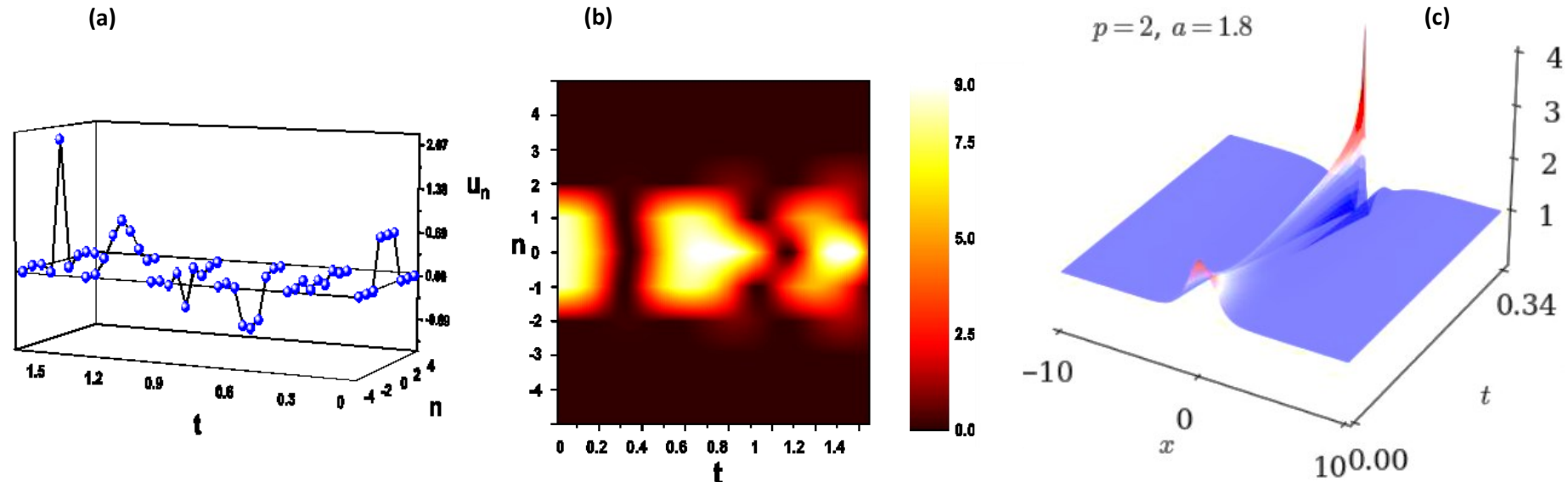
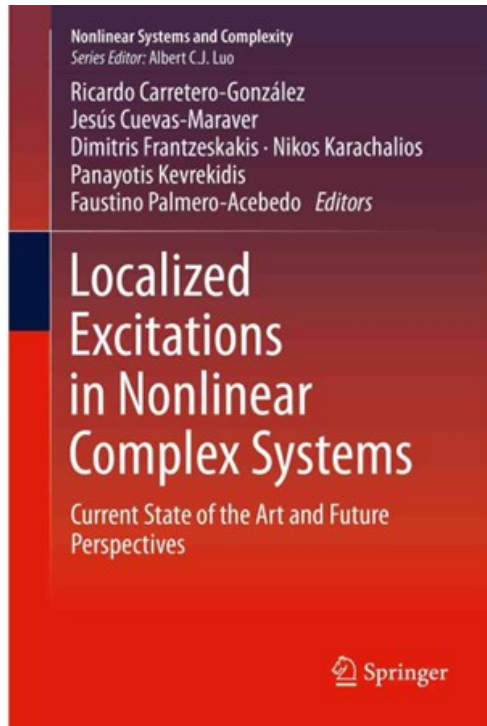


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Nikos I. Karachalios in [\[AMS-Mathematical Reviews, ZbMath, Scopus, Web of Science\]*](#) , [Google Scholar](#)
<https://orcid.org/0000-0002-5580-3957>

*(for subscribers)

