



# Sommerfeld Theory Colloquium

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Contacting the Moon

The restricted three body problem has an intriguing dynamics. Global surfaces of section are a tool to reduce the study of the dynamics on a three dimensional energy hypersurface to the study of an area preserving map of a two dimensional surface. The existence of such a global surface of section is far from obvious. So far mostly perturbative methods have been used to prove its existence. However, recently developed global tools originating from Gromov-Witten theory combined with the fact that energy hypersurfaces are of contact type can be applied to produce new global surfaces of section. In this talk I explain the restricted three body problem, the notion of a global surface of section and the new results we can obtain by bringing holomorphic curves and the contact form into play.

Wednesday, 15 May 2013, 16:15h, Room A348/349, Theresienstr. 37/III