctic basal units using radar sounding data: demonstration in Institute Ice Stream, West Antarctica, IGS Symposium on Five Decades of Radioglaciology, Stanford, July 8<sup>th</sup> – 12<sup>th</sup>
- 2019 S.T. Peters \*, **D.M. Schroeder** \*, M. Haynes, A. Romero-Wolf, Passive radio sounding with Jupiter's radio emissions to correct for Europa's ionospheric distortion, IGS Symposium on Five Decades of Radioglaciology, Stanford, July 8<sup>th</sup> – 12<sup>th</sup>
- 2019 E.J. MacKie \*, M. Murray \*, A. Pollack, **D.M. Schroeder**, Producing multi-decadal observations of grounding line change in East Antarctica with archival radar data, IGS Symposium on Five Decades of Radioglaciology, Stanford, July 8<sup>th</sup> – 12<sup>th</sup>
- 2019 E.J. MacKie \*, **D.M. Schroeder**, Geostatistical simulations of subglacial topography used to study paleo and modern bed conditions in the Amundsen Sea sector, IGS Symposium on Five Decades of Radioglaciology, Stanford, July 8<sup>th</sup> – 12<sup>th</sup>
- 2019 N. Bienert \*, **D.M. Schroeder**, S.T. Peters \*, M. Siegfried \*\*, Improving constraints on englacial temperature and water distribution using an autonomous phase-sensitive radio echo sounder (ApRES) and a bistatic software defined receiver, IGS Symposium on Five Decades of Radioglaciology, Stanford, July 8<sup>th</sup> – 12<sup>th</sup>
- 2019 R. Culberg \*, **D.M. Schroeder**, Radar scattering in firn and the implications for orbital sounding, IGS Symposium on Five Decades of Radioglaciology, Stanford, July 8<sup>th</sup> – 12<sup>th</sup>
- 2019 N. Bienert \*, **D.M. Schroeder**, H. Tran \*, M. Murray \*, How to hack your ApRES, IGS Symposium on Five Decades of Radioglaciology, Stanford, July 8<sup>th</sup> – 12<sup>th</sup>
- 2019 A. Miltenberger \*, E. Dawson \*, **D.M. Schroeder**, Constraining the englacial and basal thermal state in Dome Fuji, East Antarctic with radar attenuation models, IGS Symposium on Five Decades of Radioglaciology, Stanford, July 8<sup>th</sup> – 12<sup>th</sup>
- 2019 R. Michealides \*, **D.M. Schroeder**, Doppler-based discrimination of radar sounder target scattering properties: a case study of subsurface water geometry in Europa's ice shell, IGS Symposium on Five Decades of Radioglaciology, Stanford, July 8<sup>th</sup> – 12<sup>th</sup>

- 2019 E. Mantelli<sup>\*\*</sup>, **D.M. Schroeder**, H. Seroussi, M. Bryant, D. Castelletti<sup>\*\*</sup>, M. Siegert, J. Suckale, Observational constraints from englacial layers on fast flow initiation of a West Antarctic ice stream, IGS Symposium on Five Decades of Radioglaciology, Stanford, July 8<sup>th</sup> – 12<sup>th</sup>
- 2019 R. Delf<sup>\*</sup>, R.G. Bingham, **D.M. Schroeder**, Interpretation of ice-sheet internal stratigraphy: a test-bed for automated approaches, IGS Symposium on Five Decades of Radioglaciology, Stanford, July 8<sup>th</sup> – 12<sup>th</sup>
- 2019 O. Bartlett<sup>\*</sup>, S. Palmer, **D.M. Schroeder**, E.J. MacKie<sup>\*</sup>, T. Barrow, A. Graham, Geospatial simulations of airborne ice-penetrating radar survey reveals elevation under-measurement bias for ice sheet bed topography, IGS Symposium on Five Decades of Radioglaciology, Stanford, July 8<sup>th</sup> – 12<sup>th</sup>
- 2019 J. Greenbaum, **D.M. Schroeder**, C. Grima, N. Gormelen, C. Dow, F. Habbal, J. Roberts, R. Warner, D. Gwyther, Surface and basal melting of the Totten Glacier Ice Shelf, East Antarctica, IGS Symposium on Five Decades of Radioglaciology, Stanford, July 8<sup>th</sup> – 12<sup>th</sup>
- 2019 M.R. Siegfried<sup>\*\*</sup>, **D.M. Schroeder**, Interpreting radar bed-echo power from active subglacial lakes on lower Mercer and Whillans ice streams, West Antarctica, IGS Symposium on Five Decades of Radioglaciology, Stanford, July 8<sup>th</sup> – 12<sup>th</sup>
- 2019 E. Quartini, D.A. Young, M. Sudunagunta, **D.M. Schroeder**, D.D. Blankenship, Assessing the effect of subaerial volcanism on englacial attenuation in West Antarctica, IGS Symposium on Five Decades of Radioglaciology, Stanford, July 8<sup>th</sup> – 12<sup>th</sup>
- 2019 E. Dawson<sup>\*</sup>, **D.M. Schroeder**, A. Miltenberger<sup>\*</sup>, W. Chu<sup>\*</sup>, H. Seroussi, A comparison of radar-inferred temperature characterization techniques to investigate thermal regime changes in Antarctica, IGS Symposium on Five Decades of Radioglaciology, Stanford, July 8<sup>th</sup> – 12<sup>th</sup>
- 2019 E. Dawson<sup>\*</sup>, **D.M. Schroeder**, A.M Hilger<sup>\*</sup>, D. Castelletti<sup>\*\*</sup>, W. Chu<sup>\*\*</sup>, T.M. Jordan<sup>\*\*</sup>, H. Seroussi, D.A. Young, D. Vaughan, Multi-instrument synthesis of radar sounding observations of the Thwaites Glacier and Pine Island Glacier catchments, West Antarctica, IGS Symposium on Five Decades of Radioglaciology, Stanford, July 8<sup>th</sup> – 12<sup>th</sup>
- 2019 T.T. Creyts, **D.M. Schroeder**, C. Grima, W. Chu<sup>\*</sup>, T.M. Jordan<sup>\*\*</sup>, J. Paden, R. Culberg<sup>\*</sup>, Bed roughness as a control on the drainage of subglacial water, IGS Symposium on Five Decades of Radioglaciology, Stanford, July 8<sup>th</sup> – 12<sup>th</sup>
- 2019 **D.M. Schroeder**, E.J. MacKie<sup>\*</sup>, T.T. Creyts, J.B. Anderson, A subglacial hydrologic switching hypothesis for silt sorting and deposition during ice sheet retreat in the in the Amundsen Sea Embayment, IGS Symposium on Glacial Erosion and Sedimentation, Madison, May 12<sup>th</sup> -17<sup>th</sup>
- 2019 E.J. MacKie<sup>\*</sup>, **D.M. Schroeder**, Using radar and geostatistical simulations to compare paleo and modern bed morphology in Pine Island Bay, IGS Symposium on Glacial Erosion and Sedimentation, Madison, May 12<sup>th</sup> - 17<sup>th</sup>
- 2019 **D.M. Schroeder**, D. Castelletti<sup>\*\*</sup>, E. Mantelli<sup>\*\*</sup>, Layer-Optimized Synthetic Aperture Radar Processing for Slope Detection and Estimation, EGU, Vienna, April 7<sup>th</sup> - 12<sup>th</sup>
- 2019 D. Castelletti<sup>\*\*</sup>, **D.M. Schroeder**, T. Jordan<sup>\*</sup>, D.A. Young, Repeat-pass interferometry applied to englacial layer velocity estimation using radar sounder data, EGU, Vienna, April 7<sup>th</sup> - 12<sup>th</sup>
- 2019 M. Bryant, E. Mantelli<sup>\*\*</sup>, J. Suckale, D. Castelletti<sup>\*\*</sup>, M.J. Siegert, **D.M. Schroeder**, Observational constraints from englacial layers on fast flow initiation of a West-Antarctic ice stream, EGU, Vienna, April 7<sup>th</sup> - 12<sup>th</sup>
- 2019 T. Jordan<sup>\*\*</sup>, **D.M. Schroeder**, C. Elsworth<sup>\*</sup>, D. Castelletti<sup>\*\*</sup>, J. Li, M.R. Siegfried<sup>\*</sup>, J. Dall, Polarimetric coherence: a data analysis method to determine ice fabric from phase-sensitive radar sounding, EGU, Vienna, April 7<sup>th</sup> - 12<sup>th</sup>

## Schroeder C.V. November 2021

- 2019 S.T. Peters<sup>\*</sup>, **D.M. Schroeder**, D. Castelletti<sup>\*\*</sup>, M.S. Haynes, A. Romero-Wolf, Correcting Europa's Ionospheric Distortion with Passive Radar Using Jovian Decametric Radiation, LPSC, The Woodlands, March 18<sup>th</sup> - 22<sup>nd</sup>
- 2018 W. Chu<sup>\*\*</sup>, **D.M. Schroeder**, M.R. Siegfried<sup>\*\*</sup>, Retrieval of Englacial Firn Aquifer Thickness from Ice-Penetrating Radar Sounding in Southeastern Greenland, AGU Fall Meeting, Washington DC, December 10<sup>th</sup> - 14<sup>th</sup>
- 2018 D. Castelletti<sup>\*\*</sup>, **D.M. Schroeder**, E. Mantelli<sup>\*\*</sup>, Layer-Optimized Synthetic Aperture Radar Processing for Slope Detection and Estimation, AGU Fall Meeting, Washington DC, December 10<sup>th</sup> - 14<sup>th</sup>
- 2018 T.M. Jordan<sup>\*\*</sup>, **D.M. Schroeder**, D. Castelletti<sup>\*\*</sup>, J. Li, J.L. Bamber, J. Dall, Ice Crystal Orientation Fabric Determined from Polarimetric Ice-Penetrating Radar Interferometry, AGU Fall Meeting, Washington DC, December 10<sup>th</sup> - 14<sup>th</sup>
- 2018 E.J. MacKie<sup>\*</sup>, C. Scheidt, J. Caers, **D.M. Schroeder**, A new model for Antarctic subglacial lakes, AGU Fall Meeting, Washington DC, December 10<sup>th</sup> - 14<sup>th</sup>
- 2018 T.T. Creyts, W. Chu<sup>\*\*</sup>, C. Grima, **D.M. Schroeder**, Bed roughness as a control on the drainage of subglacial water, AGU Fall Meeting, Washington DC, December 10<sup>th</sup> - 14<sup>th</sup>
- 2018 M. Bryant, E. Mantelli<sup>\*\*</sup>, J. Suckale, D. Castelletti<sup>\*\*</sup>, M.J. Siegert, **D.M. Schroeder**, Characterizing the onset of fast flow at Institute Ice Stream, West Antarctica, AGU Fall Meeting, Washington DC, December 10<sup>th</sup> - 14<sup>th</sup>
- 2018 N.L. Bienert<sup>\*</sup>, **D.M. Schroeder**, S.T. Peters<sup>\*</sup>, Multi-Static Observations Using a Stationary Phase Sensitive Ice Penetrating Radar to Constrain Temperature and Water-Content Anomalies Across Shear Margins, AGU Fall Meeting, Washington DC, December 10<sup>th</sup> - 14<sup>th</sup>
- 2018 R. Culberg<sup>\*</sup>, A.K. Kendrick<sup>\*</sup>, A. Conger<sup>\*</sup>, **D.M. Schroeder**, An Airborne Radar Sounding Instrument Concept for Characterizing Water Storage in Greenland's Porous Ice and Firn, AGU Fall Meeting, Washington DC, December 10<sup>th</sup> - 14<sup>th</sup>
- 2018 R. Delf<sup>\*</sup>, **D.M. Schroeder**, R. Bingham, Interpretation of ice-sheet internal stratigraphy: a test-bed for automated approaches, AGU Fall Meeting, Washington DC, December 10<sup>th</sup> - 14<sup>th</sup>
- 2018 M. Goldberg<sup>\*</sup>, **D.M. Schroeder**, D. Castelletti<sup>\*\*</sup>, N. Ross, M.J. Siegert, Automated Detection and Categorization of Antarctic Basal Units Using Radar Sounding Data: Demonstration in Institute Ice Stream, West Antarctica, AGU Fall Meeting, Washington DC, December 10<sup>th</sup> - 14<sup>th</sup>
- 2018 A. Mittenberger<sup>\*</sup>, **D.M. Schroeder**, N.B. Karlsson, O. Eisen, T. Bindern, Constraining the Englacial and Basal Thermal State Beneath the Dome Fuji Region, East Antarctica Using Airborne Radar Sounding Data, AGU Fall Meeting, Washington DC, December 10<sup>th</sup> - 14<sup>th</sup>
- 2018 **D.M. Schroeder**, A.M. Hilger<sup>\*</sup>, D. Castelletti<sup>\*\*</sup>, W. Chu<sup>\*\*</sup>, T.M. Jordan<sup>\*\*</sup>, Helene Seroussi, Duncan A. Young, David G. Vaughan Multi-Instrument Synthesis of Radar Sounding Observations of the Thwaites Glacier and Pine Island Glacier Catchments, West Antarctica, AGU Fall Meeting, Washington DC, December 10<sup>th</sup> - 14<sup>th</sup>
- 2018 A. Gnanadesikan, J.F. Loehr, S. Bender, **D.M. Schroeder**, S.M. Burrows, Opportunities for Earth and Space Scientists within the largest US Team Science Competition, AGU Fall Meeting, Washington DC, December 10<sup>th</sup> - 14<sup>th</sup>
- 2018 G. Steinbrügge<sup>\*\*</sup>, J.R.C. Voight, A. Stark, B. Giese, **D.M. Schroeder**, M. Haynes, D.A. Young, C. Grima, H. Hussmann, D.D. Blankenship, Reassessing the surface roughness of Europa using Galileo stereo images, AGU Fall Meeting, Washington DC, December 10<sup>th</sup> - 14<sup>th</sup>

