The Solution of One Dimensional Fractional Hyperbolic Partial Differential Equations Using Sumudu Transform

Fadime Dal $^{\rm 1}$

 $^{1}\ Department\ of\ Mathematics,\ Ege\ University,\ Izmir,\ Turkey\\ fadimedal@hotmail.com$

Abstract: In this study, we propose a new algorithm to find exact solution of one dimensional hyperbolic partial differential equations. The Sumudu transform method can be used to get exact solutions of one dimensional fractional hyperbolic partial differential equations. The comparison of variational iteration method and these method is presented.

Key Words: Fractional hyperbolic equation; initial boundary value problems; sumudu transform method, iteration method