

Identification en turbulence intégrable de structures cohérentes de type onde scélérate par une méthode d'inverse scattering

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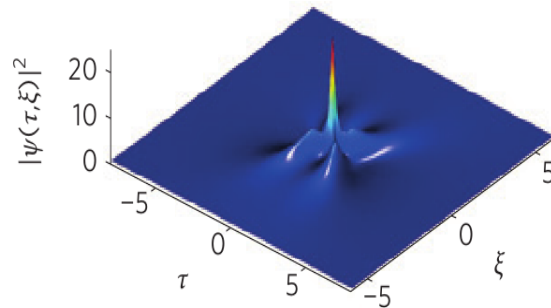
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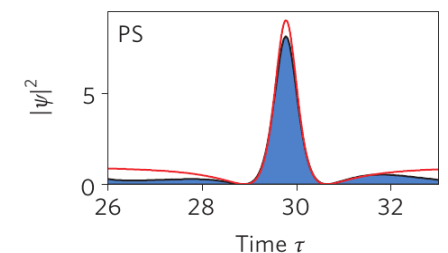
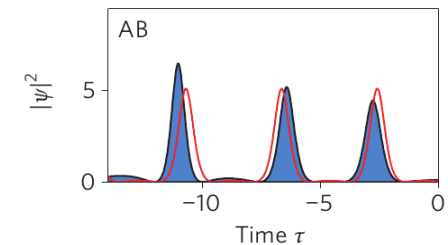
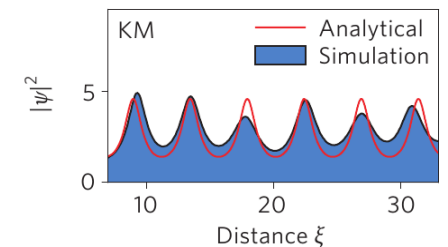
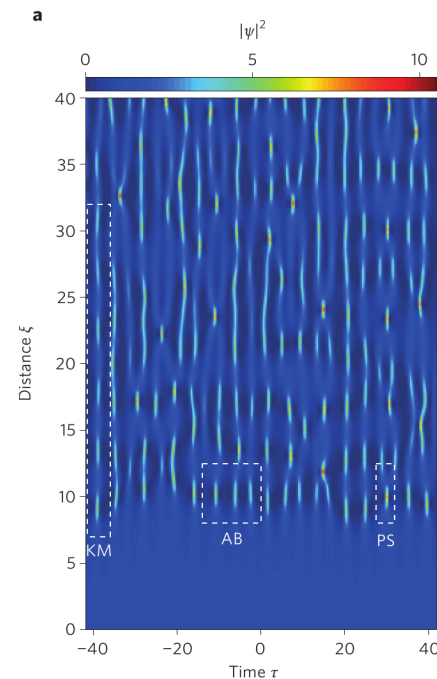
Loughborough University, United Kingdom

Focusing 1D-Nonlinear Schrödinger equation: $i\psi_t + \psi_{xx} + 2|\psi|^2\psi = 0$

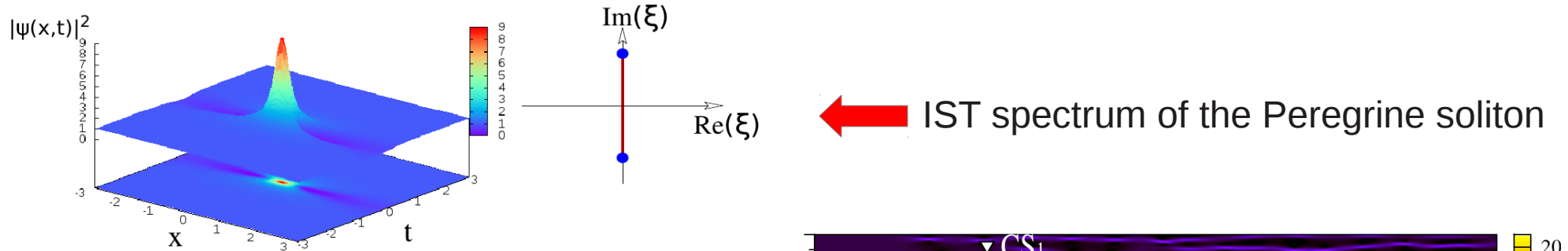
Coherent and deterministic initial conditions



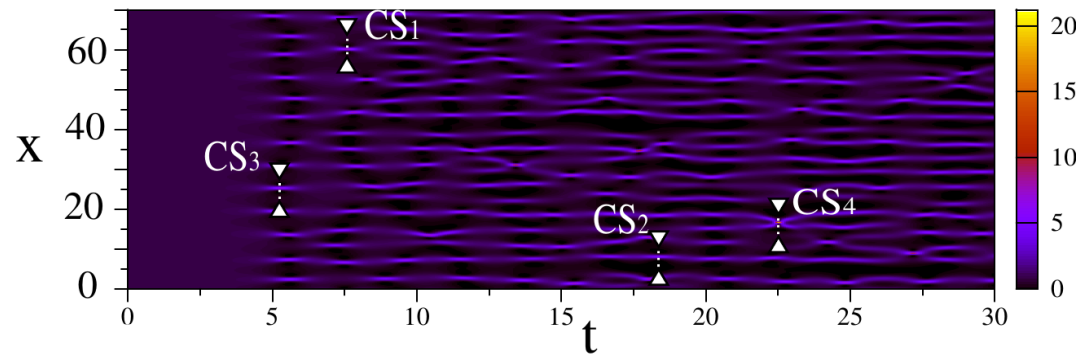
Random initial conditions: **Integrable Turbulence**



Identification of coherent structures from inverse scattering transform (IST) method



← IST spectrum of the Peregrine soliton



IST spectra of coherent structures found in the problem of noise-driven modulational (Benjamin-Feir) instability

