

KdV equation in the quarter--plane: evolution of the Weyl functions and unbounded solutions

Alexander Sakhnovich

(Submitted on 11 Jul 2011)

The matrix KdV equation with a negative dispersion term is considered in the right upper quarter--plane. The evolution law is derived for the Weyl function of a corresponding auxiliary linear system. Using the low energy asymptotics of the Weyl functions, the unboundedness of solutions is obtained for some classes of the initial--boundary conditions.

Subjects: **Analysis of PDEs (math.AP)**; Spectral Theory (math.SP); Exactly Solvable and Integrable Systems (nlin.SI)

MSC classes: 35Q53, 34B20, 35G31

Journal reference: Math. Model. Nat. Phenom. 7:2 (2012), 131--145

Cite as: **arXiv:1107.1982 [math.AP]**

(or **arXiv:1107.1982v1 [math.AP]** for this version)

Submission history

From: Alexander Sakhnovich [[view email](#)]

[v1] Mon, 11 Jul 2011 09:57:44 GMT (15kb)

[Which authors of this paper are endorsers?](#)

Download:

- [PDF](#)
- [PostScript](#)
- [Other formats](#)

Current browse context:

math.AP

[< prev](#) | [next >](#)

[new](#) | [recent](#) | [1107](#)

Change to browse by:

[math](#)

[math.SP](#)

[nlin](#)

[nlin.SI](#)

References & Citations

- [NASA ADS](#)

Bookmark([what is this?](#))



ScienceWISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE

WISE