

Bright vector solitons in cross-defocusing nonlinear media

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We study two-dimensional soliton-soliton vector pairs in media with self-focusing nonlinearities and defocusing cross-interactions. The general properties of the stationary states and their stability are investigated. The different scenarios of instability are observed using numerical simulations. The quasi-stable propagation regime of the high-power vector solitons is revealed.

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