

Seminarankündigung

Deformationsquantisierung

Am 17.01.2020 spricht um 14 Uhr c.t.

Seminarraum SE 31

ESKE EWERT (UNIVERSITÄT GÖTTINGEN)

Tangent Groupoid and Pseudo-Differential Operators

For a manifold M , the C^* -algebra of Connes' tangent groupoid is a continuous field of C^* -algebras. It deforms the compact operators on $L^2(M)$ into the algebra of continuous functions on the cotangent bundle of M . I will explain how pseudo-differential operators of order zero on M can be obtained as generalized fixed points of a scaling action of $\mathbb{R}_{>0}$ on the tangent groupoid.

Moreover, I will give an outlook how the same construction yields a pseudo-differential calculus if M is replaced by a homogeneous Lie group. Here, the algebra of principal symbols turns out to be non-commutative, but our approach allows to compute its K-theory.

gez. Marvin Dippell