

---

\*\*\* Call for Papers \*\*\*  
Springer Journal of Grid Computing  
Special Issue on Science Gateways

---

New technologies and experimental methods have enabled researchers to create huge amounts of data in extremely short times. In turn, analysing this data demands a rise of compute power, storage, and transmission. An enormous number of complex and sophisticated algorithms and tools have been developed to aid research. The demand for compute power and storage is met with a rise in provision of infrastructure and High-Performance Computing facilities and has resulted in the popularity of novel utility computing infrastructures, such as grid and cloud computing. Despite the increasing available resources, the broad uptake of these facilities and infrastructures is not following the same pace. The main reasons for this lie in the complexity of the human-computer interface to these computing infrastructures.

An approach to offer easy and intuitive access to computing infrastructures irrespective of their location is a science gateway. Science gateways are frameworks (or toolsets) which incorporate applications, data and tools to enable running applications on grid and cloud infrastructures. They also provide services to support, upload, search, manage, and download (or share) applications and data. The gateways are integrated via portals or sets of applications. Gateways enable user communities to use computer and data resources through a common graphical user interface in an easy and intuitive way. As a result, users can focus on their applications instead of learning and managing the complex underlying infrastructure.

The Special Issue on Science Gateways will provide the scientific community a dedicated forum, within the prestigious Springer Journal of Grid Computing, for presenting new research, development, and deployment efforts in the area of science gateways.

We believe this venue will be an excellent place to help the community define the current state, determine future goals, and present architectures and services for future science gateways.

#### TOPICS

---

- Science gateways' applications, characteristics, challenges
- Portal technology and portal construction methods
- Usage models and science gateway tools
- Security aspects of science gateways
- Workflows and service composition in science gateways
- Data management in science gateways
- Service discovery and ontologies in science gateways
- Tools for managing grid and cloud portability in science gateways
- Integration of application domains with e-infrastructures
- Usability studies of portals and science gateways
- Performance studies of portals and science gateways

- Virtual communities
- Future research challenges in science gateways

#### Important Dates

---

Papers Due:	December 14, 2011
First Round Decisions:	February 4, 2012
Major Revisions if needed:	April 1, 2012
Second Round Decisions:	May 15, 2012
Minor Revisions if needed:	July 1, 2012
Final Decision:	August 1, 2012
Publication Date:	November 2012

#### PAPER SUBMISSION

---

Authors are invited to submit original and unpublished technical papers. All submissions will be peer-reviewed and judged on correctness, originality, technical strength, significance, quality of presentation, and relevance to the special issue topics of interest. Submitted papers may not have appeared in or be under consideration for another workshop, conference or a journal, nor may they be under review or submitted to another forum during the review process.

The sole exception are selected papers from IWSG-Life 2011 (International Workshop on Science Gateways for Life Sciences). Authors of those will receive an invitation to submit a significantly extended and updated version of their papers. The submitted papers must have at least 30% difference from the conference original papers and have to pass the same peer-review process.

Submitted papers may not exceed 20 single-spaced double-column pages using 10-point size font on 8.5x11 inch pages (1" margins), including figures, tables, and references; note that accepted papers will likely be between 15 to 20 pages, depending on a variety of factors; for more information for preparing the submitted papers, please see <http://www.springer.com/computer/communication+networks/journal/10723> under "Instructions for Authors". An intent to submit a paper which includes the title, authors, and abstract (<=150 words) must be submitted by October 24th, 2011 via email to <Jubilyn.Hilario@springer.com>. The final papers (PDF format) must be submitted online at <http://grid.edmgr.com/> before the deadline of November 1st, 2011 at 11:59PM PST. For any questions on the submission process, please email the guest editor at <[T.Kiss@westminster.ac.uk](mailto:T.Kiss@westminster.ac.uk)> and/or GRID Editorial Office at <Jubilyn.Hilario@springer.com >.

#### Guest Editors

---

##### Special Issue Guest Editor

\* Tamas Kiss ([T.Kiss@westminster.ac.uk](mailto:T.Kiss@westminster.ac.uk)), University of Westminster

##### Editors-in-Chief

\* Peter Kacsuk, Hungarian Academy of Sciences

\* Ian Foster, University of Chicago & Argonne National Laboratory



<http://www.springer.com/journal/10723>

Journal of Grid Computing

From Grids to Cloud Federations

Co-Editor-in-Chief: Kacsuk, P.; Kiss, T.

ISSN: 1570-7873 (print version)

ISSN: 1572-9184 (electronic version)

Journal no. 10723