

## LIST OF PUBLICATIONS – Malcolm S. Longair.

### BOOKS

#### 1. ORIGINAL TEXTS

**B1. Observational Cosmology** 1978. J E Gunn, M S Longair and M J Rees. Geneva: Geneva Observatory Publications.

**B2. High Energy Astrophysics** 1981. M S Longair. Cambridge: Cambridge University Press.

**B3. Theoretical Concepts in Physics**, 1984 (revised 1991). M S Longair, Cambridge University Press, **Theoretische Konzepte der Physik**, 1991. Berlin: Springer-Verlag. (German translation of Theoretical Concepts in Physics).

**B4 Alice and the Space Telescope**, 1989. M.S. Longair. Baltimore: Johns Hopkins University Press.

**B5. The Origins of Our Universe - 1990 Royal Institution Christmas Lectures** 1990. M.S. Longair Cambridge: Cambridge University Press. Editions in Japanese, French, Spanish, Italian, German, Portuguese and Finnish have now been published.

**B6. High Energy Astrophysics: Volume 1. Photons, Particles and their Detection**, 2nd edition, 1992 (revised 1996). Cambridge: Cambridge University Press.

**B7. Astronomy in the UK**, 1993. Booklet written for the Royal Astronomical Society. (I wrote the complete text for this booklet.)

**B8. High Energy Astrophysics: Volume 2. Stars, the Galaxy and the Interstellar Medium**, 2nd edition, 1994 (revised 1996). M.S. Longair. Cambridge: Cambridge University Press,

**B9. The Deep Universe - The 1993 Saas-Fee Lectures** 1995. A.R. Sandage, R. Kron, and M.S. Longair. Berlin: Springer-Verlag.

**B10. The Gemini Project** 1995. NSF publications. (I wrote the complete text of this booklet - I was chairman of the Gemini Board in 1994 and 1995.)

**B11. Our Evolving Universe** 1996. M.S. Longair. Cambridge: Cambridge University Press.

**B12. The Large, the Small and the Human Mind** R. Penrose, with A. Shimony, N. Cartwright and S.W. Hawking (ed. M.S. Longair) 1997. Cambridge: Cambridge University Press. Paperback edition, 1999, with two additional essays by Roger Penrose.

**B13. Our Evolving Universe** 1998. M.S. Longair. Spanish and German editions published by Cambridge University Press (Spain) and Springer Verlag. In both cases, there were substantial revisions to the 1996 English edition.

**B14. Galaxy Formation** 1998. M.S. Longair. Berlin: Springer-Verlag.

**B15. Astronomy in the UK**, 2000. Special edition of Astronomy and geophysics, written for the Royal Astronomical Society and PPARC.

**B16. Theoretical Concepts in Physics**, 2nd Edition (Revised and Enlarged Edition), 2003. M S Longair, Cambridge University Press.

**B17. The Cosmic Century: A History of Astrophysics and Cosmology** 2006. M.S. Longair. Cambridge: Cambridge University Press.

**B18. Galaxy Formation** 2008. M.S. Longair. Berlin: Springer-Verlag. (second edition)

### **In Preparation**

**B19. High Energy Astrophysics:** consolidated edition in a single volume, 2009. M.S. Longair. Cambridge: Cambridge University Press (third edition).

## **2. CONFERENCE PROCEEDINGS**

**C1. Confrontation of Cosmological Theories with Observational Data**, edited by M S Longair, IAU Symposium No. 63, Reidel and Co., 1974.

**C2. The Large Scale Structure of the Universe**, edited by M S Longair and J Einasto, IAU Symposium No. 79, Reidel and Co., 1978.

**C3. Scientific Research with the Space Telescope**, edited by M S Longair and J Warner, NASA Publications CP-2111, 1979.

**C4. Astrophysical Cosmology**, edited by H Brück, G Coyne and M S Longair, Vatican Symposium Academiae Scientiarum Scripta Varia, 1982.

**C5. The Physical Universe: Interface between Cosmology, Astrophysics and Particle Physics**, eds. J.D. Barrow, A.B. Henriques, M.T.V.T. Lago and M.S. Longair, 1991. Proceedings of the 12 Autumn School of Physics, Lisbon, Portugal, 1 - 5 October 1990.

**C6. The Frontiers of Space and Ground-based Astronomy - The Astrophysics of the 21st Century**, edited by W. Wamsteker, M.S. Longair and Y. Kondo, 1994. 27th ESLAB symposium, 10-14 May 1993. (Dordrecht: Kluwer Academic Publishers)

## PUBLISHED SCIENTIFIC PAPERS

### 1965

1. Longair, M S, 1965. *Objects in the Fields of 88 Radio Sources*. Mon. Not. R. astr. Soc., **129**, 419-436.
2. Shakeshaft, J R and Longair, M S 1965. *Possible Identifications of Twelve Radio Sources near the North Celestial Pole*. Observatory, **85**, 30-32.
3. Longair, M S and Scott, P F 1965. *The Luminosity Distribution of Radio Galaxies*. Mon. Not. R. astr. Soc., **130**, 379-391.

### 1966

4. Longair, M S, 1966. *On the Interpretation of Radio Source Counts*. Mon. Not. R. astr. Soc., **133**, 421-436.
5. Longair, M S, 1966. *Evidence on the Evolutionary Character of the Universe from Recent Redshift Measurements*. Nature, **211**, 949-950.

### 1967

6. Hughes, R G and Longair, M S, 1967. *Evidence on the Isotropy of Faint Radio Sources*. Mon. Not. R. astr. Soc., **135**, 131-137.
7. Ryle, M and Longair, M S, 1967. *A possible Method of Investigating the Evolution of Radio Galaxies*. Mon. Not. R. astr. Soc., **136**, 123-140.
8. Longair, M S, 1967. *Quasi-stellar Radio Sources*. Contemporary Physics, **8**, 357-372.
9. Longair, M S and Scheuer, P A G, 1967. *The Redshift-Magnitude Relation for Quasi-stellar Objects*. Nature, **215**, 919-922.

### 1968

10. Longair, M S, 1968. *Evolutionary Cosmologies - a Survey*. Suppl. Nuovo Cimento, **6**, 990-1001.
- 11 Longair, M S, 1968. *Radio Sources and X-rays*. Observatory, **88**, 199-200.

### 1969

12. Longair, M S and Pooley, G G, 1969. *An Angular Diameter-Redshift Test of Cosmological Models using Observations of Weak Radio Sources*. Mon. Not. R. astr. Soc., **145**, 121-129.
13. Longair, M S and Macdonald, G H, 1969. *Observations of the Structure of Radio Sources in the 3C Catalogue - IV. Correlation Diagrams and the Evolution of Radio Sources*. Mon. Not. R. astr. Soc., **145**, 309-325.
14. Longair, M S, 1969. *The Counts of Radio Sources*. Uspekhi Fizicheskikh Nauk, **99**, 229-248 (Translation: Soviet Physics Uspekhi, **12**, 673).
15. Longair, M S and Sunyaev, R A, 1969. *Fluctuations in the Microwave Background Radiation*. Nature, **223**, 719-721.
16. Longair, M S and Sunyaev, R A, 1969. *The Origin of the X-ray Background*. Astrophysical Letters. **4**, 65-70.
17. Longair, M S and Sunyaev, R A, 1969. *On the Origin of the X-ray Background*. Pismi v ZhETF, **10**, 56-59. (Translation - JETP Letters, **10**, 38-40).

18. Longair, M S and Sunyaev, R A 1969. *The  $\gamma$  Emission from the Galactic Centre and the Origin of Galactic Cosmic Ray Electrons*. *Astrophysical Letters*, **4**, 191-193.

## 1970

19. Doroshkevich, A G, Longair, M S and Zeldovich, Ya B, 1970. *The Evolution of Radio Sources at Large Redshifts*. *Mon. Not. R. astr. Soc.*, **147**, 139-148.

20. Longair, M S, 1970. *The Evolution of Radio Sources: the Origin of Cosmic Rays and the X-ray Background*. *Mon. Not. R. astr. Soc.*, **150**, 155-171.

21. Longair, M S and Sunyaev, R A, 1970. *The Universal Background Radiation*. *Uspekhi Fizicheskikh Nauk*. **105**, 41-96. (Translation - *Soviet Physics Uspekhi*, **14**, 569).

22. Longair, M S and Scheuer, P A G, 1970. *The Luminosity-Volume Test for Quasi-stellar Objects*. *Mon. Not. R. astr. Soc.*, **151**, 45-63.

23. Longair, M S, Malumian, V H and Sargent, W L W, 1970. *The Radio Emission from Markarian Galaxies*. *Astrophysical Letters*, **7**, 23-25.

