Peter S. Shawhan
Brief Curriculum Vitae

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Education and Awards

Washington University in St. Louis, 1986–1990

A.B. *(summa cum laude*), 1990
Majored in physics, minored in chemistry

Arthur Holly Compton Fellowship, 1986–1990
Robert N. Varney Prize for outstanding performance in introductory physics, 1987
Inducted into Phi Beta Kappa, 1989
Washington University Senior Physics Prize, 1990

The University of Chicago, 1990–1999

M.S. in Physics, 1992
Ph.D. in Physics, 1999
Dissertation: "Observation of Direct *CP* Violation in $K_{S,L} \to \pi\,\pi$ Decays"
Faculty advisor: Dr. Bruce D. Winstein

NSF Graduate Research Fellowship, 1990-1993
Robert R. McCormick Fellowship, 1990-1994
Nathan Sugarman Award for Excellence in Research, 1996
William Rainey Harper Dissertation Fellowship, 1996–1997
Grainger Graduate Research Fellowship, 1996–1998
Universities Research Association Thesis Prize [for research at Fermilab], 2000

Postdoctoral Position

Millikan Prize Postdoctoral Fellow, California Institute of Technology, 1999–2002

Professional Employment

Senior Scientist, California Institute of Technology, 2002–2006
Assistant Professor of Physics, The University of Maryland, 2006–present

Research Activities

in chronological order

KTeV Experiment, 1991–1999

KTeV was a Fermilab experiment designed to measure direct *CP* violation in the decays of neutral *K* mesons. My personal involvement included testing, assembling and commissioning the detector hardware, collecting data, writing software for data analysis, carrying out the analysis of the $K \to \pi^+ \pi^-$ event sample, performing fits to extract the direct CP violation parameter Re(ε´/ε), and writing the paper presenting the first KTeV result of this measurement.

LIGO Project, 1999–present

LIGO is a major NSF-funded project to detect gravitational waves coming from distant astrophysical objects using large laser interferometers. My personal involvement has included creating software tools to support detector operation and data analysis, carrying out studies of data quality and detector artifacts, developing data analysis methods, writing papers presenting scientific results, co-chairing the LIGO Scientific Collaboration's Burst Analysis Working Group, and leading the internal review of other analyses.

Five Selected Publications

in chronological order

A. Alavi-Harati *et al*. (KTeV Collaboration), "Observation of Direct *CP* Violation in $K_{S,L} \to \pi\,\pi$ Decays", Phys. Rev. Lett. **83**, 22 (1999).

B. Abbott *et al.* (LIGO Scientific Collaboration), "Analysis of LIGO Data for Gravitational Waves from Binary Neutron Stars", Phys. Rev. D **69**, 122001 (2004).

Peter S. Shawhan, "Gravitational Waves and the Effort to Detect Them", *American Scientist*, July/August 2004, page 350.

Peter Shawhan and Evan Ochsner, "A New Waveform Consistency Test for Gravitational Wave Inspiral Searches", Classical and Quantum Gravity **21**, S1757 (2004).

B. Abbott *et al.* (LIGO Scientific Collaboration), "Upper Limits on Gravitational Wave Bursts in LIGO's Second Science Run", Phys. Rev. D **72**, 062001 (2005).

Full Curriculum Vitae available upon request