Transverse foliations in the Euler problem of two centers

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The The Euler problem of two fixed centers describes a particle's motion in the plane attracted by two fixed Newtonian centers. Being Liouville integrable, this mechanical system is a starting point to the more involving circular planar restricted three-body problem. In this talk, I will explain the use of pseudo-holomorphic curves to obtain global surfaces of sections, and transverse foliations in the Euler problem of two fixed centers, for energies above the critical value. I will also discuss generalizations of these constructions to other models in Celestial Mechanics.
This work is joint with N. de Paulo, U. Hryniewicz, and S. Kim