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Full NLO corrections to charged Higgs boson decays in the NMSSM

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In light of the current situation that no direct sign of new particles has been observed so far,indirect searches of new particles become increasingly important.
Accurate theoretical predictions are inevitable in order to be able to indirectly find new physics and - in case of discovery - to identify the underlying model.
In this study, we calculated the full one-loop corrections to the decay widths of charged Higgs boson decays in the framework of the Next-to-Minimal Supersymmetric Model (NMSSM) with CP violation.
In this talk, we discuss the impact of the NLO corrections on the charged Higgs branching ratios in a wide range of parameter space that is compatible with the experimental constraints.

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