

## CALL FOR PAPERS

### COSMICAH 2005 First international workshop on verification of **C**Oncurrent **S**ystems with **dynaMIC** **A**llocated **H**eaps

July 10, 2005, Lisboa, Portugal (a satellite workshop of ICALP 2005)  
<http://www-verimag.imag.fr/~iosif/ws/cosmicah05/>

**Invited speaker:** Andreas Podelski (Max-Planck-Institut für Informatik, Saarbrücken)

#### **Important dates**

- Submission deadline for regular paper: May 23th, 2005 (extended)
- Submission deadline for abstract/statements: June 10th, 2005
- Notification: June 17th, 2005
- Final version for informal proceedings: June 24th, 2005

The ongoing growth in complexity of concurrent programs requires new techniques capable of predicting their runtime errors. One of the reasons this complexity arises is the use of dynamic memory allocation and of recursive data structures in a concurrent setting. This is the case of most object-oriented languages with support for multithreading, where communication between threads is performed via shared objects implementing various synchronization policies.

Over the past decade, new techniques for the analysis of object-based and object-oriented programs have emerged. These solutions stem from a wide range of domains such as static analysis, model checking, theorem proving and Hoare logic.

This workshop aims at bringing together researchers from different subdomains of formal verification that share interest in the analysis of concurrent heap-manipulating programs. Topics of interest are, but are not limited to:

- application of graph rewriting to the verification of object-based programs
- logics for describing heap topologies and their evolutions
- abstraction techniques for infinite-state systems with dynamic heaps
- high-level specification of local behaviors (e.g, object protocols, separation logic)
- comparisons between existing techniques and tools
- test cases and experimental results
- specification and analysis of security protocols

**Submissions** Authors are invited to submit papers presenting recent work in the areas relevant for the scope of COSMICAH. Contributions should not exceed **15 pages in LNCS style**. Accepted papers will be published in informal proceedings (as technical report of Queen Mary University of London) and distributed to the participants at the workshop. Given the informal proceedings, submitting to COSMICAH does not preclude simultaneous or future submission of the paper to major conferences. In this sense COSMICAH represents for authors a great platform to present their work and receive feedback.

To increase interaction among the participants, COSMICAH includes a special **5 minutes madness session**. Authors are invited to submit one page research abstracts/statement (on recent and/or ongoing work) for this session. Abstracts/statements will be considered on the bases of their originality and attractiveness to the scope of the workshop.

Papers and abstracts should be submitted electronically (in ps or pdf format), by email to (**ddino@dcs.qmul.ac.uk**). Please indicate the type of your

submission (regular paper or abstract).

### **Program Committee**

- Cristiano Calcagno (Imperial College, London)
- Dino Distefano (Queen Mary, Univ. of London, co-chair)
- Peter Habermehl (Liafa, Paris 7 University)
- Peter O’Hearn (Queen Mary, Univ. of London, general chair)
- Radu Iosif (Verimag, Grenoble, co-chair)
- Yassine Lakhnech (Verimag, Grenoble)
- Arend Rensink (University of Twente, Enschede)
- Robby (Kansas State University, Manhattan KS)
- Eran Yahav (IBM Research, New York)

### **Organizers**

- Dino Distefano, Queen Mary, University of London, UK
- Radu Iosif, Verimag/CNRS, France