

Scott Michael Perl

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Education

State University of New York at Stony Brook

B.E., Engineering Science (ABET Certified) (Expected 2008)

B.S., Geology (Expected 2008)

Advisor: Dr. Scott M. McLennan

Professional Appointments

NASA Mars Exploration Rover Mission - Athena Science Team Member 2004-Present

*NASA Jet Propulsion Laboratory, Pasadena, CA & Department of
Geosciences, State University of New York, Stony Brook, NY*

-Supporting rover operations as part of the Science Operations Working Group (SOWG) with science team members on daily mission planning and activities for the rovers on Mars. Attending team meetings and presenting my research which is directly related to data sent back from the *Opportunity* rover.

Educational Outreach & Teaching

Undergraduate Research & Creative Activities (URECA) Celebration Day 2007

Poster presentation title: "Volumes and orientation of secondary porosity in the Burns formation, Meridiani Planum, Mars"

Science & Society undergraduate college "Exploration of the Solar System" 2006

(SSO-102) – Guest speaker: "A day in the life of a Mission Scientist"

Teaching Assistant – Biology of Human Social & Sexual Behavior (BIO-358) 2006

Performing semester research with Dr. Paul Bingham on his the "Human Evolution Enterprise".

Undergraduate Research & Creative Activities (URECA) Celebration Day 2006

Poster presentation title: "Secondary porosity classification and analysis of Meridiani Planum, Mars"

Undergraduate Research & Creative Activities (URECA) Celebration Day 2005

Poster presentation title: "Grain boundary and porosity analyses from Meridiani Planum, Mars"

College of Engineering & Applied Sciences – Exam Preparation Program 2004

Calculus I (MAT-131), Calculus A (MAT-125), Calculus B (MAT-126)

Group leader and tutor for the Exam Preparation Program. Duties included giving out assigned problems, understanding the fundamentals of courses sponsored, and teaching my own problems to freshmen and sophomore mathematics classes.

Awards & Grants

- Undergraduate Research & Creative Activities (URECA) Travel Grant** 2007
Houston, TX – 38th Lunar Planetary & Science Conference
- Featured in “The Brook”, “Stony Brook Claims to Fame”,
and “Research Roundup”** 2005-2007
Profiled in many of the universities research bulletins publicizing work done over the past three years. Interviewed for incoming high school and new students to the university.
- Undergraduate Research & Creative Activities (URECA) Travel Grant** 2006
Houston, TX – 37th Lunar Planetary & Science Conference
- NASA Group Achievement Award – Mars Exploration Rover mission** 2005
Second Extended Mission Science Team
Jet Propulsion Laboratory, Pasadena, CA
- Undergraduate Research & Creative Activities (URECA) Travel Grant** 2005
Jet Propulsion Laboratory, Pasadena, CA – Athena Science Team meeting
- Undergraduate Research & Creative Activities (URECA) Travel Grant** 2005
Houston, TX – 36th Lunar Planetary & Science Conference
- College of Engineering & Applied Sciences - Award in Teaching (Mathematics)** 2004
State University of New York, Stony Brook, NY
Calculus I (MAT-131), Calculus A (MAT-125), Calculus B (MAT-126)

Publications (Abstracts)

1. **Perl, S.M.**, McLennan, S.M., Grotzinger, J.P., Herkenhoff, K.E., and the Athena Science Team (2007) Volumes and orientation of secondary porosity in the Burns formation, Meridiani Planum, Mars. *Lunar and Planetary Science XXXVIII*, Abstract #2226, Lunar and Planetary Institute, Houston (CD-ROM).
2. **Perl, S.M.**, McLennan, S.M., Grotzinger, J.P., Johnson, J.R., Clark, B.C., and the Athena Science Team (2006) Secondary porosity classification and analysis of the Burns formation, Meridiani Planum, Mars, *Lunar and Planetary Science XXXVII*, Abstract #2164, Lunar and Planetary Institute, Houston (CD-ROM).
3. **Perl, S.M.**, McLennan, S.M., Hahn, B.C., and the Athena Science Team (2005) Grain size analyses of sedimentary rocks from the Meridiani Planum, Mars, *URECA Collected Abstracts 2004-2005*, State University of New York, Stony Brook, NY.

