Mathematical Sciences Colloquium

A biased introduction to contact topology

Many physical systems admit mathematical models from contact geometry, and symmetries of the corresponding geometric structure provide the modeler with insights that can be obtained in no other way. In this talk I will introduce contact geometry through a selection of examples arising from fluid mechanics, Hamiltonian dynamics, and Riemannian geometry. Finally because contact geometry is defined using the language of differential forms, it may seem appropriate for only those problems that admit smooth formulations; however if time permits I will also explain the extension of smooth contact dynamics to topological dynamics.

Speaker: Peter Spaeth

(GE Global Research)

Monday, April 4, 2016

Time: 4:00 – 5:00 PM

Location: AE214

Host: Yuri Lvov

Rensselaer