

Curriculum Vitae (Mar-2007)

Tal Ezer

Dept. of Ocean, Earth & Atmospheric Sciences
Old Dominion University, Norfolk, VA 23529
(Phone: 757-683-5162, Email: tezer@odu.edu)

Education

- 1989 Ph.D. *Physical Oceanography* ("Summa Cum Laude")
Florida State University, Tallahassee, FL
- 1984 M.Sc. *Atmospheric Sciences* ("Cum Laude")
Hebrew University, Jerusalem, Israel
- 1981 B.Sc. *Physics* (major) and *Mathematics* (minor)
Hebrew University, Jerusalem, Israel

Professional Experience

- 2007-present *Associate Professor*, Old Dominion University, Department of Ocean, Earth & Atmospheric Sciences, Norfolk, VA
- 1996-2007 *Research Scholar*, Princeton University, Program in Atmospheric & Oceanic Sciences, Princeton, NJ
- 1989-1996 *Research Staff*, Princeton University, Program in Atmospheric & Oceanic Sciences, Princeton, NJ
- 1985-1989 *Research Assistant*, Florida State University, Department of Oceanography, Tallahassee, FL
- 1981-1985 *Research Scientist*, National Institute of Oceanography, Department of Physical Oceanography, Haifa, Israel
- 1974-1978 *Officer*, Israeli Air Force

Honors and Awards

- 2002 National Ocean Partnership Program (NOPP), Excellence in Partnering Award
- 2001 Distinguished Visiting Professor, Academia Mexicana de Ciencias
- 1999- Listing: Who's Who in Science and Engineering
- 1987 The Honor Society of Phi Kappa Phi
- 1985-1988 Israel Oceanographic and Limnological Research Scholarship
- 1984 The Hebrew University's Gershon Meirbaum Scholarship
- 1983 The Hebrew University's Shindel Prize
- 1982 Israel Maritime League Award

Professional Societies

American Geophysical Union
The Oceanography Society
Marine Technology Society.

Other Professional Activities

Associate Editor (2001-present), *Ocean Dynamics* (Springer Publ.)
Convener, various international meetings (most recent- WPGM2006 in Beijing)
Organizer, biennial workshops of terrain-following ocean model users
Organizer and lecturer, summer coastal modeling training courses
Manager, Princeton Ocean Model (POM) users group (~3000 users)
Journals Reviewer, CSR, DAO, GRL, JGR, JMS, JPO, JTECH, OD, OM, others
Proposals Reviewer, NOAA, NASA, NSF, international (Hong Kong, Israel,..)
Consultant, private industry and academic institutions

Publications

Book Chapters and Special Issues

- Heyman, W., B. Kjerfve and T. Ezer, Mesoamerican reef spawning aggregation as sources: A review of the state of connectivity research and future priorities for science and management, In: *Caribbean Connectivity*, Marine Sanctuary Conservation Ser., NOAA Publ., Submitted, 2007.
- Oey, L.-Y., T. Ezer, D.-P. Wang X.-Q. Yin and S.-J. Fan, Hurricane-induced motions and interaction with ocean currents, In: *Recent Developments in Physical Oceanographic Modelling: Part 4*, A. Davies and L.-Y. Oey (Eds.), *Cont. Shelf Res.*, 26, doi:10.1016/j.csr.2007.01.008, 2007.
- Ezer, T., D. V. Thattai, B. Kjerfve and W. Heyman, On the variability of the flow along the Meso-American Barrier Reef System: A numerical model study of the influence of the Caribbean Current and eddies. In: *Physics of Estuaries and Coastal Seas (PECS-04) Special Issue*, A. Souza and P. Salles (Eds.), *Ocean Dynamics*, 55, 458-475, 2005.
- Oey, L.-Y., T. Ezer and H.-C. Lee, Loop Current, rings and related circulation in the Gulf of Mexico: A review of numerical models and future challenges, In: *Circulation in the Gulf of Mexico: Observations and Models*, W. Sturges and A. Lugo-Fernandez

(Eds.), *Geophys. Monograph Ser.*, Vol. 161, pp. 31-56, AGU Publ., Washington, DC, 2005.

Mellor, G. L., S. Hakkinen, T. Ezer and R. Patchen, A generalization of a sigma coordinate ocean model and an intercomparison of model vertical grids, In: *Ocean Forecasting: Conceptual Basis and Applications*, N. Pinardi and J. D. Woods (Eds.), Springer, 55-72, 2002.

Ezer, T., On the response of the Atlantic Ocean to climatic changes in high latitudes: Sensitivity studies with a sigma coordinate ocean model, In: *The Oceans and Rapid Climate Change: Past, Present and Future*, D. Seidov, B. J. Haupt and M. Maslin (Eds.), *AGU Monograph Ser.*, 126, 199-215, 2001.

Ezer, T. and G. L. Mellor, Sensitivity studies with the North Atlantic sigma coordinate Princeton Ocean Model, In: *Ocean Circulation Model Evaluation Experiments for the North Atlantic Basin*, E. P. Chassignet and P. Malanotte-Rizzoli (Eds.), *Dyn. Atmos. Ocean*, 32, 185-208, 2000.

Chassignet, E. P., H. Arango, D. Dietrich, T. Ezer, D. B. Haidvogel, M. Ghil, C. C. Ma, A. Mehra, A. M. Paiva and Z. Sirkes, DAMEE-NAB: The base experiments, In: *Ocean Circulation Model Evaluation Experiments for the North Atlantic Basin*, E. P. Chassignet and P. Malanotte-Rizzoli (Eds.), *Dyn. Atmos. Ocean*, 32, 155-184, 2000.

