Im Oberseminar

Deformationsquantisierung

spricht am **26.02.2016 um 14 Uhr c.t.,**

im Seminarraum 00.009 (Physik Ost)

Paul Stapor

über das Thema:

Topologies on universal enveloping Algebras

It is known that for certain (possibly infinite dimensional) locally convex Lie algebras $\mathfrak{g}$, their universal enveloping algebras can be topologized by a functorial construction. For finite-dimensional Lie algebras, this construction is optimal, if one wants a large completion of $\mathcal{U}(\mathfrak{g})$. In this talk, we will see how to adapt the construction of this topology in order to show, that it is even optimal for Banach-Lie algebras. Moreover, given a Banach-Lie algebra $\mathfrak{g}$, we will present a necessary and sufficient criterion for locally convex topologies on $\mathcal{U}(\mathfrak{g})$, which allow group-like elements in their completions.

gez. Stefan Waldmann