BIPOLAR THEOREM for QUANTUM CONES

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The operator analogues of locally convex spaces have been partially developed by Effros, Webster and Winkler (1995-1999). The central goal of this direction is to create a theory of quantum polynormed spaces or quantum spaces, which should reflect the "locally convex space chapters" of quantum functional analysis. As in classical case, quantum functional analysis is branched into normed and polynormed (or locally convex) sections. The duality properties of quantum spaces are the main topics that we have special interest in (see [1]-[8]). In this talk we deal with the duality properties of quantum cones. We propose a bipolar theorem for quantum cones, which in turn provides a new proof of the operator bipolar theorem proved by Effros and Webster. The technique used in allows to classify all inflated quantum orders over Paulsen's construction as quantum topologies compatible with the given duality.

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