QUANTIZATION OF $A_0(K)$–SPACES

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Abstract. Let $(V; \{p_n\}, \{M_n(V)^+\})$ be a C$^*$-ordered operator space and $Q_n(V)$ be the quasi-state space of $M_n(V)$. We show that every C$^*$-ordered operator space $V$ is complete isometrically, completely isomorphic to $\{A_0(Q_n(V), M_n(V^+)\}$. Motivated by this result we study matrival convexity property. We introduce a notion of an $L^1$-matrix convex set $\{K_n\}$ in a $*$-locally convex space $X$. We show that every quantized function space $\{A_0(K_n, M_n(X))\}$ is a C$^*$-ordered operator space. Further, we generalize the notion of regular embedding of a compact convex set to $L^1$-regular embedding of an $L^1$-matrix convex set. We show that if a $L^1$-matricial convex set is $L^1$-regular embed and $L^1$-matricial cap, then $A_0(K_n, M_n(V))$ is an abstract operator system.


Keywords and phrases: Operator space, operator system, C$^*$-ordered operator space, matrix convex set, $L^1$-Matrix convex set.

REFERENCES