1099-35-171 **Nathan Glatt-Holtz** and **Roger Temam** (wang211@umail.iu.edu), Blooimgton, IN 47408, and **Chuntian Wang*** (wang211@umail.iu.edu), Rawles Hall, 831 East 3rd St, Blooimgton, IN 47405. *Martingale and Pathwise Solutions to the Stochastic Zakharov-Kuznetsov Equation with Multiplicative Noise.*

We study in this article the stochastic Zakharov-Kuznetsov equation driven by amultiplicative noise. We establish, in space dimensions two and three the global existence of martingale solutions, and in space dimension two the global pathwise uniqueness and the existence of pathwise solutions. New methods are employed to deal with a special type of boundary conditions an to verify the pathwiseuniqueness of martingale solutions with a lack of regularity, where both difficulties arise due to the partly hyperbolic feature of the model. (Received February 06, 2014)