

## Numerical algorithms for solving the nonlinear Schrödinger equation

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In this paper, machine learning algorithms are used to solve the nonlinear Schrödinger equation in a dispersed medium [1]. Adaptive activation function is used to optimize the model of physics-informed neural networks. The PINN method gives fairly accurate solutions with a small amount of data. The PINN method can be used for a fiber laser with a semiconductor optical amplifier, in which nonlinear effects allow spectral rearrangement of the generated pulses[2, 3] .

### REFERENCES

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