

## CHRISTOPHER J.R. GARRETT

email: cgarrett@uvic.ca

Born: 1943, Bude, England

Citizenship: British and Canadian

Education: B.A. (1st Class Honours), Mathematics, Cambridge, 1965  
Ph.D., Geophysical Fluid Dynamics, Cambridge, 1968

### Experience:

|                           |  |  |                                  |
|---------------------------|--|--|----------------------------------|
| 1967–1969                 | Research Fellow                          | Trinity College                              | Cambridge                        |
| 1968–1969                 | Post-doctoral<br>Research Fellow         | Inst. of Oceanography                        | Univ. of B.C.                    |
| 1969–71                   | Assistant Research<br>Geophysicist I, II | Inst. of Geophysics<br>and Planetary Physics | La Jolla, Ca.                    |
| 1971–73                   | Assistant Professor                      | Dept. of Oceanography                        | Dalhousie Univ.                  |
| 1973–77                   | Associate Professor                      | Dept. of Oceanography                        | Dalhousie Univ.                  |
| 1977–91                   | Professor                                | Dept. of Oceanography                        | Dalhousie Univ.<br>Halifax, N.S. |
| Sept. 1977–<br>April 1978 | Visiting Scientist                       | CSIRO Div. of Fisheries<br>and Oceanography  | Cronulla,<br>Australia           |
| July 1981–<br>Feb. 1982   | Visiting Fellow<br>Commoner              | Trinity College                              | Cambridge                        |
| March 1982–<br>June 1982  | Visiting Scientist                       | NATO SACLANT<br>ASW Research<br>Centre       | La Spezia,<br>Italy              |
| Jan. 1989–<br>June 1989   | Visiting Professor                       | University of Washington                     | Seattle, WA.                     |
| 1991–2010                 | Lansdowne Professor                      | University of Victoria                       | Victoria, B.C.                   |
| 2010–                     | Emeritus Professor                       | University of Victoria                       | Victoria, B.C.                   |

### Honours:

|         |   |
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| 1965    | Mayhew Prize, Part III Math Tripos, Cambridge                       |
| 1966    | Smith's Prize, University of Cambridge                              |
| 1967    | Elected Research Fellow, Trinity College, Cambridge                 |
| 1977–78 | E.W.R. Steacie Memorial Fellow, National Research Council of Canada |
| 1977    | Elected Fellow of the Royal Society of Canada                       |

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| 1979    | President's Prize, Canadian Meteorological and Oceanographic Society                 |
| 1981–82 | Guggenheim Fellowship  |
| 1982    | A.G. Huntsman Award  |
| 1992    | Elected Fellow of the American Geophysical Union                                     |
| 1993    | Elected Fellow of the Royal Society of London  |
| 1994    | Certificate of Appreciation, U.S. Environmental Protection Agency                    |
| 2001    | Henry Stommel Research Award, American Meteorological Society                        |
| 2003    | Elected Fellow of the American Meteorological Society                                |
| 2006    | Elected Foreign Associate of the U.S. National Academy of Sciences                   |
| 2008    | Chairman's Award for Career Achievement, British Columbia Innovation Council         |
| 2009    | J. P. Tully Medal in Oceanography, Canadian Meteorological and Oceanographic Society |
| 2011    | Journal of Physical Oceanography Editor's Award, American Meteorological Society     |
| 2015    | Elected Honorary Fellow, Trinity College, Cambridge                                  |

