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Quantum teleportation and subfactors

We will introduce quantum teleportation schemes in the commuting operator framework, in which locality is modelled by commuting observable algebras. For a large class of inclusions $N \subset M$ of tracial von Neumann algebras, we obtain a correspondence between “tight” teleportation schemes for the relative commutant $N' \cap M$ and unitary Pimsner-Popa bases for M over N . Time permitting, we will discuss applications to the representation theory of linking algebras of quantum automorphism groups. This is joint work with Alexandre Conlon, David Kribs and Rupert Levene.