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Zhijun (George) Qiao* (qiao@utpa.edu), 1201 W Univ Dr, Edinburg, TX 78539-2999. *Negative KdV equation with solitons and kink wave solutions.* Preliminary report.

In this talk, we report an interesting integrable equation that has both solitons and kink solutions. The integrable equation we study is derived from the negative KdV hierarchy and could be transformed to the Camassa-Holm equation through a gauge transform. The Lax pair of the equation is derived to guarantee its integrability, and furthermore the equation is shown to have classical solitons, periodic soliton and kink solutions (Received December 13, 2011)