



## Spectral dynamics of square pulses in passively mode-locked fiber lasers

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Auteur	Semaan, Georges [1], Komarov, Andrey [2], Niang, Alioune [3], Salhi, Mohamed [4], Sanchez, François [5]
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Résumé en anglais	We investigate experimentally and numerically the spectral dynamics of square pulses generated in passively mode-locked fiber lasers under the dissipative soliton resonance. The features of the transition from the single-peak spectral profile to the doublet spectrum with increasing pump power are studied. The used master equation takes into account the gain saturation, the quadratic frequency dispersion of the gain and the refractive index, and the cubic-quintic nonlinearity of the losses and refractive index. Experimental data are obtained for an Er:Yb-doped fiber ring laser. The theoretical and experimental results are in good agreement with each other.
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### Liens

[1] <http://okina.univ-angers.fr/publications?f%5Bauthor%5D=15653>

[2] <http://okina.univ-angers.fr/publications?f%5Bauthor%5D=8560>

[3] <http://okina.univ-angers.fr/alniang/publications>

[4] <http://okina.univ-angers.fr/m.salhi/publications>

[5] <http://okina.univ-angers.fr/francois.sanchez/publications>

- [6] <http://okina.univ-angers.fr/publications?f%5Bkeyword%5D=29361>
- [7] <http://okina.univ-angers.fr/publications?f%5Bkeyword%5D=29371>
- [8] <http://okina.univ-angers.fr/publications?f%5Bkeyword%5D=29358>
- [9] <http://okina.univ-angers.fr/publications/ua20262>
- [10] <http://dx.doi.org/10.1103/PhysRevA.97.023812>
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