

Ali M. Bramson

Purdue University
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EDUCATION

University of Arizona, Tucson, AZ 2012–2018
Ph.D. Planetary Sciences, minor in Geosciences (Aug. 2018)
M.S. Planetary Sciences (Dec. 2015)

University of Wisconsin-Madison, Madison, WI 2007–2011
B.S. Physics and Astronomy-Physics, and certificate in Computer Science (Dec. 2011)
Graduated with distinction (honor's thesis); named on Dean's List 6 semesters

PROFESSIONAL/RESEARCH POSITIONS HELD

Assistant Professor Aug. 2020–present
Purdue University, Department of Earth, Atmospheric and Planetary Sciences (EAPS)

Postdoctoral Research Associate Sept. 2018–Aug. 2020
University of Arizona, Lunar and Planetary Laboratory (LPL)
Advisor: Prof. Lynn Carter

Graduate Research Associate Aug. 2012–Aug. 2018
University of Arizona, Lunar and Planetary Laboratory (LPL)
Advisor: Prof. Shane Byrne
Dissertation: “Radar Analysis and Theoretical Modeling of the Presence and Preservation of Ice on Mars”

Undergraduate Research Assistant Dec. 2008–May 2012
University of Wisconsin-Madison, Astronomy Department
Advisor: Prof. Eric M. Wilcots
Senior Thesis: “Using networking algorithms to assess the environments of galaxy groups”

REU Student June 2010–Aug. 2010
SETI Institute
Advisor: Dr. Cynthia Phillips
Project: Searching for ongoing geologic activity on Jupiter's satellites

REU Student May 2009–Aug. 2009
Arecibo Observatory/Cornell University
Advisors: Dr. Michael Nolan and Dr. Ellen Howell
Project: Modeling of 25143 Itokawa to improve radar-based shape estimation methods

Undergraduate Research Assistant June 2007–May 2009
University of Wisconsin-Madison, Nanoscale Science and Engineering Center (NSEC)
Advisors: Dr. Kevin M. Metz and Prof. Joel A. Pedersen
Project: Environmental transformations of metal nanoparticles and solution-based growth of nanoparticles

HONORS, AWARDS, and FELLOWSHIPS

As Faculty

- Undergraduate Student Mentoring Award, Purdue College of Science (2025)
- American Geophysical Union (AGU) Ronald Greeley Early Career Award in Planetary Science (2024)
- NASA Group Achievement Award for the I-MIM MDT awarded by NASA Headquarters (2024)
- Faculty and Staff Diversity Award, Purdue College of Science (2024)
- Faculty Mentor Impact Award, Horizon Student Support Services, Purdue University (2023)
- Outstanding Contributions to Undergraduate Teaching by an Assistant Professor award, Purdue College of Science (2023)
- Ralph E. Powe Junior Faculty Enhancement Award, Oak Ridge Associated Universities (2022)
- EAPS Teaching Honor Roll (Fall 2020; Fall 2021; Spring 2022; Fall 2022; Fall 2023, Spring 2024, Fall 2024, Spring 2025, Fall 2025)

As Postdoc

- Named a 2019 “Forward Under 40” awardee by the Wisconsin Alumni Association (2019)

As Graduate Student

- Gerard P. Kuiper Memorial Award, Lunar and Planetary Laboratory (2018)
- LPI (Lunar and Planetary Institute) Career Development Award (2017)
- Wisconsin Alumni Association Presidents’ Circle of Excellence (2017)
- NASA Earth and Space Science Fellowship (NESSF) (awarded 2016)
- Shirley D. Curson Travel Award in Planetary Science, Lunar and Planetary Laboratory (2015)
- University of Arizona Graduate and Professional Student Council Travel Grants (2015, 2018)
- Student Travel Grants from MEPAG (Mars Exploration Program Analysis Group) (2014, 2018)
- Roy P. Drachman Galileo Scholarship for Outstanding Graduate Student Teaching, University of Arizona College of Science (2014)
- Lunar and Planetary Laboratory Teaching Award (2014)
- Galileo Circle Scholarship, University of Arizona (2014, 2017)
- National Science Foundation (NSF) Graduate Research Fellowship (2013–2016)
- Outstanding Student Paper Award at the American Geophysical Union (AGU) Fall Meeting (2013)
- Arizona Space Grant Consortium Assistantship (2012–2013)
- Lt. Col. Kenneth Rondo Carson and Virginia Bryan Carson Graduate Fellowship, Lunar and Planetary Laboratory (2012–2013)

As Undergraduate Student

- Lowell Doherty Award for Excellence in Astronomy, UW-Madison Astronomy Department (2012)
- Phi Beta Kappa Honor Society (joined 2011)
- Wisconsin Space Grant Consortium Undergraduate Research Grant (2011)
- David H. Durra Scholarship (2011)
- Wisconsin Space Grant Consortium Undergraduate Scholarship (2010–2011)
- Bernice Durand Undergraduate Scholarship (2009)
- NSF Undergraduate Research and Mentoring Fellowship (2008–2011)
- William F. Vilas Scholarship (2007)
- Verona Area Community Theater Fine Arts Scholarship (2007)

GRANTS and FUNDING

Probing Origin of Life Possibilities, Atmospheric Redox, & Terrestrial Environment Evolution

Funded by: NASA Interdisciplinary Consortia for Astrobiology Research (ICAR)

PI: Stephanie Olson

Role: Collaborator

Dates: 09/2025–08/2030

Enhancing Accessibility to Caves through Virtual Reality in Collaboration with the Classroom

Funded by: Purdue Office of Experiential Education

PI: Cauê Borlina

Role: Co-I

Dates: 12/2024–12/2025

Building Endurance-P: A Purdue Lunar Science Working Group for the Endurance Mission Concept

Funded by: NASA JPL Strategic University Research Partnerships (SURP)

PI: James Keane

Role: Co-I

Dates: 10/2024–09/2027

Characterizing Pore-Filling Ice at Hekla Volcano, Southwest Iceland

Funded by: NASA Goddard Instrument Field Team (GIFT)

PI: Emileigh Shoemaker Thackston

Role: Science Team Member

Dates: 10/2024–09/2026

NASA Lunar Reconnaissance Orbiter Extended Mission 6, Mini-RF Instrument Co-I

Funded by: NASA

PI: Wes Patterson (Mini-RF instrument), W. Brent Garry (LRO Project Scientist)

Role: Co-I

Dates: 08/2024–07/2028

Archeological Survey of the Ouiatenon Preserve

Funded by: Indiana Department of Natural Resources, Wabash River Heritage Corridor Fund (WRHCF)

