

Stephen M. Elardo

Assistant Professor • NASA Early Career Fellow • [University of Florida](#) • Dept. of Geological Sciences
Email: selardo@ufl.edu • Office (352) 392-2634 • [Personal Website](#) • [The Florida Planets Lab](#)

Education

PhD with Distinction in Earth and Planetary Sciences

University of New Mexico – July 2014

Co-Advisors: Charles Shearer and Francis McCubbin

MSc in Earth and Planetary Sciences

University of New Mexico – July 2010

Co-Advisors: Charles Shearer and David Draper

BSc in Geosciences

Stony Brook University – May 2008

Research Advisors: Hanna Nekvasil, Francis McCubbin, and Don Lindsley

Positions Held

Assistant Professor

Department of Geological Sciences, University of Florida, Aug. 2018 – Present

Post-Doctoral Researcher

Geophysical Laboratory, Carnegie Institution of Washington, Sept. 2014 – Aug. 2018

Mentor: Anat Shahar

Research Associate

Towson University, June 2015 – Aug. 2018

NASA Earth and Space Science Graduate Fellow

University of New Mexico, Sept. 2012 – Aug. 2014

Research Assistant

University of New Mexico, Sept. 2008 – July 2014

Awards & Honors

NASA Early Career Fellowship

Geophysical Laboratory, Carnegie Institution of Washington, 2016

NASA Earth and Space Science Graduate Fellowship

Department of Earth and Planetary Science, University of New Mexico, 2012 – 2014

Vincent C. Kelly PhD Student Award

Department of Earth and Planetary Science, University of New Mexico, 2014

New Mexico Space Grant Fellowship (Twice)

Department of Earth and Planetary Science, University of New Mexico, 2009 & 2012

Vincent C. Kelly MSc Student Award

Department of Earth and Planetary Science, University of New Mexico, 2010

Oliver Schaffer Award

Department of Geosciences, Stony Brook University, 2008

Proposals, Grants & Fellowships

Total Funding to Date as PI or Co-PI: \$772,611.

NSF Marine Geology and Geophysics

Collaborative Research: Developing New Models of Oceanic Magmatism and Source Heterogeneity Using the 8 degree 20' N Seamounts as Windows into the Sub-Ridge Mantle, Michael Perfit – PI (Grant managed after PI transfer to S. M. Elardo) Total Budget: \$256,396 (not included in total above)

NSF GEOPaths Program

GP-GO: GeoScientists Promoting Accessible Collaborative Education (GEOSPACE), Anita Marshall – PI, S. M. Elardo – Co-PI, Total Budget, including augmentation: \$440,136

NASA Solar System Workings Program

Testing Models of the Origin and Global Distribution of the Lunar Mg-Suite, S.M. Elardo – PI, 2016 – 2021, Total Budget \$249,775

NASA Early Career Fellowship

NASA Earth and Space Science Fellowship

Exploring the Interior of the Moon: A Perspective from Lunar Meteorites, 2012 – 2014, Total Budget \$60,000

New Mexico Space Grant Consortium Graduate Fellowship (Twice)

University of New Mexico, 2009 and 2012, Total Combined Award: \$20,000

Second Conference on the Lunar Highlands Crust Travel Grant

Lunar and Planetary Institute, 2012

Research Project and Travel Grant

University of New Mexico, 2010

VEXAG/Venus Geochemistry Workshop Travel Grant

Lunar and Planetary Institute, 2009

Publications

Total: 37 – Current h-Index: 21 (Google Scholar)

Current Citation Total: 2134 (Google Scholar)

[Link to Google Scholar](#) – [Link to ORCID](#)

Book Chapters

- [4] **Elardo, S. M.**, Pieters, C., Dhingra, D., Donaldson Hanna, K. L., Glotch, T. D., Greenhagen, B. T., Gross, J., Head, J. W., Jolliff, B. L., Klima, R. L., Magna, T., McCubbin, F. M., and Ohtake, M. (In Press) The Evolution of the Lunar Crust. In *New Views of the Moon 2 – Reviews in Mineralogy and Geochemistry*. Volume expected 2023.
- [3] McCubbin, F. M., Barnes, J. J., Ni, P., Hui, H., Klima, R. L., Burney, D., Day, J. M. D., Magna, T., Boyce, J. W., Tartèse, R., Vander Kaaden, K E., Steenstra, E., **Elardo, S. M.**, Zeigler, R. A., Anand, M., and Liu, Y. (In Press) Endogenous lunar volatiles. In *New Views of the Moon 2 – Reviews in Mineralogy and Geochemistry*. Volume expected 2023.
- [2] Shaha, A., **Elardo, S. M.** and Macris, C. A. (2017) Equilibrium Fractionation of Non-Traditional Isotopes: An Experimental Perspective. In *Measurements, Theories and Applications of Non-Traditional Stable*

