Friday, May 19, 2017 at 11.00

Room 310

1. M.A. Mineev

The Web access for the raw data event dump monitoring and the extension of Web application features for log data analysis of ATLAS Trigger/DAQ

The Web service development for the access to the ATLAS data and to the detector operational data monitoring system became one of the important trends of system feature improvements after starting the exploitation of the ATLAS detector in the follow-up upgrades.

The presentation considers two remote monitoring packages: Webemon and ERS Browser. Webemon implements the remote access to the raw data monitoring service. The user receives raw data events in the parsed XML format view that is ready for the integrity and correctness verification.

The second package (ERS Browser) is intended to be used for online viewing and browsing the log data collected and stored by Error Reporting system. The Webemon was written in Python, ERS Browser was implemented with Splunk framework tools.

2. A.V. Volokhova

Numerical simulation of photoexcited states of hydrated electron: model, numerical approach, parallel implementation, numerical results.

A method and a complex of computer programs are developed for the numerical solution of the system of nonlinear partial differential equations describing a formation of the polaron states in condensed media. Parallel implementation is based on the MPI technique and on the utilizing of the partition algorithm.

Numerical simulation of the photoexcited states formation in water under the action of the ultraviolet range laser irradiation is carried out. Our approach allows one to reproduce the experimental data on the hydrated electrons formation. The model modified to account for the time-depended calculation of the width of the absorption band of the hydrated electron. This modification improves an agreement of numerical results with experimental data.