

MUONS FROM CASCADES

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MOTIVATION

- Cascade directionality is difficult to constrain
- Muons produced in cascade events can help improve cascade directionality reconstruction to around 1°

METHODS

- Force electron neutrino-proton collisions in PYTHIA 8
- Take secondary particles produced (i.e. pions and kaons) in these interactions and feed them into GEANT 4

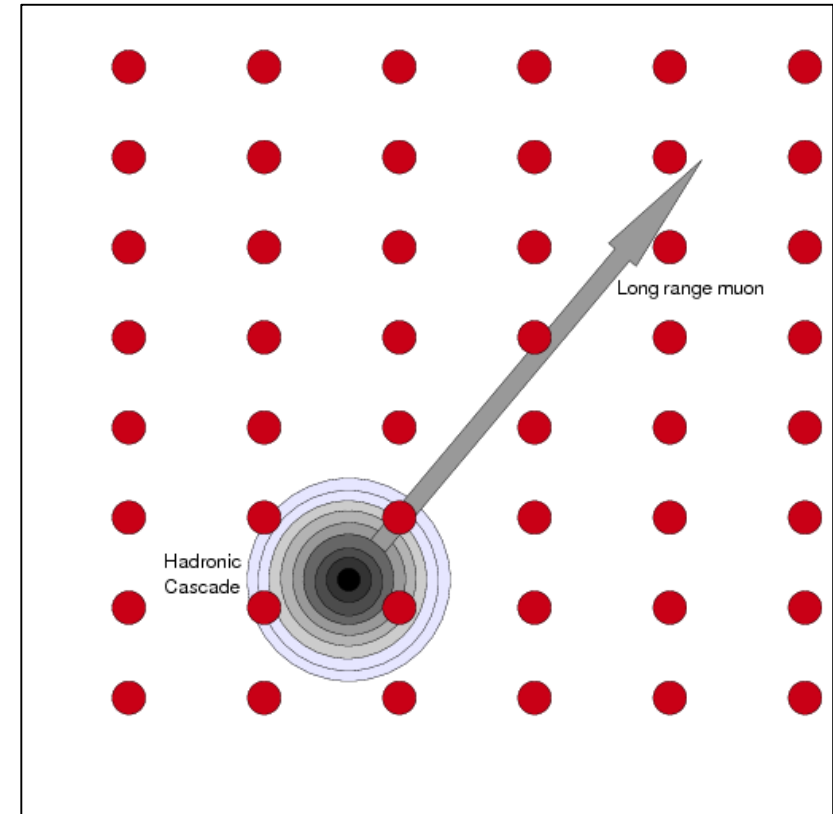
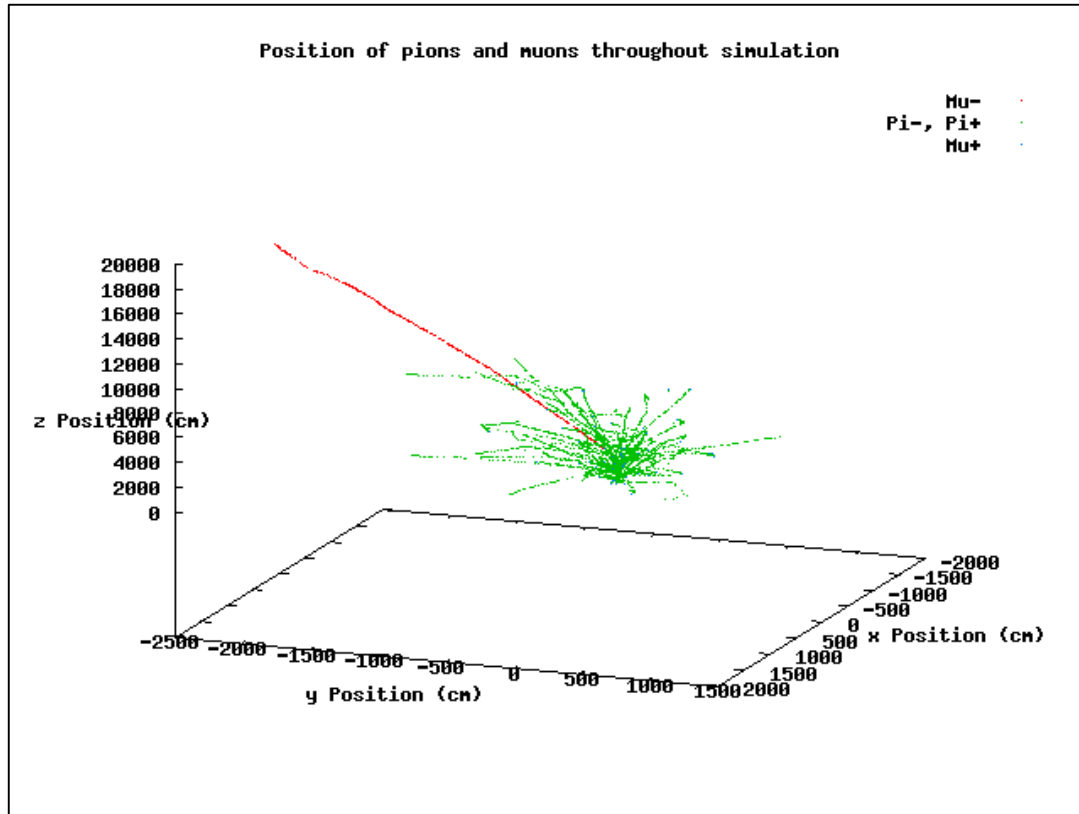


Image credit goes to Stephanie Hickford, 2012

<http://www2.phys.canterbury.ac.nz/~svh13/muonsFromCascades.html>