

# John Apostolakis

Staff member, CERN (IT Div. 1996-2003, PH/SFT 2003-present)

Leader of CERN Geant4 team

Geant4 Spokesperson

Chair of Technical Steering Board/Steering Board Geant4 Geometry

Working group coordinator

## **EXPERIENCE**

GEANT4 Spokesperson and Chair of (Technical) Steering Board:

Coordinate the effort of fifteen working groups, which organise the effort in diverse technical and software life-cycle areas. Represent Geant4 to LHC/HEP/other experiments, users in other domains, and potential contributors. Present the status of Geant4 to varied audiences, including conferences, workshop and experiment meetings.

Catalyse the creation of release plans for Geant4, and oversee the work of the release coordinator and testing team. Ensure that publications are undertaken of key innovations, and reports presented of new functionality, validation and new or improved physical models at conferences. Led the process for the agreement of the Geant4 license in 2006 by copyright holders (institutions and individuals.) Undertaken leading role in organising several meetings, including Geant4 Users Workshops, Tutorials and Geant4 Collaboration meetings (Workshops).

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Lead the Simulation Section of IT/API, then the Geant4 team of PH/SFT: Oversee and plan key aspects of the work of staff, associates, fellows, visitors and students. Enable and guide their contribution in diverse areas of Geant4, including our major development areas in the physics modeling and geometry, and in vital support areas, including software management, system integration testing, tools for problem reporting, and quality assurance. Follow the physics and functionality requirements of the LHC/CERN experiments.

Coordinator, contributor Geant4 Geometry Working Group: Coordinated (10/1996-1999) the Geometry and Transport Working Group of Geant4 in the development of improved detector description methods and refinements in navigation. Developed module for propagation of particles in an arbitrary field, with attention to the case of a magnetic field. Presented variety of topics at Tutorials, including the use of detector simulation, topics of geometry, propagation in field, tracking, event biasing, optical processes at Geant4 Tutorials (2002-2008). Lecturer at European School of Medical Physics, 2001-2008.

Parallelism for HEP: Developed parallelisation of the GEANT 3.21 simulation package with work sharing at the event level using MPI. Ported the simulation of four CERN experiments to distributed memory MIMD parallel computers for extended productions.

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