

BIOGRAPHICAL SKETCH
ROBERT N. MILLER
Date of birth: May 26, 1949

PROFESSIONAL PREPARATION

Brown University (Mathematics and Physics). 1971 A.B. California Institute of Technology (Applied Mathematics), 1972 M.S. University of California (Applied Mathematics), 1972-1976 Ph.D.

APPOINTMENTS

Professor, College of Oceanic & Atmospheric Sciences, 1996-present
Oregon State University, Corvallis
Maitre de Recherche, Laboratoire de Meteorologie Dynamique, Ecole Normale
Superieure, Paris, France, October, 2001 - March, 2002.
Associate Professor, College of Oceanic & Atmospheric Sciences, 1987-1996
Oregon State University, Corvallis
National Research Council Senior Research Fellow 1992
Associate Research Scientist, Lamont-Doherty Geological Observatory at Columbia
University, 1986-1987
Associate Professor of Mathematics, Tulane University, 1982-1986
Staff Scientist, Berkeley Scholars, Inc. (consulting), 1983-1986
Research Associate, Harvard University, 1979-1982
Staff Fellow, National Institute of Health, 1976-1979

PUBLICATIONS (five most relevant)

Miller, R. N., J. G. Richman and Y. H. Spitz (2009) Model representation error estimation for ocean data assimilation. *Mon. Wea. Rev.* in revision.
Miller, R. N. (2007) Topics in Data Assimilation : Stochastic Processes. *Physica D*, **230**, 17-26 doi:10.1016/j.physd.2006.07.015
Miller, R.N. and L. Ehret (2002) Ensemble Generation for Models of Multi-modal Systems. *Monthly Weather Review*, **130**, 2313-2333.
Perez, R. C., D. B.Chelton and R.N. Miller. (2005) The Effects of Wind Forcing and Background Mean Currents on Latitudinal Structure of Equatorial Rossby Waves. *J. Phys Oceanogr.*, **35**, 666-682.
Miller, R.N., E.F. Carter and S.T. Blue (1999) Data assimilation into nonlinear stochastic models. *Tellus*, **51A**, 167-194.

PUBLICATIONS (five other significant)

Richman, J. G., R. N. Miller and Y. H. Spitz. (2005) Error estimates for assimilation of satellite SST data in ocean climate models. *Geophys. Res. Lett.*, **32**, L18608, doi:10.1029/2005GL023591
Kurapov, A. L., G. D. Egbert, R. N. Miller and J. S. Allen (2002) Data assimilation in a

- baroclinic coastal ocean model: Ensemble statistics and comparison of methods. *Mon. Wea. Rev.* **130**, 1009-1025.
- Miller, R.N., A.J Busalacchi and E.C. Hackert (1997) Applications of data assimilation to analysis of the ocean on large scales. *J. Meteor. Soc. Japan* **75**, 445-462.
- Kurapov, A. L., J. S. Allen, G. D. Egbert, R. N. Miller, P. M. Kosro, M. Levine, T. Boyd, J. A. Barth, and J. Moum (2005), Assimilation of moored velocity data in a model of coastal wind-driven circulation off Oregon: Multivariate capabilities, *J. Geophys. Res.*, **110**, C10S08, doi:10.1029/2004JC002493.
- Vernieres, G. A. Anis, R. N. Miller and L. L. Ehret (2006) Generalized Inversion of Thermistor-Chain data and a Layer Model of Lake Kinneret. *Ocean Modelling*, **12**, 112-139, doi:10.1016/j.ocemod.2005.04.004.

SYNERGISTIC ACTIVITIES

NRC Board on Atmospheric Sciences and Climate review panel of Climate Change Science Program's Synthesis and Assessment Product (SAP) **1.3**, *Re-analyses of historical climate data and implications for attribution*. September 4-7, 2007

Advisory panel, CICS workshop on data assimilation, 2007

Associate Editor, *Monthly Weather Review*, March 2003–October, 2004.

Program Leadership Committee, Statistical and Applied Mathematical Sciences Institute (SAMSI) Data Assimilation program, October, 2003–October, 2005

RECENT COLLABORATORS: J. S. Allen (Oregon State University), J. Austin (Old Dominion University), J. Barth (Oregon State University), T. Boyd (Oregon State University), D. B. Chelton (Oregon State University), G. D. Egbert (Oregon State University), L.L. Ehret (Oregon State University), P.M. Kosro (Oregon State University), A. Kurapov (Oregon State University), M.D. Levine (Oregon State University), J. Richman (Oregon State University), Y. Spitz (Oregon State University).

Thesis advisor: Keith Miller

Post-doctoral advisor: Allan Robinson

Graduate students: Renellys Perez, Guillaume Vernieres

Postdocs: Richard Scott (University of Cambridge, England), Peter Oke (CSIRO, Hobart, Tasmania, Australia), Alexandre Kurapov (Oregon State University), Lionel Jarlan (CESBIO, Toulouse, France), B-J Choi (Kunsan National University, Korea)