PI: J. Colby Bartlett

Role: Co-I

Dates: 04/2024–08/2026

Sources and Replenishment of Lunar Hydration on Diurnal Timescales

Funded by: NASA Lunar Data Analysis Program (LDAP)

PI: Ali Bramson

Dates: 09/2023–08/2026

The Climate Record of Polar Outliers on Mars

Funded by: NASA Mars Data Analysis Program (MDAP)

PI: Michael Sori

Role: Co-I

Dates: 09/2023–08/2026

Predicting Radar Observations of Mixed Ice/Dust Layers Through GPR Forward Modeling and Lab Experiments

Funded by: NASA Future Investigators in NASA Earth and Space Science and Technology (FINESST)

PI: Ali Bramson

Future Investigator: Riley McGlasson

Dates: 08/2023–08/2026

NASA Lunar Reconnaissance Orbiter Extended Mission 5, Mini-RF Instrument Co-I

Funded by: NASA

PI: Wes Patterson (Mini-RF instrument), Noah Petro (LRO Project Scientist)

Role: Co-I

Dates: 09/2022–09/2025

An Analog Study of Dust-Covered Ice on Mars

Funded by: Oak Ridge Associated Universities

PI: Ali Bramson

Dates: 06/2022–05/2023

The Mass Balance of Polar Ice on Mars from the Migration of Spiral Troughs

Funded by: NASA Mars Data Analysis Program (MDAP)

PI: Ali Bramson

Dates: 08/2020–08/2024

Mars Orbiter for Resources, Ices, and Environments (MORIE)

Funded by: NASA Planetary Mission Concepts Studies (PMCS)

PI: Wendy Calvin

Role: Co-I

Dates: 10/2019–09/2020

Global Extension to Subsurface Water Ice Mapping (SWIM)

Funded by: NASA JPL in support of the NASA Mars Exploration Program

PIs: Nathaniel Putzig and Gareth Morgan

Role: Co-I

Dates: 10/2019–03/2020

NASA Lunar Reconnaissance Orbiter Extended Mission 4, Mini-RF Instrument Science Team

Funded by: NASA

PI: Wes Patterson (Mini-RF instrument), Noah Petro (LRO Project Scientist)

Role: Science Team Member

Dates: 08/2020–09/2022

Microstructural evolution of solar system ices through sintering

Funded by: NASA Solar System Workings (SSW) Program

PI: Jamie Molaro

Role: Co-I

Dates: 10/2018–10/2025

Subsurface Water Ice Mapping (SWIM) in the Northern Hemisphere of Mars

Funded by: NASA JPL in support of the NASA Mars Exploration Program

PIs: Nathaniel Putzig and Gareth Morgan

Role: Co-I

Dates: 08/2018–04/2019

SPACECRAFT MISSION EXPERIENCE

Spacecraft mission involvement (active missions)

- NASA Lunar Reconnaissance Orbiter (LRO)
 - Mini-RF (Miniature Radio-Frequency) instrument
 - Co-I (2022–present)
 - Funded science team member (2020–2022)
 - Postdoctoral research affiliate (2018–2020)
- NASA Mars Reconnaissance Orbiter (MRO)
 - Shallow Radar (SHARAD) instrument
 - Science team participant (2015–present)
 - Hosted the 2023 MRO SHARAD and ESA Mars Express MARSIS Joint Team Meeting
 - HiRISE instrument
 - Science team participant (2012–present)
 - Received training on observation cycle planning and target selection
 - Produced 11 HiRISE Digital Terrain Models and associated orthoimages in the mission data archive delivered to the NASA Planetary Data System
- Received SPICE system training from NASA’s Navigation and Ancillary Information Facility (NAIF)

Spacecraft mission concept development

- NASA Artemis Deployed Instruments
 - PI, concept submitted to Artemis IV (\$25M cost cap, not selected)
 - PI, concept submitted to Artemis III (\$25M cost cap, not selected)
- NASA Payloads and Research Investigations on the Surface of the Moon (PRISM)
 - PI, concept submitted to PRISM4 (\$50M cost cap, pending)
 - Deputy PI, concept submitted to PRISM-SALSA (Stand-Alone Landing Site-Agnostic) (\$10M cost cap, not selected)
 - Deputy PI, concept submitted to PRISM3 (\$50M cost cap, not selected)
 - Co-I, concept submitted to PRISM3 (\$50M cost cap, not selected)
 - Co-I, concept submitted to PRISM1 (\$60M cost cap, not selected)
- NASA Astrophysics Pioneers
 - Co-I, concept submitted to Pioneers25 (\$20M cost cap, pending)
- Measurement Definition Teams
 - Assistant Co-Chair, International Mars Ice Mapper (I-MIM), a collaborative concept in development by NASA, the Italian Space Agency (ASI), the Canadian Space Agency (CSA), and the Japan Aerospace Exploration Agency (JAXA)
- Caltech W. M. Keck Institute for Space Studies (KISS) Studies
 - Next-Generation Planetary Geodesy
- NASA Planetary Mission Concept Study (PMCS), for input to NASEM Decadal Survey
 - Co-I, Mars Orbiter for Resources, Ices, and Environments (MORIE) (selected)
- NASA Discovery Program
 - Co-I, concept submitted to 2019 AO (\$500M cost cap) (not selected)
- NASA PI Launchpad Workshop 2019 (selected)
- NASA JPL Planetary Science Summer School 2016 (selected)
 - Role: Project Manager; Mission Concept: New Frontiers-class Uranus orbiter

FIELD EXPERIENCE

- Ground Penetrating Radar (GPR) surveys of permafrost, snowpack, tephra, and pore-filling ice at the Hekla volcano, Iceland
 - Includes common offset and common midpoint surveys, and use of MALÅ GroundExplorer (Gx), Sensors and Software PulseEKKO, and GSSI systems
- SIPRE augur operation for ice coring/boring
- DJI Mini drone operation for context imaging of sites
- Selected partner for the Southwest Iceland Field Team (SWIFT), a 2025 expedition led by the NASA Goddard Instrument Field Team (GIFT)
- Geopositioning using multi-band RTK GNSS (Global Navigation Satellite System) receivers
- GPR data collection at the Ouataton Preserve National Historic Landmark, an archaeological and nature preserve
- GPR data collection at the Kentland Crater impact structure
- Instructor for student field activities to map streams, sketch outcrops and stratigraphic columns, perform simple topographic surveys, measure pebble orientations, and conduct Wolman pebble counts at local sites around Tippecanoe County, Indiana
- Ice coring and GPR data collection of the Langjökull glacier, Iceland
- Differential GPS of lava flow margins, surface roughness and stereophotogrammetric ground control points at Craters of the Moon volcanic field (Idaho), the 2014–2015 Holuhraun lava flow (Iceland), and the 1783–1784 Lakagígar lava flow (Iceland)
- Participated in NASA’s 2016 Field Investigations to Enable Solar System Science and Exploration (FINESSE) field campaign
- Participated in Iceland 2015 Field Workshop on Active Lava–Water Interactions led out of the University of Arizona
- Participated in 12 semesters of Planetary Geology Field Studies to study the local geology and planetary analogs in: Tucson; Flagstaff; the Mojave Desert; Northern New Mexico and the K/T Boundary; Hawaii; Southern New Mexico; Southeastern Utah and Canyonlands; the Salton Sea; the Chiricahua Mountains and San Bernardino Valley; Southwestern Utah, and Bryce and Zion Canyons; Page, AZ; Death Valley; Canyon de Chelly
- Participated in field trips to explore Mars analogs at the HiRISE team meetings to Utah, Idaho, Iceland, and Flagstaff

