1085-86-285 **Eric J. Kostelich*** (kostelich@asu.edu), School of Mathematical & Statistical Sciences, Arizona State University, Box 871804, Tempe, AZ 85287. *Data assimilation methods for atmospheric models.* Preliminary report.

Data assimilation refers to the process by which initial conditions for geophysical models are determined from noisy observations, typically with maximum likelihood methods. One computationally efficient procedure is the Local Ensemble Transform Kalman Filter (LETKF), developed by the author and co-workers. This talk will describe some alternative formulations of the LETKF to address systematic bias in observations and to include an internal digital filter as a weak constraint. Preliminary results using a modern global atmospheric model will be described. (Received September 11, 2012)