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Soliton Solutions of Discrete Complex Ginzburg-Landau Equation via Extended Hyperbolic Function Approach

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Abstract: In this paper, we extend the hyperbolic function approach for constructing the exact solutions of nonlinear differential-difference equation (NDDE) in a unified way. Applying the extended approach and with the aid of Maple, we have studied the discrete complex Ginzburg-Landau equation (dCGLE). As a result, we find a set of exact solutions which include bright and dark soliton solutions.

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