Session 11, Control and Geometric Mechanics

Wednesday 18, Room 202

15:30–16:00 **Flagellar motion via geometric mechanics**
Jair Koiller

16:00–16:30 **Cartan's approach applied to nonholonomic mechanics**
Kurt Ehlers

16:30–17:00 **Nonholonomic systems with symmetry: Some recent results and open questions**
Hernán Cendra

17:30–18:00 **Cartan forms for first order constrained variational problems**
Pedro Luis García Pérez

18:00–18:30 **Geometry of optimal control for PDEs**
Carlos López Lacasta

18:30–19:00 **Homogeneous Lagrangian systems**
David Saunders

Thursday 19, Room 202

11:30–12:00 **Planar propulsion through the manipulation of circulatory flows**
Scott Kelly

12:00–12:30 **The role of controllability in motion planning for affine connection control systems**
Andrew Lewis

12:30–13:00 **Control and kinematical systems**
Miguel-C. Muñoz-Lecanda

13:00–13:30 **Trajectory design for mechanical control systems: from geometry to algorithms**
Francesco Bullo

16:00–16:30 **Quantum optimal control on a compact Riemann manifold with boundary**
Alberto Ibort

16:30–17:00 **Constrained Poisson systems**
Victor Planas

17:30–18:00 **Lie algebroids and control theory**
Eduardo Martínez Fernández

18:00–18:30 **Quasi-bi versus bi-quasi Hamiltonian systems**
Willy Sarlet

Friday 20, Room 202

10:30–11:00 **A distribution theoretical approach to reduction and Hamiltonian conservation laws**
Juan-Pablo Ortega

11:00–11:30 **Lie groups and control theory**
José Cariñena

11:30–12:00 **Geometric integrators in constrained mechanics**
David Martín de Diego

12:00–12:30 **Covariant Poisson reduction: first steps**
Marco Castrillón López

12:30–13:00 **Integrability properties of chained systems in nonholonomic mechanics**
Felipe Monroy-Pérez

13:00–13:30 **On separation of variables for algebraically integrable Hamiltonian**
Franco Magri

Saturday 21, Room 202

10:00–10:30 **Gradient control systems**
Jorge Cortes

10:30–11:00 **On the global stabilization of the inverted pendulum**
Javier Aracil