CALL FOR PAPERS

1st International Workshop on Combinatorial Testing
April 17, 2012, Montreal, Canada

In conjunction with ICST 2012
5th IEEE International Conference on Software Testing, Verification and Validation, April 17-21, 2012

Combinatorial Testing (CT) is a widely applicable generic methodology and technology for software verification and validation. In a combinatorial test plan, all interactions between parameters up to a certain level are covered. Studies show that CT can significantly reduce the number of test cases while remaining very effective for fault detection. This workshop aims to bring together researchers, developers, users, and practitioners to discuss and exchange ideas and experiences in the development and application of CT methods, techniques, and tools.

We invite submissions of high-quality papers presenting original work on both theoretical and experimental aspects of combinatorial testing. Topics of interest include, but are not limited to:

- Combinatorial testing workflow
    - Modeling the input space for CT
    - Efficient algorithms to generate t-way test suites, especially involving support of constrains
    - Determination of expected system behavior for each test case
    - Executing CT test suites
    - Combinatorial testing based fault localization
    - Implementation of CT with existing testing infrastructures
    - Handling changes in test requirements

- Applicability of combinatorial testing
    - Comparison and combination of CT with other dynamic verification methods
    - Investigation of historical records of failures to determine the kind of CT which may have detected underlying faults
    - Empirical studies and feedback from practical applications of CT
    - Combinatorial testing for concurrent and real-time systems
    - CT for testing cloud computing systems and use of combinatorial methods in cloud architecture
    - Application of CT in other domains, e.g., study of gene regulation and other biotechnology applications

- Combinatorial and complementing methods
    - Combinatorial analysis of existing test suites
    - Test plan reduction and completeness
    - CT and coverage metrics – combining the two, and studying the relationship between them

Important Dates:

Paper submission:	January 22, 2012
Notification:	February 19, 2012
Camera-ready submission:	March 2, 2012
Workshop:	April 17, 2012

For more information, please refer to the workshop webpage:
http://www.research.ibm.com/haifa/Workshops/ct2012/
or ICST 2012 webpage: http://icst2012.soccerlab.polymtl.ca/