



## Multisoliton hybrid generation of fiber lasers with anomalous dispersion

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Résumé en anglais We have performed a numerical simulation study of a hybrid regime of anomalous-dispersion-fiber lasers in which passive mode locking occurs simultaneously with the regime of regular undamped spikes induced by an intracavity saturable absorber. Stabilization and reproducibility of the laser radiation is provided by a fiber optical delay line due to which each subsequent spike is formed from the seed radiation of the previous one. The transient evolution and steady-state generation are analyzed. It is found that the number of ultrashort pulses in the steady-state generation depends on the initial conditions of the transient process. In the investigated generation, the spatial-temporal concentration of radiation energy is due to both passive mode locking and Q-switch operation. The hybrid regime is of interest for obtaining reproducible high-energy light pulses

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