

**SSEC/CIMSS
Seminar**

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**A physical retrieval scheme for
trace gas retrievals from high
spectral resolution IR sounding
measurement**

We present a method for retrieving trace gas concentrations (e.g. Methane) from hyperspectral IR sounding measurements (e.g. AIRS) using the Bayesian physical retrieval scheme. Instead of retrieving profiles, which is the traditional approach, we adapted the scheme to retrieve fractional change (dF) of gas concentrations. The retrieved value, dF , is then used to reconstruct total column gas concentrations using the Atmospheric Chemistry Experiment (ACE) data as a priori, in this example. We compare the retrieval error obtained from both observed and simulated measurements and make recommendations for future studies.

Wednesday, 27 June 2007

10:30 a.m.

Room AOSS 811