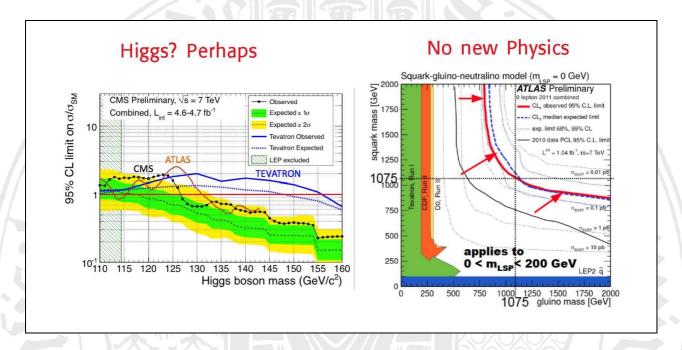


## PHYSIKALISCHES KOLLOQUIUM

AM 2. JULI 2012 UM 17 UHR C.T.

IM GROßEN HÖRSAAL



## IMPACT OF THE FIRST LHC RESULTS ON PARTICLE PHYSICS

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The LHC results released so far have very much restricted the possible range for the Standard Model Higgs boson mass. Moreover some indications for a signal at a mass around 125 GeV have been found. At the same time, no clear evidence for new physics has emerged from the LHC data. We discuss the impact of these results on our understanding of particle physics. The presently allowed window for the Higgs mass and the negative results for exotic particles are compatible with both the Standard model and its Supersymmetric extensions but imply considerable restrictions and need a substantial amount of fine tuning in all cases. We discuss the options that remain open and the perspectives for the near future.