



# First International Workshop on Job and Service Delegation in Complex Networks

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## Program Chairs

*Matthias R. Brust*

Technological Institute of Aeronautics  
Brazil

*Christian M. Adriano*

State University of Campinas  
Brazil

*Carlos H.C. Ribeiro*

Technological Institute of Aeronautics  
Brazil

## Program Committee Members

*Hannes Frey*

University of Paderborn  
Germany

*Pascal Bouvry*

University of Luxembourg,  
Luxembourg

*Teresa L. Larkin*

American University  
USA

*Luc Hogie*

Institut National de Recherches en  
Informatique et Automatique  
France

*Carlos H.Q. Forster*

Technological Institute of Aeronautics  
Brazil

*Daniel Görden*

Philips Research Eindhoven  
Netherlands

*Kamalavasan Srinivasan*

University of Wisconsin-Madison  
USA

*Steffen Rothkugel*

University of Luxembourg,  
Luxembourg

*Regina B. Araujo*

Federal University of São Carlos  
Brazil

*Jaruwan Mesit*

University of Central Florida  
USA

*Gregoire Danoy*

University of Luxembourg,  
Luxembourg

*Roberto Silveira Silva Filho*

University of California at Irvine  
USA

*Adrian Andronache*

University of Luxembourg,  
Luxembourg

## Contact

*Matthias R. Brust*

([matthias.brust@gmail.com](mailto:matthias.brust@gmail.com))

*Christian M. Adriano*

([christian.adriano@ieee.org](mailto:christian.adriano@ieee.org))

## Important Dates

Submission deadline: 22.11.2008

Acceptance notification: 16.12.2008

Camera-ready paper: 30.12.2008

Workshop: 26.02.2009

## Theme

Job and service delegation are well-known areas of interest in organizational fields such as task scheduling and workflow management. However, delegation models in these areas suffer from incomplete understanding, because research in such fields has generally dealt with relatively simple network settings. As we revisit Conway's Law, we find evidence of important interplays between communication, organization and product design structures. The possible combination of several networks into a single complex network brings new cross-cutting concerns. Therefore, research issues and solutions may be gathered and tried from diverse fields such as ad hoc networks, workflow management, artificial intelligence, collaborative software development, CSCW, etc. This workshop provides a forum for exchanging problems, methods, models, and insights about delegation in complex networks. It aims at bringing together researchers in the areas of social networks, communication networks and product design in search for common understanding of the subject of delegation in complex networks.

Original papers addressing applications, scenarios, models, methods, and architecture are solicited. Papers that bring out interesting and novel ideas at an early stage are favored over highly-polish journal-style results. Topics of interest include, but are not limited to:

### Applications and scenarios

- Scenarios and applications for labor markets, people migration, collaborative software development, ad hoc networks, sensor networks, grid computing (machine-performed), etc.
- Management of delegation in complex network systems
- Workflow management systems for complex networks
- Dependency structure matrix (DSM)
- Network organizations, organization of systems, Conway's Law
- Delegation models based on incentives/financing (pay-for-performance and cooperation)
- Characteristics of complex networks that affect job and service delegation
- Problems such as race-conditions, decision under uncertainty, and resource allocation.

### Models and methods

- Network clustering, peer-to-peer-approaches (p2p), self-organization
- Delegation optimization and metrics
- Graph construction models (geometric random graph, unit disk, continuum percolation, etc.)
- Information exchange approaches
- Computation for decision making (Peer-selection, Breakdown of Jobs and Services)
- Decomposition and composition of services
- Network state fusion, data-fusion and data-aggregation
- Models and algorithms for fault-tolerant networks
- Ubiquitous communication support for delegate networking
- Services and algorithms that support delegation
- Searching and navigating in complex delegation networks
- Localized, distributed and centralized algorithms. Topology control

### Architectures

- Distributed architectures for delegation (publish-subscribe, pipeline, representational state transfer, etc)
- Network clustering, peer-to-peer-approaches (p2p), self-organization
- Patterns of delegation
- Methods of artificial intelligent related to delegation networks
- Overlay networks
- Agent-based approaches for delegation

*Accepted papers will be published as a part of the Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering (LNICST) series of Springer and included into the main conference proceedings.*