

# CURRICULUM VITAE

YA HSUEH

## Personal:

Born: Wushi, Kiangsu, China; 19 March 1936

Citizenship: United States

### Personal Data:

Home Address: 1303 Covington Drive, Tallahassee, Florida 32312.

Married, wife's name, Amy; 2 children: Gary (June 1970),  
Michael (March 1975).

## Degrees:

B.S., Civil Engineering, The National Taiwan University, 1958.

Ph.D., Geophysical Fluid Dynamics, The Johns Hopkins University, 1965.

## Positions and Appointments:

- |            |   |
|------------|---|
| 1989-1991  | Chairman, Department of Oceanography,<br>Florida State University   |
| 1982-1985  | Chairman, Department of Oceanography,<br>Florida State University   |
| 1980-1981  | Rotator Program Manager of Physical Oceanography,<br>National Science Foundation  |
| 1980-Pres. | Professor, Department of Oceanography,<br>Florida State University  |
| 1973-1980  | Associate Professor, Department of Oceanography<br>and Research Associate,<br>Geophysical Fluid Dynamics Institute,<br>Florida State University |
| 1967-1973  | Assistant Professor, Department of Oceanography and<br>Research Associate, Geophysical Fluid Dynamics Institute,<br>Florida State University    |
| 1965-1967  | Research Associate, Department of Atmospheric Sciences,<br>University of Washington, Seattle  |

## Honorary and Professional Societies:

American Geophysical Union  
American Meteorological Society  
American Association for the Advancement of Science  
Oceanography Society of Japan

## Research Interests:

Variability in continental shelf circulation as induced by local variations in surface wind stress and thermohaline forcing on both synoptic and seasonal time scales, by eddies and long waves which impinge from the deep sea and by tidal phenomena.  
Variability in deep ocean currents such as the Gulf Stream, the Kuroshio, and the Gulf of Mexico Loop Current, and its implications in terms of the general circulation of oceans.

## Publication List

1. Fleagle, R. G., R. I. Badgley, and Y. Hsueh, 1967: Calculation of turbulent fluxes by integral methods. *Journal of Atmospheric Sciences*, 24, (4), 356-373.
2. Hsueh, Y., 1967: On the effect of bottom topography and variable wind stress on ocean water movements. *Journal of Geophysical Research*, 72, 4101-4107.
3. Hsueh, Y., 1968: Viscous fluid flow over a corrugated bottom in a strongly rotating system. *Physics of Fluids*, 11, 940-944.
4. Hsueh, Y., 1968: Mesoscale turbulence spectra over the Indian Ocean. *Journal of Atmospheric Sciences*, 25, (6), 1052-1057.
5. Hsueh, Y., 1969: Buoyant Ekman Layer. *Physics of Fluids*, 12, 1757-1763.
6. Hsueh, Y., 1970: A note on the boundary layer wind structure above sloping terrain. *Journal of Atmospheric Sciences*, 27, (2), 322-327.
7. Desouza, R., C. Aspliden, M. Garstang, N. E. LaSeaur, and Y. Hsueh, 1971: A low level jet in the tropics. *Monthly Weather Review*, 99, 599-663.
8. Hsueh, Y., and J. J. O'Brien, 1971: Steady coastal upwelling induced by an along-shore current. *Journal of Physical Oceanography*, 1, 180-186.
9. Hsueh, Y., and R. N. Kenny, III, 1972: Steady coastal upwelling in a continuously stratified ocean. *Journal of Physical Oceanography*, 2, 27-33.
10. Hsueh, Y., and C.-Y. Peng, 1973: A numerical study of the steady circulation in an open bay. *Journal of Physical Oceanography*, 3, 220-225.
11. Hsueh, Y., and R. Legeckis, 1973: Western intensification in a rotating water tunnel. *Geophysical Fluid Dynamics*, 5, 333-358.

