

Julian Hunt - Publications

1. Hunt, J.C.R., 1965
 Magnetohydrodynamic flow in a rectangular duct. *J. Fluid Mech.*, **21**(4), 577-590.
2. Hunt, J.C.R. and Stewartson, K., 1965
 Magnetohydrodynamic flow in a rectangular duct. II. *J. Fluid Mech.*, **23**(3), 563-581.
- *3. Hunt, J.C.R., 1966
 On the stability of parallel flows with parallel magnetic fields. *Proc.R. Soc. London, A***293**(1434), 342-358.
4. Hunt, J.C.R., 1967
Some fluid dynamic effects in large-scale MHD generators. *Proc. Int. Conference on MHD Electrical Power Generation*. Salzburg, July 1966. Int. Atomic Eng. Ag. Vienna.
5. Hunt, J.C.R. and Leibovich, S., 1967
 Magnetohydrodynamic flow in channels of variable cross-sections with strong transverse magnetic fields. *J. Fluid Mech.*, **28**(2), 241-260.
6. Hunt, J.C.R. and Williams, W.E., 1968
 Some electrically driven flows in magnetohydrodynamics. Part I. Theory. *J. Fluid Mech.*, **31**(4), 705-722.
7. Hunt, J.C.R. and Malcolm, D.G., 1968
 Some electrically driven flows in magnetohydrodynamics. Part II. Theory and experiment. *J. Fluid Mech.*, **33**(4), 775-801.
- *8. Hunt, J.C.R. and Ludford, G.S.S., 1968
 Three-dimensional magnetohydrodynamic duct flows with strong transverse magnetic fields. Part I. Obstacles in a constant area channel. *J. Fluid Mech.*, **33**(4), 693-724.
- *9. Hunt, J.C.R., 1969
A uniqueness theorem for magnetohydrodynamic duct flows. *Math. Proc. Camb. Phil. Soc.*, **65**(1), 319-328, doi: 10.1017/S0305004100044273.
10. Hunt, J.C.R. and Stewartson, K., 1969
 Some electrically driven flows in magnetohydrodynamics. Part III. The asymptotic theory for flow between circular electrodes. *J. Fluid Mech.*, **38**(2), 225-242.
11. Hunt, J.C.R. and Richards, D.J.W., 1969
 On overhead line oscillations and the effect of aerodynamic dampers. *Proc. Inst. Elec. Engrs.*, **116**(11), 1869-1874, doi: 10.1049/piee.1969.0344.
12. Hunt, J.C.R. and Rowbottom, M.D., 1968
 An analysis of overhead line faults attributable to galloping between March 1968 and September. C.E.G.B. Report RD/L/N65/70. (Published later as 'Meteorological conditions associated with full-span galloping oscillations of overhead transmission lines'. *Proc. Inst. Elec. Engrs.* **120**(8), 874-876, (1973), doi: 10.1049/piee.1973.0191.)
13. Hunt, J.C.R., 1970
The resistance of a blunt body in a strong transverse magnetic field. *Magnetogidrodinamika*, **1**(34). [In Russian.]

14. Walker, J.S., Ludford, G.S.S. and Hunt, J.C.R., 1971
Three-dimensional MHD duct flows with strong transverse magnetic fields. Part II.
 Variable area rectangular ducts with conducting sidewalls. *J. Fluid Mech.*, **46**(4), 657-684.
15. Baylis, J.A. and Hunt, J.C.R., 1971
 MHD flow in an annular channel: Theory and experiment. *J. Fluid Mech.*, **48**(3), 423-428.
16. Hunt, J.C.R. and Shercliff, J.A., 1971
 Magnetohydrodynamics at high Hartmann number. *Ann. Rev. Fluid Mech.*, **3**, 37.
17. Hancox, R. and Hunt, J.C.R., 1971
 The use of liquid lithium as a coolant in a toroidal fusion reactor, Part I. Calculation of pumping power. *UKAEA Culham Laboratory Report*, **R115**.
18. Hunt, J.C.R., 1971
 The effect of single buildings and structures. *Phil. Trans. Roy. Soc. London A*, **269**(1199), 457-467.
- *19. Hunt, J.C.R., 1971
 A theory for the laminar wake of a two-dimensional body in a boundary layer. *J. Fluid Mech.*, **49**(1), 159-178.
20. Hunt, J.C.R., 1972
Some theories for the mean and turbulent velocity distributions in flows around bluff bodies. *Proceedings of Conference on External Flows at Bristol University*, Department of Aeronautical Engineering, July (1972).
21. Hunt, J.C.R. and Poulton, E.C., 1972
Some effects of wind on people. *Proceedings of Conference on External Flows at Bristol University*, Department of Aeronautical Engineering, July (1972).
22. Walker, J.S., Ludford, G.S.S. and Hunt, J.C.R., 1972
 Three-dimensional MHD duct flows with strong transverse magnetic field. Part III.
Variable area rectangular ducts with insulating walls. *J. Fluid Mech.*, **56**(1), 121-141.
- *23. Hunt, J.C.R. and Mulhearn, P.J., 1973
 Turbulent dispersion from sources near two-dimensional obstacles. *J. Fluid Mech.*, **61**(2), 245-274.
24. Hunt, J.C.R., 1973
Fundamental studies of wind flow near buildings. *Proceedings of Conference on Models and Systems in Architecture and Buildings*. Department of Architecture, Cambridge University, 1973. Construction Press, Lancaster.
- *25. Hunt, J.C.R., 1973
 A theory of turbulent flow round two-dimensional bluff bodies. *J. Fluid Mech.*, **61**(4), 625-706.
26. Counihan, J., Hunt, J.C.R. and Jackson, P.S., 1974
 Wakes behind two-dimensional surface obstacles in turbulent boundary layers. *J. Fluid Mech.*, **64**(3), 529-563.

27. Hunt, J.C.R., 1974
Wakes behind buildings. Paper to the Aeronautical Research Council, Atmospheric Environment Committee, London, October, ARC 36501 Atmos.229.
28. Hunt, J.C.R., 1972 and 1974
A theory for fluctuating pressures on bluff bodies in turbulent flows. *Proc. IUTAM/IAHR Conference on Flow Induced Vibrations*, August 1972. Springer Verlag, Berlin.
- *29. Jackson, P.S. and Hunt, J.C.R., 1975
 Turbulent wind flow over low hills. *Q. J. Roy. Met. Soc.*, **101**(43), 929-955, doi: 10.1002/qj.49710143015.
30. Hunt, J.C.R. and Fernholz, H.H., 1975
 Wind-tunnel simulation of the atmospheric boundary layer: a report of Euromech 50. *J. Fluid Mech.*, **70**(3), 543-559.
31. Hunt, J.C.R., 1975
Discussion of 'Dynamic tornadic wind loads on tall buildings'. *Proc. ASCE, J. Struct. Div.*, **101**, 2446-2449.
32. Poulton, E.C., Hunt, J.C.R., Mumford, J.C. and Poulton, J., 1975
The mechanical disturbance produced by steady and gusty winds of moderate strength: skilled performance and semantic assessments. *Ergonomics*, **118**, 651- 673.
33. Owen, R.G., Hunt, J.C.R. and Collier, J.G., 1975 and 1976
 Magnetohydrodynamic pressure-drop in ducted two-phase flows. UKAEA Res. Group Preprint CLM-P430; *Int. J. Multiphase Flow*, **3**(1), 23-33.
34. Hunt, J.C.R., 1976
Turbulent velocities near, and fluctuating surface pressure on, structures in turbulent winds. *Proc. 4th Int. Conference on Wind Effects on Buildings and Structures*. London. (Ed. K.J. Eaton) Cambridge University Press, 309.
- *35. Hunt, J.C.R., Poulton, E.C. and Mumford, J.C., 1976
 The effects of wind on people: new criteria based on wind-tunnel tests. *Building and Environment*, **11**(1), 15-28.
36. Hunt, J.C.R., 1976
Air Pollution Dispersion. Film PT272/07 and Programme Notes made with BBC for Open University Course on Environmental Control and Public Health.
37. Hunt, J.C.R. and Moreau, R., 1976
 Liquid metal magnetohydrodynamics with strong magnetic fields: a report on Euromech 70. *J. Fluid Mech.*, **78**(2), 261-288.
38. Britter, R.E., Hunt, J.C.R. and Puttock, J.S., 1977
Predicting pollution concentrations near buildings and hills. *Proceedings of a Conference on Systems and Models in Air and Water Pollution*, 7-9 to 7-14. Institute of Measurement and Control, London, September.
39. Hunt, J.C.R. and Holroyd, R.J., 1977
Applications of laboratory and theoretical MHD duct flow studies in fusion reactor technology. *UKAEA Culham Report, CLM 169*.

40. Hunt, J.C.R., 1977
Flows through groups of bluff bodies: an introductory survey. Paper presented to 52nd Industrial Fluid Mechanics Research Meeting, N.P.L. January (published in minutes of the meeting).
- *41. Hunt, J.C.R. and Graham, J.M.R., 1978
 Free-stream turbulence near plane boundaries. *J. Fluid Mech.*, **84**(2), 209-235.
- *42. Hunt, J.C.R., Abell, C.J., Peterka, J.A. and Woo, H.G.C., 1978 and 1979
 Kinematical studies of the flow around free or surface-mounted obstacles: applying topology to flow visualisation. *J. Fluid Mech.*, **86**(1), 179-200; corrigendum **95**, 796.
43. Keffer, J.F., Kawall, J.A., Hunt, J.C.R. and Maxey, M.R., 1978
 The uniform distortion of thermal and velocity mixing layers. *J. Fluid Mech.*, **86**(3), 465-490.
- *44. Hunt, J.C.R., 1978
A review of the theory of rapidly distorted turbulent flows and its applications. Proc. of XIII Biennial Fluid Dynamics Symposium, Kortowo, Poland, September. *Fluid Dynamics Transactions*, **9**, 121-152.
45. Aldridge, T.R., Piper, B.S. and Hunt, J.C.R., 1978
 The drag coefficient of finite-aspect ratio perforated circular cylinders. *J. Wind Engineering & Industrial Aerodynamics*, **3**(4), 251-257.
46. Durbin, P.A. Hunt, J.C.R. and Firth, D., 1982
 Mixing by a turbulent wake of a uniform temperature gradient in the approach flow. *Phy. Fluids*, **25**(4), 588-591, doi: 10.1063/1.863803.
47. Puttock, J.S. and Hunt, J.C.R., 1979
 Turbulent diffusion from sources near obstacles with separated wakes. Part I. An eddy diffusivity model. *Atmos. Env.*, **13**(1), 1-13.
48. Branover, H., Hunt, J.C.R., Proctor, M.R.E. and Pierson, E.S., 1979
 MHD flows and turbulence: a report of the 2nd Batsheva Seminar. *J. Fluid Mech.*, **91**, 563-580.
49. Britter, R.E., Hunt, J.C.R. and Mumford, J.C., 1979
 The distortion of turbulence by a circular cylinder. *J. Fluid Mech.*, **92**, 269-301.
50. Hunt, J.C.R. and Weber, A.H., 1979
 A Lagrangian statistical analysis of diffusion from a ground level source in a turbulent boundary layer. *Q. J. Roy. Met. Soc.*, **105**(444), 423-443.
51. Eskridge, R.E. and Hunt, J.C.R., 1979
 Highway modelling. Part I. Predictions of velocity and turbulence fields in the wake of vehicles. *J. Appl. Meteor.*, **18**(4), 387.
52. Eskridge, R.E., Hunt, J.C.R., Binkowski, F.S., Clark, T.L. and Demerjian, K.L., 1979
 Highway modelling. Part II. Advection and diffusion of SF_6 tracer gas. *J. Appl. Meteor.*, **18**(4), 401.
53. Britter, R.E. and Hunt, J.C.R., 1979
Velocity measurements and order-of-magnitude estimates of the flow between two