24. Longair, M S, 1970. *Report on Royal Society Exchange Fellowship to Moscow, USSR, 1968-69*. The Royal Society.

## 1971

25. Hill, J M and Longair, M S, 1971. *Interacting Radio Galaxies*. *Mon. Not. R. astr. Soc.*, **154**, 125-140.

26. Longair, M S, 1971. *Comment on The Evolution of a Radio Source Population*. *Nature Phys. Sci.*, **232**, 59-60.

27. Webster, A S and Longair, M S, 1971. *The Diffusion of Relativistic Electrons from Infra-red sources and their X-ray Emission*. *Mon. Not. R. astr. Soc.*, **151**, 261-275.

## 1972

28. Longair, M S, 1972. *Observational Cosmology*. *Reports on Progress in Physics*, **34**, 1125-1248.

29. Longair, M S and Rees, M J, 1972. *The Counts of Radio Sources*. *Comments on Astrophys. and Sp. Phys.*, **4**, 79-93.

30. Fanaroff, B L and Longair, M S, 1972. *The Cosmological Evolution of Radio Sources of Large Angular Extent*. *Mon. Not. R. astr. Soc.*, **159**, 119-128.

31. Longair, M S and Ryle, M, 1972. *Interacting Radio Galaxies or Radio Trails*. *Nature*, **237**, 249.

## 1973

32. Longair, M S and Rees, M J, 1973. *Lecture Notes on Observational Cosmology. Cargese Lectures on Physics*, **6**, (ed. E. Schatzman), 269-400, Gordon and Breach.

33. Fanaroff, B L and Longair, M S, 1973. *Cosmological Information from Surveys of Radio Source Spectra*. *Mon. Not. R. astr. Soc.*, **161**, 393-407.

34. Longair, M S, Ryle, M and Scheuer, P A G, 1973. *Models of Extended Radio Sources*. *Mon. Not. R. astr. Soc.*, **164**, 243-270.

## 1974

35. Longair, M S, 1974. *The Counts of Radio Sources*. IAU Symposium No. 63 *Confrontation of Cosmological Theories with Observational Data*, (ed. M S Longair), 93-109, Reidel and Co.
36. Longair, M S and Willmore, A P, 1974. *The X-ray Spectrum of Cygnus A*. Mon. Not. R. astr. Soc., **168**, 479-490.
37. Longair, M S, 1974. *Observatory Cosmology - Radio Astronomy and the Most Distant Galaxies*. Proc. ESO/SRC/CERN Conference on *Programmes for Large Optical Telescopes*, 243-252.
38. Longair, M S, 1974. *Giant Extragalactic Radio Sources*. Nature, **250**, 619.
39. Longair, M S, 1974. *Observations of Extragalactic Radio Sources with the Cambridge 5 km Telescope*. Memorie Societa Astronomica Italiana, **45.2**, 543-561.

## 1975

40. Longair, M S and Gunn, J E, 1975. *An Investigation of the Optical Fields of 35 3CR Radio Sources to Faint Limiting Magnitudes*. Mon. Not. R. astr. Soc., **170**, 121-138.
41. Readhead, A C R and Longair, M S, 1975. *The Spatial Distribution and Cosmological Evolution of Scintillating Radio Sources*. Mon. Not. R. astr. Soc., **170**, 393-404.
42. Longair, M S, 1975. *Quasars*. Observatory, **95**, 263-265.
43. Longair, M S, 1975. *The Structure of Extragalactic X-ray Sources*. Proc. ESRO Colloq., Noordwijk, 175-191.
44. Charles, P A, Longair, M S and Sandford, P W, 1975. *Copernicus: X-ray Observations of 3C 390.3*. Mon. Not. R. astr. Soc., **170**, 17P-22P.
45. Longair, M S, 1975. *High Resolution Radio Observations of 10 Unidentified Radio Sources*. Mon. Not. R. astr. Soc., **173**, 309-326.
46. Cross, D, Longair, M S and Grigson, S, 1975. *Forecasting in Urban and Regional Planning*. Consultant's Report to the SSRC Planning Committee, The Social Science Research Council Publications.
47. Hargrave, P J and Longair, M S, 1975. *Observations of Extragalactic Radio Sources with the Cambridge 5 km Telescope*. Proc. 3rd European Regional Meeting of the IAU, Tbilisi, USSR, (ed. E K Kharadze), 287-296.
48. Longair, M S, 1975. *Radio and X-ray Observations of Clusters of Galaxies*. Proc. 3rd European Regional Meeting of the IAU, Tbilisi, USSR (ed. E K Kharadze), 277-286.

## 1976

49. Longair, M S, 1976. *The IPCS - A Major Advance in Astronomical Spectroscopy*. Nature, **259**, 79-80.
50. Longair, M S, (ed.) 1976. IAU Reports on Astronomy, **16A**, Part 3, *Report of Commission No. 47, Cosmology*, 137-157.
51. Longair, M S, 1976. *The Universe in the Recent Past*. Quarterly J. R. astr. Soc., **17**, 422-447.
52. Longair, M S, 1976. *Radio Astronomy and Cosmology*. Nature, **263**, 372-374.

## 1977

53. Longair, M S and Riley, J M, 1978 (eds). *Clusters of Galaxies, Cosmology and Intergalactic Matter*. Proceedings of Joint Discussion No. 4, *Highlights of Astronomy*, D. Reidel and Co., **4**, 243-342.

## 1978

54. Riley, J M, Longair, M S and Hooley, A, 1978. *The Angular-Diameter Redshift Test for Large Redshift Quasars*. IAU Symposium No. 74 *Radio Astronomy and Cosmology* (ed. D L Jauncey), 133-138, D Reidel and Co.

55. Wall, J V, Pearson, T J and Longair, M S, 1978. *Interpretation of Source Counts and Redshift Data in Evolutionary Universes*. IAU Symposium No. 74 *Radio Astronomy and Cosmology*, (ed. D L Jauncey), 269-277, D Reidel and Co.

56. Longair, M S and Sunyaev, R A, 1978. *Young Galaxies, Quasars and the Cosmological Evolution of Extragalactic Radio Sources*. IAU Symposium No.74 *Radio Astronomy and Cosmology*, (ed. D L Jauncey), 353-360, D Reidel and Co.

57. Hooley, A, Longair, M S and Riley, J M, 1978. *The Angular Diameter Redshift Test for Quasi-Stellar Radio Sources with Large Redshifts*. Mon. Not. R. astr. Soc., **182**, 127-145.

58. Longair, M S, 1978. *The Nature of the Unidentified High Latitude Radio Sources*. Phys. Scripta, **17**, 361-365.

59. Longair, M S, 1978. *Cosmological Aspects of Infrared and Millimetre Astronomy*. In *Infra-red Astronomy*, (eds. G Setti and G G Fazio), 199-230, D Reidel and Co.

60. Laing, R A, Longair, M S, Riley, J M, Kibblewhite, E J and Gunn, J E, 1978. *Investigations of the Optical Fields of 3CR Radio Sources - II*. Mon. Not. R. astr. Soc., **183**, 547-548 and Microfiche MN183/2.

61. Laing, R A, Longair, M S, Riley, J M, Kibblewhite, E J and Gunn, J E, 1978. *Source Counts and V/V<sub>max</sub> Tests for a Complete Sample of 3CR Radio Sources studied to Very Faint Limiting Magnitudes*. Mon. Not. R. astr. Soc., **184**, 149-157.

62. Longair, M S, 1978. *The Large Scale Distribution of Radio Sources*. IAU Symposium No. 79. *The Large Scale Structure of the Universe.*, (eds. M S Longair and J Einasto), 305-314, D Reidel and Co.

63. Longair, M S, 1978. *Personal View - The Large-Scale Structure of the Universe*, IAU Symposium No. 79, *The Large-Scale Structure of the Universe*, (eds. M S Longair and J Einasto), 451-461, D Reidel and Co.

64. Baldwin, J A, Rees, M J, Longair, M S and Perryman, M A C, 1978. *The Ly- $\alpha$ /H $\alpha$ /P $\alpha$  Ratio in the Quasar PG 0026 + 129*. Astrophys. J., 226, L57-L59.

## 1979

65. Longair, M S, 1979. *The Space Telescope and its Opportunities*. Quartely. J. R. astr. Soc., **20**, 5-28.

66. Hine, R G and Longair, M S, 1979. *The Optical Spectra of 3CR Radio Galaxies*. Mon. Not. R. astr. Soc., **188**, 111-130.

67. Longair, M S and Riley, J M, 1979. *Statistical Evidence on the Dynamical Evolution of Extended Radio Sources*. Mon. Not. R. astr. Soc., **188**, 625-635.

