

Application of high energy physics detector description transformation for visualization in Unity

Friday 19 July 2024 20:40 (20 minutes)

Visualization is integral to high-energy physics (HEP) experiments, spanning from detector design to data analysis. Presently, depicting detectors within HEP is an intricate challenge. Professional visualization platforms like Unity offer advanced capabilities, and also provide promising avenues for detector visualization. This work aims to develop an automated interface facilitating the seamless conversion of detector descriptions from HEP experiments, formatted in GDML, DD4hep, ROOT, and Geant4, directly into 3D models within Unity. The significance of this work extends to aiding detector design, HEP offline software development, physical analysis, and various aspects of HEP experiments. Moreover, it establishes a robust foundation for future research endeavors, including enhancements in event display.

Alternate track

I read the instructions above

Yes

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Session Classification: Poster Session 2

Track Classification: 14. Computing, AI and Data Handling