

Biographical Sketch - Karsten M. Heeger

Karsten Heeger is Professor of Physics and Director of the Wright Laboratory at Yale University. Prof. Heeger received his undergraduate degree in physics from Oxford University and his Ph.D. from the University of Washington in Seattle where he worked on a model-independent measurement of the solar ^8B neutrino flux in the Sudbury Neutrino Observatory (SNO). Before joining the faculty at Yale University he was on the faculty at the University of Wisconsin and a Chamberlain Fellow at Lawrence Berkeley National Laboratory.

Professor Heeger's research focuses on the study of neutrino oscillations, neutrino mass, and dark matter. His thesis work was on the first model-independent measurement of the ^8B solar neutrino flux with the Sudbury Neutrino Observatory (SNO) that led to the resolution of the solar neutrino problem. Heeger was involved in the first observation of reactor antineutrino oscillation with KamLAND and discovered the non-zero neutrino mixing angle θ_{13} with Daya Bay. Heeger is now searching for neutrinoless double beta decay and studying the nature of neutrinos with CUORE, leading the development of PROSPECT as co-spokesperson to probe the existence of sterile neutrinos, and performing R&D with Project 8 towards a novel experiment to measure neutrino mass. Heeger collaborates with the DM-Ice project at the South Pole to test DAMA's claim for the detection of dark matter.

Heeger's research work has been recognized with numerous awards. For his thesis he was awarded the 2003 APS Dissertation Award in Nuclear Physics. In 2008 he received Outstanding Junior Investigator awards from DOE Nuclear Physics for the investigation of neutrino properties with bolometric detectors and from DOE High Energy Physics for the measurement of the neutrino mixing angle θ_{13} at Daya Bay. Heeger was awarded an Alfred P. Sloan Research Fellowship in 2009 and a UW Romnes Faculty Fellowship in 2011. He was named a Kavli Fellow in 2012 and elected APS Fellow in 2013.

Heeger has served on several national and international committees including the High Energy Physics Advisory Panel (HEPAP), the Nuclear Science Advisory Committee (NSAC), the Division of Particles and Fields (DPF) Executive Committee, the Division of Nuclear Physics (DNP) Nominating Committee, and the American Physical Society (APS) Committee on International Scientific Affairs. He is a member of the Nuclear Physics Long Range Planning Group, the US ATLAS Project Advisory Group, and has served on review committees for the US Department of Energy, the National Science Foundation, and the Natural Sciences and Engineering Council of Canada (NSERC).

Heeger is Associate Editor for the European Physical Journal C and Journal of Physics G, and has served as reviewer for Physical Review, Physics Letters B, Journal of Applied Physics, Nuclear Instrumentation and Methods, and other journals. Heeger has lectured at international schools and conferences, frequently gives seminars and colloquia on his research work, and is involved in the organization of scientific meetings in the US and overseas.

For more information see:

Prof. Karsten Heeger <http://wlab.yale.edu/karsten-heeger>
Yale Wright Laboratory <http://wlab.yale.edu>