

Travelling and Periodic Wave Solutions of Some Nonlinear Wave Equations

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We present the mixed dn-sn method for finding periodic wave solutions of some nonlinear wave equations. Introducing an appropriate transformation, we extend this method to a special type of nonlinear equations and construct their solutions, which are not expressible as polynomials in the Jacobi elliptic functions. The obtained solutions include the well known kink-type and bell-type solutions as a limiting cases. Also, some new travelling wave solutions are found. – PACS: 02.30.Jr; 03.40.Kf

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