RUHR-UNIVERSITÄT BOCHUM

FAKULTÄT FÜR MATHEMATIK



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Oberseminar Dynamische Systeme

THIS TALK TAKES PLACE AS PART OF THE BACH SEMINAR

A generalization of the Poincare-Birkhoff fixed point theorem and the restricted three-body problem

Dienstag, 15. Dezember 2020 16:15 Uhr – per Zoom

Otto van Koert (Seoul)

Abstract:

In joint work with Agustin Moreno, we propose a generalization of the Poincare-Birkhoff fixed point theorem.

We start with a construction of global hypersurfaces of section in the spatial three-body problem, describe some return maps and suggest some generalizations of the Poincare-Birkhoff fixed point theorem. We use symplectic homology in the proof of our theorem.