

Avviso di Seminario

Giovedì 05 luglio 2018 – ore 12:00
Aula MT10 – cubo 30B piano secondo

Prof. Cosimo Laneve
University of Bologna

terrà un seminario dal titolo:

Deadlock detection of Java programs

Abstract.

Deadlock detection of concurrent program is a well-known hard problem because deadlocks may manifest in an unpredictable way during program executions. I will introduce the problem for Java programs and illustrate the difficulties in detecting deadlocks by means of examples and I will overview solutions you find in the literature. Then I will discuss Java programs that are not analyzed by current techniques because their model is infinite-state and I will present a powerful technique for detecting deadlock of such programs. The technique extracts an infinite-state abstract model of the dependencies among the threads of the Java program. Models are subsequently analysed by means of a solver that we have defined for detecting deadlocks in process calculi. Our technique is complemented by a prototype verifier that also covers most of the Java features (<http://jada.cs.unibo.it>). The talk will not be technical: everybody who knows a little bit of Java will follow it. Of course, I can discuss the technical details, if needed.

Cosimo Laneve got the PhD degree in Computer Science in 1993. From January 1993 to October 1994 he has been Post-Doctoral Researcher at INRIA Sophia-Antipolis, in France. Since 1994 he has been Researcher, Associate Professor, and then Full Professor at the Department of Computer Science and Engineering of University of Bologna. Cosimo Laneve's research interests cover the area of the theory of programming languages, in particular concurrent/functional/object-oriented languages, and the analysis of program properties.

Cosimo Laneve is author of more than 80 publications on international journals, conferences, and books. He is, or has been, member of several program committees of international conferences and workshops. Cosimo Laneve has also been a Microsoft Visiting Scientist, and has led a Microsoft project about a Programming Language for Web Services. Cosimo Laneve has been site leader of several national and European projects and has been principal investigator of industrial projects.

Il Direttore del Dipartimento
prof. Nicola LEONE