

## **Steven William Ruff, Ph.D.**

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### **BIOGRAPHICAL STATEMENT**

Steve Ruff earned a B.S. in Geology from the University of Wisconsin, Madison in 1985. Following four years of professional employment as an exploration geologist, he went on to earn a Ph.D. in Geology from Arizona State University in 1998 with an emphasis on thermal infrared emission spectroscopy of geologic materials. This work involved pioneering the instrumentation and techniques to acquire quantitative spectral data that serve as the basis for analysis of spectral data from Mars. As a graduate student and post-doctoral researcher with Professor Phil Christensen from 1991 to 1999, he was involved in the operations and analysis of data from the '96 Mars Global Surveyor Thermal Emission Spectrometer. This work continued with a Faculty Research Associate appointment at ASU in 2000 and involvement in the '01 Mars Odyssey Thermal Emission Imaging System. Beginning in 2004, he spent nearly seven years as the operations lead for the Miniature Thermal Emission Spectrometer on the Mars Exploration Rover *Spirit* and remains a team associate of the still operating *Opportunity* rover mission. During this time he has continued to pursue laboratory spectroscopy and techniques to support the analysis of spectral data from Mars. In 2013 he was appointed an Associate Research Professor in ASU's School of Earth and Space Exploration.

Dr. Ruff has been the PI on five NASA-funded grants since 2007 oriented toward Mars exploration, including laboratory and field studies. He is an active contributor to the efforts of the Mars exploration community as a reviewer of more than 40 scientific manuscripts, through his participation in over a 15 review panels, involvement in all of the Mars rover landing site workshops, and active role in committees appointed by NASA and the Mars Exploration Program Advisory Group to study the science benefits and requirements of a Mars sample return mission (ND-SAG, E2E-ISAG, JSWG, 2020 Mars Rover Science Definition Team).

### **SELECTED PUBLICATIONS**

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