

JOHN A. WHITEHEAD
SHORT VITA AND PUBLICATIONS

Scientist Emeritus, Department of Physical Oceanography
Faculty, Geophysical Fluid Dynamics Summer School
MS#21
Woods Hole Oceanographic Institution
Woods Hole, Massachusetts 02543
Date of Birth: April 21, 1941
B.S., Tufts University, 1963, M.S., Yale University, 1965, Ph.D., 1968

SCIENTIFIC INTERESTS:

Geophysical Fluid Dynamics: analytical and laboratory studies of fluid mechanics problems in oceans, atmospheres, and planetary interiors.

HONORS

American Society of Mechanical Engineers "Old Guard" Undergraduate Research Project Competition, Division I Winner (Northeast United States) 1963.
Senior Postdoctoral Fellowship, Advanced Study Program, National Center for Atmospheric Research, Boulder, Colorado, Dec. 1, 1977 - June 15, 1978.
John Simon Guggenheim Memorial Fellow, Department of Applied Mathematics and Theoretical Physics, University of Cambridge, England, 1982-83.
Fellow, American Physical Society, 1982
Fellow, American Geophysical Union, 1997
Alumni Achievement Award, Department of Mechanical Engineering, Tufts University, 1999
Fellow, American Academy of Arts and Sciences, 2002
Fellow, American Meteorological Society, 2007
Henry M. Stommel Research Award, American Meteorological Society, 2007
Maurice Ewing Medal, American Geophysical Union, 2014

Publications

Book

Pratt, L. J. and J. A. Whitehead, 2007 Rotating Hydraulics- Nonlinear topographic effects in the ocean and atmosphere, Springer-Verlag, Berlin, 608pp.

Research articles, Refereed

PDFs of any article will be supplied upon request. Most refereed articles are available for your personal use in the publications section of my personal site (<http://www.whoi.edu/hpb/Site.do?id=2553>)

Chen, Michael M. and John A. Whitehead, 1968. Evolution of two-dimensional periodic Rayleigh convection cells of arbitrary wave-numbers. *Journal of Fluid Mechanics*, 31(1), 1--15.

Schubert, G. and J. A. Whitehead, 1969. Moving flame experiment with liquid mercury: possible implications for the Venus atmosphere. *Science*, 163, 71--72.

Newell, A. C. and J. A. Whitehead, 1969. Finite bandwidth, finite amplitude convection. *Journal of Fluid Mechanics*, 38, 279--303.

Howard, L. N., W. V. R. Malkus and J. A. Whitehead, 1970. Self-convection of floating heat sources: a model for continental drift. *Geophysical Fluid Dynamics*, 1, 123--142.

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*Whitehead, J. A., A. Leetmaa and R. A. Knox, 1974. Rotating hydraulics of strait and sill flows. *Geophysical Fluid Dynamics*, 6, 101--125.

Whitehead, J. A. and Roger F. Gans, 1974. A new, theoretically tractable earthquake model. *Geophysical Journal of the Royal Astronomical Society*, 39, 11--28.

Busse, F. H. and J. A. Whitehead, 1974. Oscillatory and collective instabilities in large Prandtl number convection. *Journal of Fluid Mechanics*, 66, 67--80.

*Whitehead, John A., Jr., and Douglas S. Luther, 1975. Dynamics of laboratory diapir and plume models. *Journal of Geophysical Research*, 80, 705--717.

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Bye, John A. T. and John A. Whitehead, Jr., 1975. A theoretical model of the flow in the mouth of Spencer Gulf, South Australia. *Estuarine and Coastal Marine Science*, 3, 477--481.

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Whitehead, J. A., Jr. and Barry Parsons, 1978. Observations of convection at Rayleigh numbers up to 760,000 in a fluid with large Prandtl number. *Geophysical and Astrophysical Fluid Dynamics*, 9, 201--217.

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Members of Committee on Geodesy, 1978. Geodesy: Trends and Prospects, National Research Council; author of Chapters 3.3, Ocean Dynamics, pp. 25--27 and 5.2, Ocean Instrumentation, pp. 62--65; National Academy of Sciences, Washington, D.C., 86 pp.

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