Isotopes – Reviews in Mineralogy and Geochemistry, Vol. 82, Chapter 3, 65-83. Mineralogical Society of America. [Link to Chapter](#)

- [1] **Elardo, S. M.** (2016) Lunar Magma Ocean Theory, Origins and Rationale. *Encyclopedia of Lunar Science*. Ed. Cudnik, B. Springer International Publishing. DOI: 10.1007/978-3-319-05546-6_25-1 [Link to Chapter](#)

Manuscripts with Drafts in Progress

*Graduate Student Advisee

- [33] *Pesar, E. A., **Elardo, S. M.**, Kamenov, G., and Conway, T. (In Prep) Insights into the Iron Isotopic Composition of the Bulk Silicate Earth from Fertile Mantle Peridotite Xenoliths from Tariat, Mongolia. Upcoming submission to *Geochimica et Cosmochimica Acta*
- [32] Cone, K. A., **Elardo, S. M.**, Hernandez-Uribe, D., *Astudillo-Manosalva, D. F., Spera, F. J., Bohrsen, W. A., Distel, A., and Palin, R. M. (In Prep) High melt fraction solidification of the lunar magma ocean: Implications for a primitive lunar mantle and crust. *Upcoming submission to Journal of Geophysical Research: Planets*
- [31] McCubbin F.M., Konecke B.A., Barnes J.J., Lewis J.A., Gross J., **Elardo S.M.**, Brounce M., Day J.M.D., Filiberto J., and Boyce J.W. (In prep) On the origin of fluorine-rich apatite in planetary basalts and the curious exception of Mars. Upcoming submission to *Earth and Planetary Science Letters*

Peer-Reviewed Papers

*Graduate Student Advisee; †Undergraduate Student Advisee

- [30] **Elardo, S. M.**, Cone, K. A., †Williams, S. J., and Palin, R. M. (Submitted) A Shallow Mantle Source for the 2 Billion Year Old Chang'e 5 Lavas Reveals the Heat Source for Prolonged Lunar Magmatism.
- [29] *Astudillo Manosalva, D. F. and **Elardo, S. M.** (In Revision) Assessing the accuracy of phase equilibrium software in reproducing the liquidus multiple saturation conditions of lunar and martian basalt compositions. *Meteoritics and Planetary Science*
- [28] **Elardo, S. M.** and *Astudillo Manosalva, D. F. (2023) Complexity and Ambiguity in the Relationships between Major Lunar Crustal Lithologies and Meteoritic Clasts Inferred from Major and Trace Element Modeling. *Geochimica et Cosmochimica Acta*, 354, 13-26. [Link to Paper](#)
- [27] McCubbin F.M., Lewis J.A., Barnes J.J., Boyce J.W., Gross J., McCanta M.C., Srinivasan, P., Anzures, B. A., Lunning, N. G., **Elardo S. M.**, Keller, L. P., Prissel, T. C., and Agee C.B. (In Press) On the origin of fluorine-poor apatite in chondrite parent bodies. *American Mineralogist*, 108 (7), 1185-1200. [Link to Paper](#)
- [26] Jiang, Y., Kang, J., Liao, S., **Elardo, S. M.**, Zong, K., Wang, S., Nie, C., Li, P., Yin, Z., Hsu, W., and Huang, F. (2023) Fe and Mg Isotope compositions Indicate a Hybrid Mantle Source for Young Chang'E 5 Mare Basalts. *Astrophysical Journal Letters*, 945, L26. [Link to Paper](#)
- [25] Marshall, A. M. S., Piatek, J. L., Williams, D. A., Gallant, L., Thatcher, S., **Elardo, S. M.**, Williams, A. J., Collins, T., and Arroyo, Y. (2022) Flexible Fieldwork. *Nature Reviews – Earth and Environment*. 3, p. 811 [Link to Paper](#)
- [24] Paul, A.-L., **Elardo, S.M.**, and Ferl, R. (2022) Plants grown in Apollo lunar regolith present stress-associated transcriptomes that inform prospects for lunar exploration. *Nature Communications – Biology*, 5, nr. 382 [Link to Paper](#) [Link to UF Press Release](#) [Link to NASA Press Release](#)

