

**HIGH ENERGY PHYSICS
HEP CONFERENCE ROOM 323**

NOON

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SPECIAL LUNCH TALK

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“Searches for New Physics with the CMS Experiment”

Last year the LHC has concluded its first proton-proton run at 7 TeV CM energy, a new territory for collider physics. In this talk we will shortly review the data collection and operation of the CMS experiment, and will then mainly address the searches for physics beyond the Standard Model. These include new results on searches for new gauge bosons, supersymmetry, extra dimensions and more. It will be shown that the LHC experiments already enter a new regime for large number searches for new physics, going beyond the Tevatron reach. The implications of the initial LHC searches as recently reported in arXiv:1102.4585 will be discussed. I'll conclude by showing prospects for the search for new Physics and Higgs particles for the 2011 LHC run, which is just starting.