PETER J. POLITO

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EDUCATION

MS Applied Geosciences – San Francisco State University, expected May 2009
- Title: Physical modeling of ice-channel morphodynamics on Titan
- Advisor: Dr. Leonard Sklar

BS Geology – San Francisco State University, January 2007
- Title: Correlating field and laboratory rates of particle abrasion, Rio Medio, Sangre de Cristo Mountains
- Advisor: Dr. Leonard Sklar

HONORS, GRANTS AND AWARDS

Maxwell Scholarship – San Francisco State University ($3,000), 2008
GSA Graduate Student Research Grant – Titan flume construction ($1240.00), 2008
CSU Research Competition – San Francisco State University representative – Math and Physical Science section, 2007
Hans Thalmann Award – Outstanding graduating senior for having demonstrated academic excellence and high standards of human concern, as best embodied in the memory of Professor Thalmann – San Francisco State University, 2006

PUBLISHED ABSTRACTS

Polito, P. J., Zygielbaum, B. R., Sklar, L. Sand Collins, G. C., (2008) Experimental investigation of fluvial incision on Titan by low-velocity sediment impacts, *Eos Trans*. *AGU* 87(59), Fall Meet. Suppl., Abstract P21A-1316.

Polito, P. J., Zygielbaum, B. R., Sklar, L. Sand Collins, G. C., (2008), Laboratory measurements of resistance to fluvial incision in polycrystalline water-ice under Titan conditions, Geological Society of America and Soil Science Society of America Joint Meeting, Houston, TX.

Sklar, L. S., **Polito, P. J**., Zygielbaum, B. R., and Collins, G. C., (2008), Abrasion susceptibility of ultra-cold water ice: Preliminary measurements of abrasion rate, tensile strength and elastic modulus, *in* Science of Solar System Ices Workshop, Oxnard, CA.

Collins, G. C., Sklar, L. S., Zygielbaum, B. R., and **Polito, P. J**., (2008), Laboratory investigations relevant to the erosion of ice on Titan, *in* Science of Solar System Ices Workshop, Oxnard, CA.

Polito, P. J., and Sklar, L. S. (2006), Correlating field and laboratory rates of particle abrasion, Rio Medio, Sangre de Cristo Mountains, New Mexico, *Eos Trans. AGU*, 87(52), Fall Meet. Suppl., Abstract H51G-0554.

RESEARCH AND WORK EXPERIENCE

August 2007 to Present –Teaching Assistant – San Francisco State University

- Graduate Teaching Assistant to one section of Introduction to Geology Lab per semester – August 2007 - Present
- Teaching Assistant for a joint graduate/undergraduate geomorphology course – Instructor: Dr. Leonard Sklar – August 2008 - Present

August 2007 to Present – Graduate Researcher – San Francisco State University

- Production of polycrystalline ice (seeding process), cryogenic 'Brazil' tensile strength splitting tests, cryogenic drop tests, cryogenic and non-cryogenic elastic modulus/stress-strain tests, cryogenic and non-cryogenic laboratory apparatus construction, experiments in sub-freezing cold room

January 2007 to August 2007 – Environmental Geologist – Erler and Kalinowski, Inc.

- 'Direct Push' drilling, bore logging, methane vapor sampling, well monitoring

March 2005 to January 2007 – Research Assistant – San Francisco State University

- Abrasion Experiments – sediment abrasion mills, sediment tumbling, 'Brazil' tensile strength splitting test
- Fluvial Geomorphology Lab – flume assistant and river basin assistant

COMPUTER LITERACY

- Adobe Illustrator, Photoshop and Professional, JMP, KaleidaGraph, Microsoft Office Suite, and gINT
- ArcGIS, MATLAB and Surfer (limited experience)

FIELD EXPERIENCE

Utah – Bedrock hillslopes and coupled pothole formation, Henry Mountains

- Installation of weather monitoring equipment, long profile measurements, long-term erosion monitoring equipment installation

Arizona – Monitoring travertine dam formation, Fossil Creek

- Long profile measurements (total station and laser range finder), travertine growth monitoring equipment installation, sample collection, and field mapping

New Mexico – Measuring downstream clast fining rate, Sangre de Cristo Range

- Bar and bed point counts, long profile measurements, field mapping, and sample collection for laboratory experiments

California – Hillslope sediment production, northern Sierra Nevada

- Saprolite sample collection, sediment distribution analysis, GPS and laser range finder surveying, and sampling site selection

Chile – National Outdoor Leadership School (90 day course), Patagonia

- Risk assessment, route finding, first aid training, ration and nutrition preparation, and leadership training