SERVICE

Department

- Purdue EAPS Committees
 - Community and Belonging Committee (2021–2025; Chair 2023–present)
 - Seminar Committee (2022–2023)
 - Graduate Committee (2020–2021)
 - Honors Committee (2020–2021)
- Purdue EAPS Strategic Planning
- Purdue EAPS Student Event Engagement
 - Graduate school info night for EAPS undergraduate majors (2023)
 - Internship Q&A event for EAPS undergraduate majors (2022)
 - EAPS 137 Freshman Seminar panelist (2022)
 - Faculty advisor for graduate-student-led Astronomy on Tap: Cradle of Astronauts community outreach series (2021–2022)

- UA LPL
 - Graduate student representative to the faculty (2016–2018)
 - Prospective graduate student visit coordinator (2014, 2015)
 - LPL graduate student website webmaster (2014–2017)
 - Lunar and Planetary Laboratory Conference (LPLC) session chair (2014, 2016, 2017)
 - LPL Bratfest coordinator (2012–2017)

College

- Midwest Regional American Physical Society (APS) Conference for Undergraduate Women and Gender Minorities in Physics, Faculty Panelist (2025)
- Women in Science Program (WISP), Guest Speaker (2023)
- Purdue Science Student Council, Faculty Panelist (2023)
- College of Science Cluster Hire in Origins of Life, Search Committee Member (2022–2023)

University/Institution

- Purdue University Senate, Faculty Senator (2024–present)
- Purdue University Senate, Faculty Affairs Committee (2024–present)
- Purdue Sloan Center for Systemic Change
 - College of Science Team Member and EAPS Representative (2024–present)
- Horizons Faculty Mentor for Purdue’s Horizons Student Support Services, a part of the federal TRIO programs. Served as a mentor to 4 students (2020–2024)
- Engagement with Student Organizations
 - Purdue Science Olympiad, Faculty Advisor (2025–present)
 - Purdue Space and Earth Analog Research Chapter (SEARCH), Speaker (Feb. 2025)
 - Purdue Mars Desert Research Station, Crew Research Proposal Reviewer (Spring 2024)
 - Purdue University Geological Society (PUGS), Speaker (Nov. 2022)
 - Planetary Science Society at Purdue (PSSP), Speaker (Sept. 2022)
 - Society of Physics Students, UW-Madison chapter
 - President (2010–2011)
 - Vice President (2009–2010)
 - Events Coordinator (2008–2009)
 - Member (2007–2012)
- Wisconsin Alumni Association, Tucson Chapter, President (2014–2018)
- University of Arizona Graduate and Professional Student Council, Travel Grant Reviewer (2015)
- The Ogg Association at UW-Madison: Educational Programs Coordinator (2007–2008)

National/International Professional Community

- Peer reviewer of dozens of manuscripts (ongoing) across journals including *Nature*, *Nature Astronomy*, *Geophysical Research Letters*, *Journal of Geophysical Research: Planets*, *Science Advances*, *Scientific Reports*, *Icarus*, *Advances in Space Research*, *Radio Science*, *Geoscience and Remote Sensing Letters*, *Communications Earth & Environment*, and *Planetary Science Journal*
- Service in reviewing funding and award programs (ongoing), including NASA R&A Programs Group Chief, NASA R&A Programs Panelist, NASA R&A Programs External Reviewer, and the Dwornik Award from Geological Society of America Planetary Geology Division
- Co-Chair, 11th Community Workshop on Achievability and Sustainability of Human Exploration of Mars (AMXI) (2025)
- Member of the Panel on Geosciences for the National Academies of Sciences, Engineering, and Medicine study: “A Science Strategy for the Human Exploration of Mars” (2024–2025)
- Organizing Committee for the 2nd Advancing IDEA in Planetary Science meeting (2024)

- Science Organizing Committee for 56th Division of Planetary Sciences (DPS) meeting (2024)
- Science Organizing Committee for the 10th International Conference on Mars (2024)
- Conference and Science Organizing Committees for the 8th International Conference on Mars Polar Science & Exploration (2024)
- Co-Convener of the “Surface Processes on Rocky and Icy Bodies across the Solar System” session at the 2022 AGU Fall Meeting
- Assistant Co-Chair for the International Mars Ice Mapper (I-MIM) Measurement Definition Team (2021–2022)
- Session convener for the 2021 Regional Conference on Permafrost (RCOP) and 19th International Conference on Cold Regions Engineering (ICCRE) (2021)
- Invited Member and Short Course Speaker for the Caltech W. M. Keck Institute for Space Studies (KISS) “Next-Generation Planetary Geodesy” workshops (2021)
- Science Organizing Committee for the 7th International Conference on Mars Polar Science & Exploration (2020)
- Reviewer for the Ice and Climate Evolution Science Analysis group (ICE-SAG) report conducted by NASA’s Mars Exploration Program Analysis Group (MEPAG) (2019)
- Member of the Federal Relations Subcommittee (FRS) for the American Astronomical Society (AAS) Division of Planetary Sciences (DPS) (2019–present)

