Climate and Mathematicians

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National Science Foundation January 2010, MSRI
Climate Processes

Climate system components:
Big Iron to run the models

1 day of the super’s time 
≈ 5 years simulation

Terabytes of model output "data"

100s of contributors
National Center for Atmospheric Research

50 years old, ~ 1000 staff, several hundred Ph D scientists, funded mainly by NSF.

Research:
Covers all aspects that are related to the atmosphere: Climate, weather, chemistry, ocean, land processes and the Sun.

Facilities:
supercomputing center, research aircraft, community weather and climate models.

Community links:
Mathematics and statistics, Computational science, Societal impacts.
Institute for Mathematics Applied to Geosciences (IMAGe)

An eclectic applied math group focused on geosciences: Turbulence, statistics, numerics, data assimilation, risk. (∼25 staff).

Theme-of-the-year:
A yearly focus on some interface between math and geosciences. ∼120K/year, external codirector(s)

Data Assimilation (05), Multiscale processes (06), Computer Models (07), Turbulence (08), Numerical methods (09), Mathematicians and climate (10) Risk and uncertainty of climate change (11)