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Title: On the topology of the double spherical pendulum

In this talk we will describe the topology of the level sets of the energy of the double spherical pendulum, and we will discuss its dynamical consequences. This seems to be a first step toward describing the topology of the common level sets of the integrals of motion (i.e. the integral manifolds). The study of the integral manifolds is very important since a crude, but important, invariant of the orbits of a dynamical system is given by the topological type of the integral manifolds on which they lie.