## Schroeder C.V. November 2021

- 2018 M.R. Siegfried\*, **D.M. Schroeder**, D. Castelletti\*\*, Looking Forward and Backward: New Techniques for Quantifying Dynamic Surface-Height Changes With Radar Altimetry in Antarctica, 25 Years of Progress in Radar Altimetry, Pota Delgada, September 24<sup>th</sup> – 29<sup>th</sup>
- 2018 **D.M. Schroeder**, J.A. Dowdeswell, M.J. Siegert, R.G. Bingham, W. Chu\*\*, E.J. MacKie\*, M.R. Siegfried\*, K.I. Vega\*, J.R. Emmons, K. Winstein, Multi-Decadal Observations of the Antarctic Ice Sheet from Archival Radar Film, West Antarctic Ice Sheet Workshop, Stony Point, September 16<sup>th</sup> - 19<sup>th</sup>
- 2018 M.R. Siegfried\*\*, **D.M. Schroeder**, Reconciling conflicting observations of active subglacial lakes: A case study on lower Mercer and Whillans ice streams, West Antarctic Ice Sheet Workshop, Stony Point, September 16<sup>th</sup> - 19<sup>th</sup>
- 2018 E. Mantelli\*\*, **D.M. Schroeder**, M. Bryant, D. Castelletti\*\*, C. Schoof, H. Seroussi, M.J. Siegert, J. Suckale, Characterizing the onset of fast flow at Institute Ice Stream, West Antarctic Ice Sheet Workshop, Stony Point, September 16<sup>th</sup> - 19<sup>th</sup>
- 2018 E.J. MacKie\*, C. Scheidt, J. Caers, **D.M. Schroeder**, Simulating Antarctic bed topography to quantify uncertainty in subglacial water storage, West Antarctic Ice Sheet Workshop, Stony Point, September 16<sup>th</sup> - 19<sup>th</sup>
- 2018 W. Chu\*\*, A.M. Hilger\*, **D.M. Schroeder**, D. Castelletti\*\*, R. Culberg\*, E. Dawson\*, T.M. Jordan\*, H. Seroussi, D.A. Young, D.G. Vaughan, Evidence of Basal Water Flow from the Bentley Subglacial Trench Controls on the Western Upstream Margin of Pine Island Glacier, West Antarctica, West Antarctic Ice Sheet Workshop, Stony Point, September 16<sup>th</sup> - 19<sup>th</sup>
- 2018 G. Steinbrügge\*\*, L. Fanara, D. Haack, M. Hamm, A. Heffels, M. Maurice, A. Nikolaou, Y. Rosas Ortiz, I. Varatharajan, **D.M. Schroeder**, K. Zikidis, H. Hussmann, T. Spohn, PRIME – A concept for passive radar investigation of Jupiter's moon Io, European Planetary Science Congress, Berlin, September 16<sup>th</sup> – 21<sup>st</sup>
- 2018 D. Castelletti\*\*, **D.M. Schroeder**, E. Mantelli\*\*, A.M. Hilger\*, Unfocused SAR Processing for Englacial Layer Slope Estimation Using Radar Sounder Data, IEEE Geoscience and Remote Sensing Symposium, Valencia, July 23<sup>rd</sup> – 27<sup>th</sup>
- 2018 S.T. Peters\*, **D.M. Schroeder**, D. Castelletti\*\*, M.S. Haynes, A. Romero-Wolf, First In-Situ Demonstration of Passive Radio Sounding Using the Sun as a Source for Echo Detection, IEEE Geoscience and Remote Sensing Symposium, Valencia, July 23<sup>rd</sup> – 27<sup>th</sup>
- 2018 L. Carrer\*, **D.M. Schroeder**, A. Romero-Wolf, P.A. Reis, L. Bruzzone, Noise Character Constraints on Passive Radio Soundings of Jupiter's Icy Moons Using Jovian Decametric Radiation, IEEE Geoscience and Remote Sensing Symposium, Valencia, July 23<sup>rd</sup> – 27<sup>th</sup>
- 2018 C.Grima, D.D. Blankenship, C. Paty, Y. Gim, W. Kurth, E. Chapin, **D.M. Schroeder**, J. Plaut, G.W. Patterson, A. Moussessian, D.A. Young, Investigating Europa's Plasma Environment From Radar Sounding, Committee on Space Research, Pasadena, July 14<sup>th</sup> – 22<sup>nd</sup>
- 2018 D.D. Blankenship, A. Moussessian, J. Plaut, G.W. Patterson, D.A. Young, K.M. Soderlund, **D.M. Schroeder**, C. Grima, A. Freedman, E. Chapin, J. Hoffman, S. Collins, Y. Gim, T.Ray, A. Romero-Wolf, The REASON Science Team, REASON for Europa, Committee on Space Research, Pasadena, July 14<sup>th</sup> – 22<sup>nd</sup>
- 2018 **D.M. Schroeder**, A.M. Hilger\*, E.J. MacKie\*, H.F.J. Corr, D.D. Blankenship, J.D. Paden, J.A. Dowdeswell, Multi-System, Multi-Decadal Radar Sounding of Thwaites and Pine Island Glaciers, Scientific Committee on Antarctic Research, Polar 2018 Open Science Conference, Davos, June 19<sup>th</sup> – 23<sup>rd</sup>
- 2018 M.R. Siegfried\*\*, S. Adusumilli, H.A. Fricker, T.D. Scambos, **D.M. Schroeder**, B.E. Smith, Investigating Large Active Subglacial Lake Drainages in East Antarctica, Scientific Committee on Antarctic Research, Polar 2018 Open Science Conference, Davos, June 19<sup>th</sup> – 23<sup>rd</sup>

Schroeder C.V. November 2021

- 2018 W. Chu<sup>\*\*</sup>, **D.M. Schroeder**, Quantifying Greenland Water Budget from Top to Bottom using Radar Sounding, Scientific Committee on Antarctic Research, Polar 2018 Open Science Conference, Davos, June 19<sup>th</sup> – 23<sup>rd</sup>
- 2018 E.J. MacKie<sup>\*</sup>, **D.M. Schroeder**, J.A. Dowdeswell, K.I. Vega<sup>\*</sup>, M.R. Siegfried<sup>\*\*</sup>, W. Chu<sup>\*</sup>, R.G. Bingham, Digitization and Analysis of the SPRI-NSF-TUD Radar Data Archive, Scientific Committee on Antarctic Research, Polar 2018 Open Science Conference, Davos, June 19<sup>th</sup> – 23<sup>rd</sup>\*
- 2018 E. Mantelli<sup>\*\*</sup>, D. Castelletti<sup>\*\*</sup>, **D.M. Schroeder**, J. Suckale, A.M. Hilger<sup>\*</sup>, Improved Processing, Slope Estimation, and Ice Flow Interpretation Using Englacial Layer Data from Radar Sounding, International Glaciological Society Symposium on Timescales, Processes, and Glacier Dynamics, Buffalo, June 3<sup>rd</sup> – 8<sup>th</sup>
- 2018 M. Cooper<sup>\*</sup>, T.M. Jordan<sup>\*\*</sup>, **D.M. Schroeder**, M. Siegert, C. Williams, J. Bamber, Subglacial Roughness of the Greenland Ice Sheet: Relationship with Contemporary Ice Velocity and Geology, EGU General Assembly, Vienna, April 8<sup>th</sup> – 13<sup>th</sup>
- 2018 T.M. Jordan<sup>\*\*</sup>, C. Williams, **D.M. Schroeder**, Y. Martos, M. Cooper, M.J. Siegert, J.D. Paden, P. Huybrechts, J. Bamber, A Constraint upon the Basal Water Distribution and Thermal State of the Greenland Ice Sheet from radar bed-echoes, EGU General Assembly, Vienna, April 8<sup>th</sup> – 13<sup>th</sup>
- 2018 E. Mantelli<sup>\*\*</sup>, D. Castelletti<sup>\*\*</sup>, **D.M. Schroeder**, J. Suckale, A.M. Hilger<sup>\*</sup>, Improved Processing, Slope Estimation, and Ice Flow Interpretation Using Englacial Layer Data from Radar Sounding, EGU General Assembly, Vienna, April 8<sup>th</sup> – 13<sup>th</sup>
- 2018 G. Steinbrügge<sup>\*\*</sup>, L. Fanara, D. Haak, M. Hamm, A. Heffels, M. Maurice, A. Nikolaou, Y. Rosas Ortiz, I. Varatharajan, **D.M. Schroeder**, K. Zikidis, H. Hussmann, T. Spohn, PRIME – A concept for passive radar investigation of Jupiter's moon Io, EGU General Assembly, Vienna, April 8<sup>th</sup> – 13<sup>th</sup>
- 2018 **D.M. Schroeder**, Observing Antarctic Ice-sheet Conditions Using Ice-Penetrating Radar, American Physical Society April Meeting, Columbus, April 14<sup>th</sup> – 17<sup>th</sup> (invited)
- 2018 W. Chu<sup>\*\*</sup>, **D.M. Schroeder**, T. Jordan<sup>\*\*</sup>, Y. Martos, Elevated Geothermal Heat Flux Produces Extensive Meltwater Beneath Large Ice Sheets: Lessons from Greenland, Taking the Temperature of the Antarctic Continent Workshop, Hobart, Tasmania, March 21<sup>st</sup> – 23<sup>rd</sup>
- 2018 **D.M. Schroeder**, W. Chu<sup>\*\*</sup>, Observationally Constraining Geothermal Heat Flux Using Ice Penetrating Radar, Taking the Temperature of the Antarctic Continent Workshop, Hobart, March 21<sup>st</sup> – 23<sup>rd</sup> (keynote)
- 2018 C. Culha<sup>\*</sup>, **D.M. Schroeder**, M. Haynes, Assessing the potential for detecting Europa's eutectic using radar sounding, Lunar and Planetary Science Conference, The Woodlands, Texas, March 19<sup>th</sup> – 23<sup>rd</sup>
- 2018 R.J. Michaelides<sup>\*</sup>, **D.M. Schroeder**, Assessing the Ability of Radar Sounders to Discriminate between Corner-Reflections and Point Scatterers: Application to Europa's Chaos Terrains, Lunar and Planetary Science Conference, The Woodlands, Texas, March 19<sup>th</sup> – 23<sup>rd</sup>
- 2018 **D.M. Schroeder**, W. Chu<sup>\*\*</sup>, A. K. Kendrick<sup>\*</sup>, S.T. Peters<sup>\*</sup>, D. Castelletti<sup>\*\*</sup>, Constraining the Spatial and Temporal Evolution of Supraglacial and Englacial Meltwater Using Radar Sounding Data, Workshop on Antarctic Surface Hydrology and Future Ice Shelf Stability, Palisades, New York, February 21<sup>st</sup> – 22<sup>nd</sup>
- 2017 **D.M. Schroeder**, J.A. Dowdeswell, E.J. MacKie<sup>\*</sup>, K.I. Vega<sup>\*</sup>, J.R. Simmons<sup>\*</sup>, K. Winstein, R.G. Bingham, T.J. Benham, High-Resolution Digitization of the Film Archive of SPRI/NSF/TUD Radar Sounding of the Antarctic Ice Sheet, AGU Fall Meeting, December 11<sup>th</sup> – 15<sup>th</sup>
- 2017 W. Chu<sup>\*\*</sup>, **D.M. Schroeder**, H.L. Seroussi, T.T. Creyts, R.E. Bell, J.D. Paden, Constraining Greenland basal water extent and drainage morphology from radar reflectivity and specularly analysis, AGU Fall Meeting, December 11<sup>th</sup> – 15<sup>th</sup>
- 2017 D. Castelletti<sup>\*\*</sup>, **D.M. Schroeder**, Estimating Englacial Vertical Velocity from Airborne Radar Sounding Data, AGU Fall Meeting, December 11<sup>th</sup> – 15<sup>th</sup>

