

## TOPIC 5 - NEW - DATA MANAGEMENT, ANALYTICS AND DEEP LEARNING

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### DESCRIPTION

Many areas of science, industry, and commerce are producing extreme-scale data that must be processed—stored, managed, analyzed—in order to extract useful knowledge. This topic seeks papers in all aspects of distributed and parallel data management and data analysis. For example, HPC in situ data analytics, cloud and grid data-intensive processing, parallel storage systems, and scalable data processing workflows are all in the scope of this topic.

### Focus

- Parallel, replicated, and highly-available distributed databases
- Cloud and HPC storage architectures and systems
- Scientific data analytics (Big Data or HPC based approaches)
- Middleware for processing large-scale data
- Programming models for parallel and distributed data analytics
- Workflow management for data analytics
- Coupling HPC simulations with in situ data analysis
- Parallel data visualization
- Distributed and parallel transaction, query processing and information retrieval
- Internet-scale data-intensive applications
- Sensor network data management
- Data-intensive clouds and grids
- Parallel data streaming and data stream mining
- New storage hierarchies in distributed data systems
- Parallel and distributed machine learning, knowledge discovery and data mining
- Privacy and trust in parallel and distributed data management and analytics systems
- IoT data management and analytics