



Dispersive-wave mechanism of interaction between ultrashort pulses in passive mode-locked fiber lasers

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Auteur	Komarov, Andrey [1], Amrani, Foued [2], Dmitriev, Alexander [3], Komarov, Konstantin [4], Meshcheriakov, Dmitry [5], Sanchez, François [6]
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Résumé en anglais	On the basis of numerical simulation, it is found that powerful long-distance soliton wings can be formed by dispersive waves which are emitted by solitons because of lumped elements in a laser cavity. We analyze peculiarities of the interaction of two solitons through such wings in lasers with lumped saturable absorbers. Various sets of bound steady states of a two-soliton molecule are demonstrated. The relation between the spectral sidebands and the dispersive-wave wings of a soliton is found. The periodic changes in a soliton's profile during its pass through the laser cavity are studied.
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