

1155-15-116

Shmuel Friedland* (friedlan@uic.edu), Department of Mathematics, Statistics and Com,
University of Illinois at Chicago, 851 S. Morgan Street , 322 SEO, Chicago, IL 60607-7045.

Tensors, Entanglement, Computations and Complexity.

Tensors are most suitable to describe multipartite quantum systems. In this talk we will address a number of functions on tensors as: rank, spectral and nuclear norm, nuclear rank – for general, symmetric, skew symmetric and bihermitian tensors. We will emphasize the connections to some concepts of quantum physics as entanglement and inseparability. We will discuss the numerical and complexity aspects of computing these functions. (Received January 06, 2020)