1145-45-2725   **M Rahman***, 1 UNF Drive, Jacksonville, FL 32224. *Stochastic approximations of Fredholm Volterra Integro-differential equation arising in mathematical neuroscience.* Preliminary report.

This paper extends the results of synaptically generated wave propagation through a network of connected excitatory neurons to a continuous model, defined by a Fredholm Volterra integro-differential equation, which includes memory effects of the past as well as parametric noise in the system. Stochastic approximation and numerical simulations are discussed. (Received September 25, 2018)