

1096-46-1768

Yoann Dabrowski, Ken Dykema* (kjd@tamu.edu), **Claus Koestler, Kunal Mukherjee**
and **John D. Williams**. *Choquet simplices of quantum symmetric states*.

In analogy with K\"ostler and Speicher's noncommutative de Finetti theorem, the quantum symmetric states on the universal free product of a C^* -algebra with itself infinitely many times can be characterized by freeness with amalgamation over the tail algebra (see K\"ostler's talk in this special session). Using a convenient characterization of the extreme quantum symmetric states, we show that the set of central quantum symmetric states is a Choquet simplex (in fact, a Bauer simplex) whose extreme points are the free product states. Also, the set of tracial quantum symmetric states is a Choquet simplex (and furthermore, a Poulsen simplex). (Received September 16, 2013)