Abstract Submitted
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Nonlinear/Non-Gaussian Data Assimilation[1] JUAN RESTREPO, Department of Mathematics, Oregon State University — Data and models, with their inherent uncertainties and errors, are blended within a Bayesian framework with the aim of improving estimates of dynamic processes. This process, called *data assimilation*, is said to be responsible for significantly better weather/climate forecasts. Nonlinear/non-Gaussian processes, however, pose special conceptual and computational challenges. In the context of generic transport problems of importance in climate and weather a strategy which I have been investigated involves adding physically based constraints, leading to smaller but higher quality ensembles with which to produce estimates. I will describe some of the tradeoffs and their implications on filtering and forecasting.

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