

Announcement

Seminar on Deformation Quantization and Geometry

31. 1. 2025 at 14:00 s.t.

Seminarroom SE 31

ŽAN GRAD (LISBON/KÖLN)

Double complexes of representation-valued forms

In this talk, we discuss representation-valued forms on the nerve of a Lie groupoid comprising the Bott-Shulman-Stasheff complex, and its infinitesimal analogue, the Weil complex. More precisely, we discuss double complex structures compatible with the simplicial differentials. We focus on the special case when the representation is a subrepresentation of the adjoint representation on the isotropy bundle, in which case a multiplicative Ehresmann connection may be used instead of just an invariant linear connection. The columns of the double complexes are then formed by the horizontal exterior covariant derivative, whose interesting properties and applications will be presented.

Invited by Madeleine Jotz