

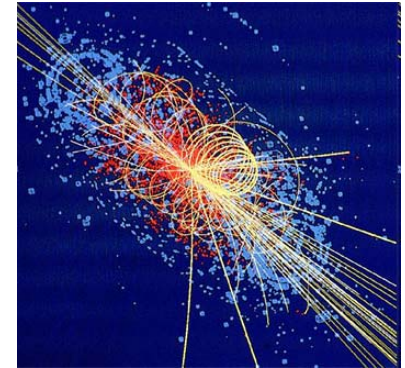
Special Colloquium

Monday, December 19, 2011 4:10 PM 428 Pupin Hall



The Next Step in the Hunt for the Higgs Boson

From a particle physics point of view, the past thirty years can rightfully be considered as the golden age of the Standard Model. Both the theoretical and experimental knowledge of the structure of the strong and electroweak interactions have reached impressive levels of precision, and the agreement between experimental results and theoretical predictions is stunning. The crucial open question is whether a physical Higgs boson exists. In this colloquium, the reasons a Higgs boson is needed in the Standard Model will be reviewed together with a short history of past searches for evidence for its existence. Then the most recent results obtained at the CERN LHC will be presented, showing how close we are to finally answering this question.



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