

学术报告

Local dynamics near the solitary waves
of the supercritical gKDV equations

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报告摘要：We study the dynamics of the supercritical gKDV equations near solitary waves in the energy space H^1 . We construct smooth local center-stable, center-unstable and center manifolds near the manifold of solitary waves and give a detailed description of the local dynamics near solitary waves. In particular, the instability is characterized as following: any forward flow not starting from the center-stable manifold will leave a neighborhood of the manifold of solitary waves exponentially fast. Moreover, orbital stability is proved on the center manifold, which implies the uniqueness of the center manifold and the global existence of solutions on it. This is a joint work with Zhiwu Lin and Chongchun Zeng.

欢迎大家参加！