

RAYMOND HIDE

BIBLIOGRAPHY

Raymond Hide: REFEREED PUBLICATIONS

1. "A model experiment on thermal convection in the Earth's core", (R. Hide), *Ann. Geophys.* 8, 17-18, 1952.
2. "Some experiments on thermal convection in a rotating liquid", (R. Hide), *Quart. J. Roy. Meteorol. Soc.*, 79, 161, 1953.
3. "Fluid motions in the Earth's core, and some experiments on thermal convection in a rotating fluid", (R. Hide), in *Proceedings of the First Symposium on the Use of Models in Geophysical Fluid Dynamics* (Baltimore, September 1953) (edited by R.R. Long), 101-116, 1953.
4. "The character of the equilibrium of an incompressible heavy viscous fluid of variable density: an approximate theory", (R. Hide), *Proc. Cambridge Phil. Soc.*, 51, 179-201, 1955.
5. "Waves in a heavy viscous incompressible electrically-conducting fluid of variable density in the presence of a magnetic field", (R. Hide), *Proc. Roy. Soc. London*, A233, 376-396, 1955.
6. "The character of the equilibrium of a heavy viscous incompressible rotating fluid of variable density: I General theory", (R. Hide), *Quart. J. Mech. Appl. Math.* 60, 22-34, 1956.
7. "The character of the equilibrium of a heavy viscous incompressible rotating fluid of variable density; II Two special cases", (R. Hide), *Quart. J. Mech. Appl. Math.* 60, 35-50, 1956.
8. "The hydrodynamics of the Earth's core", (R. Hide), in *Physics and Chemistry of the Earth*, (ed. Ahrens, Rankama and Runcorn), Pergamon Press, London, 1, 94-137, 1956.
9. "An experimental study of thermal convection in a rotating liquid", (R. Hide), *Phil. Trans. Roy. Soc. London*, A250, 441-478, 1958.
10. "An experiment on the interaction between a plane shock and magnetic field", (K. Dolder and R. Hide), *Nature*, 181, 1116-1118, 1958.
11. "Experiments on the passage of a shock wave through a magnetic field", (K. Dolder and R. Hide), *Rev. Mod. Phys.*, 32, 770-779, 1960.
12. "Hydromagnetic flow due to an oscillating plane", (R. Hide and P.H. Roberts), *Rev. Mod. Phys.*, 32, 799-806, 1960.
13. "The origin of the main geomagnetic field", (R. Hide and P.H. Roberts), *Physics and Chemistry of the Earth*, (ed. Ahrens, Press, Rankama and Runcorn), Pergamon Press, London, 4, 27-98, 1961.
14. "Hydrodynamical flow in the Earth's core", (R. Hide), in *Dictionary of Physics*, Pergamon Press, London, 1083-1088, 1961.
15. "Origin of Jupiter's Great Red Spot", (R. Hide), *Nature*, 190, 895-896, 1961.
16. "Some elementary problems in magnetohydrodynamics", (R. Hide and P.H. Roberts), *Adv. Appl. Mech.*, 7, 215-316, 1962.
17. "On the hydrodynamics of Jupiter's atmosphere", (R. Hide), in *La Physique des Planètes*, *Mem. Soc. Roy. Sci. Liège*, Ser. 5, 7, 481-505, 1962.
18. "The viscous boundary layer at the free surface of a rotating baroclinic fluid", (R. Hide), *Tellus*, 16, 523-529, 1964.
19. "The viscous boundary layer at the free surface of a rotating baroclinic fluid: effects due to the temperature dependence of surface tension", (R. Hide), *Tellus*, 17, 440-442, 1965.

20. "Thermal convection in a rotating annulus of liquid: effect of viscosity on the transition between axisymmetric and non-axisymmetric flow regimes" (W.W. Fowles and R. Hide), *J. Atmos. Sci.*, 22, 541-558, 1965.

21. "On the theory of the geomagnetic secular variation", (R. Hide), in *Magnetism and the Cosmos*, (ed. Hindmarsh, Lowes, Roberts and Runcorn), Oliver and Boyd, Edinburgh, 141-147, 1965.

22. "Taylor columns", (R. Hide and A. Ibbetson), in *Magnetism and the Cosmos*, (ed. Hindmarsh, Lowes, Roberts and Runcorn), Oliver and Boyd, Edinburgh, 343-347, 1965.

23. "On the dynamics of Jupiter's interior and the origin of his magnetic field", (R. Hide), in (ed. Hindmarsh, Lowes, Roberts and Runcorn), *Magnetism and the Cosmos*, Oliver and Boyd, Edinburgh, 378-395, 1965.

24. "An experimental study of "Taylor columns", (R. Hide and A. Ibbetson), *Icarus*, 5, 279-290, 1966.

25. "Free hydromagnetic oscillations of the Earth's core and the theory of the geomagnetic secular variation", (R. Hide), *Phil. Trans. Roy. Soc. London*, A259, 615-647, 1966.

26. "Planetary magnetic fields", (R. Hide), *Planet. Space Sci.*, 14, 579-586, 1966.

27. "On the circulation of the atmospheres of Jupiter and Saturn", (R. Hide), *Planet. Space Sci.*, 14, 669-675, 1966.

28. "The dynamics of rotating fluids and related topics in geophysical fluid dynamics", (R. Hide), *Bull. Amer. Meteorol. Soc.*, 47, 873-885, 1966.

29. "Planetary magnetic fields", (R. Hide), *Science Year Book*, McGraw-Hill Publishing Co., New York, 224-226, 1967.

30. "On the vertical stability of a rotating fluid subject to a horizontal temperature gradient", (R. Hide), *J. Atmos. Sci.*, 24, 6-9, 1967.

31. "Theory of axisymmetric thermal convection in a rotating fluid annulus", (R. Hide), *Phys. Fluids*, 10, 56-68, 1967.

