

---

# SOME CANONICAL METRICS VIA AUBIN'S LOCAL DEFORMATIONS

---

Davide DAMENO

*Università degli Studi di Milano, Italy*

In this talk, we will present some recent results concerning the existence of some canonical Riemannian metrics on closed manifolds: in particular, applying a local deformation method due to Aubin, we show that there exist infinitely many metrics with never vanishing Bach tensor on a closed Riemannian four-manifold. We also show the lack of topological obstructions for the existence of “weak half harmonic Weyl” metrics.

This is joint work with G. Catino and P. Mastrolia.