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Leibniz
Universität
Hannover

Oberseminar Analysis und Theoretische Physik

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Finding hypoelliptic operators

Hypoelliptic operators are a more general class of operators than the elliptic operators with essentially the same analytic properties. In particular hypoelliptic operators have parametrices and on compact manifolds give rise to usual Fredholm index.

The main goal of this talk is to show that a lot of geometrically occurring operators (for example the so called BGG operators) are in fact not elliptic in the usual sense, but are hypoelliptic and hence have the same analysis as one is used to. In this talk I shall explain the significance of these operators and the geometric and harmonic analysis aspect behind them.

The talk will focus on tangent groupoid construction, a geometric way to deform the kernel of an operator and on a generalisation of Rockland theorem which will be explained mostly with examples.

**Dienstag, 22.11.2016, 15:00 Uhr, 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
Prof. Dr. Emil Wiedemann