

Jayant V. Narlikar

LIST OF PUBLICATIONS - I

Research Publications

A : *Publications in research journals*

B : *Publications in conference proceedings, festschrifts etc.*

C : *Review articles*

1961

- 1A On the counting of radio sources in the steady-state cosmology
F. Hoyle and **J.V. Narlikar**
Monthly Notices of the Royal Astronomical Society, **123**, 133
- 2B Rotating Universes
J.V. Narlikar
Evidence for Gravitational Theories, Proceedings of the Enrico Fermi Summer School at Varenna, Course XX, Ed. C. Miller (Academic Press), 222

1962

- 3A Steady state model and the ages of galaxies
F. Hoyle and **J.V. Narlikar**
The Observatory, **82**, 13
- 4A Neutrinos and the arrow of time in cosmology
J.V. Narlikar
Proceedings of the Royal Society, **A270**, 553
- 5A On the counting of radio sources in the steady-state cosmology, II
F. Hoyle and **J.V. Narlikar**
Monthly Notices of the Royal Astronomical Society, **125**, 13
- 6B Mach's principle and the creation of matter
F. Hoyle and **J.V. Narlikar**
Proceedings of the Royal Society, **A270**, 334: A discussion on the present state of relativity

1963

- 7A Newtonian universes with shear and rotation
J.V. Narlikar
Monthly Notices of the Royal Astronomical Society, **126**, 203
- 8A Mach's principle and the creation of matter
F. Hoyle and **J.V. Narlikar**
Proceedings of the Royal Society, **A273**, 1
- 9A Time symmetric electrodynamics and the arrow of time in cosmology
F. Hoyle and **J.V. Narlikar**
Proceedings of the Royal Society, **A277**, 1

1964

- 10A Electromagnetic waves from very dense stars
F. Hoyle, **J.V. Narlikar** and J.A. Wheeler
Nature, **203**, 914
- 11A On the avoidance of singularity in C-field cosmology
F. Hoyle and **J.V. Narlikar**
Proceedings of the Royal Society, **A278**, 465
- 12A C-field as a direct particle field
F. Hoyle and **J.V. Narlikar**
Proceedings of the Royal Society, **A282**, 178
- 13A On the gravitational influence of direct particle fields
F. Hoyle and **J.V. Narlikar**
Proceedings of the Royal Society, **A282**, 184
- 14A A new theory of gravitation
F. Hoyle and **J.V. Narlikar**
Proceedings of the Royal Society, **A282**, 191
- 15A On the behaviour of radiation near massive bodies
J. Faulkner, F. Hoyle and **J.V. Narlikar**
The Astrophysical Journal, **140**, 1100
- 16B Neutrinos and the absorber theory of radiation
J.V. Narlikar
Proceedings on Theory of Gravitation, Warsaw Conference on General Relativity and Gravitation, Ed. L. Infeld (Gauthier-Villars), 366

1965

- 17A The direction of time
J.V. Narlikar
The British Journal for the Philosophy of Science, **XV**, 281

1966

- 18A On Newtonian universes
J.V. Narlikar
Monthly Notices of the Royal Astronomical Society, **131**, 501
- 19A On the effects of the non-conservation of baryons in cosmology
F. Hoyle and **J.V. Narlikar**
Proceedings of the Royal Society, **A290**, 143
- 20A A radical departure from the 'steady state' concept in cosmology
F. Hoyle and **J.V. Narlikar**
Proceedings of the Royal Society, **A290**, 162
- 21A On the formation of elliptical galaxies
F. Hoyle and **J.V. Narlikar**
Proceedings of the Royal Society, **A290**, 177
- 22A A conformal theory of gravitation
F. Hoyle and **J.V. Narlikar**
Proceedings of the Royal Society, **A294**, 138
- 23A Role of the acceleration in relativistically expanding
objects and its significance for the intensity variations
in quasistellar sources
J.V. Narlikar
Nature, **212**, 1337
- 24C Cosmological models and their observational validation
W. Davidson and **J.V. Narlikar**
Reports on Progress in Physics, **XXIX**, 539

1967

- 25A On a wavefunction picture for the direct particle theory of
gravitation and electromagnetism
F. Hoyle and **J.V. Narlikar**
Proceedings of the Royal Society, **A299**, 188

- 26A Microwave background in a steady-state universe
J.V. Narlikar and N.C. Wickramasinghe
Nature, **216**, 43
- 27B Time-symmetrical electrodynamics and cosmology
F. Hoyle and **J.V. Narlikar**
Nature of Time, Proceedings of the Workshop at Cornell
University, Ed. T. Gold (Cornell University), 25

1968

- 28A On the general correspondence between field theories and the
theories of direct interparticle action
J.V. Narlikar
Proceedings of Cambridge Philosophical Society, **64**, 1071
- 29A Interpretation of the cosmic microwave background
J.V. Narlikar and N.C. Wickramasinghe
Nature, **217**, 1235
- 30A Pulsed radio sources
F. Hoyle and **J.V. Narlikar**
Nature, **218**, 123
- 31A Cosmology and quantum electrodynamics
F. Hoyle and **J.V. Narlikar**
Nature, **219**, 340
- 32A Cosmology and electrodynamics
F. Hoyle and **J.V. Narlikar**
Nature, **220**, 893
- 33B Recent developments in cosmology
J.V. Narlikar
Symposia on Theoretical Physics and Mathematics, Ed. A.
Ramakrishnan, (Plenum Press), **6**, 65

