

Letter from the Editor-in-Chief

Two regular articles complete this issue.

The fifth paper is entitled “A Prototype Implementation of a Distributed Satisfiability Modulo Theories Solver in the ToolBus Framework”. Déharbe, Ranise and Vidal describe the design and prototype implementation of the first distributed Satisfiability Modulo Theories solver. Their emphasis is on providing ways to reduce the implementation effort and making the system easily extensible. This is achieved by reusing as much as possible the code of an available sequential SMT solver and by adopting the ToolBus architecture for rapid prototyping. The behavior of the distributed SMT solver is tested on a set of problems which are representative of those generated by software verification techniques. The experiments show the possibility to obtain super-linear speed-ups of the distributed SMT solver with respect to its sequential version.

The last paper by Cabral and Sampaio is entitled “Automated Formal Specification Generation and Refinement from Requirement Documents”. In this article they propose a Controlled Natural Language, a subset of English, used to write use case specifications according to a template. From these use cases a complete strategy and tools enable the generation of process algebraic formal models in the Communicating Sequential Processes notation. They define templates that represent requirements at different levels of abstraction, capturing different views of the system behavior. Additionally, a refinement notion is defined to connect the generated CSP models through an event mapping relation between abstract and concrete models.

Finally, I would like to thank all reviewers for their evaluation of the papers.

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