Book (edited) R. Carretero-González, J. Cuevas, D. J. Frantzeskakis, N. I. Karachalios, P. G. Kevrekidis, F. Palmero. (eds.) *Localized Excitations in Nonlinear Complex Systems: Current State of the Art and Future Perspectives*. [Nonlinear Systems and Complexity](#) 7, Springer, 2014

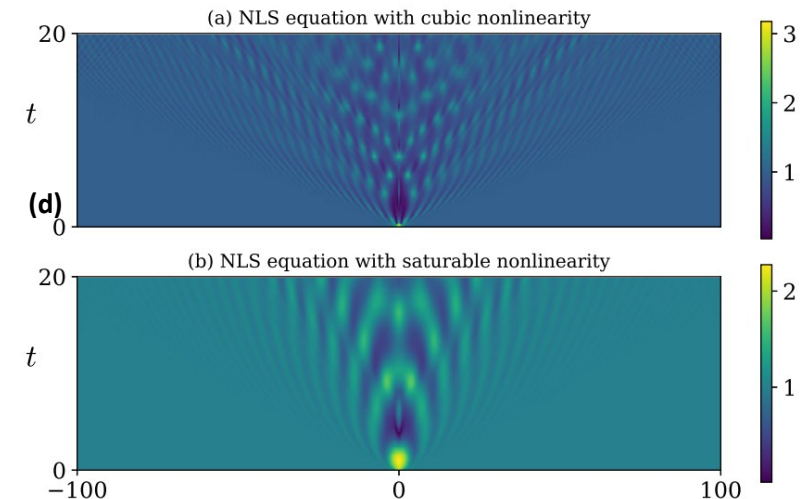


Figures: (a) Escape of a 3-unit lattice segment from a potential well of depth $U=1$. Initial positions at $U \ll 1$ (b) Progressive energy localization on the 3-unit segment. The figures (a), (b) are from [28]. (c) Instantaneous blow-up for the critical NLS with non-zero boundary conditions [60]. (d) Modulation instability dynamics for the integrable and the nonintegrable NLS with saturable nonlinearity for large initial data [60].

