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Title:

Exact boundary controllability of the linear Biharmonic Schrödinger equation with variable coefficients.

Abstract:

In this talk, we study the exact boundary controllability of the linear fourth-order Schrödinger equation, with variable physical parameters and clamped boundary conditions on a bounded interval. The control acts on the first spatial derivative at the right endpoint. We prove that this control system is exactly controllable at any time $T > 0$. The proofs are based on a detailed spectral analysis and on the use of nonharmonic Fourier series.