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Cecilia F Mondaini* (cmondaini@math.tamu.edu), Dept. of Mathematics, Mailstop 3368, Texas A&M University, College Station, TX 77843, and **Animikh Biswas, Ciprian Foias** and **Edriss S. Titi**. *An ensemble data assimilation algorithm via feedback-control.*

We consider a feedback-control (nudging) approach for ensemble data assimilation that works for a general class of dissipative dynamical systems and observables. More specifically, given a probability distribution associated to uncertainties of spatially coarse measurements, we construct a time-dependent family of probability distributions which converge asymptotically in time, in a suitable sense, to the statistics of the true physical system. This results holds under a suitable assumption on the relaxation parameter, depending, in particular, on the spatial resolution of the measurements and the forcing term. This is a joint work with A. Biswas, C. Foias and E. S. Titi. (Received September 26, 2017)