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Takao Namiki* (nami@math.sci.hokudai.ac.jp), Kita 10 Nishi 8, Sapporo, Hokkaido 060-0810, Japan. *On quantum walks driven by chaotic dynamical system.*

In the presentation the author will give quantum walks driven by chaotic dynamical system and show that the quantum walks have the same statistical property as the classical random walk and Markov chain have. The chaotic dynamical systems which appear in the quantum walk are typical example of uniformly hyperbolic dynamical system with invariant probability measure. Moreover, two examples of semi-classical approximation on the quantum walk will be given. These examples are obtained from two types of quantization of dynamical system. (Received September 14, 2014)