Julius-Maximilians-
UNIVERSITÄT
WÜRZBURG

MUΦX
Lehrstuhl X

Announcement

Seminar on Deformation Quantization and Geometry

February 9th 2024 at 14:00 s.t.

Seminarroom SE 30

David Miyamoto (Max Planck Institut für Mathematik, Bonn)

Lie groupoids determined by their orbit spaces

The orbit space of a Lie groupoid inherits a natural quotient diffeology. More generally, we have a quotient functor from the Hilsum-Skandalis category of Lie groupoids to the category of diffeological spaces. We introduce the notion of a lift-complete Lie groupoid, and show that the quotient functor restricts to an equivalence of the categories: of lift-complete Lie groupoids with isomorphism classes of submersive bibundles as arrows, and of quasi-étale diffeological spaces with local subductions as arrows. In particular, the Morita equivalence class of a lift-complete Lie groupoid is determined by its diffeological orbit space. Examples of lift-complete Lie groupoids include quasifold groupoids and étale holonomy groupoids of Riemannian foliations.

Invited by Francesco Cattafi and Madeleine Jotz