12. Hsueh, Y., G. S. Benton, and G. Putland, 1973: Tidal oscillations in an enclosed rotating fluid. *Journal of Physical Oceanography*, 3, 66-72.
13. Hsueh, Y., and H.-W. Ou, 1975: On the possibilities of coastal, midshelf, and shelf break upwelling. *Journal of Physical Oceanography*, 5, 670-682.
14. Hsueh, Y., C.-Y. Peng, and S.L. Blumksack, 1976: A geostrophic computation of currents over a continental shelf. *Proceedings of the Seventh Liege Colloquium on Ocean Hydrodynamics*, 315-330.
15. Hsueh, Y., and G. Weatherly, 1977: The importance of density stratification to bottom boundary layers over continental margins. *Journal of Physical Oceanography*, 7, 488-493.
16. Hsueh, Y., and C.-Y. Peng, 1978: A diagnostic model of continental shelf circulation. *Journal of Geophysical Research*, 83, 3033-3041.
17. Lee, C.-Y., and Y. Hsueh, 1978: The spread of mixing in a stratified fluid and its analogue in rotating fluids. *Geophysical and Astrophysical Fluid Dynamics*, 10, 249-273.
18. Hsueh, Y., and C.-Y. Lee, 1978: A hindcast of barotropic response over the Oregon-Washington continental shelf during the summer of 1972. *Journal of Physical Oceanography*, 8, 799-810.
19. Hsueh, Y., 1980: Scattering of continental shelf waves by longshore variations in bottom topography. *Journal of Geophysical Research*, 85, 1147-1150.
20. Bane, J. M., and Y. Hsueh, 1980: On the theory of coastal-trapped waves in an upwelling frontal zone. *Journal of Physical Oceanography*, 10 (2), 270-285.
21. Hsueh, Y., 1980: On the theory of deep flow in the Hudson Shelf Valley, *Journal of Geophysical Research*, 85, 4913-4918.
22. Hsueh, Y., G. Marmorino, and L. Vansant, 1982: Numerical model studies of winter-storm response of the West Florida Shelf, *Journal of Physical Oceanography*, 12 (10), 1037-1050.
23. Soong, Y.-S., and Y. Hsueh, 1982: A quasi-geostrophic model for the deep intrusion of Loop Current in the Gulf of Mexico, *Proceedings of the Pennsylvania Academy of Science*, 56, 165-174.

24. Hsueh, Y., and B. Cushman-Roisin, 1983: On the formation of surface to bottom fronts over steep topography. *Journal of Geophysical Research*, 88, 743-750.
25. Hsueh, Y., and R. D. Romea, 1983: Wintertime winds and coastal sea-level fluctuations in the northeast China Sea. Part I: Observations. *Journal of Physical Oceanography*, 13 (11), 2091-2106.
26. Hsueh, Y., and R. D. Romea, 1983: A comparison of observed and geostrophically calculated wintertime winds over the East China Sea. *Journal of Geophysical Research*, 88, 9588-9594.
27. Hsueh, Y., K. C. Chen, and G. O. Marmorino, 1984: A numerical model of the time-dependent wintertime circulation of the New York Bight. *Journal of Geophysical Research*, 89, 673-684.
28. Milliman, J. D., Y. Hsueh, D.-X. Hu, D. J. Pashinski, H.-T. Shen, Z.-S. Yang, and P. Hacker, 1984: Tidal phase control of sediment discharge from the Yangtze River. *Estuarine, Coastal and Shelf Science*, 19, 119-128.
29. Hsueh, Y., R. D. Romea and P. W. deWitt, 1986: Wintertime winds and coastal sea-level fluctuations in the northeast China Sea. Part II: Numerical model. *Journal of Physical Oceanography*, 16, 241-261.
30. Hsueh, Y., 1987: A wind-driven Yellow Sea warm current? *Chinese Journal of Oceanology and Limnology*, 5 (4), 289-298.
31. Hsueh, Y., and J. H. Tinsman, III, 1987: A comparison between geostrophic and observed winds at a Japan Meteorological Agency buoy in the East China Sea. *Journal of the Oceanographic Society of Japan*, 43 (4), 251-257.
32. Hsueh, Y., 1988: Recent current observations in the eastern Yellow Sea. *Journal of Geophysical Research*, 93, 6875-6884.
33. Hsueh, Y., and I.-C. Pang, 1989: Coastally trapped long waves in the Yellow Sea. *Journal of Physical Oceanography*, 5, 612-625.
34. Miao, J., Liu Xinquan, and Y. Hsueh, 1990: Preliminary study of the formation dynamics of the cold water mass in the northern Yellow Sea – I. Model. *Scientia Sinica B-Series*, (12) 1311-1321.

