



CALL FOR PAPERS

INGRID 2010

INSTRUMENTING THE GRID

MAY 12-14, 2010
POZNAŃ, POLAND

A number of problems in science, industry and commerce, which require broad international cooperation, may be addressed by using sophisticated equipment and top-level expertise. Therefore, the development and dissemination of techniques and technologies that allow virtualized, remote and shared access to industrial or scientific instruments are essential for the progress of society. The possibility of using scientific or industrial equipment independently of their physical location helps towards equality of opportunity for and unification of communities, and subsequently provides new momentum for industry, science, and business.

The current edition of the Workshop goes beyond exploitation of remote instrumentation on the Grid. First of all, it focuses on new Remote Instrumentation (RI) aspects related to middleware architecture, high-speed networking, wireless Grid for acquisition devices and sensor networks, QoS provisioning for real-time control, measurement instrumentation and methodology. Additionally, it will provide knowledge about automation of mechanisms oriented to accompanying processes that are usually performed by a human. Another important point of this workshop is focusing on the future trends concerning RI systems' development and actions related to standardization of remote instrumentation mechanisms.

The Workshop will be structured in technical sessions, some of which will be organized by leading researchers in the field, and will accommodate both invited and regular papers, selected on an open-call basis. INGRID 2010 allows also additional possibilities to be actively engaged in the conference program:

- 1) **Special sessions** – proposals for special sessions are welcome. Please provide the session description (1-1.5 page) including a draft session program. All submissions will be peer-reviewed by at least three members of the International Program Committee.
- 2) **Extended abstracts** – in alternative to full paper submission authors can provide an extended abstract (1-2 pages). The abstracts positively approved give a chance to make a presentation at the conference. A subsequent full paper will be reviewed independently, with a chance to add the paper to the post-workshop proceedings. Contributions are solicited on all advanced research issues concerning the theme of the Workshop, and particularly in (but not limited to) the following topics:

Remote instrumentation:

- Remote instrumentation services
- Virtual and remote laboratories
- Virtualization technologies in remote instrumentation
- Security issues for the remote control of devices
- Architectures and use cases involving remote control of devices
- Grid middleware extensions for remote control of instruments and devices
- Interoperability of information systems for the remote control of devices
- Building of communities around remote control of devices
- Distributed synchronization and calibration
- Present and future trends in RIS development
- Standards and standardization processes for RIS systems

Tele-working environments and e-learning:

- Tele-working environments and tele-presence
- Tele-services, tele-diagnosis and tele-robotics
- Tele-communities and their social impact
- Collaborative work in virtual engineering environments
- Mixed-Reality environments for education and training
- Demands in education and training, e-learning, b-learning, m-learning and ODL
- Innovative organizational and educational concepts for remote engineering

Distributed data management:

- Management of large scientific data sets
- Networking solutions in support of scientific data transport
- Distributed data acquisition in sensor networks
- Data management in Wireless Sensor Networks
- Metadata and advanced information systems for instruments and sensors

Grid integration of experimental and computational resources:

- Workflow management for large-scale experiments
- Visualization techniques
- Grid integration of experimental and computational processes
- Human computer interfaces, usability, reusability, accessibility
- Deployment of large scale applications for online engineering
- Supporting interactive applications in the grid environment



IMPORTANT DATES

- Paper submission: **January 31st, 2010** **Feb. 28, 2010**
- Special session proposals: **January 31st, 2010** **Feb. 28, 2010**
- Acceptance notification: **February 28th, 2010** **March 31, 2010**
- Camera ready copy due: **April 15th, 2010**

PAPER SUBMISSION GUIDELINES

- Manuscripts to be considered as regular papers should be original work limited to **20 double-spaced pages**.
- Extended Abstracts should be limited to 2 double-spaced pages.
- Any paper submitted to the Workshop must not have been published in or submitted to other technical conferences/journals.
- Only electronic submissions will be accepted. The preferred format for electronic submission is PDF suitable for Acrobat Reader, or Postscript. All submissions must be done through the Web site (<http://www.ingrid.cnit.it>).
- Electronic versions of the papers will be available at the Workshop.
- The proceedings will be published in book form after the Workshop (contacts with **Springer**, which published the previous Workshops' books, are currently undertaken).

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