- buildings in a simulated atmospheric boundary layer. *J. Ind. Aero.*, **4**, 165-182.
54. Hunt, J.C.R., Puttock, J.S. and Snyder, W.H., 1979
 Turbulent diffusion from a point source in stratified and neutral flows around a three-dimensional hill. Part I. Diffusion equation analysis. *Atmos. Environ.*, **13**(9), 1227-1239.
55. Weber, A.H. and Hunt, J.C.R., 1978
Analysis of Z and s_Z for near ground release of tracers in the atmosphere. *NATO (CCMS) Conference on Air Pollution Modelling*, Toronto; also *Savannah Riv. Lab. Report*, U.S.A. DP-MS-78-23.
56. Hunt, J.C.R., Britter, R.E. and Puttock, J.S., 1979
Mathematical models of dispersion of air pollution around buildings and hills. *Proc. I.M.A. Symposium on Mathematical Modelling of Turbulent Diffusion in the Environment*, Academic Press, 145-200.
57. Snyder, W.H., Britter, R.E. and Hunt, J.C.R., 1980
A fluid modelling study of the flow structure and plume impingement on a three-dimensional hill in stably stratified flow. *Proc. 5th Int. Conf. on Wind Engineering*, Ft. Collins, Colo., July 1979. Pergamon, 319-329.
58. Durbin, P.A. and Hunt, J.C.R., 1980
Fluctuating surface pressure on bluff structures in turbulent winds: further theory and comparison with experiment. *Proc. 5th Int. Conf. on Wind Engineering*, Ft. Collins, Colo., July; Pergamon, 319-269.
- *59. Hunt, J.C.R. and Snyder, W.H., 1980
 Experiments on stably and neutrally stratified flow over a model three-dimensional hill. *J. Fluid Mech.*, **96**(4), 671-704.
60. Holroyd, R.J. and Hunt, J.C.R., 1980
Theoretical and experimental studies of liquid metal flow in a strong non-uniform magnetic field in ducts with complex geometry. *Proc. of 2nd Batsheva Seminar on MHD and turbulence*, March 1978, 22-44 (Ed. Branover and Yakhot), Israel Univ. Press.
61. Hunt, J.C.R. and Maxey, M.R., 1980
Estimating velocities and shear stresses in turbulent flows of liquid metals driven by low-frequency electromagnetic fields. *Proc. 2nd Batsheva Seminar on MHD and Turbulence*, March 1978, 249- 270, Israel Univ. Press.
62. Hunt, J.C.R., 1980
Wind over hills. *Proc. AMS Workshop on 'Planetary Boundary Layers'*, Boulder, Colorado, August 1978. (Ed. J.C. Wyngaard) Published by Am. Met. Soc., 107-157.
63. Durbin, P.A. and Hunt, J.C.R., 1980
 On surface pressure fluctuations beneath turbulent flow round bluff bodies. *J. Fluid Mech.*, **100**(1), 161-184.
64. Hunt, J.C.R., 1980
Environmental fluid mechanics. *Proc. 15th Int. Cong. on Theoretical Applied Mechanics*, (Ed: F.P.J. Rimrott and B. Tabarrok), 13-22. North Holland.
65. Durbin, P.A. and Hunt, J.C.R., 1980

- Dispersion from elevated sources in turbulent boundary layers. *J. de Mecanique*, **19**, 679.
66. Britter, R.E., Hunt, J.C.R. and Richards, K.J., 1981
 Air flow over a two-dimensional hill: studies of velocity speed-up, roughness effects and turbulence. *Q. J. Roy. Met. Soc.*, **107**(451), 91-110.
67. Hunt, J.C.R., 1981
 Some connections between fluid mechanics and the solving of industrial and environmental fluid-flow problems. *J. Fluid Mech.*, **106**, 103-130.
- *68. Smith, F.T., Brighton, P.W.M., Jackson, P.S. and Hunt, J.C.R., 1981
 On boundary-layer flow past two-dimensional obstacles. *J. Fluid Mech.*, **113**, 123-152.
69. Hunt, J.C.R., 1981
Turbulent stratified flow over hills. *Paper I-1, Proc. Colloquium 'Construire avec le vent'*, (Ed. J. Gandemer) Centre Sci. Techn. du Bat, Nantes, France.
70. Hunt, J.C.R. and Simpson, J.E., 1982
Atmospheric boundary layers over non-homogeneous terrain. *Chapter 7 of 'Engineering Meteorology'* (Ed. E. Plate), Elsevier, 269-318.
71. Hunt, J.C.R., 1982
Diffusion in the stable boundary layer. In: *'Atmospheric Turbulence and Air Pollution Modelling'*. Ed. Nieuwstadt, F.T.M. and van Dop, H. Reidel, 231-274.
72. Hunt, J.C.R., 1982
Mechanism for dispersion of pollution around buildings and vehicles. *BMFT/TÜV Colloquium on Exhaust Gas Air Pollution caused by Motor Vehicle Emissions*. Oct. Published by TÜV, Cologne, Germany, 235-266.
73. Britter, R.E., Hunt, J.C.R., Marsh, G.K. and Snyder, W.H., 1983
 The effects of stable stratification on turbulent diffusion and the decay of grid turbulence. *J. Fluid Mech.*, **127**, 27-44.
74. Moore, D.J. and Hunt, J.C.R., 1983
Electromagnetic stirring in the coreless induction furnace. *Proc. of the 3rd Beer-Sheva Seminar. Liquid metal flows and magnetohydrodynamics. Prog. Astr. Aero.*, **84**, AIAA, New York.
75. Gartshore, I.S., Durbin, P.A. and Hunt, J.C.R., 1983
 The production of turbulent stress in a shear flow by irrotational fluctuations. *J. Fluid Mech.*, **137**, 307-329. [*Proc. IUTAM Conf. on Complex Turbulent Flows*, Marseille. Springer.]
- *76. Pearson, H.J., Puttock, J.S. and Hunt, J.C.R., 1983
 A statistical model of particle motions and vertical diffusion in a homogeneous stratified turbulent flow. *J. Fluid Mech.*, **129**, 219-249.
- *77. Moore, D.J. and Hunt, J.C.R., 1984
Turbulence and unsteadiness in the coreless induction furnace. *Proc. IUTAM Symposium on 'Metallurgical applications of magnetohydrodynamics'* ed. M.R.E. Proctor, Metals. Soc. Lond. 93-107.
- *78. Thomas, N.H., Auton, T.R., Sene, K. and Hunt, J.C.R., 1983 and 1984

- Entrapment and transport of bubbles by transient large eddies in multiphase turbulent shear flows. BHRA Int. Conf. on the Physical Modelling of Multiphase Flows, Coventry, April. **Also** Entrapment and transport of bubbles in plunging water. *Proc. Symp. On Gas Transfer at Water Surfaces*. [Ed. W. Brutsaert and G.H. Jirka], Reidel 255-268.
- *79. Hunt, J.C.R., 1984
 Turbulence structure in thermal convection and shear-free boundary layers *J.Fluid Mech.*, **138**, 161-184.
80. Hunt, J.C.R., 1984
Turbulence structure and turbulent diffusion near gas-liquid interfaces. *Proc. Symp. On 'Gas Transfer at Water Surfaces'*. Ed: W. Brutsaert and G.H. Jirka, 67-82, D. Reidel.
81. Hunt, J.C.R., Lalas, D.P. and Asimakopoulos, D.N., 1984
 Air flow and dispersion in rough terrain; a report on Euromech 173. *J. Fluid Mech.*, **142**, 201- 216.
- *82. Hunt, J.C.R. and Richards, K.J., 1984
Stratified airflow over one or two hills.OHOLO Conference on Boundary Layer Structure - Modelling and Application to Air Pollution and Wind Energy, Zichron-Ya'Acov, Israel. March; *Boundary Layer Meteorology*, **30**, 223-259.
83. Snyder, W.H., Thompson, R.S., Eskridge, R.E., Lawson, R.E., Castro, I.P., Lee, J.T., Hunt, J.C.R. and Ogawa, Y., 1984
 The structure of strongly stratified flow over hills; dividing streamline concepts. *J. Fluid Mech.*, **152**, 249-288.
84. Van Dop, H., Nieuwstadt, F.T.M. and Hunt, J.C.R., 1984
Random walk models for particle displacements in inhomogeneous unsteady turbulent flows. *Phys. Fluids*, **28**, 1639-1653.
85. Hunt, J.C.R., 1984
Flow round bluff obstacles. Lecture notes Von Karman Institute, Brussels.
86. Snyder, W.H. and Hunt, J.C.R., 1984
 Turbulent diffusion from a point source in stratified and neutral flows around a three-dimensional hill. Pt. II. Laboratory measurements of surface concentrations. *Atmos. Env.*, **18**(10), 1969-2002.
87. Stretch, D.D., Hunt, J.C.R. and Britter, R.E., 1985
The dispersion of slightly dense contaminants. *Proc. IUTAM Symposium 'Atmospheric dispersion of heavy gases and small particles'*. Ed. G. Ooms and H. Tennekes. Springer, 333-346.
88. Hunt, J.C.R., Rottman, J.W. and Britter, R.E., 1985
Some physical processes involved in the dispersion of dense gases. *Proc. IUTAM Symposium 'Atmospheric dispersion of heavy gases and small particles'*. Ed. G. Ooms and H. Tennekes. Springer, 361-395.
- *89. Hunt, J.C.R., 1985
 Turbulent diffusion from sources in complex flows. *Annual Review of Fluid Mechanics*, **17**, 447-485.

90. Rottman, J.W., Hunt, J.C.R. and Mercer, A., 1985
 The initial and gravity spreading phases of heavy gas dispersion:comparison of models with Phase I data. Proc. Symp. on Heavy Gas Dispersion Trials at Thorney Island. Sheffield, *J. Haz. Met.*, **11**, 261-277.
91. Tampieri, F. and Hunt, J.C.R., 1985
 Two-dimensional stratified flow over valleys: linear theory and a laboratory investigation. *Boundary Layer Meteorology*, **32**, 257-279.
92. Rottman, J.W., Simpson, J.E., Hunt, J.C.R. and Britter, R.E., 1985
 Unsteady gravity current flows over obstacles - some observations and analysis related to the Phase II trials. Proc. Symp. on Heavy Gas Dispersion Trials at Thorney Island. Sheffield, April. *J. Haz. Met.*, **11**, 325-340.
93. Hunt, J.C.R., 1985
 Diffusion in the stably stratified atmospheric boundary layer. *J. Climatology and Applied Meteorology*, **24**, 1187-1195.
94. Hunt, J.C.R., Kaimal, J.C. and Gaynor, J.E., 1985
 Some observations of turbulence structure in stable layers. *Q.J. Roy. Met. Soc.*, **111**(469), 793-815.
95. Nalpanis, P. and Hunt, J.C.R., 1985
 Saltating and suspended particles over flat and sloping surfaces. I.Modelling concepts. *Proc. Int. Workshop on the Physics of Blown Sand*. (Ed. O.E. Barndorff-Nielsen),**Memoirs No. 8**. Aarhuis, Denmark, 9-35.
96. Hunt, J.C.R., 1985
 Turbulence and Diffusion in Stable Environments, Preface and Editor, Clarendon Press, Oxford.
97. Moros, A., Hunt, J.C.R. and Lillicrap, D.C., 1985
 Study of the electromagnetic features in channel induction furnaces. *Proc. 4th Bat Sheva Seminar on MHD Flows and turbulence. Prog. in Astronautics and Aeronautics*, **100**, 706-715.
98. Carruthers, D.J., Hunt, J.C.R. and Turfus, C.J., 1985
 Turbulent flow near density inversion layers. *Proc. of Euromech 199 on 'Direct and Large Eddy Simulation of TurbulentFlows'* (Ed. U. Schumann), Vieweg.
99. Sawford, B.L. and Hunt, J.C.R., 1986
 Effects of turbulence structure, molecular diffusion and source size on fluctuations of concentration in homogeneous turbulence. *J. Fluid Mech.*, **165**, 373-400.
- *10 0. Carruthers, D.J. and Hunt, J.C.R., 1986
 Velocity fluctuations near an interface between a turbulent region and a stably stratified layer. *J. Fluid Mech.*, **165**, 475-501.
101. Kiya, M., Ohyama, M. and Hunt, J.C.R., 1986
 Vortex pairs and rings interacting with shear layer vortices. *J. Fluid Mech.*, **172**, 1-15.
102. Tampieri, F. and Hunt, J.C.R., 1986

Stratified flow and wave motion near mountaintops. *Proc. Conf. on the Scientific Results of Alpine Experiment (ALPEX)*, July. GARP publication series No.27, 359-369, W.M.O. Geneva.

