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Bingyu Zhang* (zhangb@ucmail.uc.edu) and **Ivonne Rivas**. *Boundary Control of the Korteweg-de Vries Equation.*

In this talk, we will consider the following boundary value problem of the Korteweg-de Vries equation posed on the finite interval $0, L$):

$$\begin{cases} u_t + u_x + uu_x + u_{xxx} = 0, & x \in (0, L), t \in (0, T), \\ u(0, t) = h_1(t), & u(L, t) = h_2(t), & u_{xx}(L, t) = h_3(t). \end{cases}$$

Viewing the boundary value functions h_j , $j = 1, 2, 3$ as control inputs, we will discuss both controllability and stabilizability of the system. (Received September 08, 2011)