Nonlinear Sciences > Exactly Solvable and Integrable Systems

On the zero-dispersion limit of the Benjamin-Ono Cauchy problem for positive initial data

Peter D. Miller, Zhengjie Xu

(Submitted on 17 Feb 2010)

We study the Cauchy initial-value problem for the Benjamin-Ono equation in the zero-disperion limit, and we establish the existence of this limit in a certain weak sense by developing an appropriate analogue of the method invented by Lax and Levermore to analyze the corresponding limit for the Korteweg-de Vries equation.

Comments: 54 pages, 11 figures

Subjects: **Exactly Solvable and Integrable Systems (nlin.Sl)**; Pattern Formation and Solitons (nlin.PS)

Cite as: arXiv:1002.3178v1 [nlin.SI]

Submission history

From: Peter D. Miller [view email] [v1] Wed, 17 Feb 2010 15:46:18 GMT (3507kb,D)

Which authors of this paper are endorsers?



All papers 🖵 Go!

Download:

- PDF
- Other formats

Current browse context: nlin.Sl < prev | next > new | recent | 1002

Change to browse by:

nlin

nlin.PS

References & Citations

• CiteBase