**Other:**

- Editorial Board, Journal of Marine Research, 1975–2011
- Editorial Board, Journal of Physical Oceanography, 1977–1983, 2003–
- Editorial Board, Dynamics of Atmospheres and Oceans 1984–2009
- Editorial Board, Atmosphere–Ocean 1984–1989
- Associate Editor, Deep–Sea Research 1993–2005
- SCOR Working Group 49 on “Mathematical Modelling of Oceanic Processes” 1975–1978
- SCOR Working Group 69 on “Small–Scale Oceanic Turbulence” 1981–1987
- GESAMP Working Group on “Oceanographic Models for Deep–Sea Waste Disposal” 1980–1983
- IAPSO Advisory Committee on Tides and Mean Sea Level, 1982–1987
- Expert Panel on Nuclear Waste Disposal at Sea (for IMO) 1984–1985
- AMS Committee on Waves and Stability, 1979–1982
- AMS Committee on Mesoscale Meteorology, 1984–1986
- Canadian National Committee for SCOR, 1978–1981 (Chairman)
- Earth Sciences Grants Committee, National Research Council, 1976
- Interdisciplinary Grants Committee, NSERC, 1986–1989 (Chairman, 1989)
- Defence Science Advisory Board, DND, Ottawa, 1988–1990
- AGU Meetings Committee, 1988–1989
- Cody Award Selection Committee, Scripps Institute of Oceanography, 1988–1992.
- Director's Advisory Committee, Institute of Ocean Sciences, Sidney, Canada, 1991–1994
- Committee to Assess the Adequacy of Environmental Information for Alaskan Outer Continental Shelf Oil and Gas Leasing Decisions, U.S. N.R.C., 1992–1994
- Program Committee Member and Working Group Chairman for First International Conference on “Radioactivity and Environmental Security in the Oceans”, Woods Hole, 7–10 June 1993
- British Columbia/Washington State Marine Science Panel, 1993–1995

- Core Lecturer, Geophysical and Environmental Fluid Dynamics Summer School, Cambridge, September 1993–2000
- Fellows Selection Committee, Ocean Sciences Section, AGU, 1994–1998
- Prizes and Awards Committee, Canadian Meteorological and Oceanographic Society, 1994–1998.
- Committee on Expert Panels, Royal Society of Canada, 1995–2011
- Fellows Selection Committee, American Geophysical Union, 1996–1998
- Advisory Committee, “Mass Transfer and Ecosystem Response”, Marine Science and Technology Program, European Community, 1996–1999
- Fellow of the Japan Society for the Promotion of Science; 8 lectures in Japan, April, 1997
- Distinguished Visiting Lecturer, Scripps Institution of Oceanography, January 1998 (3 lectures).
- Scientific Group on Decommissioning of the Brent Spar, U.K. Government, 1998
- WHOI/MIT Joint Program Review Committee, August 1998
- Netherlands Institute for Sea Research Review Committee, April 1999
- University of Washington Applied Physics Laboratory Review Committee, May 1999
- Panel member, CBC Ideas Series on “Learning From Our Oceans”, 25 May, 2001, Victoria.
- Marine Monitoring Advisory Group, Capital Region District, 2001– 2010 (Chair 2009–2010)
- Miller Medal Committee, Royal Society of Canada, 2001–2004
- Section Committee 5, Royal Society of London, 2002–2005
- Oceanographic Awards Committee, American Meteorological Society, 2002–2005 (Chair 2005)
- Prince Albert 1 Medal Committee, IAPSO, 2002–2005 (Chair 2003–2005)
- SCOR Working Group 121 on Ocean Mixing, 2002–2008
- Houghton Lecturer, MIT, 2004
- Ewing Medal Committee, American Geophysical Union, 2009–2010
- Polar Research Board, U. S. National Academy of Sciences, 2009–2010
- Marine and Hydrokinetic Energy Technology Assessment, U.S. NRC, 2010–2013
- Scientific Advisory Committee, Royal Society of Canada, 2011–2016
- Environmental Advisory Committee, Oak Bay, 2012–2015
- Editorial Board, Proceedings of the Royal Society A, 2013–2018
- Associate Editor, Science Advances, 2014–2017
- Associate Reviews Editor, Proceedings of the Royal Society A, 2018–2023

