



Leibniz
Universität
Hannover

Oberseminar Analysis und Theoretische Physik

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Lagrangian submanifolds satisfying Maslov's quantization condition

In this talk I will explain the so-called Maslov quantization condition and related examples.

Starting from Bohr's hydrogen model, a classical and famous condition, the Maslov quantization condition, has been of interest since it guarantees the existence of a certain sequence of eigenvalues of the Laplacian.

After some introduction I explain an operator theoretical meaning of the role deduced by the existence of Lagrangian submanifolds. It is formulated as "Eigenvalue Theorem". Particularly, I will explain its meaning from the view point of Fourier integral operator theory.

The main content of this talk is to show the existence of such a Lagrangian submanifold on a particular manifold, namely the Cayley projective plane. The construction is explicitly based on the realization of the punctured cotangent bundle of the Cayley projective plane in the complex space $\mathbb{C}^{27} \setminus \{0\}$.

If there is time, I will explain a behavior of Lagrangian submanifolds under submersion and a related example.

**Dienstag, 29.04.2025, 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