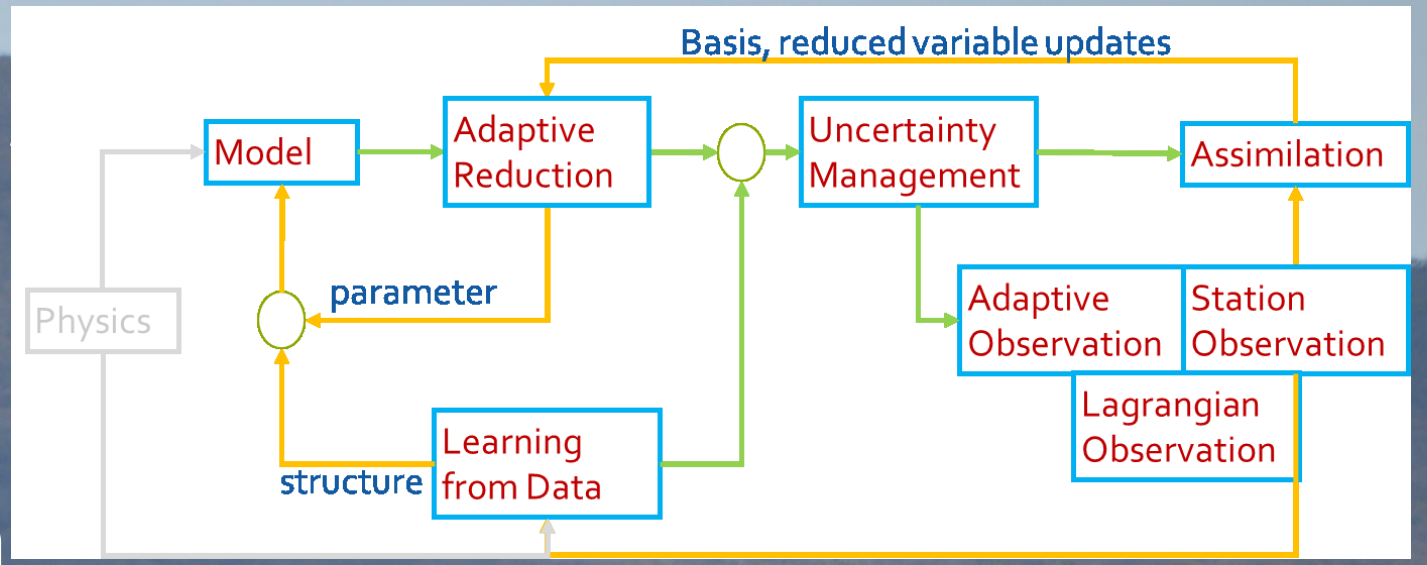
Autonomy, Learning, Interaction & Vision for the Earth System (ALIVE)



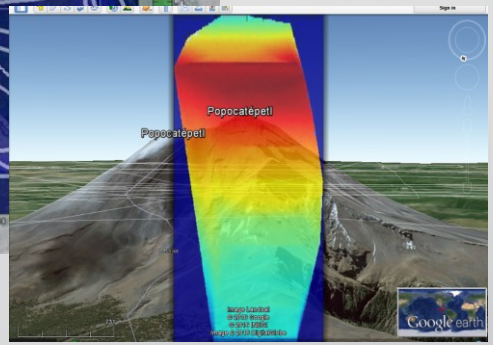
Dynamic Data Driven Intelligent Systems Framework for Geophysical Data and Model Problems

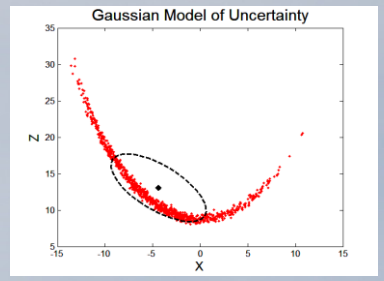
Sai Ravela
Earth Signals and Systems Group
Earth, Atmospheric and Planetary Sciences
Massachusetts Institute of Technology

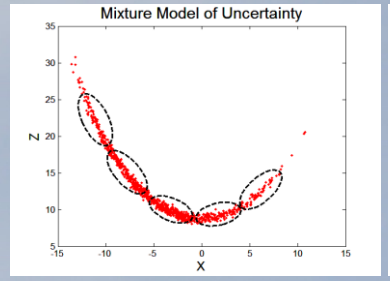
2014 DyDESS Conference @ MIT
Dynamic Data-driven Environmental Systems Science

