## MadCUP\_i: An interface between MadCUP and Athena Version in release 7.0.0 and later

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This package runs MadCUP from within Athena.

See the example in MadCUP\_i/share/jobOptions.MadCupPythia.py and MadCUP\_i/share/jobOpti which show how to read MadCUP events and hadronize them using Pythia or Herwig

Users must first run MadCUP in standalone mode and make a file of events. An athena job then takes these events hadronizes them and passes them down the Athena event chain. The events must be made with a version of MadCUP that is compatible, recent versions that support the Les Houches interface should be acceptable.

To hadronize **MadCUP** generated events with Herwig, you only need to run athena with the jobOptions file jobOptions.MadCupHerwig.py by typing in the prompt athena jobOptions.MadCupHerwig.py

To hadronize **MadCUP** generated events with Pythia, you only need to run athena with the jobOptions file jobOptions.MadCupPythia.py by typing in the prompt athena jobOptions.MadCupPythia.py

More infomation about MadCUP here http://pheno.physics.wisc.edu/Software/MadCUP/