Hecht, A., T. Ezer, A. Huss, and A. Shapira, Wind waves on the Dead Sea. In: *The Dead Sea: The Lake and its Setting*, T. M. Niemi, Z. Ben-Avraham and J. Gat (Eds.), *Oxford Monographs on Geology and Geophysics*, No. 36, Oxford University Press, 114-121, 1997.

Aikman, F., G. L. Mellor, D. Rao, T. Ezer, D. Shenin, K. Bosley, and P. Chen, Toward an operational nowcast/forecast system for the U.S. east coast. In: *Modern Approaches to Data Assimilation in Ocean Modeling*, edited by P. Malanotte-Rizzoli, *Elsevier Oceanogr. Ser.*, 61, 347-376, 1996.

Ezer, T., D.S. Ko, and G.L. Mellor Modeling and forecasting the Gulf Stream. In: *Oceanic and Atmospheric Nowcasting and Forecasting*, D. L. Durham and J. K. Lewis (Eds.) *Mar. Tech. Soc.*, 26 (2), 5-14, 1992.

Ezer, T., and G.L. Weatherly, Small-scale spatial structure and long-term variability of near bottom layers in the HEBBLE area. In: A.R.M. Nowell (Editor), *Deep Ocean Sediment Transport. Mar. Geol.*, 99, 319-328, 1991.

Journal Papers and Proceedings

- Oey, L.-Y., T. Ezer, C. Hu and F. Muller-Karger, Modeling and satellite observations of baroclinic tidal flows and inundation processes in Cook Inlet, Alaska, *Ocean Dynamics*, doi:10.1007/s10236-007-0103-8, 2007.
- Ezer, T., Topographic influence on overflow dynamics: Idealized numerical simulations and the Faroe Bank Channel overflow, *J. Geophys. Res.*, 111, C02002, 2005JC003005, 2006.
- Oey, L.-Y., T. Ezer, D.-P. Wang, S.-J. Fan and X.-Q. Yin, Loop Current warming by Hurricane Wilma, *Geophys. Res. Lett.*, 33, L08613, 10.1029/2006GL025873, 2006.
- Oey, L.-Y., T. Ezer, G. Forristall, C. Cooper, S. DiMarco and S. Fan, An exercise in forecasting Loop Current and eddy frontal positions in the Gulf of Mexico, *Geophys. Res. Lett.*, 32, L12611, 2005GL023253, 2005.
- Ezer, T., Entrainment, diapycnal mixing and transport in three-dimensional bottom gravity current simulations using the Mellor-Yamada turbulence scheme, *Ocean Modelling*, 9(2), 151-168, 2005.
- Chen, H., F. Qiao, T. Ezer, Y. Yuan and F. Hua, Multi-core structure of the Kuroshio in the East China Sea from long-term transect observations, *Ocean Dynamics*, Submitted, 2005.
- Qiao, F., Y. Yuan, T. Ezer, C. Xia, Y. Yang and J. Ma, A three-dimensional surface wave-ocean circulation coupled model: System description and initial testing, *Ocean Modelling*, Submitted, 2005.
- Ezer, T. and G. L. Mellor, A generalized coordinate ocean model and a comparison of the bottom boundary layer dynamics in terrain-following and in z-level grids, *Ocean Modelling*, 6(3-4), 379-403, 2004.
- Ezer, T., D. Thattai and B. Kjerfve, Simulations of the influence of the West Caribbean Sea Circulation and eddies on the Meso-American Barrier Reef System, In: Proc. XII International Biennial Conference on Physics of Estuaries and Coastal Seas, Merida, Mexico, Vol. PECS-2004, Paper O-75, 1-5, 2004.
- Qiao, F., T. Ezer and Y. Yuan, The zonal distribution features of high frequency waves in the oceans derived from satellite altimeter data, *Acta Oceanol. Sinica*, 23(1), 91-96, 2004.
- Oey, L.-Y., T. Ezer and W. Sturges, Modeled and observed Empirical Orthogonal Functions of currents in the Yucatan Channel, *J. Geophys. Res.*, 109, 10.1029/2004JC002345, 2004.

- Dong, C., R. Houghton, H.-W. Ou, D. Chen and T. Ezer, Numerical study of the diapycnal flow through a tidal front with passive tracers, *J. Geophys. Res.*, 109, C05029, 10.1029/2003JC001969, 2004.
- Ezer, T., L.-Y. Oey, H.-C. Lee, and W. Sturges, The variability of currents in the Yucatan Channel: Analysis of results from a numerical model, *J. Geophys. Res.*, 108(C1), 10.1029/2002JC001509, 2003.
- Wang, D.-P., L.-Y. Oey, T. Ezer and P. Hamilton, Nearsurface currents in DeSoto Canyon (1997-1999): Comparison of current meters, satellite observations and model simulations, *J. Phys. Oceanogr.*, 33(1), 313-326, 2003.
- Ezer, T., H. Arango and A. Hermann (Eds.) Proc: 2003 Terrain-Following Ocean Models Users Workshop, AOS Program, Princeton University, 19pp, 2003.
- Ezer, T., L.-Y. Oey. and H.-C. Lee, Simulation of velocities in the Yucatan Channel, In: Proc., *Oceans 2002*, MTS/IEEE, 1467-1471, 2002.
- Ezer, T., H. Arango and A. F. Shchepetkin, Developments in terrain-following ocean models: Intercomparisons of numerical aspects, *Ocean Modeling*, 4, 249-267, 2002.
- Arango, H. and T. Ezer (Eds.), Proceedings from the 2001 Terrain-Following Ocean Models Workshop, Rutgers University, 17pp, 2001.
- Ezer, T., Can long-term variability in the Gulf Stream transport be inferred from sea level?, *Geophys. Res. Lett.*, 28(6), 1031-1034, 2001.
- Ezer, T., Simulations of past and future climatic variability of the Atlantic Ocean and the coastal zone, In: *Climate Variations, the Oceans, and Social Impacts*, Amer. Met. Soc., Boston, MA, 82-86, 2001.
- Ezer, T., On the seasonal mixed-layer simulated by a basin-scale ocean model and the Mellor-Yamada turbulence scheme, *J. Geophys. Res.*, 105(C7), 16,843-16,855, 2000.
- Ezer, T., Decadal variabilities of the upper layers of the subtropical North Atlantic: An ocean model study, *J. Phys. Oceanogr.*, 29, No. 12, 3111-3124, 1999.
- Mellor, G. L., L.-Y. Oey and T. Ezer, Sigma coordinate pressure gradient errors and the seamount problem, *J. Atmos. Ocean Tech.* 15(5), 1122-1131, 1998.
- Ezer, T., and G. L. Mellor, Simulations of the Atlantic Ocean with a free surface sigma coordinate ocean model. *J. Geophys. Res.*, 102(C7), 15,647-15,657, 1997.

