

**Opportunity Title:** Space Science: Mars Fluvial Studies and Exploration

**Opportunity Reference Code:** 0031-NPP-NOV23-ARC-PlanetSci

**Organization** National Aeronautics and Space Administration (NASA)

**Reference Code** 0031-NPP-NOV23-ARC-PlanetSci

**Application Deadline** 11/1/2023 6:00:59 PM Eastern Time Zone

**Description** The extraordinary data sets being returned by recent Mars missions provide an unprecedented opportunity to study the fluvial and paleo-climatic history of Mars in more detail than ever before. The new data will help improve our understanding of the role that water played in sculpting the surface of Mars including the formation of outflow channels, large valleys, valley networks, gullies and other water-formed features. Research in this opportunity aims to understand the genesis of these features and whether their formation required repeated (perhaps episodic) cycling of water through the subsurface, surface and atmosphere environments. In addition to interpreting and analyzing disparate planetary data sets, various other approaches are also used to understand these surface and subsurface processes, including analog studies, theoretical modeling, field and laboratory studies. Opportunities exist for targeting and analyzing specific fluvial and hydrothermal features using the HiRISE camera in orbit about Mars and developing education and public outreach material and activities for HiRISE EPO. Additional opportunities exist for working with our image library of over 1000 analyzed rock and mineral samples.

**Location:**

Ames Research Center  
Moffet Field, California

**Field of Science:** Planetary Science

**Advisors:**

Virginia Claire Gulick  
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650-604-0781

**Applications with citizens from Designated Countries will not be accepted at this time, unless they are Legal Permanent Residents of the United States.** A complete list of Designated Countries can be found at: <https://www.nasa.gov/oiir/export-control>.

Eligibility is currently open to:

- U.S. Citizens;
- U.S. Lawful Permanent Residents (LPR);
- Foreign Nationals eligible for an Exchange Visitor J-1 visa status; and,
- Applicants for LPR, asylees, or refugees in the U.S. at the time of application with 1) a valid EAD card and 2) I-485 or I-589 forms in pending status

**Eligibility Requirements** • **Degree:** Doctoral Degree.



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