## Schroeder C.V. November 2021

- 2017 A.M. Hilger\*, **D.M. Schroeder**, H.F.J. Corr, D.D. Blankenship, J.D. Paden, Constraining Basal Conditions across the Amundsen Sea Embayment of West Antarctica using a Synthesis of the PASIN and HiCARS Radar Sounding Data, AGU Fall Meeting, December 11<sup>th</sup> – 15<sup>th</sup>
- 2017 S.T. Peters\*, **D.M. Schroeder**, A. Romero-Wolf, M.S. Haynes, Preliminary Field Demonstration of Passive Radio Sounding Using the Sun as a Signal for Echo Detection, AGU Fall Meeting, December 11<sup>th</sup> – 15<sup>th</sup>
- 2017 T.M. Jordan\*, C. Williams, **D.M. Schroeder**, Y.M. Matos, M. Cooper, M.J. Siegert, J.D. Paden, P. Huybrechts, J.L. Bamber, The Distribution of Basal Water Beneath the Greenland Ice Sheet from Radio-Echo Sounding, AGU Fall Meeting, December 11<sup>th</sup> – 15<sup>th</sup>
- 2017 M.R. Siegfried\*\*, S. Adusumilli, H.A. Fricker, T.A. Scambos, **D.M. Schroeder**, B.E. Smith, Unraveling the cause of large surface-height anomalies on Slessor and Recovery glaciers, East Antarctica, with multi-mission data integration, December 11<sup>th</sup> – 15<sup>th</sup>
- 2017 A. Rutishauser, M.J. Sharp, D.D. Blankenship, M.L. Skidmore, C. Grima, **D.M. Schroeder**, J.S. Greenbaum, J.A. Dowdeswell, D.A. Young, Geophysical Investigations of Hypersaline Subglacial Water Systems in the Canadian Arctic: A Planetary Analog, AGU Fall Meeting, December 11<sup>th</sup> – 15<sup>th</sup>
- 2017 J.S. Greenbaum, D.D. Blankenship, C. Grima, **D.M. Schroeder**, K.M. Soderlund, D.A. Young, S.D. Kempf, M.J. Siegert, J.L. Roberts, R.C. Warner, T.D. van Ommen, Remote Characterization of Ice Shelf Surface and Basal Processes: Examples from East Antarctica, AGU Fall Meeting, December 11<sup>th</sup> – 15<sup>th</sup>
- 2017 L.M. Simkins, S.P. Carter, S. Greenwood, **D.M. Schroeder**, Meltwater drainage beneath ice sheets: What can we learn from uniting observations of paleo- and contemporary subglacial hydrology?, AGU Fall Meeting, December 11<sup>th</sup> – 15<sup>th</sup>
- 2017 **D.M. Schroeder**, A.K. Kendrick\*, K.I. Vega\*, E.J. MacKie\*, A.M. Hilger\*, S.T. Peters\*, W.Chu\*\*, Observing the Temporal Evolution of Subglacial Conditions Using Radar Sounding Data, WAIS Workshop, Coupeville, Washington, October 8<sup>th</sup> – 11<sup>th</sup>
- 2017 **D.M. Schroeder**, A.K. Kendrick\*, K.I. Vega\*, E.J. MacKie\*, A.M. Hilger\*, S.T. Peters\*, W.Chu\*\*, Observing the Temporal Evolution of Subglacial Conditions Using Radar Sounding Data, WAIS Workshop, Coupeville, Washington, October 8<sup>th</sup> – 11<sup>th</sup>
- 2017 C.W. Ellsworth\*, **D.M. Schroeder**, M.R. Siegfried\*\*, Internal layer deformation reveals past ice flow over the central sticky spot of Whillans Ice Stream, West Antarctica, WAIS Workshop, Coupeville, Washington, October 8<sup>th</sup> – 11<sup>th</sup>
- 2017 G.W. Patterson, L.M. Carter, A.M. Stickle, J.T.S. Cahill, M.C. Nolan, G.A. Morgan, **D.M. Schroeder**, Mini-RF Team, Mini-RF S- and X-Band Bistatic Radar Observations of the Moon, Annual Meeting of the Lunar Exploration Analysis Group, Columbia, MD, October 10<sup>th</sup> – 12<sup>th</sup>
- 2017 **D.M. Schroeder**, J.A. Dowdeswell, High Resolution Digitization of the Film Archive of SPRI/NSF/TUD Radar Sounding of the Antarctic Ice Sheet, International Symposium on Polar Ice, Polar Climate, Polar Change: Remote Sensing and Modeling Advances in Understanding the Cryosphere, Boulder, August 14<sup>th</sup> – 19<sup>th</sup> (invited keynote)
- 2017 T. Teisberg\*, T. Diamandis\*, L. Herrera\*, I. Kushan\*, A. Tedjarati\*, **D.M. Schroeder**, Radar Sounder Development for an Expendable High Altitude Balloon, International Symposium on Polar Ice, Polar Climate, Polar Change: Remote Sensing and Modeling Advances in Understanding the Cryosphere, Boulder, August 14<sup>th</sup> – 19<sup>th</sup>
- 2017 S.T. Peters\*, **D.M. Schroeder**, A. Romero-Wolf, M. Haynes, Passive Radio Sounding for Terrestrial Glaciology: Preliminary Field Testing and Proof-of-Concept, International Symposium on Polar Ice, Polar Climate, Polar Change: Remote Sensing and Modeling Advances in Understanding the Cryosphere, Boulder, August 14<sup>th</sup> – 19<sup>th</sup>

## Schroeder C.V. November 2021

- 2017 A.K. Kendrick<sup>\*</sup>, **D.M. Schroeder**, T.J. Young<sup>\*</sup>, P. Christoffersen, P.V. Brennan, K.W. Nicholls, L. Lok, Estimating seasonal englacial water content using autonomous phase-sensitive radio-echo sounding data, International Symposium on Polar Ice, Polar Climate, Polar Change: Remote Sensing and Modeling Advances in Understanding the Cryosphere, Boulder, August 14<sup>th</sup> – 19<sup>th</sup>
- 2017 A.M. Hilger<sup>\*</sup>, **D.M. Schroeder**, H.F.J. Corr, D.D. Blankenship, J.D. Paden, Synthesizing the PASIN and HiCARS Radar Sounding Data to Constrain Basal Conditions across the Amundsen Sea Embayment of West Antarctica, International Symposium on Polar Ice, Polar Climate, Polar Change: Remote Sensing and Modeling Advances in Understanding the Cryosphere, Boulder, August 14<sup>th</sup> – 19<sup>th</sup>
- 2017 T.J. Young<sup>\*</sup>, **D.M. Schroeder**, P. Christoffersen, L. Lok, K.W. Nicholls, P.V. Brennan, S. Doyle, B. Hubbard, A. Hubbard, Observing and quantifying dipping internal reflectors in 3-dimensions using phase-sensitive ice-penetrating radar, International Symposium on Polar Ice, Polar Climate, Polar Change: Remote Sensing and Modeling Advances in Understanding the Cryosphere, Boulder, August 14<sup>th</sup> – 19<sup>th</sup>
- 2017 W. Chu<sup>\*\*</sup>, **D.M. Schroeder**, H. Seroussi, T.T. Creyts, R.E. Bell, Large Variability in Subglacial Drainage Processes Revealed by Airborne Radar Sounding Across the Greenland Ice Sheet, International Symposium on Polar Ice, Polar Climate, Polar Change: Remote Sensing and Modeling Advances in Understanding the Cryosphere, Boulder, August 14<sup>th</sup> – 19<sup>th</sup>
- 2017 **D.M. Schroeder**, Advances in Ice Penetrating Radar Time Series Observations, Canadian Geophysical Union and CSAFM Joint Annual Scientific Meeting, Vancouver, May 28<sup>th</sup> – 31<sup>st</sup> (invited keynote)
- 2017 **D.M. Schroeder**, A.M. Hilger<sup>\*</sup>, J. Paden, H. Corr, D.D. Blankenship, Radar Sounding Investigations at the Boundary of Thwaites and Pine Island Glaciers, European Geosciences Union, April 23<sup>rd</sup> – 28<sup>th</sup>
- 2017 T. Jordan<sup>\*\*</sup>, M. Cooper, J.L. Bamber, **D.M. Schroeder**, C. Williams, J.D. Paden, M.J. Siegert, P. Huybrechts, O. Gagliardini, F. Gillet-Chaulet, S.F. Price, Self-Affine Subglacial Roughness: Consequences for Radar Scattering and Basal Thaw Discrimination from Radio-Echo Sounding, EGU, April 23<sup>rd</sup> – 28<sup>th</sup>
- 2017 J.S. Greenbaum, **D.M. Schroeder**, C. Grima, F. Habbal, C. Dow, J.L. Roberts, D. Gwyther, T. van Ommen, M.J. Siegert, D.D. Blankenship, Morphological evidence and direct estimates of rapid melting beneath Totten Glacier Ice Shelf, East Antarctica, European Geosciences Union, April 23<sup>rd</sup> – 28<sup>th</sup>
- 2017 G. Steinbrügge<sup>\*\*</sup>, **D.M. Schroeder**, M.S. Haynes, H. Hussmann, C. Grima, D.D. Blankenship, Assessing the Potential for Measuring Europa's Tidal Love Number h<sub>2</sub> Using Radar Sounder and Topographic Imager Data, European Geosciences Union, April 23<sup>rd</sup> – 28<sup>th</sup>
- 2017 C. Grima, D.D. Blankenship, C. Paty, Y. Gim, W. Kurth, E. Chapin, **D.M. Schroeder**, J.J. Plaut, G.W. Patterson, A. Moussessian, D.A. Young, Investigating Europa's Plasma Environment from Radar Sounding, 48<sup>th</sup> Lunar and Planetary Science Conference, The Woodlands, TX, March 20<sup>th</sup> – 24<sup>th</sup>
- 2017 D.D. Blankenship, C. Grima, D.A. Young, **D.M. Schroeder**, K.M. Soderlund, Y. Gim, J.J. Plaut, G.W. Patterson, A. Moussessian, A. Rutishauser, I. Koch, Understanding Europa's Ice Shell and Subsurface Water Through Terrestrial Analogs for Flyby Radar Sounding, 48<sup>th</sup> Lunar and Planetary Science Conference, The Woodlands, TX, March 20<sup>th</sup> – 24<sup>th</sup>
- 2017 **D.M. Schroeder**, T.J. Young<sup>\*</sup>, A. Kendrick<sup>\*</sup>, L.B. Lok, P. Christoffersen, Stationary Radio Sounding Time Series Observations: Challenges and Opportunities, NASA PARCA Meeting, January 24<sup>th</sup> – 25<sup>th</sup>
- 2016 **D.M. Schroeder**, J.D. Paden, H.F.J. Corr, D.D. Blankenship, A.M. Hilger<sup>\*</sup>, Cross-Instrument Radar Sounding Synthesis: Characterizing Basal Conditions Across the Amundsen Sea Embayment, AGU Fall Meeting, December 12<sup>th</sup> – 16<sup>th</sup>
- 2016 W. Chu<sup>\*\*</sup>, **D.M. Schroeder**, H.L. Seroussi, T.T. Creyts, S.J. Palmer, R.E. Bell, Distinct Subglacial Drainage Patterns Revealed in High-Resolution Mapping of Basal Radar Reflectivity across Greenland, AGU Fall Meeting, December 12<sup>th</sup> – 16<sup>th</sup>

