

*A Mini Courses on
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Crossed Products

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In this mini course, we give preliminaries on crossed products of C^* -dynamical systems and Morita equivalence of group actions on C^* -algebras. Then we study the category whose objects are C^* -algebras and whose morphisms are Hilbert bimodules and the category whose objects are C^* -dynamical systems with action of a group G and morphisms between (A, G, α) and (B, G, β) are equivariant isomorphism classes of (α, β) - compatible Hilbert A - B -bimodules. Moreover, we show that how crossed product gives a functor between these categories. Finally, the categorical approach to imprimitivity theorems will be discussed.