32. "Motions of the Earth's core and mantle, and variations of the main geomagnetic field", (R. Hide), *Science*, 157, 55-56, 1967.

33. "Detached shear layers in a rotating fluid", (R. Hide and C.W. Titman), *J. Fluid Mech.*, 29, 39-60, 1967.

34. "Jupiter and Saturn", (R. Hide), in *The Earth in Space* (ed. Hugh Odishaw), Basic Books Inc., New York, 189-198, 1967.

35. "Electrical conductivity of the Earth's liquid core", (R. Hide), *International Dictionary of Geophysics*, (ed. S K Runcorn), Pergamon Press, London, 1, 358, 1967.

36. "Magnetohydrodynamic waves within the Earth", (R. Hide), *International Dictionary of Geophysics*, (ed. S K Runcorn), Pergamon Press, London, 2, 897, 1967.

37. "Inertial effects in shear layers in rotating fluids", (R. Hide), *Phys. Fluids*, 10, S 306, 1967.

38. "Jupiter's Great Red Spot", (R. Hide), *Scientific American*, 218, 75-82, 1968.

39. "On slow transverse flow past obstacles in a rapidly rotating fluid", (R. Hide, A. Ibbetson and M.J. Lighthill), *J. Fluid Mech.*, 32, 251-272, 1968.

40. "On source-sink flows in a rotating fluid", (R. Hide), *J. Fluid Mech.*, 32, 737-764, 1968.

41. "On the topography of the core-mantle interface", (R. Hide and K.I. Horai), *Physics of the Earth and Planetary Interiors*, 1, 305-308, 1968.
42. "Planetary circulation", (R. Hide), Film and teachers' notes on global circulation of the Earth's atmosphere commissioned by the American Meteorological Society, 1968.
43. "On the dynamics of the Earth's deep interior", (R. Hide), in *The Application of Modern Physics to the Earth and Planetary Interiors* (ed. S K Runcorn), John Wiley and Sons Ltd., London, 651-652, 1969.
44. "Interaction between the Earth's liquid core and solid mantle", (R. Hide), *Nature*, 222, 1055-1056, 1969.
45. "Dynamics of the atmospheres of the major planets", (R. Hide), *J. Atmos. Sci.*, 26, 841-847, 1969.
46. "The viscous boundary layer at the rigid bounding surface of an electrically-conducting rotating fluid in the presence of a magnetic field", (R. Hide), *J. Atmos. Sci.*, 26, 847-853, 1969.
47. "On hydromagnetic waves in a stratified rotating incompressible fluid", (R. Hide), *J. Fluid Mech.*, 39, 283-287, 1969.
48. "Some laboratory experiments on free thermal convection in a rotating fluid subject to a horizontal temperature gradient and their relation to the theory of the global atmospheric circulation", (R. Hide), in *The Global Circulation of the Atmosphere* (ed. G.A. Corby), Royal Meteorological Society, London, 196-221, 1969.
49. "Equatorial jets in planetary atmospheres", (R. Hide), *Nature*, 225, 254-255, 1970.
50. "Novel correlations between global features of the Earth's gravitational and magnetic fields", (R. Hide and S.R.C. Malin), *Nature*, 225, 605-609, 1970.
51. "Planetary magnetic fields", (R. Hide), in *Surfaces and Interiors of the Planets and Satellites*, (ed. A. Dollfus), Academic Press Inc., London and New York, 511-534, 1970.
52. "Geophysical data and long-wave heterogeneities of the Earth's mantle", (R. Hide), *J. Geophys. Res.*, 75, 2141, 1970.
53. "Comments on two papers by J. Findlater on the interhemispheric transport of air in the troposphere over the Indian Ocean by a low level cross-equatorial jet", (R. Hide), *Quart. J. Roy. Met. Soc.*, 96, 551-552, 1970.
54. "On the Earth's core-mantle interface" (Symons Memorial Lecture), (R. Hide), *Quart. J. Roy. Meteorol. Soc.*, 96, 579-590 1970.
55. "Baroclinic waves in a rotating fluid subject to internal heating", (R. Hide and P.J. Mason), *Phil. Trans. Roy. Soc. London*, A268, 201-232, 1970.
56. "Magnetohydrodynamic oscillations of neutron stars", (R. Hide), *Nature*, 229, 114-115, 1971.
57. "Novel correlations between global features of the Earth's gravitational and magnetic fields: further statistical considerations", (R. Hide and S.R.C. Malin), *Nature*, 230, 63, 1971.
58. "Magnetohydrodynamics and the 1970 Nobel Prize for Physics", (R. Hide), *Weather*, 26, 128, 1971.353,
59. "On planetary atmospheres and interiors", (R. Hide), *Lect. Appl. Math.*, 13, 229-353, (American Mathematical Society), 1971.

