Leibniz Universität Hannover

Oberseminar Analysis und Theoretische Physik

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Levinson's theorem as an index pairing in the presence of resonances

For Schrödinger operators on $L^2(\mathbb{R}^n)$, the wave operators of scattering theory can be shown to have a rather simple universal form. This form allows us to recognise the classical Levinson's theorem, which computes the number of eigenvalues, as an index pairing between the K-theory class of the scattering operator and an appropriate spectral triple. A careful analysis of the high and low energy behaviour of the scattering operator allows us to use the topological flexibility of this framework to prove Levinson's theorem in all dimensions, even in the presence of resonances.

Dienstag, 5.11.2024, 15:00 Uhr, Raum c311
Hauptgebäude der Leibniz Universität

Dazu laden herzlich ein:
Prof. Dr. Wolfram Bauer, Prof. Dr. Joachim Escher, Prof. Dr. Johannes Lankeit,
Prof. Dr. Elmar Schrohe, Prof. Dr. Alexander Strohmaier,
Prof. Dr. Christoph Walker, PD Dr. Alden Waters