1969

- 34A Cosmology and quantum electrodynamics
F. Hoyle and **J.V. Narlikar**
Nature, **222**, 1040
- 35A Electrodynamics of direct interparticle action I : The
quantum mechanical response of the universe
F. Hoyle and **J.V. Narlikar**
Annals of Physics, **54**, 207

1970

- 36A Biscalar and bivector Green's functions in de sitter space time
J.V. Narlikar
Proceedings of the National Academy of Sciences, U.S.A., **65**, 483
- 37A Quantization of Wheeler-Feynman electrodynamics
F. Hoyle and **J.V. Narlikar**
Nature, **225**, 1233
- 38A Effect of quantum conditions in a Friedmann cosmology
F. Hoyle and **J.V. Narlikar**
Nature, **228**, 544
- 39B Time asymmetry in electrodynamics and cosmology
J.V. Narlikar
Pure and Applied Chemistry, **22**, 449

1971

- 40A Electrodynamics of direct interparticle action II :
Relativistic treatment of radiative processes
F. Hoyle and **J.V. Narlikar**
Annals of Physics, **62**, 44
- 41A On the nature of mass
F. Hoyle and **J.V. Narlikar**
Nature, **233**, 41

1972

- 42A On the relation of infinitesimal particle propagator to the nature of mass
F. Hoyle and **J.V. Narlikar**
Il Nuovo Cimento, **7A**, 242
- 43A A direct particle theory of weak interactions
F. Hoyle and **J.V. Narlikar**
Il Nuovo Cimento, **7A**, 262
- 44A Cosmological models in a conformally invariant gravitational
theory-I : The Friedmann model
F. Hoyle and **J.V. Narlikar**
Monthly Notices of the Royal Astronomical Society, **155**, 305
- 45A Cosmological models in a conformally invariant gravitational theory-II : A new model
F. Hoyle and **J.V. Narlikar**
Monthly Notices of the Royal Astronomical Society, **155**, 323

- 46A The mass difference between the muon and the electron
F. Hoyle and **J.V. Narlikar**
Nature, **238**, 86
- 47A Path amplitudes for Dirac particles
J.V. Narlikar
Journal of the Indian Mathematical Society, **36**, 9
- 48B Conformal invariance in physics and cosmology
F. Hoyle and **J.V. Narlikar**
Cosmology, Fusion and Other Matters, The George Gamow
Commemoration Volume, Ed. F. Reines (Colorado Associated
University Press), 15.
- 49B High energy phenomena in astrophysics
J.V. Narlikar
Proceedings of the First Symposium on High Energy Physics
at IIT, Bombay, Eds. P.K. Malhotra, V. Gupta and
S.N. Ganguli, (D.A.E.), 479

1973

- 50A Singularity and matter creation in cosmological models
J.V. Narlikar
Nature (Physical Science), **242**, 135
- 51B A new source of the origin of high energy cosmic rays
J.V. Narlikar
Proceedings of the 13th International Cosmic Ray Conference
at Denver, Ed. R.L. Chasson (University of Denver), 5, 3250

1974

- 52A Lepton creation and the Dirac relationship between fundamental constants
J.V. Narlikar
Nature, **247**, 99
- 53A Minibangs in cosmology and astrophysics
J.V. Narlikar
Pramana, **2**, 158
- 54A Central redshifts from static massive spheres
P.K. Das and **J.V. Narlikar**
Bulletin of the Astronomical Society of India, **2**, 12
- 55A Stress energy tensors in the theory of direct interparticle action
J.V. Narlikar
Journal of Physics, **A7**, 1274

- 56A High energy radiation from white holes
J.V. Narlikar, K.M.V. Apparao and N. Dadhich
Nature, **251**, 590
- 57A Gravitational Searchlight and its astrophysical applications
S.M. Chitre, **J.V. Narlikar** and R.C. Kapoor
Nature, **252**, 460
- 58B Thermodynamics and cosmology
J.V. Narlikar
Modern Developments in Thermodynamics Ed. B. Gal-Or
(John Wiley), 53
- 59B Redshifts of quasistellar objects
J.V. Narlikar
Astrophysics Symposium at PRL, Ahmedabad
- 60B The relevance of infrared and millimetre wave astronomy to
cosmology
J.V. Narlikar
*Proceedings of Seminar on Infrared and millimetre wave
Astronomy*, Hyderabad, Eds. S.M. Alladin and K.D. Abhyankar
(CASA, Hyderabad), 1
- 61B Electrodynamics and cosmology
J.V. Narlikar
*High Energy Astrophysics and its Relation to Elementary
Particle Physics*, Eds. K. Brecher and G. Setti
(MIT) Press), 345

1975

- 62A Neutral currents and the cooling of neutron stars
S.M. Chitre, **J.V. Narlikar** and S. Ramadurai
Astrophysics and Space Science, **33**, L45
- 63A Central gravitational redshifts from static massive objects
P.K. Das and **J.V. Narlikar**
Monthly Notices of the Royal Astronomical Society, **171**, 87
- 64A White holes and high energy astrophysics
J.V. Narlikar and K.M.V. Apparao
Astrophysics and Space Science, **35**, 321
- 65A A dust model for the cosmic microwave background
N.C. Wickramasinghe, M.G. Edmunds, S.M. Chitre,
J.V. Narlikar and S. Ramadurai
Astrophysics and Space Science, **35**, L9