68. Longair, M S, 1979. *Extragalactic Radio Sources*. La Recherche, **10**, 632-640.

69. Longair, M S, 1979. *The Space Telescope and its Capabilities*. Proc. ESA/ESO Workshop on *Astronomical Uses of the Space Telescope*, 5-26, ESA Publications.
70. Ferland, G, Rees, M J, Longair, M S and Perryman, M A C, 1979. *Observations of 3C 390.3 with the International Ultraviolet Explorer*. Mon. Not. R. astr. Soc., **187**, 67P-71P.
71. Longair, M S, 1979. *Radio Astronomy and Cosmology*. *IAU Reports on Astronomy*, Part 3, 207-214, Reidel and Co.
72. Longair, M S and Seldner, M, 1979. *The Clustering of Galaxies about Extragalactic Radio Sources*. Mon. Not. R. astr. Soc., **189**, 433-453.

## 1980

73. Longair, M S, 1980. *Radio Astronomers, X-ray Astronomers and the Space Telescope*. In *Scientific Research with the Space Telescope*, IAU Colloquium No. 54, (eds, M S Longair and J Warner), 241-262, NASA Special Publication.
74. Longair, M S and Seldner, M, 1980. *The Clustering of Galaxies about Extragalactic Radio Sources - Implications for Observations with the Einstein X-ray Observatory*, In *Highlights of Astronomy* (ed. P A Wayman), **5**, 723-726.
75. Longair, M S, 1980. *Extragalactic Astronomy and IUE*. In *Highlights of Astronomy* (ed. P A Wayman), **5**, 325-329.
76. Longair, M S, 1980. *Optical Identifications of Extragalactic Radio Sources*. In *Objects of Large Redshift*. IAU Symposium No.92 (eds. G O Abell and P J E Peebles), 135-144, Reidel and Co.
77. Riley, J M, Longair, M S and Gunn, J E, 1980. *Investigations of the Optical Fields of 3CR Radio Sources to Faint Limiting Magnitudes - III*. Mon. Not. R. astr. Soc., **192**, 233-241.
78. Barr, P, Pollard, G, Sanford, P W, Ives, J C, Ward, M, Hine, R G, Longair, M S, Penston, M V, Boksenberg, A and Lloyd, C, 1980. *The Variability of 3C 390.3*. Mon. Not. R. astr. Soc., **193**, 549-562.
79. Wall, J V, Pearson, T J and Longair, M S 1980. *Models of the Cosmological Evolution of Extragalactic Radio Sources - I. The 408 MHz count*. Mon. Not. R. astr. Soc., **193**, 683-706.
80. Ulrich, M H, (plus 19 other authors including M S Longair), 1980. *Detailed Ultraviolet Observations of the Quasar 3C 273 with IUE*. Mon. Not. R. astr. Soc, **192**, 561-580.
81. Boksenberg, A (plus 21 other authors including M S Longair), 1980. *Observations of NGC 4151 with IUE*. Second European IUE Conference (eds. B. Battrick and J. Mort), 67-70, ESA SP-157.

## 1981

82. Gunn, J E, Hoessel, J G, Westphal, J A, Perryman, M A C and Longair, M S, 1981. *Investigations of the Fields of 3CR Radio Sources to Faint Limiting Magnitudes - IV*. Mon. Not. R. astr. Soc., **194**, 111-123.
83. Peacock, J A, Perryman, M A C, Longair, M S, Gunn, J E and Westphal, J A, 1981. *Investigations of the Optical Fields of Flat-spectrum Radio Sources to Faint Limiting Magnitudes*. Mon. Not. R. astr. Soc., **194**, 601-612.
84. Longair, M S, 1981. *Extragalactic Radio Sources and X-ray Astronomy*, (ed. R Giacconi), *X-ray Astronomy with the Einstein Satellite*, 241-259, D Reidel and Co.
85. Longair, M S, 1981. *An Outsider's View of Extragalactic Infrared Astronomy*. IAU Symposium No.96, *Infrared Astronomy*, (ed. D Cruickshank and C G Wynn-Williams), 351-360, D Reidel and Co.

86. Longair, M S, 1981. *Optical Jets in Active Galaxies*. Proc. Second ESO/ESA Workshop 133-135, ESA SP-162, March 1981.

87. Wall, J V, Pearson, T J and Longair, M S, 1981. *Models of the Cosmological Evolution of Extragalactic Radio Sources - II. The 2700 MHz Source Count*. Mon. Not. R. astr. Soc., **193**, 597-610.

88. Downes, A J B, Longair, M S and Perryman M A C, 1981. *High-resolution Observations of Faint Radio Sources and the Angular Size-Flux Density Relation*, Mon. Not. R. astr. Soc., **197**, 593-626.

89. Longair, M S, 1981. *Infrared Astronomy and Cosmology*, Irish Astron. J., **15**, No. 2 (summary only).

## 1982

90. Longair, M S, 1982. *The Most Distant Galaxies*, In *Progress in Cosmology*, (ed. A W Wolfendale), p. 323-333, D Reidel and Co.

91. Longair, M S, 1982. *Some Aspects of the Cosmological Evolution of Extragalactic Radio Sources*, in *Astrophysical Cosmology*, (eds. H A Brück, G Coyne, M S Longair), 373-381, Pontificiae Academiae Scientiarum Scripta Varia, Vatican City.

92. Longair, M S, 1982. *Cosmology and Fundamental Physics - Concluding Remarks*, In *Astrophysical Cosmology* (eds. H A Brück, G Coyne and M S Longair), 583-598, Pontificiae Academiae Scientiarum Scripta Varia, Vatican City

93. Longair, M S, 1982. *Extragalactic Ultraviolet Astronomy and Cosmology*, Proc. Third European IUE Conf., Madrid, 75-79, ESA SP-176.

94. Longair, M S 1982. *Reflections on the Space Telescope*, in *The Space Telescope Observatory*, (ed. D Hall), 121-134, NASA CP-2244.

95. Lilly, S J and Longair, M S, 1982. *Evidence for the Cosmological Evolution of the Stellar Content of Radio Galaxies*, in *Astrophysical Cosmology*, (eds. H A Brück, G Coyne and M S Longair), 269-277, Pontificiae Academiae Scientiarum Scripta Varia, Vatican City.

96. Lilly, S J and Longair, M S, 1982. *Infrared Studies of a Sample of 3C radio galaxies*. Mon. Not. R. astr. Soc., **199**, 1053-1068.

97. Lilly, S J and Longair, M S, 1982. *The Optical and Infrared Properties of 3CR Radio Galaxies*, in *Extragalactic Radio Sources*, (eds. D S Heschen and C M Wade), 413-422, Reidel and Co.

98. Howard, D J and Longair, M S, 1982. *Harmonic Proportion and Palladio's Quattro Libri*, J. Soc. Architectural Historians, **41**, 116-143.

99. Longair, M S, 1982. *The Scientific Significance of Sub-millimetre Astronomy*. ESA Workshop *The Scientific Significance of Sub-millimetre Astronomy*, 219-223, ESA SP-189.

100. Allington-Smith, J R, Perryman, M A C, Longair, M S, Gunn, J E and Westphal, J A, 1982. *A Complete Sample of Extragalactic Radio Sources at 1 Jy at 408 MHz: II - the Optical Observations*. Mon. Not. R. astr. Soc., **201**, 331-344.

101. Perryman, M A C, Longair, M S, Allington-Smith, J R and Fielden, J, 1982. *CCD Observations of Radio Sources from the 5C6 and 5C7 Surveys*. Mon. Not. R. astr. Soc., **201**, 957-973.

## 1983

102. Longair, M S, 1983. *Extragalactic Radio Sources and the Classical Cosmologist*. Phys. Bull., **34**, 68-71.
103. Longair, M S, 1983. *Extragalactic Radio Sources and the Evolving Universe*. Phys. Bull., **34**, 106-109.
104. Longair, M S, 1983. *Space Science and Cosmology*. In *Understanding the Universe* (ed. R. West), 129-225, Reidel and Co., Dordrecht, Holland.
105. Laing, R A, Riley, J M and Longair, M S, 1983. *Bright Radio Sources at 178 MHz: Flux Densities, Optical Identifications and the Cosmological Evolution of Powerful Radio Galaxies*. Mon. Not. R. astr. Soc., **204**, 151-188.
106. Lilly, S J, Longair, M S and McLean, I S, 1983. *3C 352 - a Radio Galaxy at High Redshift Undergoing Strong Stellar Evolution*. Nature, **301**, 488-491.
107. Fielden, J, Downes, A J B, Allington-Smith, J R, Benn, C R, Longair, M S and Perryman, M A C, 1983. *Further High-resolution Observations of Faint Radio Sources and the Angular Size-Flux Density Relation*. Mon. Not. R. astr. Soc., **204**, 289-316.
108. Longair, M S, 1983. *Optical, Infrared and Ultraviolet Observations of Active Nuclei, Highlights of Astronomy*, **6**, 447-457, Reidel and Co.

