

Seminar

Rudolf Zeidler

U Göttingen

Wednesday, March 9, 2016

first talk 13:15 – 14:00

second talk 14:15 – 15:00

Boltzmann Lecture Hall, ESI, Boltzmanngasse 9, Vienna

Secondary index theory, positive scalar curvature and torsion in the fundamental group

Secondary index invariants have found many fruitful applications in geometric topology, in particular to the study of the space of positive scalar curvature metrics. In this talk, we will give an exposition on how secondary index theory can be applied to distinguish components of the space of positive scalar metrics on a spin manifold in the presence of torsion in the fundamental group. Here we will survey some aspects of work from the past few years due to Piazza-Schick, Weinberger-Yu and Xie-Yu. Then we will present constructions using product formulas for secondary invariants which allow to obtain further examples of metrics of positive scalar curvature that can be distinguished in this way.

G. Arzhantseva, T. Schick