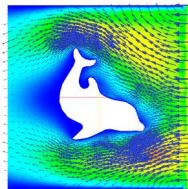


Spring 2015

MAT 460 - Numerical Differential Equations (hybrid)



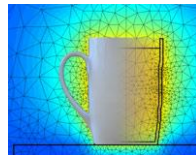
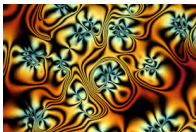
- Planetary motion
- Simulation of a Motorbike
- Liquid crystals
- Oscillation of a Bridge/Tower
- Cooling of a Cafe Latte
- Smog over Los Angeles
- Simulation of Chemical Reactions



- Modeling and Numerical Solution of Ordinary and Partial Differential Eqns



- Standard and newly developed methods
- Linear equation solver, Runge-Kutta methods, Finite Difference Methods, Finite Element Methods
- Convergence, Error Estimation, Accuracy
- with Matlab, C, Python, Gmesh, Fenics



Pre-Req: MAT 253, MAT 260, familiarity with a programming language
Questions? Please ask Andrea Dziubek, DON 2269, dziubea@sunyit.edu