- 66A Blueshift and spectral features of the gravitational searchlight
S.M. Chitre, **J.V. Narlikar** and R.C. Kapoor
Journal of General Relativity and Gravitation, **6**, 477
- 67A Action and reaction in the theories of direct interparticle
action
J.V. Narlikar
Annals of Physics, **95**, 496
- 68A QSO redshifts and the steady state cosmology
J.V. Narlikar and P.K. Das
Nature, **258**, 660
- 69B Astronomy and laboratory physics
J.V. Narlikar
Science and Human Progress, Kosambi Commemoration Volume,
(Popular Prakashan), 233.
- 70B The gravitational searchlight effect
S.M. Chitre, **J.V. Narlikar** and R.C. Kapoor
Abstract, ASI Meeting at Kodaikanal, *Bulletin of the
Astronomical Society of India*, **3**, 33

1976

- 71A The log N-log S curve for 3CR radio galaxies and the problem
of identifying faint radio galaxies
G.R. Burbidge and **J.V. Narlikar**
Astrophysical Journal, **205**, 329
- 72A Tachyons and cosmology
J.V. Narlikar and E.C.G. Sudarshan
Monthly Notices of the Royal Astronomical Society, **175**, 105
- 73A Astrophysical applications of the gravitational searchlight
S.M. Chitre and **J.V. Narlikar**
Journal of General Relativity and Gravitation, **7**, 233
- 74A On the maximization of the central gravitational redshift of
a Schwarzschild sphere with a given surface redshift
J.V. Narlikar and P.K. Das
Journal of General Relativity and Gravitation, **7**, 769
- 75A Tachyon trajectories in Schwarzschild's space-time
J.V. Narlikar and S.V. Dhurandhar
Pramana, **6**, 388

- 76A The effect of intergalactic dust on the measurement of the cosmological deceleration parameter q_0
S.M. Chitre and **J.V. Narlikar**
Astrophysics and Space Science, **44**, 101
- 77A A New test of the cosmological nature of QSO redshifts
J.V. Narlikar and S. Ramadurai
Nature, **264**, 732
- 78B Limits on a microwave background without the big bang
J.V. Narlikar, M.G. Edmunds and N.C. Wickramasinghe
Far Infrared Astronomy, Proceedings of the RAS Far Infrared Astronomy Conference held at Windsor, U.K., Ed. M. Rowan-Robinson (Pergamon), 131
- 79B Noncosmological redshifts
J.V. Narlikar
Decalages vers le Rouge et Expansion de L'Univers/ L'Evolution des Galaxies et ses Implications Cosmologiques. Proceedings of the IAU/CNRS Colloquium, Eds. C. Balkowski and B.E. Westerlund (CNRS, Paris), 497
- 80B The angular size-flux density relation for extragalactic radio sources
J.V. Narlikar
Proceedings of the IAU Symposium No. 74 on *Radioastronomy and Cosmology*, Ed. D.L. Jauncey (D. Reidel), 132
- 81B The role of general relativity in astrophysics
J.V. Narlikar
Proceedings of the International Dedication Seminar, Banaras Hindu University, (B.H.U.), 1

1977

- 82A Spacetime singularities and conformal gravity
J.V. Narlikar and A.K. Kembhavi
Il Nuovo Cimento Letters, **19**, 517
- 83A Two astrophysical applications of conformal gravity
J.V. Narlikar
Annals of Physics, **107**, 325
- 84A Applications of statistical techniques to the angular size-flux density relation for extragalactic radio sources
J.V. Narlikar and S.M. Chitre
Monthly Notices of the Royal Astronomical Society, **180**, 525
- 85A Quantum uncertainty in the final state of gravitational collapse
J.V. Narlikar
Nature, **269**, 129

- 86B Anomalous redshifts and conformal gravity
J.V. Narlikar
Gravity Research Foundation Essay awarded Honorary Mention
- 87B Quantum uncertainty in gravitational collapse
J.V. Narlikar
Abstracts-Volume, GR-8, Waterloo, (University of Waterloo), 259
- 88B Zero-mass surfaces and space-time singularities
J.V. Narlikar
Abstracts-Volume, GR-8, Waterloo, (University of Waterloo), 260

1978

- 89A The angular appearance of white holes
J.V. Narlikar and R.C. Kapoor
Astrophysics and Space Science, 53, 155
- 90A Quantum fluctuations in gravitational collapse and cosmology
J.V. Narlikar
Monthly Notices of the Royal Astronomical Society, 183, 159
- 91A Black holes as detectors of tachyons
J.V. Narlikar and S.V. Dhurandhar
Il Nuovo Cimento Letters, 23, 513
- 92A Tachyons and the second law of black hole physics
S.V. Dhurandhar and **J.V. Narlikar**
Journal of General Relativity and Gravitation, 9, 1089
- 93B The role of white holes in astrophysics
J.V. Narlikar
Proceedings of the International Conference on *Frontiers of Theoretical Physics* at New Delhi, Ed. F.C. Auluck, L.S. Kothari, V.S. Nanda (Macmillan), 63
- 94B Tachyons and cosmology
J.V. Narlikar
Proceedings of the S.N. Bose Symposium on General Relativity and Unified Field Theory, Ed. B. Dutta (S.N. Bose Institute), 35
- 95B Quantum fluctuations near the classical space-time singularity
J.V. Narlikar
Gravity Research Foundation Essay awarded honorary mention.

