

Peer Review

Review of: "Multidimensional Soliton Systems: an Update"

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1. Independent researcher

The author provides a brief update on recent developments in multidimensional solitons in nonlinear optics and Bose-Einstein condensates, summarizing notable experimental findings such as the creation of multiple quantum droplets in prolate BECs and the observation of expanding toroidal light structures, as well as theoretical advances including the analysis of 2D solitons with quadratic nonlinearity and fractional diffraction, and the prediction of stable 3D vortex solitons in BECs with long-range interactions, offering a compact overview of current research directions in the field.

1. Avoid employing abbreviations in the abstract.
2. The abstract is poorly written and does not clearly highlight the novelty of the study or adequately summarize the key results obtained. The authors are advised to revise the abstract to explicitly emphasize the main contributions and findings of the paper.
3. In Eq. (2) and other formulas, some symbols like $\mathbf{t}$ and $\mathbf{g}$ are bolded, which in mathematical typesetting usually implies vectors. Since t and g are scalars, they should be written in normal (non-bold) font.
4. The abstract section should be revised to highlight the advantages of the utilized method and the solutions obtained.
5. The author should revise the introduction to meet professional standards and include a short summary of the work done for each reference.
6. Authors are advised to include mention of the software used for calculations and graph plotting in the abstract for transparency and reproducibility.

Declarations

Potential competing interests: No potential competing interests to declare.