

1151-35-288

Tural Sadigov* (sadigot@sunypoly.edu). *Construction of determining forms for dissipative/semi-dissipative differential equations.*

In this talk, we will give the overview of the construction of determining forms, ordinary differential equations that have the steady-state solutions which correspond to the trajectories in the global attractors of underlying dissipative/semi-dissipative differential equations in a one-to-one fashion. These determining forms are true ODEs in the sense that their vector fields are Lipschitz. Different challenges of the construction will be discussed for Navier-Stokes equations, damped, driven, Nonlinear Schrodinger Equation, damped and driven Korteweg de-Vries equation, and the Subcritical Surface quasi-geostrophic Equation. (Received August 20, 2019)