- Ezer, T., and G. L. Mellor, Data assimilation experiments in the Gulf Stream region: How useful are satellite-derived surface data for nowcasting the subsurface fields? *J. Atmos. Ocean Tech.*, 14(6), 1379-1391, 1997.
- Ezer, T., and G. L. Mellor, Simulations of the Atlantic Ocean with a free surface sigma coordinate ocean model. *J. Geophys. Res.*, 102(C7), 15,647-15,657, 1997.
- Ezer, T., and G. L. Mellor, Simulations of seasonal, interannual and interdecadal Atlantic Ocean variabilities associated with variations in observed surface temperatures and winds, In: *The Atlantic Climate Change Program*, Proc. (A.-M. Wilburn Ed.), UCAR Publ., 41-43, 1997.
- Ezer, T. (Ed.), Proceedings from the Princeton Ocean Model Users Meeting. Program in Atmospheric and Oceanic Sciences, Princeton University, 58pp, 1996.
- Ezer, T., and G. L. Mellor, Studies of the Atlantic Ocean climate with a sigma coordinate coastal ocean model. *ACCP Notes*, 2, 4-6, 1995.
- Ezer, T., G. L. Mellor, and R. J. Greatbatch, On the interpentadal variability of the North Atlantic Ocean: Model simulated changes in transport, meridional heat flux and coastal sea level between 1955-1959 and 1970-1974. *J. Geophys. Res.*, 100, 10,559-10,566, 1995.
- Mellor, G. L. and T. Ezer, Sea level variations induced by heating and cooling: An evaluation of the Boussinesq approximation in ocean models, *J. Geophys. Res.*, 20,565-20,577, 1995.
- Ezer, T., On the interaction between the Gulf Stream and the New England Seamount Chain. *J. Phys. Oceanogr.*, 24, 191-204, 1994.
- Ezer, T., G.L. Mellor, and D.S. Ko, Continuous assimilation of Geosat altimeter data into a three-dimensional, primitive equation Gulf Stream model. *J. Phys. Oceanogr.*, 24, 832-847, 1994.
- Ezer, T., and G.L. Mellor, Diagnostic and prognostic calculations of the North Atlantic circulation and sea level using a sigma coordinate ocean model. *J. Geophys. Res.*, 99(C7), 14,159-14,171, 1994.
- Mellor, G.L., T. Ezer, and L.-Y. Oey, The pressure gradient conundrum of sigma coordinate ocean models. *J. Atmos. Ocean. Tech.*, 11(4), Part 2, 1126-1134, 1994.
- Willems, R. C., S. M. Glenn, M. F. Crowley, P. Malanotte-Rizzoli, R. E. Young, T. Ezer, G. L. Mellor, H. G. Arango, A. R. Robinson, and C.-C. A. Lai, Experiment evaluates ocean models and data assimilation in the Gulf Stream. *EOS, Transactions, American Geophysical Union*, 75, 385-394, 1994.

