



## Regimes of Passive Mode-Locking of Fiber Lasers

Submitted by François Sanchez on Fri, 12/12/2014 - 13:49

Titre Regimes of Passive Mode-Locking of Fiber Lasers  
Type de publication Communication  
Type Conférence invitée  
Année 2013  
Langue Anglais  
Titre du colloque 3rd International Conference On Optics, Photonics and their Applications (ICOPA'2013)  
Pagination 1-20  
Auteur Komarov, Andrey [1], Komarov, Konstantin [2], Sanchez, François [3]  
Pays Algérie  
Ville Alger

Résumé en anglais

We present results of a numerical simulation and analysis of various regimes of passive mode-locking of fiber lasers including a single pulse and multipulse operation, bound states of solitons, and harmonic passive mode-locking. Our results on the multipulse regimes consist of the multihysteresis dependences of a number of pulses in the laser cavity, of pulse peak intensities and an intracavity radiation energy on a pump power. The analysis of mechanisms of an intersoliton interaction in the laser cavity has been performed. The opportunity of the coding of information with the use of bound soliton sequences has been demonstrated. Various mechanisms for control of intersoliton interaction are proposed.

URL de la notice <http://okina.univ-angers.fr/publications/ua6428> [4]

---

### Liens

- [1] [http://okina.univ-angers.fr/publications?f\[author\]=8560](http://okina.univ-angers.fr/publications?f[author]=8560)
- [2] [http://okina.univ-angers.fr/publications?f\[author\]=8692](http://okina.univ-angers.fr/publications?f[author]=8692)
- [3] <http://okina.univ-angers.fr/francois.sanchez/publications>
- [4] <http://okina.univ-angers.fr/publications/ua6428>

Publié sur *Okina* (<http://okina.univ-angers.fr>)