

Optical solitons of the (2+1)-dimensional Kundu-Mukherjee-Naskar equation with Lokal M-derivative

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Abstract

This paper aims to uncover fairly interesting optical soliton solutions in (2+1)-dimensions. The fractional temporal Kundu-Mukherjee-Naskar (KMN) equation is reviewed as a governing model. Local M-derivative along with the unified approach is used to acquire these soliton solutions. The predicted solutions are yielded with the constraint conditions and highlighted by their graphical portrayal. Lastly, the influence of a local fractional parameter upon predicted solutions are depicted through 2D and 3D graphs.

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