



Speaker: Curtis Holliman
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Tuesday, March 7, 2017
11:00 AM
258 Hurley Hall

Title: Ill-posedness for the Novikov equation

Abstract:

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.