

Displaced physics at the LHC: R-parity violation and displaced Higgs decay

TUESDAY

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4:00 P.M.

RM 415 NSH

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I explore two directions for solving the naturalness problem which are both likely to end up with displaced decays at the LHC. The traditional signals of supersymmetry will be significantly modified if small R-parity violating couplings are added, leading to decays of the LSP, which in many cases are expected to be macroscopically displaced. Twin Higgs models usually only change the phenomenology of the Higgs boson. One striking possibility in some simple implementations would be displaced decays of the Higgs itself. I will explore how to search for such displaced Higgs decays at the next run of the LHC.