Oberseminar
Analysis und Theoretische Physik

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Quantum confinement via singular measures

We discuss self-adjointness properties of the Laplace-Beltrami operator in singular Riemannian geometry. More precisely, we consider the case in which a Riemannian metric on a smooth manifold is singular on a set Z, which divides the manifold into two disconnected components. Geodesics can still cross the singular set in finite time: the classical evolution is not confined. Nevertheless, under appropriate conditions, the quantum evolution is confined: the Schrodinger evolution with initial datum concentrated in one of the disconnected components remains confined in that component. If time allows, we will discuss the extension of these results to the hypoelliptic case. This is a work in progress with D. Prandi and M. Seri.

Dienstag, 7.6.2016, 15:00h, Raum c311
Hauptgebäude der Leibniz Universität

Dazu laden herzlich ein:
Prof. Dr. Wolfram Bauer
Prof. Dr. Joachim Escher
Prof. Dr. Olaf Lechtenfeld
Prof. Dr. Elmar Schrohe
Prof. Dr. Christoph Walker