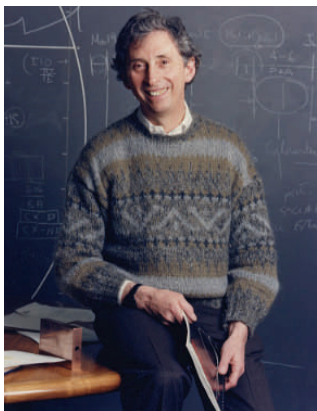


The Future of Physics

April 10, 2012

IMSA Main Gym ~ 2:45 p.m.– 3:45 p.m.



Dr. John Peoples is Director Emeritus of Fermilab and he served as its Director from 1989 until 1999. He has been active in the Fermilab scientific program for forty years and during the first twenty years he led the construction of new facilities, such as the Antiproton Source, which was a key element in transforming the Tevatron into a proton-antiproton collider. While he was Director the Laboratory successfully sustained the Tevatron as the world's highest energy collider. He received the 2009 American Physical Society Robert R. Wilson Prize for "critical and enduring efforts in making the Tevatron Collider the outstanding high energy physics accelerator of the last two decades". As Director he expanded the Fermilab scientific program to include experimental particle astrophysics, which he joined after he completed his term as Director. He has participated in the Sloan Digital Sky Survey and is participating in the Dark Energy Survey. He is a fellow of the American Physical Society and the American Association for the Advancement of Science.



Dr. Scott Dodelson is a Scientist at Fermi National Accelerator Laboratory and Professor in the Department of Astronomy and Astrophysics and the Kavli Institute for Cosmological Physics at the University of Chicago. He received his PhD from Columbia University, after which he did post-doctoral work at Harvard University and Fermilab. He was hired on to the staff at Fermilab in 1994 and served as Head of the Theoretical Astrophysics Group and co-founder and Interim Director of the Center for Particle Astrophysics. He is the author of the textbook, *Modern Cosmology*, and over 130 scientific papers as well as editor of two other books. Dodelson has served on the Astronomy and Astrophysics Advisory Committee and numerous other local and national committees. He is a Fellow of the American Physics Society and Editor of *Physics Letters B* and the *Journal of Astroparticle Physics*.



Dr. Marcela Carena is a senior scientist at the Fermi National Accelerator Laboratory in Batavia, Illinois. She received her Diploma in Physics from the Instituto Balseiro of Bariloche, Argentina in 1985, and her Ph.D. in Physics from the University of Hamburg in 1989. She was a John Stuart Bell Fellow at CERN from 1993-95 and was awarded a Marie Curie Fellowship in 1996. She has been a staff scientist at Fermilab since 1997. Carena is a theoretical particle physicist working at the frontiers of physics beyond the Standard Model. Her research explores the possible connections between Higgs physics, supersymmetry, unification, flavor physics and dark matter. She has developed a promising model to explain the matter-antimatter asymmetry observed in the universe, which will be tested at the CERN Large Hadron Collider. Carena has worked closely with experimental physicists at the LEP experiments at CERN and the Tevatron experiments at Fermilab, creating and implementing strategies for testing the latest ideas for the mechanism of electroweak symmetry breaking. Recently she demonstrated the complementary interplay between direct searches for dark matter in deep underground experiments and searches for Higgs bosons at colliders.