## Publications

### Papers in refereed journals

1. Garrett, C. 1967. Discussion: The adiabatic invariant for wave propagation in a non-uniform moving medium. *Proc. Roy. Soc.*, A299, 26–7.
2. Bretherton, F.P. and C. Garrett. 1968. Wavetrains in inhomogeneous moving media. *Proc. Roy. Soc.*, A302, 529–54. Reprinted in “*Hyperbolic Equations and Waves*”, ed. M. Froissart, Springer-Verlag (1970).
3. Garrett, C. 1968. On the interaction between internal gravity waves and a shear flow. *J. Fluid Mech.*, 34, 711–720.
4. Garrett, C. 1969. The fundamental mode of acoustic gravity wave propagation in the atmosphere. *Fluid Dynamics Transactions* (Warsaw), Vol. 4, 707–719.
5. Garrett, C. 1969. Atmospheric edge waves. *Quart. J. Roy. Met. Soc.*, 95, 731–753.
6. Garrett, C. 1970. A theory of the Krakatoa tide gauge disturbances. *Tellus*, 22, 43–52.
7. Garrett, C. 1970. On cross waves. *J. Fluid Mech.*, 41, 837–849.
8. Garrett, C. 1970. Bottomless harbours. *J. Fluid Mech.*, 43, 433–449.
9. Garrett, C. 1971. Wave forces on a circular dock. *J. Fluid Mech.*, 46, 129–139.
10. Garrett, C. and W.H. Munk. 1971. The age of the tide and the ‘Q’ of the oceans. *Deep-Sea Res.*, 18, 493–503.
11. Garrett, C. and W.H. Munk. 1971. Internal wave spectra in the presence of finestructure. *J. Phys. Oceanogr.*, 1, 196–202.
12. Garrett, C. and W.H. Munk. 1972. Space-time scales of internal waves. *Geophys. Fluid Dyn.*, 2, 225–264.
13. Garrett, C. 1972. Tidal resonance in the Bay of Fundy and Gulf of Maine. *Nature*, 238, 441–443.
14. Garrett, C. and W.H. Munk. 1972. Oceanic mixing by breaking internal waves. *Deep-Sea Res.*, 19, 823–832.
15. W.H. Munk and C. Garrett. 1973. Internal wave breaking and microstructure (the chicken and the egg). *Boundary Layer Meteorology*, 4, 37–45.
16. Garrett, C. 1973. The effect of internal wave strain on vertical spectra of finestructure. *J. Phys. Oceanogr.*, 3, 83–85.
17. Garrett, C. 1974. Normal modes of the Bay of Fundy and Gulf of Maine. *Can. J. Earth Sci.*, 11, 549–556.
18. Garrett, C. 1975. Tides in gulfs. *Deep-Sea Res.*, 22, 23–35.

19. Garrett, C. and W.H. Munk. 1975. Space-time scales of internal waves: a progress report. *J. Geophys. Res.*, 80, 291–297.
20. Garrett, C. 1976. Generation of Langmuir circulation by surface waves — a feedback mechanism. *J. Marine Res.*, 34, 117–130.
21. Garrett, C. and R.H. Loucks. 1976. Upwelling along the Yarmouth shore of Nova Scotia. *J. Fish. Res. Bd. Canada*, 33, 116–117.
22. Garrett, C. and J.A. Smith. 1976. On the interaction between long and short surface waves. *J. Phys. Oceanogr.*, 6, 925–930.
23. Garrett, C. and D.A. Greenberg. 1977. Predicting changes in tidal regime: the open boundary problem. *J. Phys. Oceanogr.*, 7, 171–181.
24. Richman, J.G. and C. Garrett. 1977. The transfer of energy and momentum by the wind to the surface mixed layer. *J. Phys. Oceanogr.*, 7, 876–881.
25. Loder, J.W. and C. Garrett. 1978. The 18.6 cycle year of sea surface temperature due to variations in tidal mixing. *J. Geophys. Res.*, 83, 1967–1970.
26. Garrett, C. and E.P.W. Horne. 1978. Frontal circulation due to cabbeling and double diffusion. *J. Geophys. Res.*, 83, 4651–4656.
27. Garrett, C., J.R. Keeley and D.A. Greenberg. 1978. Tidal mixing versus thermal stratification in the Bay of Fundy and Gulf of Maine. *Atmosphere–Ocean*, 16, 403–423.
28. Garrett, C. 1979. Topographic Rossby waves off East Australia: identification and role in shelf circulation. *J. Phys. Oceanogr.*, 9, 244–253.
29. Garrett, C. 1979. Comment on “Some evidence for boundary mixing in the deep ocean” by Laurence Armi. *J. Geophys. Res.*, 84, 5095.
30. Garrett, C. 1979. Mixing in the ocean interior. *Dynamics of Atmospheres and Oceans*, 3, 239–265.
31. Garrett, C. and B. Toulany. 1979. A variable depth Green’s function for shelf edge tides. *J. Phys. Oceanogr.*, 9, 1258–1272.
32. Garrett, C. and B. Petrie. 1981. Dynamical aspects of the flow through the Strait of Belle Isle. *J. Phys. Oceanogr.*, 11, 376–393.
33. Garrett, C. and B. Toulany. 1981. Variability of the flow through the Strait of Belle Isle. *J. Mar. Res.*, 39, 163–189.
34. Garrett, C. and J.W. Loder. 1981. Dynamical aspects of shallow sea fronts. Invited paper, Royal Society Discussion Meeting on “Circulation and Fronts in Continental Shelf Seas” London, 25–26 February 1981. *Phil. Trans. R. Soc. A*, 302, 563–581.

