

# Oberseminar Geometrie und Topologie

Wintersemester  
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**Dr. Ursula Ludwig**

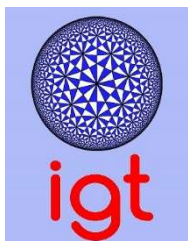
(Universität Duisburg-Essen)

## An Extension of a Theorem by Cheeger and Müller to Spaces with Isolated Conical Singularities

7. Januar 2020 – 16.15 Uhr

Seminarraum IGT, Raum 7.530, Pfaffenwaldring 57

Abstract: An important comparison theorem in global analysis is the comparison of analytic and topological torsion for smooth compact manifolds equipped with a unitary at vector bundle. It has been conjectured by Ray and Singer and has been independently proved by Cheeger and Müller in the 70ies. Bismut and Zhang combined the Witten deformation and local index techniques to generalize the result of Cheeger and Müller to arbitrary at vector bundles with arbitrary Hermitian metrics. The aim of this talk is to present an extension of the Cheeger-Müller theorem to spaces with isolated conical singularities by generalising the proof of Bismut and Zhang to the singular setting.



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