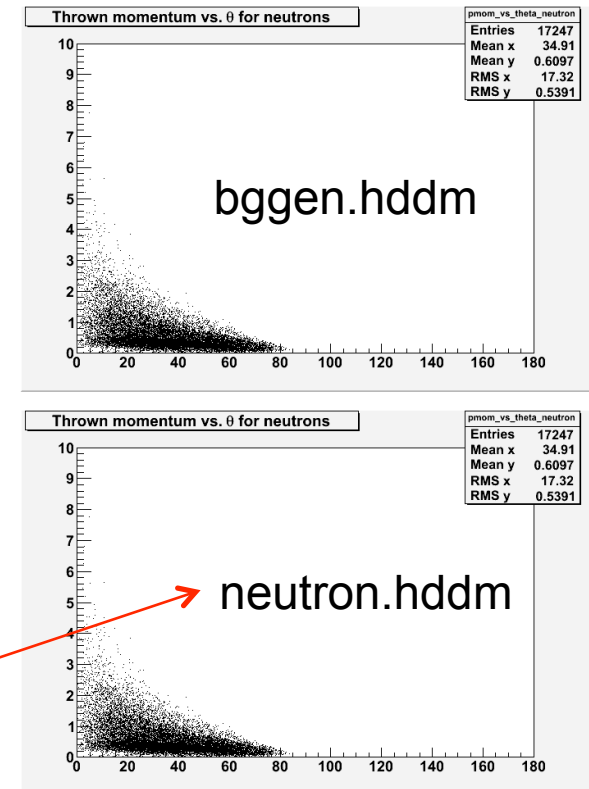# A Tool to extract particles of a specific type from a set of generated events

src/programs/Simulation/plugins/extract_ptype_hddm

What it's for …

- *Want to study or develop reconstruction ability for a specific particle type without the complication of multiple particles or multiple types in the event*

- *Allows one to easily get a sample of particles of a specific type with the same phase-space distribution they would have in multi-particle events*

- *Mean resolutions from reconstructed, single particle events may then **mean** something*

Name of output file automatically chosen based on particle type

How To Use it …

1. Run your favorite generator (e.g. bggen)
   `bggen`
2. Extract your favorite particle (e.g. neutron)
   `hd_ana –PPLUGINS=extract_ptype_hddm –PPTYPE=13 bggen.hddm`
3. Make your favorite histogram (e.g. p vs. θ)
   `hd_root –PPLUGINS=mcthrown_hists neutron.hddm`