



Contribution ID: 367

Type: **Poster**

## The Geant4 Virtual Monte Carlo

*Thursday, May 24, 2012 1:30 PM (4h 45m)*

The Virtual Monte Carlo (VMC) provides the abstract interface into the Monte Carlo transport codes: GEANT3, Geant4 and FLUKA. The user VMC based application, independent from the specific Monte Carlo codes, can be then run with all three simulation programs. The VMC has been developed by the ALICE Offline Project and since then it draw attention in more experimental frameworks.

Since its first release in 2002, the implementation of the VMC for Geant4 (Geant4 VMC) is in continuous maintenance and development, driven by the evolution of Geant4 on one side and the requirements from users on the other side. In this presentation we will give an overview and the present status of this interface and report on new features. The performance evaluation and the time comparisons for equivalent Geant4 native and VMC test applications will be presented. The Geant4 multi-threading prototype (Geant4 MT) represents a new challenge. The study of a feasibility of the migration of Geant4 VMC to Geant4 MT will be also presented.

**Primary author:** Dr HRIVNACOVA, Ivana (IPN Orsay, CNRS/IN2P3)

**Presenter:** Dr HRIVNACOVA, Ivana (IPN Orsay, CNRS/IN2P3)

**Session Classification:** Poster Session

**Track Classification:** Event Processing (track 2)