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**Katherine A. Kime\*** ([kimek@unk.edu](mailto:kimek@unk.edu)), Department of Mathematics and Statistics, Founders Hall, University of Nebraska at Kearney, Kearney, NE 68849. *Computation of controllable pairs in discretizations of the Schroedinger equation*. Preliminary report.

We consider finite difference discretizations of the Schroedinger equation in which control is exercised by the potential. As the potential multiplies the state, the control problem is bilinear. We will give examples of discretized initial-terminal data pairs satisfying certain localization properties and the corresponding controls which steer the initial data to the terminal data within the discretization. (Received August 24, 2005)