

Solitons for the KdV equation on metric graphs

Christian Seifert

Technische Universität Hamburg and CAU Kiel

`christian.seifert@tuhh.de`

We consider the Korteweg-de Vries equation on metric star graphs. After reviewing suitable coupling conditions at the vertex for the linearised equation, i.e. an Airy-type evolution equation, we investigate coupling conditions at the vertex such that the system allows for solitary waves.

This is joint work with Delio Mugnolo (Hagen) and Diego Noja (Milan).