Experimental Feasibility

The interactions will be untagged

> Energy of Au nucleus 19.7 TeV
> Momentum transfer ≈ 30 MeV
> ==> deflection ≤ 1 μrad

How separate coherent interactions from background? This is important for the analysis as well as for triggering.

Detailed simulations have been performed using various MC models for the different backgrounds

- Hadronic interactions (FRITIOF+VENUS)
- Beam-gas events (FRITIOF+VENUS)
- (incoherent) photonuclear interactions (DTUNUC)
- cosmic ray muons (HemiCosm)
- debris from upstream interactions

Separation can be achieved by utilizing the characteristics of coherent events, particularly the low multiplicity and low $\sum p_T$.