1001-35-152   **Jiahong Wu*** (`jiahong@math.okstate.edu`), Department of Mathematics, Oklahoma State University, 401 Mathematical Sciences, Stillwater, OK 74074. *Eventual Periodicity for dispersive wave equations in a quarter plane.*

Laboratory experiments in a channel with a wavemaker mounted at one end show an interesting phenomenon. If the wavemaker is oscillated periodically, say with a long period T, it appears that in due course, at any fixed station down the channel, the wave elevation becomes periodic of period T. Our goal has been to establish this observation as a mathematically exact fact about solutions of the initial and boundary value problems for the KdV equation and the BBM equation. In this talk, I will present some of the recent results we have obtained for this problem. This is joint work with Jerry L. Bona. (Received August 23, 2004)