

Mara E. Karageozian

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[Personal Website](#)

[LinkedIn](#)

EDUCATION

Ph.D. Candidate, Geological Sciences

2018-present

School of Earth and Space Exploration

Arizona State University, Tempe AZ

Advisor: Dr. Thomas Sharp

RISES Science Policy Certificate Program

2021-present

School for the Future of Innovation in Society

Arizona State University, Tempe AZ

Advisor: Dr. Ira Bennet

BS in Geology, Honors

December 2017

Department of Environmental Science and Geology

Wayne State University, Detroit, MI

Advisor: Dr. Sarah Brownlee

WORK EXPERIENCE

Mineralogy Graduate TA

2019-2021

Employed by Arizona State University for (3) spring semesters

Supervisor: Dr. Thomas Sharp

Introductory Geology Graduate TA

2018

Employed by Arizona State University for the fall semester of 2018

Supervisor: Dr. Julia Johnson

Mineralogy Undergraduate TA

2016-2017

Employed by Wayne State University for the fall semesters of 2016 and 2017

Supervisors: Dr. Sarah Brownlee and Prof. David Dougherty

Petrology Undergraduate TA

2017-2018

Employed by Wayne State University for the winter semesters of 2017 and 2018

Supervisors: Dr. Valentina Taranovic and Prof. David Dougherty

RESEARCH

Graduate Research

Advised by Dr. Thomas Sharp at Arizona State University, Tempe, AZ.

The project uses primitive meteorites and shock mineralogy to constrain the timing of the earliest impact history within our solar system. Uses techniques of petrography, microscopy, spectroscopy, and isotopic dating.

Advised by Dr. Thomas Sharp at Arizona State University, Tempe, AZ.

The project uses impacted meteorites and shock mineralogy to examine the migration of K and Ar and their effect on Ar-Ar isotopic dating techniques. Uses techniques of petrography, microscopy, spectroscopy, and isotopic dating.

Advised by Dr. Christy Till at Arizona State University, Tempe, AZ.

The project uses model-driven petrologic techniques and stellar chemical abundance data outputs to analyze the effect of compositional variation on likely exoplanet mantle crystallization.

Advised by Dr. Ira Bennet at Arizona State University, Tempe, AZ.

The project evaluates the policy dimensions of space research and exploration around themes of equity, tacit knowledge systems, and the social contract for science.

Undergraduate Research

Advised by Dr. Sarah Brownlee at Wayne State University, Detroit, MI.

The project combined EBSD and AMS measurements on rock samples collected in Chester Gneiss dome in Chester, VT, to correlate seismic and magnetic anisotropy with respect to deformational fabric.

CONFERENCES & LECTURES

Meteoritical Society Annual Meeting (MetSoc) **2022**

Accepted abstract for presentation

Science Outside the Lab (SOTL) **2022**

NCI-SW funded 2-week science policy workshop

Guest Lecture – Meteorites and Cosmochemistry **Dec. 2021**

Wayne State University – GEL 326

Lunar and Planetary Science (LPSC) **2021**

Accepted abstract for oral presentation

Guest Lecture – Meteorites and Cosmochemistry **Dec. 2020**

Wayne State University – GEL 326

Lunar and Planetary Science (LPSC) **2020**

Accepted abstract for presentation

(*Cancelled due to 2020 COVID-19 pandemic)

Geological Society of America (GSA) **2019**

Professional Development.

Lunar and Planetary Science (LPSC) **2019**

Accepted abstract for presentation

PUBLICATIONS

Conference Abstracts

“Constraining Shock Effects on the K-Ar System in Meteorites: Anomalous Ages and Implications for Shock Age Interpretation.” MetSoc, Summer 2022. M. E. Karageozian, T. Sharp, C. McDonald, M. Van Soest.

“When is anisotropy of magnetic susceptibility (AMS) a useful proxy for seismic anisotropy?”. AGU, Fall 2021. SJ Brownlee, ME Karageozian.

“Anomalous $^{40}\text{Ar}/^{39}\text{Ar}$ shock ages in Mbale: nonintuitive K and Ar behavior, implications for the interpretations of shock ages in shocked meteorites.” LPSC, Spring 2021. M. E. Karageozian, T. Sharp, M. Van Soest, C. McDonald

“Anomalous $^{40}\text{Ar}/^{39}\text{Ar}$ ages in Mbale: Implications for the interpretations of shock ages in shocked meteorites.” LPSC, Spring 2020. M. E. Karageozian, T. Sharp, M. Van Soest, C. McDonald.

“Crescent-shaped feature in Eucrite NWA 12282: Implications for the impact history of Vesta.”. LPSC, Winter 2019. Karageozian ME, Dillon SM, Fitch RT, Sedler MA, Teichert ZG.

“Modeling the geophysical signatures of gneiss dome exhumation in the northeast United States.” AGU, Fall 2018. SJ Brownlee, S Saif, ME Karageozian.

“Comparing anisotropy of magnetic susceptibility (AMS) tensors with deformation fabric and elastic tensors in the Chester gneiss dome, southeast VT.” AGU, Fall 2017. ME Karageozian, SJ Brownlee, JM Feinberg, A Biedermann.

White Papers

“Tools for Fostering Equity and Inclusion in SESE: Sustainable Change at Every Level of Academia” Mara Karageozian Dec. 2020. [Paper link](#).

GRANTS AND PROPOSALS

Graduate

2022 Vivian Ford Graduate Fellowship

2022

“Meteorite Shock Effects on the $^{40}\text{Ar}/^{39}\text{Ar}$ Isotopic System: Implications for Impact Age Interpretations”. Accepted, fully funded.

NASA FINESST **2022**
“Meteorite Shock Effects on the $^{40}\text{Ar}/^{39}\text{Ar}$ Isotopic System: Implications for Impact Age Interpretations.” Declined.

NASA FINESST **2021**
“Connecting $^{40}\text{Ar}/^{39}\text{Ar}$ geochronology with specific shock effects in S6 meteorites: An investigation of non-intuitive behavior of K and Ar and anomalous ages”. Declined.

School of Earth and Space Exploration JEDI Seed Grant **2021**
“Building Resources and Aid for SESE’s TAs.” Accepted, fully funded.

SERVICE & AWARDS

Graduate

Faculty Recruitment Task Force Member **Fall 2022 term**
Graduate student participant on the faculty search committee for the School of Earth & Space Exploration at Arizona State University

SESE Graduate Student Council Member, ASU **2020-2022 term**
Elected for 2021/22 term as the Vice President
Elected for 2020/21 term as the Graduate Student Advocate.

SESE Inclusive Community Committee Member, ASU **2020-present**
Graduate Student Member focused on implementing the SESE JEDI Task Force’s Strategic Plan.

Virtual Mineralogy Content Creator, YouTube **2021-present**
Virtual content creation for the study and identification of minerals, in partnership with the GLG 321 Mineralogy course at ASU. [Channel page](#).

Open House Committee, ASU **2019-2022**
Social Media Coordinator for the Open House events for the School of Earth and Space Exploration.

Letters to a Pre-Scientist **2019-2021**
Pen-pal-style letters to a middle school student over an entire school year. It is aimed at young science communication and education on science as an occupation and career path.

Undergraduate

STEM Day, Wayne State University **2017-2018**
Science communication with middle school students emphasizes rock physics and hands-on learning.

American Institute for Professional Geologists

2015-2018

Student chapter member at Wayne State University, Detroit, MI.

President of the chapter from fall 2016 - summer 2017.

During presidency, awarded "Chapter of the Year."