- 96B The structure of the universe and its relation to life supporting environment
J.V. Narlikar
Proceedings of the Workshop on *Chemical Evolution, Origin of life and Evolution of Life Processes*, Hyderabad, Ed. M.S. Chadha (I.S.R.O.), 9

1979

- 97A Hawking process and the cosmic microwave background in a steady state universe
J.V. Narlikar and N.C. Rana
Physics Letters, **A72**, 75
- 98A On the apparent superluminal separation of radio sources components
S.M. Chitre and **J.V. Narlikar**
Monthly Notices of the Royal Astronomical Society, **187**, 655
- 99A Quantum fluctuations near the classical space-time singularity
J.V. Narlikar
Journal of General Relativity and Gravitation, **10**, 883
- 100B Inertia and cosmology in Einstein's relativity
J.V. Narlikar
Relativity, Quanta and Cosmology, Einstein Centenary Volume II. Eds. M. Pantaleo and F. de Finis (Johnson Reprint Corporation), 493
- 101B Gravitational screens and the apparent superluminal separation in quasars
J.V. Narlikar and S.M. Chitre
Gravity Research Foundation Essay awarded honorary mention.

1980

- 102A Gravitational screens and superluminal separation in quasars
S.M. Chitre and **J.V. Narlikar**
The Astrophysical Journal, **235**, 335
- 103A Cosmological tests of the Hoyle-Narlikar conformal gravity
V.M. Canuto and **J.V. Narlikar**
The Astrophysical Journal, **236**, 6
- 104A Cosmic microwave background spectrum and G-varying cosmology
J.V. Narlikar and N.C. Rana
Physics Letters, **A77**, 219
- 105A Anomalous redshifts of quasi-stellar objects
J.V. Narlikar and P.K. Das
The Astrophysical Journal, **240**, 401

- 106A The diffuse gamma-ray background in the Hoyle-Narlikar cosmology
V.M. Canuto, J.R. Owen and **J.V. Narlikar**
Astronomy and Astrophysics, **92**, 26
- 107B Anomalous redshifts of QSOs
J.V. Narlikar and P.K. Das
Objects of High Redshifts, Proceedings of IAU Symposium
No. 92 at Los Angeles Eds. G.O. Abell and P.J.E. Peebles
(Reidel), 127
- 108B Cosmology in the Post-Einstein Era
J.V. Narlikar
Gravitation, Quanta and the Universe, Proceedings of the
Einstein Centenary Symposium at Ahmedabad. Eds.
A.R. Prasanna, J.V. Narlikar and C.V. Vishveshwara (Wiley
Eastern), 93
- 109B Quantum fluctuations in the Schwarzschild spacetime
J.V. Narlikar and T. Padmanabhan
Abstracts Volume, GR-9, Jena, 580
- 110C Nonstandard cosmologies
J.V. Narlikar and A.K. Kembhavi
Fundamentals of Cosmic Physics, **6**, 1

1981

- 111A An empirical approach to cosmology
J.V. Narlikar and G.R. Burbidge
Astrophysics and Space Sciences, **74**, 111
- 112A A pi-less area
J.V. Narlikar
The Mathematical gazette, **65**, 29
- 113A Quantum conformal fluctuations near the classical spacetime singularity
J.V. Narlikar
Foundations of Physics, **11**, 473
- 114A Quantum fluctuations in the conformally flat and the Schwarzschild spacetimes
T. Padmanabhan and **J.V. Narlikar**
General Relativity and Gravitation, **13**, 669
- 115A Stationary states in a quantum gravity model
T. Padmanabhan and **J.V. Narlikar**
Physics Letters, **84A**, 361

- 116A A Doppler theory of quasars
J.V. Narlikar and M.G. Edmunds
Journal of Astrophysics and Astronomy, **2**, 289

1982

- 117A Massive Oscillators as cosmic energy sources
K.M.V. Apparao and **J.V. Narlikar**
Astrophysics and Space Science, **81**, 397
- 118A Quantum conformal fluctuations in a singular spacetime
T. Padmanabhan and **J.V. Narlikar**
Nature, **295**, 677
- 119A Observational limitations of the Doppler theory of quasars
J.V. Narlikar and K. Subramaniam
The Astrophysical Journal, **260**, 469
- 120A Black hole physics in globally hyperbolic space-times
P.S. Joshi and **J.V. Narlikar**
Pramana, **18**, 385
- 121A On a nonlinear and Lorentz-invariant version of Newtonian gravitation
J.J. Rawal and **J.V. Narlikar**
Journal of Astrophysics and Astronomy, **3**, 393
- 122A Nucleosynthesis in bouncing cosmologies
J.V. Narlikar and K.M.V. Apparao
Astrophysics and Space Sciences, **87**, 333
- 123B Statistical techniques in astronomy
J.V. Narlikar
Sankhya, **B44**, 125, Convocation Address at ISI, Calcutta

1983

- 124A Cosmologies with variable gravitational constant
J.V. Narlikar
Foundations of Physics, **13**, 311, (The Dirac Festschrift Volume)
- 125A Cosmic energy machines
J.V. Narlikar
Current Science, **52**, 227
- 126A The contribution of quasistellar objects to the cosmic X-ray background
J.V. Narlikar and G.R. Burbidge
Astronomy and Astrophysics, **118**, 154

