1125-35-1631 **Curtis A Holliman*** (holliman@cua.edu), Curtis Holliman, Department of Mathematics, Aquinas Hall 116, Washington, DC 20064, and **Alex Himonas** and **Carlos Kenig**.

Norm-Inflation and nonuniqueness results for Novikov's equation. Preliminary report.

Novikov's equation is an integrable equation that can be thought of as a cubic analogue to the well-known Camassa-Holm equation. We prove that when one takes initial data in Sobolev spaces with exponents less than 3/2 the data-to-solution map becomes discontinuous in the sense of norm-inflation. Additionally, if the Sobolev exponent is less than 5/4, it is possible to construct non unique solutions. This is a joint work with Alex Himonas and Carlos Kenig. (Received September 18, 2016)