## Abstract Submitted for the APR06 Meeting of The American Physical Society

Search for long-lived neutral particles TODD ADMAS, Florida State University, DZERO COLLABORATION — We have performed a search for a relatively long-lived neutral particle using the DØ experiment. The particle is allowed to decay significantly away from the production (at least 5 cm), but still within the inner tracking detector. We search for a decay to two muons and missing energy, using the muon tracks to identify the displaced vertex. Background is found to be small and estimated from the data. We present the results of our search and a comparison to the limit set by NuTeV for dimuon events in the 3-15 GeV mass region.

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