

Solusi satu dimensi dari sistem persamaan sdnl dengan saturable nonlinearity pada discrete optical cavities = One dimensional solution of dnls equation system with saturable nonlinearity in discrete optical cavities

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Abstrak

Sistem persamaan SDNL dengan saturable nonlinearity pada discrete optical cavities merupakan sistem persamaan nonlinear yang mempunyai solusi soliton. Pada skripsi ini, sistem tersebut diselesaikan dengan metode numerik, yaitu metode pseudoarclength continuation. Penelitian Yulin dan Champneys (2010) telah menyelesaikan secara numerik sistem persamaan SDNL dengan saturable nonlinearity pada discrete optical cavities satu dimensi. Pada skripsi ini, dilihat pengaruh perubahan jarak antar osilator terhadap amplitudo dan stabilitas soliton dari sistem persamaan SDNL dengan saturable nonlinearity pada discrete optical cavities.

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DNLS equation system with saturable nonlinearity in discrete optical cavities is a system of nonlinear equation that has soliton solution. In research, this system solved by numerical method, the method pseudoarclength continuation. Research by Yulin and Champneys (2010) has completed the DNLS equation system with saturable nonlinearity in discrete optical cavities numerically. In this research, we will study the effect of changes in the distance between the oscillator against amplitude and stability of soliton of DNLS equation system with saturable nonlinearity in discrete optical cavities.