

Martin Hackworth

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Department of Physics, Idaho State University
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ACADEMIC POSITIONS

1992 - present Idaho State University, Department of Physics (Senior Lecturer, Lab Supervisor)
1991 - 1992 Eastern Kentucky University (Graduate Assistant)

EDUCATION

M.S., 1992, Physics, Eastern Kentucky University, Richmond, Kentucky
B.S., 1990, Physics, Eastern Kentucky University, Richmond, Kentucky

ACADEMIC TEACHING

All levels of introductory physics, all undergraduate laboratories, astronomy, optics, modern physics, meteorology, astrophysics, special topics.

ACADEMIC PROFESSIONAL

Idaho State University – Contributor: Arny, *Explorations*, 4th edition. Contributor: Anderson and Strahler, *Visualizing Weather and Climate*

Development and administration of undergraduate laboratory courses, new curricula and courses for Physics undergraduates. Development of Web resources for physics teaching laboratories and online content for General Physics, Engineering Physics, Modern Physics, Meteorology, Optics, and upper division undergraduate laboratories, development of online course content for the Idaho Virtual Campus (IVC) (<http://www.physics.isu.edu/weather>)

Acquired grant funds to investigate new technologies for renovation of undergraduate physics teaching laboratories (NSF ILI-IG). Acquired grant funds to initiate a Mobile Science Laboratory summer program (NASA). Acquired institutional and NASA funds to design and build the Idaho State University Astronomical Observatory.

Physics Department Computer Committee, Academic Standards Committee, Teaching Outcomes Committee

Director: **Pocatello Summer Sound Institute**.

Eastern Kentucky University – TA/RA. Design and fabrication of optical, electronic, vacuum, process control and data acquisition systems for experiments in laser optics research. Collateral involvement in the establishment of a new undergraduate course in laser physics and a graduate level laboratory course in laser physics, Eastern Kentucky University. Thesis project: High Gain Short Wavelength Laser

Analysis of gamma-ray data from the Long Duration Exposure Facility (LDEF). Data management, cataloging and computer programming related to the LDEF project (NASA contracts NAS8-36649, H-08071D).

General Related Experience – 34 years familiarity with computing systems including DOS/Windows based PC's, VAX, IBM mainframes and UNIX platforms. Familiar with most common PC based software platforms. Extensive experience with World Wide Web development tools, applications, and delivery of multimedia content via the Web.

Selected Talks

2007 – ISU Earth Day, Idaho Museum of Natural History: *Anthropogenic Global Warming*

2005 – PNACP, Seattle WA: *The Physics of Motorcycles*

2003 – PNACP, Seattle WA: *The Physics of Concert Sound: Art and Science At the Salt Lake City Olympics* (<http://www.phys.washington.edu/~cer/PNACP/2003/MoFProgram.pdf>)

2002 - PNACP, Portland, OR: *Weather and Climate: A Virtual Physics Course offered through the Idaho Virtual Campus* (<http://www.phys.washington.edu/~cer/PNACP/2002/PUPProgram.pdf>)

2001- First Year Seminar Conference, Idaho State University, Pocatello, ID: *Our students and how we influence their successes and failures in and out of the classroom.*

GENERAL PROFESSIONAL/NATIONAL MEDIA/PUBLIC SERVICE

- Editor/Publisher *MotorcycleJazz.com* (<http://www.motorcyclejazz.com>)
- Forensic audio, optics, accident reconstruction
- Columnist – *Idaho State Journal*
- Forensic consultant: optics, acoustics, accident reconstruction
- Consultant/Talent – The History Channel, *The Works (Motorcycles)*
- LA TIMES, November 2006 (Bigfoot Controversy)
- Chronicle of Higher Education, October 2006 (Bigfoot Controversy)
- Associated Press, October 2006 (Bigfoot Controversy)
- *The Scientist*, September 2006 (Bigfoot Controversy)
- Proprietor, 5.11 Jimmy Productions: Professional Sound Reinforcement Services, Acoustic Consulting, Forensic Audio, Recording Studio (Cakewalk, Sound Forge, Vegas Audio and ACID), Festival Management, lasys® and SIA Smaart Pro® electroacoustic spectrum analysis systems.
- Proprietor, Search for Adventure, Climbing/Skiing/Mountain Bike Retail Sales, Guide Service (1980 – 1990).
- Co-director: Developmental Racing Program, Pebble Creek Ski Area (1995-1996), Instructor: Perfect North Slopes (1988-1991)
- Contributor, *Live Sound International*
- Contributor, *Climbing*
- Senior Editor, *Motorcycle.com* (motorcycle test rider, technical product evaluation)
- Author, *Stones of Years*

Selected Engineering/Production/Performance Credits:

- Goodbuzz, *Organic*, 2001 (with platinum award winning artist Steve Isham)
- Danny Marona, *Live*, 2001
- ICAT (Idaho Classrooms of Accomplished Teacher) Video Series, New York Film Critics 2000 Award

Selected Live Show Engineering/Production Credits

- Alvin Ailey Dance
- Pilobolus Dance
- Aspen/Sante Fe Dance
- Benny Green Trio
- Bill Watrous
- Chris Brubeck Trio
- Glory Bound Gospel
- Bill Miller
- Portland Taiko
- Eileen Ivers
- Paperboys
- Leo Kottke
- Badfinger
- SHeDAISY
- Huey Lewis and the News
- Arizona Desert Ska Tour

Selected Festivals

- Boise Bluegrass Festival (2002)
- Salt Lake City Olympics, Lead Engineer Park City Eccles Center (2002)
- Old Towne Pocatello Street Fair (1998 – 2001)
- Idaho State University Centennial Celebration (2001)
- Pocatello Millennium Celebration

AWARDS

2008 Associated Press - Local Column
Three motorcycle road racing podium finishes, Willow Springs Motorcycle Club, 2005 – 2006
With 5.11 Jimmy – Best Pocatello Rock Band 1997
Ted M. George Scholarship, 1990
Ted M. George Award for Excellence in Physics, 1991
Dean's Award, 1991 (minimum three semesters on the Dean's List)
Who's Who Among Students in American Universities & Colleges, 1990-1991
Instructor of the Year, Perfect North Slopes Ski area, 1988

OTHER

Board Memberships:

Idaho State University Athletic Board (Community Member)
Idaho State University Parking Board (Chair, 2005 – 2008)
Idaho State Journal Community Editorial Board (2003 – 2006)
Pocatello Community Development Commission (Chair, 1999- 2001)
Idaho Museum of Science

Professional Societies:

Audio Engineering Society (member)

Honorary Societies:

Sigma Pi Sigma (Physics)
Kappa Mu Epsilon (Mathematics)

Expert Motorcycle Roadracing License Holder (WSMC #533)

PERSONAL

Children: Son, JR

Interests: family, motorcycles, music, skiing, climbing, outdoors, fitness, writing, photography, travel
(<http://www.physics.isu.edu/~hackmart>)