

KARA DION HOFFMAN
ASSISTANT PROFESSOR OF PHYSICS

The University of Maryland
4336 John S. Toll Physics Building
College Park, MD 20742
(301) 405-7263, kara@umd.edu

- EMPLOYMENT** Assistant Professor, University of Maryland, College Park, 2004-present
- Research Associate, University of Chicago, Enrico Fermi Institute, 2001-2004
- Fellow, CERN, Organisation Européenne pour la Recherche Nucléaire, Geneva, Switzerland, EP Division, 1998-2001
- Research Assistant, Purdue University at Fermi National Accelerator Laboratory, Batavia, IL, 1994-1998
- Teaching Assistant, Purdue University, 1992-1994
- EDUCATION** *Ph.D.*, High Energy Physics, Purdue University, 1998 (advisor: D. Bortoletto)
M.S., Physics, Purdue University, 1994
B.S., Physics, University of Kentucky, 1992
- RESEARCH** RICE, the Radio Ice Cerenkov Experiment, 2005-present
IceCube Neutrino Observatory at the South Pole, 2004-present
Muon Collaboration, developing muon acceleration technologies, 2001-2004
CDF-II, Collider Detector at Fermilab, top quark physics and b-vertexing techniques, 2001-2004
LEP Higgs Working Group, combining LEP results to increase statistical power of Higgs boson limits, 1999-2001
OPAL detector at LEP, Charged Higgs searches, 1998-2001
CDF Run I, exotic particle searches and silicon vertex detector development, 1993-1998
- TEACHING** Physics 115, Inquiry Into Physics, Fall 2005
Physics 420, Principles of Modern Physics, Spring 2005
- STUDENTS AND POSTDOCS** Alexander R. Olivas, postdoctoral research associate, 2005-present
Brian J. Christy, Ph.D. student, 2005-present
Andrew (Phil) Roth, Ph.D. student, 2005-present
Benjamin Katsuo Johnson, undergraduate research, 2005-present
- GRANTS** Co-PI for NSF Grant PHY-0502709, "Particle Astrophysics with the South Pole IceCube Neutrino Observatory", 09/15/05-08/31/08, \$1,151,979
- DEPARTMENTAL SERVICE** Physics Council, 2005-present
Ph.D. Advisory committees: Junjie Zhu (2004), Derek Hullinger (2006)
- UNIVERSITY SERVICE** Senate Academic Affairs Committee, 2005-present

- PROFESSIONAL SERVICE** Member of the American Physical Society, the Division of Particles and Fields and the Division of Astrophysics
- Member of the Local Organizing Committee, Chicago Linear Collider Workshop, January 7-9, 2002, Chicago, Illinois
- OUTREACH** QuarkNet mentor to high school physics teachers
I am frequent speaker at local high schools.
- HONORS** DPF Snowmass Fellow, 2001
CERN Fellow, 1998
George W. Tautfest Memorial Award, awarded to the Ph.D. recipient showing outstanding promise in high energy physics, 1998
David Ross Fellow, Purdue Research Foundation, 1995-1997
Purdue University Fellow, 1992-1993
Merry Lewis Pence Award for the outstanding senior physics major, 1992
Phi Beta Kappa, 1992
Physics Department Undergraduate Fellow, 1990-1992
Academic Excellence Scholar, 1990-1992
Commonwealth Scholar, 1988-1989
- CONFERENCE TALKS** Talk at the Eighth International Workshop on Topics in Astroparticle and Underground Physics, September 5-9, 2003, Seattle, Washington, "*Neutrino Factories: a probe of oscillation physics*"
- Talk at the International Europhysics Conference on HEP, July 17-23, 2003, Aachen, Germany, "*Muon Colliders: From Science Fiction to Real Science*"
- Invited Talk at NuFact03, June 5-11, 2003, New York, NY, "*Novel Ideas for Beam Profiling in a Muon Cooling Channel*"
- Snowmass 2001, The Future of Particle Physics, Snowmass, CO, "*Review of non-Standard Model Higgs Searches at LEP*"
- Invited Talk at the XXXth International Conference on High Energy Physics, July 27- August 2, 2000, Osaka, Japan, "*Year 2000 Results of New Particle Searches from OPAL and the LEP Higgs Working Group*"
- Invited Talk at the International Europhysics Conference on HEP, August 19-26, 1997, Jerusalem, Israel, "*Search for New Massive Particles at the Tevatron*"
- Contributed Talk at the 1997 Joint Meeting of the APS/AAPT, 18-21 April 1997, Washington, D.C., "*Search for New Particles Decaying to B-Tagged Dijets at CDF*"
- Contributed Talk at the 1995 Joint Meeting of the APS/AAPT, 19 April 1995, Washington, D.C., "*Development of Silicon Microstrip Detectors for CDF*"
- INVITED SEMINARS AND COLLOQUIA** University of Chicago HEP seminar, scheduled for May 2006, "*IceCube*"
- Purdue University physics Department, General Colloquium, scheduled for April 2006, "*IceCube*"

University of Maryland HEP seminar, April 2004, *“What will we know before the LHC? The final word on the Higgs from LEP and what we might learn from the Tevatron”*

University of California at Davis, Physics Department Colloquium, March 2004, *“Muon Colliders and Neutrino Factories: From Science Fiction to Real Science”*

University of California at Davis, HEP seminar, March 2004, *“What will we know before the LHC? The final word on the Higgs from LEP and what we might learn from the Tevatron”*

Florida State University, February 2004, *“Muon Colliders and Neutrino Factories: From Science Fiction to Real Science”*

University of Minnesota HEP seminar, February 2004, *“Muon Colliders and Neutrino Factories: From Science Fiction to Real Science”*

University of Maryland HEP seminar, October 2003, *“Muon Colliders and Neutrino Factories: From Science Fiction to Real Science”*

University of Chicago HEP seminar, June 2003, *“The Top: Perspectives and Prospectus”*

Purdue University High Energy Theory Seminar, April 2001, *“Everything you always wanted to know about the Higgs at LEP but were afraid to ask”*

Notre Dame University HEP Seminar, March 2001, *“Everything you always wanted to know about the Higgs at LEP but were afraid to ask”*

University of Louisville Physics Department Colloquium, March 2001, *“Passing the torch, the Higgs at LEP and Beyond”*

Argonne National Laboratory Beams and Applications Division Seminar, March 2001, *“Passing the torch, the Higgs at LEP and Beyond”*

Princeton University HEP Seminar, September 2000, *“The Quest for the Higgs at LEP”*

Rutgers University HEP Seminar, September 2000, *“The Quest for the Higgs at LEP”*

Lawrence Berkeley National Laboratory Research Progress Meeting, September 2000, *“The Quest for the Higgs at LEP”*

University of Illinois at Urbana-Champaign High Energy Theoretical/Experimental Physics Seminar, December 1997, *“Recent Searches for Exotic Physics at CDF”*

PUBLICATIONS

see <http://www.slac.stanford.edu/spires/> for a complete, up-to-date listing