Schroeder C.V. November 2021

- 2016 M. Haynes, **D.M. Schroeder**, X. Duan, D. Arumugam, J.G. McMichael, S. Hensley, T. Cwick, Simulator for Large-scale Planetary and Terrestrial Radar Sounding, AGU Fall Meeting, December 12<sup>th</sup> – 16<sup>th</sup>
- 2016 T. Jordan \*\*, M. Cooper, J.L. Bamber, **D.M. Schroeder**, C. Williams, J.D. Paden, M.J. Siegert, P. Huybrechts, O. Gagliardini, F. Gillet-Chaulet, S.F. Price, An Integrated Assessment of Basal Scattering and Topographic Roughness Information Derived from Greenland Radar-Sounding Data, AGU Fall Meeting, Dec. 12<sup>th</sup> – 16<sup>th</sup>
- 2016 K. Kalousova, **D.M. Schroeder**, K.M. Soderlund, Radar attenuation in Europa's ice shell: obstacles and opportunities for constraining shell thickness and thermal structure, Division of Planetary Sciences #48 and European Planetary Science Congress, Pasadena, October 16<sup>th</sup> - 21<sup>st</sup>
- 2016 J.S. Greenbaum, **D.M. Schroeder**, C.Y. Grima, C.F. Dow, D.D. Blankenship, D.A. Young, J.L. Roberts, D.E. Gwyther, A.H. Orsi, B. Huber, A. Leventer, R.C. Warner, T.D. van Ommen, and M.J. Siegert, Basal melt in channels and terraces beneath Totten Glacier, East Antarctica, Forum for Research into Ice Shelf Processes, October 4<sup>th</sup> – 6<sup>th</sup>
- 2016 E. Quartini, D.A. Young, **D.M. Schroeder**, D.D. Blankenship, An Evaluation of Geothermal Flux Along a Subglacial Volcano in the Executive Committee Range, SCAR Open Science Conference, Kuala Lumpur, Malaysia, August 20<sup>th</sup> – 30<sup>th</sup>
- 2016 M.R. Siegfried \*\*, **D.M. Schroeder**, T. Scambos, S.P. Carter, H.A. Fricker, A large, rapid subglacial lake drainage beneath Slessor Glacier, East Antarctica, and its potential impact in the Filchner Trough, IGS International Symposium on Interactions of Ice Sheets and Glaciers with the Ocean, La Jolla, July 10<sup>th</sup> – 15<sup>th</sup>
- 2016 **D.M. Schroeder**, C. Grima, M.S. Haynes, J.S. Greenbaum, Distinguishing the Signatures of Ice Shelf Surface Roughness, Basal Roughness, Temperature, and Chemistry in Radar Sounding Data, IGS International Symposium on Interactions of Ice Sheets and Glaciers with the Ocean, La Jolla, July 10<sup>th</sup> – 15<sup>th</sup>
- 2016 J.S. Greenbaum, D.D. Blankenship, **D.M. Schroeder**, D. Gwyther, D.A. Young, L.E. Lindzey, J.L. Roberts, R.C. Warner, T. Van Ommen, M.J. Siegert, Basal terraces beneath Totten Glacier, East Antarctica, IGS International Symposium on Interactions of Ice Sheets and Glaciers with the Ocean, La Jolla, July 10<sup>th</sup> – 15<sup>th</sup>
- 2016 L.E. Lindzey, **D.M. Schroeder**, J.S. Greenbaum, D.A. Young, D.D. Blankenship, Dielectric losses in Totten Ice Shelf using multiple reflection from ice penetrating radar, IGS International Symposium on Interactions of Ice Sheets and Glaciers with the Ocean, La Jolla, July 10<sup>th</sup> – 15<sup>th</sup>
- 2016 **D.M. Schroeder**, H. Seroussi, W. Chu\*, D.A. Young, Signature of Recent Ice Flow Acceleration in the Radar Attenuation and Temperature Structure of Thwaites Glacier, West Antarctica, EGU General Assembly, Vienna, Austria, April 17<sup>th</sup> – 22<sup>nd</sup>
- 2016 Y.S. Aglyamov \*, **D.M. Schroeder**, M.S. Haynes, S. Vance, An Investigation of Radar Scattering from Fracture in Europa's Upper Ice Shell, Lunar & Planetary Science Conf., The Woodlands, TX, Mar. 21<sup>st</sup> – 25<sup>th</sup>
- 2016 M.G.P. Cavitte, D.D. Blankenship, D.A. Young, F. Parrenin, C. Ritz, J.L. Roberts, T. van Ommen, **D.M. Schroeder**, M.J. Siegert, E. le Meur, Old Ice and the Stability of the Byrd-Totten Glacier Divide Region, International Partnerships in Ice Cores Sciences, Hobart, Australia, March 7<sup>th</sup> – 11<sup>th</sup>
- 2015 **D.M. Schroeder**, H. Seroussi, Characterizing Englacial and Subglacial Temperature Structure Using Airborne Radar Sounding, AGU Fall Meeting, San Francisco, December 14<sup>th</sup> – 18<sup>th</sup> (invited)
- 2015 A. Khazendar, E.J. Rignot, **D.M. Schroeder**, H.L. Seroussi, M. Schodlok, B. Scheuchl, T.C. Sutterley, I. Velicogna, Direct Observations of Rapid Basal Melting and Bed Topography in the Grounding Zones of the Dotson and Crosson Ice Shelves, West Antarctica, AGU Fall Meeting, San Francisco, December 14<sup>th</sup> – 18<sup>th</sup>
- 2015 A. Moussessian, D.D. Blankenship, J. Plaut, G.W. Patterson, Y. Gim, **D.M. Schroeder**, K.M. Soderlund, D. Young, C. Grima, E. Chapin, REASON for Europa, AGU Fall Meeting, San Francisco, December 14<sup>th</sup> – 18<sup>th</sup>
- 2015 M. Haynes, **D.M. Schroeder**, G. Steinbrügge\*, B. Bills, Europa Tide Inversion from REASON Altimetry, AGU Fall Meeting, San Francisco, December 14<sup>th</sup> – 18<sup>th</sup>



## Schroeder C.V. November 2021

- 2015 W. Chu\*, **D.M. Schroeder**, H. Seroussi, R. Bell, T. Creyts, Extensive Subglacial Hydrological Network and Basal Temperate Layer in Southwest Greenland: An Integrated Approach of Radar Analysis and Ice Sheet Modeling, AGU Fall Meeting, San Francisco, December 14<sup>th</sup> – 18<sup>th</sup>
- 2015 Y. Aglyamov\*, **D.M. Schroeder**, M. Haynes, S. Vance, Significance of Near-Surface Ice Fracture for Radar Sounding of Europa's Ice, AGU Fall Meeting, San Francisco, December 14<sup>th</sup> – 18<sup>th</sup>
- 2015 **D.M. Schroeder**, C. Grima, M. Haynes, Surface and Basal Roughness in Radar Sounding Data: Obstacle and Opportunity, AGU Fall Meeting, San Francisco, December 14<sup>th</sup> – 18<sup>th</sup> (invited)
- 2015 C. Grima, D.D. Blankenship, **D.M. Schroeder**, A. Mousessian, K. Soderlund, Y. Gim, J. Plaut, J. Greenbaum, E.L. Garcia, B. Campbell, N. Putzig, G. Patterson, Understanding Europa's Ice Shell and Subsurface Water Through Terrestrial Analogs for Flyby Radar Sounding, AGU Fall Meeting, San Francisco, Dec. 14<sup>th</sup> – 18<sup>th</sup>
- 2015 D.D. Blankenship, C. Grima, D.A. Young, **D.M. Schroeder**, K. Soderlund, Y. Gim, J. Plaut, G. Patterson, A. Mousessian, Surface and Basal Roughness in Radar Sounding Data: Obstacle and Opportunity, AGU Fall Meeting, San Francisco, December 14<sup>th</sup> – 18<sup>th</sup>
- 2015 **D.M. Schroeder**, M.S. Haynes, G. Steinbrügge\*, An Initial Assessment of REASON Altimetry for Europa Geodesy, Europa Gravity Science Working Group, Pasadena, CA, December 6<sup>th</sup>
- 2015 G.W. Patterson, D.D. Blankenship, K.M. Soderlund, C. Grima, A. Mousessian, J. Plaut, Y. Gim, **D.M. Schroeder**, E. Chapin, REASON for Europa, AAAS Div. for Planetary Sciences, Wash. DC, Nov. 8<sup>th</sup> – 13<sup>th</sup>
- 2015 **D.M. Schroeder**, Characterizing the Attenuation and Temperature Structure of Thwaites Glacier, West Antarctica, International Symposium on Contemporary Ice-Sheet Dynamics: ocean interaction, meltwater and non-linear effects, Cambridge, UK, August 16<sup>th</sup> – 21<sup>st</sup>
- 2015 M.J. Siegert, N. Ross, **D.M. Schroeder**, et al., Radio Echo Sounding of Active Subglacial Lakes in Institute Ice Stream, West Antarctica, International Symposium on Contemporary Ice-Sheet Dynamics: ocean interaction, meltwater and non-linear effects, Cambridge, UK, August 16<sup>th</sup> – 21<sup>st</sup>
- 2015 D. Castelletti\*, **D.M. Schroeder**, S. Hensley, C. Grima, G. Ng, D. Young, Yonggyu Gim, L. Bruzzone, A. Mousessian, D. D. Blankenship, Clutter Detection Using Two-Channel Radar Sounder Data, IEEE Geoscience and Remote Sensing Society, Milan, July 26<sup>th</sup> – 31<sup>st</sup>
- 2015 J.S. Greenbaum, D.D. Blankenship, D.A. Young, J.L. Roberts, R.C. Warner, **D.M. Schroeder**, T. Van Ommen, M.J. Siegert, Controls on the Sabrina Coast grounding line, East Antarctica, International Symposium on Contemporary Ice-Sheet Dynamics: ocean interaction, meltwater and non-linear effects, Cambridge, UK, August 16<sup>th</sup> – 21<sup>st</sup>
- 2015 M.G.P. Cavitte, D.D. Blankenship, D.A. Young, **D.M. Schroeder**, M.J. Siegert, F. Parrenin, E. Le Meur, J. A. MacGregor, Radar Internal Layer Stratigraphic Constraints on the East Antarctic Plateau's Old Ice, International Symposium on Antarctic Earth Sciences, Goa, July 13<sup>th</sup> – 17<sup>th</sup>
- 2015 J.S. Greenbaum, D.D. Blankenship, D.A. Young, T.G. Richter, J.L. Roberts, A.R.A. Aitken, B. Legresy, **D.M. Schroeder**, R.C. Warner, T.D. van Ommen, M.J. Siegert, Controls on a Coastal Marine Ice Sheet Instability Zone Along the Sabrina Coast, East Antarctica, Intl. Sym. on Antarctic Earth Science, Goa, July 13<sup>th</sup> – 17<sup>th</sup>
- 2015 E. Quartini, D.D. Blankenship, D.A. Young, **D.M. Schroeder**, An Evaluation OF Active Subglacial Volcanism as a Source of Thwaites Glacier Heterogeneous Geothermal Flux, International Symposium on Antarctic Earth Sciences, Goa, July 13<sup>th</sup> – 17<sup>th</sup>
- 2015 D.D. Blankenship, A. Mousessian, K.M. Soderlund, C. Grima, D.A. Young, **D.M. Schroeder**, Y. Gim, J.J. Plaut, Revealing Secrets of Europa's Ice Shell, Hidden Water and Plume Activity Through Flyby Radar Sounding, Astrobiology Science Conference, Chicago, June 15<sup>th</sup> – 19<sup>th</sup>