35. Garrett, C. and B. Toulany. 1982. Sea level variability due to meteorological forcing in the Northeast Gulf of St. Lawrence. *J. Geophys. Res.*, 87, 1968–1978.
36. Loder, J.W., D.G. Wright, C. Garrett and B. Juszko. 1982. Horizontal exchange on central Georges Bank. *Can. J. Fisheries and Aquatic Sci.*, 39, 1130–1137.
37. Young, W.R., P.B. Rhines and C. Garrett. 1982. Shear flow dispersion, internal waves and horizontal mixing in the ocean. *J. Phys. Oceanogr.*, 12, 515–527.
38. Garrett, C. 1982. On the parameterization of diapycnal fluxes due to double diffusive intrusions. *J. Phys. Oceanogr.*, 12, 952–959.
39. Garrett, C. 1982. On spin-down in the ocean interior. *J. Phys. Oceanogr.*, 12, 989–993.
40. Garrett, C. 1981. Streakiness. *Ocean Modelling*, 41, 4–6.
41. Garrett, C. 1983. On the initial streakiness of a dispersing tracer in two- and three-dimensional turbulence. *Dynamics of Atmospheres and Oceans*, 7, 265–277.
42. Garrett, C. 1983. Variable sea level and strait flows in the Mediterranean: a theoretical study of the response to meteorological forcing. *Oceanologica Acta*, 6(1), 79–87.
43. Garrett, C. and F. Majaess. 1984. Non-isostatic response of sea level to atmospheric pressure in the Eastern Mediterranean. *J. Phys. Oceanogr.*, 14, 656–665.
44. Hayashi, T., D.A. Greenberg and C. Garrett. 1986. A note on open boundary conditions for numerical models of shelf sea circulation. *Continental Shelf Research*, 5, 487–497.
45. Toulany, B. and C. Garrett. 1984. Geostrophic control of fluctuating barotropic flow through straits. *J. Phys. Oceanogr.*, 14, 649–655.
46. Garrett, C. 1984. Statistical prediction of iceberg trajectories. *Iceberg Research*, 7, 3–7.
47. Garrett, C., J. Middleton, M. Hazen, and F. Majaess 1985. Tidal currents and eddy statistics from iceberg trajectories off Labrador. *Science*, 227, 1333–1335.
48. Garrett, C., F. Majaess and B. Toulany. 1985. Sea level response at Nain, Labrador, to atmospheric pressure and wind. *Atmosphere–Ocean*, 23, 95–117.
49. Garrett, C. 1985. Statistical prediction of iceberg trajectories. *Cold Regions Science and Technology*, 11, 255–266.
50. Ku, L.-F., D.A. Greenberg, C. Garrett and F.W. Dobson. 1985. The nodal modulation of the  $M_2$  tide in the Bay of Fundy and Gulf of Maine. *Science*, 230, 69–71.
51. Middleton, J. and C. Garrett. 1986. A kinematic analysis of polarized eddy fields using drifter data. *J. Geophys. Res.*, 91, 5094–5102.