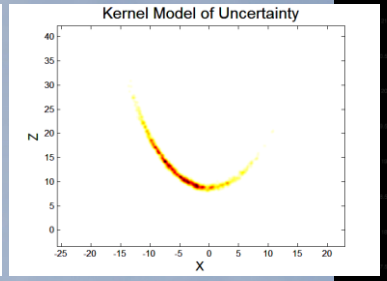
AGU

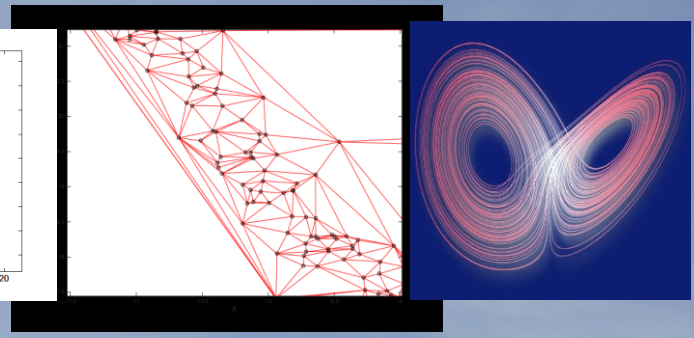
Cooperative Autonomous Observation of Hazardous, Rare Events





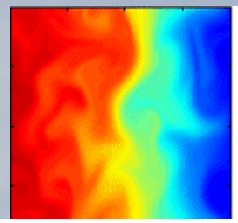


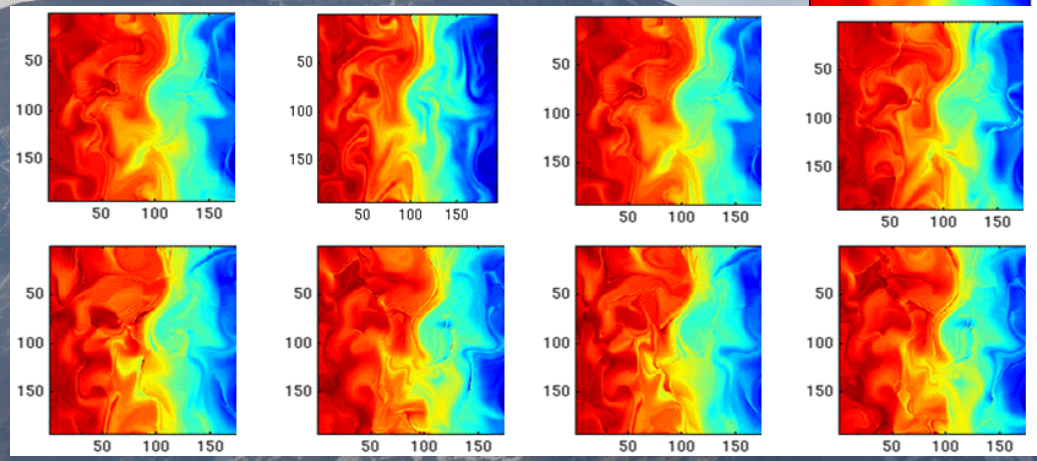




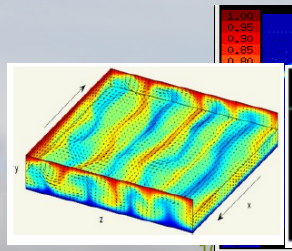
Learning in Nonlinearity, Dimensionality and Uncertainty in Geophysical Inference

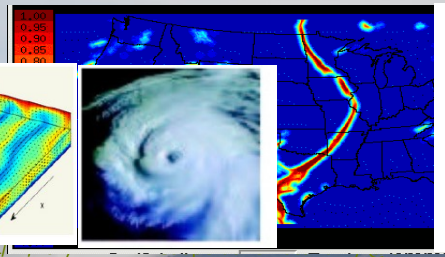
Learning Missing Physics, Structural Uncertainties and Parameterization