## Schroeder C.V. November 2021

- 2015 D.A. Young, **D.M. Schroeder**, E. Quartini, D.D. Blankenship, The Context for Subglacial Water Systems from Antarctic Airborne Observations, Subglacial Antarctic lake exploration: first results and future plans, The Royal Society, London, March 30<sup>th</sup> – 31<sup>st</sup>
- 2014 **D.M. Schroeder**, C.Y. Grima, D.D. Blankenship, Characterizing Englacial Attenuation and Grounding Zone Geometry Using Airborne Radar Sounding, AGU Fall Meeting, San Francisco, December 15<sup>th</sup> - 19<sup>th</sup>
- 2014 M.J. Siegert, N. Ross, **D.M. Schroeder**, Channelised Subglacial Hydrology Modulates West Antarctic Ice Stream Basal Conditions and Flow, AGU Fall Meeting, San Francisco, December 15<sup>th</sup> – 19<sup>th</sup>
- 2014 T.D. Komacek, D.L. Young, **D.M. Schroeder**, M.A. VanHecke, Star Formation and Exoplanetary Systems in the National Science Olympiad Astronomy Event for High School Students, American Astronomical Society, DPS meeting #46, November 9<sup>th</sup> – 14<sup>th</sup>
- 2014 **D.M. Schroeder**, Analysis Techniques, Information Content, and Measurement Requirements for Airborne Radar Sounding Data, NASA/NSF Workshop on Instruments for Polar Geology and Geophysics Research, Washington DC, October 9<sup>th</sup> -10<sup>th</sup> (invited)
- 2014 **D.M. Schroeder**, C. Grima, D.D. Blankenship, Characterizing the Location and Extent of the Thwaites Glacier Grounding Zone Using Airborne Radar Sounding, West Antarctic Ice Sheet Workshop, Julian, CA, September 24<sup>th</sup> – 27<sup>th</sup>
- 2014 D.A. Young, E. Quartini, E.M. Powell\*, **D.M. Schroeder**, T.G. Richter, D.D. Blankenship, Structure of the Marie Byrd Land crustal province from GIMBLE aerogeophysics, SCAR Open Science Conference, Auckland, New Zealand, August 25<sup>th</sup> – 28<sup>th</sup>
- 2014 D.A. Young, D.D. Blankenship, **D.M. Schroeder**, J.S. Greenbaum, The subglacial environment from remote sensing: key questions and paths forward, SCAR mini symposium on innovation on Antarctic science, Auckland, New Zealand, August 25<sup>th</sup> – 28<sup>th</sup>
- 2014 **D.M. Schroeder**, D.D. Blankenship, D.A. Young, E. Quartini, J.B. Anderson, A.E. Witus, Radar-sounding observations of basal water, sediments and geothermal heat flux, IGS Symposium on the Contribution of Glaciers and Ice Sheets to Sea-Level Change, Chamonix, France, May 26<sup>th</sup> – 30<sup>th</sup>
- 2014 D.D. Blankenship, **D.M. Schroeder**. Airborne Studies of Subglacial Boundaries in West Antarctica, International Symposium on Polar Sciences, Incheon, South Korea, May 27<sup>th</sup> – 29<sup>th</sup>
- 2014 D.D. Blankenship, A. Moussessian, **D.M. Schroeder**, K.M. Soderlund, C.Grima, Y. Gim, J.J. Plaut, B.E. Schmidt. Flyby Sounding of Europa's Icy Shell: Radar Investigations, Analogs, and Instruments for the Europa Clipper Mission, Workshop on the Habitability of Icy Worlds, Pasadena, CA, February 5<sup>th</sup> – 7<sup>th</sup>
- 2014 C. Grima, **D.M. Schroeder**, D.D. Blankenship, D.A. Young. Europa Landing Site Selection Supported by Ice Penetrating Radar, Workshop on the Habitability of Icy Worlds, Pasadena, CA, February 5<sup>th</sup> – 7<sup>th</sup>
- 2014 **D.M. Schroeder**, C.B. Burch\*, K.M. Soderlund, C. Grima, D.D. Blankenship, T.D. Komacek, T.M. Quinn, M.A. Van Hecke, B.E. Schmidt, G.W. Patterson, J.J. Plaut. Icy World Science and Habitability in the National Science Olympiad for Middle School Students, Workshop on the Habitability of Icy Worlds, Pasadena, CA, February 5<sup>th</sup> – 7<sup>th</sup>
- 2013 **D.M. Schroeder**, D.D. Blankenship, D.A. Young. Quantifying Bedform Geometry, Water Configuration, and Melt Rate Beneath Thwaites Glacier from Radar Scattering Functions. AGU Fall Meeting, San Francisco, CA, December 9<sup>th</sup> – 13<sup>th</sup>
- 2013 C. Grima, **D.M. Schroeder**, D.D. Blankenship, D.A. Young. Planetary Surface Roughness Derived from Ice Penetrating Radar Data: Method and Concept Validation in Antarctica. AGU Fall Meeting, San Francisco, CA, December 9<sup>th</sup> – 13<sup>th</sup>

## Schroeder C.V. November 2021

- 2013 C. Cura\*, E. Arnold\*, B. Karwoski\*, C. Grima, **D.M. Schroeder**, D.A. Young, D.D. Blankenship. Enhancing Europa Surface Characterization with Ice Penetrating Radar: A Comparative Study in Antarctica. AGU Fall Meeting, San Francisco, December 9<sup>th</sup> – 13<sup>th</sup>
- 2013 **D.M. Schroeder**, D.D. Blankenship, D.A. Young. What Can Radar Scattering Tell Us About Past and Future Retreats in the Amundsen Sea Embayment? WAIS Workshop, Sterling, VA, September 29<sup>th</sup> – October 2<sup>nd</sup>
- 2013 A.E. Kirshner, C.M. Branecky, J.B. Anderson, W. Szczucinski, **D.M. Schroeder**, D.D. Blankenship, M. Jakobsson. The Sedimentary Record of Meltwater Intensive Glacial Erosion in Pine Island Bay, West Antarctica and Implications for Glacial Dynamics, WAIS Workshop, Sterling, VA, Sept. 29<sup>th</sup> – Oct. 2<sup>nd</sup>
- 2013 **D.M. Schroeder**, D.D. Blankenship, R.K. Raney, D.A. Young. Buried Information: Constraining Bed Geometry and Material from the Doppler-Dependent Radar-Scattering Function. International Symposium on Radioglaciology, Lawrence, September 9<sup>th</sup> – 13<sup>th</sup>
- 2013 D.D. Blankenship, B.E. Schmidt, **D.M. Schroeder**, K.M. Soderlund, C. Grima. Flyby Sounding of Europa's Icy Shell: Radar Investigations, Analogs and Instruments for the Europa Clipper Mission, IGS International Symposium on Radioglaciology, Lawrence, KS, September 9<sup>th</sup> – 13<sup>th</sup>
- 2013 C. Grima, **D.M. Schroeder**, D.D. Blankenship, D.A. Young. Firn Variability Derived from a Statistical Analysis of Airborne Ice-Penetrating Radar Over the Thwaites Glacier Catchment, West Antarctica, IGS International Symposium on Radioglaciology, Lawrence, KS, September 9<sup>th</sup> – 13<sup>th</sup>
- 2013 M.G.P. Cavitte, D.D. Blankenship, D.A. Young, **D.M. Schroeder**, M.J. Siegert, E. LeMeur. Extending East Antarctic Ice-Core Chronology with Radar Layer Stratigraphy. IGS International Symposium on Radioglaciology, Lawrence, KS, September 9<sup>th</sup> – 13<sup>th</sup>
- 2013 **D.M. Schroeder**, D.D. Blankenship, D.A. Young. Beyond Intensity and Depth: Geophysical Glaciology with Higher Order Information from Radio Echo Sounding, Radio Echo Sounding Layer Tracing Workshop, Copenhagen, DK, May 6<sup>th</sup> – 10<sup>th</sup>
- 2013 C. Grima, **D.M. Schroeder**, D.D. Blankenship. Identifying Surface Characteristics Using an Ice Penetrating Radar Sounder at Europa: Potential for Landing Site Selection, Lunar and Planetary Science Conference, The Woodlands, TX, March 18<sup>th</sup> – 22<sup>nd</sup>
- 2012 **D.M. Schroeder**, D.D. Blankenship, D.A. Young, E.M. Powell. Configuration of Subglacial Water and Sediments Beneath Thwaites Glacier, West Antarctica: Context for a Potential Basal-Water-Triggered Grounding-Line-Retreat. AGU Fall Meeting, San Francisco, CA, December 3<sup>rd</sup> – 9<sup>th</sup>
- 2012 B.E. Schmidt, D.D. Blankenship, **D.M. Schroeder**. Europa Subsurface Science from Mutli-Flyby Missions, European Planetary Science Congress, Madrid, September 23<sup>rd</sup> – 28<sup>th</sup>
- 2012 **D.M. Schroeder**, D.D. Blankenship, D.A. Young. Evidence for Ice-Flow-Coupled Subglacial Water Systems Beneath West Antarctica's Potentially Unstable Thwaites Glacier, West Antarctic Ice Sheet Workshop, Eatonville, WA, September 19<sup>th</sup> – 22<sup>nd</sup>
- 2012 D.A. Young, J.L. Roberts, A.P. Wright, J.S. Greenbaum, S.D. Kempf, G. Ng, T.G. Richter, J.W. Holt, E. Le Meur, **D.M. Schroeder**, R.C. Warner, N.W. Young, D.D. Blankenship, M.J. Siegert, T. Van Ommen. ICECAP Data Over the Periphery of East Antarctica: A New View of a Crucial Ice Sheet, SCAR Open Science Conference, Portland, OR, July 13<sup>th</sup> – 25<sup>th</sup>
- 2012 **D.M. Schroeder**, D.D. Blankenship, D.A. Young. Remote Sensing of Subglacial Water Networks with Ice Penetrating Radar, Chapman Conf. on Remote Sensing of Terrestrial Water Cycle, Kona, HI, Feb 19<sup>th</sup> – 22<sup>nd</sup>
- 2011 **D.M. Schroeder**, D.D. Blankenship, D.A. Young. Interpretation of Sub-resolution Bedform and Subglacial Hydrologic Network Geometries from Radar Echo Specularity: Application to Thwaites Glacier, West Antarctica, AGU Fall Meeting, San Francisco, CA, December 5<sup>th</sup> – 9<sup>th</sup> (invited)

## Schroeder C.V. November 2021

- 2011 A.M. Baker, **D.M. Schroeder**, M. Van Hecke. Bringing Field Science to a High School Audience: Connecting to the Next Generation of Scientific Minds through Science Olympiad, American Geophysical Union Fall Meeting, San Francisco, December 5<sup>th</sup> – 9<sup>th</sup>
- 2011 D. D. Blankenship, B. E. Schmidt, D. A. Young, **D.M. Schroeder**, J.S. Greenbaum. The Search for a Habitable Europa: Radar, Water, and an Active Ice Shell, EPSC-DPS Joint Meeting, October 2<sup>nd</sup> – 7<sup>th</sup>
- 2011 D.A. Young, **D.M. Schroeder**, D.D. Blankenship, C.S. Jackson, M.J. Siegert, A.P. Wright, J.L. Roberts, R.C. Warner, T. van Ommen, N.W. Young. Under the Antarctic Ice: New Data in the East, New Approaches in the West, WAIS Workshop, Loveland, CO, September 21<sup>st</sup> – 23<sup>rd</sup>
- 2011 **D.M. Schroeder**, D.D. Blankenship, D.A. Young. The Basal Boundary of the Thwaites Glacier Catchment: Characterizing and Anisotropic Hydrological Environment, International Symposium on Antarctic Earth Science, Edinburgh, UK, July 10<sup>th</sup> – 16<sup>th</sup>
- 2010 **D.M. Schroeder**, D.D. Blankenship, D.A. Young. Basal Specularity of Thwaites Glacier, West Antarctica: Results from a New Tool for Evaluating Subglacial Hydrology, West Antarctic Ice Sheet Workshop, Raystown, PA, September 23<sup>rd</sup> – 25<sup>th</sup>
- 2010 **D.M. Schroeder**, D.D. Blankenship, D.A. Young. The Subglacial Hydrology of Thwaites Glacier: Characterization and Interpretation of a Basin-Scale Specularity Map, SCAR Open Science Conference, Buenos Aires, Argentina, August 3<sup>rd</sup> – 6<sup>th</sup>
- 2010 D.A. Young, D.D. Blankenship, M.J. Siegert, T. Van Ommen, A.P. Wright, J.L. Roberts, J.S. Greenbaum, B.C. Frederick, **D.M. Schroeder**, J.W. Holt, R.C. Warner, N.W. Young. Extent, geomorphology and geophysics of the Aurora and Wilkes Subglacial Basins, East Antarctica: Influences on ice sheet architecture, SCAR Open Science Conference, Buenos Aires, Argentina, August 3<sup>rd</sup> – 6<sup>th</sup>
- 2010 A.P. Wright, M.J. Siegert, D.A. Young, D.D. Blankenship, T. Van Ommen, J.L. Roberts, J.S. Greenbaum, B.C. Fredrick, **D.M. Schroeder**, J.W. Holt, R.C. Warner, N.W. Young. Subglacial hydrology of the Aurora Basin, East Antarctica, from the geophysical investigations of the ICECAP project, SCAR Open Science Conference, Buenos Aires, Argentina, August 3<sup>rd</sup> – 6<sup>th</sup>
- 2010 J.W. Holt, D.A. Young, D.D. Blankenship, J.S. Greenbaum, **D.M. Schroeder**, T.G. Richter, A.P. Wright, T. Van Ommen, M.J. Siegert, J.L. Roberts, R.C. Warner. Bed topography of the Byrd Glacier trunk from radar soundings of the ICECAP project, SCAR Open Science Conf., Buenos Aires, Argentina, August 3<sup>rd</sup> – 6<sup>th</sup>
- 2010 **D.M. Schroeder**, D.D. Blankenship, D.A. Young. Comparative Subglacial Hydrology of Thwaites Glacier, Using Basal Specularity, Chapman Conference, Exploration and Study of Antarctic Subglacial Aquatic Systems, Baltimore, MD, March 15<sup>th</sup> – 17<sup>th</sup>
- 2009 **D.M. Schroeder**, D.D. Blankenship, D.A. Young. Improved Characterization of Subglacial Hydrology Using Multiple Radar Focusing Windows: Examples from Thwaites Glacier, West Antarctica, First Antarctic Climate Evolution Symposium, Granada, Spain, September 7<sup>th</sup> – 11<sup>th</sup>