#### 1984

109. Fabbiano, G., Miller, L, Trinchieri, G, Longair, M S and Elvis, M, 1984. *An X-ray Survey of a Complete Sample of 3CR Radio Galaxies*. Astrophys. J., **277**, 115-131.
110. Perryman, M A C, Lilly, S J, Longair, M S and Downes, A J B, 1984. *Redshifts of Faint 3CR Radio Sources*. Mon. Not. R. astr. Soc., **209**, 159-167.
111. Lilly, S J, Longair, M S and McLean, I S, 1984. *Surface Photometry of 3CR Radio Galaxies - Their Relation to First Ranked Abell Cluster Galaxies*. Mon. Not. R. astr. Soc., **209**, 401-413.
112. Webster, A S and Longair, M S, 1984. *Millimetre and Sub-millimetre Astronomy*. Contemporary Physics, **25**, 519-534.
113. Longair, M S, 1984. *Fluctuations in the Microwave Background Radiation*. Nature, **309**, 16-17.
114. Longair, M S, 1984. *Galaxy Evolution at Late Epochs*. Nature, **310**, 13-14.
115. Longair, M S, 1984. *The Most Distant Galaxies*, J. Brit. astron. Assoc., **94**, 97-103.
116. Lilly, S J and Longair, M S, 1984. *Stellar Populations in Distant Radio Galaxies*. Mon. Not. R. astr. Soc., **211**, 833-855.
117. Longair, M S and Lilly, S J, 1984. *Identifications and Spectra of Extragalactic Radio Sources*. J. Astrophys. Astr., **5**, 349-368.

#### 1985

118. Allington-Smith, J R, Lilly, S J, and Longair, M S, 1985. *Redshifts of Radio Sources in the 1-Jy Sample*. Mon. Not. R. astr. Soc., **213**, 243-255
119. Lilly, S J, Longair, M S and Miller, L, 1985. *Non-stellar Radiation in Radio Galaxies at 3.5 microns*. Mon. Not. R. astr. Soc., **214**, 109-118.
120. Miller, L, Longair, M S, Fabbiano, G, Trinchieri, G. and Elvis, M, 1985. *The Gaseous Environment of Double Radio Galaxies*, Mon. Not. R. astr. Soc., **215**, 799-814.

121. Longair, M S, 1985. *The Scientific Challenge of the Space Telescope*, 1985. *Sky and Telescope*, **69**, 306-311.

122. Longair, M S, 1985. *The Universe - Present, Past and Future*, Observatory, **105**, 171-188 (Halley Lecture 1985).

123. Lilly, S J, Longair, M S and Allington-Smith, J R, 1985. *Infrared Observations of 1 Jansky Radio Source Identifications and Empty Fields*, 1985. *Mon. Not. R. astr. Soc.*, **215**, 37-57.

124. Longair, M S, 1985. *Las Galaxias Mas Distantes*, Hermes, August 1985, 11-15 (Spanish version of paper 115).

125. Longair, M S, 1985. *Martin Ryle - His Scientific Legacy*, SERC Report 1984-1985, 24-27, SERC Publications.

126. Longair, M S, 1985. *Sir Harrie Massey - 1908-1983*, SERC Bulletin, **3**, No. 3, 14-15.

## 1986

127. Longair, M S, 1986. *Astronomy after IRAS*, in *Light on Dark Matter*, (ed. F P Israel), 511-521.

128. Longair, M S, Stewart, J M and Williams, P M, 1986. *The UK Remote and Service Observing Programme*. *Quarterly Journal of the Royal Astronomical Society*, **27**, 153-165.

129. Longair, M S, 1986. *Status of Observational Astronomy in the 1990s - Position of Submillimetre Astronomy*, in *Space-borne Sub-Millimetre Astronomy*, 7-14, ESA Publications.

130. Peacock, J A, Miller, L and Longair, M S, 1986. *The Statistics of Radio Emission from Quasars*, *Mon. Not. R. astr. Soc.*, **218**, 265-278.

131. Dunlop, J S, Downes, A J B, Peacock, J A, Savage, A, Lilly, S J, Watson, F G and Longair, M S, 1986. *Discovery of a Quasar with  $z = 3.71$  and Limits on the Number of More Distant Objects*, *Nature*, **319**, 564-567.

132. Longair, M S, 1986. *The Astrophysics of the Most Distant Galaxies Known*. In *Radio Astronomy and the Physics of the Universe* (eds. R Fanti, G Grueff and G Setti), 25-54.

133. Longair, M S, 1986. *The Universe - Present, Past and Future*, *Contemporary Phys.*, **27**, 325-343 (reprint of Halley Lecture, ref 122).

134. Longair, M S, 1986. *Ultraviolet and Optical Telescopes of the Future*, Seminar on *International Research Facilities*, 55-59, European Physical Society.

135. Longair, M S, 1986. *From Quarks to Quasars - What Everyone Really Ought to Know*, Britannica Award Lecture 1986.

## 1987

136. Longair, M S, 1987. *Observational Cosmology 1986*, IAU Symposium No. 124 *Observational Cosmology*, (eds. G R Burbidge and A Hewitt), 823-840, D Reidel and Co.

137. Dunlop, J S and Longair, M S, 1987. *Infrared and optical observations of distant radio galaxies*, in *High Redshift and Primeval Galaxies*, (eds. J Bergeron, D Kunth, B Rocca-Volmerange and J Tran Thanh Van), 93-112, Edition Frontieres.

## 1988

138. Longair, M S, 1988. *Space astronomy - the next thirty years*, in *Highlights of Astronomy*, (ed. D. McNally), **8**, 455-460.
139. Longair, M S, 1988. *Millimetre, submillimetre astronomy and cosmology - what everyone really needs to know*, in *Millimetre and Submillimetre Astronomy*, (eds. R D Wolstencroft and W B Burton), 343-373, Kluwer Academic Publishers.
140. Longair, M S, 1988. The case of the missing fingerprints or Dr Watson's cosmology, *Proceedings of the Royal Institution*, 59, 109-149.
141. Dunlop, J S and Longair, M S, 1988. *Infrared and optical observations of distant radio galaxies*, in *Comets to Cosmology*, Proc. 3rd IRAS Conference, (ed. A Lawrence), 326-339, Springer-Verlag.

## 1989

142. Longair, M S, 1989. *The New Astrophysics*, chapter 6 of *The New Physics* (ed. P Davies), 94-208, Cambridge University Press.
143. Longair, M S, 1989. *The Cosmological Evolution of Radio Galaxies and Quasars*, contribution to *Problems of Theoretical Physics and Astrophysics*, (eds L.V. Kel-dysh and V.Ya. Fainberg). 70th Birthday Volume presented to Academician V L Ginzburg, 352-389, Nauka, Moscow.
144. Longair, M S, 1989. *Galaxy Formation*, in *Evolution of Galaxies - Astronomical Observations*, (eds. I Appenzeller, H J Habing and P Lena), 1-93, Springer-Verlag.
145. Longair, M S, 1989. *Astrophysical cosmology - a conventional view its successes and problems*, in *Highlights in Gravitation and Cosmology* (eds. B R Iyer, A Kembhavi, J V Narlikar, C V Vishveshvara), p.194-214, Cambridge University Press.
146. Dunlop, J S, Guiderdoni, B, Rocca-Volmerange, B, Peacock, J A and Longair, M S, 1989. *The colour evolution of high-redshift radio galaxies*, *Mon. Not. R. astr. Soc.*, **240**, 257.
147. Meisenheimer, H J, H-J. Röser, P.R. Hiltner, Yates, M G, Longair, M S , Chini, R and Perley, R.A., 1989. *The synchrotron spectra of radio hot spots*, *Astr. Astrophys.*, **219**, 63.
148. Yates, M G and Longair M S, 1989. *Deep IRAS observations of 3C Radio Galaxies*, *Mon. Not. R. astr. Soc.*, **241**, 29-41.

## 1990

149. Longair, M S, 1990. *The Extragalactic Background Radiation - 1989*, IAU Symposium No. 139, *The Galactic and Extragalactic Background Radiation*, (ed. S. Bowyer and C. Leinert), 469-484, Kluwer Academic Publishers.
150. Longair, M S., 1990. *The Hubble Space Telescope's Optics*, *Aerospace America*, 15-18.
151. Longair, M.S., 1990. *Cosmic Rays and the Galactic Radio Background Emission*, in *Low Frequency Astrophysics from Space*, (eds. N.E. Kassim and K.W. Weiler), 227-236, Springer-Verlag, Heidelberg.
152. Thronson, H.A., Hawarden, T.G., Mountain, C.M., Davies, J.K., Lee, T.J. and Longair, M.S., 1990. *EDISON: A second generation infrared observatory*, Proc. IAU Colloquium No. 123, *Observatories in Earth Orbit and Beyond*, (ed. Y. Kondo), 501-505, Kluwer Academic Publishers, Dordrecht.
153. Longair, M.S., 1990. *The Astrophysics of the Future*, Proc. IAU Colloquium No.123, *Observatories in Earth Orbit and Beyond*, (ed. Y. Kondo), 421-426, Kluwer Academic Publishers, Dordrecht.

