

Bibliography

- Aldridge, K. D. 1972 Axisymmetric inertial oscillations of a fluid in a rotating spherical shell. *Mathematika* **19**, 163–168.
- Aldridge, K. D. & Lumb, L. 1987 Inertial waves identified in the earth's fluid core. *Nature* **325**, 421–423.
- Aldridge, K. D., Lumb, L. I. & Henderson, G. A. 1989 A poincaré model for the earth's fluid core. *Geophys. Astrophys. Fluid Dyn.* **48**, 5–23.
- Aldridge, K. D. & Toomre, A. 1969 Axisymmetric inertial oscillations of a fluid in a rotating spherical container. *J. Fluid Mech.* **37**, 307–323.
- Arnol'd, V. I. 1965 Small denominators. I Mappings of the circumference to itself. *Am. Math. Soc. Transl. Series 2* **46**, 213–263.
- Arnol'd, V. I. & Khesin, B. A. 1998 *Topological methods in hydrodynamics*. Springer, New York.
- Baines, P. G. 1967 Forced oscillations of an enclosed rotating fluid. *J. Fluid Mech.* **30**, 533–546.
- Baines, P. G. 1986 Internal tides, internal waves and near-inertial motions. In *Baroclinic processes on continental shelves* (ed. N. K. Mooers). American Geophysical Union.
- Beardsley, R. C. 1970 An experimental study of inertial waves in a closed cone. *Stud. Appl. Maths.* **49**, 187–196.
- Bourgin, D. G. 1939 The Dirichlet problem for the damped wave equation. *Bull. Am. Math. Soc.* pp. 97–120.
- Bourgin, D. G. & Duffin, R. 1939 The Dirichlet problem for the vibrating string equation. *Bull. Am. Math. Soc.* **45**, 851–858.
- Bretherton, P. 1964 Low frequency oscillations trapped near the equator. *Tellus* **XVI** (2), 181–185.
- Bryan, G. 1889 The waves on a rotating liquid spheroid of finite ellipticity. *Phil. Trans. R. Soc. London* **180**, 187–219.

- Cacchione, D. & Wunsch, C. 1974 Experimental study of internal waves over a slope. *J. Fluid Mech.* **66**, 223–239.
- Cartan, M. E. 1922 Sur les petites oscillations d'une masse de fluide. *Bull. des Sciences Math.* **46**, 317–369.
- Coddington, E. A. & Levinson, N. 1955 *Theory of ordinary differential equations*. McGraw-Hill, New York.
- Dauxois, T. & Young, W. R. 1999 Near-critical reflection of internal waves. *J. Fluid Mech.* **390**, 271–295.
- De Melo, W. & van Strien, S. 1993 *One-Dimensional Dynamics*. Springer.
- DiMarco, S. F., Chapman, P., W. D. Nowlin Jr., Hacker, P., Donohue, K., Luther, M., Johnson, G. C. & Toole, J. 2002 Volume transport and property distributions of the Mozambique Channel. *Deep-Sea Research II* **49**, 1481–1511.
- Dintrans, B., Rieutord, M. & Valdettaro, L. 1999 Gravito-inertial waves in a rotating stratified sphere or spherical shell. *J. Fluid Mech.* **398**, 271–297.
- Egbert, G. D. & Ray, R. D. 2001 Estimates of M2 tidal energy dissipation from TOPEX/Poseidon altimeter data. *J. Geoph. Res.* **106**, 22475–22502.
- Eriksen, C. C. 1982 Observations of internal wave reflection off sloping bottoms. *J. Geoph. Res.* **87** (C1), 525–538.
- Fincham, A. & Spedding, G. R. 1997 Low cost, high resolution dpiv for measurement of turbulent fluid flow. *Exp. in Fluids* **23**, 449–462.
- Franklin, J. N. 1972 Axisymmetric inertial oscillations of a rotating fluid. *Jour. of Math. Anal. and Appl.* **39**, 742–760.
- Franks, P. J. S. 1995 Thin layers of phytoplankton: a model of formation by near-inertial wave shear. *Deep-Sea Research* **42**, 75–91.
- Fricker, P. D. & Nepf, H. M. 2000 Bathymetry, stratification, and internal seiche structure. *J. Geoph. Res.* **105**, 14237–14251.
- Friedlander, S. 1982 Turning surface behaviour for internal waves subject to general gravitational fields. *Geophys. Astrophys. Fluid Dyn* **21**, 189–200.
- Friedlander, S. & Siegmann, W. L. 1982 Internal waves in a rotating stratified fluid in an arbitrary gravitational field. *Geophys. Astrophys. Fluid Dyn* **19**, 267–291.
- Fu, L.-L. 1981 Observations and models of inertial waves in the deep ocean. *Rev. Geoph. Space Phys.* **19**, 141–170.
- Fultz, D. 1959 A note on the overstability and the elastoid-inertia oscillations of Kelvin, Solberg and Bjerknes. *J. Meteorol.* **16**, 199–208.

