



Speaker: Fabian Hebestreit
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Tuesday, February 25, 2014
3:00 PM
125 Hayes-Healy Hall

Title: Positive scalar curvature and twisted Spin cobordism

Abstract:

The basic question for my talk is whether a closed manifold admits a metric of positive scalar curvature and I will explain how this question reduces to calculations in certain cobordism rings, due to a result of Gromov and Lawson. Following an overview of these calculations in the case of Spin-cobordism, where they were carried out by Stolz and Fuehring, I want to address their generalisation to the case of twisted Spin-cobordism, which is ongoing joint work of Joachim and myself. In particular I will exhibit a generalisation of the Anderson Brown-Peterson splitting and compute the mod 2 cohomology of the twisted, connective, real K-theory spectrum.