103. Stapountzis, H., Sawford, B.L., Hunt, J.C.R. and Britter, R.E., 1986
 Structure of the temperature field downwind of a line source in grid turbulence. *J. Fluid Mech.*, **165**, 401-424.
104. Hunt, J.C.R., 1987
Vorticity and vortex dynamics in complex turbulent flows. *Trans. Can. Soc. Mech. Eng.*, **11**, 21-35.
105. Turfus, C. and Hunt, J.C.R., 1987
A stochastic analysis of the displacements of fluid elements in inhomogeneous turbulence using Kraichnan's method of random modes. *Advances in Turbulence 1*, (*Proc. European Turbulence Conf., Lyon*) Springer, 191-203.
106. Davidson, P.A. and Hunt, J.C.R., 1988
 Swirling recirculating flow in a liquid metal column generated by a rotating magnetic field. *J. Fluid Mech.*, **185** 67-106.
107. Hunt, J.C.R., Stretch, D.D. and Britter, R.E., 1988
Length scales in stably stratified turbulent flows and their use in turbulence models. *Proc. I.M.A. Conf. on 'Stably Stratified Flow and Dense Gas Dispersion'* (Ed. J.S. Puttock), Clarendon Press, 285-322.
108. Carruthers, D.J. and Hunt, J.C.R., 1988
Turbulence, waves and entrainment near density inversion layers. *Proc. I.M.A. Conf. on 'Stably Stratified Flow and Dense Gas Dispersion'* (Ed. J.S. Puttock), Clarendon Press, 77-96. [Also 3rd Int. Symp. on Flow. Cal. Inst. Tech. Feb 1987].
109. Hunt, J.C.R., 1988
 Studying turbulence using direct numerical simulation: the 1987 NASA Ames Stanford summer program. *J. Fluid Mech.*, **190**, 375-392.
110. Hunt, J.C.R., Kaimal, J.C. and Gaynor, J.E., 1988
 Eddy structure in the convective boundary layer -- new measurements and new concepts. *Q.J. Roy. Met. Soc.*, **114**(482), 821-858.
111. Moros, A. and Hunt, J.C.R., 1988
Recirculating flows in the cross-section of a channel induction furnace. *Int. J. Heat Mass Transfer*, **31**, 1497-1515.
112. Davidson, P.A., Hunt, J.C.R. and Moros, A., 1988
Turbulent recirculating flow in liquid metal MHD. *Proc. Fifth Beer Sheva Seminar, Israel, In: Liquid Metal Flows: Magnetohydrodynamics and Applications.* (Ed. H. Branover, M. Mond and Y. Unger). *American Inst. of Aeronautics and Astronautics*, **111**, 400-420.
113. Hunt, J.C.R., Richards, K.J. and Brighton, P.W.M., 1988

-  Stably stratified shear flow over low hills. *Q. J. Roy. Met. Soc.*, **114**(482), 859-886.
114. Moros, A., Hunt, J.C.R. and Lillicrap, D.C., 1988
 Modelling recirculating flows in channel induction furnaces. *Progr. Proc. Fifth Beer Sheva Seminar, Israel*, In: *Liquid Metal Flows: Magnetohydrodynamics and Applications*. (Ed. H. Branover, M. Mond and Y.Unger). *American Inst. of Aeronautics and Astronautics*, **111**, 421-441 , 1988.
115. Hunt, J.C.R., Auton, T.R., Sene, K., Thomas, N.H. and Kowe, R., 1988
 Bubble motions in large eddies and turbulent flows. In *Transient Phenomena in Multiphase Flow*, Ed. N.H. Afghan. Hemisphere, 103-126.35 Omega 89 in library here.
116. Hunt, J.C.R., Weng, W.S. and Carruthers, D.J., 1988
 Modelling deposition fluxes on hills. *Air Pollution Modeling and its Applications VI* (Ed. H.van Dop), Plenum, 623-640.
117. Auton, T.J., Hunt, J.C.R. and Prud'homme, M., 1988
 The force exerted on a body in inviscid unsteady non-uniform rotational flow. *J. Fluid Mech.*, **197**, 241-257.
118. Hunt, J.C.R., Leibovich, S. and Richards, K.J. , 1988
 Turbulent shear flows over low hills. *Q.J. Roy. Met. Soc.*, **114**, 1435-1470.
119. Kowe, R., Hunt, J.C.R., Hunt, A., Couet, B. and Bradbury, L.S.J., 1988
 The effects of bubbles on the volume fluxes and the pressure gradients in non-uniform steady flow of liquids. *Int.J. Multiphase flow*, **14**, 587-606.
120. Lawson, R.E. Jr., Snyder, W.H. and Hunt, J.C.R., 1988
 Flow structure of recirculating wake flows downwind of surface-mounted obstacles. *Preprint Vol. 8th Symp. on Turbulence and Diffusion*, April 1988, San Diego. Am. Met. Soc. Boston.
121. Ryan, K., Smith, T.J. Carruthers, D.J. and Hunt, J.C.R., 1988
 Atmospheric phenomena, their importance and incorporation in flight simulation. *Proc. Roy Aeronautical Society meeting on Flight Simulation* April 1988.
122. Carruthers, D.J., Hunt, J.C.R. and Weng, W. -S., 1988
 A computational model of stratified turbulent airflow over hills- FLOWSTAR I. *Proc. of Envirosoft 88*. In: 'Computer techniques in Environmental Studies', (ed. P.Zannetti), Springer-Verlag, 481- 492 and Comp. Mech. Inst. held in Greece, September 1988, Envirosoft (481-492).
123. Coelho, S.L.V. and Hunt, J.C.R., 1989
 Vorticity dynamics of the near field of strong jets in cross flows. *J. Fluid Mech.*, **200**, 95-120, also Proc. IMA/SMAI.
124. Kida, S. and Hunt, J.C.R., 1989
 Interaction between different scales of turbulence over short times. *J. Fluid Mech.*, **201**, 411-445.

125. Perkins, R.J. and Hunt, J.C.R., 1989
Particle tracking in turbulent flows. *2nd European Turbulence Conference*, Berlin, August 1988. Springer-Verlag p.p. 286-291.
126. Carruthers, D.J., Hunt, J.C.R. and Holroyd, R., 1989
Airflow and dispersion over complex terrain. In *Air Pollution Modelling and its Applications VII*. Ed. H. vans Dop Plenum p.p. 515-529.
127. Hunt, J.C.R., Spalart, P. and Mansour, N.N., 1987
A general form for the dissipation length scale in turbulent shear flows. *Proceedings of the Summer Program, Center for Turbulence Research*. pp 179-184.
128. Hunt, J.C.R., Moin, P., Moser, R.D. and Spalart, P.R., 1987
Self-similarity of two point correlations in wall bounded turbulent flows. *Proceedings of the Summer Program Centre for Turbulence Research*, pp 25-36.
129. Hunt, J.C.R., Moin, P., Lee, M, Moser, R.D., Spalart, P., Mansour, N.N., Kaimal, J.C. and Gaynor, E., 1989
Cross correlation and length scales in turbulent flows near surfaces. *Advances in Turbulence 2* (2nd European Turbulence Conf., Berlin, August 1988), Springer-Verlag pp 128-134.
130. Hunt J.C.R., 1989
 Some changes in the doing and the application of applied mathematics 1964-1989. *I.M.A. Bulletin*, **25**, 97-103.
131. Lee M.J. and Hunt J.C.R., 1989
The structure of sheared turbulence near a plane boundary. *Seventh symposium on turbulent shear flows, Stanford*. Paper 8-1, (published by Springer Verlag).
132. Carruthers D.J., Fung J.C.H., and Hunt J.C.R., 1990.
The emergence of characteristic (coherent?) motion in homogeneous turbulent shear flows. *Proc. In Turbulence and Coherent Structures. Proc.~Grenoble Conference 1989*, (Eds. M. Lesieur and O. Métais), Kluwer 1991, 29-44.
133. Hunt J.C.R., Carruthers D.J. and Fung J.C.H., 1991
Rapid distortion theory as a means of exploring the structure of turbulence., in 'New perspectives in Turbulence' (Ed. L. Sirovich) Springer Verlag, 55-104.
134. Hunt, J.C.R., Newley, T.J.M. and Weng, W.S., 1989
Analysis and computation of turbulent boundary layers with varying pressure gradients. *Proc. IMA/SMAI Conf. on Computational Methods in Aeronautical Fluid Dynamics*. (Ed. P. Stow.) Clarendon Press 59-92.
135. Belcher S., Xu, D.P. and Hunt, J.C.R., 1990.
 The response of a turbulent boundary layer to arbitrarily distributed roughness change. *Q.J. Roy. Met. Soc.*, **116**(493), 611-635.
136. Hunt, J.C.R. and Hussain, A.K.M.F., 1991
 A note on velocity, vorticity and helicity of inviscid fluid elements. *J. Fluid Mech.*, **229**,

- 569-587. (Helicity associated with flow around fluid lumps and with inhomogeneous turbulence. *Proc. IUTAM*. Ed. H.K. Moffatt. Cambridge Univ. Press. pp 727-742.)
137. Hunt, J.C.R., Wray, A.A. and Buell, J.C., 1987
 Big whorls carry little whorls. *Res. Proc. of 1987 Summer Program*. CTR-S87.
 N.A.S.A. Centre for Turb. Res.
138. Hunt, J.C.R., Wray, A.A. and Moin, P., 1988
 Eddies, streams, and convergence zones in turbulent flows. *Proc. 1988 Summer Program*, Stanford N.A.S.A. Centre for Turb. Res., CTR-S88.
139. Wray A.A. and Hunt J.C.R., 1990.
 Algorithms for classification of turbulent structures. *Proc. IUTAM Symp. On Topological Fluid Mechanics*. Ed: H.K. Moffatt and A. Tsinober, Cambridge Univ. Press. 95-104.
140. Hunt J.C.R. and Carruthers D.J., 1990.
 Rapid distortion theory and the 'problems' of turbulence. *J. Fluid Mech.*, **212**, 497-532.
141. Hunt J.C.R., 1990.
 The structure of velocity and pressure fields in turbulent flow over bluff bodies, hills and waves. Proc. 6th U.S. conf. on Wind Engineering. *J. Wind. Eng. and Ind. Aero.*, **36**, 245-253.
142. Hunt J.C.R., Kawai H., Ramsay S.R., Pedrizetti G. and Perkins R.J., 1990.
 A review of velocity and pressure fluctuations in turbulent flows around bluff bodies. *J. Wind Eng. and Ind. Aero.*, **35**, 49-85.
143. Hunt J.C.R., 1990.
 Review of De la Causalité à la Finalité: a propos de la Turbulence. *Euro. J. of Mech.* **9**, 385-392. See also introduction to English translation of De la Causalité à la Finalité (Chaos and Determinism). Johns Hopkins University Press, 1995.
144. Carruthers D.J., and Hunt J.C.R., 1990.
 Fluid mechanics of airflow over hills: turbulence, fluxes, and waves in the boundary layer. 'Atmospheric Processes in Complex Terrain' (Ed. W. Blumen). *Am. Met. Soc.*, **23**, 83-103.
145. Hunt, J.C.R., Carruthers, D.J., Fung, J.C.H., Malik, N.A., and Perkins, R.J., 1990.
 Kinematic simulation of the space-time structure of turbulent flow. *ERCOFTAC bulletin*, **VI**, 4-9.
146. Hunt, J.C.R. and Carruthers, D.J., 1990.
 Extreme conditions associated with fluid motions in the environment - an applied mathematical viewpoint. *I.M.A. Bull.*, **26**(8/9), 201-207.
147. Hunt, J.C.R., 1991.
 Industrial and environmental fluid mechanics. *Ann. Rev. Fluid Mech.*, **23**, 1-41.
148. Hunt, J.C.R., Holroyd, R.J., Carruthers, D.J., Robins, A.G., Apsley, D.D., Smith, F.B.