## SPACECRAFT MISSION PARTICIPATION

- 2020 – present Co-Chair, Interiors Working Group, Europa Clipper Mission, NASA
- 2020 – present Member, Geodesy Focus Group, Europa Clipper Mission, NASA
- 2016 – present Science Team Member, Mini-RF Radar, Lunar Reconnaissance Orbiter, NASA
- 2015 – present Science Team Member, REASON Radar Sounder, Europa Clipper mission, NASA
- 2015 – present Member, Interiors Working Group, Europa Clipper Mission, NASA
- 2015 – present Member, Technical Management Team, REASON Radar Sounder, Europa Clipper mission, NASA
- 2015 – present Lead, Sounding Measurement Implementation Group, REASON, Europa Clipper, NASA
- 2015 – 2021 Lead, Altimetry Measurement Implementation Group, REASON, Europa Clipper, NASA

## Schroeder C.V. November 2021

- 2015 - 2017 Lead, Passive Sounding Working Group, RIME Radar Sounder, JUICE mission, ESA
- 2013 - 2014 Technical Assistant, Europa Assessment Group, NASA
- 2010 - 2012 Technical Assistant, Europa Science Definition Team, NASA

### FIELD CAMPAIGN PARTICIPATION

- 2019 - present Co-I with Students on Field Team, TIME, Thwaites Glacier, West Antarctica (~2 Month/Yr)
- 2019 - present Collaborator with Students on Field Team, Svalbard Collaboration (~1 Month/Yr)
- 2018 - 2019 Collaborator with Students on Field Team, RESPONDER, Store Glacier, Greenland (~1 Month/Yr)
- 2008 - 2011 RF Engineer and Radar Operator, ICECAP & Operation Ice Bridge, East Antarctica (~3 Month/Yr)

### GRANTS

- 2015 - 2033 Co-I, Science Team Member, Radar for Europa Assessment and Sounding: Ocean to Near Surface (REASON), Europa Clipper Mission, NASA
- 2021 - 2023 Co-I, Investigating Four Decades of Ross Ice Shelf Subsurface Change with Historical and Modern Radar Sounding Data, NSF
- 2020 - 2023 PI, Quantitatively Remastering Archival Radar Film to Enable Multi-Decadal Investigation of the Subsurface Evolution of the Greenland Ice Sheet, Heising-Simons Foundation
- 2020 - 2023 Collaborator, Exploration of Saline Cryospheric Habitats with Europa Relevance (ESCHER): An approach using airborne and submarine semiautonomous systems, NASA PSTAR
- 2018 - 2023 PI, CAREER: Cross-Instrument Synthesis of Antarctic Radar Sounding Observations, NSF
- 2016 - 2023 Co-I, Mini-RF Radar, Lunar Reconnaissance Orbiter, NASA
- 2018 - 2022 Co-I, TIME (Thwaites Interdisciplinary Margin Evolution) - The Role of Shear Margin Dynamics in the Future Evolution of Thwaites Drainage Basin, NSF-NERC
- 2020 - 2021 PI, Using Autonomous Aircraft and Uncertainty-Informed Decision Making to Reduce Uncertainty in Sea Level Rise, Stanford Institute for Human-Centered Artificial Intelligence
- 2019 - 2020 PI, Digitizing Archival Radar Observations of the Greenland Ice Sheet from Film Records, Stanford Woods Institute
- 2018 - 2020 Co-I, Ground-based Radar Monitoring of Plant Water Content, Stanford Woods Institute
- 2018 - 2020 Co-I, Hardware Prototype for Passive Sounding of the Moon and Solar System Objects, JPL
- 2017 - 2020 Collaborator, RESolving Subglacial Properties, hydrOlogical Networks and Dynamic Evolution of ice flow on the gGreenland ice sheet (RESPONDER), European Commission
- 2016 - 2020 PI, Joint Radar and Model Investigations of Greenland Basal Water Conditions, NASA
- 2019 PI, IGS 2019: 50 Years of Radioglaciology, NASA & NSF
- 2017 - 2018 Co-I, Passive Sounding using Astronomical Radio Sources for Earth and Planetary Science, JPL
- 2017 Co-I, Glacier Velocity on Mt. Baker, Washington, MUIR Award, Stanford Woods Institute
- 2015 - 2016 Co-I, Radar Sounding and Propagation through Heterogeneous Media, JPL
- 2014 - 2015 PI, Technique Development for Grounding Zone Characterization Using Radar Sounding, NASA
- 2013 - 2014 Key Personnel, Ice Penetrating Radar, NASA Instrument Concepts for Europa Exploration
- 2009 - 2014 PI, NSF Graduate Research Fellowship Program

### PROFESSIONAL SERVICE

#### Leadership

- 2021 - present Co-Chair, Instruments & Future Technologies Committee, IEEE Geoscience & Remote Sensing Soc.
- 2021 - present Member, RINGS Action Group, Scientific Committee on Antarctic Research (SCAR)

## Schroeder C.V. November 2021

2020 – present Administration Committee, IEEE Geoscience & Remote Sensing Society  
2020 – present Associate Editor, IEEE Transactions on Geoscience and Remote Sensing  
2020 – present Co-Lead, Active Microwave - Radar and SAR Working Group, Instruments and Future Technologies Committee, IEEE Geoscience and Remote Sensing Society  
2019 – present Scientific Editor, Journal of Glaciology  
2019 – present Council Member, International Glaciological Society  
2019 – present Core Group Member, Bedmap3, Scientific Committee on Antarctic Research (SCAR)  
2019 – present Technical Committee Member, Instruments and Future Technologies Committee, IEEE GRSS  
2016 – present Steering Committee, Solid Earth Response and Influence on Cryosphere Evolution, SCAR  
2021 AGU Planetary Session Convener  
2020 Session Chair, IEEE Geoscience and Remote Sensing Symposium  
2020 Scientific Committee Member, IEEE Geoscience and Remote Sensing Symposium  
2020 Session Co-Convener, Scientific Committee on Antarctic Research, Hobart  
2020 AGU Planetary Session Convener  
2019 Chair, IGS Symposium Scientific and Organizing Committee, Stanford  
2019 Associate Chief Editor, Annals of Glaciology Volume on Progress in Radioglaciology  
2019 Scientific Committee Member, IEEE Geoscience and Remote Sensing Symposium  
2018 AGU Cryosphere Session Convener  
2018 AGU Planetary Session Convener  
2018 Convener, Invited Session, IEEE Geoscience and Remote Sensing Symposium, Valencia  
2017 AGU Planetary Session Convener  
2016 AGU Planetary Session Convener  
2015 AGU Planetary Session Convener

### **Panel Participation**

Australian Antarctic Science Program, German Research Foundation, NASA Cassini Data Analysis and Participating Scientist, NASA Cryospheric Sciences, NASA Development and Advancement of Lunar Instruments, NASA Earth Sciences Fellowship Program, NASA Earth Science Technology Office Advanced Information Systems Technology Program, NASA Lunar Surface Instrument and Technology Payloads, NASA Maturation of Instruments for Solar System Exploration, NASA Operation Ice Bridge, NASA Planetary Fellowship Program, NASA Planetary Instrument Concepts for Advancement of Solar System Observations, NASA Science Mission Directorate, NASA Solar System Workings, Natural Environment Research Council Standard Grants UK, NSF Major Research Instrumentation, NSF Science and Technology Center, NSF Section for Arctic Sciences, University of Missouri, Vermont EPSCOR

### **Reviewer**

Annals of Geophysics, Annals of Glaciology, Cold Regions Science and Technology, Earth and Planetary Science Letters, Earth System Science Data, Geological Society of London, Geophysical Research Letters, Geophysics, Geosciences, Icarus, IEEE Geoscience and Remote Sensing Letters, IEEE Geoscience and Remote Sensing Magazine, IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, IEEE Radio & Wireless Week Symposium, IEEE Transactions on Aerospace and Electronic Systems, IEEE Transactions on Geoscience and Remote Sensing, Journal of Geophysical Research: Earth Surface, Journal of Glaciology, Microwave and Optical Technology Letters, Nature, Nature Astronomy, Nature Geoscience, Philosophical Transactions of the Royal Society, Planetary and Space Science, Radio Science, Remote Sensing, Science, The Cryosphere

### **Professional Affiliations**

Member, American Geophysical Union  
Member, European Geosciences Union  
Senior Member, IEEE Geoscience and Remote Sensing Society  
Senior Member, IEEE Antennas and Propagation Society  
Member, International Association of Cryospheric Scientists  
Member, International Glaciological Society  
Member, Society of Exploration Geophysicists

### **INSTITUTIONAL SERVICE**

2021 – present Member, First-Generation and Low-Income Advisory Council, Stanford University  
2021 – present Steering Committee, Citizenship in the 21<sup>st</sup> Century, Stanford University  
2020 – present Steering Committee, Faculty Senate, Stanford University  
2020 – present Diversity Committee, Department of Geophysics, Stanford University  
2019 – present Undergraduate Advisory Council, Stanford University  
2019 – present Course Design Team, Stanford Undergraduate Shared First Year Experience  
2018 – present Faculty Senator, Stanford University  
2018 – present Earth Counsel Delegate, School of Earth, Energy, and Environmental Sciences, Stanford University  
2017 – present Director of Undergraduate Studies, Department of Geophysics, Stanford University  
2017 – present Admissions Committee, Information Systems & Science, Electrical Engineering, Stanford University  
2016 – present Pre-Major Advisor / Newcomer Guide, Stanford University  
2021 COLLEGE Fellow, Stanford University  
2017 – 2021 Academic Affairs Committee Chair, Department of Geophysics, Stanford University  
2020 Respectful Workplace Committee, School of Earth, Energy, and Env. Sciences, Stanford University  
2019 – 2020 Committee on Committees, Faculty Senate, Stanford University  
2019 Diversity Lead, Writing Team for Geophysics Department Visiting Committee, Stanford University  
2017 – 2018 Graduate Admissions Committee, Department of Geophysics, Stanford University  
2018 Reviewer, Stanford Interdisciplinary Graduate Fellowship  
2016 – 2017 Undergraduate Coordinator, Department of Geophysics, Stanford University  
2017 Undergraduate Program Team, Stanford School of Earth, Energy, and Environmental Sciences  
2017 Reviewer, Stanford Interdisciplinary Graduate Fellowship  
2016 – 2017 Atmospheric Dynamics Search Committee, Earth Systems Science Department, Stanford University  
2014 – 2015 Member, JPL Advisory Council for Women  
2014 – 2015 Division Representative, JPL Early Career Core Committee

