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*New characterisations of the weak expectation property*

It is known, by a theorem of Kirchberg, that every separable  $C^*$ -algebra is a  $C^*$ -subalgebra of a separable  $C^*$ -algebra with the weak expectation property. Furthermore, Kirchberg has shown that the assertion that every separable  $C^*$ -algebra is a quotient of a  $C^*$ -algebra with the weak expectation property is logically equivalent to the assertion that the Connes Embedding Problem has an affirmative solution. Therefore, it is not surprising that it is rather difficult to ascertain whether a given  $C^*$ -algebra has the weak expectation property or not. In this lecture I will report on joint work with A. Kavruk, V. Paulsen, and I.G. Todorov in which unital  $C^*$ -algebras with the weak expectation property are characterised by matrix completion properties and by certain tensorial identities involving group  $C^*$ -algebras and operator systems.