- and Thomson, D.J., 1991.
Developments in modelling air pollution for regulatory uses. *Proc. 18th NATO-CCMS. Int. Tech. Mtg. on Air Pollution Modelling and its Applications*, Vancouver, Canada. Ed. H. van Dop, Plenum, New York.
149. Carruthers, D.J., Hunt, J.C.R., Britter, R.E., Perkins, R.J. and Linden, P.F., 1991.
Fast models on small computers of turbulent flows in the environment for non-expert users. *Proc. NERC-IMA conference on "Computer modelling in the environmental sciences"*, Nottingham. (Eds. D.G. Farmer and M.J. Rycroft), Clarendon Press, 199-214.
150. Komori, S., Hunt, J.C.R., Kanzaki, T. and Murakami, Y., 1991.
 The effects of turbulent mixing on the correlation between two species and on concentration fluctuations in non-premixed reacting flows. *J. Fluid Mech.*, **228**, pp 629-659.
151. Perkins, R.J., Carruthers, D.J., Drayton, M.J. and Hunt, J.C.R., 1991.
Turbulence and diffusion at density interfaces. *Proc. of Int-Seminar on Phase-interface Phenomena in Multiphase Flow. Dubrovnik. In: Phase-interface Phenomena in Multiphase Flow*, 1991, Hemisphere, New York. P 21.
152. Weng W.S., Carruthers D.J., Hunt J.C.R., Warren A., Wiggs G.F.S. and Livingstone I., 1991.
 Air flow and sand transport over sand dunes. In: '*Aeolian grain transport*' *Acta Mechanica*, **1-22** (Supp). (Eds. O.E. Barndorf-Nielson and B.B. Willetts).
153. Raupach, M.R., Weng, W.S., Carruthers, D.J. and Hunt, J.C.R., 1992.
 Temperature and humidity fields and fluxes in the air flow over low hills. *Q. J. Roy. Met. Soc.*, **118**(504), 191-225.
154. Nalpanis, P., Hunt, J.C.R. and Barrett, C.F., 1993.
 Saltating particles over flat beds. *J. Fluid Mech.*, **251**, 661-685.
155. Vassilicos, J.C. and Hunt, J.C.R., 1996.
Moving surfaces in turbulent flows. *Proc. IMA conf. on Mathematics and Computations of deforming surfaces*. (Ed. R.J. Perkins, D. Dritschel). Clarendon (in press).
156. Hunt, J.C.R., Tampieri, F., Weng W.-S. and Carruthers D.J., 1991.
 Air flow and turbulence over complex terrain: a colloquium and a computational workshop. *J. Fluid Mech.*, **227**, 667-688.
157. Fung J.C.H., Hunt J.C.R., Perkins R.J., Wray A.A. and Stretch D., 1991.
Defining the zonal structure of turbulence using the pressure and invariants of the deformation tensor. *Advances in Turbulence 3*. (Eds. A.V. Johansson and P.H. Alfredsson), 395-404, Springer Verlag.
158. Hunt J.C.R., Fung J.C.H., Malik N.A., Perkins R.J., Vassilicos J.C., Wray A.A., Buell J.C. and Bertoglio J.P., 1991.
Kinematics of small scale motions in homogeneous isotropic turbulence. *Advances in Turbulence 3*. (Eds. A.V. Johansson and P.H. Alfredsson), 422-434, Springer Verlag.

159. Derbyshire, S.H. and Hunt, J.C.R., 1993.
Structure of turbulence in stably stratified atmospheric boundary layers; comparison of large eddy simulations and theoretical models. *Proc. 3rd I.M.A. Conf. on Stably Stratified Flows*, Leeds. (Eds. S. Mobbs and J.C. King), Clarendon Press, 23-60.
160. Hunt, J.C.R. and Vassilicos, J.C., 1991.
 Kolmogorov's contributions to the physical and geometrical understanding of small-scale turbulence and recent developments. *Special edition of Proc. R. Soc. A 1991*, **434**, 183--210, (Eds. J.C.R. Hunt, O.M. Phillips and D. Williams).
161. Vassilicos, J.C. and Hunt, J.C.R., 1991.
 Fractal dimensions and spectra of interfaces with application to turbulence. *Proc. R. Soc. A*, **435**, 505-534.
162. Belcher, S.E., Newley, T.M.J. and Hunt J.C.R., 1993.
 The drag on an undulating surface induced by the flow of a turbulent boundary layer. *J. Fluid Mech.*, **249**, 557-598.
163. Belcher, S.E. and Hunt, J.C.R., 1993.
 Turbulent shear flow over slowly moving waves. *J. Fluid Mech.*, **251**, 109-148.
164. Carruthers, D.J., Holroyd, R.J., Hunt, J.C.R., Weng, W. -S., Robins, A.G., Apsley, D.D., Smith, F.B., Thomson, D.J. and Hudson B., 1992.
UK atmospheric dispersion modelling system. 'Air pollution modelling and its application IX', *Proc. 19th NATO/CCMS international technical meeting*, Crete, Sept 29th – Oct 4th, 1991 (Eds. H. Van Dop and G. Kallos), Plenum, 1992, 15-28.
165. Belcher, S.E., Weng, W.S., Carruthers, D.J. and Hunt, J.C.R., 1991.
The modelling of perturbed turbulent boundary layers. *Advances in Turbulence 3*. (Eds. A.V. Johansson and P.H. Alfredsson), 377-386, Springer-Verlag.
166. Newley, T.M.J., Pearson, H.J. and Hunt J.C.R., 1991.
Stably stratified rotating flow through a group of obstacles. *Geophys. Astrophys. Fluid Dynamics*, **58**, 147-171.
167. Belcher, S.E., Weng, W.S. and Hunt J.C.R., 1991.
Structure of turbulent boundary layers perturbed over short length scales. *Eighth Symposium on Turbulent Shear Flows*, Munich, Sept. 1991. Springer-Verlag, pp 12-2-1-12-2-5.
168. Fung, J.C.H., Hunt, J.C.R., Malik, N.A. and Perkins R.J., 1992.
 Kinematic simulation of homogeneous turbulence by unsteady random Fourier modes. *J. Fluid Mech.*, **236**, 281-318.
169. Hunt, J.C.R., 1992.
Developments in computational modelling of turbulent flows. In: 'ERCOFTAC workshop on numerical simulation of unsteady flows' (Ed. O. Pironneau, W. Rodi, I. L. Rhyming, A. M. Savill and T. V. Truong), Cambridge Univ. Press.1-76. (Updated and shortened version 'Theoretical limitations of computational modelling of turbulent flows'. In: *Proc. Fifth Symp. on Refined Flow Modelling and Turbulence Measurements*.

- P.L. Viollet (Ed.), Presses Ponts et Chaussees, Paris, pp 13-38.
170. Hunt, J.C.R., 1993.
 Life and Work of L.F. Richardson. In: '*Collected works of L.F. Richardson*', (Eds. P. Drazin and I. Sutherland), Cambridge Univ. Press. 1-27. (Also in *Ann. Review of Fluid Mechanics*, **30**, 1998.)
171. Sene, K.J., Thomas, N.H. and Hunt, J.C.R., 1993.
 Role of coherent structures in bubble transport by turbulent shear flows. *J. Fluid Mech.*, **259**, 219-240.
172. Hunt, J.C.R., 1991.
 3 chapters in '*New Applications of Mathematics*' (Ed. C. Bondi) Penguin: 1) Using functions and graphs to understand oil wells and business accounts, pp 1-32, 4) Integrating: mixing paint, newspaper pictures and car exhausts (with David Sturge), pp 73-98, 5) Networks: underground maps, decisions and aerodynamics, pp 99-123.
173. Hunt, J.C.R. and Kevlahan, N., 1993.
 Rapid distortion theory and the structure of turbulence. *Proc. Monte Verita Symp. Sept. 1991: New Approaches and Concepts in Turbulence* (Eds. T. Dracos and A.B. Tsinober), Birkhauser, Basel, 285-316.
174. Saxena, V and Hunt, J.C.R., 1993.
 A second order solution for the distortion of large-scale turbulence around a 2-d obstacle. *Applied Scientific Research*, **51**, 457-461. Also in *Advances in turbulence 4*, Ed F T M Nieuwstadt, Kluwer.
175. Hunt, J.C.R., Kevlahan, N.K.R., Vassilicos J.C. and Farge, M., 1993.
 Wavelets, Fractals and Fourier Transforms: Detection and Analysis of Structure. *Proc. IMA Conf. on wavelets, fractals and Fourier transforms*. Clarendon Press, pp 1-38. [Review published in *IMA Bulletin*, 1-38, 1993.]
176. Hunt, J.C.R., Hudson, B. and Thomson, D.J., 1992.
 Improving practical atmospheric dispersion models -- the scientific basis. *Computational Methods in Applied Science* (Eds. C. Hirsch, J. Periaux and E. Onate), Elsevier Science Publishers BV, 167-179, (modified as lecture notes for Cambridge Programme for Industry talk).
177. Hunt, J.C.R., Perkins, R.J. and Fung, J.C.H., 1995.
 Review of the problems of modelling disperse two-phase flows. *Multiphase Science and Technology, Volume 8 Two-phase flow fundamentals*', (Eds. G.F. Hewitt, J.H. Kim, R.T. Lahey, J.M. Delhaye and N. Zuber), Begell House Inc., 595-643 (Chapter 10).
178. Hunt, J.C.R., Carruthers, D.J. and Fung, J.C.H., 1991.
 Rapid distortion theory as a means for exploring the structure of turbulence. In: '*New Perspectives in Turbulence*', (Ed. L. Sirovich), Springer-Verlag, pp 55-103.
179. Hunt, J.C.R., 1994.
 Report of First European Conference on Applications of Meteorology. *ERCOFTAC*

Bulletin, **21**, 26-27 (June 1994) and *Met. Apps.*, **1**, 193-194.

