

## **Periodic orbits of exact magnetic flows on surfaces**

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### **Abstract:**

This talk is about the existence of periodic orbits of exact magnetic flows on the cotangent bundle of closed surfaces. The dynamics of these Hamiltonian systems on high energy levels is well known: it is conjugated to a Reeb flow, and actually to a Finsler geodesic flow. In the talk, I will focus on low energies, more precisely on energies below the so-called Mañé critical value of the universal covering. After introducing the setting, I will present a recent result asserting the existence of infinitely many periodic orbits on almost all energy levels in this range. This is a joint work with A. Abbondandolo, L. Macarini, and G. P. Paternain.