

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):** Applications developed and lessons learned in industry.

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:** December 1, 2016
- **Notification of acceptance:** January 2, 2017
- **Camera Ready:** TBA
- **Workshop date:** March 13, 2017

## 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 2017 Program Committee.



## Website

For more information, see: <http://sites.google.com/site/mutation2017>

## Organizers

**Jens Krinke**, University College, London, UK

**Nan Li**, Medidata Solutions, USA

**José Miguel Rojas**, University of Sheffield, UK

## Program Committee

**Vinicius Durelli**, University of São Paulo, Brazil

**Sudipto Ghosh**, Colorado State University, USA

**Milos Gligoric**, University of Texas, USA

**Rahul Gopinath**, Oregon State University, USA

**Christopher Henard**, Quanox, Luxembourg

**Yue Jia**, University College London, UK

**Rene Just**, University of Washington, USA

**Gregory Kapfhammer**, Allegheny College, USA

**Marinos Kintis**, University of Luxembourg, Luxembourg

**Birgitta Lindström**, University of Skövde, Sweden

**Lech Madeyski**, Wroclaw University of Technology, Poland

**Nicos Malevris**, Athens University of Economics and Business, Greece

**Ali Mesbah**, University of British Columbia, Canada

**Mike Papadakis**, University of Luxembourg, Luxembourg

**Sina Shamshiri**, University of Sheffield, UK

**Auri Marcelo Rizzo Vincenzi**, Federal University of São Carlos, Brasil

**Jie Zhang**, Peking University, China