

**Title:** Morita equivalence for operator systems

**Abstract:** In ring theory, Morita equivalence preserves many properties of the objects, and generalizes the isomorphism equivalence between commutative rings. A strong Morita equivalence for selfadjoint operator algebras was introduced by Rieffel in the 60s, and works as a correspondence between their representations. In the past 30 years there has been an interest to develop a similar theory for nonselfadjoint operator algebras and operator spaces with much success and in this talk we will review the main points of these works. Then, taking motivation from recent work of Connes and van Suijlekom, we will present a Morita theory for operator systems. We will give equivalent characterizations of Morita equivalence via Morita contexts, bihomomorphisms and stable isomorphism, while we will highlight properties that are preserved in this context. Finally we will provide applications to rigid systems, function systems and non-commutative graphs.

This is joint work with George Eleftherakis and Ivan Todorov.