

1106-46-2018 **Brent Nelson*** (bnelson6@math.ucla.edu). *Free monotone transport without a trace.*

Classical transport is a map $T : X \rightarrow Z$ between probability spaces (X, μ) and (Z, ν) such that $T_*\mu = \nu$. Consequently, $f \mapsto f \circ T$ provides an integral preserving embedding of $L^\infty(Z, \nu)$ into $L^\infty(X, \mu)$. Free transport extends this idea to non-commutative probability spaces (i.e. pairs (A, φ) of von Neumann or C^* -algebras and states) to produce embeddings and even isomorphisms between non-commutative probability spaces. In this talk, we will discuss how to construct non-tracial transport by solving a non-commutative differential equation known as the Schwinger-Dyson equation and, time permitting, applications to q -deformed Araki-Woods algebras and finite depth subfactor planar algebras. (Received September 15, 2014)