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1-Soliton solution of the Klein–Gordon–Zakharov equation with power law nonlinearity

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ABSTRACT

This paper obtains the 1-soliton solution of the Klein–Gordon–Zakharov equation with power law nonlinearity. The solutions are obtained both in (1+1) and (1+2) dimensions. The solitary wave Ansatz method is applied to obtain the solution. The numerical simulations are included that supports the analysis.