GROUP MANAGEMENT and INTERPERSONAL-RELATED TRAININGS

- Equity in Graduate Education, series of three workshops hosted by the Equity in Graduate Education Resource Center (equitygraded.org)
- Neurodiversity in the College Classroom: Improving Educator and Peer Support, workshop sponsored by Purdue’s Disability Resource Center Faculty Advisory Committee
- Green Zone Training, hosted by Purdue’s Veteran’s Success Center
- Inclusive Mentoring workshop, hosted by Purdue’s Butler Center for Leadership Excellence
- Trans-Inclusion Training, hosted by Purdue’s LGBTQ Center
- Verbal De-escalation Training, hosted by the Purdue Police Department
- Participant in the Midwest Equity in Geosciences Alliance (MEGA) URGE (Unlearning Racism in Geoscience) pod and a faculty advisor for the Purdue EAPS grad student/postdoc pod
- Participant of the Purdue EAPS department Environmental Racism reading club
- Bystander intervention training to stop anti-Asian/American and xenophobic harassment, hosted by AAJC (Asian Americans Advancing Justice) and Hollaback!
- Intergroup Dialogue Facilitation, Office of Inclusion and Multicultural Engagement, U. of Arizona
- Safe Zone Trainings, hosted by Purdue University; U. of Arizona; UW-Madison
- Workshops by the Gay, Lesbian, and Straight Education Network (GLSEN) of South-Central Wisconsin

TEACHING and CURRICULUM DEVELOPMENT

EAPS 47700: Earth and Planetary GIS (Purdue) Spring Semesters, 2024–2026
Instructor, Upper-level undergraduate skills course

EAPS 35300: Earth Surface Processes (Purdue) Fall Semesters, 2020–2025
Instructor, Undergraduate majors course with weekly lab
Co-instructed with Darryl Granger 2020–2023

EAPS 60200: New Grad Student Seminar (Purdue) Fall Semesters, 2020–2023
Instructor, Graduate student seminar course

Co-instructed with Brandon Johnson, David Minton, Xiaotao Yang

EAPS 10000: Planet Earth (Purdue)

Spring 2022

Instructor, General education undergraduate science course

Entering Research, 2nd Edition (Editors: J. Branchaw, A. Butz, and A. Smith; Publisher: Macmillan)

Author of active learning materials contributed to this curriculum to support undergraduate and graduate research trainees, <https://store.macmillanlearning.com/us/product/Entering-Research/p/1319263682>

Center for the Improvement of Mentored Experiences in Research (CIMER)

Master Consultant: Trained to help individuals and institutions develop their own implementation plan of theoretically-grounded, evidence-based, and culturally-responsive research mentee curricula

LASC/SCI 397 B & C: Entering Research I & II (University of Arizona)

2013–2018

Instructor of Record and Founder of this 2-semester workshop for undergraduate researchers at the UA
Coordinated and mentored other graduate student facilitators on learner-centered teaching practices and experiential learning involved with teaching this course

Geology 460:224: Geology of Moons and Planets (Rutgers University)

Spring 2018

Guest Lecturer, Undergraduate non-majors survey course

Astro 340: Planetary Astrophysics (UW-Madison)

Fall 2011 and Fall 2017

Guest lecturer, Undergraduate astronomy majors course
Helped develop new final class project

PTYS 554: Evolution of Planetary Surfaces (University of Arizona)

Fall 2015

Guest Lecturer, Graduate level course

Biology 260 & 261: Entering Research I & II (UW-Madison)

Fall 2010–Spring 2011

Co-facilitated this class for undergraduates beginning independent research projects

Astro 104: Our Exploration of the Solar System (UW-Madison)

Fall 2010

Guest lecturer and Reviewer of students' final projects on designing a solar system mission (undergraduate general education course)

Physics Learning Center (UW-Madison)

2009–2010

Peer Mentor Tutor (PMT): led 2+ small group sessions per week for introductory physics classes
Participated in weekly training seminars on teaching strategies

STUDENT and POSTDOC MENTORSHIP

PhD Students

- Samuel Harris (Purdue EAPS) 2024–present
- Santa Lucía Pérez Cortés (Purdue EAPS) 2022–present
- Kris Laferriere (Purdue EAPS) 2020–2025
Now: Postdoctoral Scholar at the Florida Space Institute, University of Central Florida
- Riley McGlasson (Purdue EAPS) 2020–2024
Now: Postdoctoral Research Geologist at the Smithsonian National Air and Space Museum

MS Students

- Dong Jae Lee (Purdue EAPS Geodata Science for Professionals Master's Program) 2023–2024
Now: PhD Student at Purdue EAPS

Postdocs

- Perianne Johnson (Purdue EAPS) 2025–present
- Kristel Izquierdo (Purdue EAPS) 2021–2024
Now: Postdoctoral Fellow at the Johns Hopkins University Applied Physics Laboratory and Artemis III Geology Team Affiliate

Undergraduate Student Researchers Involved in Research Group

- Garrett Kirby (University of Evansville Archaeology) Spring 2026–present
- Laura Sofia Pérez Mancipe (Universidad de los Andes Physics and Geology) Summer 2025–present
Purdue SURF Program mentor, Colombia-Purdue Partnership
- Isabella Shockley (Purdue EAPS & AAE) Summer 2025–present
- Megan Collins (Purdue AAE) Spring 2025
Now: Graduate Student, Aeronautical and Astronautical Engineering, Purdue University
- Zachary Detlaff (Purdue AAE) Spring 2025
- Jessica Cyr (Purdue EAPS) Fall 2024–Spring 2025
- Kamdon Maddox (Purdue EAPS) Fall 2024–Spring 2025
- Arunima Saha (Purdue EAPS) Fall 2024–Spring 2025
- Matthew Sheer (Purdue Aviation Management) Fall 2024–Spring 2025
- Donnie Hutchison (Purdue EAPS) Summer 2024–Spring 2025
Now: Field Staff Specialist, Tippecanoe County Assessor's Office
- Amanda Holmes (Purdue EAPS) Spring 2024–Spring 2025
Now: Graduate Student, Earth and Environmental Sciences, University of Michigan
- Jacob Ehman (Purdue AAE, with EAPS minor) Spring 2024–Fall 2024
- Adrienne Lehman (Purdue Physics) Spring 2024
- Kyleshaquill Fred Velez (UPR Mayagüez Geology) Fall 2023–Fall 2024
Now: Graduate Student, Earth Sciences, University of Western Ontario
- Christina Sowinski (Purdue EAPS) Fall 2022–present
Honors College scholarly project mentor
- Alexander Gleason (Purdue Physics) Fall 2022–Spring 2024
Now: Graduate Student, Geophysics, Stanford University
- Sara Cuevas Quiñones (Purdue Physics & EAPS) Fall 2021–Spring 2024
Honors College scholarly project and REAL Scholars Program mentor
Now: Graduate Student, Earth, Environmental and Planetary Sciences, Brown University and Fulbright Fellow, University of Chile, Santiago
- Ashwin Nomi (Purdue AAE) Fall 2021–Spring 2022
- Nachiket Watane (Purdue AAE) Spring 2021
Now: Mission Operations & Comms Vehicle Integrator, Blue Origin
- Helen Herring (Purdue AAE & EAPS) Spring 2021
- Briar Qualizza (Purdue EAPS) Spring 2021
Now: Associate Director of Recruiting, Purdue College of Science
- Emma Rogers (Purdue EAPS) Spring 2021
Now: Graduate Student, Earth Sciences, Dartmouth College
- Phylindia Gant (Purdue EAPS) Fall 2020
Now: Graduate Student, Geological Sciences, University of Florida