- 127A Elimination of the standard big bang singularity and particle horizon through quantum conformal fluctuations
J.V. Narlikar
Physics Letters, **96A**, 107
- 128A A single exhaust model for backward emission in Doppler quasars
J.V. Narlikar and K. Subramaniam
The Astrophysical Journal, **273**, 44
- 129A The problems of singularity, particle horizon and flatness in quantum cosmology
J.V. Narlikar and T. Padmanabhan
Annals of Physics, **150**, 289
- 130A Cosmic microwave background spectrum in the Hoyle-Narlikar cosmology
J.V. Narlikar and N.C. Rana
Physics Letters, **99A**, 75
- 131A Quantum cosmology as a cure of three ailments of classical cosmology
T. Padmanabhan and **J.V. Narlikar**
Bulletin of the Astronomical Society of India, **11**, 297
- 132B Stationary states in quantum cosmology.
J.V. Narlikar
Mathematics Today, **1**, 1 (Volume dedicated to Professor P.C. Vaidya on his 60th birthday)
- 133B The Quasars Q 2345 + 007 A,B and 3C 273 : Gravitational Lenses?
K. Subramanian, D. Narasimha, S.M. Chitre and **J.V. Narlikar**
in *Quasars and Gravitational Lenses*, ed. J.P. Swings
(Liege University Press, Liege), 78
- 134B A single exhaust model for backward emission in fast moving quasars
K. Subramanian and **J.V. Narlikar**
Quasars and Gravitational Lenses, ed. J.P. Swings
(Liege University Press, Liege), 389
- 135B Radiation backgrounds and their cosmological implications
J.V. Narlikar
Proceedings of the 28th International Cosmic Ray Conference,
Bangalore, Ed. P.V. Ramana Murthy (T.I.F.R.), **12**, 9
- 136C Quantum cosmology via path integrals
J.V. Narlikar and T. Padmanabhan
Physics Reports, **C100**, 151

1984

- 137A Nonconservation of baryons in cosmology-revisited
J.V. Narlikar
Journal of Astrophysics and Astronomy, **5**, 67

- 138A The vanishing likelihood of spacetime singularity in quantum conformal cosmology
J.V. Narlikar
Foundations of Physics, **14**, 443
- 139A Faster-than-light motion in quasars
J.V. Narlikar and S.M. Chitre
Journal of Astrophysics and Astronomy, **5**, 495
- 140A The radiation of microwaves and infrared by slender graphite needles
F. Hoyle, **J.V. Narlikar** and N.C. Wickramasinghe
Astrophysics and Space Science, **103**, 371
- 141A 3C 273 : a gravitationally lensed quasar?
S.M. Chitre, D. Narasimha, **J.V. Narlikar** and K. Subramanian
Astronomy and Astrophysics, **139**, 289
- 142B Noncosmological redshifts
Presidential Address to the Ninth Meeting of the ASI at Hyderabad.
J.V. Narlikar
Bulletin of the Astronomical Society of India, **12**, 1
- 143B A new approach to quantum cosmology
J.V. Narlikar
Proceedings of the First Asia-Pacific Physics Conference,
Singapore, Eds. A. Arima, C.K. Chew, T. Ninomiya, P.P. Ong, K.K. Phua, K.L.
Tan (World Scientific), 619
- 144B Quantum fluctuations near the classical spacetime singularity
J.V. Narlikar
Gravitation and Relativistic Astrophysics, Proceedings of the Ahmedabad workshop,
Eds. A.R. Prasanna, J.V. Narlikar and C.V. Vishveshwara (World Scientific), 135
- 145B Inputs from astronomy into fundamental studies
J.V. Narlikar
Fundamental Studies and the Future of Science,
(Proceedings of the Inaugural Seminar, IFS, Sri Lanka)
Ed. N.C. Wickramasinghe (University College, Cardiff Press), 129

1985

- 146A Counter images in closed elliptical Friedmann universes
J.V. Narlikar and T.R. Seshadri
The Astrophysical Journal, **288**, 43
- 147A The big bang and quantum cosmology
J.V. Narlikar
Current Science, **54**, 825

- 148A Creation field cosmology : a possible solution to singularity, horizon and flatness problems
J.V. Narlikar and T. Padmanabhan
Physical Review, **D32**, 1928
- 149A On a nonlinear and Lorentz-invariant version of Newtonian gravitation-II
J.V. Narlikar and T. Padmanabhan
Journal of Astrophysics and Astronomy, **6**, 171
- 150A Newtonian N-body calculations of the advance of Mercury's perihelion
J.V. Narlikar and N.C. Rana
Monthly Notices of the Royal Astronomical Society, **213**, 657
- 151A The statistical significance of close pairs of QSOs
G.R. Burbidge, **J.V. Narlikar** and A. Hewitt
Nature, **317**, 413
- 152A The statistical significance of a large quasar inhomogeneity in the sky
J.V. Narlikar and K. Subramaniam
Astronomy and Astrophysics, **151**, 264
- 153A The volume of a tetrahedron
J.V. Narlikar
Mathematical Education, **2**, 38
- 154B Did the universe have an origin?
J.V. Narlikar
(The S.N. Bose Memorial Lecture of the Indian Physical Society, Calcutta.)
Proceedings of the Indian Association for Cultivation of Science, **68B**, 7
- 155B Some aspects of modern cosmology
J.V. Narlikar
Proceedings of the Second Asia-Pacific Regional Meeting of the IAU at Bandung, Ed. B. Hidayat and M.W. Feast (Tira Pustaka, Jakarta), 281
- 156B The relationship of local time asymmetry to cosmology
J.V. Narlikar
Living State II. (Proceedings of the Second International Seminar on Living State at Bhopal) Ed. R.K. Mishra (World Scientific), 613
- 157B Quantum cosmology and the early universe
J.V. Narlikar
The Cosmic Background Radiation and Fundamental Physics
(Proceedings of the Third Rome Meeting on Astrophysics).
Ed. F. Melchiorri (Italian Physical Society), 199
- 158B Some conceptual problems in general relativity and cosmology
J.V. Narlikar
A Random Walk in Relativity and Cosmology
(Vaidya-Raychaudhari Festschrift) Eds. N.K. Dadhich, J. Krishna Rao,
J.V. Narlikar and C.V. Vishveshwara (Wiley Eastern), 171