52. Bormans, M., C. Garrett and K. Thompson. 1986. Seasonal variability of the surface inflow through the Strait of Gibraltar. *Oceanologica Acta*, 9, 403–414.
53. Toulany, B., B. Petrie and C. Garrett. 1987. The frequency-dependent structure and dynamics of flow through the Strait of Belle Isle. *J. Phys. Oceanogr.*, 17, 185–196.
54. Garrett, C. and J. Shepherd. 1987. A simple model for pollutant dispersal from a sea-floor source in the presence of bottom and interior scavenging. *Marine Environmental Research*, 22, 215–232.
55. Bewers, J.M. and C.J.R. Garrett. 1987. Analysis of the issues related to sea dumping of radioactive wastes. *Marine Policy*, 11(2), 105–124.
56. Petrie, B., B. Toulany and C. Garrett. 1988. The transport of water, heat and salt through the Strait of Belle Isle. *Atmosphere–Ocean*, 26, 234–251.
57. Bormans, M. and C. Garrett. 1989. The effect of rotation on the surface inflow through the Strait of Gibraltar. *J. Phys. Oceanogr.*, 19, 1535–1542.
58. Bormans, M. and C. Garrett. 1989. The effects of non-rectangular cross-section, friction and barotropic fluctuations on the exchange through the Strait of Gibraltar. *J. Phys. Oceanogr.*, 19, 1543–1557.
59. Garrett, C., J. Akerley, and K. Thompson. 1989. Low frequency fluctuations in the Strait of Gibraltar from MEDALPEX sea level data. *J. Phys. Oceanogr.*, 19, 1682–1696.
60. Bormans, M. and C. Garrett. 1989. A simple criterion for gyre formation by the surface outflow from a strait, with application to the Alboran Sea. *J. Geophys. Res.*, 94, 12,637–12,644.
61. Gilbert, D. and C. Garrett. 1989. Implications for ocean mixing of internal wave scattering off irregular topography. *J. Phys. Oceanogr.*, 19, 1716–1729.
62. Garrett, C. 1989. A mixing length interpretation of fluctuations in passive scalar concentration in homogeneous turbulence. *J. Geophys. Res.*, 94, 9710–9712.
63. Garrett, C. 1990. The role of secondary circulation in boundary mixing. *J. Geophys. Res.*, 95, 3181–3188.
64. Garrett, C., K. Thompson and W. Blanchard. 1990. Sea level flips. *Nature*, 348, p. 292.
65. Garrett, C. 1991. Marginal mixing theories. *Atmosphere–Ocean*, 29, 313–339.
66. McDougall, T. and C. Garrett. 1992. Scalar conservation equations in a turbulent ocean. *Deep-Sea Research*, 39, 1953–1966.
67. Garrett, C. 1992. Physical oceanography in relation to marine environmental protection. *Marine Pollution Bulletin*, 25, 41–44.

