

Alberto Abbondandolo, Barney Bramham
Gerhard Knieper, Stefan Suhr, Kai Zehmisch

Oberseminar Dynamische Systeme

THIS TALK TAKES PLACE AS PART OF THE BACH SEMINAR

No symplectic-Lipschitz structures on $S^{2n \geq 4}$

Dienstag, 22. Juni 2021
17:15 Uhr – per Zoom

Dušan Joksimović
(Jussieu)

Abstract:

One of the central questions in C^0 -symplectic geometry is whether spheres (of dimension at least 4) admit symplectic topological atlas (i.e. atlas whose transition functions are symplectic homeomorphisms). In this talk, we will prove that the answer is „no“ if we replace the word „topological“ with „Lipschitz“. More precisely, we will prove that every closed symplectic-Lipschitz manifold has non-vanishing even degree cohomology groups with real coefficients. The proof is based on the fact that one can define analogs of differential forms and de Rham complex on Lipschitz manifolds which share similar properties as in the smooth setting.

Guests are very welcome!