1052-76-365 **Daniel Spirn*** (spirn@math.umn.edu), 206 Church St. S.E., MINNEAPOLIS, MN 55455, and **J. Douglas Wright**. *Strichartz estimates for the gravity capillary equations.*

Using rigorous oscillatory integral estimates, we prove dispersive decay estimates on the linearized equations governing gravity capillary waves. For the 3+1 dimensional problem we show that the waves decay as $t^{-5/6}$, and from here we establish a set of Strichartz estimates in appropriate Besov spaces. Finally, we show there is a slowest moving wave associated to a balance between surface tension and gravity. (Received September 02, 2009)