

Ali M. Bramson

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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 (minor) in Computer Science (Dec. 2011)
Graduated with distinction (honor's thesis); named on UW's 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 and AWARDS

Faculty:

- ORAU Ralph E. Powe Junior Faculty Enhancement Award (2022)
- EAPS Teaching Honor Roll (Fall 2020; Fall 2021; Spring 2022; Fall 2022)

Postdoctoral:

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

Graduate:

- Gerard P. Kuiper Memorial Award (2018) - \$1,000
- Student Travel Grant from NASA’s MEPAG (Mars Exploration Program Analysis Group) to attend the Mars Workshop on Amazonian and Present-Day Climate (2018) - \$1,200
- University of Arizona (UA) Graduate and Professional Student Council Travel Grant (2018) - \$741
- LPI (Lunar and Planetary Institute) Career Development Award (2017) - \$1,000
- Wisconsin Alumni Association Presidents’ Circle of Excellence (2017)
- LPL Shirley D. Curson Travel Award in Planetary Science (2015) - \$1,500
- UA Graduate and Professional Student Council Travel Grant (2015) - \$739
- Student Travel Grant from NASA’s MEPAG to attend the 8th Intl. Conference on Mars (2014) - \$1,000
- Roy P. Drachman Galileo Scholarship for the College of Science Outstanding Graduate Student Teaching Award (2014) - \$1,000
- Lunar and Planetary Laboratory Teaching Award (2014)
- UA Galileo Circle Scholarship (2014 & 2017) - \$2,000
- Outstanding Student Paper Award at the American Geophysical Union (AGU) Fall Meeting (2013)

Undergraduate:

- UW-Madison Astronomy Dept. Lowell Doherty Award for Excellence in Astronomy recognizing a graduating senior's exceptional performance in astronomical research and in the classroom (2012) - \$500
- Phi Beta Kappa Honor Society (joined 2011)
- Wisconsin Space Grant Consortium Undergraduate Research Grant (2011) - \$3,500
- David H. Durra Scholarship for undergraduates pursuing degrees in the physical sciences (2011) - \$2,000
- Wisconsin Space Grant Consortium Undergraduate Scholarship (2010–2011) - \$1,500
- SETI Institute’s 2010 Research Experiences for Undergraduates (REU) in Astrobiology - \$5,600
- Bernice Durand Undergraduate Scholarship for undergraduate women or minorities majoring in Physics or Astronomy (2009) - \$1,900
- Arecibo Observatory’s 2009 Research Experiences for Undergraduates (REU) - \$4,500
- William F. Vilas Scholarship to freshman who demonstrate strong academic performance (2007) - \$400
- Verona Area Community Theater Fine Arts Scholarship (2007) - \$700

FELLOWSHIPS

- NASA Earth and Space Science Fellowship (NESSF) (awarded 2016) - \$30,000/year for up to 3 years
- National Science Foundation (NSF) Graduate Research Fellowship (2013–2016) - \$194,859
- Lieut. Colonel Kenneth Rondo Carson and Virginia Bryan Carson Graduate Fellowship (2012–2013)
- Arizona Space Grant Consortium Assistantship (2012–2013); combined with Carson - \$57,544
- NSF Undergraduate Research and Mentoring (URM) Fellow at UW-Madison (2008–2011) - \$36,000

GRANTS FUNDED

As the PI:

- The Mass Balance of Polar Ice on Mars from the Migration of Spiral Troughs, funded by NASA's Mars Data Analysis Program

As a Co-I:

- NASA Lunar Reconnaissance Orbiter Extended Mission 5, Mini-RF instrument, PI: Wes Patterson
- Microstructural evolution of solar system ices through sintering, PI: Jamie Molaro, funded by NASA's Solar System Workings Program
- Mars Orbiter for Resources, Ices, and Environments (MORIE), PI: Wendy M. Calvin, funded by NASA's Planetary Mission Concepts Studies (PMCS) Program
- Global Extension to Subsurface Water Ice Mapping (SWIM), PIs: Nathaniel E. Putzig and Gareth A. Morgan, funded by JPL to support NASA's Mars Exploration Program
- Subsurface Water Ice Mapping (SWIM) in the Northern Hemisphere of Mars, PIs: Nathaniel E. Putzig and Gareth A. Morgan, funded by JPL to support NASA's Mars Exploration Program

As Science Team Member:

- NASA Lunar Reconnaissance Orbiter Extended Mission 4, Mini-RF instrument science team, PI: Wes Patterson

SPACECRAFT MISSION ACTIVITIES

- Assistant Co-Chair, Measurement Definition Team for the 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)
- Co-I, NASA's Lunar Reconnaissance Orbiter (LRO) Miniature Radio Frequency (Mini-RF) radar instrument for Extended Science Mission (ESM) 5; Funded science team member for ESM 4
- Deputy PI, CryptEx, lunar mission proposal submitted to NASA's PRISM3 AO (pending)
- Co-I, Lunar IMPROV, mission concept proposal submitted to NASA's PRISM3 AO (pending)
- Co-I, Farside GLASS, mission concept proposal submitted to NASA's PRISM1 AO (not selected)
- Invited member of the Caltech W. M. Keck Institute for Space Studies (KISS) "Next-Generation Planetary Geodesy" workshop
- Co-I, MORIE (Mars Orbiter for Resources, Ices, and Environments), a NASA planetary mission concept study (PMCS) for input to the 2023 Planetary Science Decadal Survey (selected)
- Co-I, COMPASS (Climate Orbiter for Mars Polar Atmospheric and Subsurface Science), a mission concept proposed to the 2019 NASA Discovery Program AO (not selected)
- Selected participant of NASA's "PI Launchpad: Getting Your Mission Idea Off the Ground"
- Selected participant of the 2016 Planetary Science Summer School at NASA's Jet Propulsion Laboratory
 - Role: Project/Proposal Manager
 - Mission Concept: New Frontiers-class Uranus orbiter mission
- Attended the Navigation and Ancillary Information Facility (NAIF)'s SPICE training workshop
- Produced 11 HiRISE Digital Terrain Models of Mars archived on the Planetary Data System
- Science team participant for NASA's Mars Reconnaissance Orbiter's (MRO) Shallow Radar (SHARAD) and High Resolution Imaging Science Experiment (HiRISE) instruments

