Minicourse on
Numerical Aspects and Applications of Discrete Geometric Control

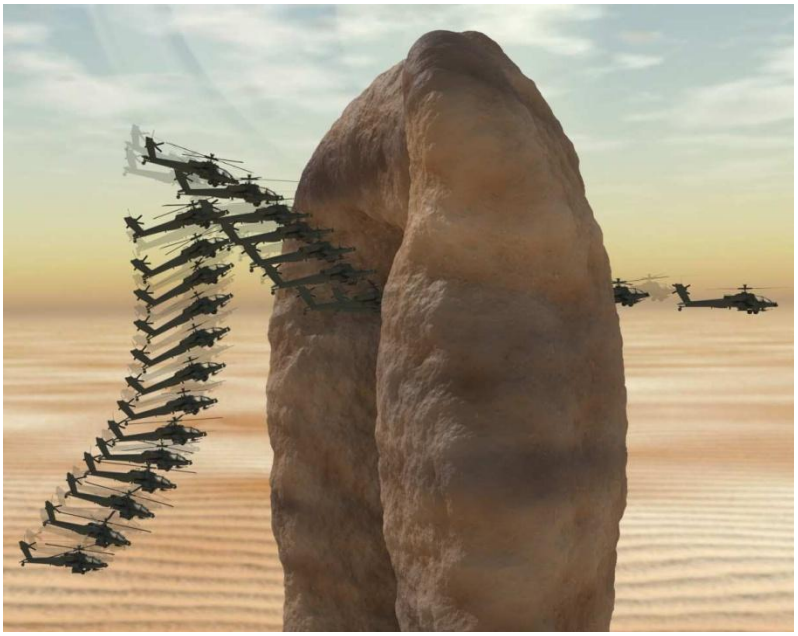
Marin Kobilarov (California Institute of Technology)

Viernes, 29 de Abril de 2011
(aula naranja, ICMAT, Campus de Cantoblanco)

11:00-14:00

Resumen:

The minicourse is concerned with the control of mechanical systems through discrete variational principles. We construct a computational framework based on the theory of discrete mechanics and variational integrators in order to derive the system dynamics and to construct optimal control algorithms. It is applicable to systems with holonomic and nonholonomic constraints. We will focus on the numerical aspects and implementation approach leading to practical algorithms. A number of robotic vehicle applications will be used as examples.



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