- Ezer, T., G. L. Mellor, S. M. Hakkinen, and C. Mauritzen, Simulations of the Arctic and the North Atlantic oceans. *The Atlantic Climate Change Program*, 1, 115-119, 1994.
- Ezer, T., G.L. Mellor, D. S. Ko, and Z. Sirkes, A comparison of Gulf Stream sea surface height fields derived from Geosat altimeter data and those derived from sea surface temperature fields. *J. Atmos. Ocean. Tech.*, 10, 76-87, 1993.
- Ezer, T., Meso-scale variability inferred from altimetric data assimilation using a primitive equation model. Proceedings, *Navy Geosat Follow-On Meeting*, Vol. 2, No. b.5, 1993.
- Oey, L-Y, T. Ezer, G.L. Mellor, and P. Chen , A model study of "bump" induced western boundary current variabilities. *J. Mar. Sys.*, 3, 321-342, 1992.
- Ezer, T., and G.L. Mellor, A numerical study of the variability and the separation of the Gulf Stream, induced by surface atmospheric forcing and lateral boundary flows. *J. Phys. Oceanogr.*, 22, 660-682, 1992.
- Ezer, T., G.L. Mellor, and D. S. Ko, Nowcasting the Gulf Stream structure with a primitive equation model and assimilation of SST and altimetry data. Proc., MTS 91 *Mar. Tech. Soc.* , 236-241, 1991.
- Mellor, G. L., and T. Ezer , A Gulf Stream model and an altimetry assimilation scheme. *J. Geophys. Res.*, 96, 8779-8795, 1991.
- Ezer, T., and G.L. Weatherly, A numerical study of the interaction between a deep cold jet and the Bottom Boundary Layer of the ocean. *J. Phys. Oceanogr.*, 20, 801-816, 1990.
- Ezer, T., Altimetric data assimilation using the Princeton/Dynalysis Model. Proc. *Coastal Ocean Circulation Models Workshop*, Sponsored by NOAA/ COAP and Fleet Numerical Oceanography Center, 60-69, 1990.
- Ezer, T., and G.L. Weatherly, On eddy diffusion profiles in oceanic bottom boundary layers associated with cold eddies and filaments. *Bnd. Lay. Met.*, 48, 83-97, 1989.
- Ezer, T, A study of the Benthic Boundary Layer associated with the Cold Filament of the western North Atlantic. Ph.D. Diss., Dept. of Oceanogr., Florida State Univ., 98 pp.
- Huss, A., T. Ezer, and A. Hecht , How sluggish are the waters of the Dead-Sea ?. *Israel Journal of Earth Sciences*, 35, 207-209, 1986.
- Ezer, T., A. Hecht, and A. Huss, Wind induced circulation in the Dead Sea. The Hebrew University, 36 pp, 1985.

Ezer, T., Simulation of drift currents in the Dead Sea, M.Sc. Diss., The Hebrew University, 97pp, 1984.

Hecht, A., and T. Ezer, Currents and waves in the Dead-Sea - continuous measurements and simulation. *Isr. Oceanogr. Limnol. Res.*, H 11/84, 1-21, 1984.

Papers Presented at Professional Meetings (* invited)

1982

Ezer, T. Measurements of currents and waves in the Dead-Sea. The Field School of the Society for the Protection of Nature, Ein Gedi, Israel, December 3.

1983

Ezer, T. Numerical simulations of air-sea interaction in a lake. Seminar in Atmospheric Sciences, Department of Atmospheric Sciences, Jerusalem, Israel, February 15.

1984

*Ezer, T. Modeling and measuring the drift currents in the Dead-Sea. The annual symposium of the Geological Society of Israel, Institute of Earth Sciences, The Hebrew University, Jerusalem, Israel, November 5.

Ezer, T. A progress report on numerical modeling of the Dead-Sea. Conference on Dead-Sea research, sponsored by the Earth Sciences Research Authority, Ministry of Energy and Infrastructure, Weizmann Institute of Science, Rehovot, Israel, November 23.

*Ezer, T. The current and waves in the Dead-Sea. Seminar for Naval Officers, Ein Gedi, Israel, May 15.

Ezer, T. Studying the Dead-Sea circulation. Symposium of Marine Topics, sponsored by the Society for the Protection of Nature, The National Institute of Oceanography, Haifa, Israel, April 12.

1989

Ezer, T. The interaction between a deep cold jet and the Bottom Boundary Layer of the ocean. Department of Oceanography, Florida State University, March 29.

*Ezer, T. On the Benthic Boundary Layer of the western North Atlantic. NOAA/Geophysical Fluid Dynamics Laboratory, Princeton NJ, January 31.

1990

Mellor, G.L., and T. Ezer Data assimilation with a realistic North Atlantic regional model. AGU Ocean Sciences Meeting, New Orleans, La, February 12 - 16.

Ezer, T. A Gulf Stream model and an altimetry assimilation scheme. SYNOP Rocky Mountain Workshop, NCAR, Boulder, Colorado, June 18-21.

Ezer, T. Altimetric data assimilation using the Princeton/Dynalysis Model. Coastal Ocean Circulation Models Workshop, Sponsored by NOAA/ COAP and Fleet Numerical Oceanography Center, Monterey, Ca, October 16-18.

1991

Ezer, T., and G.L. Mellor Numerical simulation of the seasonal variations of the Gulf Stream induced by local atmospheric forcing. The Oceanography Society, Second Scientific Meeting, St. Petersburg, Florida, March 24-28.

Mellor, G.L., and T. Ezer A coastal ocean model. International Liege Colloquium on Ocean Hydrodynamics, Modelling the Interaction of the Deep Ocean and the Shelf and Coastal Seas. Liege, Belgium, May 6 - 10.

Ezer, T., and G.L. Mellor A progress report on Princeton's coastal ocean numerical model. AGU Spring Meeting, Baltimore, Md, May 28-31.

Ezer, T., and G.L. Mellor Objective assimilation of combined altimetry and SST data. SYNOP workshop. WHOI, September 2-6.

Mellor, G.L., and T. Ezer Gulf Stream climatology and separation: model sensitivity to surface forcing. SYNOP workshop. WHOI, September 2-6.

Ezer, T., G.L. Mellor, and D.S. Ko Nowcasting the Gulf Stream structure with a primitive equation model and assimilation of altimetry and SST data. Mar. Tech. Soc. Meeting, New Orleans, La, November 11-14.

Ko, D.S., W. O'Connor, G.L. Mellor, and T. Ezer Cold start forecast experiments in the Gulf Stream region. Mar. Tech. Soc. Meeting, New Orleans, La, November 11-14.

1992

Ezer, T., and G.L. Weatherly Numerical studies of Antarctic Bottom Water and DWBC in the Atlantic Ocean. AGU 1992 Ocean Sciences Meeting, New Orleans, La, January 27 - 31.