60. "On geostrophic motion of a non-homogeneous fluid", (R. Hide), J. Fluid Mech., 49, 745-751, 1971.
61. "Motions in planetary atmospheres: a review", (R. Hide), Met. Mag., 100, 168-276, 1971.
62. "Viscosity of the Earth's core", (R. Hide), Nature Phys. Sci., 233, 100-101, 1971.
63. "Magnetohydrodynamics of rotating fluids: A summary of some recent work", (R. Hide), Quart. J.R. Astr. Soc., 12, 380-383, 1971.
64. "Correlations between the Earth's gravitational and magnetic fields: effect of rotation in latitude", (R. Hide and S.R.C. Malin), Nature Phys. Sci., 232, 31-33, 1971.
65. "Bumps on the core-mantle boundary", (R. Hide and S.R.C. Malin), Comments on Earth Sciences: Geophysics, 2, No.1, 1-13, 1971.
66. "An investigation of the structure of baroclinic waves using three-level streak photography", (H.A. Douglas, R. Hide and P.J. Mason), Quart. J. R. Met. Soc., 98, 247-263, 1972.
67. "Jupiter's Great Red Spot revisited", (R. Hide), Phys. Earth Planet. Interiors, 6, 99, 1972.
68. "Viscosity of the Earth's core", (R. Hide), Phys. Earth Planet. Interiors, 6, 205, 1972.
69. "Comments on the Moon's magnetism", (R. Hide), The Moon, 4, 39, 1972.
70. "Hydromagnetic waves on a beta-plane: a numerical study of the dispersion relationship", (R. Hide and M.V. Jones), Scientific Publications of the Meteorological Office, No. 33 (16 pages). London, Her Majesty's Stationery Office, 1972.
71. "Hydromagnetic oscillations of the Earth's core", (R. Hide and K. Stewartson), Rev. Geophys. and Space Physics, 10, 579-598, 1972.
72. "Correlations between gravitational and geomagnetic potentials: recent developments", (R. Hide and S.R.C. Malin), Trans. Am. Geophys. Un., 53, 610, 1972.
73. "Hydromagnetics of rotating fluids", (D.J. Acheson and R. Hide), Rep. Prog. Phys., 36, 159-221, 1973.
74. "On the three-dimensional structure of non-axisymmetric thermal convection in a rotating fluid annulus", (R. Hide and P.J. Mason), Quart. J.R. Met. Soc., 99, 203-205, 1973.
75. "Jupiter and Saturn", (R. Hide), Proc. Roy. Soc. London, A336, 63-84, 1974.
76. "Motions in Jupiter's atmosphere", (R. Hide), in Proceedings of the International Astronomical Union Symposium on the Exploration of the Planetary System Torun (Poland) 1973 (ed. Woszczyk and Iwaniszewska), 389-390, D. Reidel, Dordrecht, Holland, 1974.
77. "Sloping convection in a rotating fluid", (R. Hide and P.J. Mason), Advances in Physics, 24, 47-100, 1975.
78. "Origin of Jupiter's magnetic field", (R. Hide), Geophys. J. Roy. Astron. Soc., 41, 347-348, 1975.
79. "Jupiter and Saturn", (R. Hide), in The magnetospheres of the Earth and Jupiter, (ed. V. Formisano), D. Reidel Publishing Co., Dordrecht, Holland, 253-254, 1975.

80. "Hydromagnetic edge waves in a rotating stratified fluid", (D.G. Andrews and R. Hide), *J. Fluid Mech.*, 72, 593-603, 1975.
81. "A note on deep Kelvin waves and their propagation through a shear flow", (R. Hide and R.A. Plumb), *Geofisica International*, 15 (4), 375-386, 1975.
82. "A note on helicity", (R. Hide), *Geophysical Fluid Dynamics*, 7, 157-161, 1976.
83. "Rotation of the atmospheres and interiors of Jupiter and Saturn", (R. Hide), *Quart. J. Roy. Astron. Soc.*, 17, 144-145, 1976.
84. "Motions in planetary atmospheres; Presidential Address", (R. Hide), *Quart. J. Roy. Met. Soc.*, 102, 1-23, 1976.
85. "Jupiter's magnetism: observations and theory", (R. Hide and D. Stannard), *Jupiter: studies of the interior, atmosphere, magnetosphere and satellites*, (ed. T. Gehrels), The University of Arizona Press, Tucson, Arizona, 767-787, 1976.
86. "Experiments with rotating fluids; Presidential Address", (R. Hide), *Quart. J. Roy. Meteorol. Soc.*, 103, 1-28, 1977.
87. "Towards a theory of irregular variations in the length of the day and core-mantle coupling", (R. Hide), *Philos. Trans. Roy. Soc. London*, A284, 547-554, 1977.
88. "The Earth's core-mantle interface revisited", (R. Hide), *Z. Geophysik*, 43, 498, 1977.
89. "Thermal convection in a rotating fluid subject to a horizontal temperature gradient: spatial and temporal characteristics of fully-developed baroclinic waves" (R. Hide, P.J. Mason and R.A. Plumb), *J. Atmos. Sci.*, 34, 930-950, 1977.
90. "On the vertical density stratification of a convecting fluid", (R. Hide and P. Hignett), *Ocean Modelling*, No.3, pp. 7-8, 1977.
91. "On the transition between axisymmetric and non-axisymmetric flow in a rotating liquid annulus subject to a horizontal temperature gradient: hysteresis effects at moderate Taylor number and baroclinic waves beyond the Eady cut-off at high Taylor number", (R. Hide and P.J. Mason), *Geophys. Astrophys. Fluid Dyn.*, 10, 121-156, 1978.
92. "How to locate the electrically-conducting fluid core of a planet from external magnetic observations", (R. Hide), *Nature*, 271, 640-641, 1978.
93. "The vortex created by mass transfer between layers of rotating fluids", (A.E. Gill, R.M. Clever, R. Hide, J.M. Smith and P.R. Jonas), *Geophys. Astrophys. Fluid Dyn.*, 12, 195-220, 1979.
94. "On the magnetic flux linkage of an electrically-conducting fluid", (R. Hide), *Geophys. Astrophys. Fluid Dyn.*, 12, 171-176, 1979.
95. "On detached shear layers and western boundary currents in a rotating fluid", (R. Hide and L.M. Hocking), *Geophys. Astrophys. Fluid Dyn.*, 14, 19-43, 1979.
96. "How strong is the magnetic field in the Earth's liquid core?", (R. Hide and P.H. Roberts), *Phys. Earth Planet. Interiors*, 20, 124-126, 1979.
97. "Dynamo theorems", (R. Hide), *Geophys. Astrophys. Fluid Dyn.*, 14, 183-186, 1979.
98. "The size of Jupiter's electrically-conducting fluid core", (R. Hide and S.R.C. Malin), *Nature*, 280, 42-43, 1979.

