

Chaotic structures in collision of solitons

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We investigate soliton collisions in scalar field theories in 1+1 dimensions and a model, which interpolates between the sine-Gordon theory, ϕ^4 theory and a model with sextic potential. Various resonant structures emerging in this model because of energy transfer between the modes of excitation. We also emphasise the role of radiation and oscillon formation in the collision process.

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