Ezer, T., and G.L. Mellor Studying the variabilities and the energetics of the Gulf Stream with the Princeton ocean model. AGU 1992 Ocean Sciences Meeting, New Orleans, La, January 27 - 31.

Ko, D.S., G.L. Mellor, and T. Ezer Data assimilation of satellite altimetry into a Gulf Stream ocean model. AGU 1992 Ocean Sciences Meeting, New Orleans, La, January 27-31.

Ezer, T., G.L. Mellor and D-S Ko Using thermal analysis fields and Geosat altimetry data for initialization and data assimilation studies of the Gulf Stream and the U.S. eastern coast. AGU 1992 Spring Meeting, Montreal, Canada, May 11-15.

Ezer, T., and G.L. Mellor Assimilation of Geosat altimeter data into a primitive equation Gulf Stream model, AGU 1992 Fall Meeting, San Francisco, Ca, December 10-15.

1993

*Ezer, T., and G.L. Mellor Meso-scale variability inferred from altimetric data assimilation using a primitive equation ocean model. In: Utilization of Geosat follow-on data for coastal oceanography and for assimilation into eddy resolving global ocean models, Applied Physics Laboratory, The Johns Hopkins University, Laurel, Md, May 18-19.

*Ezer, T., and G.L. Mellor Simulations and data assimilation studies of the east coast and the North Atlantic ocean with the Princeton's coastal ocean numerical model, AGU 1993 Spring Meeting, Baltimore, Md, May 24-27.

*Ezer, T. Coastal ocean circulation modeling. 2nd NOAA Colloquium on Environmental Prediction, National Ocean Service, Silver Spring, Md, June 29.

Ezer, T., Modeling the separation of the Gulf Stream. WOCE Numerical Experimentation Group Meeting, Institute of Ocean Sciences, Sidney, Vancouver Island, Canada, September 13-15.

Ezer, T. Nowcasting the Gulf Stream using assimilation of surface data. DAMEE meeting, Princeton University, Princeton, NJ, September 20-21.

1994

Ezer, T., and G.L. Mellor Nowcasting the evolution of the Gulf Stream system by assimilation of surface data into a realistic ocean model. AGU Ocean Sci. Meeting, San Diego, Ca, Feb. 21-25.

*Ezer, T. Data assimilation in ocean models and operational coastal ocean forecasting. New England Physical Oceanography Seminar, Yale University, New Haven, CT, April 29.

Ezer, T., S. Hakkinen and G. L. Mellor Simulations of the Arctic and the North Atlantic oceans. Atlantic Climate Change Program Meeting, GFDL, Princeton, NJ, May 9-11.

Mellor, G.L., T. Ezer, and P. Chen An operational coastal forecast system for the U.S. east coast: Progress report and future directions. AGU Spring Meeting, Baltimore, Md, May 23-27.

Chen, P., G.L. Mellor, and T. Ezer A U.S. east coast tidal model using observational tidal station data. AGU Spring Meeting, Baltimore, Md, May 23-27.

*Ezer, T. Coastal forecasting and data assimilation in oceanography. 3rd NOAA Colloquium on Environmental Prediction, NOAA Science Center, Camp Springs, Md, June 16.

Ezer, T., G. L. Mellor and P. Chen Towards an east coast operational nowcast/forecast system, Middle Atlantic Bight Physical Oceanography and Meteorology (MABPOM) workshop, Rutgers University, New Brunswick, NJ, November 3-4.

1995

Ezer, T., G. L. Mellor and J. H. Jungclaus Atlantic ocean climate studies with the Princeton Ocean Model, ACCP Principal Investigators Meeting, Miami, FL, May 2-4.

Ezer, T. and G. L. Mellor Seasonal variations of sea level along the U.S. east coast: A comparison between observations and an operational ocean model. AGU Spring Meeting, May 30-June 2.

*Ezer, T. East coast prediction system. Oil Spill Workshop, University of Massachusetts, Dartmouth, MA, May 30-June 1.

*Ezer, T. Coastal prediction and data assimilation in oceanography. 1995 NOAA Colloquium on environmental prediction, NOAA Science Center, Camp Spring, MD, June 15.

Ezer, T. Studies using a sigma coordinate ocean model: from coastal prediction to climate modeling. NASA/Goddard, Washington, DC, July 11.

Ezer, T. G. L. Mellor and P. Chen Toward operational ocean forecasting of coastal regions and semi-enclosed seas. IAPSO XXI General Assembly, Honolulu, HI, August 10.

*Ezer, T. The East Coast Forecast System. The Gulf of Maine Ecosystem Modeling Workshop, University of Maine, Orono, ME, October 24.

1996

Ezer, T. and G. L. Mellor Towards nowcasting and forecasting the North Atlantic and the coastal zone with the Princeton Ocean Model. Data Assimilation and Model Evaluation Experiments- North Atlantic Basin (DAMEE-NAB) Meeting, RSMAS, University of Miami, FL, March 18.

Mellor, G. L. and T. Ezer On Sigma coordinate errors and bottom topography. Data Assimilation and Model Evaluation Experiments- North Atlantic Basin (DAMEE-NAB) Meeting, RSMAS, University of Miami, FL, March 19.

Ezer, T. and G. L. Mellor Simulations of seasonal, interannual and interdecadal Atlantic Ocean variabilities associated with variations in observed surface temperatures and winds. ACCP PI Meeting, WHOI, MA, May 14-16.

Ezer, T. Applications of POM to basin-scale climate problems. The Princeton Ocean Model Users Meeting, Princeton University, June 10-12.