99. "Atmospheric angular momentum fluctuations and changes in the length of the day", (R. Hide, N.T. Birch, L.V. Morrison, D. Shea and A.A. White), *Nature*, 286, 114-117, 1980.

100. "Jupiter and Saturn: giant magnetic rotating fluid planets", (R. Hide), (Halley Lecture, Oxford University), *The Observatory*, 100, 182-193. , 1980.

101. Orographic effects in planetary flows, (ed. R. Hide and P.W. White), World Meteorological Organization, Global Atmospheric Research Programme Joint Organizing Committee Publications Series No. 23, 449 pages, 1980.

102. "On the rotation of Jupiter", (R. Hide), *Geophys. J. Roy. Astron. Soc.*, 64, 283-289, 1981.

103. "On the determination of the size of the Earth's core from observations of the geomagnetic secular variation", (R. Hide and S.R.C. Malin), *Proc. Roy. Soc. London*, A374, 15-33, 1981.

104. "The magnetic flux linkage of a moving medium: a theorem and geophysical applications", (R. Hide), *J. Geophys. Res.*, 86, 11,681-11,687, 1981.

105. "Self-exciting dynamos and geomagnetic polarity changes", (R. Hide), *Nature*, 293, 728-729, 1981.

106. "High vorticity regions in rotating thermally-driven flows", (R. Hide), *Met. Mag.*, 110, 335-344, 1981.

107. "Generalization of Cowling's theorem", (R. Hide and T.N. Palmer), *Geophys. Astrophys. Fluid Dyn.*, 19, 301-309, 1982.

108. "Rotating fluids in geophysics and planetary physics", (R. Hide), *Quart. J. Roy. Astron. Soc.*, 23, 220-235 (Harold Jeffreys Lecture), 1982.

109. "Bumps on the core-mantle boundary: geomagnetic and gravitational evidence revisited", (S.R.C. Malin and R. Hide), *Phil. Trans. Roy. Soc. London*, A306, 281-289, 1982.

110. "On the role of rotation in the generation of magnetic fields by fluid motions", (R. Hide), *Phil. Trans. Roy. Soc. London*, A306, 223-234, 1982.

111a,b. "The giant planets", (R. Hide), *Physics Bulletin*, 33, 357-361 (Holweck Prize Lecture), 1982. (See also *Bull. Soc. Francaise Phys.*, 47, 3-7, 1983.)

112. "On Giuseppe Campani and the rotation of Jupiter", (R. Hide), *Proceedings of the 1980 Symposium on Aristarchos of Samos*, Athens: Greek Ministry of Culture, 1982.

113. "Geostrophic turbulence, stable baroclinic eddies and self-exciting dynamos in rotating fluid systems. A summary", (R. Hide), *Progress in Aeronautics and Astronautics*, 84, 90-93, 1982.

114. "The Earth's non-uniform rotation", pp. 92-97 in *Tidal friction and the Earth's rotation II*, (R. Hide), (eds. P Brosche and J Sündermann, Springer-Verlag, Berlin, Heidelberg), pp. xv + 345, 1982.

115. "Atmospheric angular momentum fluctuations, length of day changes and polar motion", (R.T.H. Barnes, R. Hide, A.A. White and C.A. Wilson), *Proc. Roy. Soc. London*, A387, 31-74, 1983.

116. "The magnetic analogue of Ertel's potential vorticity theorem", (R. Hide), *Annales Geophysicae*, 1, 59-60, 1983.

117. "Long-lived eddies in the laboratory and in the atmospheres of Jupiter and Saturn", (P.L. Read and R. Hide), *Nature*, 302, 126-129, 1983.

118. "Differential rotation produced by large-scale potential vorticity mixing in a rapidly-rotating fluid", (R. Hide and I.N. James), *Geophys. J. Roy. Astron. Soc.*, 74, 301-312, 1983.

119. "On kinematic self-exciting dynamo theorems: a summary of some recent work", (R. Hide), pp. 259-261 in *Stellar and planetary magnetism*, (ed. A.M. Soward), Gordon and Breach Inc., New York, London and Paris, pp. xii+376, 1983.

120. "On the dynamics of rotating fluids and planetary atmospheres: a summary of some recent work", (R. Hide), *Pure and Applied Geophysics*, 121, 365-374, 1983.

121. "Sloping convection in the laboratory and in the atmospheres of Jupiter and Saturn", (P.L. Read and R. Hide), *Annales Geophysicae*, 1, 135-137, 1983.

122. "On the unconscious significance of the number thirty-one", (R. Hide), *International Review of Psycho-Analysis*, 11, 119-120, 1984.

123. "An isolated baroclinic eddy as a laboratory analogue of the Great Red Spot on Jupiter", (P.L. Read and R. Hide), *Nature*, 308, 45-48, 1984.

124. "Presidential Address - The giant planets: Galileo Galilei to Project Galileo", (R. Hide), *Quart. J. Roy. Astron. Soc.*, 25, 232-247, 1984.

125. "Rotation of the atmospheres of the Earth and planets", (R. Hide), *Philos. Trans. Roy. Soc. London*, A313, 107-121, 1984.

126. *Rotation in the Solar System*, (ed. R. Hide), (Proceedings of a discussion meeting.) Royal Society, London, 1984.

127. "On the dynamics of rotating fluids and planetary atmospheres: a summary of some recent work", (R. Hide), in *Predictability of fluid motions*, pp. 79-85, ed. G. Holloway and B.J. West, New York, American Institute of Physics, 1984.

128. "Rotating fluids in geophysics and planetary physics", (R. Hide), *Geo. Journal*, 84, 365-377, 1984.

129. "Thermal convection in a rotating fluid subject to a horizontal temperature gradient", (R. Hide), pp.159-171 in *Turbolenza e predicibilità nella fluidodinamica geofisica e la dinamica del clima* (ed. M. Ghil, R. Benzi and G. Parisi), Società Italiana di Fisica Bologna, Italy, 1985.

