Séminaire ISIR
Christina SANTOS

Jeudi 05 Juillet 2012 à 14h00
Campus Jussieu, 4 place Jussieu, Paris
Salle de réunion 304, Tour 65 3ème étage

**Titre:** Bio-inspired robotics: locomotion and navigation

**Abstract:** Robot locomotion for any type of robots has been an interesting and challenging research issue in the last few years. The increasing use of robots to perform difficult tasks in dynamic and hard environments, sometimes inaccessible to humans, makes this study very important and relevant.

In this presentation, I focus on the use of the dynamical systems theory to address some still open questions regarding locomotion skills in robots. Dynamical systems exhibit some properties which makes them well suited to real-time robotic applications, such as movement generation for legged; modular and wheeled platforms; balance control; grasping; reaching, etc.

**Short Bio:** Cristina P Santos received the B.S. degree in Industrial Electronics, the M.Sc degree in Robotics, and the Ph.D. degree in Robotics in the field of Nonlinear dynamics, all from University of Minho, Guimaraes, Portugal, in 1994, 1998 and 2003 respectively. The PhD was also in collaboration with the CNRS-CNRC Marseille, France.

She is working since 1996 as an Auxiliar Professor at the University of Minho, Industrial Electronics Department, Portugal. Her research focus on the extension of the use of the dynamical systems theory to the achievement of more complex behavior for robots: generate locomotion for multi-dof robots; achieve cooperativity among multi-robots and learning. Recently her research interests focus on methods to characterize human motion, and designing robots and robot controllers for rehabilitation of patients suffering from motor problems.