- [23] McCubbin F.M., Lewis J.A., Barnes J.J., **Elardo S.M.**, and J.W. Boyce (2021) The abundances of F, Cl, and H₂O in eucrites: Implications for the origin of volatile depletion in the Asteroid 4 Vesta. *Geochimica et Cosmochimica Acta*, 314, 270 – 293. [Link to Paper](#)
- [22] Draper, D. S., Lawrence, S. J., Klima, R. S., Denevi, B. W., van der Bogert, C. H., **Elardo, S. M.**, and Heisinger, H. H. (2021) The Inner Solar System Chronology (ISOCHRON) lunar sample return mission concept: revealing 2 billion years of history. *Planetary Science Journal*, 2:79, 1-11. [Link to Paper](#)
- [21] **Elardo, S. M.**, Laneuville, M., McCubbin, F. M., and Shearer, C. K. (2020) Early crust building enhanced on the Moon's nearside by mantle melting point depression. *Nature Geoscience*, **13**, nr. 5, 339-343. [Link to Paper](#) [Link to UF Press Release](#)
- [20] **Elardo, S. M.**, Shahar, A., Mock, T. M., and Sio, C. K. (2019) The effect of core composition on iron isotope fractionation between planetary core and mantles. *Earth and Planetary Science Letters*, 513, 124-134. [Link to Paper](#)
- [19] McCubbin, F. M., Vander Kaaden, K. E., Peplowski, P. N., Bell, A. S., Nittler, L. R., Boyce, J. W., Evans, L. G., Keller, L. P., **Elardo, S. M.**, and McCoy, T. J. (2017) A low O/Si ratio on the surface of Mercury: Evidence for silicon smelting? *Journal of Geophysical Research – Planets*. 122, 2053-2076. 10.1002/2017JE005367 [Link to Paper](#)
- [18] **Elardo, S. M.** and Shahar, A. (2017) Non-chondritic iron isotope ratios in planetary mantles as a result of core formation. *Nature Geoscience*. 10, nr. 4, 317 - 321. [Link to Paper](#) [Link to News and Views Article](#) [Link to April Issue Cover Image](#)
- [17] McCubbin, F. M., Boyce, J. W. Novák-Szabó, T., Santo, A. R., Tartèse, R., Muttik, N., Domokos, G., Vazquez, J., Keller, L. P., Moser, D. E., Jerolmack, D. J., Shearer, C. K., Steele, A., **Elardo, S. M.**, Rahman, Z., Anand, M., Delhaye, T., and Agee, C. B. (2016) Geologic history of martian regolith breccia Northwest Africa 7034: Evidence for hydrothermal activity and lithologic diversity in the martian crust. *Journal of Geophysical Research – Planets*. 121, 2120-2149, doi:10.1002/2016JE005143 [Link to Paper](#)
- [16] McCubbin, F. M., Boyce, J. W., Srinivasan, P., Santos, A. R., **Elardo, S. M.**, Filiberto, J., Steele, A., and Shearer, C. K. (2016) Heterogeneous distribution of H₂O in the martian interior: Implications for the abundance of H₂O in depleted and enriched mantle sources. *Meteoritics and Planetary Science*. 51, Nr.11, 2036-2060. [Link to Paper](#)
- [15] Shearer, C. K., **Elardo, S. M.**, Petro, N. E., Borg, L. E., and McCubbin, F. M. (2015) Origin of the lunar highlands Mg-suite: An integrated petrology, geochemistry, chronology, and remote sensing perspective. *American Mineralogist* 100, 294-325. *Special Issue: Second Conference on the Lunar Highlands Crust and New Directions. Invited Review Paper* [Link to Paper](#)
- [14] **Elardo, S. M.**, Shearer, C. K., Vander Kaaden, K. E., McCubbin, F. M., and Bell, A. S. (2015) Petrogenesis of primitive and evolved basalts in a cooling Moon: Experimental constraints from the youngest known lunar magmas. *Earth and Planetary Science Letters* 422, 126-137. [Link to Paper](#)
- [13] McCubbin, F. M., Vander Kaaden, K. E., Tartèse, R., Klima, R. L., Liu, Y., Mortimer, J., Barnes, J. J., Shearer, C. K., Treiman, A. H., Lawrence, D. J., **Elardo, S. M.**, Hurley, D. M., Boyce, J. W., and Anand, M. (2015) Volatiles (H, C, N, F, S, Cl) in the lunar mantle, crust, and regolith: Distribution, processes, sources, and significance. *American Mineralogist* 100, 1668-1707. *Special Issue: Second Conference on the Lunar Highlands Crust and New Directions. Invited Review Paper* [Link to Paper](#)