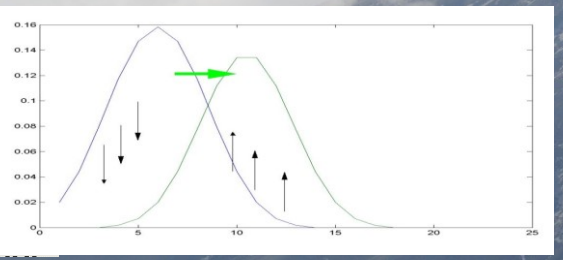


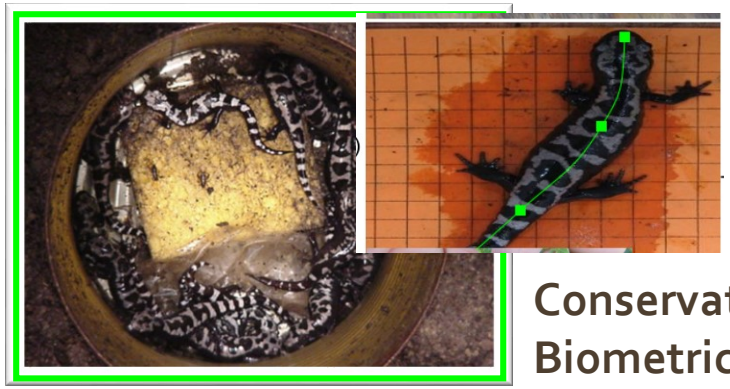


Pattern Theory in Models of Turbulence



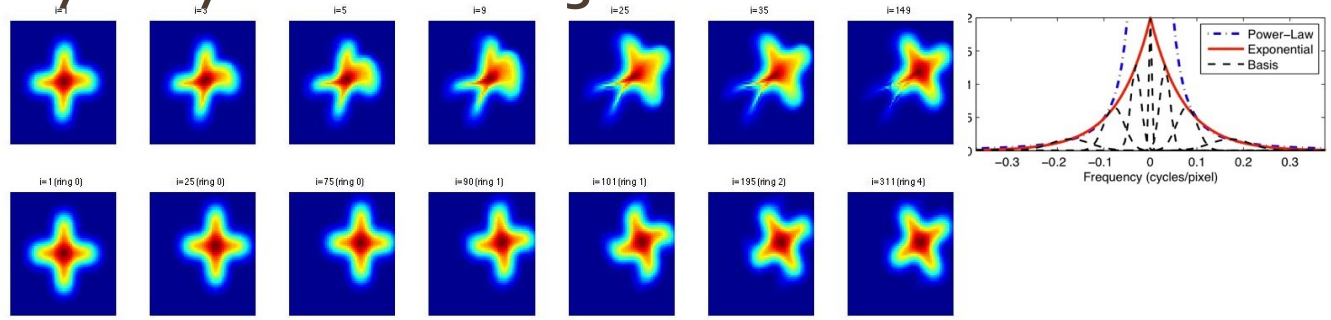


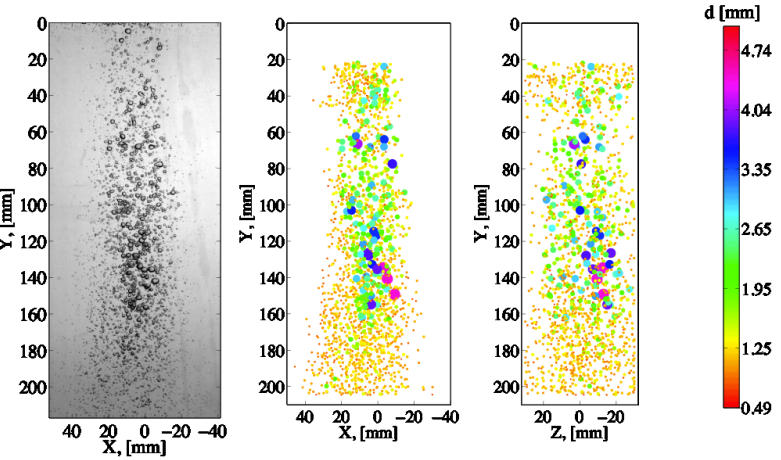




Conservation
Biometrics

Physically-based Learning





Fluid Imaging
with a little
Object Recognition

Courses

Quantifying Uncertainty

Machine Learning Foundations for Natural Systems

Climate Risk, Natural Hazards, Extreme Events and Decisions with Uncertain Properties