

1086-60-1114 **Norio Konno*** (konno@ynu.ac.jp), 79-5 Tokiwadai, Hodogaya, Yokohama, 240-8501, Japan.
Stationary Measures and Time-Averaged Limit Measures of Quantum Walks.

The quantum walk (QW) can be considered as a counterpart of the classical random walk (RW), see [1,2], for example. In contrast with the diffusive spreading of the RW, the QW has two specific properties, i.e., localization and ballistic spreading. In this talk, I consider stationary measures and time-averaged limit measures of QWs [3,4]. References: [1] N. Konno (2008), Quantum walks, Lecture Notes in Mathematics, Vol.1954, Springer, pp.309-452. [2] S. E. Venegas-Andraca (2012), Quantum walks: a comprehensive review, Quantum Information Processing (in press), arXiv:1201.4780. [3] N. Konno, T. Luczak, and E. Segawa (2011), Limit measures of inhomogeneous discrete-time quantum walks in one dimension, Quantum Information Processing (in press), arXiv:1107.4462. [4] C. Liu and N. Petulante (2011), On limiting distributions of quantum Markov chains, Article ID 740816, International Journal of Mathematics and Mathematical Sciences. (Received September 19, 2012)