



北京理工大学

数学与统计学院学术报告

The modified KdV in modulation spaces: conservation laws and equicontinuity of solutions

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摘要: The modified Korteweg--de Vries equation (mKdV) on the real line is an important model of a completely integrable PDE. Harrop-Griffiths--Killip--Visan recently proved the sharp global well-posedness of the mKdV in Sobolev spaces $H^s(\mathbb{R})$. In this talk, we go beyond Sobolev spaces and discuss solutions to the mKdV in modulation spaces. Based on the results of Harrop-Griffiths--Killip--Visan, we will demonstrate global well-posedness of the mKdV in modulation spaces, using conservation laws and equicontinuity of solutions in modulation spaces.

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