

PHYSICAL MATHEMATICS SEMINAR

Kinematics of fluid particles on the sea surface

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ABSTRACT:

The John-Sclavounos (JS) equations are a set of ODEs describing the motion of fluid particles on the sea surface. I will show that the JS equations admit a Hamiltonian structure and will discuss some of the immediate consequences of this realization. Most importantly, our Hamiltonian formulation reveals the broader scope of the JS equations, namely that they describe the motion of a frictionless particle under gravity and constrained to the surface of a vibrating membrane.

This is joint work with Francesco Fedele (Georgia Tech) and Cristel Chandre (CNRS, France).

TUESDAY, APRIL 26, 2016

2:30 PM

Building 2, Room 136

*Reception following in Building 2, Room 290
(Math Dept. Common Room)*

<http://math.mit.edu/pms/>