1108-35-350   **Jennifer Beichman*** (`beichman@math.wisc.edu`). *Nonstandard dispersive estimates and linearized water waves.*

In this talk, we focus on understanding the relationship between the decay of a solution to the linearized water wave problem and its initial data. We obtain decay bounds for a class of 1D dispersive equations that includes the linearized water wave. These decay bounds display a surprising growth factor, which we show is sharp. A further exploration leads to a result relating singularities of the initial data at the origin in Fourier frequency to the regularity of the solution. (Received January 18, 2015)