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Exact traveling wave solutions of the Zakharov-Kuznetsov-Benjamin-Bona-Mahony equation. (English) [Zbl 1193.35199](#)

Appl. Math. Comput. 216, No. 11, 3234-3243 (2010).

Summary: The bifurcation method for dynamical systems is employed to investigate traveling wave solutions in the $(2 + 1)$ -dimensional Zakharov-Kuznetsov-Benjamin-Bona-Mahony equation. Under some parameter conditions, exact solitary wave solutions and kink wave solutions are obtained.

MSC:

35Q53 KdV equations (Korteweg-de Vries equations)

Cited in **10** Documents

37K10 Completely integrable infinite-dimensional Hamiltonian and Lagrangian systems, integration methods, integrability tests, integrable hierarchies (KdV, KP, Toda, etc.)

37K50 Bifurcation problems for infinite-dimensional Hamiltonian and Lagrangian systems

35C08 Soliton solutions

Keywords:

Zakharov-Kuznetsov-Benjamin-Bona-Mahony equation; bifurcation of phase portraits; solitary wave solutions; kink wave solutions

Full Text: [DOI](#)

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