Mellor, G. L. and T. Ezer Prediction and modeling of the U.S. east coast and the Atlantic Ocean with the Princeton Ocean Model. Ocean Modeling Workshop, FNMOC, Monterey, CA, October 8-10.

1997

*Ezer Overview of research at Princeton's Center for Ocean Data Assimilation and Modeling, Community Need for an Ocean Data Assimilation Center, NSF/WOCE, Dallas, TX, February 20-21.

Ezer, T. and G. L. Mellor Configuration of the Princeton Ocean Model for the North Atlantic basin, Data Assimilation and Model Evaluation Experiments - North Atlantic Basin, Meeting #4, Stennis Space Center, MS, March 24-26.

Ezer, T. and G. L. Mellor Assimilation of Topex/Poseidon altimeter data into a high resolution sigma coordinate North Atlantic ocean model, Data Assimilation and Model Evaluation Experiments - North Atlantic Basin, Meeting #4, Stennis Space Center, MS, March 24-26.

Ezer Simulations of interannual and interdecadal Atlantic Ocean variabilities associated with observed SST and wind anomalies, Ocean Interfaces: The Oceanographic Society's 1997 Scientific Meeting, Seattle, WA, April 1-3.

*Ezer Air-sea interaction in an operational coastal forecast system, Coupled Modeling and Air-Sea-Land Interaction Workshop, Naval Research Laboratory, Monterey, CA, July 9-10.

*Mellor, G. L. and T. Ezer A methodology of assimilating sea surface height data into ocean models, Summer workshop on ocean modeling and prediction, IMGACNR, Modena, Italy.

1998

- Ezer, T. Sensitivity studies with a North Atlantic configuration of the Princeton Ocean Model, Proc., The 2nd POM users meeting, RSMAS, University of Miami, Miami, FL, February 17-19.
- Ezer, T. Sensitivity studies and data assimilation experiments with a sigma coordinate North Atlantic basin model, Proc., DAMEE Information Exchange Meeting No. 5, RSMAS, University of Miami, Miami, FL, March 5-6.
- Ezer, T. and G. L. Mellor Can ocean models simulate climatic ocean changes using surface atmospheric observations?, The 1998 Conference of the World Ocean Circulation Experiment on Ocean Circulation and Climate, Halifax, Canada, May, 24-29.
- *Ezer, T. Modeling, prediction and data assimilation studies with POM, National Centers for Environmental Prediction, Camp Spring, MD, November, 24.
- *Ezer, T. North Atlantic decadal variabilities in a sigma coordinate ocean model, Invited Seminar, Physical Oceanography Seminar Series, Graduate School of Oceanography, University of Rhode Island, Narragansett Bay, RI, December, 4.
- Ezer, T. Simulations of decadal variabilities and the response of the ocean to extreme climate, Geophysical Fluid Dynamics, December, 29.

1999

- Ezer, T. Data Assimilation and Model Evaluation Experiments: Experience with the Princeton Ocean Model, DAMEE-NAB Information Exchange Meeting No. 6, RSMAS, University of Miami, Miami, FL, February 24-26.
- Ezer, T. Mixed-layer modeling with a three-dimensional ocean model. Coastal Ocean Modeling, Gordon Research Conference, Colby-Sawyer College, New London, NH, June 20-25.
- Ezer, T. Simulations of the seasonal mixed-layer with the Mellor-Yamada Turbulence Scheme, Sigma Coordinate Ocean Model Users Meeting'99, Bar Harbor. ME, Sep. 20-22.
- Mellor, G. L., S. Hakkinen, T. Ezer and R. Patchen A generalization of a sigma coordinate ocean model and an intercomparison of model vertical grids, Sigma Coordinate Ocean Model Users Meeting'99, Bar Harbor. ME, Sep. 20-22.

Ezer, T. Sigma coordinate ocean models: Generalized coordinate systems, non-Boussinesq formulation and pressure gradient errors. New Ocean Model Meeting, Southampton Oceanography Centre, UK, Sep. 27-29.

2000

Ezer, T. Simulations of the response of the Atlantic Ocean to climatic changes in high latitudes, Ocean Sciences Meet., AGU, San Antonio, TX, Jan. 24-28.

Ezer, T. G. L. Mellor and S. Hakkinen, A generalization of a sigma coordinate ocean model and an intercomparison of model vertical grids, Ocean Sciences Meet. AGU, San Antonio, TX, Jan. 24-28.

Ezer, T. Simulations of the seasonal mixed layer in the North Atlantic Ocean, University of South Carolina, Columbia, SC, Feb. 14.

Ezer, T. An operational coastal ocean forecasting system, University of South Carolina, Columbia, SC, Feb. 15.

*Ezer, T. Problems in simulating the surface mixed layer and the bottom boundary layer with three-dimensional basin-scale ocean models, Invited, Comparative Analysis and Rationalization of Second-Moment Turbulence Models (CARTUM) Workshop II, Marseille, France, Mar. 1-2.

*Ezer, T. Simulations of the Atlantic Ocean variabilities with a sigma coordinate ocean model, University of South Florida, St. Petersburg, FL, Apr. 13.

*Ezer, T. Atlantic Ocean climate variabilities: Past, present and future, Florida, State University, Tallahassee, FL, Apr. 19.

2001

Ezer, T. Simulations of past and future climatic variability of the Atlantic Ocean and the coastal zone, Symposium on Climate Variations, the Oceans, and Social Impacts, 81st AMS Annual Meeting, Albuquerque, NM, Jan. 15.

