

Running GEANT4 Functions on a GPU

Discussion of Results

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Overview

1 Introduction

- Brief Project Overview
- Explanation of Terms
- Scope
- Purpose

2 Discussion

- Entire G4ParticleHPVector Object on GPU
- Add New Function on GPU
- Performance
- Accuracy
- Testing

3 Conclusion

- Summary of Results
- Recommendations

Brief Project Overview

Take an existing particle simulation toolkit - GEANT4 - and have some functions run on a GPU device to improve performance.

Definition: GEANT4

GEANT4 is

Introduction
Discussion
Conclusion

Brief Project Overview
Explanation of Terms
Scope
Purpose

Stakeholders

What is GEANT4

What is GP-GPU

Introduction
Discussion
Conclusion

Brief Project Overview
Explanation of Terms
Scope
Purpose

Scope

Purpose

Why G4ParticleHPVector

Two Implementations

Entire G4ParticleHPVector Object on GPU

Add New Function on GPU

Performance Results

Performance Discussion

Accuracy

Testing

Summary of Results

Recommendations