



UNIVERSITÀ DEGLI STUDI DI PARMA
COLLOQUIUM DEL
DIPARTIMENTO DI MATEMATICA E INFORMATICA
CAMPUS - PARCO AREA DELLE SCIENZE, 53/A
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Notizie

25 novembre 2015



Martedì 15 dicembre, ore 15,00

Prof. Roberto Di Cosmo

Université Paris Diderot

Nell'ambito del Colloquium il **prof. Roberto Di Cosmo**, **Martedì 15 dicembre** alle ore **15,00** presso la Sala delle Riunioni del Dipartimento, terrà un seminario dal titolo:

Consistency and co-installability of software components

Tutti sono invitati a partecipare

Proff. Adriano Tomassini, Alessandra Lunardi

Abstract. Modern software systems are built by composing components drawn from large repositories, whose size and complexity is increasing at a very fast pace. A fundamental challenge for the maintainability and the scalability of such software systems is the ability to quickly identify the components that can or cannot be installed together: this problem is related to boolean satisfiability and is known to be algorithmically hard.

We will provide a survey the classic results of this research area, and conclude with a short presentation of joint work with Jerome Vouillon: a novel approach to the problem, based on semantic preserving graph-theoretic transformations, that allows to extract from a concrete component repository a much smaller one with a simpler structure, but equivalent co-installability properties.

This approach has been extensively tested on GNU/Linux distributions, and can be applied to a large class of component based systems.