154. Lee, T.J., Hawarden, T.G., Thronson, H.A., Mountain, C.M., Davies, J.K. and Longair, M.S., 1990. *Radiatively-cooled Telescopes for Infrared Astronomy*, Proc. 29th Liège International Astrophysical Colloquium *From Ground-based to Space-borne Sub-millimetre Astronomy*, 375-379, ESA SP-314.

### 1991

155. Longair, M.S., 1991. *A Review of Cosmic Evolution*, *Advances Space Research*, **11**, (2)161-179.

156. Longair, M.S., 1991. *Understanding our Universe*, Article to introduce the Royal Institution Lecture Series given in Kyoto and Tokyo, Japan, August 1991, Yomiuri Shimbun Publications.

157. Longair, M.S., 1991. *Galaxy Formation - an Update*, in *The Physical Universe: The Interface between Cosmology, Astrophysics and Particle Physics*. (eds. J.D. Barrow, A.B. Henriques, M.T.V.T Lago and M.S. Longair), 174-196, Springer-Verlag, Berlin.

158. Longair, M.S., 1991. *Active Galaxies and Quasars*, in *Images of the Universe*, ed. C. Stott, 178-198, Cambridge: Cambridge University Press.

### 1992

159. Longair, M.S., 1992. *The Future of Space Infrared Astronomy*, in *Next Generation Infrared Space Observatory*, (eds S.J. Bell Burnell, J.K. Davies and R.S. Stobie), 5-12, Dordrecht: Kluwer Academic Publishers. (also published in *Space Science Reviews*, **61**, Vol. 1., 5-12.

160. Longair, M.S., 1992. *Marking Time*, Symposium on *Hawking's 'History of Time' Re-considered*, The Cambridge Review, 5-8.

161. Longair, M.S., 1992. *Teaching Real Physics*, commissioned article for CAM, summer 1992 issue,

162. Longair, M.S. 1992. *Teaching Physics Through Astronomy*, *Astronomy Now*, September 1992, 33-35.

### 1993

163. Longair, M.S., 1993. *Outside the Stars*, IAU Colloquium No. 137, *Inside the Stars*, (ed A. Baglin and W. Weiss), 1-24. Dordrecht: Kluwer Academic Publishers.

164. Blain, A.W. and Longair, M.S., 1993. *Sub-millimetre Cosmology*, AIP Symposium *First Light in the Universe* (eds. B. Rocca Volmerange, B. Guiderdoni, M. Dennefeld and J. Tran Thanh Van), 337-338. Gif-sur-Yvette: Editions Frontières.

165. Longair, M.S., 1993. *The Frontiers of Modern Astrophysics and Cosmology*, OECD Conference on *Megaprojects in Astronomy*, 23-58. Paris:OECD Publications, Paris.

166. Longair, M.S., 1993. *A Survey of Surveys*, G.X. Neugebauer 60th Birthday meeting, *From protostars to protogalaxies*, (ed. B.T. Soifer), 313-323. San Francisco: Astronomical Society of the Pacific Conference Series.

167. Blain, A.W. and Longair, M.S., 1993. *Submillimetre Cosmology*, *Mon. Not. R. astr. Soc.*, **264**, 509-521.

168. Longair, M.S. 1993. *Modern Cosmology - a Critical Assessment*. The 1992 Milne Lecture. *Q. J. R. astr. Soc.*, **34**, 157-199.

169. Longair, M.S., 1993. *The Origin of the Chemical Elements 1. The Case for the Hot Big Bang and Cosmological Nucleosynthesis*, in *Carbon in the Universe* (eds. L.E. Cram and D. Varvel), 1 - 26. Sydney: The Science Foundation for Physics.

170. Longair, M.S., 1993. *The Origin of the Chemical Elements 2. Element Formation and the Origin of Galaxies*, in *Carbon in the Universe* (eds. L.E. Cram and D. Varvel), 27-45. Sydney: The Science Foundation for Physics.

171. Blain, A.W. and Longair, M.S., 1993. *Millimetre Background Radiation and Galaxy Formation*, Mon. Not. R. astr. Soc., **265**, L21-L24.

#### 1994

172. Longair, M.S., 1994. *The Frontiers of Modern Astronomy*, IAU/ICSU/UNESCO Meeting *Vanishing Universe: Adverse Environmental Impacts on Astronomy*, (ed. D. McNally), 7. Cambridge, Cambridge University Press.

173. Longair, M.S., 1994. *Classical Cosmology*, in *The Frontiers of Space and Ground-based Astronomy - the Astrophysics of the 21st Century*, (eds. W. Wamsteker, Y. Kondo and M.S. Longair), 543. Dordrecht: Kluwer Academic Publishers.

174. Longair, M.S., Oda, M., Churazov, E and Tarenghi, M. 1994. *Priorities and Objectives for the 21st Century*, in *The Frontiers of Space and Ground-based Astronomy - the Astrophysics of the 21st Century*, (eds. W. Wamsteker, Y. Kondo and M.S. Longair), 369. Dordrecht: Kluwer Academic Publishers.

175. Longair, M.S., 1994. *Pie in the Sky and other Universal Questions*, Sciencetech 93/94. Journal of the South African Foundation for Research Development.

176. Longair, M.S., 1994. *Light and Colour* in *Colour - the 1993 Darwin Lectures*, (ed. T. Lamb), 65-102. Cambridge: Cambridge University Press..

177. Longair, M.S. 1994. *Machos or Wimps - New Light on Dark Matter*, Institute of Physics Newsletter for Schools, No. 1, Summer 1994.

#### 1995

178. Longair, M.S., 1995. *The Radio Background Radiation - the Long and Short of It*, in *The Background Radiation - a Symposium in Honour of Riccardo Giacconi*, (ed. M. Livio, M. Fall, D. Calzetti and P. Madeu), p.223 - 236. Cambridge: Cambridge University Press.

179. Best, P., Bailer, D., Longair, M.S. and Riley, J.M. 1995. *Radio Source Asymmetries and Unified Schemes* Mon. Not. R. Astron. Soc. **275**, 1171-1184.

180. Longair, M.S., 1995. *Astrophysics and Cosmology*, in *Twentieth Century Physics* (eds. A.B. Pippard, L.M. Brown and A. Pais), Vol. 3, 1691-1821.

181. Longair, M.S., 1995. *Technological Advance and Astronomical Discovery (i) Optical Astronomy from Tycho Brahe to the Hubble Space Telescope*, in *Breakthrough - Creativity and Progress in Science* (eds. L.E. Cram and D. Varvel), 19 - 32. Sydney: The Science Foundation for Physics.

182. Longair, M.S., 1995. *Technological Advance and Astronomical Discovery (ii) The Opening up of the Electromagnetic Spectrum - the New Astronomies*, in *Breakthrough - Creativity and Progress in Science* (eds. L.E. Cram and D. Varvel), 33 - 49. Sydney: The Science Foundation for Physics.

183. Longair, M.S. Best, P.N. and Röttgering, H.J.A., 1995 *HST Observations of Three Radio Galaxies at z ~ 1*. Mon. Not. R. Astron. Soc., **275**, L47-L51.

#### 1996

184. Blain, A W. and Longair, M.S. 1996 *Observing Strategies for Blank-field Surveys in the Submillimetre Waveband* Mon. Not. R. Astron. Soc., **279**, 847-858.

185. Best, P.N., Longair, M.S. and Röttgering, H.J.A., 1996 *Evolution of Aligned Structures in  $z \sim 1$  Radio Galaxies* Mon. Not. R. Astron. Soc., **280**, L9-L12.
186. Best, P.N., Longair, M.S. and Röttgering, H.J.A., 1996 *The Redshift One Radio Galaxies*, Spectrum, **8**, 9.
187. Longair, M.S. 1996. *Distant Galaxies*. In *Science with the Hubble Space Telescope II*, (eds P. Benvenuti, F.D. Macchetto and E.J. Schreier), 20-32. US Government Printing Office 1996, 411-242.
188. Longair, M.S. 1996. *Millimetre Astronomy in the 21st Century*. In *Science with Large Millimetre Arrays*, (ed. P. Shaver), 1. ESO-IRAM-NFRA Workshop. Dordrecht: Kluwer Publications.
189. Cesarsky, C.J. (with 66 coauthors including M.S. Longair) 1996. *ISOCAM in Flight*. Astronomy and Astrophysics, **315**, 32.

