

## **abstract**

MEMBERS SEMINAR

Topic:

Speaker:

Affiliation:

Date:

Time/Room:

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We present a 3-D vector dyadic model given in terms of an infinite system of nonlinearly coupled ODE. This toy model is inspired by approximations to the fluid equations studied by Dinaburg and Sinai.

The model has structural similarities with the Euler equations and it mimics certain important properties of the fluid equations, namely conservation of energy and divergence free velocity. We prove that for certain families of initial data blow-up occurs in the model system in the sense that the  $H^s$ ,  $s > 3/2$ , norm becomes unbounded in finite time.

This is joint work with Natasa Pavlovic.