

Announcement

## Seminar on Deformation Quantization and Geometry

**19. 1. 2024 at 14:00 s.t.**

Seminarroom SE 30

LUCA UMMINGER (JMU WÜRZBURG)

States in  $G$ -invariant strict Quantization

In this talk we derive the states for the star product  $\star_{\hbar}$  of  $G$ -invariant strict quantization. Before that, we give a brief overview of the quantization of a elementary solvable symplectic symmetric space and its  $C^*$ -algebraization. In order to derive the states, we now consider the states of the Weyl-product, which result from the composition of the states of the Hilbert space  $(L^2(V), \cdot)$  and the positive linear mapping  $S_{\hbar}^{\text{Weyl}} : (L^2(V), \cdot \star_{\hbar}^{\text{Weyl}}) \rightarrow (L^2(V), \cdot)$ . Furthermore, these states can continuous linear extended to the  $C^*$ -algebra. Since the star product from our quantization ( $\star_{\hbar} = \tau_{\hbar} \circ \star_{\hbar}^{\text{Weyl}} \circ (T_{\hbar} \otimes T_{\hbar})$ ) is isomorphic to the Weyl-product with isomorphism  $T_{\hbar}$  and its inverse map  $\tau_{\hbar}$ , we derive our states for our quantization from the states for the Weyl-product.

Invited by Stefan Waldmann