

# DAVID R. KLASSEN

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## EDUCATION

- **PH.D., PHYSICS, 1997** • *University of Wyoming* • Dissertation: Infrared Imaging Spectroscopy of Martian Volatiles
- **B.S., ASTROPHYSICS, AND B.MATH., 1989** • *University of Minnesota*

## PROFESSIONAL EXPERIENCE

- **ASSOCIATE PROFESSOR, 2003–PRESENT** • *Rowan University* • Algebra-based introductory physics, solar system, meteorology; continuation of analysis of multi-spectral NIR images of Mars; supervised undergraduate students with research projects; NASA and NSF funding for Mars research; faculty senator, senate officer, department assistant chair
- **ASSISTANT PROFESSOR, 1998–2003** • *Rowan University* • Algebra-based introductory physics, solar system, meteorology; continuation of analysis of multi-spectral NIR images of Mars; supervised undergraduate students with research projects; departmental advising coordinator
- **RESEARCH ASSOCIATE, 1997–1998** • *Cornell University* • Spectral imaging of Mars to search for mineralogical and volatile signatures, public outreach
- **INSTRUCTOR, 1997** • *University of Wyoming* • Calculus-based introductory physics
- **RESEARCH ASSISTANT, 1991–1997** • *University of Wyoming* • Speckle interferometry of Io to search for volcanic hotspots, spectral imaging of Mars to search for clouds and ground ices, 100+ nights setup and observing with Wyoming Infrared Observatory 2.3m telescope
- **MENTOR FOR UNDERGRADUATE RESEARCHER, 1994** • *University of Wyoming* • Oversaw summer undergraduate researcher on mid-infrared imaging spectrometer data analysis project
- **TEACHING ASSISTANT, 1989–1991** • *University of Wyoming* • Algebra-based introductory physics and cooperative learning astronomy for secondary educators
- **PHYSICS AND ASTRONOMY TUTOR, 1990–1992** • *University of Wyoming* • Astronomy, algebra- and calculus-based introductory physics
- **ASSISTANT PLANETARIUM DIRECTOR, 1990** • *University of Wyoming*
- **TEACHING ASSISTANT, SPRING 1988–SUMMER 1989** • *University of Minnesota* • Algebra/trig-based introductory astronomy and primary/secondary school outreach
- **RESEARCH ASSISTANT, SUMMER–FALL 1986** • *University of Minnesota* • H- $\alpha$  image analysis of M101 to catalog giant HII regions by position and integrated brightness.

## PROFESSIONAL AFFILIATIONS

- AMERICAN ASTRONOMICAL SOCIETY, DIVISION FOR PLANETARY SCIENCES
- AMERICAN GEOPHYSICAL UNION
- AMERICAN ASSOCIATION OF PHYSICS TEACHERS
- ASTRONOMICAL SOCIETY OF THE PACIFIC
- INTERNATIONAL MARSWATCH • Coordinator (Nov 99 – present)

## GRANTS, AWARDS, AND FELLOWSHIPS

- NASA INFRARED TELESCOPE FACILITY • Observing Nights Awards: 1999 (7), 2001 (9), 2002 (5), 2003 (6)
- NASA FACULTY FELLOW, SUMMER 2001 & 2002
- NASA MARS DATA ANALYSIS PROGRAM, 2001–2007 • Clouds of Mars: An IRTF/MGS Comparison
- NSF PLANETARY ASTRONOMY/RUI GRANT, 2003–2007 • Ice Abundances in Martian Clouds: A Seasonal Study

