Spectral-doublet rectangular pulses in passive mode-locked fiber lasers with anomalous dispersion

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Auteur	Komarov, Andrey [1], Dmitriev, Alexander [2], Komarov, Konstantin [3], Meshcheriakov, Dmitry [4], Sanchez, François [5]
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Résumé en anglais	It has been found by numerical simulation that dissipative soliton resonance in passive mode-locked fiber lasers with anomalous dispersion can result in the formation of rectangular pulses with a spectral doublet. With an increase in the pump power and hence in the length of the pulses, the width of the peaks of the spectral doublet decreases, and their position remains unchanged. As a consequence, the generation of a single pulse in the laser resonator turns out to be stable, and the regime of a high-energy rectangular pulse with a doublet spectral structure is observed. The mechanisms involved in this regime are analyzed.
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