



David R. Klassen

Professor & Department Chair
Physics & Astronomy

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http://www.rowan.edu/colleges/csm/departments/physics/facultySta_/moreinfo.cfm?id=215

Education:

BS (Astrophysics & Math), University of Minnesota
PhD (Physics), University of Wyoming
Postdoctoral, Cornell University

Research Expertise:

Planetary Science | Infrared Observational Astronomy | Computational Physics

My primary area of research interest is understanding how clouds affect the water cycle and climate of Mars. On the observational side I use ground-based (NASA-IRTF) and spacecraft (MRO-CRISM) near-infrared spectral images to track and measure the ice abundance in clouds over diurnal, seasonal, and interannual timescales. More recently, I have begun working on the climate modeling side of the problem—working out a way to convert General Circulation Model outputs into synthetic spectra that can be more directly compared to spacecraft data. My work is done in collaboration with scientists at the Space Science Institute, NASA Goddard Space Flight Center, and NASA Ames Research Center. My work has been funded by both NASA and the NSF. Over the years I have had the pleasure of training a multitude of Rowan undergraduates in astronomical image processing and analysis.

Member of:

American Astronomical Society-Division for Planetary Sciences
American Geophysical Union
American Association of Physics Teachers
New Jersey AAPT
Astronomical Society of the Pacific
Planetary Society

Recent Academic Projects:

I am working with the Education & Public Outreach Subcommittee of the Division for Planetary Sciences of the American Astronomical Society to create and maintain a web guide for undergraduate students and advisors to all the graduate programs in which a PhD can be earned within the field of Planetary Science.

Recent Publications:

Klassen, DR, Kahre, MA, Wolff, MJ, Haberle, RM, Hollingsworth, JL (2017) Modeling MARCI and TES Aphelion Cloud Belt Optical Depth Peak Differences with the Ames MGCM, In The Mars Atmosphere: Modeling and Observation, January 17–20 2017, Granada, Spain. Forget F, Millour M, ed. pp. 3212.

Klassen DR (2016) Principal components analysis of Martian NIR image cubes to retrieve surface spectral endmembers. PASP 128:074501.