- Holden Gehringer (Purdue EAPS) Summer 2020–Fall 2021
Now: Geological Designer, Stantec
- Claire W. Cook (U. Arizona) 2017–2019
Advisor for Senior Honors Thesis and NASA Arizona Space Grant Consortium Internship
Now: Graduate Student, Lunar and Planetary Laboratory, University of Arizona

Graduate Student Committees (in addition to graduate advisees listed above)

- Juliana Kelley (Purdue EAPS, PhD) 2026–present
- Brianne Checketts (Purdue EAPS, PhD) 2025–present
- Mariana Aguilar (Purdue EAPS, PhD) 2025–present
- Dong Jae Lee (Purdue EAPS, PhD) 2025–present
- Sedinam Biassey-Bogart (Purdue EAPS, PhD) 2025–present
- Addison Curtis (Purdue EAPS, MS) 2024–2025
- Giovanni Bacon (Purdue EAPS, PhD) 2023–2025
- Xavier Morgan-Lange (Purdue Mechanical Engineering, PhD) 2023–present
- Ian Pamerleau (Purdue EAPS, PhD) 2022–present
- Stephanie Menten (Purdue EAPS, PhD) 2021–2025
- Hannah Gibson (Purdue EAPS, MS) 2019–2021

External Examination Committees

- Chimira Andres (PhD, York University, Toronto, Ontario, Canada) 2025
- Shannon Hibbard (PhD, University of Western Ontario, London, Ontario, Canada) 2021

INVITED TALKS

- [32] Northern Arizona University, Flagstaff, AZ – Astronomy and Planetary Science Department Colloquium (April 2026)
- [31] University of Colorado Boulder, Boulder, CO – Geological Sciences Department Colloquium (March 2026)
- [30] American Geophysical Union, New Orleans, LA – Invited talk for "Ices and Volatiles on Solid Bodies: Implications for Planetary Evolution and In Situ Resources" (Abstract #1844981) (Dec. 2025)
- [29] Asteroid Radar Modeling Workshop, Oviedo, Spain – Invited lecture on radar on spacecraft missions (May 2025)
- [28] Stanford University, Stanford, CA – Geophysics Department Seminar (May 2024)
- [27] 55th Division of Planetary Sciences – Plenary Roundtable Invited Panelist (Oct. 2023)
- [26] Southwest Research Institute and UTSA, San Antonio, TX – Space Science Seminar Series (May 2023)
- [25] Brown University, Providence, RI – Planetary Lunch Bunch (April 2023)
- [24] Notre Dame, South Bend, IN – Challenges and Innovation in Civil and Environmental Engineering and Earth Sciences Seminar Series (Feb. 2023)
- [23] ASCEND, Las Vegas, NV – Invited panelist for “Mars Together: Preparing for A Sustained Human-Robotic Future on Mars” (Session Micro-51) (Oct. 2022)
- [22] American Geophysical Union, New Orleans, LA – Invited talk for "The New Mars Underground: Astrobiology and Space Resources at the Dawn of Mars Sample Return" (Session #119935) (Dec. 2021)
- [21] Caltech W. M. Keck Institute for Space Studies, Pasadena, CA – Short Course on Geophysical Observations of Ice and Climate on Mars (June 2021)
- [20] Dartmouth College, Hanover, NH – Ice+Climate Seminar Series (April 2021)
- [19] California Institute of Technology, Pasadena, CA – Planetary Science Seminar Series (Jan. 2021)
- [18] The National Academy of Science, Space Studies Board, Washington, D.C. – Planetary Science Decadal Survey Panel on Mars (Nov. 2020)

- [17] University of Sheffield, Sheffield, UK – Physical Geography Research Seminar Series (Oct. 2020)
- [16] Lunar and Planetary Institute, Houston, TX – Seminar (July 2020)
- [15] University of Arizona, Tucson, AZ – Physics Department Colloquium (April 2020)
- [14] Seventh International Conference on Mars Polar Science and Exploration, Ushuaia, Tierra del Fuego, Argentina – Invited Talk (Jan. 2020)
- [13] Johns Hopkins University Applied Physics Laboratory, Laurel, MD – Civil Space Group Colloquium (Oct. 2019)
- [12] University of Idaho, Moscow, ID – Geology Seminar (March 2019)
- [11] Georgia Institute of Technology, Atlanta, GA – Earth and Atmospheric Sciences Seminar (March 2019)
- [10] Boise State University, Boise, ID – Physics Seminar (March 2019)
- [9] University of Utah, Salt Lake City, UT – Geology and Geophysics Colloquium (Feb. 2019)
- [8] Purdue University, West Lafayette, IN – Earth, Atmospheric, and Planetary Sciences Colloquium (Feb. 2019)
- [7] Rutgers University, New Brunswick, NJ – Earth and Planetary Sciences Seminar (Jan. 2019)
- [6] Brown University, Providence, RI – Earth, Environmental, and Planetary Sciences Colloquium (Jan. 2019)
- [5] 42nd Assembly of the Committee on Space Research, Pasadena, CA – Invited Talk (July 2018)
- [4] University of Bern, Bern, Switzerland – Center for Space and Habitability Seminar (Sept. 2017)
- [3] Massachusetts Institute of Technology, Cambridge, MA – Planetary Lunch Seminar (March 2017)
- [2] University of Wisconsin-Madison, Madison, WI – Astronomy Dept. Seminar (Oct. 2015)
- [1] Southwest Research Institute, Boulder, CO – Planetary Science Directorate Colloquium (Sept. 2015)

