

1110-35-126

Geng Chen* (gchen73@math.gatech.edu), 686 Cherry Street, School of Mathematics, Georgia Institute of Technology, Atlanta, GA 30332. *Well-posedness of nonlinear variational wave equations.*

In this talk, we will discuss the existence, uniqueness, Lipschitz continuous dependence on the initial data under some Finsler type optimal transport metric and the generic structure of solutions for nonlinear variational wave equation

$$u_{tt} - c(u)(c(u)u_x)_x = 0$$

in one space dimension. This talk includes a series of research works with Alberto Bressan and Qingtian Zhang. (Received February 16, 2015)