

## 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. This has been translated into many languages.
- 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 (rewritten 2005).

**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).

**B19. High Energy Astrophysics:** 2011. (consolidated new edition) M.S. Longair. Cambridge: Cambridge University Press (third edition).

**B20. Quantum Concepts in Physics:** 2013. M.S. Longair. Cambridge: Cambridge University Press

**B21. Towards a Science-led One ESA: 2014.** M.S. Longair and four other authors. ESA Publications.

#### **In Preparation**

**B22. Maxwell's Enduring Legacy: A Scientific History of the Cavendish Laboratory:** 2016. Cambridge: Cambridge University Press

### **3. 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**

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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.

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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  $\gamma$ -ray 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.

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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.

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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.
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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.
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