

Im Oberseminar

Deformationsquantisierung

spricht am **4.12.2015 um 14 Uhr c.t.**,

im Seminarraum 00.009 (Physik Ost)

MATTHIAS SCHÖTZ

über das Thema:

An algebra of analytic functions on the poincaré disc

The poincaré disc has been discussed in the context of strict deformation quantisation from various points of view. For example, Svea Beiser constructed a Fréchet topology on a space of analytic functions on the disc under which a certain star-product is continuous. There is also a work by Pierre Bieliavsky and Victor Gayral where they construct a C^* -algebraic deformation of the disc.

In order to compare the two approaches we need a better understanding of the action of the group $SU(1, n)$ on the poincaré disc and of the properties of the space of analytic functions considered by S. Beiser. In this talk, I will outline some aspects of the representation theory of $SU(1, n)$ on the disc \mathbb{D} and discuss a space of functions on \mathbb{D} that can be expressed as $f(z) = \hat{f}(z, \bar{z})$ for all $z \in \mathbb{D}$, where \hat{f} is a function holomorphic on a certain subset $\Omega \subseteq \overline{\mathbb{C}} \times \overline{\mathbb{C}}$ containing $\mathbb{D} \times \mathbb{D}$. It turns out that this space of functions is most probably the space of analytical functions where the approach of S. Beiser works.

gez. Stefan Waldmann