

Addendum: Dynamics of solitons in nearly integrable systems [Rev. Mod. Phys. **61**, 763 (1989)]

Yuri S. Kivshar

*Institute for Low Temperature Physics and Engineering of the Academy of Sciences of the Ukraine,
Kharkov 310164, Union of Soviet Socialist Republics*

Boris A. Malomed

*P. P. Shirshov Institute for Oceanology of the U.S.S.R. Academy of Sciences, Moscow 117218,
Union of Soviet Socialist Republics*

We are sorry to say that in this review paper we missed some important works devoted to alternative approaches to the dynamics of solitons under perturbations. In our paper, we emphasized the most powerful techniques based upon the inverse scattering transform or (for more simple adiabatic effects) on the Lagrangian/Hamiltonian formalism. We also briefly surveyed “direct” methods. However, it is relevant to complement the list of works based on the “direct” methods that were cited in our review by the following quotation: In a series of papers by J. C. Fernandez, G. Reinisch, and others, an approach based on a direct expansion of perturbed solutions has been elaborated in detail for Korteweg-de Vries systems (e.g., Reinisch and Fernandez, 1978; Fernandez *et al.*, 1979) and sine-Gordon systems (see Fernandez *et al.*, 1986, 1988; Reinisch *et al.*, 1988 and references therein).

As concerns the perturbed Korteweg-deVries equation, it is also relevant to mention Fenton and Rienecker (1982), where a collision of two solitons in shallow water was analyzed numerically within the framework of a full system of Euler’s equations, which reduces to the Korteweg-deVries equation in the lowest approximation. A collision-induced change of soliton amplitudes was found by these authors (see also Byatt-Smith, 1987).

Byatt-Smith, J. G. B., 1987, *J. Fluid Mech.* **182**, 485.

Fenton, J. D., and M. M. Rienecker, 1982, *J. Fluid Mech.* **118**, 411.

Fernandez, J.-C., C. Froeschle, and G. Reinisch, 1979, *Phys. Scr.* **20**, 545.

Fernandez, J. C., M. J. Goupil, O. Legrand, and G. Reinisch, 1986, *Phys. Rev. B* **34**, 6207.

Fernandez, J. C., J. Leon, and G. Reinisch, 1986, *Phys. Lett. A* **114**, 161.

Fernandez, J. C., T. Passot, H. Politano, G. Reinisch, and M. Taki, 1988, *Phys. Rev. B* **37**, 7342.

Reinisch, G., and J.-C. Fernandez, 1978, *Phys. Lett. A* **67**, 259.

Reinisch, G., J. C. Fernandez, N. Flytzanis, M. Taki, and S. Pnevmatikos, 1988, *Phys. Rev. B* **38**, 11 284.