## SELECTED PUBLICATIONS

- BELL, J. F., III, E. A. CLOUTIS, D. R. KLASSEN, AND R. N. CLARK 2000. Spectroscopic Evidence for Diaspore ( $\alpha$ -AlOOH) on Mars. In *Lunar and Planetary Institute Conference Abstracts*, Volume 31 of *Lunar and Planetary Inst. Technical Report*, pp. 1227.
- BELL, J. F., III, D. R. KLASSEN, J. E. MOERSCH, W. F. GOLISCH, D. M. GRIEP, C. D. KAMINSKI, P. MARTIN, C. DUMAS, R. N. CLARK, AND E. A. CLOUTIS 1997. High Spatial Resolution near-IR Imaging Spectroscopy of Mars from the IRTF During 1996-97. In *Bulletin of the American Astronomical Society*, Volume 29 of *Bulletin of the American Astronomical Society*, pp. 963.
- GLENAR, D. A., G. BJORAKER, M. SMITH, J. PEARL, D. BLANEY, G. HANSEN, AND D. KLASSEN 2003. Near IR Spectral Mapping of Mars: Temperatures, Aerosols and CO<sub>2</sub> Ice. In *Bulletin of the American Astronomical Society*, Volume 35 of *Bulletin of the American Astronomical Society*, pp. 935.
- KLASSEN, D. R. 2004. Mars NIR Spectral Imaging: PCA in the Southern Summer Season. In *Bulletin of the American Astronomical Society*, Volume 36 of *Bulletin of the American Astronomical Society*, pp. 1128.
- KLASSEN, D. R. 2007. Martian Cloud Modeling using NIR Spectral Images. In *Bulletin of the American Astronomical Society*, Volume 39 of *Bulletin of the American Astronomical Society*, pp. 456.
- KLASSEN, D. R., AND J. F. BELL 2003a. Radiance factor calibration of near-infrared spectral images of Mars. *Icarus* **163**, 66–77.
- KLASSEN, D. R., J. F. BELL, R. R. HOWELL, P. E. JOHNSON, W. GOLISCH, C. D. KAMINSKI, AND D. GRIEP 1999. Infrared Spectral Imaging of Martian Clouds and Ices. *Icarus* **138**, 36–48.
- KLASSEN, D. R., AND J. F. BELL, III 1998. An Investigation of Mars NIR Spectral Features using Absolutely Calibrated Images. In *Bulletin of the American Astronomical Society*, Volume 30 of *Bulletin of the American Astronomical Society*, pp. 1055.
- KLASSEN, D. R., AND J. F. BELL, III 2000. An Investigation of Martian Volatiles Using Absolutely Calibrated Groundbased NIR Images. In *Bulletin of the American Astronomical Society*, Volume 32 of *Bulletin of the American Astronomical Society*, pp. 1105.
- KLASSEN, D. R., AND J. F. BELL, III 2001. Principal Components Analysis Studies of Martian Clouds. In *Bulletin of the American Astronomical Society*, Volume 33 of *Bulletin of the American Astronomical Society*, pp. 1069–1070.
- KLASSEN, D. R., AND J. F. BELL, III 2002. Modeling Martian Ice Clouds in the Near-Infrared. In *Bulletin of the American Astronomical Society*, Volume 34 of *Bulletin of the American Astronomical Society*, pp. 865.
- KLASSEN, D. R., AND J. F. BELL, III 2003. Seasonal Comparison of Mars NIR Principal Components. In *Bulletin of the American Astronomical Society*, Volume 35 of *Bulletin of the American Astronomical Society*, pp. 936.
- KLASSEN, D. R., AND J. F. BELL, III 2007. Principal Components Analysis of Mars in the Near-Infrared. *Icarus*, submitted.
- KLASSEN, D. R., J. F. BELL, III, R. N. CLARK, W. GOLISCH, C. D. KAMINSKI, AND D. GRIEP 1998. 3-4 Micrometer Imaging Spectroscopy of Mars. In *Lunar and Planetary Institute Conference Abstracts*, Volume 29 of *Lunar and Planetary Inst. Technical Report*, pp. 1658.
- KLASSEN, D. R., J. F. BELL, III, R. R. HOWELL, AND P. E. JOHNSON 1997. Volatile Searches in Martian NIR Spectral Images from the 1995 Opposition. In *Mars Telescopic Observations Workshop II* (A. L. Sprague and J. F. Bell, III, Eds.), pp. 19–21. LPI Technical Report 97-30.
- KLASSEN, D. R., W. PEPPARD, T. J. SCABAROZI, JR., AND J. F. BELL, III 1999. Seasonal variations of Martian clouds and volatiles. In *Bulletin of the American Astronomical Society*, Volume 31 of *Bulletin of the American Astronomical Society*, pp. 1149.
- KLASSEN, D. R., T. J. WARK, AND C. G. CUGLIOTTA 2005. Principle Components Analysis of Mars at the 2003 Opposition. In *Bulletin of the American Astronomical Society*, Volume 37 of *Bulletin of the American Astronomical Society*, pp. 693–4.
- WARK, T. J., AND D. R. KLASSEN 2004. Comparative Band-Ratio Maps of Mars from the 2003 Opposition. In *Bulletin of the American Astronomical Society*, Volume 36 of *Bulletin of the American Astronomical Society*, pp. 1158.