- Garrett, C. & Munk, W. 1972 Space-time scales of internal waves. *Geophys. Fluid Dyn.* **2**, 225–264.
- Genin, A., Paull, C. K. & Dillon, W. P. 1992 Anomalous abundances of deep-sea fauna on a rocky bottom exposed to strong currents. *Deep-Sea Research* **39**, 293–302.
- Gerkema, T. 2001 Internal and interfacial tides: beam scattering and local generation of solitary waves. *J. Mar. Res.* **59**, 227–255.
- Gerkema, T. 2002 Application of an internal tide generation model to baroclinic spring-neap cycles. *J. Geophys. Res.* **107**, doi:10.1029/2001JC001177.
- Gerkema, T., Lam, F.-P. A. & Maas, L. R. M. 2003 Internal tides in the Bay of Biscay: conversion rates and seasonal effects. *subm. to Deep Sea Res. II*.
- Gill, A. E. 1982 *Atmosphere-Ocean Dynamics*. Academic Press.
- Görtler, H. 1943 Über eine Schwingungserscheinung in Flüssigkeiten mit stabiler Dichteschichtung. *Z. angew. Math. Mech.* **23**, 65–71.
- Görtler, H. 1944 Einige Bemerkungen über Strömungen in rotierenden Flüssigkeiten. *Z. angew. Math. Mech.* **25**, 210–214.
- Greenspan, H. P. 1968a On the inviscid theory of rotating fluids. *Stud. Appl. Math.* **48**, 19–28.
- Greenspan, H. P. 1968b *The theory of rotating fluids*. Cambridge University Press.
- van Haren, H. 2002 Incoherent internal tidal currents in the deep-ocean. *Subm. to Ocean Dyn.*
- van Haren, H., Maas, L. & van Aken, H. 2002 On the nature of internal wave spectra near a continental slope. *Geoph. Res. Lett.* **29**, doi:10.1029/2001GL014341.
- van Haren, H. & Millot, C. 2003 Rectilinear and circular inertial motions in the Western Mediterranean Sea. *Oceanol. Acta* **in press**.
- van Heijst, G. J. F., Maas, L. R. M. & Williams, C. W. M. 1994 The spin-up of fluid in a rectangular container with a sloping bottom. *J. Fluid Mech.* **265**, 125–159.
- Henderson, G. A. & Aldridge, K. D. 1992 A finite-element method for inertial waves in a frustum. *J. Fluid Mech.* **234**, 317–327.
- Høiland, E. 1962 Discussion of a hyperbolic equation relating to inertia and gravitational fluid oscillations. *Geophys. Publ.* **XXIV** (6), 211–227.
- Hollerbach, R. & Kerswell, R. R. 1995 Oscillatory internal shear layers in rotating and precessing flows. *J. Fluid Mech.* **298**, 327–339.
- Holloway, P. E., Chatwin, P. G. & Craig, P. 2001 Internal tide observations from the Australian North West shelf in summer 1995. *J. Phys. Oc.* **31**, 1182–1199.

