C*-correspondences and their operator algebras

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Περίληψη

C*-correspondences and their operator algebras provide a uniform language to describe a vast class of possibly non-invertible single transformations. Important examples include operator algebras of subshifts, graphs, $\mathbb{Z}$-actions, transfer operators and other. The driving force in research has been to characterise the properties of the algebras in terms of geometric and topological properties of the transformation, thus providing a two-way passage for constructing examples and counterexamples. The language of C*-correspondences can be extended to other semigroup transformations where similar questions arise naturally with ongoing progress. In this talk we will survey results for single C*-correspondences (older and recent) that may serve as a roadmap for similar questions beyond $\mathbb{Z}_+$.