

Einladung zum Vortrag
im Oberseminar Analysis

Wave equations with low regularity coefficients

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In this talk we discuss fixed-time L^p estimates and Strichartz estimates for wave equations with low regularity coefficients. It was shown by Smith and Tataru that wave equations with $C^{1,1}$ coefficients satisfy the same Strichartz estimates as the unperturbed wave equation on \mathbb{R}^n , and that for less regular coefficients a loss of derivatives in the data occurs. We considerably improve these results for a specific class of $C^{0,1}$ coefficients, for which we show that no loss of derivatives occurs at the level of fixed-time L^p estimates. The permitted class in particular excludes singular focussing effects. We discuss possible generalisations of the results based on our new operator-theoretic approach. This is joint work with P. Portal (ANU).

Alle Interessierten sind herzlich eingeladen.

Zeit: Montag, 27. Mai 2019, 10.15 Uhr

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