

11th International Workshop on Mutation Analysis (MUTATION 2016)

April 10th 2016, Chicago, IL, USA, co-located with ICST 2016

Mutation is acknowledged as an important way to assess the fault-finding effectiveness of test sets. Mutation testing has mostly been applied at the source code level, but more recently, related ideas have also been used to test artefacts described in a considerable variety of notations and at different levels of abstraction. Mutation ideas are used with requirements, formal specifications, architectural design notations, informal descriptions (e.g. use cases) and hardware. Mutation is now established as a major concept in software and systems V&V and uses of mutation are increasing. The goal of the Mutation workshop is to provide a forum for researchers and practitioners to discuss new and emerging trends in mutation analysis. We invite submissions of both full-length and short-length research papers as well as industry practice papers.

Topics of interest

- Mutation-based test adequacy criteria (theory or practical application).
- Mutation-based test data generation.
- Higher order mutation testing.
- Novel mutation testing paradigms and applications.
- Empirical studies of mutation testing.
- Formal theoretical analysis of mutation testing.
- Comparative studies (i.e., studies that compare mutation with other techniques).
- Mutation testing tools.
- Industrial experience with mutation testing.
- New mutation systems for programming languages and for higher-level descriptive.
- Increasing the efficiency of mutation.
- Mutation for mobile, internet and cloud based systems.
- Mutation for security and reliability.

Submissions & Publication

Three types of papers can be submitted to the workshop:

- **Full papers (10 pages):** Research, case studies.
- **Short papers (6 pages):** Research in progress, tools, experience reports, new ideas.
- **Industrial papers (6 pages).**

Each paper must conform to the two columns IEEE conference publication format (<http://www.computer.org/portal/web/cscps/formatting>) and must be submitted in PDF. Submissions will be evaluated according to the relevance and originality of the work and to their ability to generate discussions between the participants of the workshop. Three reviewers will review each paper and all the accepted papers will be published as part of the ICST proceedings.

Important Dates

- **Submission of full papers:** January 15, 2016
- **Notification of acceptance:** February 22, 2016
- **Camera Ready:** March 4, 2016
- **Workshop date:** April 10, 2015

Special Issue on Mutation Testing

Authors of selected papers will be invited to submit extended versions of their papers to a special issue on mutation testing, published by the journal of Software Testing, Verification and Reliability (STVR). The extended papers will go through the regular review process but will be assigned at least one reviewer from the Mutation 2016 Program Committee.



Organizers

Rene Just, University of Washington, USA

Jens Krinke, University College London, UK

Christopher Hénard, University of Luxembourg, Luxembourg

Program Committee

Paul Ammann, George Mason University, USA

Lydie du Bousquet, Laboratoire d'Informatique de Grenoble, France

Gordon Fraser, University of Sheffield, UK

Sudipto Ghosh, Colorado State University, USA

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Rahul Gopinath, Oregon State University, USA

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Gregory Kapfhammer, Allegheny College, USA

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Auri Marcelo Rizzo Vincenzi, Universidade Federal de Goiás, Brasil

Website

For more information see: <http://sites.google.com/site/mutation2016>