### **TEACHING**

2021 Frontiers of Geophysical Research at Stanford, Stanford University (Guest Lecturer)  
2021 Know Your Planet (Guest Lecturer)  
2021 Want to be an Engineer? (Guest Lecturer)  
2021 Introduction to Geology, Stanford University (Guest Lecturer)  
2021 Introduction to Planetary Science, Stanford University (Guest Lecturer)  
2021 Planetary Surface Processes, Stanford University (Guest Lecturer)  
2021 Citizenship in the 21st Century, Stanford University (Guest Lecturer)

## Schroeder C.V. November 2021

2021	Climate Models and Data, Stanford University (Guest Lecturer)
2020	Introduction to the Foundations of Contemporary Geophysics, Stanford University
2020	Mission to Europa, Stanford University
2020	Want to be an Engineer? (Guest Lecturer)
2020	Frontiers of Geophysical Research at Stanford (Guest Lecturer)
2020	The Electrical Engineering Profession (Guest Lecturer)
2020	Introduction to the Foundations of Contemporary Geophysics, Stanford University
2020	Ice Penetrating Radar, Stanford University
2019	Frontiers of Geophysical Research at Stanford
2019	Want to be an Engineer? (Guest Lecturer)
2019	Introduction to the Foundations of Contemporary Geophysics, Stanford University
2018	Mission to Europa, Stanford University
2018	Frontiers of Geophysical Research at Stanford
2018	Ice Penetrating Radar, Stanford University
2018	Know Your Planet: Big Earth, Stanford University (Guest Lecturer)
2017	Near Surface Geophysics and Hydrogeophysics, Stanford University
2017	Know Your Planet: Big Earth, Stanford University (Guest Lecturer)
2016	Introduction to the Foundations of Contemporary Geophysics, Stanford University
2016	Digital Image Processing, Stanford University (Guest Lecturer)
2016	Climate Physics, Bucknell University (Guest Lecturer)
2015	Remote Sensing, University of California, Los Angeles (Guest Lecturer)
2013	The Cryosphere, Rice University (Guest Lecturer)
2013	Geophysical Glaciology: Ice Penetrating Radar, University of Texas Institute for Geophysics
2010	Radar Principles Short Course, University of Texas Institute for Geophysics

### Postdoctoral Scholar Advising

2019 – 2021	Gregor Steinbrügge, Stanford, Geophysics, Now: Planetary Scientist, NASA JPL
2017 – 2020	Winnie Chu, Stanford, Geophysics, Now: Assistant Professor, Georgia Tech
2017 – 2020	Tom Jordan, Stanford, Geophysics, Now: Earth Obs. Scientist, Plymouth Marine Lab
2017 – 2019	Davide Castelletti, Stanford, Now: SAR Applications Specialist, Capella Space
2017 – 2019	Matthew Siegfried, Stanford, Geophysics, Now: Asst. Professor, CO School of Mines
2017 – 2019	Elisa Mantelli, Stanford, Geophysics, Now: Lecturer (Asst. Prof. equivalent), U. of Tasmania

### Doctoral Student Advising

2021 - <i>present</i>	Daniel May, Stanford University, Geophysics
2020 - <i>present</i>	Thomas Teisberg, Stanford, 2 <sup>nd</sup> year Ph.D. student, Electrical Engineering
2019 - <i>present</i>	Anna Broome, Stanford, 3 <sup>rd</sup> year Ph.D. student, Electrical Engineering
2018 – <i>present</i>	Nicole Bienert, Stanford, 3 <sup>rd</sup> year Ph.D. student, Electrical Engineering
2018 – <i>present</i>	Eliza Dawson, Stanford, 3 <sup>rd</sup> year Ph.D. student, Geophysics
2018 – <i>present</i>	Riley Culberg, Stanford, 4 <sup>th</sup> year Ph.D. student, Electrical Engineering
2017 – 2021	Emma (Mickey) MacKie, Stanford, Ph.D. Geophysics, Asst. Prof., U. of Florida Fall 2021
2016 – 2020	Sean Peters, Stanford, Ph.D. Elect. Eng., Asst. Prof., Naval Postgraduate School Fall 2021



### **Doctoral “Second-Project” Student Advising**

- 2019 – *present* Paul Summers, Stanford University, Geophysics
- 2018 – 2019 Alexander Miltenberger, Stanford University, Geophysics
- 2016 – 2019 Cansu Culha, Stanford University, Geophysics
- 2016 – 2019 Cooper Elsworth, Stanford University, Geophysics, Now: Descartes Labs
- 2016 – 2019 Roger Michaelides, Stanford University, Geophysics, Now: Postdoc at Colorado School of Mines
- 2016 – 2018 Alexander Kendrick, Stanford University, Geophysics

### **Master’s and Co-Terminal Master's Student Advising**

- 2020 – *present* Sarina Kapai, Stanford University, Electrical Engineering
- 2019 – *present* Martin Altenberg, Stanford University, Electrical Engineering
- 2019 – *present* Briar Conger, Stanford University, Geophysics
- 2020 – 2021 Akua McLeod, Stanford University, Elect. Eng., Now: Ph.D. Student in Eng & Policy at CMU 2021
- 2020 – 2021 Olivia Flournoy, Stanford University, Geophysics
- 2016 – 2018 Andrew Hilger, Stanford University, M.S. Electrical Engineering, Now: Zoox

### **Visiting Graduate Student Mentorship**

- 2018 – 2019 Oliver Bartlet, University of Exeter, Geography
- 2018 – 2019 Richard Delft, University of Edinburgh, Geography, Now: Orbital Microsystems
- 2017 – 2018 Michael Cooper, University of Bristol, Geography, Now Postdoc at the University of York
- 2017 – 2018 Leonardo Carrer, University of Trento, Electrical Engineering, Now: Asst. Prof at U. Trento
- 2017 Corinne Benedek, University of Cambridge, Geography
- 2016 – 2017 T.J. Young, University of Cambridge, Geography, Now: Postdoc at Cambridge
- 2015 – 2017 Gregor Steinbrügge, Technical University of Berlin, Planetary Science, : Now: NASA JPL
- 2015 – 2017 Winnie Chu, Columbia, Geophysics, Now: Asst. Prof. at GaTech
- 2014 – 2017 Davide Castelletti, University of Trento, Electrical Engineering, Now: Capella Space

### **Undergraduate Student Mentorship**

- 2021 – *present* Anna Fischer Lopez, Stanford University, Undeclared
- 2021 – *present* Lena Schwebs, University of Tennessee, Physics
- 2021 – *present* Denis Woo, Stanford University, Electrical Engineering
- 2020 – *present* Iris Xia, Stanford University, Undeclared
- 2020 – *present* Franklin Lurie, Stanford University, Undeclared
- 2020 – *present* Brian Amaro, Stanford University, Undeclared
- 2020 – *present* Rohan Sanda, Stanford University, Undeclared
- 2021 Sina Mohammadi, Stanford University, Undeclared
- 2021 Acacia Lynch, Stanford University, Undeclared
- 2020 – 2021 Abby Romo, Stanford University, Undeclared
- 2020 – 2021 Vivian Shay Stanford University, Undeclared
- 2020 – 2021 Eli Waldman, Stanford University, Undeclared
- 2019 – 2021 Briar Conger, Stanford University, Geophysics
- 2019 – 2021 Martin Altenberg, Stanford University, Electrical Engineering
- 2018 – 2021 Michaela Murray, Stanford University, Computer Science
- 2020 Dustin Smith, Stanford University, Earth Systems

## Schroeder C.V. November 2021

2020 Angelo Tarzona, Dickenson College, Geophysics, Now: Ph.D. Student in Earth Sci. at GaTech 2021

2019 – 2020 Sara Davidova, Stanford University, Electrical Engineering

2018 – 2020 Ha Tran, Stanford University, Undeclared

2020 Akua McLeod, Stanford University, Electrical Engineering

2020 Olivia Flournoy, Stanford University, Geophysics

2019 Jasmine Jones, Stanford University, Electrical Engineering

2019 Connery Wood, Stanford University, Physics

2019 Jon Bessette, SUNY Buffalo, Mechanical Engineering, Now: Ph.D. Student in Mech.E. at MIT

2018 – 2019 Isabella Pena, Fullerton College and UC Berkeley, Physics

2018 – 2019 Sydney Marler, Stanford University, Electrical Engineering and Computers Science

2018 – 2019 Madison Goldberg, Harvard College, Earth and Planetary Sciences

2018 – 2019 Andrew Pollack, Stanford University, Computer Science

2017 – 2018 Kai Marshland, Stanford University, Electrical Engineering, Now: Windborne Systems

2017 – 2018 Meera Radhakrishnan, Stanford University, Electrical Engineering, Now: Microsoft

2017 – 2018 Stephen Spears, Stanford University, Electrical Engineering, Now: Astranis

2017 – 2018 Kathy Vega, Fullerton College and Univ. of Colorado, Engineering Physics, Now: Ball Aerospace

2016 – 2018 Nikita Darbar, Stanford University, Chemical Engineering, Now: Bain & Co.

2016 – 2018 Theo Diamandis, Stanford University, Electrical Engineering, Now: Ph.D. Student in EE at MIT

2016 – 2018 Logan Herrera, Stanford University, Electrical Engineering, Now: Red Leader Tech

2016 – 2018 Thomas Teisberg, Stanford University, EE, Now: Ph.D. Student in Electrical Engineering, Stanford

2016 – 2018 Aria Tedjarati, Stanford University, Electrical Engineering, Now: Joby Aviation

2016 – 2017 Paige Brown, Stanford University, Material Science & Engineering: Now: Windborne Systems

2016 - 2017 Joan Creus-Costa, Stanford University, Electrical Engineering

2016 – 2017 Jake Hillard, Stanford University, Electrical Engineering, Now: Red Leader Tech

2016 – 2017 Iskender Kushan, Stanford University, Electrical Engineering, Now: Microsoft

2016 – 2017 Sasha Maldonado, Stanford University, Electrical Engineering, Now: Zipline

2017 Allen Holster, Stanford University, Electrical Engineering, Now: Oracle

2017 Ryan Kirk, Stanford University, Mechanical Engineering

2017 Kat McNeill, Stanford University, Earth Systems

2017 Kirill Safin, Stanford University, Electrical Engineering, Now: ABL Space Systems

2017 Adam Stanford-Moore, Stanford University, Physics

2016 Valarie Sarge, Massachusetts Institute of Technology, Electrical Engineering, Now: Nvidia

2013 – 2016 Youry Agylamov, CalTech, Now: PhD. Student in Astronomy at Cornell

2013 – 2014 Ben Ayton, University of Texas, Now: Ph.D. Student in Aerospace Engineering at MIT

2012 Leo Breston, University of Illinois, Now: Ph.D. Student in Neuroscience at UCSD

2012 Harris Davidson, Olin College, Mechanical Engineering, Now: Instacart

2010 – 2014 Evelyn Powell, University of Texas, Now: Ph.D. Student in Geophysics at Harvard

2011 – 2014 Arami Rosales, University of Texas, Physics

2010 – 2013 Tad Komaczek, U. Chicago, 2010 – 2013, Ph.D. U. of Arizona, Now: Asst. Prof. at UMD

2008 – 2013 John DeSanto, University of Texas, Ph.D. Geophysics UCSD, Now: Postdoc U. Washington

## Schroeder C.V. November 2021

### Honors Awarded to Supervised Students

2021	Thomas Teisberg, 2 <sup>nd</sup> Place, IGARSS Best Student Paper
2021	Emma MacKie, Alex Kendrick, Top 10% Most Downloaded Papers, JGR: Earth Surface
2021	Thomas Teisberg, Graduate Fellows, Human-Centered Artificial Intelligence
2021	Sean Peters, Stanford EE Justice, Equity, Diversity, and Inclusion Award
2021	Riley Culberg, Fellow, Diversifying Academia Recruiting Excellence (DARE) Program
2021	Maddie Goldberg, AAAS Mass Media Fellowship
2021	Nicole Bienert, Symposium Prize Paper Award, Best Paper IGARSS 2020
2020	Riley Culberg, Mikio Takagi Student Prize, 1 <sup>st</sup> Place IGARSS Best Student Paper
2020	Sean Peters, Dissertation Fellow, Ford Foundation (declined)
2020	Emma MacKie, ARCS Award, ARCS Foundation
2020	Alex Kendrick, Top 10% Most Downloaded Papers, GRL
2019	Anna Broome, Winner, AGU Outstanding Student Presentation Award
2019	Riley Culberg, Winner, WAIS Workshop Best Student Poster
2019	Sean Peters, 2 <sup>nd</sup> Place, IGARSS Best Student Paper
2019	Maddie Goldberg, Winner, IGS Symposium Best Student Poster
2019	Riley Culberg, Winner, IGS Symposium Best Student Presentation
2019	Mickey MacKie, Winner, IGS Symposium Best Student Presentation
2019	Nicole Beinert, Fellow, NSF GRFP
2019	Anna Broome, Fellow, NDSEG
2019	Riley Culberg, Fellow, NDSEG
2018	Sean Peters, Fellow, Diversifying Academia Recruiting Excellence (DARE) Program
2018	Mickey MacKie, Winner, AGU Cryosphere Section Flash Freeze Competition
2018	Eliza Dawson, Fellow, NSF GRFP
2017	Sean Peters, Winner, AGU Cryosphere Section Flash Freeze Competition
2016	Sean Peters, Fellow, NSF GRFP

