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PanDA Beyond ATLAS: Workload Management for Data Intensive Science

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The PanDA Production ANd Distributed Analysis system has been developed by ATLAS to meet the experiment's requirements for a data-driven workload management system for production and distributed analysis processing capable of operating at LHC data processing scale. After 7 years of impressively successful PanDA operation in ATLAS there are also other experiments which can benefit from PanDA in the Big Data challenge, with several at various stages of evaluation and adoption. The new project "Next Generation Workload Management and Analysis System for Big Data" is extending PanDA to meet the needs of other data intensive scientific applications in HEP, astro-particle and astrophysics communities, bio-informatics and other fields as a general solution to large scale workload management. PanDA can utilize dedicated or opportunistic computing resources such as grids, clouds, and High Performance Computing facilities, and is being extended to leverage next generation intelligent networks in automated workflow management and brokerage. This presentation will provide an overview, the current status and future plans of the Big PanDA project.

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