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## Recent Developments of the NMSSM

*Thursday 20 July 2023 11:30 (30 minutes)*

The Next-to-Minimal Supersymmetric Extension of the Standard Model (NMSSM) is a well motivated supersymmetric extension beyond the minimal version, the MSSM. It solves the  $\mu$ -problem and relaxes somewhat the tension in achieving the measured value of the Standard Model (SM)-like Higgs boson mass value. In this talk, I will address precision predictions for the NMSSM Higgs sector as well as the prospects of the NMSSM to solve open problems of the SM: I review recent developments of precision predictions in the Higgs sector, namely for the masses and the trilinear couplings of the NMSSM Higgs bosons. I will discuss prospects of Higgs pair production at the LHC and for a strong first order electroweak phase transition. I will furthermore discuss the possibility to explain the deviation of the measured muon anomalous magnetic moment from the SM value.

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