Ezer, T. The east coast ocean forecasting system: Challenges and lessons learned. Interactive Symposium on the Exchange of Operational and Research Coastal Oceanic, Atmospheric, and Hydrologic Observations and Model Products. 81st AMS Annual Meeting, Albuquerque, NM, Jan. 16.

Arango, H. and T. Ezer, A community Terrain-following Ocean Modeling System (TOMS), Ocean Models and Prediction, ONR/SPAWAR Review, Stennis Space Center, MS, Feb. 15.

Ezer, T. Overflow and bottom boundary layer simulations with a generalized sigma coordinate ocean model, Dynamics of Overflow Mixing and Entrainment (DOME) Workshop, RSMAS, Miami, FL, Feb. 23.

Ezer, T. Downslope mixing and the use of sigma ocean models for climate studies, 2001 Terrain-Following Ocean Models Workshop, Boulder, CO, Aug. 20.

Ezer, T. Comparisons of numerical aspects in POM and ROMS, 2001 Terrain-Following Ocean Models Workshop, Boulder, CO, August 20.

Ezer, T. Ocean model comparison studies, 2001 TOMS Inaugural Meeting, Boulder, CO, August 23.

*Ezer, T. Data assimilation and Gulf of Mexico simulations, El Grupo de Estudios Oceanograficos (GEO) del CICATA-IPN, Invited by Academia Mexicana de Ciencias (AMC), Mexico City, October 11.

2002

*Ezer, T. Developments in terrain-following ocean models, Marine Sciences Research Center, SUNY, Stony Brook, NY, March 6.

*Ezer, T. Gulf of Mexico and Yucatan Channel modeling, Western Caribbean Sea Workshop, Columbia, SC, June 13.

Ezer, T. EOF analysis and Gulf of Mexico variability, NOAA/GFDL, Princeton, NJ, August 7.

*Ezer, T. Developments in terrain-following ocean models: past, present and future, Dept. of Civil, Environmental and Ocean Engineering, Stevens Institute of Technology, Hoboken, NJ, September 18.

Ezer, T. Review of developments in terrain-following ocean models, NOAA/GFDL, Princeton, NJ, October 9.

*Ezer, T. Development of Nowcast/Forecast systems for the U.S. east coast and the Gulf of Mexico, US-Korea Workshop on coastal forecast system in the East/Japan Sea, Seoul, Korea, October 16.

Ezer, T., L.-Y. Oey. and H.-C. Lee Simulation of velocities in the Yucatan Channel, In: Proc., Oceans 2002, MTS/IEEE, Biloxi, MS, October 31.

Ezer, T. and L.-Y. Oey Modes of variability in the Yucatan Channel Flow, AGU Fall Meeting, San Francisco, CA, December 10.

Kjerfve, B., D. Thattai, T. Ezer and W. Heyman. Connectivity revisited - physical oceanography of the MesoAmerican Barrier Reef. Invited paper presented at the 55th Annual Meeting of the Gulf and Caribbean Fisheries Institute, Xel Ha, Mexico, November 11.

2003

Ezer, T. and G. L. Mellor On mixing and advection in the BBL and how they are affected by the model grid: Sensitivity studies with a generalized coordinate ocean model, 2003 Terrain-Following Ocean Models Users Workshop, PMEL, Seattle, WA, August 4-6.

Blumberg, A. F., G. L. Mellor and T. Ezer To share or not to share- the challenges of open source code: The Princeton Ocean Model experience, Estuarine Research Federation conference, Seattle, WA, September.

Dong, C., R. Houghton, H.-W. Ou, D. Chen and T. Ezer, Numerical study of the diapycnal flow through a tidal front with passive tracers, MABPOM Workshop, UMASS, Dartmouth, MA, October 16-17.

*Ezer, T., An overview of developments in terrain-following ocean models, First Institute of Oceanography, Qingdao, China, December 17.

*Ezer, T., Nowcasting/forecasting systems and process studies in the Gulf of Mexico, First Institute of Oceanography, Qingdao, China, December 18.

2004

Ezer, T. On the sensitivity of simulated dense overflows to model grid and mixing parameterizations, AGU Ocean Sciences Meeting, Portland, OR, January, 29.

Ezer, T., D. Thattai and B. Kjerfve, Simulations of the influence of the West Caribbean Sea Circulation and eddies on the Meso-American Barrier Reef System, Extended Abstract, PECS 2004, Merida, Mexico, October 18-22.

Legg, S. et al. (CPT members) The Gravity Current Entrainment Climate Process Team, SCOR Ocean Mixing symposium, Victoria, BC, Canada, October.

Ezer, T. On entrainment and mixing in simulations of gravity currents with terrain-following models and the Mellor-Yamada turbulence scheme, CPT-GCE Workshop, Providence, RI, November 9-10.

2005

Ezer, T. Numerical model studies of meso-scale eddies in the Gulf of Mexico and the west Caribbean Sea, Texas A&M University, College Station, TX, February 22.

Oey, L.-Y. and T. Ezer Development and testing of an ocean model with wetting and drying capability for tidal areas (Cook Inlet), MMS-ITM Meeting, Anchorage, AK, March 14-16.

Ezer, T., D. Thattai and B. Kjerfve, Numerical studies of the interaction between offshore currents and eddies in the west Caribbean Sea and transports across the Meso-American Barrier Reef and Lagoon, EGU 2005, Vienna, Austria, April 24-29.

Ezer, T., Using high-resolution numerical models with idealized configurations to compare mixing properties in the Denmark Strait and the Faroe Bank Channel overflow regions, EGU 2005, Vienna, Austria, April 24-29.

