DESCRIPTION

Computing infrastructures and systems are rapidly developing and so are novel ways to map, control and execute scientific applications which become more and more complex and collaborative. Computational and storage capabilities, databases, sensors, and people need true collaborative tools. Over the last years there has been a real explosion of new theory and technological progress supporting a better understanding of these wide-area, fully distributed sensing and computing systems. Big Data in all its guises require novel methods and infrastructures to register, analyze and distill meaning.

FGCS aims to lead the way in advances in distributed systems, collaborative environments, high performance and high performance computing, Big Data on such infrastructures as grids, clouds and the Internet of Things (IoT).

The Aims and Scope of FGCS cover new developments in:

[1] Applications and application support: Novel applications for novel e-infrastructuresComplex workflow applicationsBig Data registration, processing and analysesProblem solving environments and virtual laboratories Semantic and knowledge based systemsCollaborative infrastructures and virtual organizationsMethods for high performance and high throughput computing Urgent computingScientific, industrial, social and educational implicationsEducation


[3] Theory: Process specification; Program and algorithm design Theoretical aspects of large scale communication and computationScaling and performance theory Protocols and their verification

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The Grid is a rapidly developing computing structure that allows components of our information technology infrastructure, computational capabilities, databases, sensors, and people to be shared flexibly as true collaborative tools. Over the last 3 years there has been a real explosion of new theory and technological progress supporting a better understanding of these wide-area, fully distributed computing systems. After the advances made in distributed system design, collaborative environments, high performance computing and high throughput computing, the Grid is the logical next step.

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