Product Line Engineering (PLE) has become a major topic in industrial software development and many organizations have started to consider PLE as state-of-practice. One topic that needs greater emphasis is testing of product lines. Product-line testing is crucial to the successful establishment of PLE technology in an organization. The workshop aims at addressing some of the open fundamental challenges of testing in a PLE setting. Given the improvements in productivity that PLE delivers to development, how does a test organization keep pace? To what extent can we test reusable assets and how much can this reduce the testing obligations for each product? How can we manage the complexity of the test space? What properties of a PL architecture improve the testability of reusable assets and products? Are there PLE techniques that can provide similar efficiency gains for testing as are possible for development? Without adequate answers, testing becomes the bottleneck in PLE.

We aim at bringing together both researchers and practitioners from testing and product-line engineering on all aspects of PL testing, from designing test cases with variation points, through test coverage, to testing tools. We are especially interested in exchanging industrial experience in PL testing and comparing different approaches to enable an integration of different ideas. In this year’s workshop the focus will be on strategies to manage the complexity of a product line’s test space and in testability patterns that guide the architects and developers when building the product line. Our goal is to provide a context for an information exchange and to provide an opportunity to discuss innovative ideas, setting a research agenda, and starting collaborations on this topic.

**Topics of interest** include, but are not limited to:

- Techniques for managing the complexity of the test space
- Testability patterns (architecture/design patterns & idioms for assuring testability) & anti-patterns
- Optimal coordination, organization & communication patterns/anti-patterns/processes/tradeoffs across the combined development and testing groups
- Test case design and test case generation for product lines
- Definition and measurement of test coverage and test effectiveness in the context of software product lines
- Minimizing redundant testing across a collection of similar products
- Product line test metrics
- Test automation and testing tools
- Traceability issues from requirements to test cases
- Cost/benefit of core asset unit testing versus product integration testing

**Paper Submission:**
Authors should send position papers by email to the following address: split@biglever.com

Position papers should be no longer than 6 pages (conference format) and submitted as a PDF file. Submissions will be evaluated according to the relevance and originality of the work and to their ability to generate discussion among the workshop participants. The program committee is composed of experts from product-line engineering and testing. At least one testing and one product line expert will review each submission.

For more information please visit the workshop homepage at: http://www.biglever.com/split2005/