

# Daniel C. Berman

## *Senior Scientist*

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## **EDUCATION**

M.S., Geosciences, University of Arizona, 2003, Thesis “Hillside gullies and possible glacial landforms associated with the degradation of highland craters on Mars,” (Faculty advisor: Victor R. Baker).

B.S., Astronomy and Astrophysics, University of Michigan (Honors College), 1998.

## **PROFESSIONAL EXPERIENCE**

**Senior Scientist (October 2018 to present)**

**Research Scientist (April 2011 to September 2018)** Planetary Science Institute, Tucson, AZ

**Associate Research Scientist/GIS Specialist (Nov. 2008 to April 2011)** Planetary Science Institute, Tucson, AZ

**Research Associate/GIS Specialist (Dec. 2003 to Nov. 2008)** PSI Planetary Geosciences Group

- Analyzed satellite data for fluvial, aeolian, volcanic, glacial features on Mars

- Support work for Group scientists, including image processing and analysis, GIS database creation and management, and crater count studies of volcanic, fluvial, and glacial landforms on Mars

**Graduate Research Assistant (Aug. 2001 to Dec. 2003)** PSI Planetary Geosciences Group

- Support work for Group scientists
- Independent research projects

**Research Assistant for William K. Hartmann (Nov. 1998 to Aug. 2001)** PSI

- Analyzed data from Mars Global Surveyor MOC: image calibration, surface dating from crater counts, and other photo-geological interpretations
- Assessed potential landing sites for future Mars missions
- Independent research projects

**Graduate Research Associate (Aug. 2002 to May 2003)** University Of Arizona, Department of Geosciences

- Used ERDAS Imagine software to georeference satellite imagery of terrestrial canyon systems

## **RESEARCH INTERESTS**

Planetary geologic mapping, fluvial, glacial, and aeolian geomorphology, photogeologic interpretation and image processing, chronologic interpretations via crater counting, and crater evolution based on morphologies and degradational states.

## PAST RESEARCH GRANTS AS PRINCIPAL INVESTIGATOR

Investigations of Transverse Aeolian Ridges on Mars.

PI Daniel Berman, NASA Mars Data Analysis Program, 2011-2015

Geologic Mapping of the Source Region of Shalbatana Vallis, Mars.

PI Daniel Berman, Nasa Planetary Geology and Geophysics Program, 2014-2019

## MISSION PARTICIPATION

MRO HiRISE Science Team –Science Theme Lead (2010-present)

DAWN Mission – Co-I for Guest Investigator Scott Mest (2015-2018)

Co-I for Participating Scientist Aileen Yingst (2011-2014)

MSL Mission – Co-I for Participating Scientist Becky Williams (2012-2016)

## PROFESSIONAL AWARDS

NASA Group Achievement Award – HiRISE Science Team, 2011

NASA Group Achievement Award – Dawn Science Team,

NASA Group Achievement Award – MSL Extended Mission-1 Science and Operations Team, 2017

## MEMBERSHIPS IN PROFESSIONAL SOCIETIES

American Geophysical Union (AGU)

Geological Society of America (GSA)

## PROFESSIONAL ACTIVITIES

NASA PG&G panel reviewer 2012

NASA FINESST panel review 2022

Peer-reviewer, *Icarus*, *Planetary & Space Science*, *other journals* 2002-present

External proposal reviewer, NASA 2002-present

Graduate Teaching Assistant, Department of  
Geosciences, *University of Arizona* Aug. 2001 to May 2002

Webmaster, *Planetary Science Institute* May 1999 to May 2002

Astronomy tutor, *University of Michigan* 1997 to 1998

## COMPUTER SKILLS

Operating systems: LINUX, Macintosh OSX, Windows 10

Languages: FORTRAN, HTML

Specialized software: ArcGIS 10 and Pro, USGS ISIS, Ames Stereo Pipeline, Photoshop

## ACADEMIC AWARDS

Bert S. Butler Scholarship, Dept. of Geosciences, Univ. of Arizona 2001

Sulzer Earth Science Scholarship, Dept. of Geosciences, Univ. of Arizona 2001

Robert C. Byrd Honors Scholarship, State of Michigan 1994 to 1998

-Highest award given by State of Michigan to two students each year

## UNDERGRADUATE ACTIVITIES

Student Astronomical Society, member 1994 to 1998

- Vice president, May 1996 to May 1997

- Ran public viewing nights at Angell Hall Observatory

- Participated in outreaches with Elementary school students

- Offered free tutoring for introductory astronomy students