130. "A note on short-term core-mantle coupling, geomagnetic secular variation impulses, and potential magnetic field invariants as Lagrangian tracers of core motions", (R. Hide), *Phys. Earth Planet. Interiors*, 39, 297-300, 1985.

131. "On the excitation of short-term variations in the length of the day and polar motion", (R. Hide), *Geophys. Surveys*, 7, 163-167, 1985.

132. "Dynamics of rotating fluids and planetary atmospheres", (R. Hide), pp. 37-46 *Recent advances in meteorology and oceanography* (ed. H. Charnock), Royal Meteorological Society, Bracknell, U.K, 1985.

133. "Presidential address: The Earth's differential rotation", (R. Hide), *Quart. Journ. Roy. Astron. Soc.*, 27, 3-14, 1986.

134. "Frozen vector fields and the inverse problem of inferring motions in the electrically-conducting fluid core of a planet from observations of secular changes in its main magnetic field", (R. Hide), *Quart. Journ. Roy. Astron. Soc.*, 27, 14-20, 1986.

135. "Topographic coupling of the core and mantle and changes in the length of the day", (M.A. Spieth, R. Hide, R.W. Clayton, B.H. Hager & C.V.Voorhies), EOS Trans. Amer. Geophys. Un. 67, 908, 1986.

136. "Heat transfer by thermal convection in a rotating fluid subject to a horizontal temperature gradient", (R. Hide), in Large-scale transport processes in oceans and atmospheres, 325-336, (eds. J. Willebrand & D.L.T. Anderson), D.Reidel Publishing Co., Dordrecht, 1986.

137. "On the eccentric magnetic field of Uranus", (R. Hide), The Observatory, 106, 144-146, 1986.

138. "Contribution to a discussion meeting on Predictability in Science and Society", (R. Hide), Proc. Roy. Soc. London, A407, 61-63, 1986.

139. "Patterns of heat transfer by thermal convection in a rotating fluid subject to a horizontal temperature gradient: A summary", (R. Hide), pp. 43-51 in Irreversible Phenomena and Dynamical Systems in Geosciences, (eds. C. Nicolis & G. Nicolis), D. Reidel Publishing Co., Dordrecht, 1987.

140. "Comment on a letter 'On the excitation of the Earth's polar motion'", (R. Hide), Geophys. Res. Letters, 14, 245-246, 1987.

141. "Forecasting and exploiting changes in the Earth's rotation", (R. Hide & J.O. Dickey), Research Activities in Atmospheric and Ocean Modelling (ed. G.J. Boer), No.10 (October), WMO/TD No. 200, p. 6.40, 1987.

142. "Long-lived baroclinic eddies in atmospheres and in the laboratory", (R. Hide), in The Physics of Planets, pp. 193-198, (ed. S.K. Runcorn), John Wiley and Sons Ltd., London, 1988.

143. "Frozen vector fields and the inverse problem of inferring motions of the electrically-conducting fluid core of a planet from observations of secular changes in its main magnetic field", (R. Hide), in The Physics of Planets, pp. 185-192, (ed. S.K.Runcorn), John Wiley & Sons Ltd., London, 1988.

144. "Studies of geostrophic turbulence, chaos and other non-linear phenomena in rotating fluids", (R. Hide), Meteorol. Mag., 117, 33-34, 1988.

145. "Forecasting short-term changes in the Earth's rotation", (R. Hide), p. 287 in The Earth's rotation and reference frames for geodesy and geodynamics, (ed. A.K. Babcock & G.A. Wilkins), I.A.U. publication, 1988.

146. "The dynamics of planetary atmospheres", (F.W. Taylor, P.J. Gierasch, P.L. Read & R. Hide), Science Progress, Oxford, 72, 421-450, 1988.

147. "Adrian Edmund Gill", (G.K. Batchelor & R. Hide), Biographical Memoirs of Fellows of the Royal Society, 34, 223-258, 1988.

148. "Towards the interpretation of Uranus's eccentric magnetic field", (R. Hide), Geophys. Astrophys. Fluid Dyn., 44, 207-209, 1988.

149. "The excitation of the Chandlerian wobble", (R. Hide), Surveys in Geophysics, 9, 429-430, 1988.

150. "Motions of the Earth's core and mantle and variations of the Earth's magnetic field revisited", (R. Hide), Geophys. Monog. Am. Geophys. Un., 46, 91-94, 1988.

151. "Structure and dynamics of the Earth's deep interior", (D.E. Smylie & R.Hide, eds.), Geophys. Monog. Am. Geophys. Un., 46, 133 pages, 1988.

152. "Fluctuations in the Earth's rotation and the topography of the core-mantle interface", (R. Hide), Phil. Trans. Roy. Soc. London, A328, 351-363, 1989.

