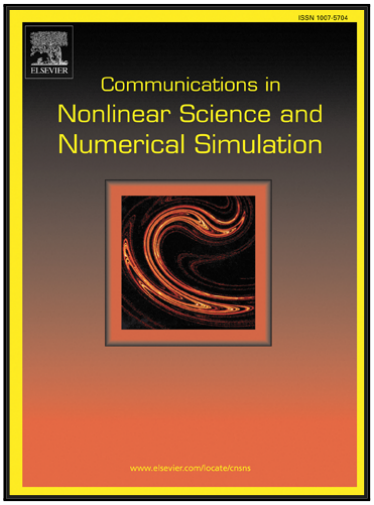

Spatiotemporal optical similaritons in dual-core waveguide with an external source

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Highlights

- We analytically and numerically discover asymptotic self-similar light bullets in asymmetric dual-core waveguide (DWG) with an external source
- We demonstrate the control mechanism for the passive wave by controlling the propagation of active wave in this DWG due to linear coupling between the two waveguides
- We explicate the mechanism to control the dynamical behaviors of the self-similar waves for two specific cases.