

## Usage of DIRAC workload management system for distributed data processing in the BM@N experiment

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BM@N (Baryonic Matter at Nuclotron) is the first experiment of the NICA project, which is aimed to study interactions between relativistic heavy ion beam and a fixed target. In the modern high-energy particle collision experiments sequential processing of obtained experimental data, as well as simulated events can be very time-consuming due to high particle multiplicity and high interaction rate. To solve the problem, BM@N data processing can be parallelized on JINR distributed computing resources: Tier-1 and Tier-2 GRID centers of the JINR Laboratory of Information Technologies (LIT), actively expanding NICA cluster and supercomputer "Govorun". DIRAC Interware platform being used in such experiments as LHCb, Belle2 has been deployed in LIT to simplify the process and combine different resources allocated for the experiment. The DIRAC system integrates the above computing resources and provides a common interface to employ them for distributed event processing. The report shows the work on using the platform for BM@N experimental and simulated data processing, its architecture, key aspects of the use and obtained results.

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