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Towards a production volunteer computing infrastructure for HEP

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Using virtualisation with CernVM has emerged as a de-facto standard among HEP experiments; it allows for running of HEP analysis and simulation programs in cloud environments. Following the integration of virtualisation with BOINC and CernVM(link is external), first pioneered for simulation of event generation in the Theory group at CERN, the LHC experiments ATLAS, CMS and LHCb have all adopted volunteer computing as part of their strategy to benefit from opportunistic computing resources. This presentation will describe the current technology for volunteer computing and the evolution of the BOINC service at CERN from project support for LHC@home(link sends e-mail) towards a general service. It will also provide some recommendations for teams and experiments wishing to benefit from volunteer computing resources.

Primary authors: Dr MARQUINA, Miguel (CERN); HOIMYR, Nils (CERN)

Co-authors: GONZALEZ ALVAREZ, Alvaro (CERN); FIELD, Laurence (CERN); JONES, Pete (CERN); ASP, Tomi Juhani (University of Jyvaskyla (FI))

Presenter: Dr MARQUINA, Miguel (CERN)

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