

THE EXACT SOLUTIONS FOR TWO CHANNELS DISSIPATION MODEL

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Abstract

The exact solutions of the linear two channels dissipation model in different way are presented. Firstly we analyze the steady state, traveling wave and particular solutions of this model. Then by using elimination method and canonical transformation the model becomes telegraph or Klein Gordon equation in the second order partial differential equation. In the Klein Gordon equation we get particular solution, so we also obtain particular solution of linear two channel dissipation model. In the form telegraph equation we solve by Fourier transform and obtain the solution of linear two channels dissipation model in the Fourier representation formula. Finally we find the exact solution by characteristic method in the integral form of the linear two channel dissipation model.
