1145-VN-589   **Basiru Usman*** (`bzu0005@auburn.edu`), Auburn, AL 36830, **Xiaoying Maggie Han**, AL , and **Peter Kloeden**. *Long term behavior of a random hopfield neural lattice model.*

In this talk I will introduce the so-called Hopfield neural model introduce by John Hopfield in 1984, then present some modifications of the model and their respective applications, then I will introduce the Hopfield neural lattice model with random input in a space of square summable bi-infinite sequence. Existence and uniqueness of solution will be investigated, then it will be shown that the solution generate a random dynamical system. Finally long term behavior will be investigated. (Received September 10, 2018)