FIELD EXPERIENCE

- Ice coring and Ground Penetrating Radar (GPR) at 200, 350, and 900 MHz of the Langjökull glacier, Iceland with Dr. Lynn Carter and colleagues
- Differential GPS of lava flow margins, surface roughness and stereophotogrammetric ground control points at:
 - Craters of the Moon, Idaho with NASA’s 2016 FINESSE (Field Investigations to Enable Solar System Science and Exploration) field campaign
 - Iceland’s Holuhraun 2014–2015 lava flow and the Laki lava flow with Dr. Christopher Hamilton’s 2015 field workshop on active lava-water interactions
- 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

COMMUNITY COMMITTEES and REVIEWING ACTIVITIES

- Member of the AAS DPS Federal Relations Subcommittee (2019–present)
- Reviewer for the Ice and Climate Evolution Science Analysis group (ICE-SAG) report conducted by NASA’s Mars Exploration Program Analysis Group (MEPAG) (2019)
- Reviewer for the Geological Society of America (GSA) Planetary Geology Division’s Dwornik Award
- Served/Serves on various NASA Review Panels
- Peer Reviewer for *Nature*, *Nature Astronomy*, *Geophysical Research Letters*, *Icarus*, *Advances in Space Research*, *Radio Science*, *Journal of Geophysical Research: Planets*, and *Geoscience and Remote Sensing Letters*

CONFERENCE and WORKSHOP SERVICE

- Co-convenor of the “Surface Processes on Rocky and Icy Bodies across the Solar System” session at the 2022 AGU Fall Meeting (hosted within the Earth and Planetary Surface Processes Section; cross-listed with Planetary Sciences) (2022)
- Co-convenor of the “Planetary Permafrost” session at 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)
- Member of the Science Organizing Committee for the Seventh International Conference on Mars Polar Science and Exploration (2019)
- Session Chair for a variety of conferences, including: LPSC, Mars Polar Science and Exploration, Amazonian Climate, etc. (2016–present)

INSTITUTIONAL/DEPARTMENTAL SERVICE

- Purdue EAPS Department Committees
 - Seminar Committee 2022–present
 - Diversity, Equity, and Inclusion Committee 2021–present
 - Graduate Committee 2020–2021

- Honors Committee 2020–2021
- Wisconsin Alumni Association Tucson Chapter: President 2014–2018
- UA Graduate and Professional Student Council: Travel Grant Reviewer 2015
- UA LPL Graduate Student Leadership Activities
 - Representative to the faculty 2016–2018
 - Prospective graduate student visit coordinator 2014, 2015
 - Grad student website webmaster 2014–2017
 - Lunar and Planetary Laboratory Conference (LPLC) session chair 2014, 2016, 2017
 - LPL Bratfest coordinator 2012–2017
- Society of Physics Students, UW-Madison chapter
 - President 2010–2011
 - Vice President 2009–2010
 - Events Coordinator 2008–2009
 - Member 2007–2012
- The Ogg Association at UW-Madison: Educational Programs Coordinator 2007–2008

GROUP MANAGEMENT, INTERPERSONAL, and JUSTICE RELATED ACTIVITIES

- Trans-Inclusion Training hosted by Purdue's LGBTQ Center
- Verbal De-escalation Training, hosted by 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
- Bystander intervention training to stop anti-Asian/American and xenophobic harassment, 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 10000: Planet Earth (Purdue) Spring 2022

- Instructor (general education undergraduate science course)

EAPS 35300: Earth Surface Processes (Purdue) Fall 2020, 2021, 2022

- Co-instructor with Darryl Granger (undergraduate majors course with lab)

EAPS 60200: New Grad Student Seminar (Purdue) Fall 2020, 2021, 2022

- Co-instructor with Brandon Johnson and Xiaotao Yang (graduate student seminar course)

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

- 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; founded 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 Supervised

- Santa Lucía Pérez Cortés (Purdue EAPS) Fall 2022–present
- Kris Laferriere (Purdue EAPS) Fall 2020–present
- Riley McGlasson (Purdue EAPS) Fall 2020–present

Postdocs Supervised

- Kristel Izquierdo (Purdue EAPS) Spring 2021–present

Undergraduate Students Supervised

- Christina Sowinski (Purdue EAPS) Fall 2022–present
- Alexander Gleason (Purdue Physics) Fall 2022–present
- Sara Cuevas Quiñones (Purdue Physics & EAPS) Fall 2021–present
- Ashwin Nomi (Purdue AAE) Fall 2021–Spring 2022
- Holden Gehringer (Purdue EAPS) Summer 2020–Fall 2021
- Nachiket Watane, Helen Herring, Briar Qualizza, Emma Rogers (Purdue AAE & EAPS) Spring 2021
Group project to design and motivate a mission to return a sample of Martian ice
- Phylindia Gant (Purdue EAPS) Fall 2020
- Claire W. Cook (U. Arizona) 2017–2019
Advisor for Senior Honors Thesis “*Radar Constraints on the Thickness of Subsurface Ice Near Hellas Planitia, Mars*” and NASA Arizona Space Grant Consortium Internship

Graduate Committees

- Xavier Morgan-Lange (Purdue Mechanical Engineering, PhD) 2023–present
- Ian Pamerleau (Purdue EAPS, PhD) 2022–present
- Stephanie Menten (Purdue EAPS, PhD) 2021–present
- Hannah Gibson (Purdue EAPS, MS) – Committee Chair 2019–2021

