

## Dynamical Systems

### **Organizadores:**

João Lopes Dias, CEMAPRE, ISEG, Universidade de Lisboa

e

Maria Joana Torres, CMAT, Universidade do Minho.

### **Descrição da proposta de sessão paralela:**

A dynamical system is a mathematical model that rules the time evolution of something. We live in a world of complex dynamical systems, most of them too complicated for any reliable prediction. Mankind's urge to control the future led to massive development of computational tools to simulate them, and yet model simulations fall far short of forecasting expectations. The development of the dynamical systems theory is essential to understand the behaviour of such complex and chaotic systems. Moreover, this subject has ubiquitous applications in most branches of science and also in technology. In this session, recent developments will be presented aiming at fostering collaborations between the participants.

**Orador 1** - Tomé Graxinha, Faculdade de Ciências, Universidade de Lisboa

Title: Regularity of Lyapunov exponents for random cocycles.

**Orador 2** - Pedro Matias, Universidade Lusófona

Title: Geodesic flows in semi-Riemannian geometry.

**Orador 3** - Telmo Peixe, CEMAPRE, ISEG, Universidade de Lisboa

Title: Stability of heteroclinic cycles based on a projective map.