$L^p$ estimates for wave equations with strong damping

Borislav Yordanov
Hokkaido University

We consider an abstract evolution equation generalizing the wave equation with strong damping and variable coefficients. Our goal is to derive $L^p$ estimates, for $p \in [1, 2]$, using classical and recent results about boundary values of holomorphic semigroups. Such estimates hold, in contrast to smoothing estimates, for all uniformly elliptic differential operators in $\mathbb{R}^n$.

*This talk is based on a joint work with G. Todorova from the University of Tennessee-Knoxville, USA.*