RUHR-UNIVERSITÄT BOCHUM

FAKULTÄT FÜR MATHEMATIK

RUB

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Oberseminar Dynamische Systeme

Geometrical aspects of magnetic flows

Dienstag, 28. November 2023
16:15 Uhr – Raum IA 1/53

Valerio Assenza
(Heidelberg)

Abstract:

To a Riemannian manifold endowed with a magnetic form we associate an operator called Magnetic Curvature. Such an operator encodes the geometrical properties of the Riemannian structure together with terms of perturbation due to the magnetic interaction and carries relevant information about the magnetic dynamics. In the first part of the talk we will see how a level of the energy positively curved in a magnetic sense carries a contractible periodic orbit. The second part is devoted to the generalization of the Hopf's rigidity to the magnetic case and to the notion of magnetic flatness.

Guests are very welcome!