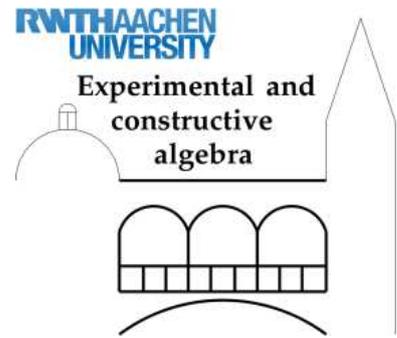


Graduiertenkolleg

Experimentelle und konstruktive Algebra



Kolloquiumsvortrag

Freitag, 11. Mai 2012, 14:00 Uhr, Hörsaal III

MANUELE SANTOPRETE (Wilfrid Laurier University, Waterloo, Ontario, Kanada):
Central configurations in N -body problems: Introduction and overview

Of central importance in classical and celestial mechanics is the study of N -body problems. The most classic of such problems are the Newtonian N -body problem and the N -vortex problem (an old problem in fluid mechanics). Of particular interest in these types of problems are solutions that appear fixed when viewed in a uniformly rotating frame. Such solutions are called relative equilibria. The special configurations of particles that are allowed in such motions are called relative equilibria configurations or central configurations. In this talk I will give different ways to characterize central configurations, and in particular I will show that studying central configurations can be reduced to studying system of polynomial equations so that methods from algebraic geometry can be used. I will outline some recent results and open problems. If time permits I will describe some of my recent results.

Wir laden alle Interessierten herzlich ein.

Ab 13:15 Uhr gibt es Kaffee und Tee in der Bibliothek des Lehrstuhl D für Mathematik.