180. Hunt, J.C.R., 1993.
Advances in Fluid Mechanics and Meteorology from Visualisation of Numerically and Experimentally Generated Data. Presented at ERCOFTAC Workshop on Visualisation of Numerically Generated Data. Abingdon, June 1992. *ERCOFTAC Bulletin*, **16**, 1993.
181. Moros, A. and Hunt, J.C.R., 1992.
Coherent structures in fluid-structure interaction phenomena. (Presented at IUTAM Conf.on 'Eddy structure identification', Poitiers, Oct 1992.)
182. Vassilicos, J.C. and Hunt, J.C.R., 1992.
Turbulent flamelet propagation. *Combust. Sci. and Tech.*, **87**, 1-6, p. 291.
183. Carruthers, D.J., Holroyd, R.J., Hunt, J.C.R. and Weng, W.S., 1994.
UK-ADMS - a new approach to modelling dispersion in the Earth's atmospheric boundary layer. *J. Wind Eng. and Ind. Aerodyn.*, **52**, 139-153.
184. Hunt, J.C.R. and Neunzert, H., 1993.
Mathematics and Industry. In: *Proc. European Mathematics Congress Paris 1992*, Birkhauser, 1994. Also *IMA Bulletin*, **29**, 164-171.
185. Hall, C.D., Hunt, J.C.R., Radford, A.M., Carruthers, D.J. and Weng, W.S., 1992.
Forecasting tropical cyclones and near surface wind conditions. *ICSU/WMO Proc. Int. Symp. on Tropical Cyclone Disasters*, Beijing, Oct. 92, Peking University Press, pp232--257.
186. Fernando, H.J.S., Hunt, J.C.R. and Carruthers, D.J., 1994.
Turbulence, waves and mixing at stratified density interfaces; modelling and experiments. *Proc 4th IMA Conf. on 'Stratified flows dots'* (Eds. N. Rockliffand and I. Castro), Clarendon, 175-200.
187. Kevlahan, N.K.R., Hunt, J.C.R. and Vassilicos, J.C., 1993.
A comparison of different analytical techniques for identifying structures in turbulence. *Proc. IUTAM Conf. on 'Eddy structure identification'*. In: *Free Turbulent Shear Flows*, Poitiers, (Eds. J.P. Bonnet and M.N. Glauser), Kluwer, 311-324.
188. Collier, C.G., Dixon, J., Harrison, M.S.J., Hunt, J.C.R., Mitchell, J.F.B. and Richardson, D.S., 1994.
Extreme Surface Winds in Mid-Latitude Storms: Forecasting and Changes in Climatology. *J.Wind Eng. and Ind. Aero.*, **52**, 1-27.
189. Sakai, Y., Hunt, J.C.R. and Fung, J.C.H., 1992.
Diffusion of fluid particles by the combined model of random Fourier modes and random flight. *Jap. Soc. Met. Eng., Series II*, Vol 35, No 4, 497-506.
190. Hunt, J.C.R., 1993.
Introductory remarks to the IUTAM conference and ERCOFTAC workshop on 'Eddy

- structure identification in free turbulent shear flows'. (Eds. J.P. Bonnetand and M.N. Glauser), Kluwer, 1-4.*
191. Kevlahan, N.K.R. and Hunt, J.C.R., 1997.
 'Nonlinear interactions in turbulence with strong irrotational straining'. *J. Fluid Mech.*, **337**, 333-364. (Shortened version in *Advances in Turbulence VI*, (Eds. S. Gavrilakis, *et al.*), Kluwer, 239-242.)
192. Hunt, J.C.R., Vassilicos, J.C. and Kevlahan, N.K.R., 1994.
Turbulence: a state of nature or a collection of phenomena? *Progress in Turbulence Research, Progress in Astronautics and Aeronautics*, Series vol. **162**, 1-18. 7th Beer Sheva Int. Sem. on MHD flows and turbulence, Beer-Sheva, Israel, February 1993. (Eds. H. Branover and Y. Unger), AIAA, Washington 1994.
193. Sakai, Y., Hunt, J.C.R., Fung, J.C.H., Pedrizzetti, G. and Perkins, R.J., 1993.
Modelling of the diffusion of fluid particles in turbulent flows approaching a circular cylinder by random Fourier modes and random flight. *Advances in Turbulence*, **4**, (Ed. F T M Nieuwstadt), Kluwer, 547-554.
194. Ghosh, S. and Hunt, J.C.R. 1994.
 Induced air velocity within droplet driven sprays *Proc. Roy. Soc. Lond. A* (1994) **444**, 105-127. [Also conference paper: 1993 Ghosh, S., Hunt, J.C.R., Phillips, J.C. and Miller, P.H., Dynamics of turbulent airflow in droplet driven sprays. *App. Sci. Rep.*, **51**, 257-262.]
195. Fung, J.C.H., Hunt, J.C.R. and Perkins, R.J., 2003.
 Motion of small inertial particles in turbulent flows with finite settling velocity. *Proc. Roy. Soc.*, **459**(2030), 445-493.
196. Hunt, J.C.R., 1993.
Reviews of 'The Life of Isaac Newton', by R S Westfall (C.U.P 1993), In: *Literary Review*, (London) June 1993, 12-13; *IMA Bulletin*, **29**, 155-157.
197. Hagiwara, Y., Perkins, R.J., Hunt, J.C.R. and Lunde, K., 1993.
Numerical Simulation of the zigzag motion of a rising bubble in quiescent water. 12th National Symp. on Multiphase Flows, Fukuoka, Japan, July 1993.(In Japanese).
198. Hunt, J.C.R., 1994.
Atmospheric jets and plumes. In: *Recent Research Advances in the Fluid Mechanics of Turbulent Jets and Plumes. Proc. Nato Advanced Study Institute, Viana di Castelo*, 1993 (Eds. P. Davies and M.J. Valente Neves), Kluwer, 309-334.
199. Carruthers, D.J. and Hunt, J.C.R., 1997.
Turbulence, wave motion and entrainment at inversion layers. Submitted to *J. Fluid Mech.*,
200. Jerram, N., Perkins, R.J., Fung, J.C.H., Davidson, M.J., Belcher, S.E. and Hunt, J.C.R., 1994.
Atmospheric flow through groups of buildings and dispersion from localised sources. In: *Wind Climate in Cities, Proc. NATO Advanced Study Institute, Karlsruhe*. (Eds. J.E.

- Cermak, A.G. Davenport, E.J. Plate and D.X. Viegas), Kluwer, 109-130.
201. Hunt, J.C.R., 1994
Developments in forecasting the atmospheric environment. Lecture to Brit. Assoc., Sept. 1993, *Weather*, **49** (9) 312-318.
202. Eames, I., Belcher, S.E. and Hunt, J.C.R., 1994
 Drift, partial drift and Darwin's proposition. *J. Fluid Mech.*, **275**, 201-223.
203. Ghosh, S and Hunt, J.C.R. 1998
 Spray jets in a cross-flow. *J. Fluid Mech.*, **365**, 109-136.
204. Hunt, J.C.R., 1994
Contributions of mathematics to the solution of industrial and environmental problems. IMA Presidential Lecture. *IMA Bulletin*, **30**, (3-4), 35-45, March 1994.
205. Fernando, H.J.S. and Hunt, J.C.R., 1996
Some aspects of turbulence and mixing in stably stratified layers. *Dyn. Atm. Oceans*, **23**, 35-62.
206. Hunt, J.C.R., Perkins, R.J. and Fung, J.C.H., 1994
Problems in modelling disperse two-phase flows. Presented at the Twelfth U.S. National Congress of Applied Mechanics. *Applied Mechanics Reviews*, **47:6**, Part 2, S49-S60, June 1994. Reprint no. AMR146.
207. Hunt, J.C.R., 1995
Developments in forecasting the atmospheric environment. Presented at the 6th Joint EPS-APS International Conference on Physics Computing, Lugano, September 1994. *Computers in Physics*, **9**, No. 5, 485-7.
208. Hunt, J.C.R., Shutts, G. and Derbyshire, S., 1996
Stably stratified flows in meteorology. Proceedings of a conference on Stratified Flows, Grenoble, June 1994. *Dyn. Atm. Oceans*, **23**, 63-79.
209. Hunt, J.C.R., 1995
Effects of body forces on turbulence. *Advances in Turbulence V*, (Ed. R. Benzi), Kluwer, 229-235.
210. Hunt, J.C.R., 1995
Developments in forecasting the atmospheric environment. (Based on lecture at the IMA, 30th April 1994.) *IMA Bulletin*, **31**(3-4), 35-41.
211. Hunt, J.C.R., 1996
Atmospheric diffusion from a steady source in a turbulent airflow at low mean wind speeds. *Note to U.K Atm. Dis. Modelling Working Group (National Radiological Protection Board)* Report R292, 19-22.
212. Hunt, J.C.R., 1995

- Forecasts and warnings of natural disasters and the roles of national and international agencies. United Nations World Conference on Natural Disaster Reduction Technical Committee F - Warning Systems, 26 May 1994, Yokohama, Japan. (Part of the International Decade for Natural Disaster Reduction IDNDR 1990-2000.). *Met. Apps.*, **2**, 53-63.
213. Davidson, M.J., Mylne, K.R., Jones, C.D., Phillips, J.C., Perkins, R.J., Fung, J.C.H., Hunt, J.C.R., 1995
 Plume Dispersion Through Large Groups of Obstacles: - A Field Investigation. *Atmos. Env.*, **29**, 3245-3256.
214. Davidson, M.J., Snyder, W.H., Lawson, R.E. and Hunt, J.C.R., 1996
 Wind tunnel simulations of plume dispersion through groups of obstacles. *Atmos. Env.*, **30**, 3715-3731.
215. Jerram, N., Belcher, S.E. and Hunt, J.C.R., 1997
 Turbulent flow through a distributed force - a model for the wind within and above an urban canopy. *Proceedings of the IMA conference on Flow and Dispersion through Groups of Obstacles, Cambridge, March, 1994*, Ed. Belcher, S.E. and Perkins, R.J. Clarendon Press, Oxford.
216. Bradbury, W.M.S., Deaves, D.M., Hunt, J.C.R., Kershaw, R., Nakamura, K., Hardman, M.E. and Bearman, P.W., 1994
 The importance of convective gusts. *Meteorological Applications*, **1**, 365-378.
217. Hunt, J.C.R., Soulard, O. and Nikiforakis, N., 2002
 Entrainment into jets and plumes in turbulent environments. (In preparation)
218. Hunt, J.C.R., 1995
 Practical and fundamental developments in the computational modelling of fluid flows. T. Hawksley memorial lecture at the Inst. Mech. Eng., 13th December~1994. Published in *Journal of Mechanical Engineering Science* (Proceedings Part C), **209**, 297-314.
219. McGrath, J.L., Fernando, H.J.S. and Hunt, J.C.R., 1997
 Turbulence, waves and mixing at shear-free density interfaces. Part II - laboratory experiments. *J. Fluid Mech.*, **347**, 235-261.
220. Fernando, H.J.S. and Hunt, J.C.R., 1997
 Turbulence, waves and mixing at shear-free density interfaces. Part I - Theoretical Model. *J. Fluid Mech.*, **347**, 197 -234.
221. Hunt, J.C.R., 1995
 The contribution of fluid mechanics to recent developments in meteorology. *Proceedings of the Sixth Asian Congress of Fluid Mechanics*, (Eds. Chew, Y.S. and Tso, C.P.), Nanyang Tech. University, Singapore. To appear in Current Science India.