- Israeli, M. 1972 On trapped oscillations of rotating fluids in spherical shells. *Stud. Appl. Maths.* **51**, 219–237.
- Ivey, G. N. & Nokes, R. I. 1989 Vertical mixing due to the breaking of critical internal waves on sloping boundaries. *J. Fluid Mech.* **204**, 479–500.
- John, F. 1941 The Dirichlet problem for a hyperbolic equation. *Am. J. Math.* **63**, 141–154.
- John, F. 1978 *Partial differential equations*. Springer Verlag, New York.
- Kelvin, L. 1880 Vibrations of a columnar vortex. *Phil. Mag.* **10**, 155–168.
- Krauss, W. 1966 *Interne Wellen*. Gebr. Borntraeger, Berlin.
- Kunze, E. 1985 Near-inertial wave propagation in geostrophic shear. *J. Phys. Oc* **15**, 544–565.
- Lam, F.-P. A., Maas, L. R. M. & Gerkema, T. 2003 Spatial structure of tidal and residual currents as observed over the shelf break in the Bay of Biscay. *subm to* .
- Leaman, K. D. 1980 Some observations of baroclinic diurnal tides over a near-critical bottom slope. *J. Phys. Oc* **10**, 1540–1551.
- LeBlond, P. H. & Mysak, L. A. 1978 *Waves in the Ocean*. Elsevier.
- LeProvost, C. 2001 Ocean tides. In *Satellite altimetry and Earth sciences* (ed. L.-L. Fu & A. Cazenave). Academic Press.
- Lerczak, J. A., Winant, C. D. & Hendershott, M. C. 2003 Observations of the semidiurnal internal tide on the southern California slope and shelf. *J. Geophys. Res.* **108** (C3), doi 10.1029/2001JC001128.
- Levine, M. D. 2002 A modification of the Garrett-Munk internal wave spectrum. *J. Phys. Oc.* **32**, 3166–3181.
- Maas, L. R. M. 2001 Wave focusing and ensuing mean flow due to symmetry breaking in rotating fluids. *J. Fluid Mech.* **437**, 13–28.
- Maas, L. R. M. 2003 On the amphidromic structure of inertial waves in a rectangular parallelepiped. *Fluid Dyn. Res.* **in press**.
- Maas, L. R. M., Benielli, D., Sommeria, J. & Lam, F.-P. A. 1997 Observation of an internal wave attractor in a confined, stably stratified fluid. *Nature* **388**, 557–561.
- Maas, L. R. M. & van Haren, J. J. M. 1987 Observations on the vertical structure of tidal and inertial currents in the central North Sea. *J. Mar. Res.* **45**, 293–318.
- Maas, L. R. M. & Lam, F.-P. A. 1995 Geometric focusing of internal waves. *J. Fluid Mech.* **300**, 1–41.
- Magaard, L. & McKee, W. D. 1973 Semidiurnal tidal currents at ‘site D’. *Deep-Sea Research* **20**, 997–1009.

- Magnus, W., Oberhettinger, F. & Soni, R. P. 1966 *Formulas and Theorems for the Special Functions of Mathematical Physics, 3rd edn.* Springer.
- Malkus, W. V. R. 1968 Precession of the Earth as the cause of geomagnetism. *Science* **160** (3825), 259–264.
- Manasseh, R. 1992 Breakdown regimes of inertia waves in a precessing cylinder. *J. Fluid Mech.* **243**, 261–296.
- Manasseh, R. 1993 Visualization of the flows in precessing tanks with internal baffles. *Am. Inst. Aeronaut. Astronaut. J.* **31**, 312–318.
- McEwan, A. D. 1970 Inertial oscillations in a rotating fluid cylinder. *J. Fluid Mech.* **40**, 603–640.
- Morozov, E. G. 1995 Semidiurnal internal wave global field. *Deep-Sea Res. I* **42**, 135–148.
- Munk, W. & Wunsch, C. 1998 Abyssal recipes II: energetics of tidal and wind mixing. *Deep-Sea Res. I* **45**, 1977–2010.
- Myint-U, T. & Debnath, L. 1987 *Partial differential equations for scientists and engineers.* New York: North Holland.
- Oser, H. 1958 Experimentelle Untersuchung über harmonische Schwingungen in rotierenden Flüssigkeiten. *Z. angew. Math. Mech.* **38** (9/10), 386–391.
- Petruncio, E. T., Rosenfeld, L. K. & Paduan, J. D. 1998 Observations of the internal tide in Monterey Canyon. *J. Phys. Oc.* **28**, 1873–1903.
- Phillips, O. M. 1963 Energy transfer in rotating fluids by reflection of inertial waves. *The Physics of Fluids* **6**, 513–520.
- Pingree, R. D. & New, A. L. 1991 Abyssal penetration and bottom reflection of internal tidal energy in the Bay of Biscay. *J. Phys. Oc.* **21**, 28–39.
- van der Plas, G. A. J. & Bastiaans, R. J. M. 2000 The fptvwiz algorithm and its validation with synthetic data. *Tech. Rep.*. Eindhoven University of Technology.
- Poincaré, H. 1885 Sur l' équilibre d'une masse fluide animée d'un mouvement de rotation. *Acta Mathematica* **VIII**, 259–380.
- Ray, R. D. & Mitchum, G. T. 1997 Surface manifestation of internal tides in the deep ocean: observations from altimetry and island gauges. *Prog. Oceanog.* **40**, 135–162.
- Ridderinkhof, H. & de Ruijter, W. P. M. 2003 Moored current observations in the mozambique channel. *Deep Sea Res. II* **50/12-13**, 1933–1955.
- Rieutord, M. 1995 Inertial modes in the liquid core of the Earth. *Phys. Earth. Plan. Int.* **91**, 41–46.

