38th INTERNATIONAL CONFERENCE
ON HIGH ENERGY PHYSICS
AUGUST 3 - 10, 2016
CHICAGO

Contribution ID: **621** Type: **Oral Presentation**

Determination of the total LHC Higgs boson Cross Section (15' + 5')

Thursday, August 4, 2016 9:00 AM (20 minutes)

In this talk I will present the most precise theoretical determination of the total Higgs boson Cross Section at the LHC known to this date. This new determination was made possible only through the first complete calculation of an LHC observable at N3LO in perturbative QCD. I will discuss the impact of the N3LO correction on the total cross section and examine remaining sources of theoretical uncertainties, such as limited knowledge of physical parameters, parton densities and yet unknown higher order corrections.

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Session Classification: Higgs Physics

Track Classification: Higgs Physics