222. Hunt, J.C.R., 1995
Searching for certainty. Book review of *The weather revolution: innovations and imminent breakthroughs in accurate forecasting*, by J. Fishman and R. Kalish, Plenum, 1994 and *The scariest place on earth: eye-to-eye with hurricanes*, by D.E. Fisher, Random House, 1994, *Nature*, **374**, p.23.
223. Davies, T. and Hunt, J.C.R., 1995
New Developments in Numerical Weather Prediction. *Proc. of ICFD Conference on Numerical Methods for Fluid Dynamics V.* (Eds. K.W. Morton and M.J. Baines), Oxford Press, 1-18.
224. Hunt, J.C.R., 1995
The contribution of meteorological science to wind hazard mitigation. In: 'Windstorm -- coming to terms with Mankind's Worst Natural Hazard', ed. T Wyatt, *Roy. Acad. Eng.*, 8-17.
225. Hunt, J.C.R., Mitchell J.F.B. and Tett, S.F.B., 1996
Mathematical and physical basis of general circulation models of climate. *Z. Angew. Math. Mech.*, **76**, S4, 501-508. [shortened version in *Mathematics Today* (1997)].
226. Fernando, H.J.S., Hunt, J.C.R., Strang, E.J., Berestov, A.L. and Lozovatsky, I.D., 1995
Turbulent Mixing in Stably Stratified Flows. *Proceedings, IUTAM Conference On Physical Limnology, Broom, Australia*. Ed. J Imberger, 295-302.
227. Hanazaki, H. and Hunt, J.C.R., 1996
 Linear processes in unsteady stably stratified turbulence. *J. Fluid Mech.*, **318**, 303-337.
228. Hunt, J.C.R., 1997
Rounding and other approximations for measurement records and targets. *Mathematics Today*, **33**, 73-77.
229. Hunt, J.C.R., Perkins, R.J., Lunde, K. and Thomas, N.H., 1994
Modelling Bubbly Flows. In: *Bubble Dynamics and Interface Phenomena*, J.R. Blake (Ed.), Kluwer, 257-268
230. Eames, I., Hunt, J.C.R. and Belcher, S., 1996
 Displacement of inviscid fluid by a sphere moving away from a wall. *J. Fluid Mech.*, **324**, 333-353.
231. Hunt, J.C.R., 1995
Eddies, clouds and cyclones; mathematics of self-organisation in chaotic systems. Lecture to the British Association, *ERCOFTAC Bulletin*, **27**, 18-19.
232. Greenslade, M D, Hunt, J.C.R., Mobbs S.D., Eames, I., 2003.
 The distortion of weak fronts by mesoscale orography. *Fluid Dynamics Research*, **33**(1-2), 173-189.
233. Hunt, J.C.R., Feng, Y., Linden, P.F., Greenslade, M.D. and Mobbs, S.D., 1997
Low Froude Number Stable Flows Past Mountains. *Il Nuovo Cimento*, **20C**, 261-272.

234. Hunt, J.C.R., Vilenski, G.G. and Johnson, E.R., 2005.
 Stratified separated flow around a mountain with an inversion layer below the mountain top. *J. Fluid Mech.*, **556**, 105-119.
235. Miyazaki, T. and Hunt, J.C.R., 2000
 Linear and nonlinear interactions between a columnar vortex and external turbulence. *J. Fluid Mech.*, **402**, 349-378.
(Also *Proceedings of the European Turbulence Conference (ETC-7) 1998* (Ed. U Frisch) Kluwer).
236. Hunt, J.C.R., Davies, T. and Dickinson, A., 1995
New developments in numerical weather prediction. In: '*Industrial Applications of Computational Fluid Dynamics, Electromagnetics and Multi-physics*', pp 19-38. Unicorn Seminars Ltd., Uxbridge.
237. Nishimura, K. and Hunt, J.C.R., 2000
 Saltation and incipient suspension of particles above a flat bed in a turbulent wind. *J. Fluid Mech.*, **417**, 77-102.
238. Eames, I. and Hunt, J.C.R., 1997
 Inviscid flow around bodies moving in weak density gradients without buoyancy effects. *J. Fluid Mech.*, **353**, 331-355.
239. Hunt, J.C.R., Zillman, J.W. and Friday, E.W. Jr., 1995
Climate research and climate services:national contributions and international relationships. A blueprint paper submitted to the International Forum on Forecasting El Nino - Launching an International Research Institute; November 6-8, 1995; Washington. National Oceanic and Atmospheric Administration.
240. Hunt, J.C.R., Stretch, D.D. and Belcher, S.E., 2010.
Viscous coupling of shear-free turbulence across nearly flat fluid interfaces. (Submitted to *J. Fluid Mechanics*).
241. Davila, J. and Hunt, J.C.R., 2001
 Settling of small particles near vortices and in turbulence. *J. Fluid Mech.*, **440**, 117-145.
242. Hunt, J.C.R., and Durbin, P.A., 1999
 Perturbed vortical layers and shear sheltering. *Fluid Dyn Res.*, **24**, 375-404.
243. Hunt, J.C.R., 1996
The contribution of meteorology and hydrology to sustaining the environment of large cities.Paper presented at U.N. Habitat II Conference.Istanbul.*UNCRD Proceedings Series, No. 14*, pp101-104. *Am. Met. Soc. Prodeedings*
244. Hunt, J.C.R. and Fernando, H.J.S., 1998
Separated flow around bluff obstacles at low Froude number: vortex shedding and estimates of drag. *Proceedings of fifth IMA conference on stably stratified flows, Dundee, September 1996*, ed. P.A. Davies.Clarendon Press.
245. Zilitinkevich, S., Grachev, A., and Hunt J.C.R., 1998

- Surface frictional processes and non-local heat/mass transfer in the shear-free convective boundary layer. In: *Buoyant Convection in Geophysical Flows*, (Eds. E.J. Plate, E. Fedorovich, J.R. Wyngaard, and D.X. Viegus), Kluwer, Dordrecht, 83-114.
246. Hunt, J.C.R., 1999
Environmental forecasting and modelling turbulence. *Physica D*, **133**, 270-295, (Proceedings of Los Alamos Conference on Predictability).
(Also in '*Determinism and Turbulence*' Ed. M. Lesieur.)
247. Holt, M W and Hunt, J.C.R., 1998
Prediction of sea state under tropical cyclones in the UK Met Office operational global wave model. *Mausam*, **48**, 621-628.
248. Hunt, J.C.R., 1998
Qualitative Questions in Fluid Mechanics. *Applied Sci. Res.*, **58**, 483-501.
249. Hunt, J.C.R., Olafsson, H. and Bougeault, P., 2001
 Coriolis Effects on orographic and mesoscale flows. (Paper presented at Am. Met. Sci. Jan 1998). *Q. J. Roy. Met. Soc.*, **127**(572), 601-633, 2001.
250. Belcher, S.E. and Hunt, J.C.R. 1998
 Turbulent flow over hills and waves. *Ann. Rev. Fluid Mech.*, **30**, 507-538.
251. Saxena, V., Hunt, J.C.R. and Savill, M., 1998
An RDT based model for large-scale turbulent flows around bluff bodies. An RDT based model for large-scale turbulent flows around bluff bodies. Submitted to *J. of Flow Turbulence and Combustion*.
252. Hunt, J.C.R., 1998
Eddy dynamics and kinematics of convective turbulence. In: *Buoyant Convection in Geophysical Flows*, (Eds. E.J. Plate, E. Fedorovich, Viegas, D.X. and Wyngaard J.R.), 41-82, Kluwer, Dordrecht.
253. Eames, I. and Hunt, J.C.R., 2004
 Forces on bodies moving in rapidly compressed flows. *J. Fluid Mech.*, **505**, 349-364.
254. Belcher, S.E., Hunt, J.C.R. and Cohen, J.E., 1999
Turbulent flow over growing waves. *Proceedings of IMA Conference on Wind over Waves* (Eds. S.G. Sajjadi, N.H. Thomas and J.C.R. Hunt), 19-30, Clarendon Press.
255. Sajjadi, S.J., Hunt, J.C.R. and Wong, H., 1999
Homogeneous turbulence approaching a wavy surface. *Proceedings of IMA Conference on Wind over Waves* (Eds. S.G. Sajjadi, N.H. Thomas and J.C.R. Hunt), 49-56, Clarendon Press
256. Mahalov, A., Pacheco J.R. Voropayev, S.I., Fernando, H.J.S. and Hunt, J.C.R., 2000
 Effects of rotation on fronts of density currents. *Physics Letters A*, **270**(3-4), 149-156
257. Davey, M. and Hunt, J.C.R., 2007.

-  The importance of thin models - a workshop on critical regions in geophysical flows. *Mathematics Today*, April, 53-57.
258. Hunt, J.C.R., Fernando, H.J.S., Princevac, M., 2003.
Unsteady thermally driven flows on gentle slopes. *Journal of the Atmospheric Sciences*, **60**(17), 2169–2182.
259. Pardyjak, E.R., Fernando, H.J.S., Hunt, J.C.R., Grachev, A.A. and Anderson, J., 2009.
Development of nocturnal slopeflows and transport in a wide valley. *Met. Zeitschrift*, **18**(1), 85-100.
(see also, Structure of atmospheric boundary layer over the complex terrain of Phoenix Valley. *Proc. 13 Conference on Boundary Layer and Turbulence*, American Met. Soc., 2004.)
260. Hunt, J.C.R., Sajjadi, S.J. and Thomas, N.H., 1999.
Introduction in 'Proceedings of Wind over waves'. (also Editors) Clarendon Press, Oxford.
261. Hunt, J.C.R., 1999.
Sir James Lighthill; Funeral address (published in *Wind over Waves*, pp xi-xiv).
262. Wu, X., Jacobs, R.G., Hunt, J.C.R. and Durbin, P.A., 1999.
 Simulation of boundary layer transition induced by periodically passing wakes. *J. Fluid Mech.*, **398**, 109-153.
263. Hunt, J.C.R., 1998
Progress and Prospects for ERCOFTAC. Address to ERCOFTAC on 10th Anniversary in Lisbon October 1998. *ERCOFTAC Bulletin*, **39**, 9-12.
264. Hunt, J.C.R. and Morrison, J.F., 2000
 Eddy structure in turbulent boundary layers. *Euro. J. Mech. B-Fluids*, **19**(5), 673-694
265. Hunt, J.C.R. and Carlotti, P., 2001
 Statistical structure at the wall of the high Reynolds number turbulent boundary layer. *J. Flow Turbulence and Combustion*, **66**(4), 453-475, 2001.
Spectra of turbulence in boundary layers near the ground. *Proc. 8th Euro Turb. Conf., Barcelona*, 307-310, Kluwer.
266. Galmiche M., and Hunt, J.C.R., 2002
The formation of shear and density layers in stably stratified turbulent flows: linear processes. *J. Fluid Mech.*, **455**, 243–262.
267. Galmiche, M. and Hunt, J.C.R., 2003
Dynamics of shear and density layers in stratified and rotating flows. *Boundary Layer Meteorology*, **108**(2), 201-219. (Also: *Fluid Mechanics and the Environment: Dynamical Approaches* (Ed. J.L. Lumley) Springer, 121-150, 2001)
268. Hunt, J.C.R., Sandham, N., Vassilicos, J.C., Launder, B.E., Monkewitz, P.A. and Hewitt, G.F., 2001.

