



# Mutation 2010: The 5<sup>th</sup> International Workshop on Mutation Analysis

April 6 2010, Paris, France (associated with ICST 2010)

## About Mutation 2010

Mutation is acknowledged as an important way to assess the fault-finding effectiveness of tests sets. Mutation testing has mostly been applied at the source code level, but more recently, related ideas have also been used to test artifacts 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.

## Keynote Speaker

Mark Harman, King's College, UK - "How HOM Helps Mutation Testing".

## Organizers

Lydie du Bousquet, *LIG, France*  
Jeremy S. Bradbury, *UOIT, Canada*  
Gordon Fraser, *Saarland University, Germany*

## Program Committee

Roger Alexander, *Washington State University, USA*  
Paul Ammann, *George Mason University, USA*  
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Jeff Offutt, *George Mason University, USA*  
Macario Polo, *University of Castilla-La Mancha, Spain*  
David Schuler, *Saarland University, Germany*  
Yves Le Traon, *University of Luxembourg, Luxembourg*  
Laurie Williams, *North Carolina State University, USA*  
Eric Wong, *University of Texas at Dallas, USA*  
Lu Zhang, *Peking University, China*

## Topics of interest

- Mutation-based test adequacy criteria (theory or practical application).
- Mutation testing using higher order mutants.
- Test-case generation using mutants.
- Using mutation in empirical studies (e.g. studies that compare mutation with other testing techniques).
- Industrial experience with mutation.
- New mutation systems for programming languages (e.g. for languages not yet addressed, or offering improvements on existing ones) and for higher-level descriptive notations (e.g. formal specification notations and architectural design notations).
- Novel applications of mutation including mutation for QoS properties (security, performance, etc.).

## Submissions and Publication

Two 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, problem descriptions, new ideas.

Each submitted paper must conform to the IEEE format and submission guidelines. 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. Each paper will be reviewed by three reviewers and accepted papers will be published in the IEEE Digital Library.

## SCP Special Issue

Authors of selected papers will be invited to submit extended versions of their papers to a special issue of the journal *Science of Computer Programming* (SCP).

## Important dates

Submission of full papers: **January 15, 2010**  
Notification of acceptance: **March 2, 2010**  
Camera-ready: **March 26, 2010**  
Date of workshop: **April 6, 2010**

## Website

For more information see <http://www.st.cs.uni-saarland.de/mutation2010>