EDITORIAL

Adrian E. Gill, FRS, leader of the Meteorological Office group at the Hooke Institute for Atmospheric Research, died suddenly in Oxford on 19 April 1986. Born in Australia in 1937, he came to England in 1960 to study for a Ph.D. under George Batchelor at Trinity College, Cambridge. He was based at the Department of Applied Mathematics and Theoretical Physics in Cambridge for most of his career.

This special issue of the Journal of Physical Oceanography is dedicated to him and contains a series of papers submitted by his colleagues. Adrian Gill was internationally renowned in the field of ocean modelling, and his interests and publications spanned the entire field. His monograph Atmosphere–Ocean Dynamics, published in 1982, drew his interests together in a coherent account, linking theory and observation.

His graduate work began with interests in nonrotating hydrodynamic stability. In 1967 he became interested in problems of planetary waves; these interests rapidly expanded, with publications in the next three years on the Antarctic Circumpolar Current, geostrophic adjustment, buoyancy-driven instabilities and thermohaline convection, and bottom water. His later work covered equatorial theory, topographic effects, seasonal variability, coastal waves, eddies, mixed layer theory, sill hydraulics, tides, fronts, intrusions, atmospheric waves, moisture effects, and internal waves. His work was characterized by a deceptive simplicity. He argued cogently that research was of no benefit if others did not read and understand it; as a result he worked to ensure that the messages in his papers were not obscured by complicated mathematics (though much of the unwritten part of a paper would contain tours de force of mathematical reasoning).

In 1984 he joined the U.K. Meteorological Office, soon after becoming chairman of the scientific steering group for TOGA, and devoted his time until his early death in furthering theoretical and observational work in equatorial atmospheric and oceanic dynamics and the study of El Niño/ENSO.

For a scientist so devoted to combining theory and observation, it is curious that Gill never took part in a full-length oceanographic cruise. However, his work took him to most of the world, including prolonged visits to the United States, Canada, Australia, Spain, and South Africa. His appetite for unusual and interesting aspects of fluid dynamics was always evident; he wrote, among other things, papers on instabilities of liquid metals, Aristotle’s studies of tidal flow (part of a longstanding interest in the history of science) and submarine transects of the polar front. He kept meticulous notes; those of us who worked with him have fond memories of the ever-growing number of small blue books filled with tiny, and nearly always legible, notes about seminars, visitors, and science in general. His research did not end with science; he wrote a book on the history of numbers, and, on a less serious note, among his Cambridge colleagues he was widely known as the expert on methods of getting from A to B in London in the shortest time.

He selected research topics for his graduate students which have remained important issues (indeed, my own attempt at solving the problem I was given by Adrian in 1968, but did not solve, is contained in this volume). He felt students were of prime importance and was always ready to devote time to his own—and others—students.

He was a quiet man, yet this exterior hid a warm sense of humor and a positive attitude to those around him. We all miss him.

Peter D. Killworth
Guest Editor
ADRIAN EDMUND GILL
BA (Hons), Melbourne, 1959
MA, Melbourne, 1960
Ph.D., Cambridge, 1963

Appointments
1963–64 Research Associate, MIT
1964–78 Assistant Director of Research, D.A.M.T.P., Cambridge
1979–84 Royal Society Esso Senior Research Fellow, Cambridge
1984–85 Principal Scientific Officer, Meteorological Office/Hooke Institute, Oxford
1985–86 Senior Principal Scientific Officer, Meteorological Office/Hooke Institute, Oxford

Visiting positions
1965–66 IGPP, La Jolla, California
1967 CSIRO, Cronulla, N.S.W., Australia
1969 Scripps Institution of Oceanography, La Jolla, CA
1969 GFDL, Princeton, N.J.
1970 Dept. of Oceanography, Vancouver, B.C.
1970 Oceanography Dept., Malaga, Spain
1971 Maths Dept., Melbourne University
1972 GFDL, Princeton, N.J.
1972 MODE Workshop, Boulder, Colorado
1973 Scripps Institution of Oceanography, La Jolla, CA
1975 GFDL, Princeton, N.J.
1979 GFD Program, Woods Hole, Massachusetts
1980 JISAO, University of Washington, Seattle, WA
1982 ANMRC, Melbourne

Membership of international committees
1970–83 SCOR WG 34, Internal Dynamics of the Ocean
1975–81 SCOR WG 47, FGGE Pacific Panel

Awards
1975–76 SCOR WG 49, Mathematical Modelling of Ocean Processes
1979–86 Committee on Climate Change and the Ocean
1982–83 Chairman of TOGA Study Panel
1983–86 Chairman of TOGA Steering Group
1986 Fellow of the Royal Society
1986 Charles Chree Medal, Institute of Physics
1986 Rosenstiel Award of Oceanic Sciences, University of Miami.

Selected oceanographic and atmospheric bibliography
1979 Topographically induced changes in the structure of an internal coastal jet, with application to the Agulhas Current. J. Phys. Oceanogr., 9, 975–991. (with E. H. Schummann)