- Developments in turbulence research: a review based on the 1999 Programme of the Isaac Newton Institute, Cambridge. *J. Fluid Mech.*, **436**, 353-391.
269. Hunt, J.C.R., 2000.
 Dynamics and statistics of vortical eddies in turbulence. *Proc Conf at INI. Cambridge on Vortex Dynamics and Turbulence*, (Eds. J.C. Vassilicos and J.C.R. Hunt), Cambridge University Press, 192-243.
270. Hunt, J.C.R., Pacheco J.R., Mahalov, A. and Fernando, H.J.S., 2005.
 Effects of rotation and sloping terrain on fronts of density current fronts. *Journal of Fluid Mechanics*, **537**, 285-315
271. Bisset, D.K., Hunt, J.C.R. and Rogers, M.M., 1998, 2002.
 The turbulent/non-turbulent interface bounding a far wake. *J. Fluid Mech.*, **451**, 383-410. (and *Ann. Res. Briefs 1997*. 125-135. Centre for Turbulence Research, Stanford University.)
272. Ghosh, S., Davilla, J., Hunt, J.C.R., Srdic, A., Fernando, H.J.S., Jonas, PR., 2005.
 How turbulence enhances coalescence of settling particles with applications to rain in clouds. *Proc. Roy. Soc. A.*, **461**, 3059-3088doi: 10.1098/rspa.2005.1490. (Presented at Royal Met Soc, Sept 2001)
273. Hunt, J.C.R. and Vassilicos, J.C., 2000.
 Spectra and eddy structure. *Ercotac Bulletin*, **46**, 13-17.
274. Hunt, J.C.R. and Vassilicos, J.C. (Eds.), 2000.
 Turbulence Structure and Vortex Dynamics, Cambridge Univ. Press
275. Hogstrom, U., Hunt, J.C.R. and Smedman, A.-S., 2002.
 Theory and measurements for turbulence spectra and variances in the neutral atmospheric neutral surface layer. *Boundary Layer Meteorology*, **103**(1), 101-124.
276. Hunt, J.C.R., 2000.
 Ultra CFD for computing very complex flows. *ERCOFTAC Bulletin*, **45**, 22-23.
277. Hunt, J.C.R. and Eames, I., 2002.
 The disappearance of laminar and turbulent wakes in complex flows. *Journal of Fluid Mechanics*, **457**, 111-132.
278. Hunt, J.C.R., Carlotti, P. and Nieuwstadt, F.T.M., 2001.
 Eddy motion and statistical structure in high Reynolds number turbulence. *Proc. 1st Int. Symposium on Advanced Fluid Information (AFI-2001)*. (pdf)
279. Hunt, J.C.R. and Savill, A.M., 2005.
 Guidelines and criteria for the use of turbulence models in complex flows. *European Turbulence Conference, 2002*. In: *Turbulence Modelling*, (Eds. G.F. Hewitt and J.C. Vassilicos), Cambridge University Press.
280. Hunt, J.C.R., Vrieling, A.J., Nieuwstadt, F.T.M. and Fernando, H.J.S., 2003.

- The influence of the thermal diffusivity of the lower boundary on eddy motion in convection. *Journal of Fluid Mechanics*, **491**, 183-205.
- Plume and puff eddy motion in convective turbulence over a conducting base, 2002. *Adv. In Turb. IX. Proc. 9th Euro Turb. Conf. CIMNE, Barcelona*.
281. Nieuwstadt, F.T.M. and Hunt, J.C.R., 2003.
 Boundary Layers: Coherent Structures. *Encyclopaedia of Atmospheric Sciences*, Academic Press, 228-234. ISBN: 0-12-227090-8.
282. Brethouwer, G., Hunt, J.C.R. and Nieuwstadt, F.T.M., 2003.
 Micro structure and Lagrangian statistics of the scalar field with a mean gradient in isotropic turbulence. *Journal of Fluid Mechanics*, **474**, 193-225.
283. Westerweel, J., Hofmann, T., Fukushima, C. and Hunt, J.C.R., 2002.
 The turbulent/non-turbulent interface at the outer boundary of a self-similar turbulent jet. *Experiments in Fluids*, **33**, 873-878. *4th International Symposium on Particle Image Velocimetry, Göttingen, Germany, September 17-19, 2001*. PIV'01 Paper 1053.
284. Carlotti, P. and Hunt, J.C.R., 2001.
 Developments in turbulence for aeronautical and other applications. Pierre Perrier festschrift (NFD 2000) (Ed. P. Periaux), Sept.
285. Hanazaki, H. and Hunt, J.C.R., 2004.
 Structure of unsteady stably stratified turbulence with mean shear. *Journal of Fluid Mechanics*, **507**, 1-42.
286. Hunt, J.C.R. and Coates, A., 2002.
 Developments in space engineering and space science. *Phil. Trans. Roy. Soc.*, **361**, 205-218. (See also correspondence in *Nature*, **427**, p13, 2004).
287. Belcher, S.E., Jerram, N. and Hunt, J.C.R., 2003.
 Adjustment of a turbulent boundary layer to a 'canopy' of roughness elements. *Journal of Fluid Mechanics*, **448**, 369-398.
288. Hunt, J.C.R., 2002.
 Floods in a changing climate. *Phil. Trans. Roy. Soc.*, **360**, 1531-1543.
289. Hunt, J.C.R., Carruthers, D.J., Kilbane-Dawe, I., 2002.
 Developments in short range atmospheric dispersion modelling. Report to Nat. Radio. Prot. Board. ADMLC web site (http://www.admlc.org.uk/pdfs/workshop/julian_hunt.pdf).
290. Moulinec, C., Hunt, J.C.R. and Nieuwstadt, F., 2004.
 Disappearing wakes and Dispersion in Numerically Simulated Flows Through Tube Bundles. *J. Flow. Turb. and Comb.*, **73**(2), 95-116. (In *ERCOFTAC Bulletin*, **56**, 5-9).
291. Hunt, J.C.R., 2002.
 Wind over waves. *Proc. IMA Conference and INI programme. Mathematics Today, April*, 46-48.
292. Hunt, J.C.R., Eames, I. and Belcher, S.E., 2003.
 Vorticity dynamics in the water below steep and breaking waves. *Proc. Wind over waves; IMA conference September 2001* (Ed. S. Sajaadi and J.C.R. Hunt), Ellis Horwood.

293. Hunt, J.C.R., Norbury, J. and Roulstone, I., 2003.
 Introduction. In: *Large-Scale Atmosphere-Ocean Dynamics* (Ed. Norbury, J., Roulstone, I.). Cambridge University Press.
294. Eames, I., Hunt, J.C.R. and Belcher, S.E., 2004.
 Lagrangian and Eulerian properties of steady flows through groups of obstacles. *J. Fluid. Mech.*, **515**, 371-389. (Summary in *ERCOFTAC Bulletin*, **56**, 21-26).
295. Hunt, J.C.R. and Walker, L., 2002.
 Heat on Cities to Change. *Times Higher Education Supplement*, Aug. 23, **1522**, 16-17.
296. Hunt, J.C.R., Orr, A., Cresswell, D. and Owino, A., 2004.
 Coriolis effects in mesoscale shallow layer flows. *Proceedings of the International Symposium on Shallow Flows* (Eds. G.H. Jirka and W.S.J. Uijttewaal), Delft, June 16-18, 149-156. Taylor & Francis, ISBN 9058097005.
297. Smedman, A.-S., Hogstrom, U. and Hunt, J.C.R., 2004.
 Effects of shear sheltering in a stable atmospheric boundary layer with strong shear. *Quarterly Journal of the Royal Meteorological Society*, **130**(A-596), 31-50.
298. Owino, A., Hunt, J.C.R. Orr, A., Clark, P., Klein, R., Fernando, H.J.S. and Nieuwstadt, F.T.M., 2005.
 Effects of changing surface heat flux on the atmospheric boundary layer flow over flat terrain. *Boundary Layer Meteorology*, **116** (2), 331-361. DOI: 10.1007/s10546-004-2819-z
299. Hunt, J.C.R., Carruthers, D. and Daish, N., 2007.
 Discrete and continuum models of flow and dispersion through canopies. In: *Flow and Transport Processes with Complex Obstructions* (Eds. Ye.A. Gayev and J.C.R. Hunt), 29-87, Springer.
- ww (see also Hunt, J.C.R., Carruthers, D.J., Daish, N. and Britter, R., 2003. Dispersion from w Accidental Releases in Urban Areas.)
300. Hunt, J.C.R., 2003
 Coastal Zones in Sub-Saharan Africa : A scientific review of the priority issues influencing sustainability and vulnerability in coastal communities. WSSD follow-up and NEPAD. Summary of Main Points and Concusions. Available on www.acops.org
301. Hunt, J.C.R., 2004
 How can cities mitigate and adapt to climate change?. *Building Research & Information*, **32**(1), 55-57, (Jan-Feb 2004).
302. Sajaadi, S.J. and Hunt, J.C.R., 2003 (Eds.)
 Wind over Waves II. Ellis Horwood. (Introduction by J.C.R. Hunt and S.J. Sajaadi)
303. Ptasiński, P.K., Boersma, B.J., Nieuwstadt, F.T.M., Hulsen, M.A., Van Den Brule, B.H.A.A. and Hunt, J.C.R., 2003
 Turbulent channel flow near maximum drag reduction: simulations, experiments and mechanisms. *Journal of Fluid Mechanics*, **490**, 251-291.
304. Orr, A., Hanna, E., Hunt, J. C. R., Cappelen, J., Steffen, K. and Stephens, A., 2005.
 Characteristics of stable flows over Southern Greenland. *Special edition of Pure Appl.*

Geophys. on 'Weather and Climate', **162**..

305. Orr, A., Cresswell, D., Marshall, G. J., Hunt, J. C. R., Sommeria, J., Wang, C. G. and Light, M., 2004.
A 'low-level' explanation for the recent large warming trend over the western Antarctic Peninsula involving blocked winds and changes in zonal circulation. *Geophysical Research Letters*, **31**(6), L06204, doi: 10.1029/2003GL019160.
306. Walklate, P. J., Hunt, J. C. R., Higson, H. L. and Sweet, J. B., 2004.
A model of pollen-mediated gene flow for oilseed rape. *Proc. Roy. Soc. London B*, **271**(1538), 441-449. .
307. Hunt, J. C. R., 2005.
Inland and coastal flooding: developments in prediction and prevention. *Phil. Trans. Royal Society A*, **363**(1831), 1475-1491.
308. Hunt, J. C. R., Eames, I. and Westerweel, J., 2006.
Mechanics of inhomogeneous turbulence and interfacial layers. *Journal of Fluid Mechanics*, **554**, 499-519.
309. Poesio, R., Ooms, G., Tencote, A. and Hunt, J.C.R., 2006.
Interaction and collision and 'bridges' of particles in a linear shear flow near a wall. *Journal of Fluid Mechanics*, **555**, 113-130.
310. Westerweel, J., Pedersen, J.M., Fukushima, C. and Hunt, J.C.R., 2005.
Mechanics of the turbulent/non-turbulent interface of a jet". *Phys. Rev. Letters.*, **95** (17), 174501, doi: 10.1103/PhysRevLett.95.174501.
311. Hunt, J.C.R., Orr, A., Rottman, J.W. and Capon, R., 2004.
Coriolis effects in mesoscale flows with sharp changes in surface conditions. *Q.J. Roy. Met. Soc.*, **130**(603), 2703-2731.
312. Hunt, J.C.R., 2001.
Mathematical Model could clarify arms race. Correspondence in *Nature*, **411**, p737.
313. Orr, A., Hunt, J. C. R., Capon, R., Sommeria, J., Cresswell, D., and Owino, A., 2005.
Coriolis effects on wind jets and cloudiness along coasts. *Weather*, **60**(October), 291-299.
314. Smedman, A., U. Höglström, J.C.R. Hunt and E. Sahlée, 2007.
Heat/mass transfer in the slightly unstable atmospheric surface layer. *Q.J. Roy. Met. Soc.*, **133**(622), 37-52.
315. Hunt, J.C.R., 2004.
Conclusions, Key Issues, Highlights - 13th World Clean Air and Environmental Protection Congress. IUAPPA Newsletter, November, 2-4.
316. Hunt, J.C.R., 2005
Tsunami waves and coastal flooding. *Mathematics Today*, October. pp.
317. Hunt, J.C.R., 2005.