## 1997

190. Best, P.N. and Longair, M.S. 1997. *The Redshift One 3CR Radio Galaxies*. In *The Universe at Large Redshifts*, 37th Herstmonceux Conference, (eds. N. Tanvir, A. Aragón-Salamanca and J.V. Wall), 359. Singapore: World Scientific.
191. Longair, M.S. 1997. *On Errors, Bias and Acts of Faith*. In *Gravitation and Cosmology*, (eds. S. Dhurandhar and T. Padmanabhan), 239. Dordrecht: Kluwer Scientific Publishers.
192. Longair, M.S. 1997. *Active Galaxies at Large Redshifts*. In *Gravitation and Cosmology*, (eds. S. Dhurandhar and T. Padmanabhan), 19. Dordrecht: Kluwer Scientific Publishers.
193. Longair, M.S. 1997. *Active Galaxies at Large Redshifts*. In *Relativistic Astrophysics*, (eds. B.J.T. Jones and D. Markovic), 35. Cambridge: Cambridge University Press.
194. Longair, M.S. 1997. *The Friedman Robertson-Walker Models - On Bias Errors and Acts of Faith*. In *Critical Dialogues in Cosmology*, (ed. N. Turok), 285. Singapore, World Scientific.
195. Best, P.N., Longair, M.S. and Röttgering, H.J.A., 1997. *A Jet-cloud Interaction in 3C34 at  $z = 0.69$*  Mon. Not. R. Astron. Soc., **286**, 785.
196. Longair, M.S. 1997. *The High Energy Radiation of Active Galactic Nuclei*. In *Frontier Problems of Astronomy*, (eds. G. Münch, A. Mampaso and F. Sanchez), 218. Cambridge: Cambridge University Press.
197. Longair, M.S. 1997. *Active galaxies: the Redshift One Radio Galaxies*. Astronomy and Geophysics, **38**, No. 1, 10.
198. Longair, M.S. 1997. *Ways Forward - the RAS Questionnaire*. Astronomy and Geophysics, **38**, No. 3, 19.
199. Longair, M.S. 1997. *The Electron in the Cosmos*. In *Electron*, (ed. M. Springford), 257. Cambridge: Cambridge University Press.
200. Best, P.N., Longair, M.S. and Röttgering, H.J.A., 1997. *HST, Radio and Infrared Observations of 28 3CR Radio Galaxies at redshift  $z \sim 1$  - I. The Observations*. Mon. Not. R. Astron. Soc., **286**, 758.
201. Longair, M.S. 1997. *The Hubble Space Telescope*, Clare Hall Newsletter 1996-1997 . .

## 1998

202. Best, P.N., Longair, M.S. and Röttgering, H.J.A., 1998. *HST, Radio and Infrared Observations of 28 3CR Radio Galaxies at redshift  $z \sim 1$  - II. Old Stellar Populations in Central Cluster Galaxies*. Mon. Not. R. Astron. Soc., **295**, 549.
203. Longair, M.S., 1998. *Radio Astronomy and Cosmology - Lessons from the Past: 3C, 4C, ...*, In *Observational Cosmology with the New Radio Surveys* (eds. M.N. Bremer, N. Jackson and I. Perez-Fournon), 3. Boston: Kluwer Academic Publishers.
204. Best, P.N., Longair, M.S. and Röttgering, H.J.A., 1998. *The High Redshift 3CR Radio Galaxies: cD galaxies in High Redshift Clusters*, In *Observational Cosmology with the New Radio Surveys* (eds. M.N. Bremer, N. Jackson and I. Perez-Fournon), 11. Boston: Kluwer Academic Publishers.
205. Best, P.N., Longair, M.S. and Röttgering, H.J.A., 1998. *The 3CR Radio Galaxies at  $z \sim 1$ : Old Stellar Populations in Central Cluster Galaxies*. In *Galaxy Scaling Relations: Origin, Evolution and Application*, (eds. L.N. da Costa and A. Renzini), 232. Berlin: Springer-Verlag.
206. Longair, M.S., 1998. *Unveiling the Distant Universe*. Astronomy and Geophysics, **39**, No. 2, 10.
207. Best, P.N., Carilli, C.L., Garrington, S.T., Longair, M.S. and Röttgering, H.J.A., 1998. *Deep Radio Observations of 3C324 and 3C368: Evidence for Jet-Cloud Interactions*. Mon. Not. R. Astr. Soc., **299**, 357.
208. Hughes, D.H., Serjeant, S., Dunlop, J., Rowan-Robinson, M, Blain, A., Mann, R.G., Ivison, R., Peacock, J., Efstathiou, A., Gear, W., Oliver, S., Lawrence, A., Longair, M., Goldschmidt, P. and Jenness, T., 1998. *High-redshift Star Formation in the Hubble Deep Field Revealed by a Submillimetre-wavelength Survey*. Nature, **394**, 241.
209. Arshakian, T. and Longair, M.S. 1998. *Relativistic Effects and Intrinsic Environmental Asymmetries in FR II Radio Sources*. In *19th Texas Symposium on Relativistic Astrophysics and Cosmology*, (eds. J. Paul, T. Montmerle and E. Aubourg), 385.
210. Longair, M.S. 1998. *The Hubble Space Telescope and the Evolution of the Universe*. In *Gravitation and Relativity: At the turn of the Millennium*, 15th International Conference on General Relativity and Gravitation. (eds. N. Dadhich and J. Narlikar), p.25. Pune: Inter-University Centre for Astronomy and Astrophysics.
- 1999**
211. Longair, M.S. 1999. *Continuum Processes in X-ray and  $\gamma$ -ray Astronomy*. in *X-ray Spectroscopy in Astrophysics*, (eds J. van Paradijs and J.A.M. Bleeker). 1-107. Berlin: Springer-Verlag.
212. Best, P.N., Eales, S.A., Longair, M.S., Rawlings, S. and Röttgering, H.J.A. 1999. *Studies of a Sample of 6C Radio Galaxies at Redshift One, I - Deep Multi-frequency Radio Observations*. Mon. Not. R. Astr. Soc., **303**, 616.
213. Jameson, A., Longair, M.S. and Blain, A.W. 1999. *The Evolution of Dark Matter Haloes and Deep Galaxy Counts 1999*. In *The Galactic Halo* (eds. B.K. Gibson, T.S. Axelrod and M.E. Putman), 346. San Francisco: APS Conference Series.
214. Longair, M.S., 1999. *Ultraluminous Infrared Galaxies and Galaxy Formation*. Astrophysics and Space Science, **266**, 11.
215. Longair, M.S. 1999. *Cosmological Parameters and the Evolution of the Universe - Progress and Prospects*. IAU Symposium No. 183 on *Cosmological Parameters and the Evolution of the Universe*, (ed. K. Sato), 1.
216. Longair, M.S. 1999. *Active galaxies and Cosmic Evolution*. In *Activity in Galaxies and Related Phenomena*, IAU Symposium No. 194, (eds. Y. Terzian and C. Sheppard). 219.
217. Arshakian, T. and Longair, M.S. 1999. *An Asymmetric Relativistic Model for FR II Radio Galaxies*. In *Activity in Galaxies and Related Phenomena*, IAU Symposium 194, (eds. Y. Terzian and C. Sheppard), 301.

218 Longair, M.S. 1999. *The 3CR Sample - 1962-1999* In *The Hy-Redshift Universe: Galaxy Formation and Evolution at High Redshift*, eds. A.J. Bunker and W.J.M. van Breugel, 11. ASP Conference Proceedings.

219. Best, P.N., Longair, M.S. and Röttgering, H.J.A. 1999. *Ionisation, Shocks and the Evolution of the Emission Line Gas of  $z \sim 1$  Radio Galaxies*. In *The Hy-Redshift Universe: Galaxy Formation and Evolution at High Redshift*, eds. A.J. Bunker and W.J.M. van Breugel, 71. ASP Conference Proceedings.

220. Best, P.N. and Longair, M.S. 1999. *The Nature of the 3CR Radio Galaxies at  $z \sim 1$* . In *The Most Distant Radio Galaxies*, eds H.J.A. Röttgering, P.N. Best, and M.D. Lehnert, 59. Royal Netherlands Academy of Arts and Sciences.

221. Blain, A.W., Jameson, A., Smail, I. Longair, M.S., Kneib, J.-P. and Ivison, R.J. 1999. *Dust Obscured Star Formation and AGN Fuelling in Hierarchical Models of Galaxy Evolution*. Mon. Not. R. Astr. Soc., **309**, 715.

## 2000

222. Best, P.N., Röttgering, H.J.A. and Longair, M.S. 2000. *Deep Spectroscopy of Distant 3CR Radio Galaxies: the data*. Mon. Not. R. Astr. Soc. **311**, 1.

