1126-35-235 **Anudeep Kumar*** (anudeep@gwu.edu). *Long time behavior of solutions to the Generalized Hartree equation.*

We study the long time behavior of solutions in the nonlinear dispersive equations, in particular, the generalized Hartree-type equation, where the potential is of nonlocal type and is expressed as a convolution. The behavior of solutions has been studied quite extensively for some basic model equations such as nonlinear wave equation and nonlinear Schrödinger equation and various regimes were exhibited such as finite time existing solutions (or so called blow-up in finite time), or solutions existing globally in time: solitary waves or scattering (approaching linear solutions as $t \to \pm\infty$). In this talk we present small data theory, dichotomy for scattering versus blow-up, and criteria for solutions that blow-up in finite time with an emphasis on the method of concentration - compactness. (Received January 15, 2017)