

# INSALATE DI MATEMATICA

presents

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*Riemannian functionals and critical metrics  
in dimension four and beyond*



## Abstract:

Many of the so-called canonical (or special) metrics arise as critical points of suitable  $L^p$ -norms of the components of the Riemann curvature tensor. This object encodes the geometry of the manifold and, in dimension 4, it admits a peculiar decomposition. Throughout the talk, we will explore some known results and open problems concerning Riemannian functionals and critical metrics in dimension 4 and beyond. In particular we will focus on optimal pinching results for Einstein manifolds.

**Keywords:** Riemannian functionals · canonical metrics · Einstein manifolds.

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*"Obvious" is the most dangerous word in mathematics.  
(Eric Temple Bell)*