

MARK NEUBAUER BIO

Mark Neubauer is an Associate Professor of Physics at the University of Illinois at Urbana-Champaign (UIUC), where he has been a member of the faculty since 2007. Prior to joining the faculty at UIUC, Mark earned a Ph.D. in physics from the University of Pennsylvania. He conducted postdoctoral research in particle physics at the Massachusetts Institute of Technology (2001—2003) and University of California at San Diego (2003 – 2007) as a member of the Collider Detector at Fermilab (CDF) collaboration. His primary area of research is experimental particle physics, with broad interest and experience in neutrino physics, Higgs boson physics, and searches for new phenomena at high-energy particle colliders. In support of this research, he has expertise in high-performance computing for data-intensive science and fast electronics for triggering in particle physics experiments. He is currently engaged in research with the ATLAS experiment at the Large Hadron Collider. In the area of computing, he serves as Deputy Physics Support, Software and Computing Manager for US ATLAS, is a member of the Open Science Grid Campus Infrastructures Community Committee, and was a Fellow at the National Center for Supercomputing Applications. He holds memberships in the APS and Sigma Xi, and served as Chair of the APS Mitsuyoshi Tanaka Dissertation Award Committee in 2011.

Mark maintains an active interest in education and outreach. He was a Faculty Leader on the Entrepreneurial Leadership in STEM Teaching & Learning (EnLiST-L) project to improve STEM education in high schools throughout Illinois. He serves as the Faculty Advisor to the Society of Physics Students at UIUC, advises research in the UIUC REU program, and regularly volunteers as a technical judge for tournaments of the First Lego League. He is currently co-PI on the Data and Software Preservation in Open Science (DASPOS) Project which seeks to improve preservation, reusability, and open access of data and software to further research, education and outreach in the sciences. Mark is enthusiastic about public engagement in science, has given numerous public lectures (e.g. several at a local planetarium, Saturday Physics for Everyone at UIUC, and an APS section meeting) on current topics of interest in physics.

MARK NEUBAUER STATEMENT

Particle physics research plays a key role in the advancement of knowledge given its fundamental nature, but its impact goes well beyond insight about the Universe and weaves itself into the fabric of the society. Discoveries inform, excite, inspire young and old, and laypersons, experts, and policy makers alike. We have all experienced this first-hand in the recent Higgs boson discovery, which has invigorated our field and piqued the public interest in LHC physics (a perplexed stare is no longer an absolute certainty upon answering the question “so what do you do?” on the plane to or from CERN!).

However, the need for government advocacy for LHC research funding and public outreach for particle physics never been greater. I have met with several of our elected representative in D.C. to explain the important role the US plays in the LHC experiments, the positive impact that particle physics research has on our society, and the fact that we are just getting started at the LHC where we have good reasons to believe that more discoveries are on the horizon. But I would like to do more in this direction, which is why I am asking you support my service on the US LHC Executive Committee given its role in advocacy and support for US personnel engaged in research at the LHC.