

BOUNDED REPRESENTATIONS OF FUNCTION ALGEBRAS ON QUANTUM GROUPS AND COMPLEXIFICATION

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For the standard quantization K_q of a simply connected semisimple compact Lie group K , fundamental work of Soibelman and Korogodski–Soibelman describes the irreducible $*$ -representations of the quantized coordinate ring $O(K_q)$ on Hilbert spaces. In this talk I will consider the more general case of not necessarily $*$ -preserving representations of $O(K_q)$ by bounded operators on Hilbert spaces. The motivation for studying such representations comes from the classical concept of complexification of Lie groups, and I will explain how this links with $*$ -representations of the function algebra on the Drinfeld double of K_q . (Joint work with Heon Lee)