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Title: Star order on operator and function algebras

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The paper deals with the star order on proper $*$-algebras. Many results on the star order on matrix algebras and algebras of bounded operators acting on a Hilbert space are generalized to the C^*-algebraic context. We characterize the star order on partial isometries in proper $*$-algebras in terms of their initial and final projections. As a corollary, we present a new characterization of infinite C^*-algebras. Further, main results concern the infimum and supremum problem for the star order on a C^*-algebra $C(X)$ of all continuous complex-valued functions on a Hausdorff topological space X. We show that if X is locally connected or hyperstonean, then any upper bounded set in $C(X)$ has an infimum and a supremum in the star order.

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