

Szilárd Gyalay

CONTACT INFORMATION	Earth and Planetary Sciences Department University of California, Santa Cruz Earth and Marine Sciences Building, Room A360 Santa Cruz, CA, USA 95060	<i>E-mail:</i> sgyalay@ucsc.edu <i>Website:</i> people.ucsc.edu/~sgyalay
EDUCATION	University of California, Santa Cruz Ph.D., Earth and Planetary Sciences	Sept 2017 - Present
	University of California, Los Angeles B.S. in Astrophysics, with Departmental Honors Minor in Geophysics and Planetary Physics <i>Cum Laude</i>	Sept 2012 - June 2016
RESEARCH	UC Santa Cruz, Department of Earth and Planetary Sciences <i>Graduate Student Researcher</i> <i>Advisor: Prof. Francis Nimmo</i>	Sept 2017 - Present
	Discerning the interiors of Saturn's mid-sized icy moons by translating topography into a heat flux distribution at the base of their ice shells. Examining the relationship between evolving heat flux and porous layer depth of Mars.	
	NASA Ames Research Center <i>Intern</i> <i>Advisor: Dr. Eldar Noe Dobra</i>	Summers 2014 & 2017
	Conducted radiative transfer modeling of regolith-ice-mixture reflectances, in tandem with laboratory experiments. Methods were applied to Phoenix Mars lander data to estimate regolith's water-ice content.	
	UCLA, Department of Earth, Planetary, and Space Sciences <i>Undergraduate Researcher</i> <i>Research Associate I</i> <i>Advisor: Prof. David Paige</i>	Oct 2013 - June 2016 July 2016 - Sept 2017
	Multiple research projects, the largest of which involved creating recalibration procedures to correct for Lunar Reconnaissance Orbiter's Diviner Radiometer's nonlinear detector response and incomplete filtering of visible light upon far-infrared detectors.	
	Boston University, Center for Space Physics <i>NSF REU Student</i> <i>Advisors: Prof. Paul Withers & Dr. Marissa Vogt</i>	June 2015 - Aug 2015
	Constrained periods of a jovian magnetospheric compression for analysis of jovian auroral dependence on solar wind dynamic pressure using Galileo data.	
TEACHING EXPERIENCE	UCSC EART 110C/N: The Dynamic Earth Teaching Assistant for an upper division class introducing geophysical concepts and methods. Ran a laboratory section and assisted with problem sets during office hours.	Spring 2019
	UCSC EART 8: Planetary Discovery Sole Teaching Assistant for a general education class about our Solar System. Reviewed class material and assisted with problem sets during discussion sections and office hours.	Fall 2017

HONORS &
AWARDS

Hartmann Travel Grant Aug 2016
for American Astronomical Society's 2016 Division of Planetary Sciences Meeting
Awarded by: Division of Planetary Sciences

George and Clara Vajna Award June 2014
for excellence in the study of the Hungarian language, its literature and culture
Awarded by: UCLA Slavic Languages and Literatures

PUBLICATIONS

Solar wind interaction with Jupiter's magnetosphere: A statistical study of Galileo in situ data and modeled upstream solar wind conditions

M.F. Vogt, **S. Gyalay**, E.A. Kronberg, E.J. Bunce, W.S. Kurth, B. Zieger, and C. Tao
Journal of Geophysical Research: Space Physics 124, 2019.

Nonlinear Spectral Mixture Modeling to Estimate Water-Ice Abundance of Martian Regolith

S. Gyalay, E. Noe Dobrea, K. Chu, and K. Pitman.
Icarus 329, 79-87, 2019

A Search for Technosignatures from 14 Planetary Systems in the Kepler Field with the Green Bank Telescope at 1.15-1.73 GHz

J.-L. Margot, A.H. Greenberg, P. Pinchuk, A. Shinde Y. Alladi, S. Prasad, M.O. Bowman, C. Fisher, **S. Gyalay**, W. McKibbin, B. Miles, D. Nguyen, C. Power, N. Ramani, R. RaviPrasad, J. Santana, and R.S. Lynch.
The Astronomical Journal 155(5), 2018.

SELECTED
CONFERENCE
ABSTRACTS

Inferring Maximum Heat Flux Beneath InSight Landing Site from Depth of Pore Closure

S. Gyalay, F. Nimmo, A.-C. Plesa, and M.A. Wieczorek.

Abstract 1316. 51st Lunar and Planetary Science Conference, The Woodlands, Texas.
Submitted.

Estimates of Tethys' Moment of Inertia, Present Day Heat Flux, and Interior Structure From its Long-Wavelength Topography

S. Gyalay, F. Nimmo, and K.D. Dodds.

American Geophysical Union Fall Meeting 2019, San Francisco.
13 December 2019

GEODES: A model for graduate-student led initiatives in diversity, equity, and inclusion

C.G. Barcheck, S. Beganskas, C.C. Masteller, A. Pheiffer, D.L. Roth, S. Taylor, C.B. Begeman, V. Yuan, D. Killam, R.E. Maxwell, S.M. White, **S. Gyalay**, Z. Kaufman, J.L. Pensky, E. Schnorr, and A. Serrano.

American Geophysical Union Fall Meeting 2018, Washington D.C.

Recalibrating the Moon's Thermometer: LRO Diviner Nonlinear Detector Response and Opposition Effect Corrections

S. Gyalay, M. Aye, and D. Paige.

Abstract 2655. 48th Lunar and Planetary Science Conference, The Woodlands, Texas,
21 March 2017

PROFESSIONAL
MEMBERSHIPS

American Astronomical Society
Division of Planetary Sciences

Aug 2016 - Present

American Geophysical Union

July 2015 - Present

Phi Beta Kappa

June 2016 - Present

ACTIVITIES &
OUTREACH

Geoscientists Encouraging Openness and Diversity in Earth Science
(GEODES)

Oct 2017 - Present