- Rieutord, M., Georgeot, B. & Valdetaro, L. 2001 Inertial waves in a rotating spherical shell: attractors and asymptotic spectrum. *J. Fluid Mech.* **435**, 103–144.
- Rieutord, M. & Valdetaro, L. 1997 Inertial waves in a rotating spherical shell. *J. Fluid Mech.* **341**, 77–99.
- Rieutord, M., Valdetaro, L. & Georgeot, B. 2002 Analysis of singular inertial modes in a spherical shell: the slender toroidal shell model. *J. Fluid Mech.* **463**, 345–360.
- Robertson, R. 2001 Internal tides and baroclinicity in the Southern Weddell Sea 2. effects of the critical latitude and stratification. *J. Geoph. Res. C11* **106**, 2000JC000467.
- Schuman, E. H. 1998 *The Sea*, , vol. 11, chap. The coastal ocean off southeast Africa, including Madagascar. John Wiley&Sons.
- Schuster, H. G. 1984 *Deterministic chaos*. Physik Verlag.
- Sjöberg, B. & Stigebrandt, A. 1992 Computations of the geographical distribution of the energy flux to mixing processes via internal tides and the associated vertical circulation in the ocean. *Deep-Sea Res.* **39**, 269–291.
- Stern, M. E. 1963 Trapping of low frequency oscillations in an equatorial ‘boundary layer’. *Tellus XV* (3), 246–250.
- Stewartson, K. 1971 On trapped oscillations of a rotating fluid in a thin spherical shell. *Tellus XXII* (6), 506–510.
- Stewartson, K. 1972 On trapped oscillations of a rotating fluid in a thin spherical shell ii. *Tellus XXIV* (4), 283–286.
- Stewartson, K. & Rickard, J. A. 1969 Pathological oscillations of a rotating fluid. *J. Fluid Mech.* **5**, 577–592.
- Tilgner, A. 1999 Driven inertial oscillations in spherical shells. *Phys. Review E* **59**, 1789–1794.
- Tolstoy, I. 1973 *Wave propagation*. McGraw-Hill.
- Turner, J. S. 1973 *Buoyancy effects in fluids*. Cambridge University Press.
- van Veldhoven, A. K. 2000 The propagation of internal tides in the Faeroe-Shetland channel. Master’s thesis, Utrecht University, iMAU V-00-06.
- Veronis, G. 1970 The analogy between rotating and stratified fluids. *Ann. Rev. Fluid Mech.* **2**, 37–66.
- Wood, W. W. 1965 Properties of inviscid, recirculating flows. *J. Fluid Mech.* **22**, 337–346.
- Wunsch, C. 1969 Progressive internal waves on slopes. *J. Fluid Mech.* **35**, 131–144.
- Wunsch, C. 1975 Deep ocean internal waves: what do we really know? *J. Geophys. Res* **80**, 339–343.

Wunsch, C. 1976 Geographical variability of the internal wave field: A search for sources and sinks. *J. Phys. Oceanogr* **6**, 471–485.