

Announcement

Seminar on Deformation Quantization and Geometry

7. 11. 2025 at 14:00 s.t.

Seminarroom SE 31

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Computational techniques for (twisted) Lie algebroid cohomology

(Twisted) Lie algebroid cohomology encompasses several extended studied cohomology theories, such as de Rham, Chevalley-Eilenberg, Equivariant de Rham Cohomology, Poisson Cohomology, and Foliated cohomology (with values on representations). Computing (twisted) Lie algebroid cohomology would give key geometric insights. However, the problem is open and extremely hard. In a joint project with M. Jotz, we have adapted computational techniques commonly used for de Rham cohomology to the more general (twisted) Lie algebroid cohomology, such as homotopy invariance, Poincaré-Lemma, Mayer-Vietoris, and Künneth. In this talk, we plan to introduce those results in relation to some special cases and examples I am currently investigating. Potential applications to Poisson cohomology will be mentioned.

Invited by Stefan Waldmann