

# InfQ 2016 - New Frontiers in Quantitative Methods in Informatics

## Call for Papers/Ideas

The ever-increasing complexity stemming from the integration of computer and network architectures, as well as system and application software, presents new interesting challenges to the performance evaluation research community. The sixth Workshop of the Italian group on Quantitative Methods in Informatics (InfQ 2016) will be held in Taormina after the past successful editions in Pisa (2010), Lipari (2011), Lucca (2012), Sorrento (2013) and Torino (2014).

InfQ is the leading Italian forum for the presentation of all aspects of quantitative modelling and analysis of computer and telecommunication system properties. Original papers are invited on all relevant topics but papers on new challenges and frontiers in the area of quantitative modelling and evaluation of ICT systems, as well as computer science and engineering are particularly welcome.

Topics of interest include, but are not limited to:

- New Metrics
  - resilience, elasticity, acceptability, adaptability, vulnerability, sustainability, data quality, velocity, volume, variety, variability, veracity, QoE, ...
- New Techniques and Approaches
  - fluid models, heuristics and meta-heuristics, soft computing, matrix exponential, workflow, game theory and mechanism design, control theory, hierarchical/multi-formalisms, hybrid continuous/discrete-time models, partially stochastic model, emergent properties, collective and swarm intelligence, chaos theory, model-driven engineering, software performance engineering, ...
- New Problems
  - business models/costs, data/information modelling, largeness, complex phenomena and non-Markovian behaviours, soundness, orchestration, crowdsourcing, ...
- New Application Domains
  - biology, energy, health, smart cities, social and urban computing, cyber-physical systems, socio-technical systems, quantum computing, bio computing/computer, software defined and virtualized ecosystems, Software Defined Networks, Internet of Things, edge/fog computing, cognitive radio, ...

The spirit of the event is an open workshop arena where young researchers and PhD students can meet, share ideas and experiences with each other as well as with senior researchers. According to this view, at least one young researcher should be in the list of authors of each submitted contribution. Also, compared to previous editions, this year's balance will lead keynote speeches by experts in the field to play a more relevant role.

This workshop is the primary event at which the Italian performance and dependability community can get together to present and discuss their work. Whilst primarily aimed at Italian based performance and reliability engineers, we also welcome contributions from researchers working in other countries and those whose interest in performance and dependability is derived from experience in other fields. It provides an ideal opportunity for academics, industrialists and PhD students to relate experience and to present both finished work and work in progress. The event has been organised to sustain the atmosphere of informality that previous InfQs have fostered.

## Submission Formats

The workshop accepts contributions covering application and methodological aspects through analytical (or other types of) models, tools, prototypes, simulators and statistical analysis. Novel algorithms, metrics and software aimed to improve capacity planning, load characterization, availability, on-line reconfiguration, testing and management of complex systems and applications are welcome.

According to the spirit of the workshop, the review process will be aimed at providing comments that could be used by the authors mostly for strengthening the way contributions are presented, in order to make them accessible and useful for the broad audience and to increase the likelihood of generating fruitful discussions.

Best full papers will be selected for publication in one or more special issues of journals in related areas.

The paper have to be formatted according to the SigMetrics ACM (latex) style available at: <http://www.sigmetrics.org/sig-alternate-per.cls>

Contributions should be submitted in electronic format (PDF) through the EasyChair system: <https://easychair.org/conferences/?conf=infq2016>

Different submission options are available for InfQ 2016 as specified in the following. Accepted papers will be published as a specific volume of the Valuetools Proceedings.

Best paper awards will be provided for each category below.

Extended versions of the best **full papers** will be selected for consideration in a special issue of the [ACM Performance Evaluation Review](#) journal, to be further revised and evaluated through a new review process.

**Full conference papers:** Papers must be unpublished and must not be submitted for publication elsewhere. All papers will be thoroughly reviewed by at least three referees on the basis of their originality and their scientific and practical contribution to the state-of-the-art. Papers must be written in English and must not exceed 8 pages .

**Practical experience reports and industrial papers:** Besides full papers industrial papers and practical experience reports are also solicited. Reports should not exceed 4 pages.

**Position and Short papers:** preliminary work reporting on new ideas, not yet developed and/or applied. Position should not exceed 4 pages.

**Tool descriptions:** Special sessions will be arranged to present and demonstrate tools relevant to any topic covered by the Call for Papers. Accepted tool descriptions should not exceed 4 pages.

**Tutorial proposals:** Please send your tutorial proposals (2 pages) to the conference chairs. Proposals for tutorials should specify the intended length (1/2 hour or 1 hour), the target audience (beginners or experts), and any required background.

## Other activities

Further activities for mentoring, networking and fostering collaborations among people, researchers and practitioners in the InfQ areas of interest, as well as discussions on future initiatives, will be enforced. In particular

**PhD Defense Corner:** The InfQ PhD defense corner will provide an environment for doctoral students to present and discuss their dissertation research both with their peers and experienced researchers from academia and industry. In addition to providing feedback and advice, this forum will provide an opportunity for students to network as well as to practice presenting their research clearly and concisely. This forum is best suited to senior PhD students, who will be in their final year. They will need to have developed a mature research dissertation topic and framework and be far enough into their PhD to have a concrete presentation, outlining the key challenges they plan to solve as well as the strategies and methods that are applicable. The feedback at InfQ will help the PhD students to fine-tune their thesis, and also help them address additional items in their research. Interested PhD students will have to submit their dissertation abstract, contact information, and affiliation to the conference chairs.

**Project Proposal Corner:** Opportunities to researchers and colleagues aiming at discussing project ideas and/or to build up consortia for proposals will be provided. A short description of the ideas and generalities of the principal (co-)investigators have to be sent to the conference chairs.

**Birds of a Feather:** InfQ will also provide a forum for discussing on future initiatives, activities and ideas for strengthening collaborations and relationships with related communities and public bodies. Representative from national and EU-international authorities and public bodies will be invited to take part to the BoF. Ideas and proposals from the InfQ community are welcome.

## Important Dates

Paper Submission:	July 1, 2016
Position, Short, Tool and Tutorial Submissions:	July 15, 2016
Authors' Notification:	September 10, 2016
Final Version:	September 20, 2016

Early Registration Deadline:  
Conference:

September 20, 2016  
October 24-25, 2016

## Organization

TBD