

Boundary Stabilization of Degenerate Schrödinger Equations

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Abstract

A degenerate Schrödinger equation under fractional integral damping is considered. Here the damping term is singular and we consider the two cases when damping acting on the degenerate boundary and nondegenerate boundary. In this paper, we establish exponential and polynomial energy decay rates for the Schrödinger equation by using resolvent estimates. We use a frequency domain method combined with the multiplier technique to carry out a special analysis for the resolvent.

Mathematics Subject Classification : 35B40, 35Q41, 35P15.

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