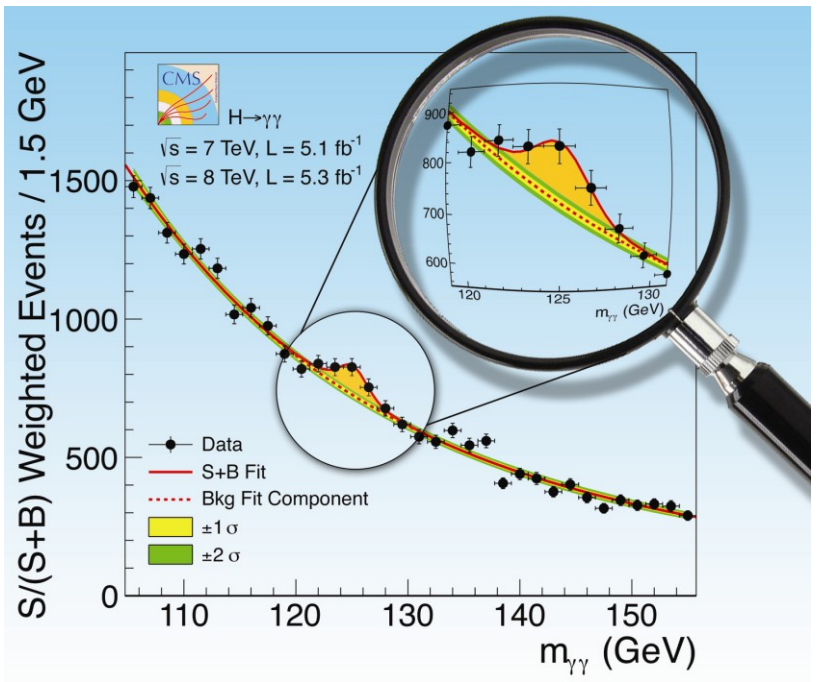
DESY
Physics Seminar

Updated results from CMS on the new boson discovered at the LHC.

Jim Olsen (Princeton University)

Tuesday, 20 November 2012, 16:45 h
DESY Auditorium



On July 4 the CMS and ATLAS experiments operating at the Large Hadron Collider (LHC) near Geneva, Switzerland, announced the discovery of a new particle with a mass of 125 GeV. From its observed decay to two photons, we know this particle has intrinsic spin equal to 0 or 2, and must therefore be a boson. There is also strong evidence that it decays to the massive vector gauge bosons, the W and Z particles. The only remaining undiscovered fundamental particle in the standard model, the Higgs boson, shares all of these properties, but initial evidence is insufficient to rule out other possibilities. In this seminar I will present updated results from the CMS experiment on the nature of this new boson and whether it is indeed the particle proposed by Peter Higgs et al. in 1964.

- **Coffee, tea and cookies will be served at 16:30h**
- **After the seminar there is a chance for private discussions with the speaker over wine and pretzels**

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