

1050-35-167

Avy Soffer* (soffer@math.rutgers.edu), Department of Mathematics, Rutgers University, 110 Frelinghuysen Rd, Piscataway, NJ 08854-8019. *Realistic Models of NLS- Large time behavior and Applications to Physics.*

The NLS Equation appears naturally in nonlinear optics and BEC theory. I will describe models of NLS with interaction terms that correspond to real physical systems. I will describe some theoretical results and conjectures, as well as numerical and very recent experiments based on the theoretical predictions. (Received March 03, 2009)