SELECTED OUTREACH ACTIVITIES/AUDIENCES

- Science Olympiad, Purdue Invitational (tournament hosted at Purdue for nearly 1,000 middle and high school students from around the country)
- Astronomy Ambassador for the American Astronomical Society
- Blackhawk Country Club “Club Chats” (Madison, WI)
- Kiwanis Club of Lafayette (Lafayette, IN)
- Indianapolis Motor Speedway total solar eclipse event (50,000+ people in attendance, Indianapolis, IN)
- Purdue Honors College Leading Women Towards Space Careers event (Purdue campus)
- “Bringing Mars to the Classroom” (Presentation with NASA HQ to an international forum of teachers brought together by the U.S. Department of State and Take Action Global)
- Climate Action Day, hosted by the Climate Action Project
- Boston Museum of Science, Book club for 4th–8th grade students (Boston, MA)
- Heritage International School Moldova + NASA HQ event for displaced Ukrainian children
- Astronomy on Tap: Cradle of Astronauts (Lafayette, IN)
- National 4-H STEM Summit
- Indiana Family Star Party, Indiana’s largest annual gathering of amateur astronomers and families
- Mableton Elementary School Career Day (Cobb County School District, GA)
- Steward Public Evening Lecture Series (University of Arizona campus)
- Boise State First Friday Public Astronomy Event (Boise, ID)
- Wisconsin Science Festival (Madison, WI)
- Summer Science Saturday at LPL (University of Arizona campus)
- Core Knowledge Charter School (Verona, WI)
- Deep Astronomy, Live “Footsteps to Mars” web broadcast
- Glacier Edge Elementary School (Verona, WI)
- Tucson Festival of Books (Tucson, AZ)

- The Art of Planetary Science (University of Arizona campus)
- Space Drafts Public Talk Series, Borderlands Brewery (Tucson, AZ)
- Arizona Science and Astronomy Expo (Tucson, AZ)
- Sugar Creek Elementary School (Verona, WI)
- EAGLE Middle School Science Mentor Program (Fitchburg, WI)
- Universe in the Park (Wisconsin State Parks)
- “SETI Gurls” music video creator (over 12,000 views on YouTube and featured on NPR’s Science Friday, the Huffington Post, and Astronomy Magazine)
- SETIcon, a celebration of 50 years of the Search for Extraterrestrial Intelligence (Bay Area, CA)
- Wonders of Physics (UW-Madison campus)

SELECTED MEDIA and PRESS COVERAGE

- Live television guest/interview on networks including **Fox Weather**, **WMBD/WYZZ News Peoria** ([Good Day Central Illinois morning show](#)), **Fox19 Cincinnati**, **WTHR 13 Indianapolis**, and **Fox59 Indianapolis**
- Live radio guest/interview on stations including **BeFM South Korea** ([Morning Wave in Busan](#), their flagship radio show), **NPR** ([Texas Standard](#), Idaho Matters), **630 CHED Edmonton**, **QR radio Calgary**, **KCBS San Francisco**, **WSLM Louisville**, **Fox News Radio** ([The Janice Dean Podcast](#)), and others
- **Associated Press** video about the IM-1 lunar landing featured on over 200 broadcasts across the country and world, becoming the **top-3 highest producing AP video by Purdue**; includes placements in news segments with **KTLA** (Los Angeles), **KCPQ** (Fox Seattle), **KDVR** (Fox Denver), **WTVT** (Fox Tampa), **WTTV** (CBS Indianapolis), **WLFJ** (Lafayette, IN), and **Al Jazeera**
- Video describing space missions coming in 2024 featured on the evening news with **WCVB** (ABC Boston), **WBAL** (NBC Baltimore), **WISHTV** (The CW Indianapolis), **WISN** (ABC Milwaukee), **WESH** (ABC Orlando), **KCRA** (NBC Sacramento), **KOAT** (ABC Albuquerque), **WLWT** (NBC Cincinnati), **WLKY** (CBS Louisville), and dozens of others
- Authored [article](#) for **The Conversation**, which was syndicated to **CBS News**, **Discover Magazine**, **Inverse**, and dozens of other media outlets, and translated to Spanish
- *Bramson et al. 2022* featured in **AAS Nova** (“[Deciphering the Cryptic Mystery of Buried Ancient Lava Flows](#)”)
- *Menten et al. 2022* featured in articles by **Phys.org** (“[A new explanation for the reddish north pole of Pluto's moon Charon](#)”), **Inverse** (“[Ancient ice volcanoes may have stained Pluto’s moon blood red](#)”), and others
- *Morgan et al. 2021* featured in articles by **Universe Today** (“[Here's the Best Place for Explorers to Harvest Martian Ice](#)”), **Purdue News**, **Ars Technica**, and others
- AGU [Press Release](#) and [Eos Research Spotlight](#) for *Sori and Bramson 2019*, also featured in articles by **Space.com**, **Newsweek** (“[Underground Volcanism Could Cause Liquid Water on Mars](#)”), **Science News**, **EurekAlert**, **Arizona Daily Star**, **New Atlas** (“[Liquid lake on Mars might be evidence that the Red Planet is still volcanically active](#)”), and others
- [Eos Research Spotlight](#) for *Hamilton et al. 2018*
- *Sori et al. 2018* featured in articles by **National Geographic** (“[Dozens of Ice Volcanoes Found on Dwarf Planet Ceres](#)”), **Science News**, **Gizmodo**, **Astronomy Magazine**, **Scientific American**, **Phys.org**, and others
- [NASA Press Release](#) for *Dundas et al. 2018*, which was also featured in articles by **Time** (“[Scientists Have Discovered Massive Ice Sheets on Mars](#)”), **National Geographic**, **Washington Post** (“[Mars hides](#)

- [thick sheets of solid ice just below the surface](#)”), [Gizmodo](#), [Wired](#), [Astronomy.com](#), [Smithsonian Magazine](#), [Fox News](#), and others
- *Sori et al. 2017* featured in articles by [Space.com](#) (“[Lonely Ice Volcano On Ceres May Have Once Had Company](#)”), [Astronomy.com](#), [Gizmodo](#), and others
 - *Bramson et al. 2015* featured in articles by [CBS News](#) (“[Ice sheet bigger than Texas, California found on Mars](#)”), [Space.com](#) (“[Gigantic Ice Slab Found on Mars Just Below the Planet's Surface](#)”), [UA News](#), and others
 - Featured in articles by [The Exponent](#), [Purdue News](#), [The Verona Press](#), [Arizona Sonora News](#), [The Daily Wildcat](#), [The Washburn Observer](#), [UW Alumni Magazine](#), and others
 - Quoted in a variety of articles on various topics in media outlets including [Mashable](#), [MIT Technology Review](#), [Freethink](#), [Futurism](#), [Smithsonian Magazine](#), [Salon](#), [Science News](#), and [National Geographic](#)

PEER-REVIEWED PUBLICATIONS

Primary author(s) are indicated by an asterisk (*)

Underlined = trainee with Bramson as advisor (**G** = graduate student; **U** = undergraduate student; **P** = postdoc)

