

## The Design and Implementation of a Multi-Auctioneer Prototype System for Grid Resource Management

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### ABSTRACT

From the viewpoint of resource management for computational grid, computing economy method is very appropriate and effective. A multi-auctioneer prototype system based upon computing economy method for grid resource management is designed and implemented in this paper. The prototype system has following advantages: Firstly, it eliminates the bottleneck of job scheduling when there are abundant jobs that are needed to submit to the grid system; secondly it prevents from the dishonest auctioneer's fraud action. The system provides mechanisms for optimizing resources provider and consumer objective functions.

**Keywords:** Computational Grid, Resource Management, Computing Economy, Auction, Auctioneer