Greg A. Smith

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OBJECTIVE: Utilize my practical knowledge of precision polarization measurements in a hands-on, research-oriented setting.

EDUCATION:

College of Optical Sciences, University of Arizona, Tucson, AZ
Ph.D. - Dissertation advisor - Dr. Poul S. Jessen
Dissertation topic = *"Continuous Measurement of a Cold Atomic Ensemble"*
expected completion: May 2006

Optical Sciences Center, University of Arizona, Tucson, AZ
M.S. - Optical Sciences degree
December 2002

Rochester Institute of Technology, Rochester, NY
B.S. - Graduated with Honors in Physics (with Optics concentration)
March 1997

HONORS:

Rolyn Optics Outstanding Teaching Assistant Award - 2001 & 1999
Navy Unit Commendation Award (Naval Research Lab.) - 1996
Presidential Scholarship (R.I.T.) - 1992

PROFESSIONAL ACTIVITIES:

Member of the Optical Society of America (since 1999)
Sigma Pi Sigma National Honor Society member (since 1996)

WORK EXPERIENCE:

Research Associate College of Optical Sciences University of Arizona 9/97 - present	Work in group setting to design, implement, and analyze results for experiments involving optical physics within an ultra-cold atomic vapor. Primary responsibility for experiment in one lab room within our group.

Graduate Teaching Assistant Optical Sciences Center (UA) Spring semester, 2001	Grading for undergraduate class titled: "Optical Systems Analysis", setting up class web page, answering questions during office hours as well as occasional lecturing. Received Rolyn Optics Outstanding Teaching Assistant Award.
Graduate Teaching Assistant Optical Sciences Center (UA) Spring Semester, 1999	Set up experiments and guided graduate students for a "Laser and Solid State Device" lab class. Topics included mode-locking, second-harmonic generation, laser cooling, and use of many kinds of lasers. Received Rolyn Optics Outstanding Teaching Assistant award.
Physical Science Aide Naval Research Labs 6/96 - 9/96, 12/96 - 3/97	Built apparatus to recoat stripped sections of fiber optics with a polyimide material. Assisted in modification of excimer laser to be used in creation of fiber Bragg sensors. Received Navy Unit Commendation Award.

SELECTED PUBLICATIONS:

"Continuous Nondemolition Measurement of the Cs Clock Transition Pseudospin", Souma Chaudhury, **Greg A. Smith**, Kevin Schulz, and Poul S. Jessen *Physical Review Letters* **96**, (2006) pp.043001.

"Continuous Weak Measurement and Nonlinear Dynamics in a Cold Spin Ensemble", **Greg A. Smith**, Souma Chaudhury, Andrew Silberfarb Ivan H. Deutsch, and Poul S. Jessen *Physical Review Letters* **93**, (2004) pp.163602.

"Faraday Spectroscopy in an Optical Lattice: a continuous probe of atom dynamics", **Greg A. Smith**, Souma Chaudhury, and Poul S. Jessen, *Journal of Optics B: Quantum and Semiclassical Optics* **5**, (2003) pp.323-329.

Personal web page http://www.u.arizona.edu/~gasmith/knots/knots.html - cited in "What is the Best Way to Lace Your Shoes?" *Nature* **420**, (December 5, 2002) p.476.

"Reconstructing Large Angular Momenta", G. Klose, **G. Smith**, and P. Jessen, *Physical Review Letters* **86**, (2001) pp.4721-4725.

"Method for recoating optical fibres with polyimide", E.J. Friebele, M.A. Putnam, C.G. Askins, Z.J. Homrighaus, W.D. Mack, and **G.A. Smith**, *Electronics Letters* **34**, (1998) pp.1249-1250.

COMPUTER EXPERIENCE:

LabView, MathCad, Mathematica, MatLab, LaTeX*, Windows, Macintosh, HTML*