

ETAPS DAILY

Best paper nominees

Today, two papers nominated for best paper awards will be presented:

- ESOP nominee:

Ravi Mangal, Mayur Naik and Hongseok Yang. "A Correspondence between Two Approaches to Interprocedural Analysis in the Presence of Join". In room MontBlanc at 16H30.

- FASE nominee:

Marcello Maria Bersani, Domenico Bianculli, Carlo Ghezzi, Srdjan Krstic and Pierluigi San Pietro. "SMT-based Checking of SOLOIST over Sparse Traces". In room Kilimandjaro at 16h30.

Since when did you try to solve a Sudoku? This one is really tough, and it is forbidden to use any formal method (constraint solving or the like)!

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 9 | | | | | | | | 4 |
| | | | | | 2 | 6 | 5 | |
| | | 4 | 9 | 8 | | | 2 | |
| | | 5 | | 9 | | | 3 | |
| | | 9 | 6 | | 8 | | | |
| | 7 | | | 4 | 1 | | | |
| | 9 | | | | | 5 | | |
| | 1 | 2 | 7 | | | | 8 | |
| 4 | | | | | | | | |

<http://www.le-sudoku.fr>

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ISSUE 6 THURSDAY, APRIL 10TH

Time Table

9⁰⁰-10⁰⁰: ETAPS invited talk
 10⁰⁰-10³⁰: coffee break
 10³⁰-12³⁰: parallel sessions
 12³⁰-14⁰⁰: lunch with tool demos
 14⁰⁰-15⁰⁰: TACAS invited talk
 15⁰⁰-16⁰⁰: parallel sessions
 16⁰⁰-16³⁰: coffee break
 16³⁰-18⁰⁰: parallel sessions
 18¹⁵-22⁰⁰: Steering Committee meeting and dinner

Scientific Events

ETAPS invited talk:
 John Launchbury (Galois, US)
 TACAS invited talk:
 Orna Kupferman (Hebrew University Jerusalem, Israel)
 ESOP (Mont Blanc),
 FOSSACS (Makalu),
 FASE (Kilimandjaro)
 TACAS (Amphitheater)
 TACAS tool demo (Atrium)



Weather Forecast

| | AM | PM | Evening |
|----------|----|----|---------|
| Thursday | | | |
| Friday | | | |
| Saturday | | | |

ETAPS Invited talk (John Launchbury, Galois, US) *Practical Challenges to Secure Computation*

Abstract: In secure computation, one or more parties collaborate to compute a result while keeping all the inputs private. That is, no-one can gain knowledge about the inputs from the other parties, except what can be determined from the output of the computation. Methods of secure computation include fully homomorphic encryption (where one party owns the input data and the other party performs the whole computation), and secure multiparty computation (where multiple parties collaborate in the computation itself). The underlying methods are still exceedingly costly in

time, space, and communication requirements, but there are also many other practical problems to be solved before secure computation can be usable. For programmers, the algorithm construction is often nonintuitive; for compiler writers, the machine assumptions are very different from usual; and for application designers, the application information flow has to match the security architecture. In this talk we will highlight these challenges, and indicate promising research directions.

TACAS 2014 Competition on Software Verification is today!

10:30am to 12:30pm in the Amphitheater (chair: Dirk Beyer)

Tools participating in the competition :

- BLAST 2.7.2
- CBMC
- CPAchecker
- CPAlien
- CSeq-Lazy
- CSeq-MU
- ESBMC 1.22
- FrankenBit
- LLBMC
- Predator
- Symbiotic 2
- Threader
- UFO
- Ultimate Automizer
- Ultimate Kojak

ESOP Invited talk (Orna Kupferman, Hebrew University Jerusalem, Israel) *Variations on Safety*

Abstract: Of special interest in formal verification are *safety* properties, which assert that the system always stays within some allowed region, in which nothing "bad" happens. Equivalently, a property is a safety property if every violation of it occurs after a finite execution of the system. Thus, a computation violates the property if it has a "bad prefix", all whose extensions violate the property. The theoretical properties of safety properties as well as their practical advantages with respect to general properties have been widely studied. The

paper surveys several extensions and variations of safety. We start with *bounded* and *checkable* properties -- fragments of safety properties that enable an even simpler reasoning. We proceed to a *reactive* setting, where safety properties require the system to stay in a region of states that is both allowed and from which the environment cannot force it out. Finally, we describe a probability-based approach for defining different levels of safety.

Grenoble, the paragliding capital

Grenoble is a fantastic place to try paragliding. It is home of the famous "Coupe Icare", held each year in September, with demonstrations of the craziest possible flying machines, competitions of aerobatic paragliding, and demonstrations of all the possible forms of sails. Want to try it, then head for Saint-Hilaire du Touvet, reachable by bus and then by funiculaire.