- 159B Backward emission in quasars
J.V. Narlikar
Extragalactic Energetic Sources. (Proceedings of the Bangalore Winter School) Ed. V.K. Kapahi (Indian Academy of Sciences), 135
- 160B The very early universe : problems and perspectives
(Presidential Address to the Tenth Meeting of the Astronomical Society of India at Bombay)
J.V. Narlikar
Bulletin of the Astronomical Society of India, **13**, 1

1986

- 161A Conformal quantization and space-time singularity
P.S. Joshi and **J.V. Narlikar**
International Journal of Modern Physics, **A1**, 243
- 162A The luminosity volume test and the local hypothesis of quasars
F. Hoyle and **J.V. Narlikar**
Journal of Astrophysics and Astronomy, **7**, 99
- 163A Temperature fluctuations of cosmic microwave background induced by gravitational lensing
S.M. Chitre, **J.V. Narlikar** and T. Padmanabhan
Physics Letters, **A117**, 285
- 164B Noncosmological redshifts
J.V. Narlikar
Quasars, (Proceedings of IAU Symposium No. 119 at Bangalore)
Eds. G. Swarup and V.K. Kapahi (Reidel), 463
- 165B Baryon non-conservation and Cosmology
J.V. Narlikar
Cosmic Pathways. (Festschrift to Professor B.V. Sreekantan)
Ed. R. Cowsik (Tata McGraw Hill), 311
- 166B The lighter side of gravity
J.V. Narlikar
Cosmos - an Educational Challenge.
(Proceedings of the GIREP Conference in Copenhagen) ESA SP-253, 81

1987

- 167B Alternative cosmologies
J.V. Narlikar
Observational Cosmology. (Proceedings of IAU Symposium No. 124 at Beijing)
Eds. G. Burbidge, A. Hewitt and L.Z. Fang (Reidel), 447

- 168B Nonstandard cosmologies
J.V. Narlikar
Proceedings of the Vth Brazilian School of Cosmology and Gravitation at Rio de Janeiro, Ed. M. Novello (World Scientific), 152

1988

- 169A The counting of radio sources: is evolution necessary?
P. DasGupta, **J.V. Narlikar** and G.R. Burbidge
The Astronomical Journal, **95**, 5
- 170A The Schwarzschild solution: some conceptual difficulties
J.V. Narlikar and T. Padmanabhan
Foundations of Physics, **18**, 659
- 171B Noncosmological redshifts: theoretical alternatives
J.V. Narlikar
New Ideas in Astronomy (Proceedings of H.C. Arp's Sixtieth Birthday Symposium at Venice) Eds. F. Bertola, B. Madore and J. Sulentic (Cambridge), 243
- 172C Non-standard cosmologies
J.V. Narlikar and A.K. Kembhavi
Handbook of Astronomy, Astrophysics and Geophysics, Volume II
Eds. V.M. Canute and B.G. Elmegreen (Gordon and Breach), P 301

1989

- 173A A Doppler interpretation for close pairs and compact groups of quasars
D. Narasimha and **J.V. Narlikar**
The Astrophysical Journal, **338**, 44.
- 174B Contributions of astronomy to our understanding of physics
INSA - Vainu Bappu Award Lecture at Madurai
J.V. Narlikar
Proceedings of the Indian National Science Academy, **A55**, 1
- 175B The role of quantum phenomena in our understanding of the universe
J.V. Narlikar
Kosmos : La Cosmologia tra scienza e filosofia
Ed: Umberto Curi (Gabriele Corbo), 149
- 176B Did the universe originate in a big bang?
J.V. Narlikar
Cosmic Perspectives (Vainu Bappu Memorial Volume), Eds. S.K. Biswas,
D.C. Mallik and C.V. Vishveshwara (Cambridge), 109

- 177B Relics of the big bang
J.V. Narlikar
Gravitation, Gauge Theories and the Early Universe.
 Eds. B.R. Iyer, N. Mukunda and C.V. Vishveshwara (Kluwer). 59
- 178B The theories of relativity
J.V. Narlikar
Horizons of Physics, Ed. A.W. Joshi (Wiley Eastern), 1
- 179B Applied mathematics : a no man's land?
 (P.L. Bhatnagar Memorial Lecture at the Conference of the Indian
 Mathematical Society)
J.V. Narlikar
Mathematics Student, **57**, 31
- 180C Recent trends in general relativity and cosmology
 (80th Birthday Festschrift for V.V. Narlikar)
J.V. Narlikar
Progress of Mathematics, **23**, 1
- 181C Noncosmological redshifts
J.V. Narlikar
Space Science Reviews, **50**, 523

1990

- 182A The Extragalactic universe : an alternative view
 H.C. Arp, G. Burbidge, F. Hoyle, **J.V. Narlikar** and N.C. Wickramasinghe
Nature, **346**, 807
- 183A Associations between quasi-stellar objects and galaxies
 G. Burbidge, A. Hewitt, **J.V. Narlikar** and P. DasGupta
The Astrophysical Journal, Supplement, **74**, 675
- 184B Curriculum for the training of astronomers
J.V. Narlikar
The Teaching of Astronomy. (Proceedings of the IAU Colloquium
 No. 105 at Williamstown)
 Eds. J.M. Pasachoff and J.R. Percy (Cambridge), 7
- 185B A series of astronomy programmes for television in India
J.V. Narlikar
The Teaching of Astronomy. (Proceedings of the IAU Colloquium No. 105
 at Williamstown)
 Eds. J.M. Pasachoff and J.R. Percy (Cambridge), 342.

