# Probabilistic Operator Algebra Seminar

Organizer: Dan-Virgil Voiculescu

January 27     **Yoonkyeong Lee**, Michigan State University.

Title: *On conjugate systems with respect to completely positive maps*

In 2010 Dabrowski showed that a von Neumann algebra generated by selfadjoint operators is a factor when they admit a conjugate system. We extend this to the operator-valued case by defining an operator valued partial derivative and conjugate system with respect to completely positive maps. We examine some polynomials that do not have atoms in $B$ and using this, show that the center of the von Neumann algebra generated by $B$ and its relative commutant is the center of $B$.