

Alexander Gerard Hayes

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EDUCATION

Ph.D.	Planetary Science (Minor in Geology)	<i>California Institute of Technology</i>	April 2011
M.S.	Planetary Science	<i>California Institute of Technology</i>	June 2008
M.Eng.	Applied & Engineering Physics	<i>Cornell University</i>	Dec. 2003
B.A.	Astronomy / Physics, <i>Summa Cum Laude</i>	<i>Cornell University</i>	May 2003
B.A.	Astrobiology (College Scholar), <i>Summa Cum Laude</i>	<i>Cornell University</i>	May 2003

SELECT AWARDS / FELLOWSHIPS

Feinberg Faculty Fellow, Weizmann Institute (2019)	Sigma Xi Young Scholar Procter Prize (2008)
Provost Research Innovation Award, Cornell Univ. (2018)	AGU Outstanding Student Paper Award (2008, 2010)
Young Scientist Award, World Economic Forum (2017)	NASA Graduate Research Fellow (2008-2011)
Zeldovich Medal, COSPAR / RAS (2016)	Caltech Henshaw Fellow (2006-2008)
Kavli Fellow, National Academy of Sciences (2014)	David Delano Clark Award [for Masters' Thesis] (2004)
NASA Early Career Fellow (2013)	Distinction in all Subjects – Cornell University (2003)
AGU Ronald Greeley Early Career Award (2012)	Cornell University College Scholar (2000-2003)
Miller Research Fellow (2011-2012)	NASA Group Achievement Awards (MER/MSL/Cassini)

TEACHING EXPERIENCE

- A3150, Geomorphology [S19]
- A3310, Planetary Image Processing [F15]
- A6577, Planetary Surface Processes [S15,S17,S20]
- A2202, A Spacecraft Tour of the Solar Sys. [S14,F14-F20]
- A4410, Experimental Astronomy [F13]
- A1102/A1104, Our Solar System [S17,S18]
- A6500: Mars2020 Landing Sites [S16]
- A6500: Mars2020 Instruments [F20]

SELECT COMMITTEE MEMBERSHIPS / ADVISORY BOARDS

- 2020 – Present: Panel Chair, Ocean Worlds & Dwarf Planets, 2023-2032 Planetary Science & Astrobiology Decadal Survey
- 2018 – Present: U.S. Science Representative, COSPAR Panel on Planetary Protection
- 2017 – Present: National Academy of Sciences Space Studies Board: *Committee on Astrobiology and Planetary Science*
- 2016 – Present: Vice-Chair of COSPAR Sub-Commission B5: *Outer Planets and their Satellites*
- 2013 – Present: Advisory Boards, Cornell University College Scholar Program and Carl Sagan Institute
- 2013 – 2018: Icarus Editorial Advisory Board, Elsevier / AAS Division of Planetary Science.
- 2005-2008: SPIE Defense and Security Symp.; Technologies for Synthetic Environments: Hardware-in-the-Loop-Testing

NASA FLIGHT MISSION EXPERIENCE

- **Dragonfly**; Co-I
- **Europa Clipper**; Co-I (EIS); Co-Chair of Geology WG
- **Mars 2020**; Co-I, Calibration Lead (MastcamZ)
- **MSL**; Participating Scientist Collaborator
- **Cassini**; Participating Scientist; Assoc TM (RADAR/VIMS)
- **MER**; Collaborator; Payload Uplink/Downlink Lead

PROFESSIONAL APPOINTMENTS

- **Cornell University, Astronomy Department**; Ithaca, NY
 - Director, Cornell Center for Astrophysics and Planetary Science; *July 2019 - Present*
 - Associate Professor of Astronomy; *July 2018-Present* (Assistant Professor; *January 2013 – June 2018*)
 - Director, Spacecraft Planetary Imaging Facility (NASA Regional Planetary Imaging Facility); *August 2012–Present*
 - *Specialization: Planetary Science; Comparative Planetology and Solar System Exploration, Instrument Development*
- **Miller Institute for Basic Research in Science, University of California at Berkeley**; Berkeley, CA
 - Miller Research Fellow; *July 2011-December 2012*
 - *Department Affiliations: Astronomy / Earth and Planetary Science*
- **California Institute of Technology, Division of Geological and Planetary Sciences**; Pasadena, CA
 - Post-Doctoral Scholar; *April 2011-July 2011* / Graduate Student; *September 2006-March 2011*
 - *Specialization: Remote Sensing and Modeling of Planetary Surfaces (Vis., IR, & Radar) and Spacecraft Instrumentation*
- **Massachusetts Institute of Technology, Lincoln Laboratory**; Lexington, MA
 - Consultant; *September 2006- September 2007* / Associate Staff; *May 2004-September 2006* (DOD Secret Clearance)
 - *Specialization: Lab. Exp. & Mgmt; IR Remote Sensing, Instrument Design, Characterization, & Algorithm Development*
- **Arizona State University, School of Earth and Space Exploration**; Tempe, AZ
 - Remote Software Consultant; *May 2004-September 2006*
 - *Specialization: Planning and Analysis Tools for Tactical Operation of Spacecraft Infrared Spectrometer (Mini-TES)*
- **Jet Propulsion Laboratory**; Pasadena, CA
 - Mars Exploration Rover Science Team Affiliate; *January 2004 – May 2004* (employed by Cornell for primary mission)
 - *Specialization: Science Payload Operation (Uplink and Downlink of Science and Engineering Cameras)*
- **Cornell University, Astronomy Department**; Ithaca, NY
 - Student Researcher; *August 1999-December 2003*
 - *Specialization: Instrument Co-Registration, Data-Fusion, and Camera Calibration (Visible and Infrared)*

PUBLICATIONS (FULL LIST AVAILABLE AT <http://www.alexanderghayes.com>)

- h-INDEX: 52 m-INDEX: 3 i10-INDEX 122 CITATIONS:11000 (GOOGLE SCHOLAR) <http://www.researcherid.com/rid/P-2024-2014>
- More than 125 Co-Authoring Journal Publication, 3 Book Chapters, and 5 White Papers / Popular Science Articles.