

SEMINARIO DEL DEPARTAMENTO DE FÍSICA TEÓRICA

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Probing CP Violation Using Kinematic Reconstruction at the LHC

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Abstract: I will discuss the potential to observe CP-violating effects in SUSY cascade decay chains at the LHC. Asymmetries composed by triple products of momenta of the final state particles are sensitive to CP-violating effects. Due to large boosts these asymmetries can be difficult to observe at a hadron collider. If all particle masses in a cascade decay are known, it may be possible to reconstruct the decay chains on an event-by-event basis even when we have missing momentum due to the LSP. After the reconstruction, the CP violating signal gets significantly enhanced and an observation may become feasible. The most important background and experimental effects have been included. I will show examples for light squarks and stop decay chains and a possible signal in Higgs boson decays.

Más información: <http://www.ft.uam.es/docencia/seminarios.html>