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News on Exclusive Production of the BSM Higgs Bosons

Tuesday 27 March 2012 15:00 (20 minutes)

We investigate the prospects for Central Exclusive Diffractive (CED)
production of BSM Higgs bosons at the LHC using forward proton detectors installed at 220˜m and 420˜m distance around ATLAS and / or CMS.
We update a previous analysis for the MSSM taking into account
improvements in the theoretical calculations and the most
recent exclusion bounds from the LHC.
We extend the MSSM analysis to new benchmark scenarios that are in
agreement with the cold dark matter relic abundance and other precision measurements. Finally, we comment on the determination of Higgs spin-parity and coupling structures at the LHC and show that the forward proton mode could provide crucial information on the
cp properties of the Higgs
bosons.

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Session Classification: Diffraction and vector mesons

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