

## Biographical Sketch

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### Professional Preparation:

1990 M.S. in Atmospheric Science, University of Colorado at Boulder  
1986 B.A. in Physics (minor in geophysics), Princeton University

### Appointments:

2005 - 2006 Associate Scientist III, Data Assimilation Research Section NCAR/CISL/IMAGe  
1996 - 2004 Associate Scientist III, Global Dynamics Section, NCAR/CGD  
1991 - 1995 Associate Scientist II, Global Dynamics Section, NCAR/CGD

### Publications:

- Errico, R. M., K. Raeder, and \*L. Fillion, 2003: Estimation of the sensitivity of forecast precipitation rates to possible perturbations of initial conditions. *Tellus*, 55A, 88-105.
- Errico, R. M., \*D. J. Stensrud, and K. Raeder, 2001: Estimation of the error statistics of precipitation produced by convective parameterization schemes for application to the variational assimilation of precipitation observations. *Quart. J. Roy. Meteor. Soc.*, 127A, 2495-2512.
- Errico, R. M., M. Ehrendorfer, and K. D. Raeder, 2001: The spectra of singular values in a regional model. *Tellus*, 53A, 317-332.
- Lewis, J., K. D. Raeder, and R. Errico, 2000: Vapor flux associated with return flow over the Gulf of Mexico: A sensitivity study using adjoint modeling. *Tellus*, 53A, 74-93.
- Ehrendorfer, M., R. M. Errico, and K. D. Raeder, 1999: Singular vector perturbation growth in a primitive equation model with moist physics. *J. Atmos. Sci.*, 56, 1627-1648.
- Errico, R. M., and K. D. Raeder, 1999: An examination of the accuracy of the linearization of a mesoscale model with moist physics. *Quart. J. Roy. Meteor. Soc.*, 125, 169-195.
- VUKICEVIC, T., and K. RAEDER, 1995: Use of an adjoint model for finding triggers for Alpine lee cyclogenesis. *Monthly Weather Review*, 123, 800-816.
- ERRICO, R.M., K. RAEDER, and T. VUKICEVIC, 1994: Description of the NCAR Mesoscale Adjoint Modeling System (MAMS): Version 1. Technical Note NCAR/TN-410+IA, NCAR, Boulder, Colorado, 214 pp.
- ERRICO, R.M., T. VUKICEVIC, and K. RAEDER, 1994: Comparison of initial and lateral boundary condition sensitivity for a limited-area model. *Tellus* 45A, 539--557.
- ERRICO, R., T. VUKICEVIC, and K. RAEDER, 1994: Examination of the accuracy of a tangent linear model. *Tellus* 45A, 462--477.
- Raeder, K., and G.E. Thomas, (1990) Radiative Decay of a Localized Temperature Perturbation in an Idealized Atmosphere. *Atmosphera*, 4, pp 265-278
- Blumen, W., and K. Raeder (1990): Dissipation of linear mountain waves over a ridge. *Tellus*, 43A, pp226-234.

### Synergistic Activities:

Kevin Raeder is currently responsible for maintaining the software interface between the Data Assimilation Research Testbed (DART) and the NCAR Community Atmosphere Model (CAM), and for facilitating research by the university and government research communities and NCAR researchers using that suite of tools. Previous work involved the development and use of the Mesoscale Adjoint Modeling System (MAMS) for research into fundamental issues of adjoints of complex models used in variational data assimilation.