
Call for Papers

IEEE International Workshop on Combinatorial Testing and its Applications (CTA 2019)

Sofia, Bulgaria, July 22-26, 2019

<http://paris.utdallas.edu/cta19/>

co-located with the 19th IEEE International Conference on Software Quality, Reliability & Security (QRS 2019) <https://qrs19.techconf.org/>

Combinatorial methods are a promising modern approach to software testing. In particular, pairwise testing, which requires testing all pairs of possible values for any pair of input parameters, has shown a high level of fault detection. A more general approach, t -wise testing, which is an extension of pairwise testing for t from 3 to 6, considers a combination of any t input parameter values to be covered by at least one test. It requires more test cases but provides even better results. Combinatorial testing (CT) is also an effective approach to testing hardware and software configurations. The CTA 2019 workshop aims to bring together researchers and practitioners working on CT. The workshop will provide a platform for the discussion of problems in the theory and practice of CT with a focus on its applications in different domains. Participants will be able to use this opportunity to share their knowledge through informal discussions, develop new ideas, and establish new collaborations on CT topics.

Topics of interest

Topics of interest include, but are not limited to, the following:

- Theoretical basis of CT
- Methods, models, and algorithms for combinatorial test generation
- CT for configuration testing
- CT for input testing
- CT for security testing
- Types of faults detected by CT
- CT effectiveness
- CT coverage
- Comparison of different CT methods
- Comparison of CT with other testing approaches
- Combining CT with other testing approaches
- Experimental evaluation of CT
- Tools for combinatorial test generation
- Tools for measuring CT coverage
- Combinatorial test automation
- Case studies and industrial reports on CT applications
- Analysis of practical problems during CT application
- Domain-specific applications of CT

Submission

- Authors are invited to submit original papers with a maximum of eight pages.
- The format of submissions must follow the [IEEE conference format](#).
- All submissions should be made at the submission site <http://banana.utdallas.edu/qrs2019/start/www/CTA/>

Important Dates

- May 1, 2019 Submission deadline
- May 25, 2019 Author notification
- June 10, 2019 Camera-ready dues
- July 22-26, 2019 Conference

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