External Examination Committees

- Shannon Hibbard (Western University, Ontario, Canada) 2021

INVITED TALKS

- Challenges and Innovation in Civil and Environmental Engineering and Earth Sciences Seminar Series, Notre Dame, South Bend, IN Feb. 2023
- Speaker, Mars Together: Preparing for A Sustained Human-Robotic Future on Mars AIAA ASCEND 2022, Session Micro-51, Las Vegas, NV Oct. 2022
- Invited Talk at the 2021 American Geophysical Union Fall Meeting New Orleans, LA Dec. 2021
- Short Course on Geophysical Observations of Ice and Climate on Mars Keck Institute for Space Studies, kiss.caltech.edu/short_courses/geodesy.html June 2021
- Ice+Climate Seminar Series Dartmouth College, Hanover, NH Apr. 2021
- Planetary Sciences Seminar Series California Institute of Technology, Pasadena, CA Jan. 2021
- Planetary Science Decadal Survey Panel on Mars The National Academy of Science, Space Studies Board Nov. 2020
- Physical Geography Research Seminar Series University of Sheffield, Sheffield, United Kingdom Oct. 2020
- LPI Virtual Seminar Lunar and Planetary Institute, Houston, TX July 2020
- Department Colloquium, Department of Physics University of Arizona, Tucson, AZ Apr. 2020
- Invited Talk for the Seventh International Conference on Mars Polar Science and Exploration Ushuaia, Tierra del Fuego, Argentina Jan. 2020
- Department Colloquium, Civil Space Group Johns Hopkins University Applied Physics Laboratory, Laurel, MD Oct. 2019
- Geology Seminar Series, Department of Geological Sciences University of Idaho, Moscow, ID Mar. 2019
- EAS Seminar, Department of Earth and Atmospheric Sciences Georgia Institute of Technology, Atlanta, GA Mar. 2019
- Departmental Seminar, Department of Physics Boise State University Boise, ID Mar. 2019
- Department Colloquium, Department of Geology and Geophysics University of Utah, Salt Lake City, UT Feb. 2019
- EAPS Colloquium, Department of Earth, Atmospheric, and Planetary Sciences Purdue University, West Lafayette, IN Feb. 2019
- Department Seminar, Department of Earth and Planetary Sciences Rutgers University, New Brunswick, NJ Jan. 2019
- Department Colloquium, Department of Earth, Environmental, and Planetary Sciences Brown University, Providence, RI Jan. 2019
- Solicited Presentation for the 42nd Assembly of the Committee on Space Research Pasadena, CA July 2018
- Lunch Seminar, Center for Space and Habitability University of Bern, Bern, Switzerland Sept. 2017
- Planetary Lunch Colloquium, Earth, Atmospheric and Planetary Sciences Department Mar. 2017

Massachusetts Institute of Technology, Cambridge, MA

- Lunch Seminar, Department of Astronomy Oct. 2015
University of Wisconsin-Madison, Madison, WI
- Colloquium, Planetary Science Directorate Sept. 2015
Southwest Research Institute, Boulder, CO

PEER-REVIEWED PUBLICATIONS

Underlined = trainee, Bramson is primary advisor (G = grad student; U = undergrad student; P = postdoc)

* = shared first-authorship

- [29] Izquierdo, K.^P, **A.M. Bramson**, T. McClintock, K. Laferriere^G, S. Byrne, J. Bapst, I. Smith (Submitted), Local Ice Accumulation and Retreat Rates at the North Pole of Mars from Bayesian Fit to Trough Migration Paths.
- [28] McGlasson, R.A.^G, **A.M. Bramson**, G.A Morgan, M.M. Sori (In Revision), Varied Histories of Outlier Polar Ice Deposits on Mars.
- [27] Dundas, C.M., M.T. Mellon, L.V. Posiolova, K. Miljković, G.S. Collins, L.L. Tornabene, V. Ganesh Rangarajan, M.P. Golombek, N.H. Warner, I.J. Daubar, S. Byrne, A.S. McEwen, K.D. Seelos, D. Viola, **A.M. Bramson**, G. Speth (2022), [A Large New Crater Exposes the Limits of Water Ice on Mars](#). *Geophysical Research Letters*, e2022GL100747.
- [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] 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.
- [24] 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.
- [23] Heldmann, J., M. Marinova, D. Lim, D. Wilson, P. Carrato, K. Kennedy, A. Esbeck, T. Colaprete, R. Elphic, J. Captain, K. Zacny, L. Stolov, B. Mellerowicz, J. Palmowski, **A. M. Bramson**, N. Putzig, G. Morgan, H. Sizemore, J. Cohan (2021), [Mission architecture using the SpaceX Starship vehicle to enable sustained human presence on Mars with in situ resource utilization of water ice](#). *New Space*, doi:10.1089/space.2020.0058.
- [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, and 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, e2020JB020949, 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. Mc Keown, 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, e2020JE006617, 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, e2019JE006108, 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.
- [12] **Bramson, A. M.**, S. Byrne, J. Bapst, I. B. Smith, T. McClintock (2019) [A Migration Model for the Polar Spiral Troughs of Mars](#). *Journal of Geophysical Research: Planets*, 124, 4, 1020–1043, doi:10.1029/2018JE005806.
- [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
- [8] Hamilton, C. W., P. J. Mouginis-Mark, M. M. Sori, S. P. Scheidt, **A. M. Bramson** (2018), [Episodes of aqueous flooding and effusive volcanism associated with Hrad Vallis, Mars](#). *Journal of Geophysical Research: Planets*, 123, 6, 1484–1510, doi:10.1029/2018JE005543.
- [7] Elder, C. M., **A. M. Bramson**, L. W. Blum, H. T. Chilton, A. Chopra, C. Chu, A. Das, A. B. Davis, A. Delgado, J. Fulton, L. Jozwiak, A. Khayat, M. E. Landis, J. L. Molaro, M. Slipski, S. Valencia, J. Watkins, C. L. Young, C. J. Budney, K. L. Mitchell (2018), [OCEANUS: A high science return](#)

