

Coherent structures generated from random initial conditions in the one-dimensional Nonlinear Schrodinger Equation

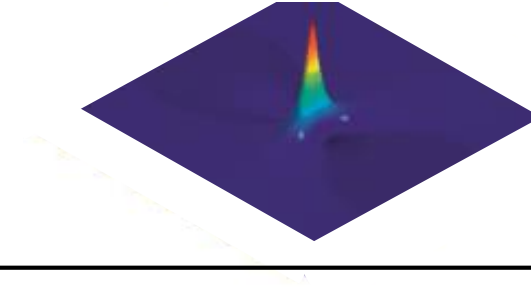
A. Tikan, S. Bielawski, R. El Koussaifi, C. Evain, S. Randoux, C. Szwaj & P. Suret

Coherent initial conditions

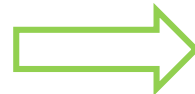
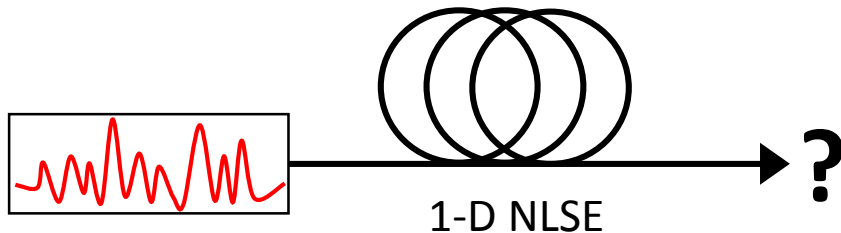
- Kibler, B. *et al.*, Nat. Phys. 6, 790 (2010).
- Kibler, B. *et al.*, Sci. Rep.2, 463 (2012).
- Frisquet, B. *et al.*, Phys. Rev. X 3, 041032 (2013).



Peregrine soliton, Akhmediev Breathers...



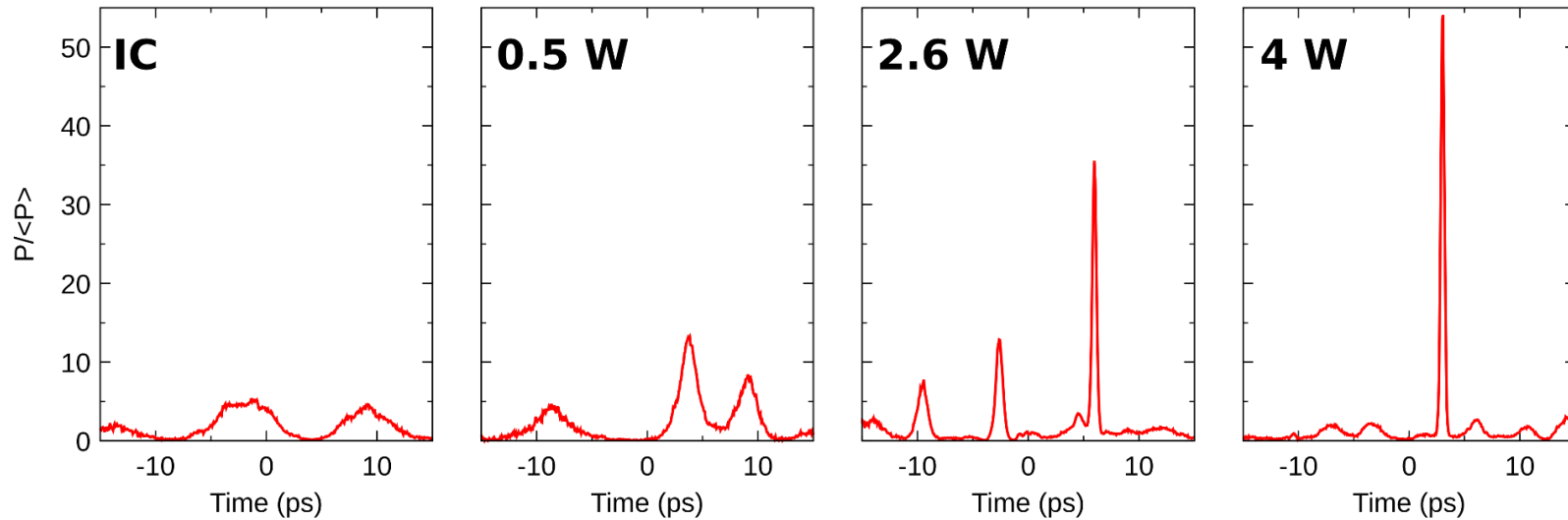
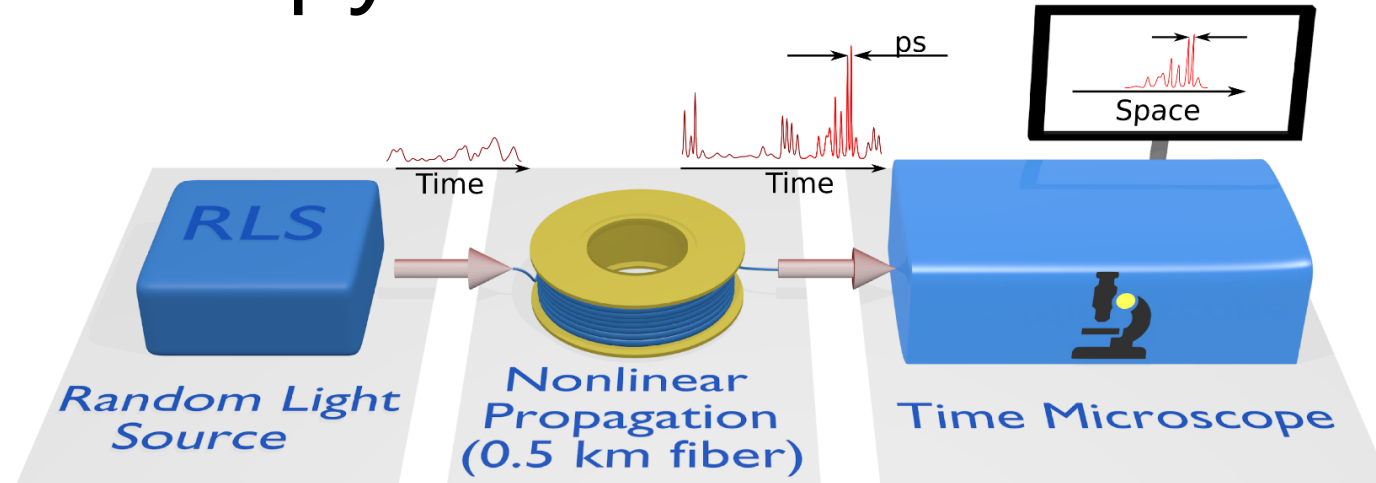
Random initial conditions



Indirect observations

Necessity of single shot observation in picosecond scale

Time Microscopy



Corresponding article is pre-published: <http://arxiv.org/abs/1603.01477>