

# Columbia University Department of Physics

## Particle Seminar Series



### **“Observation of a new boson with mass near 125 GeV with CMS”**

On July 4, 2012, the discovery of a new boson, with mass around 125 GeV and with properties compatible with those of a standard-model Higgs boson, was announced at CERN. I will present the results of the search with the CMS detector. The search is performed in five decay modes: gg, ZZ, WW, tau tau and bb. An excess of events is observed above the expected background, with a local significance of 5.0 standard deviations signaling the production of a new particle.



**Markus Klute,**  
Massachusetts Institute of Technology

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**Wednesday, September 19, 2012**  
**1:00 PM 705 Pupin Hall**