Gerassimos G. Petratos

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Education

1988: Ph.D. in Physics, The American University, Washington, D.C.
Ph.D. Thesis: Quasielastic Electron-Deuteron Scattering at 180 Degrees at Large Momentum Transfers (SLAC nuclear physics experiment). Adviser: Prof. Raymond G. Arnold.

1983: M.S. in Physics, The American University, Washington, D.C.

1980: Physics Diploma, University of Athens, Greece.

Employment

Professor of Physics, Kent State University, Kent, Ohio. 9/2000-present: Professor of Physics and Chairperson, Kent State University, Kent, Ohio. 1/2004-6/2007: Summer 1994: Visiting Staff Scientist, SLAC, Stanford University, Stanford, California. 1/1994-8/2000: Associate Professor of Physics, Kent State University, Kent, Ohio. 10/1992-1/1994: Staff Physicist, SLAC, Stanford University, Stanford, California. 9/1990-9/1992: Post-doctoral Research Associate, SLAC, Stanford University, Stanford, California. 9/1988-8/1990: Post-doctoral Research Associate, University of Rochester, Rochester, New York. Graduate Research Assistant, The American University, Washington, D.C. 8/1980-8/1988:

Experience

9/1982-present: Research on the internal structure and dynamics of nucleons and light nuclei by scattering unpolarized and polarized electron beams from unpolarized and polarized nuclear targets at the Stanford Linear Accelerator Center (SLAC) and Jefferson Lab (JLab). Extensive knowledge of and experience with subatomic physics experimental apparatus (particle detectors, magnets, cryogenic targets, radiation shielding and detector signal processing), and particle beam transport and associated instrumentation. Major contributor (as principal investigator/spokesperson, project manager or leading collaborator) to numerous large-scale nuclear and particle physics experimental projects at SLAC and JLab. Developer of novel magnetic spectrometer systems which enabled the feasibility of several large-impact nuclear-particle physics experiments.

1/1994-present: Teaching of undergraduate and graduate level physics courses at a comprehensive university. Courses taught include: Algebra- and Calculus-based General Physics, Introductory Physics Laboratories, Modern Physics, Electromagnetic Theory, Classical Mechanics, Nuclear Physics and Statistical/Computer Analysis of Experimental Data. Undergraduate and graduate student advising; research adviser of two doctoral dissertations in experimental nuclear physics. Curriculum development for undergraduate and graduate programs in physics. Development of introductory physics laboratories.

1/2004-6/2007: Chairperson of the Kent State University Physics Department. Initiated and led programmatic, curriculum and advising reforms, and revitalizations efforts to improve its undergraduate program and to significantly increase the number of graduating physics majors.

10/1990-4/1993: Managed the End Station A experimental facility of SLAC and supervised its engineering and technical support group. Responsible for the design, setup and calibration of the small-angle, large-acceptance magnetic spectrometer systems which enabled the high-statistics measurements of the nucleon spin physics program of the laboratory.

Publications and Presentations

<u>Publications:</u> 67 papers in refereed journals, which have received to date more than 7,100 citations; 28 papers in conference proceedings; 15 unpublished reports.

<u>Presentations:</u> 48 talks (38 invited, 10 contributed) at domestic and international conferences, workshops or symposia; 34 colloquium or seminar presentations at universities and research centers.

Awards and Grants

- Recipient of *Excellence in Education* award *"For Outstanding Instruction in Physics Education"* by the Kent State University chapter of the Society of Physics Students of the American Institute of Physics, May 2014.
- Recipient of *Excellence in Education* award *"For Outstanding Instruction in Physics Education"* by the Kent State University chapter of the Society of Physics Students of the American Institute of Physics, May 2013.
- Recipient of *Excellence in Advising* award *"For Providing Exceptional Guidance to Physics Undergraduates"* by the Kent State University chapter of the Society of Physics Students of the American Institute of Physics, April 2012.
- Recipient of *Distinguished Professor* award in *"Recognition of Continued Commitment to Undergraduate Physics Education and Advising"* by the Kent State University chapter of the Society of Physics Students of the American Institute of Physics, April 2011.
- Elected 2008 Fellow of the Nuclear Physics Division of the American Physical Society for "numerous contributions to high energy electromagnetic physics, including the SLAC nucleon spin physics program, and the SLAC and Jefferson Lab few-body physics programs."
- Project Director of *Structure of the Neutron and Few-Body Nuclear Systems with Electron Scattering*, National Science Foundation Nuclear Physics grant award supporting experimental nuclearparticle physics research at SLAC and JLab, 1995-present.

Selected Publications

- JLab Measurement of the ⁴He Charge Form Factor at Large Momentum Transfers at Jefferson Lab. With A. Camsonne et al., Phys. Rev. Lett. **112**, 132503 (2014).
- Hard Photodisintegration of a Proton Pair. With I. Pomerantz et al., Phys. Lett. B684, 106 (2010).
- 3. Basic Instrumentation for Hall A at Jefferson Lab. With J. Alcorn et al., Nucl. Instr. and Methods A522, 294 (2004).
- Neutron Structure Function and A = 3 Mirror Nuclei. With I. R. Afnan et al., Phys. Lett. B493, 36 (2000).
- 5. Measurements of the Deuteron Elastic Structure Function $A(Q^2)$ for $0.7 \le Q^2 \le 6.0 \ (GeV/c)^2$ at Jefferson Laboratory. With L. C. Alexa et al., Phys. Rev. Lett. 82, 1374 (1999).
- Precision Measurement of the Proton Spin Structure Function g₁^p. With K. Abe et al., Phys. Rev. Lett. 74, 346 (1995).