Call for papers
Inf-Q 2012

organized by the Italian Group on Quantitative Methods in Informatics
(Informatica Quantitativa - www.infq.it)

The Third Workshop of the Italian group on Quantitative Methods in Informatics (Inf-Q 2012) has the aim of favoring the sharing of ideas, in particular involving young researchers (PhD students, Post-docs, ...), about the new challenges that the ever increasing complexity stemming from the integration of computer and network architectures is posing to the performance evaluation field. It follows the two successful editions of Pisa (2010) and Lipari (2011).

Since the early days of computing, the evaluation and improvement of performance has been recognized as fundamental in all the phases of a computer system's life-cycle. Today, with the ever increasing complexity of Internet-based architectures, the term "performance" is no longer restricted to the original concept of "speed of computation" and has been increasing in importance. This is because it is often related to more general economic issues, for example, the quality of service in a Web-based application, power consumption in wireless sensor networks, the reliability of a system or of an application, the computational cost of an infrastructure and energy efficiency. These are all characteristics that are now collectively identified with the term "performance".

Performance evaluation techniques have evolved over the years together with the evolution of system architectures and web-based service applications. Many advances in techniques and tools have been recently achieved, addressing the challenging problems related to the performance evaluation of new system architectures. Mobility, the huge dimensions of the networks in terms of servers and users, the heterogeneity of service demands, highly fluctuating workloads, the high variance in quality of service requirements, the dynamic switching of bottlenecks, transient behavior, the dynamic allocation of resources, interdependence between infrastructures and high reliability requirements in mission critical systems are just a few examples of the new problems being faced.

Inf-Q 2012 will focus on four themes, covering both applicative and methodological aspects:

- Future Internet (the Internet as a Complex System, the Internet & the Economy, Greening of the Internet, the Internet of Things, New Communication Paradigms);

- Global Computing (Technologies and Resource Management, Computational and Business Models);

- New Quantitative Evaluation Methodologies, Techniques and Tools;

- Network Monitoring and Measurement.

These themes are also those characterizing the 2012 GII (Gruppo di Ingegneria Informatica - http://gii.consorzio-cini.it/) PhD summer school: the reason for co-locating and choosing the same topics for the school and the workshop, is to create synergy between the two events, creating an occasion for young researchers (in particular PhD students) to follow courses held by expert researchers in their research area and at the same time to exchange with them ideas and experiences in the respective research fields.

Papers proposing original research work on the above four topics and concerning models, tools, prototypes, simulators, statistical analysis are solicited. This call is open to researchers working on models, algorithms and metrics oriented to the dimensioning, load characterization, designing, implementation, testing and management of new systems and applications.

All the submitted papers will be peer reviewed by at least three reviewers, and referee reports will be used by authors to improve the quality of their papers. After the oral presentation the TPC will then select the best papers for fast tracking to a number of journals which will be notified in the updates of the call for papers that will be available on the Inf-Q web site (www.infq.it). The proceedings of the InfQ2012 will be available on-line on CEUR Workshop Proceedings (CEUR-WS.org). This will enable authors of work-in-progress papers to improve and then submit the papers to another conferences or journals without any copyright constraints. Papers presenting ideas that are not yet fully developed will be considered for presentation and publication in the proceedings as short papers.

In addition to the regular paper sessions, the workshop will include a PhD defense corner providing 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 are in their final year.

Submissions will be handled by the EasyChair conference management system (http://www.easychair.org/conferences/?conf=infq2012). If you don't have an account on EasyChair yet, the above link will also allow you to create one.

Important Dates:
Paper submission: March 15
PhD defense corner abstract submission: May 11
Authors notification: May 11
Final version due: June 1st