153. "Sir Harold Jeffreys FRS: 1891-1989", (R. Hide), Q. J. Roy. Meteorol. Soc., 115, 711-713, 1989.
154. "Superhelicity, helicity and potential vorticity", (R. Hide), Geophys. Astrophys. Fluid Dyn., 48, 69-78, 1989.
155. "Electrodynamic analogues of superhelicity, helicity and potential vorticity", (R. Hide), Geophys. Astrophys. Fluid Dyn., 48, 78-79, 1989.
156. "Forecasting short-term changes in the Earth's rotation using global numerical weather prediction models", (R. Hide), Geophys. Monog. Am. Geophys. Un., 59, 145-146, 1990.
157. "Interannual and decadal fluctuations of the Earth's rotation", (J.O. Dickey, T.M. Eubanks & R. Hide), Geophys. Monog. Am. Geophys. Un., 59, 157-161, 1990.
158. "Brief comments on George McVittie's meteorological papers", (R. Hide), Vistas in Astronomy, 33, 63-64, 1990.
159. "Poem entitled "Jupiter and Saturn" by J. Bronowski", (R. Hide), The Observatory, 110, 45-46, 1990.
160. "Some topics in geophysical fluid dynamics", (R. Hide), Journal of the Institute of Mathematics and its Applications, 26, 279-281, (contribution to a symposium in honour of Sir James Lighthill), 1990.
161. "Angular momentum transfer at the core-mantle interface", (R. Hide), Surveys in Geophysics, 11, 351-363, 1990.
162. "Geophysical fluid dynamics and related topics", (R. Hide), Geophys. Monog. Am. Geophys. Un., 60, 39-42, 1990.
163. "Atmospheric angular momentum forecasts as novel tests of global numerical weather prediction models", (M.J. Bell, R. Hide & G. Sakellarides), Philos. Trans. Roy. Soc. London, A334, 55-92, 1991.
164. "Earth's variable rotation", (R. Hide & J.O. Dickey), Science, 253, 629-637, 1991.
165. "Planetary magnetism re-visited", (R. Hide), Geophys. Astrophys. Fluid. Dyn. 62, 183-189, 1991.
166. "The Earth's angular momentum budget on sub-seasonal time scales", (J.O. Dickey, S.L. Marcus, J.A. Steppe and R. Hide), Science, 255, 321-324, 1992.
167. "Analyses and forecasts of fluctuations in the angular momentum of the atmosphere and changes in the Earth's rotation", (R. Hide & J.O. Dickey), Meteorological Magazine, 121, 22-26, 1992.
168. "The geomagnetic secular variation and the structure and dynamics of the Earth's core and lower mantle", (R. Hide), Surveys in Geophysics, 13, 63-64, 1992.
169. "Global propagation of interannual fluctuations in atmospheric angular momentum", (J.O. Dickey, S.L. Marcus & R. Hide), Nature, 357, 484-488, 1992.
170. "Angular momentum transfer between the core and mantle", (R. Hide), Geophys. Monog. Am. Geophys. Un., 72, 109-112, 1993.
171. "Edmund Halley, the Trade Winds and planetary atmospheres", (R. Hide), Quart. J. Roy. Astron. Soc., 34, 143-145. (In "Edmund Halley: A commemoration" by R. Hide and A. W. Wolfendale (eds.), Quart. J. Roy. Astron. Soc., 34, 135-149, 1993.

172. "Climate studies via space geodesy: relationships between ENSO and interannual length of day variation", (J.O. Dickey, S.L. Marcus, T.M. Eubanks & R. Hide), *Geophys. Monog. Am. Geophys. Un.*, 75, 141-155. In *Interactions between global climate sub-systems: the legacy of Hann*, (edited by G.A. McBean and M. Hantel), 1993.

173. "Topographic core-mantle coupling and fluctuations in the Earth's rotation", (R. Hide, R.W. Clayton, B.H. Hager, M.A. Spieth and C.V. Voorhies), in *Relating geophysical structures and processes: The Jeffreys Volume* (edited by K. Aki and R. Dmowska), *Geophys. Monog. Am. Geophys. Un.*, 76, 107-120, 1993.

174. "The oceanic contribution to the Earth's seasonal angular momentum budget", (J.O. Dickey, S.L. Marcus, C.M. Johns, R. Hide & S.R. Thompson), *Geophys. Res. Lett.* 20, 2953-2956, 1993.

175. "Some comments on the magnetism of planets and small bodies in the solar system", pages 1-6 in *Cosmical magnetism*. (Proceedings of NATO Advanced Study Institute held in honour of L.Mestel FRS, edited by D.Lynden-Bell, 152 pages.) Cambridge: Institute of Astronomy, 1993.

176. "Planetary magnetism re-visited", (R. Hide), pages 59-66 in *Flow and creep in the solar system* (edited by D.B Stone and S.K Runcorn). (506 pages) Netherlands Kluwer Academic Press, 1993.

177. "Mathematical physicist par excellence", Review of Chandra: A biography of S.Chandrasekhar, by Kameshwar C. Wali.", (R. Hide), *Notes and Records of the Royal Society of London*, 47, 322-324, 1993.

178. "Angular momentum exchange among the solid Earth, atmosphere and ocean: A case study of the 1982-1983 El Nino event", (J.O. Dickey, S.L. Marcus, R. Hide, T.M. Eubanks & D.H. Boggs), *J. Geophys. Res.*, 99, 23,921-23,937, 1994.

179. "Sloping convection: a paradigm for large scale waves and eddies in planetary atmospheres", (R. Hide, S. R. Lewis & P. L. Read), *Chaos*, 4, 135-162, 1994.

180. "Chaos in geophysical fluids: General introduction", (R. Hide), *Phil.. Trans. Roy. Soc London*, A348, 431- 443, 1994.

181. "Collected papers of L.F Richardson", (R. Hide), *Quart. J . Roy. Meteorol. Soc.*, 120, 1425-1426, 1994.

182. "Comments on papers by D.W. Collinson and S. K.Runcorn on magnetic fields in the solar system", (R. Hide), *Philos. Trans. Roy. Soc. London*, A349, 195, 1995.

183. "Hypervelocity impacts and the magnetism of small bodies in the solar system", (G.Q. Chen, T.H. Ahrens & R. Hide), *Icarus*, 115, 86-96, 1995.

184. "The topographic torque on the rigid bounding surface of a rotating gravitating fluid and the excitation of decadal fluctuations in the Earth's rotation", (R. Hide) *Geophys. Res. Letters.* 22, 961-964, 1995.

185. "Structural instability of the Rikitake disk dynamo", (R. Hide), *Geophys. Res. Letters*, 22, 1057-1059, 1995.

186. "Chaos in geophysical fluids", (R. Hide), pages 175-198, in *Chaos and forecasting*, (ed. H.Tong), Singapore, World Scientific, 1995.

