

## Searches for GMSB SUSY in diphoton plus missing transverse energy and photon plus Z plus missing transverse energy at Tevatron

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We report the result of searches for final states with 2 vector bosons, either two photons or one photon plus one  $Z$ , in association with large missing transverse energy produced in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV. The data were collected with the D0 detector at the Fermilab Tevatron Collider and correspond to up to  $6.3 \text{ fb}^{-1}$  of integrated luminosity. The observed missing transverse energy distributions are used to set limits on different realizations of theories beyond the standard model, including limits on the breaking scale  $\Lambda$  of gauge mediated supersymmetry models.

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