1145-35-1085 **Curtis A Holliman***, 620 Michigan Ave NE, Washington, DC 20064, and **Alex A Himonas**.
Ill-Posedness for a Camassa-Holm-type equations with cubic nonlinearities.

We consider nonlocal integrable PDEs with cubic nonlinearities that are related to the Camassa-Holm equation. We use the fact that these equations have multipeakon solutions to construct specific solutions that generate peakon collisions. We examine the collisions in Sobolev spaces with exponent less than 3/2 to show that at the collision time, the properties of the solution and the time reversibility of the equations lead to ill-posedness. This talk is based on work with Professor Alex Himonas (University of Notre Dame) and Professor Carlos Kenig (University Chicago). (Received September 18, 2018)