

Seminar in Nonlinear Systems

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The Physical, Mathematical, and Numerical Aspects of Remote Sensing of the Environment from Space

Thursday, March 21, 2002

3:30 pm

Kidde 228

Abstract: A number of remote sensing instruments have recently been launched on earth-orbiting satellites or will soon be launched into space. Many of these offer unique opportunities for studies of the environment. There are also a number of challenges associated with the inversion of the data received from satellite instruments in order to retrieve meaningful information. Some of these challenges will be discussed from a physical, mathematical and numerical point of view with emphasis on the derivation of atmospheric properties (aerosol loading and cloud parameters), land surface properties, as well as oceanic parameters from radiance measurements collected in space.