PHYSICAL MATHEMATICS SEMINAR

Using Optimization to Reveal Scaling Laws in Turbulent Flows

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ABSTRACT:

In many fluid flow situations there is an *a priori* unknown global quantity, such as heat flux in convection or mass flux in pressure-driven flow, which is of overriding physical interest. Understanding how this quantity scales with the non-dimensional parameters describing the flow situation as one or more of these parameters become large (so that the flow is turbulent) is then a fundamental problem. In this talk, I will briefly review one particular approach to tackling this issue based upon optimization and then discuss how a variety of new developments augur well for future progress.

TUESDAY, SEPTEMBER 13, 2016
2:30 PM
Building 4, Room 257

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

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