- [Uranus orbiter with a low-cost instrument suite](#). *Acta Astronautica*, 148, 1–11, doi:10.1016/j.actaastro.2018.04.019.
- [6] Dundas, C. M., **A. M. Bramson**, L. Ojha, J. J. Wray, M. T. Mellon, S. Byrne, A. S. McEwen, N. E. Putzig, D. Viola, S. Sutton, E. Clark, J. W. Holt (2018), [Exposed subsurface ice sheets in the Martian mid-latitudes](#). *Science*, 359, 6372, 199–201, doi:10.1126/science.aao1619.
- [5] Smith, I. B., S. Diniega, D. W. Beaty, T. Thorsteinsson, P. Becerra, **A. M. Bramson**, S. M. Clifford, C. S. Hvidberg, G. Portyakina, S. Piqueux, A. Spiga, T. N. Titus (2018), [Introduction to the special issue on Mars polar science and exploration: Conference summary and five top questions](#). *Icarus*, 308, 2–14, doi:10.1016/j.icarus.2017.06.027.
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- [58] Jozwiak, L.M., **A.M. Bramson**, G.A. Morgan, G.W. Patterson, S.S. Bhiravarasu, and L.M. Carter (March 2020), Monostatic Radar Response of Lunar Pyroclastic Deposits. p.2017, *51st LPSC*, The Woodlands, TX.
- [57] Morgan, G.A., B.A. Campbell, L.M. Jozwiak, **A.M. Bramson**, G.W. Patterson, J. Cahill, C. Nypaver, and the Mini-RF team (March 2020), Fine-Scale Mapping of Mare Flow Units with Mini-RF Bistatic Data. p.2733, *51st LPSC*, The Woodlands, TX.
- [56] **Bramson, A.M.**, J.L. Molaro, E.I. Petersen, Z.M. Bain, N.E. Putzig, G.A. Morgan, I.B. Smith, H.G. Sizemore, D.M.H. Baker, M.R. Perry, M. Mastrogiuseppe, R.H. Hoover, B.A. Campbell, and A.V. Pathare (January 2020), (LPI Contrib. No. 2099, p.6015. Invited talk at the *Seventh International Conference on Mars Polar Science and Exploration (7th Mars Polar Sci.)*, Ushuaia, Tierra del Fuego, Argentina.
- [55] Sori, M.M., **A.M. Bramson**, S. Byrne, P.B. James, and J.T. Keane (January 2020), Gravitational Constraints on Mid-Latitude Ice... and the Need for More Gravity Data at Mars. LPI Contrib. No. 2099, p.6026. *7th Mars Polar Sci*, Ushuaia, Tierra del Fuego, Argentina.
- [54] McEwen, A.S., S.S. Sutton, **A.M. Bramson**, S. Byrne, E.I. Petersen, J.S. Levy, M.P. Golombek, N.R. Williams, and N.E. Putzig (January 2020), Phlegra Montes: Candidate Landing Site with Shallow Ice for Human Exploration. LPI Contrib. No. 2099, p.6008, *7th Mars Polar Sci*, Ushuaia, Tierra del Fuego, Argentina.