- [12] McCubbin, F. M., Shearer, C. K., Burger, P. V., Hauri, E. H., Wang, J., **Elardo, S. M.**, and Papike, J. J. (2014) Volatile abundances of coexisting merrillite and apatite in the martian meteorite Shergotty: Implications for merrillite in hydrous magmas. *American Mineralogist* 99, 1347-1354. [Link to Paper](#)
[Link to Highlights and Breakthroughs Article](#)
- [11] Tartèse, R., Anand, M., McCubbin, F. M., **Elardo, S. M.**, Shearer, C. K., and Franchi, I. A. (2014) Apatites in lunar KREEP basalts: The missing link to understanding the H isotope systematics of the Moon. *Geology* 42, no. 4, 363-366. [Link to Paper](#)
- [10] **Elardo, S. M.**, Shearer, C. K., Fagan, A. L., Borg, L. E., Gaffney, A. M., Burger, P. V., Neal, C. R., Fernandes, V. A., and McCubbin, F. M. (2014) The origin of young mare basalts inferred from lunar meteorites Northwest Africa 4734, 032, and LaPaz Icefield 02205. *Meteoritics & Planetary Science* 49, Nr. 2, 261-291. [Link to Paper](#)
- [9] **Elardo, S. M.** and Shearer, C. K. (2014) Magma chamber dynamics recorded by oscillatory zoning in pyroxene and olivine phenocrysts in lunar basaltic meteorite Northwest Africa 032. *American Mineralogist* 99, 355-368. [Link to Paper](#) [Link to Highlights and Breakthroughs Article](#)
- [8] McCubbin, F. M., **Elardo, S. M.**, Shearer, C. K., Smirnov, A., Hauri, E. K., and Draper, D. S. (2013) A petrogenetic model for the co-magmatic origin of chassignites and nakhlites: Inferences from chlorine-rich minerals, petrology, and geochemistry. *Meteoritics & Planetary Science* 48, Nr. 5, 819-853. [Link to Paper](#)
- [7] Agee, C. B., Wilson, N. V., McCubbin, F. M., Ziegler, K., Polyak, V. J., Sharp, Z. D., Asmerom, Y., Nunn, M. H., Shaheen, R., Thiemens, M. H., Steele, A., Fogel, M. L., Bowden, R., Glamoclija, M., Zhang, Z., and **Elardo, S. M.** (2013) Unique Meteorite from Early Amazonian Mars: Water-Rich Basaltic Breccia Northwest Africa 7034. *Science* 339, 780-785. [Link to Paper](#) [Link to Perspectives Article](#)
- [6] **Elardo, S. M.**, McCubbin, F. M., and Shearer, C. K. (2012) Chromite symplectites in Mg-suite troctolite 76535 as evidence for infiltration metasomatism of a lunar layered intrusion. *Geochimica et Cosmochimica Acta* 87, 154-177. [Link to Paper](#)
- [5] McCubbin, F. M., Hauri, E. H., **Elardo, S. M.**, Vander Kaaden, K. E., Wang, J., and Shearer, C. K. (2012) Hydrous melting of the Martian mantle produced both depleted and enriched Shergottites. *Geology* 40, no. 8, 683-686. [Link to Paper](#)
- [4] McCubbin, F. M., Jolliff, B. L., Nekvasil, H., Carpenter, P. K., Zeigler, R. A., Steele, A., **Elardo, S. M.**, and Lindsley, D. H. (2011) Fluorine and chlorine abundances in lunar apatite: Implications for heterogeneous distributions of magmatic volatiles in the lunar interior. *Geochimica et Cosmochimica Acta* 75, 5073-5093. [Link to Paper](#)
- [3] **Elardo, S. M.**, Draper, D. S., and Shearer, C. K. (2011) Lunar Magma Ocean crystallization revisited: Bulk composition, early cumulate mineralogy, and the source regions of the highlands Mg-suite. *Geochimica et Cosmochimica Acta* 75, 3024-3045. [Link to Paper](#)
- [2] Nekvasil, H., McCubbin, F. M., Harrington, A. D., **Elardo, S. M.**, and Lindsley, D.H. (2009) Linking the Chassigny meteorite and the Martian surface rock Backstay: Insights into igneous crustal differentiation processes on Mars. *Meteoritics & Planetary Science* 44, Nr. 6, 853-869. [Link to Paper](#)
- [1] McCubbin, F. M., Nekvasil, H., Harrington, A. D., **Elardo, S. M.**, and Lindsley, D. H. (2008) Compositional diversity and stratification of the Martian crust: Inferences from crystallization experiments on the picobasalt Humphrey from Gusev Crater, Mars. *Journal of Geophysical Research - Planets* 113, E11013, doi:10.1029/2008JE003165. [Link to Paper](#)