68. Bogucki, D. and C. Garrett. 1993. A simple model for the shear-induced decay of an internal solitary wave. *J. Phys. Oceanogr.*, *23*, 1767–1776.
69. Garrett, C., R. Outerbridge and K. Thompson. 1993. Interannual variability in Mediterranean heat and buoyancy fluxes. *J. Climate*, *6*, 900–910.
70. Li, M. and C. Garrett. 1993. Cell merging and the jet/downwelling ratio in Langmuir circulation. *J. Marine Res.*, *51*, 737–769.
71. van Haren, J., N. Oakey and C. Garrett. 1994. Measurements of internal wave band eddy fluxes above a sloping bottom. *J. Marine Res.*, *52*, 909–946.
72. Tandon, A. and C. Garrett. 1994. Mixed layer restratification due to a horizontal density gradient. *J. Phys. Oceanogr.*, *24*, 1419–1424.
73. Gilman, C. and C. Garrett. 1994. Heat flux parameterizations for the Mediterranean Sea: the role of atmospheric aerosols and constraints from the water budget. *J. Geophys. Res.*, *99*, 5119–5134.
74. Li, M. and C. Garrett. 1995. Is Langmuir circulation driven by surface waves or surface cooling? *J. Phys. Oceanogr.*, *25*, 64–76.
75. Garrett, C., K. Speer and E. Tragou. 1995. The relationship between water mass formation and the surface buoyancy flux, with application to Phillips' Red Sea model. *J. Phys. Oceanogr.*, *25*, 1696–1705.
76. Tandon, A. and C. Garrett. 1995. Geostrophic adjustment and restratification of a mixed layer with horizontal gradients above a stratified layer. *J. Phys. Oceanogr.*, *25*, 2229–2241.
77. Li, M., K. Zahariev and C. Garrett. 1995. The role of Langmuir circulation in the deepening of the surface mixed layer. *Science*, *270*, 1955–1957.
78. Li, M. and C. Garrett. 1997. Mixed layer deepening due to Langmuir circulation. *J. Phys. Oceanogr.*, *27*, 121–132.
79. Tandon, A. and C. Garrett. 1996. On a recent parameterization of mesoscale eddies. *J. Phys. Oceanogr.*, *26*, 406–411 .
80. Tragou, E., and C. Garrett. 1996. The stratification and circulation of the buoyancy driven Red Sea. *Ocean Modelling*, *110*, 6–9.
81. Zahariev, K. and C. Garrett. 1997. An apparent surface buoyancy flux associated with the nonlinearity of the equation of state. *J. Phys. Oceanogr.*, *27*, 362–368.
82. Tragou, E. and C. Garrett. 1997. The shallow thermohaline circulation of the Red Sea. *Deep-Sea Research*, *44*, 1355–1376.



83. Garrett, C. and A. Tandon. 1997. The effects on water mass formation of surface mixed layer time-dependence and entrainment fluxes. *Deep-Sea Research*, 44, 1991–2006.
84. Stansfield, K. and C. Garrett. 1997. Implications of the salt and heat budgets of the Gulf of Thailand. *J. Marine Res.*, 55, 1–29.
85. Ott, M. and C. Garrett. 1998. Secondary circulation in Juan de Fuca Strait. *J. Geophys. Res.*, 103, 15,657–15,666.
86. Li, M. and C. Garrett. 1998. The relationship between oil droplet sizes and upper ocean turbulence. *Mar. Poll. Bull.*, 36, 961–970.
87. Tragou, E., C. Garrett, R. Outerbridge and C. Gilman. 1999. The heat and water budgets for the Red Sea. *J. Phys. Oceanogr.*, 29, 2504–2522.
88. Garrett, C., M. Li and D. Farmer. 2000. The connection between bubble size spectra and energy dissipation rates in the upper ocean. *J. Phys. Oceanogr.*, 30, 2163–2171.
89. Stansfield, K., C. Garrett and R. Dewey. 2001. Calculating Thorpe scales and vertical mixing from CTD data, with application to Juan de Fuca Strait. *J. Phys. Oceanogr.*, 31, 3421–3434.
90. Garrett, C. 2001. An isopycnal view of near-boundary mixing and associated flows. *J. Phys. Oceanogr.*, 31, 138–142.
91. Garrett, C. 2001. What is the “near-inertial” band and why is it different from the rest of the internal wave spectrum? *J. Phys. Oceanogr.*, 31, 962–971.
92. Ross, T., C. Garrett and P.-Y. Le Traon. 2000. Western Mediterranean sea level rise: changing exchange flow through the Strait of Gibraltar. *Geophys. Res. Lett.*, 27, 2949–2952.
93. St. Laurent, L. and C. Garrett. 2002. The role of internal tides in mixing the deep ocean. *J. Phys. Oceanogr.*, 32, 2882–2899.
94. Ott, M. W., R. Dewey and C. Garrett. 2002. Reynolds stresses and secondary circulation in a stratified rotating shear flow. *J. Phys. Oceanogr.*, 32, 3249–3268.
95. Gerdes, F., C. Garrett and D. Farmer. 2002. A note on hydraulics with entrainment. *J. Phys. Oceanogr.*, 32, 1106–1111.
96. Garrett, C. and L. St. Laurent. 2002. Aspects of deep ocean mixing. *J. Oceanogr.*, 58, 11–24.
97. Garrett, C. and F. Gerdes. 2003. Hydraulic control of homogeneous shear flows. *J. Fluid Mech.*, 475, 163–172.
98. St. Laurent, L., Stringer S., C. Garrett and D. Perrault-Joncas. 2003. The generation of internal tides at abrupt topography. *Deep-Sea Research I*, 50, 987–1003.

