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Some remarks on classification

A brief survey of certain problems and recent results in the classification of  $C^*$ -algebras will be undertaken. One such result is due to Fernando Mortari, who has extended Jesper Villadsen's higher stable rank simple  $C^*$ -algebra construction to include examples with non-unique trace. Among problems, it is still not known if Villadsen's stable rank one simple  $C^*$ -algebra construction, yielding examples with perforated ordered K-groups, can be modified to give examples with unique trace. Would these then necessarily have real rank zero? Can Mikael Rordam's simple  $C^*$ -algebras with both finite and infinite projections be modified to have real rank zero?