

Proof of Concept Plan for GEANT4-GPU

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Significant Risks

Demonstration Plan

We are trying to prove that by running GEANT4 simulations on a GPU we can reduce the amount of time it takes for computation.

A simple example will be run using GEANT4 without any of the GPU code. This test will be benchmarked to show empirical data. The same example will be run again, this time using the GPU code. The test will also be benchmarked so we can compare the run times of both tests.

If the second test has a lower computation time then we have proven that running GEANT4 simulations with GPU's does in fact reduce computation time