35. Miao, J., Liu Xinquan, and Y. Hsueh, 1991: Preliminary study of the formation dynamics of the cold water mass in the northern Yellow Sea – I. Model Solution Discussion. *Scientia Sinica B-Series*, (1) 74-81.
36. Hsueh, Y., and J. H. Tinsman, III, 1991: Synoptic band wintertime heat exchanges in the Yellow Sea, *Oceanography of Asian Marginal Seas*, K. Takano, Ed., Elsevier Oceanography Series, 54, 269-276.
37. Hsueh, Y., J. Wang and C.-S Chern, 1992: The intrusion of the Kuroshio across the Continental Shelf northeast of Taiwan, *Journal of Geophysical Research*, 97, 14,323-14,330.
38. Hsueh, Y., C.-S. Chern and J. Wang, 1993: The blocking of the Kuroshio by the continental Shelf northeast of Taiwan, *Journal of Geophysical Research*, 98,12,351-12,359.
39. Hsueh, Y., H.-J. Lie, and H. Ichikawa, 1996: On the branching of the Kuroshio west of Kyushu. *Journal of Geophysical Research*, 101, 3851- 3857.
40. Hsueh, Y., and D. Yuan, 1997: A numerical study of currents, heat advection, and sea-level fluctuations in the Yellow Sea in winter of 1986. *Journal Physical Oceanography*, 27, 2313-2326.
41. Hsueh, Y., J. R. Schultz, and W. R. Holland, 1997: The Kuroshio flow-through in the East China Sea: A numerical model. *Progress in Oceanography*. 39, 79-108.
42. Dewar, W. K., Y. Hsueh, T. J. McDougall, and D. Yuan, 1998: On the calculation of pressure in ocean simulations. *Journal of Physical Oceanography*, 28, 577-588.
43. Yuan, D., and Y. Hsueh, 1998: Inverse determination of surface heat flux over the Yellow Sea in winter from sea surface temperature data. *Journal Physical Oceanography*, 28, 984-990.
44. Tang, T. Y., Y. Hsueh, Y. J. Yang, and J. C. Ma, 1999: Continental slope flow northeast of Taiwan. *Journal Physical Oceanography*, 29, 1353-1362.
45. Hetland, R. D., Y. Hsueh, R. R. Leben, and P. P. Niiler, 1999: A Loop Current-induced jet along the edge of the west Florida Shelf. *Geophysical Research Letters*, 26, 2239-2242.
46. Hsueh, Y., 2000: The Kuroshio in the East China Sea. *Journal of Marine Systems*, 24, 131-139.

47. Hetland, R. D., Y. Hsueh, and D. Yuan, 2001: On the decay of a baroclinic jet flowing along a continental slope. *Journal of Geophysical Research*, 106, 19797-19807.
48. Hsueh, Y., and Y. Golubev, 2002: A numerical model calculation of the flow in DeSoto Canyon in response to northerly wind bursts in winter. *Gulf of Mexico Science*, 20, 44-59.
49. Hsueh, Y., and Liejun Zhong, 2003: A note on the deflection of a baroclinic current by a continental shelf. *Geophysical and Astrophysical Fluid Dynamics*, 97, 393-415.
50. Hsueh, Y., and Liejun Zhong, 2004: A pressure-driven South China Sea Warm Current. *Journal of Geophysical Research*. In press.
51. Huang, Haosheng, Y. Hsueh, and Yi Chao, 2004: A numerical study of the Loop Current Frontal Eddy: Synoptic description and generation mechanism.. *Journal of Research Geophysical*. Submitted.

Non Reviewed:

1. Harkema, R., and Y. Hsueh, 1987: A compilation of moored current meter data in the eastern Yellow Sea, January-April 1986. Department of Oceanography, Florida State University. Technical Report CMF-87-01 to the National Science Foundation, Grant OCE-8500181.

Master's Degrees Supervised:

- Kenny, Robert N., III, 1971: Coastal upwelling induced by wind and heat flux in a continuously stratified ocean. 92 pp.
- Soong, Yin Shang, 1974: Wind-induced upwelling in a strong shearing flow. 67 pp.
- Ou, Hsienwang, 1975: On the possibilities of coastal, mid-shelf and shelf break upwelling. 41 pp
- Vansant, Linda, 1980: A numerical model of tidal currents in Apalachicola Bay, Florida. 85 pp.
- Welsh, Susan, 1986: The response of a step shelf to deep-ocean forcing. 55 pp.