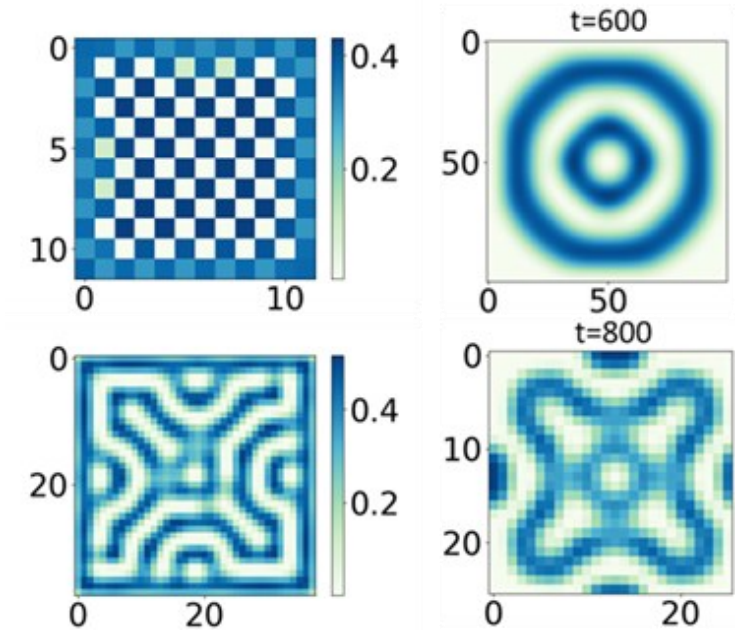
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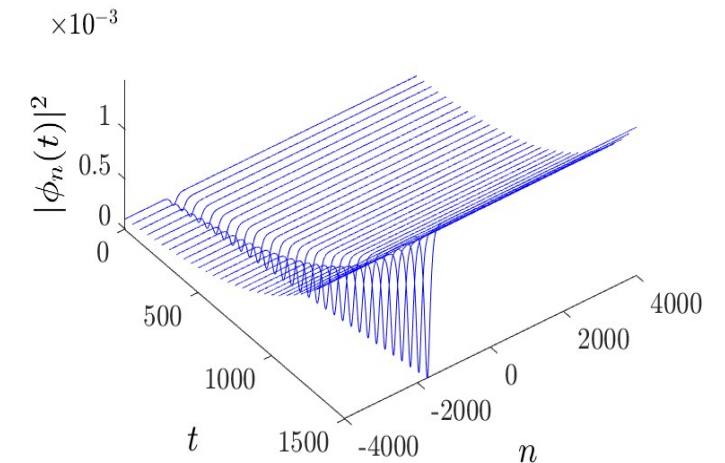
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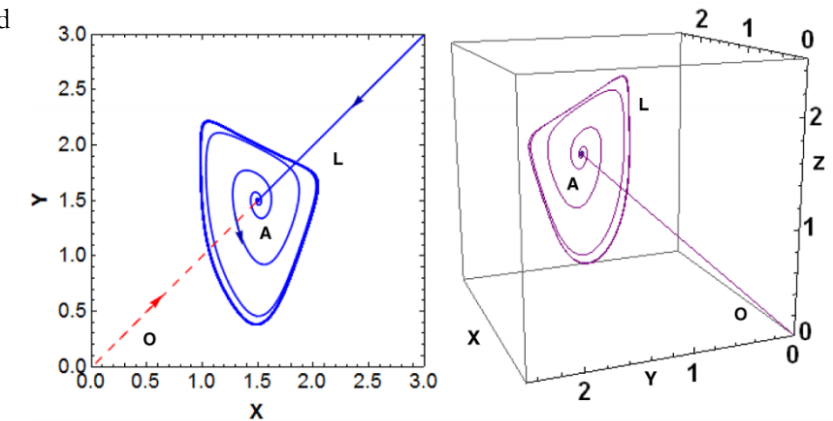
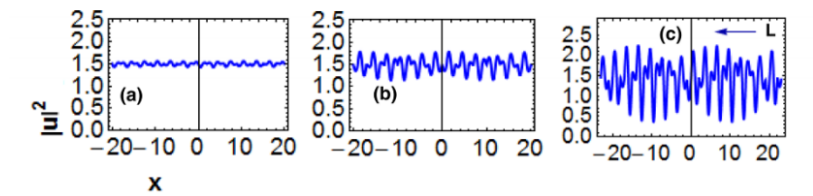