2006

Oey, L.-Y. and T. Ezer Ocean response to hurricane Wilma, GFDL, Princeton, January, 25,

Ezer, T. Modeling mixing and entrainment in overflows and the role of sill topography in the Denmark Strait and the Faroe Bank Channel regions, 2006 Ocean Sciences Meeting, Honolulu, HI, February 23.

L.-Y. Oey, T. Ezer, M. Johnson and S.-J. Fan A baroclinic ocean model with wetting and drying capabilities: Application to the Cook Inlet, Alaska, 2006 Ocean Sciences Meeting, Honolulu, HI, February 22.

Ezer, T. and L.-Y. Oey Evaluation of a three-dimensional ocean model with wetting and drying capabilities for simulations of extremely large tides in Cook Inlet, Alaska, 2006 Western Pacific Geophysical Meeting, Beijing, China, July 24.

Ezer, T. Modeling Caribbean Sea eddies and their influence on coral reefs, University of South Florida, July 10.

*Heyman, W., B. Kjerfve and T. Ezer Spawning aggregations as sources: The status of the science and its applications for management. 59th GCFI Conference on Caribbean Connectivity, Gulf and Caribbean Fisheries Institute, Belize, 9-11, November.

*Ezer Invited Participant, Community Standards for Unstructured Grids Workshop, NOAA/UNIDATA Sponsored, UCAR, Boulder, CO, October 16-17.

*Ezer Challenges in modeling eddy-driven currents in the Caribbean Sea, Connectivity and Coral Bleaching Workshop, TAMU, College Station, TX, December 4-5.

2007

Ezer, T. Review of status and developments of new numerical schemes, Ocean Model Development Workshop, Princeton, NJ, January 15-16.

Ezer, T. and L.-Y. Oey, Modeling and satellite observations of tidally-driven currents and mud flats flooding in Cook Inlet, Alaska. Alaska Marine Science Symposium, Anchorage, AK, January 21-24.

*Ezer, T. Caribbean Sea modeling at Princeton and sensitivity studies of the MBRS to eddies currents, MesoAmerican Barrier Reef System Workshop, University of South Florida, Feb. 28-Mar. 1.

*Ezer, T. Recent numerical modeling studies in the Caribbean Sea and the Gulf of Mexico, TAMU Sem. Ser., Galveston, TX, April 24.

Grants:

2007-2012 (NOAA): Modeling sea-ice-ocean-ecosystem responses to climate changes in the Bering-Chukch-Beaufort seas with data assimilation of RUSALCA measurements (co-PI with L. Oey, PU & J. Wang, UAF).

2007-2009 (NASA, pending): Integration of NASA EOS data and numerical models to predict coastal flooding (PI with co-Pis L. Oey, PU; F. Muller-Karger, USF).

2006-2008 (NSF): Collaborative Research, Gravity Current Entrainment Climate Process Team (co-PI with S. Legg, GFDL).

2003-2006 (NSF): Collaborative Research, Gravity Current Entrainment Climate Process Team (PI, collaborative research with PIs from GFDL, WHOI, NCAR, RSMAS).

2000-2006 (ONR): A Community Terrain-Following Ocean Modeling System (PI, with H. Arango, Rutgers).

2003-2005 (MMS): Development and Testing of an Ocean Model with Wetting And Drying (co-PI with L. Oey & G. Mellor, PU).

2001-2003 (MMS/FSU): Validation of deep cyclonic gyres in the Gulf of Mexico (PI, with T. Sturges, FSU).

1998-2000 (ONR/NOAA/NOPP): Coastal Marine Demonstration of Forecast Information to Mariners for the U.S. East Coast (co-PI with G. Mellor, PU).

1996-2000 (ONR): Data Assimilation and Model Evaluation Experiments- North Atlantic Basin (DAMEE-NAB) (co-PI with G. Mellor, PU).

1992-1996 (ONR): Data Assimilation and Model Evaluation Experiments- Gulf Stream Region (DAMEE-GSR) (co-PI with G. Mellor, PU).

1995-1998 (NASA): Modeling the North Atlantic and Nordic Seas (co-PI with G. Mellor, PU & S. Hakkinen, NASA).

1993-1995 (NOAA/Atlantic Climate Change Program): North Atlantic and Arctic Ocean variability (co-PI with G. Mellor, PU).

1993-1998 (NOAA/Coastal Ocean Program): Development of the U.S. East Coast Operational Ocean Forecast System (co-PI with G. Mellor, PU).

Consulting/Subcontracts

2006-2007 (NASA/USF): Analysis of altimeter data and model fields to support studies of climate variations and upwelling in the CARIACO region (also advise a graduate student of USF).

2005-2007 (URS Corp.): Simulations of thermal plumes in a bay to support environmental concerns and EPA requirements for power station operation.

2002-2004 (Stevens Institute of Technology): Organize and lecture at summer courses/workshop on ocean and sediment transport modeling.

2000-2002 (MMS/DEEPSTAR): High resolution hindcast experiments in the Gulf of Mexico (with L. Oey).

2001-2003 (Univ. S. Carolina/Nature Conservancy): Support the development of a numerical model for the MesoAmerican Barrier Reef System (also advise a USC graduate student).

2001-2003 (MMS/FSU): Validation of deep cyclonic gyres in the Gulf of Mexico.

1999-2001 (Natl. Politech. Inst., Mexico): Development of a numerical model for the western Gulf of Mexico.

1991-Present: Consulting and providing computer and web support to the POM user's group and answering questions from users (mostly with no pay, occasionally get consulting fee or travel expenses).