187a,b. "Transition fields in geomagnetic polarity reversals: storm tracks in the core!", (R. Hide), *The Observatory*, 115, 314-316, 1995; see also "Waves and stationary patterns in the core and the interpretation of transition

fields in geomagnetic polarity reversals", *Surveys in Geophysics*, 17, 213-214, 1996.

188. "Reply to the "Comment" by J. Bloxham & W. Kuang on a paper entitled "The topographic torque on the rigid bounding surface of a rotating gravitating fluid and the excitation by core motions of decadal fluctuations in the Earth's rotation", by R. Hide", (R.Hide), *Geophys. Res. Letters*, 22, 3563 - 3565, 1995.

189. "Atmospheric angular momentum fluctuations in general circulation models during the AMIP period 1979-1988: Report on AMIP diagnostics sub-project 15", (R.Hide, J.O. Dickey, S L .Marcus, R D. Rosen and D.A Salstein), *Proceedings of the First AMIP Scientific Conference* (15 -19 May 1995), Monterey, California, (ed. W.L. Gates), Geneva,World Meteorological Organization, 1995.

190. "Uses and abuses of house journals", (R. Hide), *EOS, Trans. Am. Geophys. Union*, 76, No.40, October 3, p. 395, 1995.

191. "Torsional magnetohydrodynamic oscillations of the Earth's core", (Abstract), R. Hide, D.H Boggs, J.O .Dickey and D. Dong), *EOS Trans. Am. Geophys. Un.*, 76, F60, 1995.

192. "Theory of shock magnetization of asteroids Gaspra and Ida", (G.Q. Chen, T. H. Ahrens & R .Hide), pages 929-932 in *Shock compression of condensed matter*, ed. S. C. Schmidt and W. C. Tao), New York, American Institute of Physics Press., 1996.

193. "A study of two novel self- exciting single-disk homopolar dynamos: Theory", (R. Hide, A.C. Skeldon and D.J. Acheson), *Proc. Roy. Soc. London*, A452, 1369-1395, 1996.

194. "Topographic core-mantle coupling and polar motion on decadal time scales", (R. Hide, D.H Boggs, J.O. Dickey, D. Dong, R.S. Gross & A. Jackson), *Geophys. Journ. International*, 125, 599-607, 1996.

195. "Potential magnetic field and potential vorticity in magnetohydrodynamics", (R. Hide), *Geophys. Journ. International*, 125, F1-F3, 1996.

196. "Invariants in toroidal and tangentially geostrophic frozen-flux velocity fields", (A. Jackson & R. Hide), *Geophys. Journ. International*, 125, 925-927, 1996.

197. "Stanley Keith Runcorn FRS (1922-1995)", (R Hide), *Q.J.Roy.Astron. Soc.*, 37, 463-465, 1996.

198. "Clock in a box", *The Times Literary Supplement*, Number 4880 October 11, page 34, 1996.

199. "Laboratory and numerical studies of baroclinic waves in an internally heated, rotating fluid annulus: a case of wave/vortex duality", (P.L. Read, S.R. Lewis & R. Hide), *J. Fluid Mech.*, 337, 155-191, 1997.

200. "Percival Lowell, Clyde Tombaugh and the naming of Pluto", (R. Hide), *Astronomy & Geophysics*, 38, 9, 1997.

201. "Response to citation on the award of the William Bowie Medal of the American Geophysical Union", (R. Hide), *EOS, Trans. Am. Geophys. Un.*, 78, 295-296, 1997.

202. "Atmospheric angular momentum fluctuations during the period 1979-1988 simulated in global circulation models", (R. Hide, J.O. Dickey, S.L. Marcus, R.D. Rosen & D.A. Salstein), *J.Geophys.Res.*, 102, 16,423-16,438, 1997.

203. "The nonlinear equations governing the a hierarchy of self-exciting coupled Faraday-disk homopolar dynamos", (R. Hide), *Phys. Earth Planet. Interiors*, 103, 281-291, 1997.

204. "On the effects of rotation on fluid motions in containers of various shapes and topological characteristics", (R. Hide), *Dyn. Atmos. Oceans*, 27, 243-256, 1997.

205. "Torsional magnetohydrodynamic oscillations of the Earth's liquid metallic core", (Abstract), (R. Hide, D.H.Boggs and J. O. Dickey), *Annales Geophysicae*, 15, C73, Supp. 1, 1997.

206. "Topological characteristics of magnetic and other solenoidal vector fields" (Abs.), (R. Hide, D.R. Barraclough & S. Macmillan), *Annales Geophysicae*, 15 (Supp. 1), p.C122, 1997.

207. "Nonlinear quenching of current fluctuations in a self-exciting homopolar dynamo", (R. Hide), *Nonlinear Processes in Geophysics*, 4, 201-205, 1997.

208 "Thermal convection in a rotating fluid annulus blocked by a radial barrier", (Q.G. Rayer, D.W. Johnson and R. Hide), *Geophys. Astrophys. Fluid. Dyn.*, 87, 215-252, 1998.

209. "On self-exciting Faraday disk homopolar dynamos driving series motors", (I.M. Moroz, R. Hide & A.M. Soward), *Physica D*, 117, 128-144, 1998.

210. "Synchronized chaos in coupled double-disk homopolar dynamos", (I.M. Moroz, L.A. Smith & R. Hide), *International Journal of Bifurcation and Chaos*, 8, 2125-2133, 1998.

211. "A note on topographic core-mantle coupling", (R. Hide), *Phys.Earth Planet. Interiors*, 109, 91-92, 1998.

212. "Magnetostatic and electrostatic torques within a planet", (R. Hide), *Geophys. Journ. International*, 135, 1150-1152, 1998.

213. "Effects due to induced azimuthal eddy currents in the Faraday disk self-exciting homopolar dynamo with a nonlinear series motor: I, Two special cases", (R. Hide and I.M. Moroz), *Physica D*, 134, 287-301, 1999.

