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# Isoperimetric Inequalities on Manifolds with Asymptotically Non-Negative Curvature

*Thursday, 26 June 2025 12:00 (1 hour)*

In this seminar, I will examine the validity of the isoperimetric inequality on manifolds with asymptotically non-negative sectional curvature. After an overview of the current state of the art on the problem, I will discuss the ABP method, originally introduced by Cabré to prove the isoperimetric inequality in  $\mathbb{R}^n$ , and later refined by Brendle for the case of non-compact Riemannian manifolds characterized by non-negative Ricci curvature and positive asymptotic volume ratio. Finally, we will explore how this approach can be adapted to prove isoperimetric inequalities even in the presence of a small amount of negative curvature.

The results presented are part of a joint project with Stefano Pigola, Michele Rimoldi, and Giona Veronelli.

**Presenter:** Prof. IMPERA, Debora (Politecnico di Torino)