- Chairs' reflections - G8 + 5 Legislators Climate Change Forum. Globe UK, 5pp
318. Brazel, A.J., Fernando, H.J.S., Hunt, J.C.R., Selover, N. Hedquist, B.C. and Pardyjak, E., 2005.
 Evening transition observations in Phoenix, Arizona, USA. *J. App. Met.*, **44**(1), 99-112.
319. Schellnhuber, H.J., Crutzen, P.J., Clark, W.C. and Hunt, J.C.R., 2005.
 Earth system analysis for sustainability. *Environment*, **47**(8), 10-27
320. Hunt, Julian (Ed.), 2005
 London's Environment : Prospects for a sustainable world city. 336 pp. Imperial College Press.
321. Zilitinkevich, S.S., Hunt, J.C.R., Esau, I.N., Grachev, A.A., Lalas, D.P., Akylas, E., Mombrou, M., Fairall, C.W. and Fernando, H.J.S., 2006.
 The influence of large convective eddies on the surface layer turbulence. *Q. J. Roy. Met. Soc.*, **132**(618), 1423-1456.
322. Hunt, J.C.R., 2005.
 Thomas Brooke Benjamin. *Biographical Memoirs of Fellows of the Royal Society London*, **49**, 39-67 .
 Non-linear and wave theory contributions of T. Brooke-Benjamin (1929-1995). *Annual Review of Fluid Mechanics*, **38**, 1-25. (2006)
323. Scase, M.M., Caulfield, C.P., Dalziel, S.B. and Hunt, J.C.R., 2006.
 Plumes and jets with time-dependent sources. *Journal of Fluid Mechanics*, **563**, 443-461.
324. Hunt, J.C.R., 2006.
 Communicating big themes in applied mathematics. In *Mathematical modelling-education, engineering and economics (Proceedings of ICTMA12, London, July 2005.,Ed. C. Haines)* Horwood; Chichester.
325. Hunt, J.C.R., 2006
WW Sound science is not enough. *New Statesman*, London, 3 April, pp. 14-15.
326. Nagata, K., Wong, H., Hunt, J.C.R., Sajjadi, S.G. and Davidson, P.A., 2006
 Weak mean flows induced by anisotropic turbulence impinging onto planar and undulating surfaces. *Journal of Fluid Mechanics*, **556**, 329-360.
327. Hunt, J.C.R., 2006
 Dealing with environmental challenges - new approaches. *Proc. UN conf. on Water Statistics, The Hague, May 2006*.
328. Hunt, J.C.R., Delfos, R., Eames, I. and Perkins, R., 2006.
 Vortices, complex flows and inertial particles. *J. Flow, Turbulence and Combustion*, **79**(3), 207-234. (volume in memory of Frans Nieuwstadt). doi: 10.1007/s10494-007-9096-0
329. Hunt, J.C.R., 2007.

Climate Change and Civil Engineering Challenges. *Proceedings of the Institution of Civil Engineering*, **160**(4), 170-175. doi:10.1680/cien.2007.160.4.170

330. Payne, A.J., Hunt, J.C.R. and Wingham, D.J., 2006.
Evolution of the Antarctic ice sheet: new understanding and challenges. *Phil. Tran. Roy. Soc. A: Mathematical, Physical and Engineering Sciences*, **364**(1884), 1867-1872.
331. Dash, S.K. and Hunt, J.C.R., 2007.
Variability of climate change in India. *Current Science*, **93**(6), 782-788.
332. Gayev, Ye.A. and Hunt, J.C.R. (Eds.), 2007.
Flow and Transport Processes with Complex Obstructions. Springer.
333. Hunt, J.C.R., Eames, I. and Westerweel, J., 2008.
Vortical interactions with interfacial shear layers. *Proceedings of IUTAM conference on Computational Physics and new perspectives in turbulence, Nagoya, Sept 2006*. Ed. Y. Kaneda. Springer Science, Berlin.
334. Orr, A., Marshall, G.J., Hunt, J.C.R., Sommeria, J., Wang, C.-G., van Lipzig, N.P.M., Cresswell, D., and King, J.C., 2008.
Characteristics of summer airflow over the Antarctic Peninsula in response to recent strengthening of westerly circumpolar winds. *J. Atmos. Sci.*, **65**, 1396-1431. doi: 10.1175/2007JAS24798.1.
335. Princevac, M., Hunt J.C.R. and Fernando, H.J.S., 2007.
Quasi-steady Katabatic Winds on slopes in wide valleys : hydraulic theory and observations. *J. Atmos. Sci.*, **65**(2), 627-643.
336. Hunt, J.C.R., 2009.
Integrated policies for environmental resilience and sustainability. *Proc. Inst. of Civil Eng., Engineering Sustainability* **162**(3), 155-167, doi: 10.1680/ensu.2009.162.3.155.
(Based on 'Integrated and local responses to global and local environmental change - contributions of universities and research'. *G 8-Unesco world forum 'Education, research, and Innovation; New partnership for sustainable development*. Trieste, May 10-12 2007.)
337. Nagata, K., Davidson, P.A. ,Hunt, J.C.R., Sakai, Y. and Komori, S., 2007.
Direct numerical simulation of surface blocking effects on isotropic and axisymmetric turbulence. *Turbulent Shear Flows Conference proceedings*, (in press).
338. Hunt, J.C.R., Maslin, M., Killeen, T., Backlund, P. And Schellnhuber, H.J., 2007.
Introduction. Climate change and urban areas: research dialogue in a policy framework. *Phil. Trans. Roy. Soc. A.*, **365**, 2615-2629. doi: 10.1098/rsta.2007.2089.
339. Hunt, J.C.R., 2005.
A climate for social change 'Review of Weather in the imagination'. *Nature*, **437**(7056), 320-321, doi: 10.1038/437320a.
340. Tsai, Y.S., Hunt, J.C.R., Niewstadt, F.T.M., Westerweel, J. And Gunasekaran, B.P.N., 2007.
Effect of strong external turbulence on a wall jet boundary layer. *J. Flow, Turbulence and Combustion*, **79**(3), 155-174. doi: 10.1007/s10494-007-9078-2.
341. Hunt, J.C.R., 2007.

- Review of “The emergence of numerical weather prediction: Richardson’s dream” by Peter Lynch. *Q. J. Roy. Met. Soc.*, **133**(629), 2143-2144, doi: 10.1002/qj.161.
342. Eames, I., Roig, V., Hunt, J.C.R. and Belcher, S.E., 2007.
 Vorticity annihilation and inviscid blocking in multibody flows. In: *Flow and Transport Processes with Complex Obstructions*, *Phil. Trans. Roy. Soc.*, **236**, 251-270. doi: 10.1007/978-1-4020-5385-6_7. Springer.
343. Hunt, J.C.R., 2007.
 Expand free journal project so poor countries can share their valuable climate data. *Correspondence in Nature*, **447**, 259.
344. Hunt, J.C.R., 2008.
 Book review of ‘An Appeal to Reason; a cool look at global warming’ by N. Lawson. *Science in Parliament*, **4**, 18-19.
345. Hunt, J.C.R., Bishop, S. and Timoshkina, Y., 2009.
 A Systems approach for critical decisions. *Proc. Euro. Conf. Maths. Ind.*, July 2008, London. Springer.
346. Bishop, S. and Hunt, J.C.R., 2009.
 Minisymposium: Complex systems analysis. *Proc. Euro. Conf. Maths. Ind.*, July 2008, London. Springer.
347. Klettner, C.A., Eames, I., Hunt, J.C.R. and Fernando, H.J.S., 2009.
 Evolution and run-up of tsunamis. *Proc. Euro. Conf. Maths. Ind.*, July 2008. Springer.
348. Hunt, J.C.R., Eames, I. and Westerweel, J., 2009.
 Eddy dynamics near sharp interfaces and in straining flows. *Proc. Euro. Conf. Maths. Ind.*, July 2008. Springer.
349. Eames, I. and Hunt, J.C.R., 2009.
 Minisymposium: Interfacial processes in industrial and environmental turbulent flows. *Proc. Euro. Conf. Maths. Ind.*, July 2008. Springer.
350. Hunt, J.C.R., 2008.
 US gets brave on warming. *The Arizona Republic*, April. (“A welcome US u-turn”, *The House Magazine*, **1265**, 9th June 2008, [http://www.housemag.co.uk/index.php?id=340&tx_ttnews\[tt_news\]=7933&tx_ttnews\[backPid\]=92&type=editorial](http://www.housemag.co.uk/index.php?id=340&tx_ttnews[tt_news]=7933&tx_ttnews[backPid]=92&type=editorial)).
351. Hunt, J.C.R., 2008.
 Searching for a sea-change. *The House Magazine*, **1271**, 21st July 2008, [http://www.housemag.co.uk/index.php?id=340&tx_ttnews\[tt_news\]=8099&tx_ttnews\[backPid\]=92&type=editorial](http://www.housemag.co.uk/index.php?id=340&tx_ttnews[tt_news]=8099&tx_ttnews[backPid]=92&type=editorial).
352. Hunt, J.C.R., 2009.
 Trinity, weather and Westminster”. *The Fountain*, Issue **8**, Spring. (Trinity College, Cambridge).
353. Westerweel, J., Fukushima, C., Pedersen, J.H. and Hunt, J.C.R., 2009.
 Momentum and scalar transport at the turbulent/non-turbulent interface of a jet. *J. Fluid Mechanics*, **631**, 199-230, doi: 10.1017/S0022112009006600.
354. Hunt, J.C.R., Bohnenstengel, S. and Belcher, S.E., 2010.

- Implications of climate change for expanding cities world-wide. (Submitted to *Proc. Inst. Civil Engineers. – Urban Environment*). (See also 89th AMS Presidential Forum: *Urban Weather and Climate – Now and the Future.* http://ams.confex.com/ams/89annual/techprogram/paper_152065.htm.)
355. Nagata, K., Hunt, J.C.R., Sakai, Y. and Wong, J.
 Distorted turbulence and secondary flow near right angled plates. Submitted to *J. Fluid. Mech.*
356. Nagata, K., Sakai, Y., Komoro, S., Davidson, P.A. and Hunt, J.C.R.
 Effects of free-stream turbulence on isothermal and strongly convective boundary layers. *To be submitted.*
357. Hunt, J.C.R., Eames, I., Westerweel, J., Davidson, P.A., Voropayev, S., Fernando, J. and Braza, M., 2010.
 Thin shear layers – the key to turbulence structure? *Journal of Hydro-environment Research, IAHR-APD*, **4**(2), 75-82.
358. Klettner, C.A., Balasubramanian, S., Hunt, J.C.R., Fernando, H.J.S., Voropayev, S.I. and Eames, I., 2009.
 Evolution of tsunami waves of depression and elevation. *Submitted to Proc. Roy. Soc.*
359. Argaud, J.-P., Bouriquet, B. and Hunt, J.C.R., 2009.
 Data assimilation-operational and industrial applications to complex systems. *Mathematics Today, Oct*, 150-152.
360. Hunt, J.C.R., 1972.
 Measurements on the release of gaseous activity from a short stack. *Atmos. Environ.*, **6**(4), 289.
361. Hunt, J.C.R., 2009.
 Comment: Why China needs help cutting its emissions . *New Scientist, 7 Aug*, 22-23.
362. Hunt, J.C.R., 2009.
 Wind energy in a changing climate. Paper to Cornell Conference on Wind Energy, June 2009, Euromech. Colloquium 508,
 Madrid. http://cfm.mae.cornell.edu/~caughey/WindPower_09.
363. Hunt, J.C.R., 2009.
 Failure at such a grand level means we have to act locally. *Observer*, December 20.
364. Hunt, J.C.R., 2009.
 How prepared are we for another Tsunami? *Wall Street Journal (Euro & Asian edition)*, Dec. 23, 11.
365. Eames, I., Tang, J.W., Hunt, J.C.R. and Li, Y., 2009.
 Murder, death and disease. *Mathematics Today, Feb*, 234-237.
366. Hunt, J.C.R. and O'Connor, G., 2010.
 The third nuclear option. *New Scientist, March 6*, 22-23
367. Hunt, J.C.R. and Kopec, G., 2010.
 Tsunamis and Geo-Physical Warnings Workshope at the Lighthill Institute of Mathematical Science, *Mathematics Today, June*, 116-118.

