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M Chen* (chen4544@gmail.com), 3413 covington street, west lafayette, IN 47906, **S Dumont**, , France, **L Dupaigne**, , France, and **O Goubet**. *Decay of solutions to a water wave model with a nonlocal viscous dispersive term*. Preliminary report.

In this talk, we investigate a water wave model with a nonlocal viscous term

$$u_t + u_x + \beta u_{xxx} + \frac{\sqrt{\nu}}{\sqrt{\pi}} \int_0^t \frac{u_t(s)}{\sqrt{t-s}} ds + uu_x = \nu u_{xx}.$$

The theoretically and numerically results on wellposedness of the equation and the decay rate of solutions are presented.

This is a joint work with S. Dumont, L. Dupaigne and O. Goubet. (Received January 20, 2010)