

## **M. Cvetič: "A string theoretic model of gauge mediated supersymmetry breaking"**

*Wednesday, 30 July 2008 10:30 (30 minutes)*

Guided by modern String Theory We propose a robust supergravity model of dynamical supersymmetry breaking and gauge mediation. The Polonyi field (and its mirror) is a chiral field, charged under "anomalous"  $U(1)$ 's, with hierarchical Polonyi-term which can be generated by string instantons, and quartic superpotential terms which arise naturally as a tree-level decoupling effect of massive string states. A stable supersymmetry breaking minimum allows for the realisation of gauge mediation with soft supersymmetry breaking masses at the TeV scale which we realise for a globally consistent  $SU(5)$  GUT model of Type I string theory, with an D1-instanton inducing the Polonyi term.

**Track Classification:** W2