Marco Golla

Title: Signatures of aspherical 4-manifolds

Abstract: A conjecture attributed to Singer stipulates that most L^2 Betti numbers of an aspherical manifold vanish. In dimension 4, this implies a conjecture of Gromov: the Euler characteristic of an aspherical 4-manifold bounds its signature. I will talk about a proof of Gromov's conjecture for geometrically decomposable 4-manifolds. This is joint work with Luca F. Di Cerbo.