

A new class has been created in CRflux: CrHeavyIonPrimary « cocktail » of cosmic-ray heavy ions (same rigidity distribution as for CrAlphaPrimary, interface to RegisterCRFlux: CrExample...)

CalELayer0 {CalELayer0<1000}

200

10<sup>3</sup>

10<sup>2</sup>

10





htemp ies 2210

269.1

301.9

Entries

1000

Mean

RMS

()

800

Ν

600

400



Running GR (v5r0p1) with high-Z heavy ions (Fe) is much slower than for a standalone GEANT4 simulation.

Time per event (s):

	$^{16}\mathbf{O}$	<sup>28</sup> Si	<sup>56</sup> Fe	at 2 GeV/nucleon
standalone	.12	.26	.75	
Gleam G4Generator	.72	3.6	31	

Gleam Recon .30 3.8 16 (will hopefully be reduced with new design)

Is that due to the write-out to TDS: McIntegratingHit, McPositionHit, McParticle? McParticle is probably huge for these events, while it is of no use for digi or recon...

Note: in the distributed version of GR, the execution time is much shorter, but the results are wrong (as mentioned at the analysis meeting last week). The « G4hIonisation » process currently used is bugged. I looked into it, found and corrected the bug. Now the results are OK, but the execution is slow.