Teaching Experience

GeoSPACE Accessible Field Course

Co-Instructor – University of Florida

Cosmochemistry, GLY 6932

Graduate Level. Instructor of Record – University of Florida

Planetary Geology, GLY 2042

Undergraduate Level. Instructor of Record – University of Florida

Principles of Mineralogy, GLY 3200C

Undergraduate Level. Instructor of Record – University of Florida

Scientific Survival Skills, GLY 6932

Graduate Level. Instructor of Record – University of Florida

Physical Geology, GLY 2010C

Undergraduate Level. Instructor of Record – University of Florida

Igneous & Metamorphic Petrology

Graduate Teaching Assistant – University of New Mexico, 2013

Structural Geology

Undergraduate Teaching Assistant – Stony Brook University, 2007

Physical Geology Tutor

Stony Brook University, 2007 – 2008

Students Mentored

Graduate Students

McKayla Meier – Primary Advisor, PhD (In Progress)

University of Florida

Elizabeth Pesar – Primary Advisor, PhD (In Progress)

University of Florida

Daniel Astudillo Manosalva – Primary Advisor, PhD (In Progress)

University of Florida

Dr. Molly Anderson – PhD 2023, Co-Advisor with Michael Perfit

University of Florida

Currently an NSF Post-Doctoral Fellow at Woods Hole Oceanographic Institute

Undergraduate Students

Sam Williams – University of Florida

Active Undergraduate Researcher

Luke Andrews – University of Florida, BSc 2022

Currently a PhD student at the University of Maryland – College Park

Emily Sonnenberg – University of Florida, BSc 2021

Currently a PhD student at the University of California – Davis

Professional Activities

Session Chair, Apollo 17/ANGSA Workshop, Lunar and Planetary Institute, 2022

Session Chair, Lunar and Planetary Science Conference, 2022

Theme Group Co-Chair, Goldschmidt 2021, Theme 1: *Solar System and Planets*, with T. Kruijer and K. Joy

Co-Convener, SE Regional GSA, Session D2: *Solar System Processes: Impact Cratering, Planetary Surfaces and Meteorites*

Science Organizing Committee, *Differentiation: Building the Internal Architecture of Planets*. Lunar and Planetary Institute's First Billion Years Initiative, 2018.

Session Co-Convener, Goldschmidt 2020, Session 01a: *Accretion, Differentiation, and Evolution of Rocky Bodies Across the Inner Solar System*, with K. E. Vander Kaaden, K. Iacovino, J. Creech, M. Fischer-Gödde

Session Co-Convener, AGU Fall Meeting 2016, Session V023: *Physical and Chemical Constraints on the Moon-Forming Giant Impact*, with B. Wood, R. Parai, and J. Wade

NASA – ROSES Proposal Reviewer and Panel Member, Seven Panels, Numerous External reviews

NSF Proposal Reviewer, Multiple External Reviews

Program Committee, Lunar and Planetary Science Conference, 2015, 2016, 2022

Science Organizing Committee, NASA Exploration Science Forum Meeting, 2015

Peer Reviewer: *Nature Geoscience, Nature Astronomy, Nature Communications, Science Advances, Geochimica et Cosmochimica Acta, Meteoritics & Planetary Science, The Journal of Geophysical Research – Planets, The Journal of Geophysical Research – Solid Earth, American Mineralogist, Earth & Planetary Science Letters, Reviews in Mineralogy & Geochemistry*, and *Geochemical Perspective Letters*

Invited Talks & Seminars

Washington University in St. Louis

Invited Seminar, Dept. of Earth and Planetary Sciences, April 2023

Stetson University

Invited Seminar, Gillespie Museum, March 2022

University of Alaska – Anchorage

Invited Seminar, Department of Geological Sciences, March 2021

AGU Fall Meeting, 2020

Invited Talk in Session: *Interiors of Planets and Moons: Learning from Spacecraft Observations, Simulations and In-Situ Data*”, Section: Study of Earth's Deep Interior