186B Quantum conformal cosmology
J.V. Narlikar
Developments in General Relativity, Astrophysics and Quantum theory,
(A Jubilee volume in Honour of Nathan Rosen),
Eds. F.I. Cooperstock, L.P. Horwitz and J. Rosen (Institute of Physics,
Bristol), 89.

187B Binary stars as tests of gravity theory
J.V. Narlikar
Bulletin of the Astronomical Society of India, **18**, 171

1991

188A Does a possible laboratory observation of a frequency anisotropy of light result
from a non-zero photon mass m ?
J.V. Narlikar, J.C. Pecker and J.P. Vigiér
Physics Letters A, **154**, 203

189A Some consequences of a spatially varying cosmological constant in a
spherically symmetric distribution of matter
J.V. Narlikar, J.C. Pecker and J.P. Vigiér
Journal of Astrophysics and Astronomy, **12**, 7

190A The role of quantum phenomena in our understanding of the universe
J.V. Narlikar
Memorie della Societa Astronomica Italiana, **62**, 519

191B On doing cosmology with a large optical telescope
J.V. Narlikar
Proceedings of the Workshop on Large Optical Telescopes
at the Indian Institute of Astrophysics, 6

192C Sixty years of cosmology
J.V. Narlikar
Glimpses of Science in India, ed. U.S. Srivastava (Malhotra Publishing House,
New Delhi), 409

193C Inflation for Astronomers
J.V. Narlikar and T. Padmanabhan
Annual Reviews of Astronomy and Astrophysics, **29**, 325

1992

194A Statistical tests of peaks and periodicities of the observed redshift distribution of
quasi-stellar objects
D. Duari, Patrick DasGupta and **J.V. Narlikar**
The Astrophysical Journal, **384**, 35

- 195A Big bang continued
H.C. Arp, G. Burbidge, F. Hoyle and **J.V. Narlikar**
Nature, **357**, 287
- 196A The concepts of “beginning” and “creation” in cosmology
J.V. Narlikar
Philosophy of Science, **59**, 361
- 197A The mystery of redshift periodicities
J.V. Narlikar
Journal of Indian Institute of Science, **72**, 273
- 198B Reference frames in cosmology
J.V. Narlikar
Teaching About Reference Frames from Copernicus to Einstein (Girep'91 Proceedings)
Eds H. Kuhnelt, M. Berndt, M. Straszel and J. Turlo, (Nicholas Copernicus University Press : Torun), 112
- 199B Strengths and weaknesses of the big bang cosmology
J.V. Narlikar
(Proceedings of the Symposium of the Indian Academy of Sciences at Pune in 1991)
Bulletin of the Astronomical Society of India, **20**, 1

1993

- 200A Flat spacetime cosmology : a unified framework for extragalactic redshifts
J.V. Narlikar and H.C. Arp
The Astrophysical Journal, **405**, 51
- 201A A quasi-steady state cosmological model with creation of matter
F. Hoyle, G. Burbidge and **J.V. Narlikar**
The Astrophysical Journal, **410**, 437
- 202A On the removal of divergences in electrodynamics : a global point of view
F. Hoyle and **J.V. Narlikar**
Proceedings of the Royal Society, **A442**, 469
- 203A Gravitational waves from mini-creation events
P. DasGupta and **J.V. Narlikar**
Monthly Notices of the Royal Astronomical Society, **264**, 489
- 204B A critical approach to cosmology
J.V. Narlikar
Advances in Gravitation and Cosmology (Proceedings of the ICGC-91)
Eds. B.R. Iyer, A.R. Prasanna, R.K. Varma and C.V. Vishveshwara
(Wiley Eastern : New Delhi), 251

- 205B The Saha equation and beyond
J.V. Narlikar
Meghnad Saha Birth Centenary Commemoration Volume, Ed. S.B. Karmohapatro
(Saha Institute of Nuclear Physics : Calcutta), 22
- 206B Quantum uncertainty and the response of the universe
J.V. Narlikar
Philosophy of Science : Perspectives from natural and social sciences,
Eds. J.V. Narlikar, I. Banga and C. Gupta (Indian Institute of Advanced Study :
Shimla), 69
- 207B An alternative cosmology
J.V. Narlikar
P.C. Vaidya Sanman Nidhi Trust Special Volume dedicated to Professor P.C. Vaidya
- 208C Sixty years of cosmology
J.V. Narlikar
Bombay Mathematical Colloquium, **9**, 15