Ph.D. Degrees Supervised:

- Legeckis, Richard, 1974: An experimental study of topographical Rossby waves and von Karman vortices in a rotating fluid. 156 pp. Now, Senior Scientist, NESDIS.
- Bane, John M., Jr., 1975: Barotropic and baroclinic coastal trapped

- waves in an upwelling frontal zone. 112 pp. Now, Professor and Chair, Marine Sciences Program, University of North Carolina, Chapel Hill, North Carolina.
- Peng, Chich-Yuan, 1976: A diagnostic model of continental shelf circulation. 123 pp. Private industry.
- Soong, Yin-Shang, 1978: A study of the northward intrusion of the Loop Current in the Gulf of Mexico. 131 pp. Now, Professor, Department of Earth Sciences, Millersville State College, Millersville, PA.
- Pang, Ig-Chan, 1987: Theory of coastally trapped waves and its application to the Yellow Sea. 128 pp. Now, Professor of Oceanography, National Cheju University, Korea.
- Schultz, John, 1994: A numerical model of the Kuroshio in the East China Sea. 141 pp. Private industry.
- Yuan, Dongliang, 1995: Toward the prediction of surface temperature in the Yellow Sea in winter,. 144 pp. Now, NASA GSFC.
- Hetland, Robert D., 1999: The dynamics of a Loop Current forced shelf break jet on the West Florida Shelf. 68 pp. Now, Assistant Professor, Department of Oceanography, Texas A&M University.
- Zhong, Liejun, 2001: The circulation in the northern South China. 116 pp. Now, Postdoc, University of Maryland Center for Environmental Science, Cambridge, MD.
- Huang, Haosheng, 2003: The Loop–Current frontal eddies: Observations, generation mechanism, and their movements. Expected: Spring, 2003.

Postdoctoral Scientists Supervised and Present Positions:

- Lee, Chi-yuan, Professor, Meteorology, National Taiwan University.
- Marmorino, George O., Naval Research Laboratory, Washington, D. C.
- Chen, K. C., PGS Tensor Geophysical, Houston, Texas.
- Romea, R. D., Consulting Company.
- deWitt, P. W., current employer unknown
- Golubev, Yury, Jet Propulsion Laboratory of the California Institute of Technology, Pasadena, CA.

Professional and University Service Activities:

Listed in American Men of Science

Reviewer for:

- J. Geophysical Research
- J. Physical Oceanography
- Deep-Sea Research
- J. Atmospheric Sciences
- National Research Council, Republic of China
- National Science Foundation

Advisor, Joint US-China Working Group for the Protocol on Cooperation in Marine and Fishery Science and Technology, 1984-1995.

Member, Advisory Committee for the National Center for Ocean Research of Taiwan, 1995-2000.

Member, Scientific Steering Committee, PAMS/JECSS Workshop, 1990-present  
 Member, Program Committee, Gordon Research Conference on Coastal Ocean  
 Modeling, 1999.

Grants and Contracts:

Office of Naval Research, 1969-70 (with J. O'Brien)	\$31,650
Office of Naval Research, 1970-71 (with J. O'Brien)	46,650
Office of Naval Research, 1971-72	38,890
National Science Foundation, GURC-CEP Proposal 1971-72 (with J. O'Brien)	45,600
National Science Foundation, 1971-72	20,000
Office of Naval Research, 1972-73	37,997
National Science Foundation, 1972-73 (Co-Principal Investigators: J.O'Brien and K. Warsh)	46,000
Office of Naval Research, 1973-74	27,960
National Science Foundation, 1973 (Co-Principal Investigator: T. Sturges)	24,960
National Science Foundation, 1974 (Co-Principal Investigator: T. Sturges)	36,600
National Science Foundation, International Decade of Ocean Exploration, 1974	65,372
(1975 Extension of the carryover)	50,000
Office of Naval Research, 1974-76	16,000
National Science Foundation, International Decade of Ocean Exploration, 1976-77	41,000
National Science Foundation, International Programs, 1975-76	12,000
National Oceanic and Atmospheric Administration, 1976-77	50,000
Office of Naval Research, 1977-78	6,000
National Science Foundation, International Decade of Ocean Exploration, 1977-78	35,668
National Oceanic and Atmospheric Administration, 1977	23,225
National Oceanic and Atmospheric Administration, 1978	67,000
National Oceanic and Atmospheric Administration, 1979	36,500
National Oceanic and Atmospheric Administration, 1980 (6 months)	18,000
JAYCOR, 1979-80	34,000
National Science Foundation, 1980	47,000
Office of Naval Research, 1980	175,000
Office of Naval Research, 1982	170,000
National Science Foundation, 1985-88	137,671
Office of Naval Research, 1990-94	260,402
National Science Foundation, 1992-95	62,183
Office of Naval Research, 1995-97	101,845
Minerals Management Service, 1995-2000	1,600,000
National Science Foundation, 1996-1998	179,514
Minerals Management Service, 1999-2001 (with Chassignet and Sturges)	316,404
Office of Naval Research, 2000-2004	177,296
Total	4,015,162