99. Timmermans, M.-L., C. Garrett and E. Carmack. 2003. The thermohaline structure and evolution of the deep waters in the Canada Basin, Arctic Ocean. *Deep-Sea Research I*, 50, 1305–1321.
100. Garrett, C. 2004. Frictional processes in straits. *Deep-Sea Research II*, 51, 393–410.
101. Garrett, C. and P. Cummins. 2004. Generating tidal power from currents. *J. Waterway, Port, Coastal and Ocean Engineering*, 130, 114–118.
102. Johnson, H. and C. Garrett. 2004. Effects of noise on Thorpe scales and run lengths. *J. Phys. Oceanogr.*, 34, 2359–2372.
103. Ross, T. A., C. Garrett and R. Lueck. 2004. On the turbulent co-spectrum of two scalars and its effect on acoustic scattering from oceanic turbulence. *J. Fluid Mech.*, 514, 107–119.
104. Sutherland, G., Garrett, C. and M. Foreman. 2005. Tidal resonance in Juan de Fuca Strait and the Strait of Georgia. *J. Phys. Oceanogr.*, 35 1279–1286.
105. Garrett, C. and P. Cummins. 2005. The power potential of tidal currents in channels. *Proc. Roy. Soc. A*, 461, 2563–2572.
106. Li, M., C. Garrett and E. Skyllingstad. 2004. A regime diagram for classifying turbulent large eddies in the upper ocean. *Deep-Sea Research I*, 52, 259–278.
107. Dewey, R. K., Richmond, D. L. and C. Garrett. 2005. Stratified tidal flow over a bump. *J. Phys. Oceanogr.*, 35, 1911–1927.
108. Garrett, C. 2006. Turbulent dispersion in the ocean. *Progress in Oceanography*, 70, 113–125.
109. Johnson, H. and C. Garrett. 2006. What fraction of a Kelvin wave incident on a strait is transmitted? *J. Phys. Oceanogr.*, 36, 945–954.
110. Timmermans, M.-L. and C. Garrett. 2006. Evolution of the deep water in the Canadian Basin in the Arctic Ocean. *J. Phys. Oceanogr.*, 36, 866–874.
111. Baschek, B., D. M. Farmer and C. Garrett. 2006. Tidal fronts and their role in air-sea gas exchange. *J. Mar. Res.*, 64, 483–515.
112. Inoue, R. and C. Garrett. 2007. Fourier representation of quadratic friction. *J. Phys. Oceanogr.*, 37, 593–610.
113. Garrett, C. and T. Gerkema. 2007. On the body-force term in internal-tide generation. *J. Phys. Oceanogr.*, 37, 2172–2175.
114. Sutherland, G., M. Foreman and C. Garrett. 2007. Tidal current energy assessment for Johnstone Strait, Vancouver Island. *J. Power and Energy*, 221, 147–157.

