

Soliton Solutions in (3+1)-Dimensions

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Abstract : Solitons are among the most beneficial solutions for science and technology for their applicability in physical applications including plasma, energy transport along protein molecules, wave transport along poly-acetylene molecules, ocean waves, constructing optical communication systems, transmission of information through optical fibers and Josephson junctions. In this talk, we will apply the bilinear technique to generate a class of soliton solutions to the (3+1)-dimensional nonlinear soliton equation of Jimbo-Miwa type. Examples of the resulting soliton solutions are computed and a few solutions are plotted.

Keywords : Pfaffian solutions, N-soliton solutions, soliton equations, Jimbo-Miwa

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