

Stage M2

Conformance testing with concurrency

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Conformance testing studies methods to determine whether a specification S , given by a formal model has been faithfully implemented in system I . The tests must be performed under the constraint that introspection of I is possible only through recording the applied inputs into I and the resulting outputs from I . To cope with the necessity of testing in distributed settings, with I/O occurring on remote sites that cannot be strongly synchronized, recent work has developed formal approaches for devising strategies that produce partially ordered input streams, so as to detect from the observed output whether requirement on input, output, and causal precedence that feature in S , have been respected in I . The goal of the internship is to consolidate and optimize the algorithms of [3, 4] for conformance testing in the partial order setting, and implement their prototypes.

References

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