- [42] *Sori, M.M., S. Patwardhan, **A.M. Bramson**, B.M. Checketts, K. Izquierdo, W.V. Vanderwarker (2026) [Distribution of Buried Volcanic Deposits in the Schiller–Schickard Region of the Moon](#). *Planetary Science Journal*, 7, 50, doi:10.3847/PSJ/ae3e85.
- [41] ***Pérez Cortés, S.L.**^G, **A.M. Bramson**, **C.M. Sowinski**^U, M. Day (2025), [Scour pits in the Medusae Fossae Formation and Olympus Mons Region on Mars](#). *Journal of Geophysical Research: Planets*, 130, 7, e2024JE008664, doi:10.1029/2024JE008664.
- [40] ***Laferriere, K.L.**^G, **A.M. Bramson**, **A. Gleason**^U (2025), [Quantities of ballistically hopping water molecules on the Moon: A resolution to the discrepancy in surface and exospheric hydration observations](#). *Journal of Geophysical Research: Planets*, 130, 4, doi:10.1029/2024JE008628.
- [39] ***Fred-Velez, K.**^U, **S.L. Pérez Cortés**^G, **A.M. Bramson**, T.R. Hudgins (2025), [Mapping of Potential Mass Wasting on Enceladus](#). *Icarus*, 430, 116471, doi:10.1016/j.icarus.2025.116471.
- [38] *Morgan, G.A., *N.E. Putzig, D.M.H. Baker, A. Pathare, C.M. Dundas, M. Russell, M.R. Perry, M. Chojnacki, H.G. Sizemore, **A.M. Bramson**, E.I. Petersen, S. Nerozzi, R.H. Hoover, Z. Bain (2025), [Refined Mapping of Subsurface Water Ice on Mars to Support Future Missions](#). *The Planetary Science Journal*, 6, 29, doi:10.3847/PSJ/ad9b24.
- [37] *Pascuzzo, A.C., **A.M. Bramson**, P. Becerra, J.F. Mustard (2025), [Development and evolution of icy layer outcrops on Mars' north polar ice cap: Observations of vertical and lateral variability](#). *Journal of Geophysical Research: Planets*, 130, 1, doi:10.1029/2024JE008377.
- [36] ***Bramson, A.M.**, A.C. Pascuzzo, P. Becerra, J.F. Mustard (2025), [Development and evolution of icy layer outcrops on Mars' north polar ice cap: A sublimation-based framework](#). *Journal of Geophysical Research: Planets*, 130, 1, doi:10.1029/2024JE008360.
- [35] ***McGlasson, R.A.**^G, M.M. Sori, **A.M. Bramson**, D.E. Lalich (2024), [Radar sounding reveals common evolutionary history between the north polar layered deposits and outlier ice deposits on Mars](#). *Geophysical Research Letters*, 51, 16, doi:10.1029/2024GL109057.
- [34] ***Laferriere, K.L.**^G, **A.M. Bramson**, I.B. Smith (2024), [Mars' North Polar Spiral Trough Migration Paths as revealed through 3D Radar Mapping](#). *Journal of Geophysical Research: Planets*, 129, 8, doi:10.1029/2023JE007996.

- [33] *Menten, S.M., M.M. Sori, **A.M. Bramson**, T.A. Nordheim, R.J. Cartwright (2024), [Volatile transport on Ariel and implications for the origin and distribution of carbon dioxide on Uranian moons](#). *Journal of Geophysical Research: Planets*, 129, 7, doi:10.1029/2024JE008376.
- [32] *Nypaver, C.A., T.R. Watters, **A.M. Bramson**, J.T.S. Cahill, J.D. Clark, C.M. Elder, C.I. Fassett, G.A. Morgan, **S.L. Pérez Cortés**^G, B.J. Thomson (2024), [Lunar Boulder Fields as Indicators of Recent Tectonic Activity](#). *The Planetary Science Journal*, 5, 77, doi:10.3847/PSJ/ad28b6.
- [31] *Fassett, C.I., **A.M. Bramson**, J.T.S. Cahill, C.P. Harris, G.A. Morgan, C.D. Neish, C.A. Nypaver, G.W. Patterson, E. Rivera-Valentin, P.A. Taylor, B.J. Thomson, and the Mini-RF Team (2024), [Improved Orthorectification and Empirical Reduction of Topographic Effects in Monostatic Mini-RF S-band Observations of the Moon](#). *The Planetary Science Journal*, 5, 4, doi:10.3847/PSJ/ad0a61.
- [30] *Morgan, G.A., E.R. Jawin, B.A. Campbell, G.W. Patterson, **A.M. Bramson**, C.A. Nypaver, J.D. Stopar, L.M. Jozwiak, A.M. Stickle, S.S. Bhiravarasu (2023), [Radar perspective of the Aristarchus pyroclastic deposit and implications for future missions](#). *The Planetary Science Journal*, 4, 11, doi:10.3847/PSJ/ad023a.
- [29] ***Izquierdo, K.^P**, **A.M. Bramson**, T. McClintock, **K.L. Laferriere**^G, S. Byrne, J. Bapst, I.B. Smith (2023), [Local Ice Mass Balance Rates via Bayesian Analysis of Mars Polar Trough Migration](#). *Journal of Geophysical Research: Planets*, 128, 10, doi:10.1029/2023JE007964.
- [28] ***McGlasson, R.A.**^G, **A.M. Bramson**, G.A. Morgan, M.M. Sori (2023), [Varied Histories of Outlier Polar Ice Deposits on Mars](#). *Journal of Geophysical Research: Planets*, 128, 5, doi:10.1029/2022JE007592.
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- [26] ***Bramson, A.M.**, L.M. Carter, G.W. Patterson, M.M. Sori, G.A. Morgan, L.M. Jozwiak, C.A. Nypaver, J.T.S. Cahill (2022), [Burial Depths of Extensive Shallow Cryptomaria in the Lunar Schiller-Schickard Region](#). *The Planetary Science Journal*, 3, 216, doi:10.3847/PSJ/ac8670.
- [25] *Egea-González, I., P.C. Lois, A. Jiménez-Díaz, **A.M. Bramson**, M.M. Sori, J.-A. Tenderso-Ventanas, J. Ruiz (2022), [The stability of a liquid-water body below the south polar cap of Mars](#). *Icarus*, 383, 115073, doi:10.1016/j.icarus.2022.115073.
- [24] *Menten, S.M., M.M. Sori, **A.M. Bramson** (2022), [Endogenically sourced volatiles on Charon and other Kuiper Belt Objects](#). *Nature Communications*, 13, 4457, doi:10.1038/s41467-022-31846-8.
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- [22] *Becerra, P., I.B. Smith, S. Hibbard, C. Andres, J. Bapst, **A.M. Bramson**, P. Buhler, A. Coronato, S. Diniega, J. Emmett, A. Grau Galofre, C. Herny, M. Kahre, J.P. Knightly, S. Nerozzi, A. Pascuzzo, G. Portyankina, J. Rabassa, L.K. Tamppari, T. Titus, J. Whitten, Z. Yoldi (2021), [Past, Present and Future of Mars Polar Science: Outcomes and outlook from the 7th International Conference on Mars Polar Science and Exploration](#). *The Planetary Science Journal*, 2, 209, doi:10.3847/PSJ/ac19a5.
- [21] *Cartwright, R.J., C.B. Beddingfield, T.A. Nordheim, C.M. Elder, J.C. Castillo-Rogez, M. Neveu, **A.M. Bramson**, M.M. Sori, B.J. Buratti, R.T. Pappalardo, J.E. Roser, I.J. Cohen, E.J. Leonard, A.I. Ermakov, M.R. Showalter, W.M. Grundy, E.P. Turtle, M.D. Hofstadter (2021), [The science case for spacecraft](#)

