A General Search for Undiscovered Particles Using the ATLAS[1] ESTEBAN FULLANA TORREGROSA, JASON BOOMSMA, SERGUEI CHEKANOV, Argonne National Laboratory, ATLAS GROUP @ HEP DIVISION @ ANL TEAM — We present a tool to make a comprehensive and generic search for deviations from the Standard Model in the ATLAS detector at the LHC. The search is based on the invariant mass and the sum of the Pt of the input objects. The program runs over ROOT ntuples and it is fully configurable in terms of input particles (up to six), selection cuts and output histograms. We present the results of successfully running the tool over several physics MC samples and several types of input objects including missing Et, jets, electrons, photons, muon and Z bosons.

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Date submitted: 19 Oct 2009   Electronic form version 1.4