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Visual Physics Analysis (VISPA) - From Desktop Towards Physics Analysis at Your Fingertips

Monday 5 September 2011 16:55 (25 minutes)

Visual Physics Analysis (VISPA) is an analysis development environment with applications in high energy as well as astroparticle physics. VISPA provides a graphical steering of the analysis flow, which is comprised of self-written C++ and Python modules. The advances presented in this talk extend the scope from prototyping to the execution of analyses. A novel concept of analysis layers has been integrated in VISPA. On top of a base layer, it is possible to derive additional layers in which options are adjustable and modules can be activated or deactivated. This enables the creation of different stages already within the design phase of a single analysis, e.g. the event selection and the statistical analysis, or the optimization of settings for different types of input data such as electrons and muons which are to be processed within the same analysis flow. Furthermore, analysis execution in VISPA has been extended to include a graphical interface for parameter sets that are handled within a back-end independent design. This allows for direct job submission from VISPA to local computing clusters as well as to the LHC Computing Grid.

Authors: HINZMANN, Andreas (RWTH Aachen University, III. Physikalisches Institut A); KLINGEBIEL, Dennis (RWTH Aachen University, III. Physikalisches Institut A); MÜLLER, Gero (RWTH Aachen University, III. Physikalisches Institut A); BRETZ, Hans-Peter (RWTH Aachen University, III. Physikalisches Institut A); STEGGEMANN, Jan (RWTH Aachen University, III. Physikalisches Institut A); LINGEMANN, Joschka (RWTH Aachen University, III. Physikalisches Institut A); RIEGER, Marcel (RWTH Aachen University, III. Physikalisches Institut A); ERDMANN, Martin (RWTH Aachen University, III. Physikalisches Institut A); FISCHER, Robert (RWTH Aachen University, III. Physikalisches Institut A); WINCHEN, Tobias (RWTH Aachen University, III. Physikalisches Institut A)

Presenter: FISCHER, Robert (RWTH Aachen University, III. Physikalisches Institut A) **Session Classification:** Monday 05th - Data Analysis -Algorithms and Tools

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