- [exploration of the Uranian satellites: Candidate ocean worlds in an ice giant system](#). *The Planetary Science Journal*, 2, 120, doi:10.3847/PSJ/abfe12.
- [20] *Calvin, W.M., N.E. Putzig, C.M. Dundas, **A.M. Bramson**, B.H.N. Horgan, K.D. Seelos, H.G. Sizemore, B.L. Ehlmann, G.A. Morgan, J.W. Holt, S.L. Murchie, G.W. Patterson (2021), [The Mars Orbiter for Resources, Ices, and Environments \(MORIE\) Science Goals and Instrument Trades in Radar, Imaging, and Spectroscopy](#). *The Planetary Science Journal*, 2, 76, doi:10.3847/PSJ/abe4db.
- [19] *Schaefer, E.I., C.W. Hamilton, C.D. Neish, M.M. Sori, **A.M. Bramson**, S.P. Beard (2021), [Reexamining the potential to classify lava flows from the fractality of their margins](#). *Journal of Geophysical Research: Solid Earth*, 126, 5, doi:10.1029/2020JB020949.
- [18] *Rodriguez, J.A.P., K.L. Tanaka, **A.M. Bramson**, G.J. Leonard, V.R. Baker, M. Zarroca (2021), [North polar trough formation due to in-situ erosion as a source of young ice in mid-latitude mantles on Mars](#). *Scientific Reports*, 11, 6750, doi:10.1038/s41598-021-83329-3.
- [17] *Diniega, S., **A.M. Bramson**, B. Buratti, P. Buhler, D. Burr, M. Chojnacki, S. Conway, C.M. Dundas, C.J. Hansen, A.S. McEwen, M.G. Lapôtre, J. Levy, L. McKeown, S. Piqueux, G. Portyankina, C. Swann, T.N. Titus, J.M. Widmer (2021), [Modern Mars' geomorphological activity, driven by wind, frost, and gravity](#). *Geomorphology*, 380, 107627, doi:10.1016/j.geomorph.2021.107627.
- [16] *Dundas, C.M., M.T. Mellon, S.J. Conway, I.J. Daubar, K.E. Williams, L. Ojha, J.J. Wray, **A.M. Bramson**, S. Byrne, A.S. McEwen, L. Posiolova, G. Speth, D. Viola, M.E. Landis, G.A. Morgan, A.V. Pathare (2021), [Widespread Exposures of Extensive Clean Shallow Ice in the Mid-Latitudes of Mars](#). *Journal of Geophysical Research: Planets*, 126, 3, doi:10.1029/2020JE006617.
- [15] *Morgan, G.A., N.E. Putzig, M.R. Perry, H.G. Sizemore, **A.M. Bramson**, E.I. Petersen, Z.M. Bain, D.M.H. Baker, M. Mastrogiuseppe, R.H. Hoover, I.B. Smith, A. Pathare, C.M. Dundas, B.A. Campbell (2021), [Availability of subsurface water-ice resources in the northern mid-latitudes of Mars](#). *Nature Astronomy*, 5, 230–236, doi:10.1038/s41550-020-01290-z.
- [14] *Martellato, E., **A. M. Bramson**, G. Cremonese, A. Lucchetti, F. Marzari, M. Massironi, C. Re, S. Byrne (2020), [Martian Ice Revealed by Modeling of Simple Terraced Crater Formation](#). *Journal of Geophysical Research: Planets*, 125, 10, doi:10.1029/2019JE006108.
- [13] ***Cook, C.W.**^U, **A.M. Bramson**, S. Byrne, J.W. Holt, M.S. Christoffersen, D. Viola, C.M. Dundas, T.A. Goudge (2020), [Sparse subsurface radar reflectors in Hellas Planitia, Mars](#). *Icarus*, 348, 113847, doi:10.1016/j.icarus.2020.113847.
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- [11] *Sori, M.M. and ***A.M. Bramson** (2019), [Water on Mars, with a grain of salt: local heat anomalies are required for basal melting of ice at the south pole today](#). *Geophysical Research Letters*, 46, 3, 1222–1231, doi:10.1029/2018GL080985.
- [10] *Diniega, S., I.B. Smith, **A.M. Bramson** (2019), [Updates on understanding Mars's recent and present-day climate](#). *Eos*, 100, doi:10.1029/2019EO114411.
- [9] *Sori, M.M., H.G. Sizemore, S. Byrne, **A.M. Bramson**, M.T. Bland, N.T. Stein, C.T. Russell (2018), [Cryovolcanic rates on Ceres revealed by topography](#). *Nature Astronomy*, 2, 946–950, doi:10.1038/s41550-018-0574-1.
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- [4] ***Bramson, A.M.**, S. Byrne, J. Bapst (2017), [Preservation of Mid-Latitude Ice Sheets on Mars](#). *Journal of Geophysical Research: Planets*, 112, 11, 2250–2266, doi:10.1002/2017JE005357. (JGR Editor's Highlight)
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BOOK CHAPTERS

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REPORTS

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- [1] I-MIM MDT, including **A. Bramson** (Assistant Co-Chair) (2022), Final Report of the International Mars Ice Mapper Reconnaissance/Science Measurement Definition Team. 239 pp., posted online at <https://science.nasa.gov/researchers/ice-mapper-measurement-definition-team>.

WHITE PAPERS

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- [9] Heldmann, J.L., et al. (2020), [Accelerating Martian and Lunar Science through SpaceX Starship Missions](#), White Paper Submitted to the Planetary Science and Astrobiology Decadal Survey 2023–2032.
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