

# CURRICULUM VITAE

Shenn-Yu Chao

Horn Point Laboratory  
University of Maryland Center for Environmental Science  
Cambridge, Maryland 21613-0775

## Personal Data

Date of birth: October 17, 1949

Place of birth: Taipei, Taiwan

## Education

1971 B.Sc., Tsinghua University, Taiwan, Physics

1975 M.S., University of Utah, Salt Lake City, Physics and Meteorology

1979 Ph.D., North Carolina State University, Physical Oceanography

## Professional Background

1979-1980 Staff Scientist, Research and Data Systems, Inc., NASA/Goddard Space Flight Center

1980-1983 Assistant Professor, Nova University Oceanographic Center

1983-1984 Associate Professor, Nova University Oceanographic Center

1984-1991 Associate Professor, University of Maryland System Center for Environmental and Estuarine Studies, Horn Point Environmental Laboratory

1991 Visiting Professor, Commonwealth Center for Coastal Physical Oceanography, Old Dominion University

1992-present Professor, University of Maryland Center for Environmental Science, Horn Point Laboratory

## Research

### A. Area of professional expertise

Continental Shelf Processes, Western Boundary Currents Dynamics, Lower Atmosphere Circulations, Estuarine Circulations, Numerical Modeling of Mesoscale Processes in the Ocean, Biogeochemical Processes, Biophysical Interactions, Sediment Transport Processes

## B. Publications

- Chao, S.Y., L.J. Pietrafesa and G.S. Janowitz (1979). The scattering of continental shelf waves by an isolated topographic irregularity. *J. Phys. Oceanogr.*, **9**, 687-695.
- Chao, S.Y. and G.S. Janowitz (1979). The effect of a localized topographic irregularity on the flow of a boundary current along the continental margin. *J. Phys. Oceanogr.*, **9**, 900-910.
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- Chao, S.Y. and J.P. McCreary (1982). A numerical study of Kuroshio south of Japan. *J. Phys. Oceanogr.*, **12**, 679-693.
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- McCreary, J.P. and S.Y. Chao (1985). Three-dimensional shelf circulation along an eastern ocean boundary. *J. Mar. Res.*, **43**, 13-36.
- Chao, S.Y. (1985). Coastal jets in the lower atmosphere. *J. Phys. Oceanogr.*, **15**, 361-371.
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- Chao, S.Y. and W.C. Boicourt (1986). Onset of estuarine plumes. *J. Phys. Oceanogr.* **16**, 2137-2149.

- McCreary, J.P., P. Kundu and S.Y. Chao (1987). Dynamics of the California current system. *J. Mar. Res.*, **45**, 1-32.
- Chao, S.Y. and T.W. Kao (1987). Frontal instabilities of baroclinic ocean currents, with applications to the Gulf Stream. *J. Phys. Oceanogr.*, **17**, 792-807.
- Chao, S.Y. (1987). Wind-driven motion near inner shelf fronts. *J. Geophys. Res.*, **92**, 3849-3860.
- Boicourt, W.C., S.-Y. Chao, H. Ducklow, P. Glibert, T. Malone, M. Roman, L. Sanford, J. Fuhrman, C. Garside, and R. Garvine (1987). Physics and microbial ecology of a buoyant estuarine plume on the continental shelf. *EOS*, **68**, 666-668.
- Chao, S.Y. (1988). River-forced estuarine plumes. *J. Phys. Oceanogr.*, **18**, 72-88.
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- Chao, S.Y. (1989). Instabilities of fronts over a continental margin. *J. Geophys. Res.*, **95**, 3199-3211.
- Chao, S.Y. (1990). Tidal modulation of estuarine plumes. *J. Phys. Oceanogr.*, **20**, 1115-1123.
- Chao, S.Y. (1990). Circulation of the East China Sea, a numerical study. *J. Oceanogr. Soc. Japan*, **46**, 273-295.
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- Shi, C. and S.Y. Chao (1994). Eastward jets over diverged isobaths, with applications to the Gulf Stream near Grand Banks. *J. Geophys. Res.*, **99**, 22689-22706.

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