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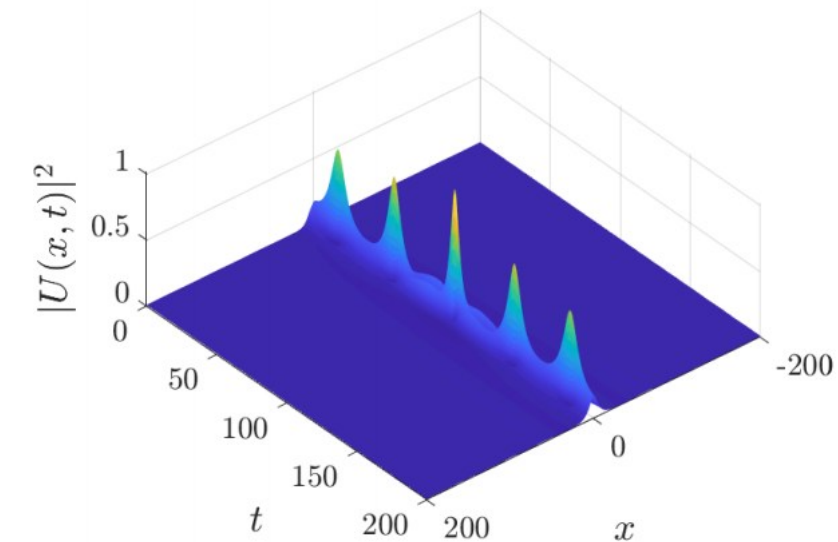
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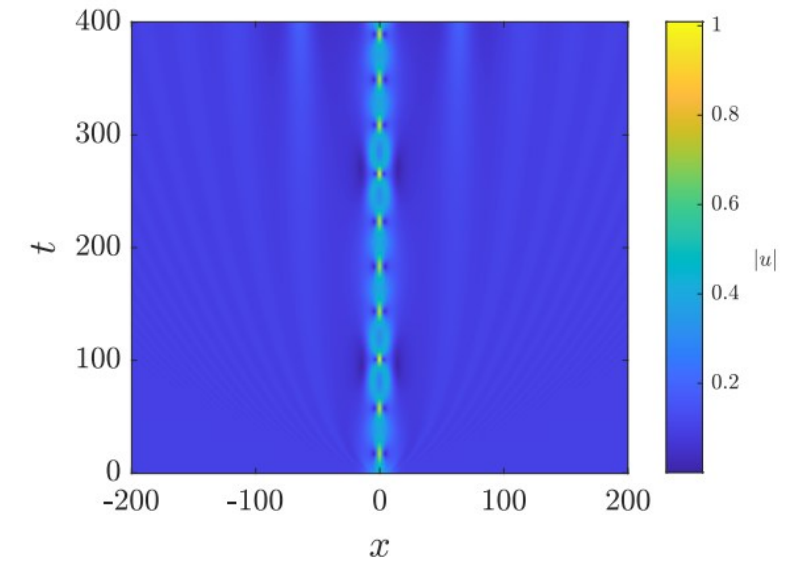
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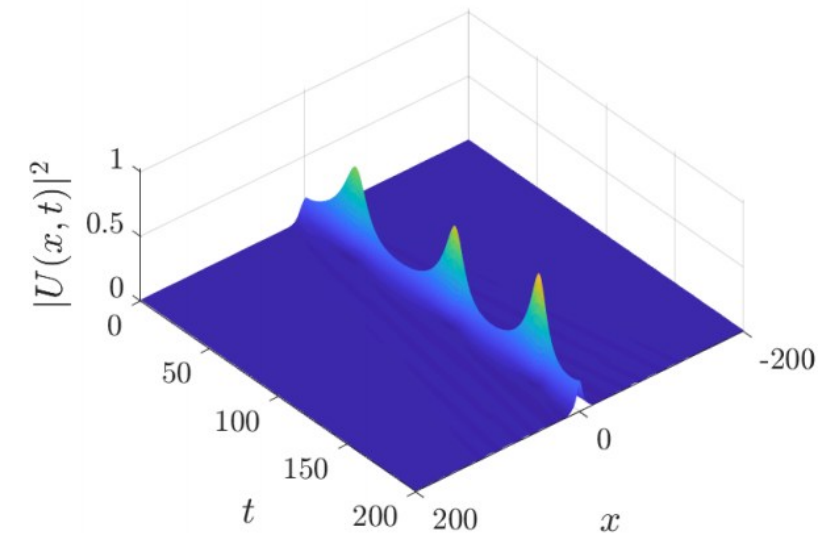