223. Best, P.N., Röttgering, H.J.A. and Longair, M.S. 2000. *Ionisation, Shocks and the Evolution of the Emission Line Gas of Distant 3CR Radio Galaxies*. Mon. Not. R. Astr. Soc., **311**, 23.

224. Arshakian, T. and Longair, M.S. 2000. *An Asymmetric Relativistic Model for FR II Radio Galaxies*. Mon. Not. R. Astr. Soc., **311**, 846.

225. Longair, M.S. 2000. *Cosmic Chemical Evolution and the Evolution of Galaxies*. Proc. 26th Intl. Cosmic Ray Conf., Salt Lake City, (Melville, New York: American Institute of Physics Publications) (eds B.L. Dingus, D.B. Kieda and M. H. Salamon), 3.

226. Longair, M.S. 2000. *Astrophysics and Cosmology in the 21st Century*, in *Mathematics Unlimited: 2 $\infty$ 1 and Beyond*. Berlin: Springer-Verlag .

227. Longair, M.S. 2000. *Astrophysics and Cosmology in the 21st Century - Active Galactic Nuclei*, in *Lo Woltjer at 70 - Active galaxies and Quasars* (eds J.-P. Swings and G. Setti). ESO publications .

228. Longair, M.S. 2000. *The Determination of Cosmological Parameters*, in *New Cosmological Data and the Values of Fundamental Parameters* (eds A. Lasenby and A. Wilkinson). IAU Symposium No. 201.

229. Peacock, J. A., Rowan-Robinson, M. Blain, A. W. Dunlop, J. S. Efstathiou, A. Hughes, D. H. Jenness, T. Ivison, R. J., Lawrence, A., Longair, M. S., Mann, R. G., Oliver, S. J. and Serjeant, S. 2000. *Starburst galaxies and structure in the submillimetre background towards the Hubble Deep Field*. Mon. Not. R. Astr. Soc., **318**, 535.

## 2001

230. Longair, M.S. 2001. *Facing the Millenium*, Millennium Essay, Publ. Astron. Soc. Pac., **113**, 1.

231. Longair, M.S. 2001. *Arthur Stanley Eddington*, in *Cambridge Scientific Minds*, (ed. P. Harman), , Cambridge University Press.

232. Longair, M.S. 2001. *The Infrared Background Radiation - Impressions and Reflections*. In *The Extragalactic Infrared Background and its Cosmological Implications*, (eds. M. Harwit and M. G. Hauser), IAU symposium 204, p. San Francisco: ASP Conference Series.

233. Longair, M.S. 2001. *The Technology of Cosmology*, in *Historical Development of Modern Cosmology*, (eds. V.J. Martínez, V. Trimble and M.J. Pons-Bordería). 55-74. San Francisco: ASP Conference Series Vol. 252.

234. Mendoza, S. and Longair, M.S 2001. *Deflection of Jets Induced by Jet-cloud and Jet-galaxy Interactions*, Mon. Not. R. Astr. Soc., **324**, 149.

235. Mendoza, S. and Longair, M.S 2001. *Deflection of Jets Induced by Jet-cloud and Jet-galaxy Interactions*. Particles and Fields in Radio Galaxies Conference, ASP Conference Proceedings Vol. 250. Edited by Robert A. Laing and Katherine M. Blundell. ISBN: 1-58381-090-0. San Francisco: Astronomical Society of the Pacific, 2001., p.462

236. Longair, M.S. 2001. *The Astrophysics and Cosmology of the 21st Century - Active Galactic Nuclei*. In *Quasars, AGNs and Related Research Across 2000*. Conference on the occasion of L. Woltjer's 70th birthday, Rome, Italy, 3-5 May 2000. Giancarlo Setti and Jean-Pierre Swings (eds.), p.1. Berlin: Springer Verlag.

## 2002

237. Inskip, K. J., Best, P. N., Longair, M. S. and MacKay, D. J. C., 2002. *Infrared magnitude-redshift relations for luminous radio galaxies.*, Mon. Not. R. Astr. Soc., **329**, 277.

238. Inskip, K. J., Longair, M. S. Best, P. N, 2002. *The Evolution of Radio Galaxy Emission Line Regions: Breaking the P-z Degeneracy*. A New Era in Cosmology, ASP Conference Proceedings, Vol. 283. Edited by Nigel Metcalfe and Tom Shanks. ISBN: 1-58381-126-5. San Francisco: Astronomical Society of the Pacific, 2002., p.121

239. Mendoza, S. and Longair, M. S. 2002. *Formation of internal shock waves in bent jets*. Mon. Not. R. Astr. Soc., **331**, 323.

240. Longair, M. S. 2002. *Introduction to High Energy Astrophysics*. International School of Space Science, L'Aquila. August 2002. .

241. Longair, M. S. and Blain, A. 2002. *Far-infrared and submillimetre lighthouses*. In *Lighthouses of the Universe: The Most Luminous Celestial Objects and Their Use for Cosmology*, (eds. M. Gilfanov, R. Sunyaev, and E. Churazov), p. . Berlin: Springer-Verlag.

242. Best, P. N., Röttgering, H. J. A., Longair, M. S. and Inskip, K. J. 2002. *The Emission Line Regions of Redshift One Radio Galaxies*. In *Emission Lines from Jet Flows*, Isla Mujeres, México, (eds. W. J. Henney, W. Steffen, A. C. Raga, and L. Binette). Revista Mexicana de Astronomía y Astrofísica (Serie de Conferencias), 13, 155-162.

243. Scott, S.E., Fox, M. J., Dunlop, J.S., Serjeant, S., Peacock, J.A., Ivison, R.J., Oliver, S., Mann, R.G., Lawrence, A., Efstathiou, A., Rowan-Robinson, M., Hughes, D.H., Archibald, E.N., Blain, A. and Longair, M.S. 2002. *The SCUBA 8-mJy survey - I. Submillimetre maps, sources and number counts*. Mon. Not. R. Astr. Soc., **331**, 817.

244. Fox, M.J., Efstathiou, A., Rowan-Robinson, M., Dunlop, J.S., Scott, S., Serjeant, S., Mann, R.G., Oliver, S., Ivison, R. J., Blain, A., Almaini, O., Hughes, D., Willott, C. J., Longair, M.S., Lawrence, A. and Peacock, J.A. 2002. *The SCUBA 8-mJy survey - II. Multiwavelength analysis of bright submillimetre sources*. Mon. Not. R. Astr. Soc., **331**, 839.

245. Inskip, K. J., Best, P. N., Rawlings, S., Cotter, G., Longair, M. S., Röttgering, H. J. A. and Eales, S. 2002. *Deep spectroscopy of  $z \sim 1$  radio galaxies - I. The effects of radio power and size on the properties of the emission line gas*. Mon. Not. R. Astr. Soc., (in press).

246. Inskip, K. J., Best, P. N., Rawlings, S., Cotter, G., Longair, M. S., Röttgering, H. J. A. and Eales, S. 2002. *Deep spectroscopy of  $z \sim 1$  radio galaxies - II. The effects of radio power and size on the properties of the emission line gas*. Mon. Not. R. Astr. Soc., (in press).

## 2003

247. Nikolic, B., Alexander, P., Cotter, G., Longair, M.S. and Clemens, M. 2003. *Ground-based mid infra-red observations of nearby starburst and AGN galaxies*. *Astrophysics and Space Science*, v. 284, Issue 2, p. 573-576.
248. Longair, M.S. 2003. *Robert S. Stobie – an Obituary*, *Astron. Geophys*,
249. Nikolic, B., Clemens, M., Alexander, P., Longair, M. and Cotter, G. (2003). *Sub-Arcsecond Resolution Mid-IR Imaging of the Starburst NGC 520*. *Astrophysics of Dust*, Estes Park, Colorado, May 26 - 30, 2003. Edited by Adolf N. Witt, meeting
250. Serjeant, S., Dunlop, J. S., Mann, R. G., Rowan-Robinson, M., Hughes, D., Efstathiou, A., Blain, A., Fox, M., Ivison, R. J., Jenness, T., Lawrence, A., Longair, M., Oliver, S., and Peacock, J. A. (2003). *Submillimetre observations of the Hubble Deep Field and Flanking Fields* *Monthly Notices of the Royal Astronomical Society*, Volume 344, Issue 3, pp. 887-904.
251. Inskip, K.J., Best, P.J. and Longair, M.S. (2003). *6C radio galaxies at z~1: the influence of radio power on the alignment effect*. *New Astronomy Reviews*, Volume 47, Issue 4-5, p. 255-260.
252. Inskip, K. J., Best, P. N., Longair, M. S., Rawlings, S., Röttgering, H. J. A. and Eales, S. (2003). *HST and UKIRT imaging observations of z~ 1 6C radio galaxies - I. The data* *Monthly Notices of the Royal Astronomical Society*, Volume 345, Issue 4, pp. 1365-1380.
253. Longair, M.S. 2003. *Galaxies and Cosmology*. *Italian Encyclopaedia of the History of Science. Storia della Scienza: La Grande Scienza*, Volume IX, 361-374. Fondata da Giovanni Treccani: Istituto deall Enciclopedia Italiana.