Current Research & Interests

- Martian sedimentology
- Planetary geology
- Space Systems & Design

Work Experience

- State University of New York at Stony Brook – Resident Assistant (RA)** 2004-2007
-Responsibilities include creating instructive programs while serving as a mediator, counselor, crisis manager, and assistant to my 38 residents, at the same time enforcing campus policy and procedures.
- Department of Geosciences - McLennan group website – Webmaster** 2003-Present
-Created and maintaining our group web site representing the research projects and involvement in NASA’s Mars Exploration Rover mission of the McLennan group. Assisted in the initial set up of the network for the transmission

of data between NASA JPL and Stony Brook, as well creating our own group data network.

**State University of New York at Stony Brook
Computing Center Manager**

2003-Present

-Managing and teaching at a resident version of the main campus computing centers. Assisting computer users with common problems as well overseeing the lab and its equipment. Teaching software programs commonly used at the university.

Selected Courses

Geology

GEO-102 – The Earth
GEO-112 – Physical Geology Laboratory
GEO-103 – Earth Through Time
GEO-287 – Introductory Research
GEO-309/549 – Structural Geology
GEO-310/540 – Geophysics
GEO-487 – Senior Research (four years total)
GEO-533 – Geochemistry of The Solid Earth & Venus
GEO-306/546 – Mineralogy & Petrology I

**Chemistry, Physics,
Computer Science, Mathematics**

CHE-198 – Chemistry for Engineers
CSE-113 – Computer Science I
PHY-125 – Classical Physics A
PHY-126 – Classical Physics B
PHY-127 – Classical Physics C
AMS-151 – Applied Calculus I
AMS-161 – Applied Calculus II
AMS-261 – Applied Calculus III
AMS-361 – Applied Calculus IV

Engineering & Material Science

ESE-123 – Introduction to Electrical Engineering
ESE-124 – Computer Techniques for Electronic Design
ESE-211 – Electronics Laboratory A
ESE-218 – Digital Systems Design
ESE-271 – Electrical Circuit Analysis I
ESE-372 – Semiconductor & Transistor Electronics
ESG-281 – Quantum Mechanics For Engineers
ESG-300 – Writing In Engineering
ESG-302 – Thermodynamics
ESG-316 – Engineering Design II
ESG-332 – Materials Science I
ESM-450 – Engineering Systems (Gas Turbines)
ESM-335 – Strength of Materials
ESM-335 – Manufacturing Engineering
ESG-339 – Thin Film Processing

Professional Associations

Institute of Electrical & Electronics Engineers (IEEE) – Chapter President 2002-2006
State University of New York, Stony Brook, NY

-Heavily involved with the Stony Brook University chapter of the IEEE. As president my responsibilities traverse the entire executive board while bringing on an entire group of new officers. My duties included giving presentations at our general meetings, representing our group at regional events, starting collaboration between other engineering groups (Eta Kappa Nu, SWE, etc.), and being a role model for my officers and members of the Stony Brook student chapter.

Boy Scouts of America (BSA) Troop 138 – Assistant Scoutmaster
Fresh Meadows, NY

1991-Present

Also holding the youth positions of Patrol Leader, Assistant Patrol Leader, and Troop Leader Committee member, my responsibilities included preparing and coordinating meetings and planning weekend camping trips.

American Institute of Aeronautics & Astronautics (AIAA)
Student Member

2002-Present

Skills

Software

AutoCad, Visual Basic, C/C++, Java, HTML, Microsoft Visual Studio, Microsoft Office, Microsoft Windows, Unix, Linux Redhat, Apple OS, Photoshop, Dreamweaver, Electronics Workbench (Multisim 2001), PSPICE

Hardware

Computer repair, maintenance, and networking