Completely positive kernels, Hilbert C^*-modules and coherent states

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The concept of coherent states has been important in physics for a long time. The coherent states are intimately related to positive definite kernels. The theory of positive definite kernels has been generalized to take into account kernels which takes values in the space of bounded liner operators between C^*-algebras. In view of this, we propose Hilbert C^*-module valued coherent states. We relate it to physical examples.

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