- [53] Ghent, R.R., L.M. Carter, Z. Courville, L. Koenig, M.R. Koutnik, and **A.M. Bramson** (December 2019), Radar-Detected Layering in Ice: Experiments, Field Data, Modeling, and Application to Mars. Abstract #NS14A-01, American Geophysical Union (AGU) Fall Meeting 2019, San Francisco, CA.
- [52] Morgan, G.A., N.E. Putzig, H.G. Sizemore, D.M.H. Baker, **A.M. Bramson**, E.I. Petersen, Z.M. Bain, R.H. Hoover, M.R. Perry, M. Mastrogiuseppe, I.B. Smith, B.A. Campbell, A.V. Pathare, and C.M. Dundas (July 2019), The Science Value of Ice Resource Mapping: Mars Subsurface Water Ice Mapping (SWIM). LPI Contrib. No. 2089, p.6418, *9th International Conference on Mars (9th Mars)*, Pasadena, CA.
- [51] Bain, Z.M., N.E. Putzig, S.J. Robbins, R.H. Hoover, **A.M. Bramson**, E.I. Petersen, and G.A. Morgan (July 2019), Analysis of Layered Ejecta Craters with Mars Reconnaissance Orbiter Shallow Radar (SHARAD) Data. LPI Contrib. No. 2089, p.6423, *9th Mars*, Pasadena, CA.
- [50] Putzig, N.E., G.A. Morgan, H.G. Sizemore, D.M.H. Baker, **A.M. Bramson**, E.I. Petersen, Z.M. Bain, R.H. Hoover, M.R. Perry, M. Mastrogiuseppe, I.B. Smith, B.A. Campbell, A.V. Pathare, and C.M. Dundas (July 2019), Results of the Mars Subsurface Water Ice Mapping (SWIM) Project. LPI Contrib. No. 2089, p.6427, *9th Mars*, Pasadena, CA.
- [49] **Bramson, A.M.**, L.M. Carter, G.W. Patterson, and M.M. Sori (March 2019), Radar Response of Lunar Cryptomaria and Pyroclastic Deposits in Mini-RF Data. LPI Contrib. No. 2132, p.2673, Oral presentation at the *50th Lunar and Planetary Science Conference (LPSC)*, The Woodlands, TX.
- [48] Cook, C.W.^U, **A.M. Bramson**, M.S. Christoffersen, S. Byrne, J.W. Holt, D. Viola, C.M. Dundas, T.A. Goudge (March 2019), Radar Constraints on the Thickness of Subsurface Ice Near Hellas Planitia, Mars. LPI Contrib. No. 2132, p.2245, *50th LPSC*, The Woodlands, TX.
- [47] *Sori, M.M., and ***A.M. Bramson** (March 2019), A Story of Water, Ice, and Fire on Mars: Conditions for generating Liquid Water under the South Polar Layered Deposits. LPI Contrib. No. 2132, p.1073, *50th LPSC*, The Woodlands, TX.
- [46] **Bramson, A.M.**, E.I. Petersen, Z.M. Bain, N.E. Putzig, G.A. Morgan, M. Mastrogiuseppe, M.R. Perry, I.B. Smith, H.G. Sizemore, D.M.H. Baker, R.H. Hoover, and B.A. Campbell. (March 2019), Mars Subsurface Water Ice Mapping (SWIM): Radar Subsurface Reflectors. LPI Contrib. No. 2132, p.2069, *50th LPSC*, The Woodlands, TX.
- [45] Morgan, G.A., N.E. Putzig, M.R. Perry, **A.M. Bramson**, E.I. Petersen, Z.M. Bain, M. Mastrogiuseppe, D.M. H. Baker, I.B. Smith, R.H. Hoover, H.G. Sizemore, and B.A. Campbell (March 2019), The Mars Subsurface Water Ice Mapping (SWIM) Project. LPI Contrib. No. 2132, p.2918, *50th LPSC*, The Woodlands, TX.
- [44] Putzig, N.E., D.M. Hollibaugh Baker, G.A. Morgan, Z.M. Bain, **A.M. Bramson**, R.H. Hoover, M. Mastrogiuseppe, M.R. Perry, E.I. Petersen, H.G. Sizemore, I.B. Smith, and B.A. Campbell (March 2019), Mars Subsurface Water Ice Mapping (SWIM): Geomorphic Mapping. LPI Contrib. No. 2132, p.2087, *50th LPSC*, The Woodlands, TX.
- [43] Perry, M.R., Z.M. Bain, N.E. Putzig, G.A. Morgan, **A.M. Bramson**, E.I. Petersen, M. Mastrogiuseppe, D.M.H. Baker, R.H. Hoover, H.G. Sizemore, I.B. Smith, and B.A. Campbell (March 2019), Mars Subsurface Water Ice Mapping (SWIM): Geomorphic Mapping. LPI Contrib. No. 2132, p.3083, *50th LPSC*, The Woodlands, TX.
- [42] Bain, Z.M., G.A. Morgan, N.E. Putzig, B.A. Campbell, **A.M. Bramson**, E.I. Petersen, M. Mastrogiuseppe, M.R. Perry, D.M.H. Baker, I.B. Smith, R.H. Hoover, and H.G. Sizemore (March 2016), Mars Subsurface Water Ice Mapping (SWIM): Radar Surface Reflectivity. LPI Contrib. No. 2132, p.2726, *50th LPSC*, The Woodlands, TX.
- [41] Hoover, R.H., H.G. Sizemore, Z. Bain, N.E. Putzig, G.A. Morgan, M.R. Perry, M. Mastrogiuseppe, D.M.H. Baker, **A.M. Bramson**, E. Petersen, I.B. Smith, and B. A. Campbell (March 2019), Mars Subsurface Water Ice Mapping (SWIM): Thermal Analysis. LPI Contrib. No. 2132, p.1679, *50th LPSC*, The Woodlands, TX.

- [40] **Bramson, A.M.** (July 2018), The Amazonian climate of Mars: A cold and dry summary (Invited), Abstract B4.1-0004-18, Oral presentation at the *42nd Assembly of the Committee on Space Research (COSPAR)*, Pasadena, CA.
- [39] **Bramson, A.M.**, S. Byrne, J. Bapst, and I.B. Smith (June 2018), The mass balance of Mars' spiral troughs. LPI Contrib. No. 2086, p.4023, Oral presentation at the *Mars Workshop on Amazonian Climate 2018*, Lakewood, CO.
- [38] Cook, C.W.^U, **A.M. Bramson**, S. Byrne, D. Viola, J.W. Holt, M.S. Christoffersen, and C.M. Dundas (June 2018), Searching for subsurface ice in Hellas Planitia using SHARAD. LPI Contrib. No. 2086, p.4041, *Mars Workshop on Amazonian Climate 2018*, Lakewood, CO.
- [37] **Bramson, A.M.**, S. Byrne, J. Bapst, and I.B. Smith (March 2018), The role of sublimation in the migration of Mars' spiral polar troughs. LPI Contrib. No. 2083, p.2611, Oral presentation at the *49th Lunar and Planetary Science Conference (LPSC)*, The Woodlands, TX.
- [36] Cook, C.W.^U, **A.M. Bramson**, S. Byrne, D. Viola, J.W. Holt, M.S. Christoffersen, and C.M. Dundas (March 2018), Searching for subsurface ice in Hellas Planitia using SHARAD. LPI Contribution No. 2083, p.2457, *49th LPSC*, The Woodlands, TX.
- [35] Sori, M.M., H.G. Sizemore, S. Byrne, **A.M. Bramson**, M.T. Bland, and C.T. Russell (March 2018), Ceres' cryovolcanic history. LPI Contribution No. 2083, p.1628, *49th LPSC*, The Woodlands, TX.
- [34] Hamilton, C.W., P.J. Mouginis Mark, M.M. Sori, S.P. Scheidt, and **A.M. Bramson** (March 2018), Evidence of lava flow inflation near Hrad Vallis, Mars. LPI Contribution No. 2083, p.2313, *49th LPSC*, The Woodlands, TX.