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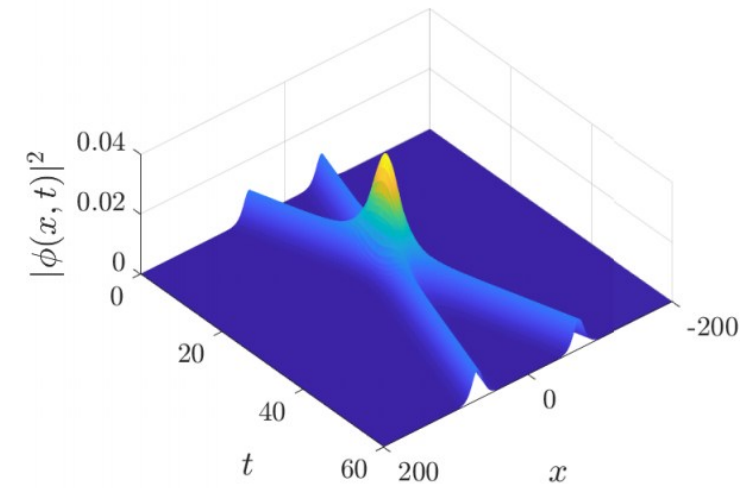
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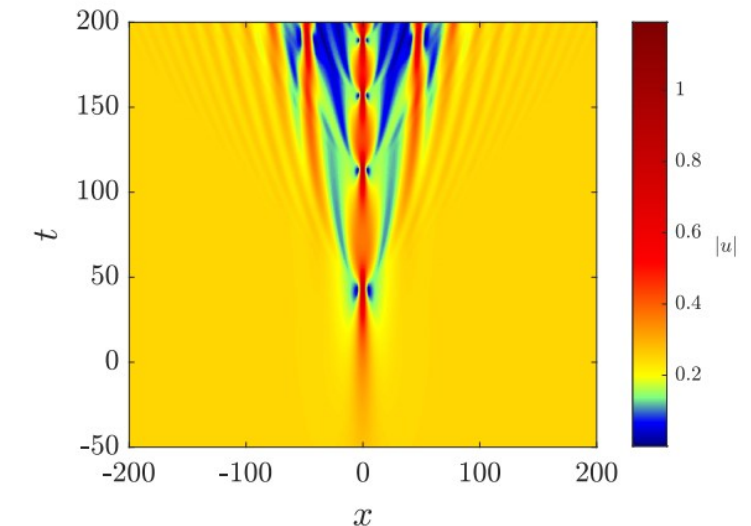
Breathers of non-integrable NLS with nonzero boundary conditions, [60].



