

IMAGE Seminar

Institute for Mathematics Applied to Geosciences at NCAR

Small-scale and short-term variability in the ocean: Use of its statistics for error modeling

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Abstract:

Variability in nature exists on all spatial and temporal scales, including those smaller than the resolution of model and observational data sets. Imperfect parametrization of this small-scale and short-term variability in models and its incomplete sampling by observational systems creates model and observational error on the resolved scales of variability. Advent of satellite data sets made it possible to compute directly statistics of variability on scales smaller and shorter than what is traditionally resolved in the global climate data sets of observations or model fields. Such analyses provide additional insights into the nature and balance of error in these data sets. Changes in subgrid variability with the grid size naturally invoke a power-spectral description of the physical field. Applications to the error analysis of sea surface temperature and sea surface height data sets will be shown.

**Mesa Lab, Damon Room
Tuesday, February 13, 2007
2:00pm
(Refreshments served after the talk)**