115. Gemmrich, J. R., M. L. Banner and C. Garrett. 2008. Spectrally resolved energy dissipation and momentum flux of breaking waves. *J. Phys. Oceanogr.*, *38*, 1296–1312.
116. Garrett, C. and P. Cummins. 2007. The efficiency of a turbine in a tidal channel. *J. Fluid Mech.*, *588*, 243–251.
117. Arbic, B. K., P. St-Laurent, G. Sutherland and C. Garrett. 2007. On the resonance and influence of the tides in Ungava Bay and Hudson Strait. *Geophys. Res. Lett.*, *34*, L17606, doi:10.1029/2007GL030845.
118. Blanchfield, J., C. Garrett, P. Wild, and A. Rowe. 2008. The extractable power from a channel linking a bay to the open ocean. *J. Power and Energy*, *222*, 289–297.
119. Gemmrich, J. and C. Garrett. 2008. Unexpected waves. *J. Phys. Oceanogr.*, *38*, 2330–2336.
120. Garrett, C. and P. Cummins. 2008. Limits to tidal current power. *Renewable Energy*, *33*, 2485–2490.
121. Blanchfield, J., C. Garrett, P. Wild, and A. Rowe. 2008. Tidal stream power resource assessment for Masset Sound, Haida Gwaii. *J. Power and Energy*, *222*, 485–492.
122. Chapman, P. M., J. Cullen, C. Garrett, J. Littlepage, T. Pedersen, D. Varela, R. Macdonald, R. Thomson and T. Parsons. 2008. Sewage treatment wasted – The Victoria (BC, Canada) example. *Marine Pollution Bulletin*, *56*, 1815–1816.
123. Arbic B. K., R. Karsten, and C. Garrett. 2009. On tidal resonance in the global ocean and the back-effect of coastal tides upon open-ocean tides. *Atmosphere Ocean*, *47*, 239–266.
124. Arbic B. K. and C. Garrett. 2009. A coupled oscillator model of shelf and ocean tides. *Cont. Shelf Res.*, *30*, 564–574.
125. Gemmrich, J. and C. Garrett. 2010. Unexpected waves: intermediate depth simulations and comparison with observations. *Ocean Engineering*, *37*, 262–267.
126. Gemmrich, J. and C. Garrett. 2011. Dynamical and statistical explanations of observed occurrence rates of rogue waves. *Nat. Hazards Earth Syst. Sci.*, *11*, 1437–1446.
127. Gemmrich, J. and C. Garrett. 2012. Surface wave modulation by inertial and tidal currents in deep water. *J. Phys. Oceanogr.*, *42*, 1051–1056.
128. Garrett, C. and P. Cummins. 2013. Maximum power from a turbine farm in shallow water. *J. Fluid Mech.*, *714*, 634–643.
129. Gemmrich, J., B. Baschek, and C. Garrett. 2013. A rare but damaging rogue wave from an unexpected direction. *Seaways*, September 2013, 14–16.

130. Garrett, C. 2022. A scientific visit to the USSR in 1963. *Notes and Records*, <https://doi.org/10.1098/rsnr.2022.0031>.

### **Book chapters and invited reviews**

131. Trites, R.W. and C. Garrett. 1983. The Physical Oceanography of the Quoddy Region. Chapter 3 of *Marine and Coastal Systems of the Quoddy Region*, New Brunswick, ed. M.L.H. Thomas. 9–34.
132. Garrett, C. and W.H. Munk. 1979. Internal waves in the ocean. *Ann. Rev. Fluid Mech.*, *11*, 339–369.
133. Garrett, C., P. MacCready and P. Rhines. 1993. Boundary mixing and arrested Ekman layers: rotating, stratified flow near a sloping boundary. *Ann. Rev. Fluid Mech.*, *25*, 291–323.
134. Garrett, C. 1996. The role of the Strait of Gibraltar in the evolution of Mediterranean water properties and circulation. *Bulletin de l'Institut Océanographique, Monaco*, *17*, 1–19.
135. Li, M. and C. Garrett. 1998. Large eddies in the surface mixed layer and their effects on mixing, dispersion and biological cycling. In: *Physical Processes in Lakes and Oceans, Coastal and Estuarine Studies*, *54*, 61–86.
136. Garrett, C. 2000. The dynamic ocean. In: *Perspectives in Fluid Dynamics*, Cambridge University Press, 507–556.
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### **Invited commentaries**

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