1102-46-51 **Matthew Kennedy** and **Paul Skoufranis*** (pskoufra@math.tamu.edu). *Diagonals of Certain Operators in von Neumann Algebras.*

In linear algebra there are several problems that may be formulated as, "what diagonal n-tuples may an n by n matrix have under certain fixed constraints?" Some famous results are the Schur-Horn Theorem, which describes the possible diagonals for self-adjoint matrices with given eigenvalues, and Thompson's Theorem, which describes the possible diagonals for arbitrary matrices with given singular values.

Significant research has been done to extend the Schur-Horn Theorem to other von Neumann algebras including a Schur-Horn Theorem for II_1 factors by Ravichandran. In this talk, I will demonstrate a version of Thompson's Theorem for II_1 factors and some norm approximate results for diagonals of normal operators in arbitrary von Neumann algebras. (Received July 11, 2014)