

Announcement

## Seminar on Deformation Quantization and Geometry

**29. 11. 2024 at 14:00 s.t.**

Seminarroom SE 31

LORY AINTABLIAN (MAX-PLANCK-INSTITUT FÜR MATHEMATIK BONN)

Differentiation of groupoid objects in tangent categories

The infinitesimal counterpart of a Lie group(oid) is its Lie algebra(oid). I will show that the differentiation procedure works in any category with an abstract tangent structure in the sense of Rosický. Mainly, I will construct the abstract Lie algebroid of a differentiable groupoid in a cartesian tangent category  $\mathcal{C}$  with a scalar  $R$ -multiplication, where  $R \in \mathcal{C}$  is a ring object. Examples include differentiation of infinite-dimensional Lie groups, elastic diffeological groupoids, etc. This is joint work with Christian Blohmann.

Invited by Madeleine Jotz