### Dissertation Committee Membership

2021 – present	Natan Holtzman, Stanford University, Earth System Science
2020 – present	Nurbek Tazhimbetov, Stanford University, Computational and Mathematical Engineering
2020 – present	Tyler Hall, Stanford University, Geological Sciences
2020 – present	Emma Liu, Stanford University, Geological Sciences
2019 – present	Rustam Akhmadiev, Stanford University, Geophysics
2019 – present	Krishna Rao, Stanford University, Earth System Science
2019 – present	Andrew Hennig, Stanford University, Earth System Science
2021	Kelly Stifter, Stanford University, Physics
2021	Sadjad Fouladi, Stanford University, Computer Science
2021	Casey Schine, Stanford University, Earth System Science
2021	Michelle Chernick, Stanford University, Aeronautics and Astronautics
2016 – 2020	Roger Michaelides, Stanford University, Geophysics
2016 – 2019	Cansu Culha, Stanford University, Geophysics
2016 – 2019	Alex Kendrick, Stanford University, Geophysics
2016 – 2019	Yujie Zheng, Stanford University, Geophysics
2016 – 2019	Cooper Elsworth, Stanford University, Geophysics

## Schroeder C.V. November 2021

2020 External Examiner, IIT Delhi, Civil Engineering  
2020 Hannah Joy-Warren, Stanford University, Earth System Science  
2020 Colleen Josephson, Stanford University, Electrical Engineering  
2019 Kate Lewis, Stanford University, Earth System Science  
2019 Miyuki Hino, Stanford University Emmett Interdisciplinary Program in Environment & Resources  
2019 Joe DeRose, Stanford University, Physics  
2019 Taylor Dahlke, Stanford University, Geophysics  
2019 Jonathan Goh, Stanford University, Mechanical Engineering  
2019 Greg McCracken, Stanford University, Physics  
2018 Danielle Touma, Stanford University, Earth Systems Science  
2018 Julio Hoffmann Mendes, Stanford University, Energy Resources Engineering  
2018 Ryan Smith, Stanford University, Geophysics  
2018 Enrica Quartini, University of Texas, Geophysics  
2017 Nattavadee Srisutthiyakorn, Stanford University, Geophysics  
2017 Ben Hockman, Stanford University, Mechanical Engineering  
2017 Priyanka Dutta, Stanford University, Geophysics  
2016 Emily Fay, Stanford University, Geophysics  
2016 Sam Johnstone, Stanford University, Geology  
2016 Michael Tsiang, Stanford University, Earth System Science

### **High School Student Science Team Coaching and Research Mentorship**

2021 – present Ron Freeman, Menlo Atherton  
2021 – present Kenyon Marshall, St. Edwards  
2017 – present Michelle Park, Solon  
2013 – 2016 Rebekah Albach, LASA, B.S. Wellesley, Now: Ph.D. Student in Planetary Science at Tulane  
2013 – 2016 Claire Burch, Mira Loma, A.B. Studying Astrophysics at Harvard University  
2012 – 2016 Neil Patil, LASA, B.S. Computer Science, University of Texas, Now: Helping Hands Community  
2012 – 2016 Isaree Pitaktong, LASA, B.S. Biomedical Eng., John Hopkins, Now: MD/PhD Emory/GaTech  
2012 – 2016 Zennie Wey, LASA, B.S. Biology at Harvard University, Now: Amazon  
2016 Kelyn Wood, Mountain View, Now: Studying Mechanical Engineering at Stanford University  
2012 – 2015 Elena Arnold, LASA, B.S. Computer Science at the University of Texas at Austin  
2012 – 2015 Cassidy Curra, LASA, B.A English at Lewis and Clark College  
2012 – 2015 Sam Grayson, LASA, B.S. Computer Science at UT Dallas, Now: Ph.D. Student in CS. at U.Illinois  
2012 – 2015 Blake Karwoski, LASA, Mechanical Eng. at Texas A&M, Now: M.S. Student in Robotics at U.Mich.  
2012 – 2015 Nha Nguyen, LASA, B.S. Physics and Mechanical Engineering at MIT, Now: XYZ Robotics  
2013 – 2015 Dhruv Puri, LASA, , B.S. Biology and Computer Science at UC Berkeley, Now: WHO  
2012 – 2015, Evan Tey, LASA, B.S. Computer Science and Physics at MIT  
2013 – 2015 Lily Xu, LASA, A.B. Biology at Harvard University, Now: Clearview Health Partners  
2012 – 2014 Advait Anand, LASA, B.S. Computer Science at MIT, Now: Palantir  
2012 – 2014 Ying Liu, LASA, B.S. Computer Science at Cambridge University  
2012 – 2014 Jessica Wang, LASA, A.B. Computer Science at Harvard University, Now: Facebook  
2010 – 2013 Youry Agylamov, LASA, B.S. Geophysics, CalTech, Now: PhD. Student in Astronomy at Cornell  
2011 – 2013 Miranda Donellan, LASA, B.A. Cornell College  
2011 – 2013 Arthur Lee, LASA, B.S. Biology, U.Texas, Now: PhD Student in History at Johns Hopkins

## Schroeder C.V. November 2021

2011 – 2013 Tim Loose, LASA, B.S. Chemistry, U.Texas, Now: PhD Student in Chemistry at the U. Chicago  
2011 – 2013 Marci McClenon, LASA, B.A Biology at Beloit College, Now: Company.com  
2010 – 2013 Allan Sadun, LASA, B.S.&M.S. EE at MIT, Now: LeafLabs  
2010 – 2012 Leo Breston, LASA, B.S. Physics, Illinois, Now: PhD. Student in Neurosciences at UCSD  
2010 – 2012 Harris Davidson, LASA, BS. Olin College, Mechanical Engineering, Now: Wayfair  
2010 – 2012 Calvin Ling, LASA, B.S. Mgmt Science and Engineering, Stanford University, Now: Prefix Capital  
2009 – 2012 Mark Sands, LASA, B.A. Economics, University of Chicago, Now: Susquehanna International Group  
2010 – 2012 Christopher Wang, LASA, B.S. Math and Economics, Columbia University  
2010 – 2012 Daniel Wang, LASA, B.S. Mathematics, MIT, Now: Law Student at Harvard  
2010 – 2012 Max Zern, LASA, B.S. Biology at Washington University in St. Louis  
2009 – 2011 Victoria Cui, LASA, B.S., Bio/Econ, Columbia, M.D. Wash U. St. Louis, Now: Georgetown Hospital  
2009 – 2011 Jeffery Holzgrafe, LASA, B.S. Olin, Marshall Scholar Camb., Now: Ph.D Student Physics Harvard  
2009 – 2011 Chloe Ling, LASA, , B.S., Physics, CalTech, Now: MIT Lincoln Lab  
2009 – 2011 Angela Liu, LASA, B.S., Biology, Yale University, Now: ClearView Healthcare Partners  
2008 – 2010 Eliza McDonald, LASA, B.S., Astrophysics, UC Berkeley  
2008 – 2010 Rose Kent, LASA, B.A., Biochemistry, Oregon, Now: W.R. Grace  
2008 – 2010 Travis Owen, LASA, B.A., Finance, New York University, Now: Capital Group  
2008 – 2011 Arami Rosales, LASA, B.S. Physics, University of Texas  
2008 – 2009 Ryan Doubrava, LASA, , B.A., Classics, University of Texas at Austin  
2008 – 2009 Jonathan Hillis, LASA, B.A. Environmental Science, Carleton College, Now: Instacart  
2008 – 2009 Frasier Liljestrand, LASA, B.S. Geology, Rice, Now: Ph.D. Student in Geochemistry at Harvard  
2008 – 2009 Evelyn Powell, LASA, B.S. Physics Texas, Now: Ph.D. Student in Geophysics at Harvard University  
2008 – 2009 Andrew Vanderberg, LASA, B.S. Berkeley, Ph.D. Astronomy, Harvard, Now: Asst. Prof at U. Wisc.

## OUTREACH

2019 – present Member, National Arbitration Committee, National Science Olympiad  
2019 – present Faculty Advisor, Adopt a Science Olympiad Team, Stanford Student Organization  
2016 – present Faculty Advisor, Stanford-Berkeley Science Olympiad Invitational  
2014 – present Chair, Earth and Space Science Committee, National Science Olympiad  
2003 – present Member, Earth and Space Science Committee, National Science Olympiad  
2003 – 2019 6<sup>th</sup>-12<sup>th</sup> Grade Astronomy and Planetary Science National Event Supervisor, Science Olympiad  
2021 Speaker, The Sequoias, Portola Valley, CA  
2020 Speaker, Golden Gate Science Olympiad Invitational, Berkeley, CA  
2020 Speaker, Young Earth Investigators, Stanford, CA  
2019 Speaker, Golden Gate Science Olympiad Invitational, Berkeley, CA  
2019 Speaker, Stanford Summer Research Program for Teachers Seminar  
2019 Speaker, Boynton Continuation High School, San Jose, CA  
2018 Speaker, Stanford Summer Engineering Academy  
2018 Keynote Speaker, Generation Sci, Stanford University  
2018 Speaker, Hopkins Marine Station, Monterey, CA  
2018 Panelist, One Strange Rock Screening, The Exploratorium, San Francisco, CA  
2018 Speaker, BEAM Career Seminar, Stanford University  
2018 Speaker, Golden Gate Science Olympiad Invitational, Berkeley, CA  
2017 Panelist, Uncommon Dialogues: Coastal Resilience, Woods Institute for the Environment

## Schroeder C.V. November 2021

- 2017 Speaker, Classes Without Quizzes, Stanford Homecoming
- 2017 Speaker, Stanford Summer Research Program for Teachers Seminar
- 2017 Speaker, Stanford Summer Undergraduate Research Program Seminar
- 2017 Presenter, TEDx, Stanford University
- 2017 Speaker, Golden Gate Science Olympiad Invitational, Berkeley, CA
- 2017 Presenter, Stanford Continuing Studies, Public Seminar
- 2017 Panelist, The Frontiers of Earth Science, Stanford University Parents Weekend
- 2017 Speaker, Stanford Earth Matters San Francisco
- 2016 Speaker, STEM Career Day, Mountain View High School, Mountain View, CA
- 2016 Speaker, Society of Physics Students Seminar, Massachusetts Institute of Technology
- 2016 Engaging with Faculty Speaker, New Student Orientation, Stanford University
- 2016 Presenter, Northern California Science Olympiad Coaches Clinic
- 2015 Keynote Speaker, MIT Science Olympiad Invitational
- 2015 Presenter, Caltech Science Olympiad Coaches Clinic
- 2015 Interviewee, The Blue Dot Report, North State Public Radio
- 2015 High School Astronomy State Event Supervisor, Southern California Science Olympiad
- 2014 Guest Speaker, Lakeway Men's Breakfast, Lakeway, TX
- 2007 – 2014 Volunteer Science Coach, Liberal Arts and Sciences Academy, Austin, TX
- 2011 Onboard Science Lecture, Aurora Australis AAD Voyage: Casey to Hobart
- 2010 Guest Speaker, University United Methodist Church, Austin, TX
- 2010 Guest Speaker, Solon High School, Solon, OH
- 2010 Tejas Club Life Raft Debate, Austin, TX
- 2003 – 2010 Educational Resource Agent, Chandra X-Ray Observatory