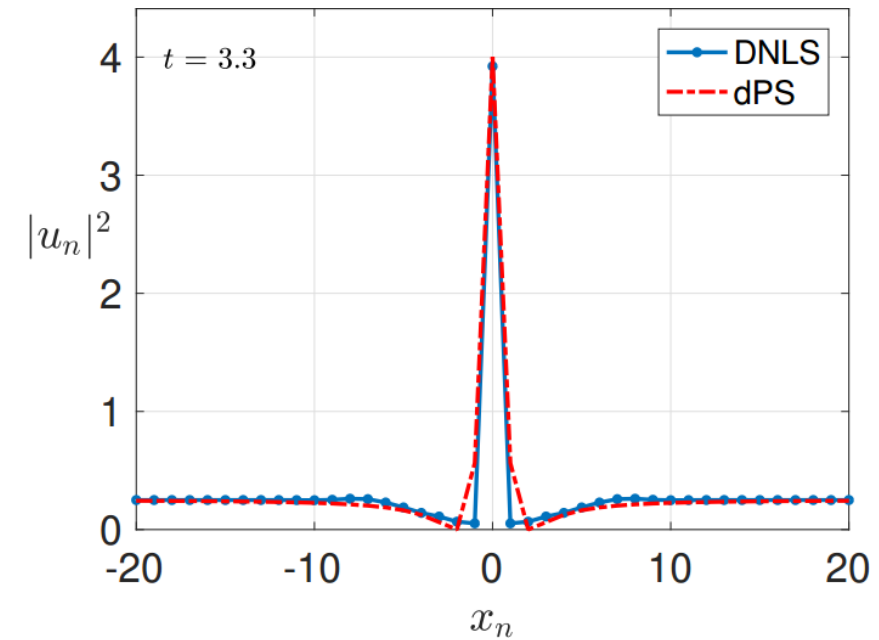
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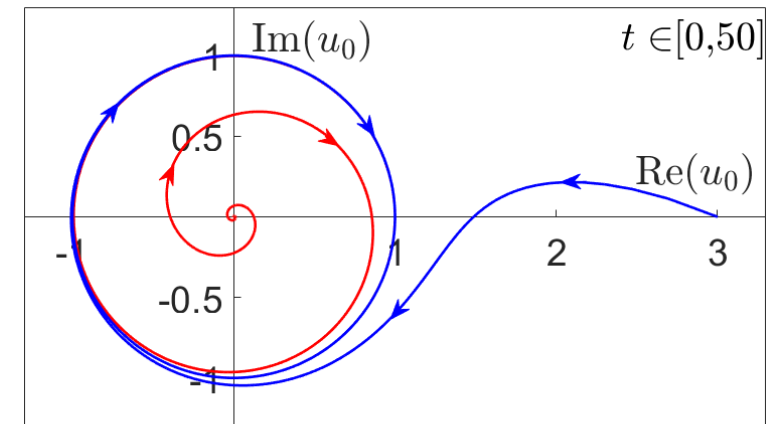
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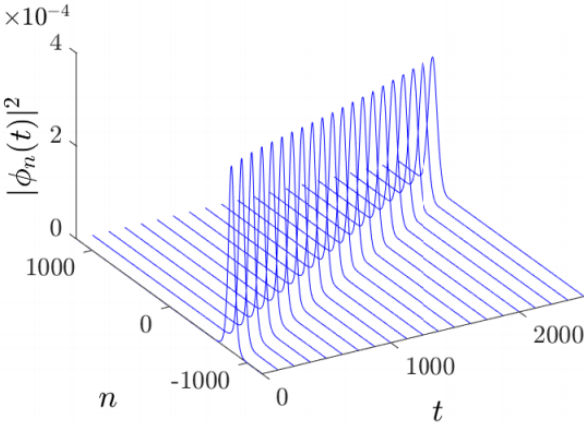
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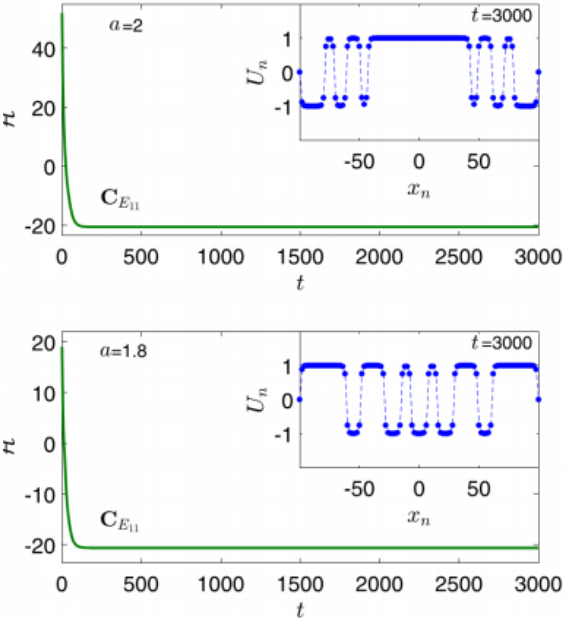
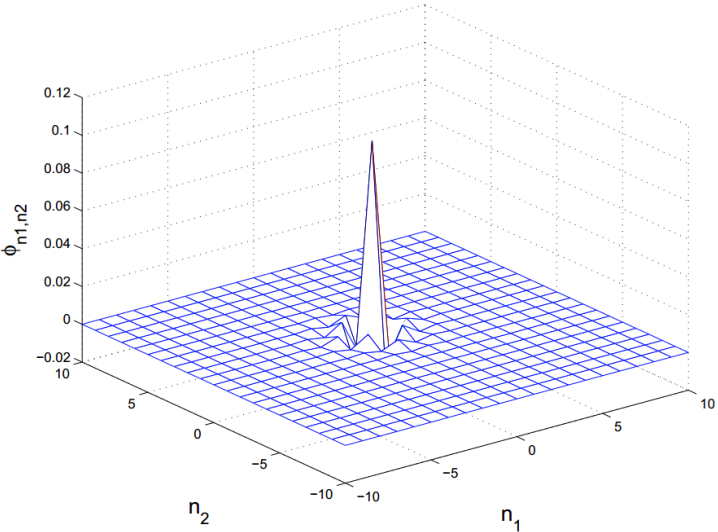
(If you like posters, see [one](#) on Discrete Solitons, created and presented by Jesús Cuevas in "SOLIQANTUM 2006" meeting, Cuenca, Spain, 27-30 September 2006.)

Persistence of bright solitons the DNLS [51].



Sign-changing nonlinearity. $\sigma=0.1$. $N=2$. $\varepsilon=0.15$. $\Omega=1.32$

Localized solution of the 2-dimensional DNLS equation with sign-changing nonlinearity close to its excitation threshold [25].



Convergence to steady states for the dissipative discrete Klein-Gordon equation [36].