214 "John Griffith and the Gulf War", (R. Hide), *The Jesus College (Oxford) Record*, 1999.

215 "Why the number thirty-one?", (R. Hide), *The Jesus College (Oxford) Record*, 1999.

216. "Generic nonlinear processes in self-exciting dynamos and the long-term behaviour of the main geomagnetic field, including polarity superchrons", (R. Hide), *Phil. Trans. Roy. Soc. London A358*, 943-955, 2000.

217. "Fog clearing slowly", (R. Hide), *The Times Literary Supplement*, Number 5058, p. 30, 10 March, 2000.

218. "Angular momentum fluctuations within the Earth's core and torsional oscillations of the core-mantle system", (R. Hide, D.H. Boggs and J.O. Dickey), *Geophys. Journ. International*, 143, 777-786, 2000.

219. "Changing Concepts of Nature at the Turn of the Millennium", (eds. R. Hide, J. Mittelstrass and W. Singer), *Vatican City, Pontifical Academy of Sciences Press, Scripta Varia 95*, 2000.

220. "On the biasing effect of a battery on a self-exciting Faraday disk homopolar dynamo loaded with a linear series motor", (P. Goldbrum, I. M. Moroz and R. Hide), *International Journal of Bifurcation and Chaos*, 10, 1875-1885, 2000.

221. "Effects due to induced azimuthal eddy currents in the Faraday disk self-exciting homopolar dynamo with a nonlinear series motor: II The general case", (I.M. Moroz and R. Hide), *International Journal of Bifurcation and Chaos*, 10, 2701-2716, 2000.

222. "Zenographic longitude systems and Jupiter's differential rotation", (R. Hide), *Notes and Records of the Royal Society*, 55(1), 69-79, 2001.

223. "Spinning fluids, geomagnetism, and the Earth's deep interior", (R. Hide), *Pontifical Academy of Sciences Scripta Varia*, 99, 86-88, 2001.

224. "Coriolis forces and fluid atmospheres and oceans", (R. Hide), *Weather*, 56, 315, 2001.

225. "Analysis and interpretation of the main geomagnetic field: The magnetic field at the core-mantle boundary; some topological speculations", (R. Hide), (Abs.) *Proceedings of symposium on "Complexity In geophysical systems"*, Institute for Mathematics and It's applications, University of Minnesota, (2001).

226. "Helicity, superhelicity and weighted relative potential vorticity: Useful diagnostic pseudoscalars?", (R. Hide), *Quart. J. Roy. Meteorol. Soc.* 128, 1759-1762, 2002.

227. "A note on aspects of classical physics in the twentieth century", (R. Hide), *Pontifical Academy of Sciences Scripta Varia*, 105, 357-361, 2003. (Contribution to a symposium on "The cultural values of science" (ed. W. Arber).)

228. "Quenching Lorenzian chaos" (R. Hide, P.E.. McSharry, C.C. Finlay & G.D. Peskett), *International Journal of Bifurcation and Chaos*, 14, 2875-2884, 2004.

229. "Reflections on the analogy between the equations of electrodynamics and hydrodynamics", (R.Hide), pp. 25-33 in "Meteorological and geophysical fluid dynamics (a book to commemorate the centenary of the birth of Hans Ertel)." (ed. W. Schroeder), Bremen, Deutsches Arbeitskreis Geschichte Geophysik und Kosmische Physik, 2004.

230. "Potential magnetic field and potential vorticity in magnetohydrodynamics", (R.Hide), pp. 34-36 in "Meteorological and geophysical fluid dynamics (a book to commemorate the centenary of the birth of Hans Ertel)" (ed. W. Schroeder), Bremen, Deutsches Arbeitskreis Geschichte Geophysik und Kosmische Physik, 2004.

231. "Commemorative address in honour of George Porter, 1920-2002", (R. Hide), *Pontifical Academy of Sciences Acta*, 18, xli-xlv, 2006.

232. "Geomagnetism, 'vacillation', atmospheric predictability and 'deterministic chaos'", (R.Hide), *Pontifical Academy of Sciences Acta*, 18, 257-274, 2006.

233. "Physically-realistic self-exciting Faraday-disk dynamos", (R.Hide & I. M. Moroz), pp. 97-117 in "Mathematical Aspects of Natural Dynamos" (eds. E. Dormy & A. M. Soward), Grenoble Science Publishers, 2007.

234. "Potential vorticity and potential magnetic field theorems", (R.Hide), pp. 840-842 in "Encyclopaedia of Geomagnetism and Palaeomagnetism" (eds. D. Gubbins and E. Herrero-Bervera), Springer Geosciences, 2007.

235 Proudman-Taylor theorem", (R.Hide), pp. 852-853 in "Encyclopaedia of Geomagnetism and Palaeomagnetism" (eds. D Gubbins and E. Herrero-Bervera), Springer Geosciences 2007.

236. "Commemorative address in honour of Thomas Richard Edmund Southwood, 1931-2005", (R. Hide), Pontifical Academy of Sciences Acta 19, xxix-xxx, 2008.

237. "Chaos in self-exciting dynamos and the main geomagnetic field", (R.Hide), Pontifical Academy of Sciences Acta, 19, 215-236, 2008. (Contribution to the proceedings of a symposium on "Predictability in science; accuracy and limitations" (eds. W. Arber, N. Cabibbo and M. Sánchez Sorondo).)

238. "A path of discovery In geophysical fluid dynamics", (R. Hide), Astronomy and Geophysics, 51, 4.16-4.23, 2010.

239. "Regimes of sloping thermal convection in a rotating liquid annulus", (R. Hide), Geophysical and Astrophysical Fluid Dynamics, 105, 117-127, 2011.

240. "Nonlinear feedback and coupling in self-exciting dynamos", (R. Hide), Geophysical and Astrophysical Fluid Dynamics, 105, 248-255, 2011.