Meeting: 998, Houston, Texas, SS 4A, Special Session on Nonlinear Analysis

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México, D.F., Mexico. *Null controllability of a semilinear parabolic-hyperbolic cascade system.*

We show the simultaneous null controllability of a semilinear heat equation and a semilinear wave equation that are weakly coupled, acting only in the heat equation. This can be done for a suitable control set and for a large time of control. First the simultaneous null controllability of the linearized coupled system is shown. Then a "regularized fixed point argument" is performed and "a posteriori" the null control is obtained. (Received February 20, 2004)