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**Title**: C*-rigidity of topological dynamical systems

**Abstract**: There is a long tradition for constructing C*-algebras from dynamical systems. On one hand, this has lead to the construction of many interesting C*-algebras that can be studied via the corresponding dynamical systems. On the other hand, C*-algebras constructed from dynamical systems allow us to use tools from the theory of C*-algebras to study dynamical systems. It is natural to ask how much information about a dynamical system one can extract from a C*-algebra associated with it.
C*-rigidity of dynamical systems is the principal that dynamical systems can be recovered, up to a suitable notion of equivalence, from C*-algebraic data associated with them. An example of this is the result of Giordano, Putnam, and Skau that says that the crossed products of two Cantor minimal systems are isomorphic if and only if the Cantor minimal systems are strong orbit equivalent. Another example is the result by Tomiyama that says that the crossed products of two topologically transitive dynamical systems on compact metric spaces are isomorphic in a diagonal-preserving way if and only if the systems are flip conjugate. Recently, it has been shown that it is possible to recover shifts of finite type up to flow equivalence, continuous orbit equivalence, and conjugacy from their Cuntz-Krieger algebras.

I will give an overview of these results and explain how groupoids can be used to prove and generalise them.