

Gabriella Pinzari | Università di Padova

Title: Interactions between the three—body problem and the Euler problem.

The planar Euler problem has a first integral which, in the limit when the mass of one of the attracting centers vanishes, has a pendulum-like dynamics. On the other hand, the three—body problem Hamiltonian differs from the one of the Euler problem for a kinetic term. Therefore, the natural question arises whether, in the three—body problem there is a memory of the dynamics of the Euler problem. We show that, under suitable assumptions, this is the case.

This talk is based on joint works with Qinbo Chen, Jerome Daquin and Sara Di Ruzza.