1035-35-226   **Christopher Chong*** (`christopher.chong@mathematik.uni-stuttgart.de`), 70178 Stuttgart, Germany, and **Guido Schneider**. *Numerical experiments on the propagation and interaction of well-prepared and non-well-prepared pulses in dispersive media.* Preliminary report.

I analyze the interaction of two modulating pulse solutions with different basic wave numbers of a nonlinear wave equation. These solutions consist of traveling pulse-like envelopes satisfying approximately a Nonlinear Schrödinger equation and modulating underlying wave-trains. I confirm numerically an analytic bound on the shift of the envelopes of the modulating pulses caused by their interaction in case that the envelopes have the form of NLS-solitons. I contrast this result with numerical experiments in the case that the envelope is not an NLS-soliton. (Received August 21, 2007)