— 2017 —

- [33] **Bramson, A.M.**, S. Byrne, and J. Bapst (September 2017), Stability of mid-latitude excess ice on Mars over 10s of millions of years. id.EPSC2017-425, Oral presentation at the *European Planetary Science Congress (EPSC)*, Riga, Latvia.
- [32] Sori, M.M., S. Byrne, and **A.M. Bramson** (September 2017), Present-day flow rates of mid-latitude glaciers on Mars. id.EPSC2017-382, *European Planetary Science Congress (EPSC)*, Riga, Latvia.
- [31] **Bramson, A.M.**, S. Byrne, and J. Bapst (September 2017), Preservation Of mid-latitude ice sheets on Mars. *Theoretical and Laboratory Investigations of Icy Regoliths Workshop*, Green Bank, WV.
- [30] **Bramson, A.M.**, S. Byrne, and J. Bapst (March 2017), Survival Of mid-latitude ground ice on Mars. LPI Contribution No. 1964, p.2692, Oral presentation at the *48th LPSC*, The Woodlands, TX.
- [29] **Bramson, A.M.**, C.M. Elder, L.W. Blum, H.T. Chilton, A. Chopra, C. Chu, A. Das, A. Davis, A. Delgado, J. Fulton, L. Jozwiak, A. Khayat, M.E. Landis, J.L. Molaro, M. Slipski, S.Valencia, J. Watkins, C.L. Young, C.J. Budney, and K.L. Mitchell (March 2017), OCEANUS: A Uranus orbiter concept study from the 2016 NASA/JPL Planetary Science Summer School. LPI Contribution No. 1964, p.1583, *48th LPSC*, The Woodlands, TX.
- [28] Schaefer, E.I., C.W. Hamilton, C.D. Neish, M.M. Sori, **A.M. Bramson**, S.P. Beard, S.I. Peters, T.A. Miller, and E. L. Rader (March 2017), Seeing pāhoehoe from orbit (without squinting). LPI Contribution No. 1964, p.2343, *48th LPSC*, The Woodlands, TX.
- [27] Sori, M.M., M.E. Landis, J. Bapst, **A.M. Bramson**, S. Byrne, V. Reddy, and M.K. Shepard (March 2017), Ice stability on Psyche and implications for the planetary core hypothesis. LPI Contribution No. 1964, p.2550, *48th LPSC*, The Woodlands, TX.
- [26] Williams, N.R., M.P. Golombek, **A.M. Bramson**, D. Viola, S. Byrne, and A.S. McEwen (March 2017), Surface morphologies of Arcadia Planitia as an indicator of past and present near-surface ice. LPI Contribution No. 1964, p.2852, *48th LPSC*, The Woodlands, TX.
- [25] Smith, I.B., S. Diniega, D.W. Beaty, T. Thorsteinsson, P. Becerra, **A.M. Bramson**, S.M. Clifford, C.S. Hvidberg, G. Portyankina, S. Piqueux, A. Spiga, and T.N. Titus (March 2017), The 6th International Conference on Mars Polar Science and Exploration: State of knowledge and Top Five Questions. LPI Contribution No. 1964, P.1701, *48th LPSC*, The Woodlands, TX.

[24] Sori, M.M., S. Byrne, M.T. Bland, **A.M. Bramson**, A.I. Ermakov, C.W. Hamilton, K.A. Otto, O. Ruesch, and C.T. Russell (March 2017), The vanishing cryovolcanoes of Ceres. LPI Contribution No. 1964, p.1116, *48th LPSC*, The Woodlands, TX.

[23] Elder, C.M., **A.M. Bramson**, L.W. Blum, H.T. Chilton, A. Chopra, C. Chu, C. A. Das, A. Davis, A. Delgado, J. Fulton, L. Jozwiak, A. Khayat, M.E. Landis, J.L. Molaro, M. Slipski, S. Valencia, J. Watkins, C.L. Young, C.J. Budney, K.L. Mitchell (February 2017), New Frontiers-class missions to the Ice Giants. LPI Contribution No. 1989, p.8147, *Planetary Science Vision 2050 Workshop*, Washington, DC.

— 2016 —

[22] Schaefer, E.I., C. Hamilton, C. Neish, S.P. Beard, **A.M. Bramson**, M. Sori, and E.L. Rader (December 2016), Decoding the Margins: What can the fractal geometry of basaltic flow margins tell us? Abstract #P33D-2187, *American Geophysical Union (AGU) Fall Meeting 2016*, San Francisco, CA.

[21] **Bramson, A.M.**, S. Byrne and J.N. Bapst (September 2016), Preservation of excess ice in the Northern mid-latitudes of Mars. LPI Contribution No. 1926, p.6074, Oral presentation at the *6th Mars Polar Science Conference*, University of Iceland, Reykjavik, Iceland.

[20] **Bramson, A.M.**, S. Byrne (March 2016), Implications of Martian excess ground ice stability. LPI Contribution No. 1903, p.2314, *47th LPSC*, The Woodlands, TX.

[19] Sori, M.M., S. Byrne, J.N. Bapst, P. Becerra, **A.M. Bramson**, M.E. Landis (March 2016), A Wunda-full world? Testing the plausibility of carbon dioxide frost on Umbriel. LPI Contribution No. 1903, p.1053, *47th LPSC*, The Woodlands, TX.

— 2015 —

[18] Martellato, E., G. Cremonese, A. Lucchetti, **A.M. Bramson**, S. Byrne (September 2015), Modeling of terraced craters on Mars. LPI Contribution No. 1861, p.1078, *Bridging the Gap III*, Freiburg, Germany.

[17] **Bramson, A.M.**, S. Byrne, S. Sutton, N.E. Putzig, E. Martellato, G. Cremonese, J.J. Plaut, J.W. Holt (March 2015), A study of Martian mid-latitude ice using observations and modeling of terraced craters. LPI Contribution No. 1832, p.1565, *46th LPSC*, The Woodlands, TX.

— 2014 —

[16] **Bramson, A.M.**, S. Byrne, N.E. Putzig, S. Mattson, J.J. Plaut, J.W. Holt (November 2014), Distribution and compositional constraints on subsurface ice in Arcadia Planitia, Mars. id.203.05, Oral presentation at the *46th Division of Planetary Sciences (DPS) Conference*, Tucson, AZ.

[15] Martellato, E., G. Cremonese, A. Lucchetti, M. Massironi, F. Marzari, **A.M. Bramson**, S. Byrne, S. Mattson (November 2014), Ground ice on Mars: Numerical modelling of a terraced crater in Arcadia Planitia. id.203.06, *46th DPS Conference*, Tucson, AZ.