## 2004

254. Clemens, M. S., Nikolic, B., Alexander, P., Cotter, G. and Longair, M. S., 2004. "PAH features in Infrared Luminous Galaxies: Results from Michelle", *Recycling intergalactic and interstellar matter*, *IAU Symposium No. 217*, (eds P.-A. Duc, J. Braine, and E. Brinks), 216-217. San Francisco, CA: Astronomical Society of the Pacific (ASP).
255. Longair, M. S., 2004. "A Brief History of Cosmology", *Measuring and Modeling the Universe, Carnegie Observatories Centennial Symposia*, (W.L.Freedman), 1-18. Cambridge: Cambridge University Press.
256. Arshakian, T. G. and Longair, M. S., 2004. "On the jet speeds of classical double radio sources" *Monthly Notices of the Royal Astronomical Society*, **351**, 727-732.
257. Longair, M. S., 2004. "Astrophysics and cosmology in the 21st century" *Journal of the British Astronomical Association*, **114**, 246-249.
258. Longair, M.S. 2004. Encounters with Zeldovich, in *Zeldovich Reminiscences* (ed. R.A. Sunyaev), 296-301. Boca Raton: Chapman and Hall/CRC.

## 2005

259. Inskip, K. J., Best, P. N. and Longair, M. S., 2005. "Radio Source Properties and the Alignment Effect", *Baltic Astronomy*, **14**, 378-380.
260. Longair, M. S., 2005. "The Determination of Cosmological Parameters", *New Cosmological Data and the Values of the Fundamental Parameters*, *IAU Symposium No. 201*, (eds A. Lasenby and A. Wilkinson), 3-14. San Francisco, CA: Astronomical Society of the Pacific (ASP).
261. Longair, M. S., 2005. "Evolutionary cosmologies - then and now", *The scientific legacy of Fred Hoyle*, (ed. D.O. Gough), 102-126. Cambridge: Cambridge University Press.

262. Serjeant, S.; Dunlop, J. S.; Mann, R. G.; Rowan-Robinson, M.; Hughes, D.; Efstathiou, A.; Blain, A.; Fox, M.; Ivison, R. J.; Jenness, T.; Lawrence, A.; Longair, M.; Oliver, S.; Peacock, J. A., 2005. "Hubble Deep Field and Flanking Fields", VizieR On-line Data Catalog, from Monthly Notices of the Royal Astronomical Society, **344**, 887-904.

263. Inskip, K. J., Best, P. N., Longair, M. S., and Röttgering, H. J. A., 2005. "HST and UKIRT imaging observations of  $z \sim 1$  6C radio galaxies - II. Galaxy morphologies and the alignment effect", Monthly Notices of the Royal Astronomical Society, **359**, 1393-1414.

## 2006

264. Longair, M. S., 2006. "Very large optical-infrared telescopes: today and tomorrow", *The Scientific Requirements for Extremely Large Telescopes: IAU Symposium No.232*, (eds P.A. Whitelock, M. Dennefeld and B. Leibundgut), 13-24. Cambridge: Cambridge University Press.

265. Longair, M. S., 2006. "Review Essay: *Fred Hoyle's universe* (J.Gregory) and *Fred Hoyle's life in science* (S.Mitton)", Journal for the History of Astronomy, **37**, 111-114.

266. Inskip, K. J., Best, P. N. and Longair, M. S. 2006. "Deviations from passive evolution - star formation and the ultraviolet excess in  $z \sim 1$  radio galaxies", Monthly Notices of the Royal Astronomical Society, **367**, 693-708.

267. Longair, M.S. 2006. "Revolutions in Music and Physics: 19300-1930", Hesse Lecture, Aldeburgh Festival. Aldeburgh: Publications of the Britten-Pears Library.

268. Longair, M. S., 2006. "The origin and evolution of cosmic magnetism - conference concluding remarks", *Astronomische Nachrichten*, **327**, 634-343.

269. Longair, M.S. 2006. "CMB and Physics of the Early Universe – Thoughts and Reflections", *Proceedings of Science, PoS(CMB2006)025*, 1-10. (electronic journal)

270. Longair, M. S., 2006. "The most luminous radio galaxies", *Revista Mexicana de Astronomía y Astrofísica (Serie de Conferencias)*, **26**, 101-104.

271. Longair, M.S., 2006. "Revolutions in Music and Physics: 1900–30" *Interdisciplinary Science Reviews*, **31**, 275-288.

272. Book Review of "The Equations: Icons of Knowledge" by Sander Bais. *Nature*, **440**, 423.

## 2007

273. Longair, M.S, 2007. Preface to Barcelona Conference on the "Multi-Messenger Approach to X- and Gamma Ray Astronomy", *Astrophysics and Space Science*, **309**, 3-4.

274. Longair, M.S. 2007. "Sir Alan Cook", *Dictionary of National Biography*. Oxford: Oxford University Press.

## 2008

275. Longair, M.S. 2007. "Remembrance of Things Past". 25<sup>th</sup> ESLAB Meeting on The European Contribution to the Hubble Space Telescope Programme. (to be published).

276. Bonsi, D., Longair, M.S., Garsed, P. and Orłowski, R. 2008. "Acoustic and audience response analyses of eleven Venetian churches", *The Journal of the Acoustical Society of America*, vol. 123, issue 5, p. 3353.

277. Serjeant, S., Dunlop, J.S., Mann, R.G., Rowan-Robinson, M. and Hughes, D., Efstathiou, A., Blain, A. Fox, M., Ivison, R.J., Jenness, T., Lawrence, A., Longair, M., Oliver, S. and Peacock, J.A. (2008). "Sub-mm observations of the HDF", *VizieR Online Data Catalog*, keywords = {Millimetric/submm sources}, **734**, 40887-+.

278. Longair, M.S. (2008). "Martin Ryle", *Complete Dictionary of Scientific Biography*, Charles Scribner's Sons. See also *Encyclopedia.com*: <http://www.encyclopedia.com/doc/1G2-2830906061.html>.

## 2009

279. Bonsi, D., Longair, M.S., Garsed, P. and Orlowski, R. 2009. "Acoustic and Audience Response Analyses of Eleven Venetian Churches". Technical appendix 1 to "Sound and Space in Renaissance Venice: Music, Architecture, Acoustics." by D. Howard and L. Moretti. London: Yale University Press, 2009.

281. Bonsi, D., Longair, M.S., Garsed, P. and Orlowski, R. 2009. "Notes on the Eleven Venetian Churches". Technical appendix 2 to "Sound and Space in Renaissance Venice: Music, Architecture, Acoustics." by D. Howard and L. Moretti. London: Yale University Press, 2009.

282. Bonsi, D., Goia, A., Longair, M.S. and Moretti, L. 2009. "Simulating the Acoustics of the Incurabili". Technical appendix 3 to "Sound and Space in Renaissance Venice: Music, Architecture, Acoustics." by D. Howard and L. Moretti. London: Yale University Press, 2009.

283. Longair, M.S. 2009. "Galilean Reflections on Modern Cosmology" in "of Modern Cosmology: Galileo's Legacy" (eds. D'Onofrio, M. and Burigana, C.). Berlin: Springer-Verlag.

284. Longair, M.S. 2009. "History of Astronomical Discoveries", *Experimental Astronomy*, 241-259.

285. Longair, M.S. 2009. "Moscow 1968-1969". In "Finding the Radiation from the Big Bang" eds. P. J. E. Peebles and R. B. Partridge, Princeton, Princeton University Press (to be published).

286. Longair, M.S. 2009. "Cambridge Cosmology in the 1950s and 1960s". In "Finding the Radiation from the Big Bang" eds. P. J. E. Peebles and R. B. Partridge, Princeton, Princeton University Press (to be published).

287. Longair, M.S. and Waldram, J.R. 2009. "Sir Alfred Brian Pippard. 7 September 1920 — 21 September 2008", *Biographical Memoirs of Fellows of the Royal Society*, Vol. 55, 201-220.

## 2011

288. Longair, M.S. 2011. "Vitali Lazarevich Ginzburg", *Biographical Memoirs of Fellows of the Royal Society*, Vol. 57, (in press).

289. Longair, M.S. 2011. "John Evan Baldwin", *Biographical Memoirs of Fellows of the Royal Society*, Vol. 57, (in press).