

Counterexamples in systolic geometry

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Abstract:

The systolic ratio of a contact form (on a closed three manifold) is the square of the minimal period among closed Reeb orbits divided by the contact volume. In this talk I will explain how to construct contact forms with arbitrarily high systolic ratio on the tight three sphere, and discuss the case of more general contact three manifolds. This is joint work with Abbondandolo, Bramham and Salomão.