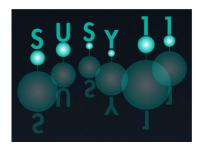
## **Supersymmetry 2011 (SUSY11)**



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## Neutrinos and an economic flavor model of R-parity violation

Thursday, 1 September 2011 12:35 (25 minutes)

Supersymmetry without R-parity provides a natural way to generate experimentally viable neutrino masses without the need to add new particles to the MSSM. The most general ansatz for R-parity violation introduces 48 potentially complex parameters to the superpotential. We present an economic way, based on a generic lepton-flavor-symmetry, to reduce the number of independent couplings to four. It is guided by the requirement to be compatible with tribimaximal mixing, while respecting the bounds from other sources like  $\mu \to e \gamma$  or lepton-flavor-violating meson decays. We investigate the consequences for the hierarchy of neutrino masses, their absolute mass scale and possible deviations from  $\theta_{13}=0$ . We further comment on a possible signature of this low energy inspired model at the LHC.

Presenter: Mr PIDT, Daniel (TU Dortmund)Session Classification: Parallel Session 8