ABSTRACT

Kravets O.P. Developing a web-portal of a grid-oriented virtual laboratory.

The aim of the research is to develop a web-portal of a grid-oriented virtual laboratory, which performs grid-network management for distributed computing.

The objects of the research are high-performance computing systems and performance calculation methods.

The subject of the research is autonomic grid-systems, which consist of several nodes, also the methodology of performance evaluating for these systems.

The study is directed on investigations of the main web-portal development aspects and grid-system performance evaluating. The subject area is analyzed. The mathematical computation model analysis is performed. An autonomic grid-system and a web-portal are created.

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Keywords: grid-system, distributed computing, UNICORE, web-portal.

The study contains 105 pages, 6 tables, 10 illustrations and 26 reference sources.