



Torre Wenaus of BNL's Physics Applications Software (PAS) Group co-leads the Distributed Computing project for the ATLAS experiment at the LHC, and is ATLAS Deputy Computing Coordinator-Elect. Wenaus is a co-founder and leader of the PanDA distributed workload management system that manages all ATLAS data processing around the world, encompassing about 150 computing centers with a current data sample of 170 PB. PanDA last year processed over 1.1 Exabytes of data, in 100M jobs, with 150-200k jobs running concurrently round the clock, serving about 1400 global users. Wenaus has driven and co-led the Event Service project that builds on PanDA with a novel fine-grained approach to HEP data processing designed for the efficient exploitation of opportunistic computing resources such as HPCs, cost-effective commercial clouds and volunteer computing. In ATLAS the compute-limited physics program stands to benefit greatly from opportunistic computing resources which can enable computationally intensive physics such as rare searches that would otherwise be impossible within the available resources. With the Event Service now operating and entering production across ATLAS, Wenaus is now working on a further evolution of the approach, the Event Streaming Service, which will bring to data delivery the same efficiencies the Event Service brings to processing.