

Higher-dimensional nonlinear integrable equations with variable coefficients and the Painlevé test

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It is showed mainly that higher-dimensional Korteweg-de Vries, modified Korteweg-de Vries and Nonlinear Schrödinger equations with variable coefficients are integrable in the sense of the Painlevé test(the WTC and Log-WTC methods).

This report is based on the following manuscripts [1, 2, 3].

References

- [1] T. Kobayashi and K. Toda, *IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences*, **E88-A**(2548 - 2553), 2005.
- [2] T. Kobayashi and K. Toda, *Symmetry, Integrability and Geometry: Methods and Application (SIGMA)*, **2**, paper 063, 2006.
- [3] T. Kobayashi and K. Toda, "Extensions of nonautonomous nonlinear integrable systems to higher dimensions", preprint.