[14] Nolan, M., **A.M. Bramson**, C. Magri (July 2014), Radar scattering functions using Itokawa as ground truth. p.408, *Asteroids, Comets, Meteors (ACM) 2014*, Helsinki, Finland.

[13] **Bramson, A.M.**, S. Byrne, N.E. Putzig, S. Mattson, J.J. Plaut, J.W. Holt (July 2014), Thick, excess water ice in Arcadia Planitia. LPI Contribution No. 1791, p.1042, *8th International Conference on Mars*, Pasadena, CA.

[12] **Bramson, A.M.**, S. Byrne, N.E. Putzig, S. Mattson, J.J. Plaut, J.W. Holt (March 2014), Thick, excess water ice in Arcadia Planitia, Mars. LPI Contribution No. 1777, p.2120, Oral presentation at the *45th LPSC*, The Woodlands, TX.

— 2013 —

[11] **Bramson, A.M.**, S. Byrne, N.E. Putzig, J.J. Plaut, S. Mattson, J.W. Holt (December 2013), Thick subsurface water ice in Arcadia Planitia, Mars. Abstract #P43D-05, Oral presentation at the *2013 American Geophysical Union (AGU) Fall Meeting*, San Francisco, CA.

[10] **Bramson, A.M.**, S. Byrne, N.E. Putzig, S. Mattson, J.J. Plaut (March 2013), Terraced craters and subsurface ice in Arcadia Planitia, Mars. LPI Contribution No. 1719, p.2905, *44th LPSC*, The Woodlands, TX.

— 2012 —

[9] **Bramson A.M.**, K. Hess, and E.M. Wilcots (January 2012), Applying social networking and clustering algorithms to galaxy groups in ALFALFA. id.329.07, Oral presentation at the 219th *American Astronomical Society (AAS) Conference*, Austin, TX.

— 2011 —

[8] **Bramson, A.M.** and E.M. Wilcots, (August 2011), Using networking algorithms to assess the environment of galaxy groups. Oral presentation at the 21st *Annual Wisconsin Space Conference*, La Crosse, WI.

[7] **Bramson, A.M.**, C.B. Phillips and J.P. Emery, (March 2011). A search for ongoing geologic activity on Jupiter's satellites. LPI Contribution No. 1608, p.1606, 42nd *LPSC*, The Woodlands, TX.

[6] **Bramson, A.M.** and E.M. Wilcots, (January 2011), Using networking algorithms to assess the environment of galaxy groups. id.149.26, Vol. 43, 217th *AAS Conference*, Seattle, WA.

— 2010 —

[5] **Bramson, A.M.**, C.B. Phillips and J.P. Emery, (August 2010). A search for ongoing geologic activity on Jupiter's satellites. Oral presentation at the SETI Institute colloquium, Mountain View, CA.

— 2009 —

[4] **Bramson, A.M.**, C. Magri, E.S. Howell, M.C. Nolan, P.A. Taylor, (October 2009), The Hayabusa spacecraft model of Itokawa: Lessons learned for radar shape models, id.50.04, 41st *DPS Conference*, Fajardo, Puerto Rico.

[3] **Bramson, A.M.**, J.A. Pedersen, (April 2009), Stability of nanoparticles under simulated environmental conditions, Oral presentation at the 11th *Annual UW-Madison Undergraduate Research Symposium*, Madison, WI.

[2] **Bramson, A.M.**, K.M. Metz, and J.A. Pedersen, (January 2009), Stability of metal nanoparticles under simulated environmental conditions, 2nd *Annual Undergraduate Conference for Women in Physics*, Urbana, IL.

— 2008 —

[1] **Bramson, A.M.**, K.M. Metz and J.A. Pedersen, (April 2008), Stability of palladium nanoparticles under simulated environmental conditions, CHED #1131, 235th *American Chemical Society (ACS) Conference*, New Orleans, LA.

OUTREACH

<i>Together to Mars for the Benefit of the Earth; NASA HQ+Heritage International School Moldova</i>	2022
<ul style="list-style-type: none"> Spoke to dozens of Ukrainian children over Zoom about Mars exploration 	
<i>Astronomy on Tap: Cradle of Astronauts</i>	2021
<ul style="list-style-type: none"> Faculty advisor for this local community outreach series, started and ran by EAPS grad students AoT Featured Speaker, Nov. 2021 	
<i>National 4-H STEM Summit Panel</i>	Sept. 2021
<ul style="list-style-type: none"> Invited panelist as a professional in the space exploration industry for the 2021 National 4-H STEM Summit panel on careers related to space 	
<i>Indiana Family Star Party</i>	July 2021
<ul style="list-style-type: none"> Invited speaker for Indiana's largest annual gathering of amateur astronomers and families 	
<i>The Diaries of Space Explorers</i>	Feb. 2021
<ul style="list-style-type: none"> Interviewed for this podcast series aimed at bridging the gap between people from the space sector and the general public 	
<i>Purdue EAPS Mars Rover Perseverance Landing Watch Party</i>	Feb. 2021
<ul style="list-style-type: none"> Livestream panelist 	
<i>Mableton Elementary Virtual STEAM Career Day</i>	Nov. 2020
<ul style="list-style-type: none"> Presented about planetary science and academic careers for 150 elementary school students 	
<i>Superheroes of Science</i>	Sept. 2020

