Contribution Title: POSITIVITY IN RIEFFEL'S STRICT DEFORMATION

QUANTIZATION

Authors: S. Waldmann Presenting author: Waldmann S.

Affilation: Albert-Ludwigs-Universität Freiburg, Germany E-mail: Stefan.Waldmann@physik.uni-freiburg.de

Invited speaker: Topical session

YRS seminar: NO

In this talk I will report on recent progress in understanding the positivity features of strict deformation quantizations. For Rieffel's construction of a strict deformation quantization by an action of \mathbb{R}^d I will show the following theorem: for every positive functional ω_0 of the undeformed C^* -algebra \mathcal{A}_0 there exists a family ω_\hbar of positive functionals of the deformed C^* -algebras \mathcal{A}_\hbar which depends continuously on \hbar . The proof consists in an explicit construction using a suitable convolution with certain Gaussians.