

ValueTools '12 is an interdisciplinary conference whose goal is to gather and to facilitate the flow of expertise between researchers from different communities working on **performance evaluation, optimization, and stochastic modeling** in complex systems.

Owing to recent technological advances and the massive connectivity of our "always-online" era, these issues have attracted considerable interest in the fields of **Computer Science, Control Theory, Networks and Telecommunications, Operations Research and Signal Processing**, and, traditionally, all these communities have had a strong presence in the organization and steering of the conference. Correspondingly, ValueTools '12 solicits previously unpublished contributions that propose new performance evaluation methodologies (or help clarify the limitations of older ones) in practical complex scenarios, and new tools (or novel applications of already established ones) with which to control the performance of complex systems where traditional methods have failed to produce appealing results.

Performance Evaluation Techniques and Tools:

- Complex systems
- Control theory
- Discrete event systems
- Game theory
- Machine learning and neural networks
- Mean field theory
- Queueing theory
- Random matrix theory
- Rare events and Monte Carlo simulation
- Stochastic geometry
- Stochastic modeling

Envisaged applications:

- Computer networks and systems
- Economics
- Population biology
- Road traffic, transportation systems
- Smart homes, energy aware optimization
- Social networks

Thematic Tracks

In conjunction with the general program, ValueTools 2012 will comprise **6 thematic tracks** aimed to provide an in-depth look into different aspects of performance evaluation. Although these tracks will focus on specific thematic components, their boundaries are not rigid and they have been organized with scientific cross-fertilization in mind:

- **Economic Challenges** in Telecommunication Systems
- **Game Theory** in Communication Networks
- **Information Theory** and Performance Evaluation
- **Mean Field** Control, Games and Applications
- **Stochastic Geometry** and Communication Networks
- **Worst Case** End-to-end Performance Evaluation

Important Dates

- **Submission deadline: April 10th, 2012**
- **Notification Deadline:** July 1st, 2012
- **Camera Ready Deadline:** July 20th, 2012
- **Conference Dates:** October 9-12, 2012

Keynote Speakers

Sem Borst, Alcatel Lucent Laurent Massoulié, Technicolor
Asu Ozdaglar, MIT

Publication

Accepted papers will be published in IEEE Explore and ACM Digital Library (authorization pending).

Committee Chairs

• Steering Committee Chairs:

E. Altman, Inria
I. Chlamtac, Create-Net & Univ. of Trento

• General chair:

C. Touati, Inria & LIG

• Publicity Chairs:

A. P. Azad, UCSC
M. Jonkheere, Univ. de Buenos Aires
J.M. Kélif, Orange Labs
J.L. Roch, Grenoble INP
Y. Takahashi, Kyoto University

• Technical program Chairs:

B. Gaujal, Inria & LIG
A. Jean-Marie, Inria
E. Jorswieck, TU Dresden
A. Seuret, CNRS/GIPSA-Lab

• Publication chair:

P. Mertikopoulos, CNRS, LIG & Inria

• Local Chairs:

D. Amstel, ENS & Inria
A. Simon, Inria

• Track Chairs

T. Başar, Univ. of Illinois
B. Błaszczyszyn, Inria/ENS
J. Cohen, PRISM, CNRS
R. El Azouzi, Univ. of Avignon
S. Lasaulce, CNRS, LSS and Supelec
H. Tembine, Supelec
E. Thierry, ENS & LIP

• Conference coordinator:

E.J. Fezzardi, EAI