



A Tool to Convert CAD Models for Importation into Geant4

- Program to automatically convert design in SolidWorks CAD program to GDML format for loading into Geant4
- C++ program developed with Visual Studio and using the SolidWorks Application Programming Interface
- Takes one SolidWorks file and produces GDML output file
- Developed for LUX-ZEPLIN experiment
- Supports iterative design of physics detectors



Features Supported



- Shapes:
 - Cylinder (full and partial)
 - Cone
 - Disk (full and partial)
 - Board
 - Torus
 - Half-ellipsoid with circular face
- Cylindrical holes in parts
- Multiple coordinate systems in simple configurations
- Repeated parts in linear patterns
- Parts assigned material properties as specified in SolidWorks