



Scattering problem for the generalized Korteweg-de Vries equation

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In this talk, we study the scattering problem for the initial value problem of the generalized Korteweg-de Vries (gKdV) equation. The purpose of this talk is to achieve two primary goals. Firstly, we show small data scattering for (gKdV) in the weighted Sobolev space, ensuring the initial and the asymptotic states belong to the same class. Secondly, we introduce two equivalent characterizations of scattering in the weighted Sobolev space. In particular, this involves the so-called conditional scattering in the weighted Sobolev space. This talk is based on a joint work with Satoshi Masaki (Hokkaido University)