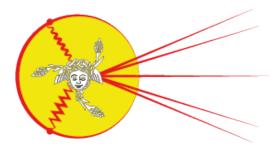
Diffraction 2016



Contribution ID: 150

Type: not specified

The results of the TOTEM experiment

Tuesday, 6 September 2016 09:00 (30 minutes)

The TOTEM experiment at the LHC has measured proton-proton elastic scattering in dedicated runs at $sqrt\{s\}=7$ and 8 TeV centre-of-mass LHC energies. The proton-proton total cross-section $sigma_{tot}$ has been derived for both energies using a luminosity independent method. TOTEM has excluded a purely exponential differential cross-section for elastic proton-proton scattering with significance greater than 7/sigma in the |t| range from 0.027 to 0.2 GeV $\{2\}$ at $sqrt\{s\}=8$ TeV. The TOTEM experiment measured elastic scattering at $sqrt\{s\}=8$ TeV in the Coulomb-Nuclear Interference Region. TOTEM has also measured diffractive scattering at $sqrt\{s\}=7$ and 8 TeV in different event topologies.

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Session Classification: Diffraction in hadron-hadron collisions - experiment (II)

Track Classification: Diffraction in hadron-hadron collisions (experiment)