1089-35-253 **Kenichi Maruno*** (kmaruno@utpa.edu). *A geometric approach of discretizations of some partial differential equations.*

In a series of our papers, we have investigated integrable discretizations of nonlinear evolution equations in which loop-type and cusp-type soliton solutions exist. In these studies, discrete hodograph transformations, tau-functions and bilinear equations have played important roles. Recently, we found that a geometric formulation of integrable PDEs plays an important role in discretizations. In this talk, we show a geometric approach of discretizations of some partial differential equations. This is a part of joint work with Bao-Feng Feng, Junichi Inoguchi, Kenji Kajiwara and Yasuhiro Ohta. (Received February 17, 2013)