University of Central Florida

Invited Seminar, Department of Physics, November 2019

50th Lunar and Planetary Science Conference

Invited Talk, Special Session on the 50th Anniversary of Apollo and LPSC, April 2019

Virginia Tech

Special Invited Seminar, Department of Geosciences, May 2018

49th Lunar and Planetary Science Conference

Invited Talk, Special Session on the 45th Anniversary of Apollo 17, March 2018

University of Oregon

Special Invited Seminar, Department of Earth Sciences, March 2018

University of Florida

Special Invited Seminar, Department of Geological Sciences, February 2018

Towson University

Invited Seminar, Department of Physics, Astronomy & Geosciences, December 2017

45th Anniversary Symposium for Apollo 17

Invited Talk, Goddard Spaceflight Center, May 2017

2017 Goldschmidt Conference

Invited Talk. Session 01g - Declined

Towson University

Department Seminar, Department of Physics, Astronomy & Geosciences, April 2017

University of Utah

Special Invited Seminar, Department of Geology and Geophysics, Feb. 2017

NASA Lunar Reconnaissance Orbiter Workshop on Young Lunar Volcanism

Invited Talk, Lunar and Planetary Institute, Feb. 2017

University of Tennessee – Knoxville

Special Invited Seminar, Department of Earth and Planetary Sciences, Jan. 2017

Stony Brook University

Department Seminar, Department of Geosciences, Oct. 2016

2016 Goldschmidt Conference

Invited Talk in Session 02g: *Lunar Evolution: Endogenous and Exogenous Processes*

University of Maryland – College Park

Geochemistry Seminar, Department of Geology, April 2016

Johns Hopkins Applied Physics Laboratory

Department Seminar, April 2015

Geophysical Laboratory

Invited Talk, Carnegie Institution of Washington, Feb. 2014

University of New Mexico

Institute of Meteoritics Seminar, Regular Speaker

**Press
Releases &
Coverage**

Live Appearance on NPR's *First Coast Connect* – WJCT Jacksonville, Discussed Lunar Plants Paper by Paul et al. (2022) [Link to an Example of Press Coverage – BBC News](#)

Live Appearance on W Radio's *Sigue La W* – Spanish Language News Show, Columbia, Discussed Lunar Plants Paper by Paul et al. (2022)

Quoted in Numerous News Stories Regarding Lunar Plants Paper by Paul et al. (2022) – Including Stories by [CNN](#), [Time Magazine](#), and [USA Today](#)

“One Small Sprout” by Samantha Murray, *‘Explore’ Magazine*, *University of Florida Research News* article for Paul et al. (2020) – [Link to Article](#)

“New research provides a clearer view of the Moon’s history” by Scott Rogers, *University of Florida News* – [Link to Article](#)

“What we’re still learning from Apollo” by Alisson Clark, *University of Florida News* – [Link to Interview Video](#)

“Why Apollo’s Moon rocks still matter” by Alisson Clark, *University of Florida News* – [Link to Article](#)

Quoted in “How NASA has kept Apollo moon rocks safe from contamination for 50 years” by Lisa Grossman, *Science News* – [Link to Article](#)

“Why are there different ‘flavors’ of iron around the Solar System?”

Carnegie Institution for Science Press Release for Elardo and Shahar (2017) *Nature Geoscience* – [Link to Press Release](#)

Quoted in “Iron Isotopes in Planets Key to Formation of Solar System” by Kaylan Kumar, *Tech Times* – [Link to News Article](#)

“Ancient Water-rich Meteorite Linked to Martian Crust”

UNM Press Release for Agee et al. (2013) *Science* – [Link to Press Release](#)

**Public
Lectures &
Outreach**

Scientist in Every Florida School Program, Virtual Classroom Visit, 2022

Can You Dig It? UF Outreach Event with the Florida Museum, 2022 - 2023 –

Organized a booth on ‘*Meteorites or Meteorwrongs?*’

Carnegie Neighborhood Lecture Series – “The Roadside Geology of Earth’s Moon”

Geophysical Laboratory, Carnegie Institution for Science, November 2017

Invited Talk, “How We Know Martian Meteorites are from Mars”, Meeting of the Albuquerque Astronomical Society, May 2013