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Cornel Pasnicu* (cpasnicu@cnet.upr.edu), Department of Mathematics, University of Puerto Rico, Rio Piedras Campus, P.O. Box 23355, San Juan, PR 00931-3355. (*\mathcal{D} -stable*) *purely infinite C^* -algebras, the ideal property and real rank zero* (Mostly a joint work with Mikael Rørdam)

We will show that a separable purely infinite C^* -algebra is of real rank zero if and only if its primitive ideal space has a basis consisting of compact-open sets and the natural map $K_0(I) \rightarrow K_0(I/J)$ is surjective for all closed two-sided ideals $J \subset I$ in the C^* -algebra. It follows in particular that if A is any separable C^* -algebra, then $A \otimes \mathcal{O}_2$ is of real rank zero if and only if the primitive ideal space of A has a basis of compact-open sets, which again happens if and only if $A \otimes \mathcal{O}_2$ has the ideal property (all the above mentioned results are joint work with Mikael Rørdam). Let \mathcal{D} be a strongly self-absorbing, K_1 -injective C^* -algebra (e.g. the Jiang-Su algebra \mathcal{Z}). I will characterize the ideal property (the real rank zero) for many separable, \mathcal{D} -stable (\mathcal{Z} -stable) C^* -algebras and I will discuss closure properties for some large classes of separable, \mathcal{D} -stable C^* -algebras with the ideal property.

Most of the results I will present in this talk are joint work with Mikael Rørdam.

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