

## **abstract**

MEMBERS SEMINAR

Topic:

Speaker:

Affiliation:

Date:

Time/Room:

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In an autonomous Hamiltonian dynamical system the dynamics evolves on an energy hypersurface by preservation of energy. Thus the energy hypersurface is foliated by the flow. This is no longer true if the system is perturbed. It is a challenging question to compare the unperturbed system before and after such a perturbation. We will discuss the question whether after the perturbation the system comes back to the same leaf of the aforementioned foliation. This question goes back to Moser who proved the first existence result for small perturbations. Recently this question got a lot of attention. I'll describe some results and recent work with U. Frauenfelder. In particular, results in which the perturbation is allowed to be large.