

**THE CHINESE UNIVERSITY OF HONG KONG**

Department of Information Engineering and  
Department of Mechanical and Automation Engineering

*Joint Seminar on*

**Stochastic Hybrid Systems -- formal analysis and  
computable verification**

by

**Professor Alessandro Abate**  
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**Date : 10 December, 2009 (Thur.)**  
**Time : ~~11:00am-12:00noon~~ 2:00pm-3:00pm**  
**Venue : Room 833, Ho Sin Hang Engineering Building**  
**The Chinese University of Hong Kong**

Abstract

Though the lens of the notion of 'reachability', this talk looks at topics in analysis and optimal control synthesis for stochastic hybrid systems, a class of probabilistic models with heterogeneous dynamics. A "computational" approach to these topics -- based on known concepts drawn from the formal verification literature -- is proposed, and a few early results and promising directions are discussed.

Biography

Alessandro Abate received the Laurea degree in Electrical Engineering from the University of Padova in 2002, and the M.S. and Ph.D. degrees in Electrical Engineering and Computer Sciences from the University of California, Berkeley, in 2004 and 2007 respectively. He was then a Postdoctoral Researcher at the Department of Aeronautics and Astronautics at Stanford University, and since 2009 is an Assistant Professor at the Delft Center for Systems and Control at TU Delft, The Netherlands.

His research interests are in the analysis, control, and verification of probabilistic and hybrid systems, and in their general application over a number of domains, particularly in systems biology.

**\*\* ALL ARE WELCOME \*\***