- Interviewed for this youtube/podcast series for middle and high school students/teachers
Boston Museum of Science July 2020
- Book club Q&A about a career in space science with 80 students, aged 10–13 years old
Bringing the Universe to America's Classrooms, K–12 instructional resources by PBS/NASA 2018, 2019
- Content advisor, <https://www.pbslearningmedia.org/universe/>
Steward Public Evening Lecture Series March 2019
- Gave public talk for 115 people in Tucson, Arizona
Boise State's First Friday Public Astronomy Event March 2019
- Gave public talk for over 150 people in Boise, Idaho
"From Madison to Mars", public talk at the Verona Area Community Theater Oct. 2018
- Gave public talk for 90 people in my hometown of Verona, Wisconsin
Wisconsin Science Festival Nov. 2017
- Panelist for the "Mars Invades Madison" event about life on Mars
Summer Science Saturday at LPL July 2017
- Discussed craters and NASA's HiRISE camera with the public
Core Knowledge Charter School Dec. 2016
- Spoke with 44 third-graders about life as a planetary scientist
Deep Astronomy, Live Nov. 2016
- Panelist for the "Footsteps to Mars" live web broadcast about water on Mars
Glacier Edge Elementary School Oct. 2016
- Spoke with 174 fourth and fifth-graders about life as a planetary scientist
Tucson Festival of Books March 2013, 2015, 2016
- Ran activities on comparative planetology, meteorite hunting, exoplanet discovery and characterization, and science art for the public
The Art of Planetary Science Dec. 2013, Oct. 2015, Feb. 2017
- Volunteered with and submitted "data art" to this exhibition to bring together scientists and artists in Tucson
Space Drafts Public Talk Series, Borderlands Brewery Feb. 2015
- Gave public lecture on "Crazy Craters!!! Windows into Martian Ice"
Astronomy Ambassador for the American Astronomical Society Nov. 2014
- <http://aas.org/outreach/aas-astronomy-ambassadors-program>
Arizona Science and Astronomy Expo Nov. 2012
- Explained an impact cratering demo for the public
Sugar Creek Elementary School Nov. 2011
- Read books about the Moon and the Mars rovers and explained various astronomical phenomena to three second-grade classes.
EAGLE Middle School Science Mentor Program (Fitchburg, WI) Spring 2011
- Mentored an 8th grade student
Universe in the Park Summer 2010, 2011
- Gave 30-minute astronomy presentations at WI state parks, preceded by telescope viewings
"SETI Gurls" Summer 2010
- Co-created this video about the SETI REU program that has over 11,000 views on YouTube, and was featured on NPR's Science Friday, the Huffington Post and Astronomy Magazine.
SETIcon Aug. 2010
- Ran planetarium shows and helped with a Build-Your-Own Galileoscope workshop
Wonders of Physics Feb. 2008 & 2009
- Volunteered at this program for the public and supervised/explained topics in the physics museum

PRESS COVERAGE

- “Purdue professor weighs in on Artemis I launch”, WTHR 13 Indianapolis, Nov. 16, 2022
- “Deciphering the Cryptic Mystery of Buried Ancient Lava Flows”, AAS Nova, September 28, 2022
- “A new explanation for the reddish north pole of Pluto's moon Charon”, Phys.org, September 7, 2022
- Quoted in “SpaceX’s Starship is ready for its first trip into space”, Freethink, January 8, 2022
- Interviewed by MIT Technology Review about SpaceX’s Starship, December 7, 2021
- Live guest on morning shows, WMBD/WYZZ News Peoria & WSLM Radio Louisville, March 4, 2021
- Interviewed by news writer for WBAA public radio about ice on Mars
- Featured in Purdue News about the results of the Subsurface Water Ice Mapping (SWIM) Project
- Interviewed by Futurism about the Mars Krispy Kreme donut in honor of the Perseverance rover landing, February 18, 2021
- Interviewed by National Geographic, Science News, and others about the possibility of liquid water under the south pole of Mars, September 28, 2020.
- Interviewed for Episode 64 of the WeMartians Podcast, a radio show about the exploration of Mars
- Interviewed for UA News series commemorating LPL’s role in the Apollo missions, including articles “*Exploring a Desert Portal to Other Worlds*” and “*Mapping the Moon and Worlds Beyond*”
- Meet 2019 “Forward Under 40” recipient Ali Bramson ’11 for the Wisconsin Alumni Association
- Interviewed by NPR’s member station BSPR for a segment about finding ice on Mars on the “*Idaho Matters*” podcast
- 2019 GRL paper, *Water on Mars, with a grain of salt: local heat anomalies are required for basal melting of ice at the south pole today*, syndicated by:
 - Space.com, Newsweek, Arizona Daily Star, EurekAlert, Science News, and others
- Profiled in *The Washburn Observer* for “What can you do with a UW degree in astronomy?”
- Featured in *The Verona Press* for the public lecture I gave in my hometown after my PhD defense
- 2018 Nature Astronomy paper, *Cryovolcanic rates on Ceres revealed by topography*, syndicated by:
 - National Geographic, Science News, Gizmodo, Astronomy Magazine, Phys.org, and others
- *Eos Research Spotlight* on 2018 JGR paper on Hrad Vallis lava-ice interactions
- 2018 Science paper, *Exposed subsurface ice sheets in the Martian mid-latitudes*, syndicated by:
 - Time, National Geographic, Washington Post, Gizmodo, Wired, Astronomy.com, and others
- Interviewed for Science’s press article about the exposed subsurface ice sheets on Mars paper
- NASA Press Release about the exposed subsurface ice sheets on Mars paper
- 2017 GRL paper on *The Vanishing Cryovolcanoes of Ceres* syndicated by:
 - Space.com, Astronomy.com, UA News, and others
- Arizona Sonora News interview for the article, “*The Space Race of the past launched astronomy’s future in Tucson*”
- Profiled for a “*Women in Science*” article in the Daily Wildcat, the UA’s student newspaper
- 2015 GRL paper, *Widespread Excess Ice in Arcadia Planitia*, syndicated by:
 - CBS News, Space.com, UA News, and others
- NASA’s JPL Martian Diaries Blog Post about Subsurface Ice and Terraced Craters
- Planetary Society Blog Post about Terraced Craters
- UW Alumni Magazine's Class of 2011 Feature
- Profiled in *The Washburn Observer* (UW-Madison Astronomy Department Newsletter)
- “SETI Gurls” mentioned on NPR's Science Friday and in the Huffington Post