1994

- 209A Astrophysical deductions from the quasi-steady state cosmology
F. Hoyle, G. Burbidge and **J.V. Narlikar**
Monthly Notices of the Royal Astronomical Society, **267**, 1007
- 210A Further astrophysical quantities expected in a quasi steady state universe
F. Hoyle, G. Burbidge and **J.V. Narlikar**
Astronomy and Astrophysics, **289**, 729
- 211A Spectral shifts in general relativity
J.V. Narlikar
American Journal of physics, **62**, 10, 903
- 212B Quasi-steady state cosmology
F. Hoyle, G. Burbidge and **J.V. Narlikar**
*IAU Symposium 159 : Multi-Wavelength Continuum Emission of
AGN*, T.J.-L. Courvoisier and A. Belcha, Dordrecht:Reidel, 293
- 213B The role of mathematics in physical sciences
J.V. Narlikar
Bangladesh Journal of Mathematical and Physical Sciences, **2**, 19
- 214B The pedagogical programmes in astronomy and astrophysics at IUCAA
J.V. Narlikar
*Abstracts of Poster Papers at the Joint Discussion 4: Current Developments in
Astronomy Education, IAU XXII Ind General Assembly at the Hague*, **D19**, 191

- 215B IUCAA as a facility in astronomy and astrophysics
J.V. Narlikar
Abstracts of Poster Papers at the Working Group 1: Problems of Astronomy in Africa, IAU XXIIInd General Assembly at the Hague, WG1.5, 281
- 216B Peaks and periodicities in the redshift distribution of quasi-stellar objects
D. Duari, P. DasGupta and **J.V. Narlikar**
Abstracts of Poster Papers in IAU Symposium 168, IAU XXIIInd General Assembly at the Hague, 142
- 217B Quasi-steady state cosmology
J.V. Narlikar
Proceedings of the 2nd Symposium of the Astronomical Society of Southern Africa, Eds. Water F. Wargan and Barbara Cunow, (University of South Africa), 1

1995

- 218A The basic theory underlying the quasi-steady state cosmology
F. Hoyle, G. Burbidge and **J.V. Narlikar**
Proc. Roy. Soc. Lond. A, 448, 191
- 219A The intervening galaxies hypothesis of the absorption spectra of quasi-stellar objects : some statistical studies
D. Duari and **J.V. Narlikar**
Int. J. Mod. Phys. D., 4, 367
- 220A The quasi-steady state cosmology : a note on criticisms by E.L. Wright
F. Hoyle, G. Burbidge and **J.V. Narlikar**
Monthly Notices of the Royal Astronomical Society, 277, L1
- 220aA The academy fellowship problem
J.V. Narlikar
Current Science, 69, 12, 969
- 221B Light nuclei in the quasi-steady state cosmological model
F. Hoyle, G. Burbidge and **J.V. Narlikar**
in *The Light Element Abundances* (Proceedings of the ESO-EPIC Workshop held in Elba) Ed. P. Crane, (Springer Verlag), 21
- 222B Problems of astro-particle physics in the quasi-steady state cosmology
J.V. Narlikar
Proceedings of PASCOS-94, Ed. Kameshwar C. Wali, (World Scientific), 335
- 223B Quasi-steady state cosmology
F. Hoyle, G. Burbidge and **J.V. Narlikar**
Proceedings of the VI Asian Pacific Regional Meeting of the IAU, Eds. V.K. Kapahi, N.K. Dadhich, G. Swarup and J.V. Narlikar, Journal of Astrophysics and Astronomy Supplement, 16, 87

- 224B Absorber theory of radiation in expanding universes
J.V. Narlikar
Proceedings of the India-Japan Seminar on Astronomy and Astrophysics,
 Ed. V. Krishan, *Bulletin of the Astronomical Society of India*, **23**, 259
- 225B Direct particle formulation of Mach's principle
J.V. Narlikar
Mach's Principle : From Newton's Bucket to Quantum Gravity
 Eds. J. Barbour and M. Pfister (Birkhauser), 250
- 226B The Saha Equation and Beyond
J.V. Narlikar
Astrophysics and Cosmology,
 Eds. B. Sinha and R.K. Moitra. (Narosa Publishing House),31
- 227B An alternative to big bang cosmology
J.V. Narlikar
Particle Physics and Cosmology at the Interface (Proceedings of the Fourth BCSPIN
 School at Puri, India, January 1-17, 1993) Eds J.Pati, P. Ghose and J. Maharana (World
 Scientific, Singapore), 443
- 228B How universal is Hubble's law?
J.V. Narlikar
Particle Physics and Cosmology at the Interface (Proceedings of the Fourth BCSPIN
 School at Puri, India, January 1-17, 1993) Eds J.Pati, P. Ghose and J. Maharana (World
 Scientific, Singapore), 459
- 229B The quasi-steady state cosmology
 F. Hoyle, G. Burbidge and **J.V. Narlikar**
Examining the Big Bang and Diffuse Background Radiations (Proceedings of the IAU
 Symposium No. 168) Eds. M. Kafatos and Y. Kondo, (Dordrecht, Reidel), 329
- 230B Peaks and periodicities in the redshift distribution of quasi stellar objects
 D. Duari and **J.V. Narlikar**
Examining the Big Bang and Diffuse Background Radiations (Proceedings of the IAU
 Symposium No. 168) Eds. M. Kafatos and Y. Kondo, (Dordrecht, Reidel), 555
- 231C Cosmology and action at a distance electrodynamics
 F. Hoyle and **J.V. Narlikar**
Reviews of Modern Physics, **67**, 113
- 232C How universal is Hubble's law?
J.V. Narlikar
Journal of the Indian Mathematical Society, **61**, 13
- 233C Astrophysics
J.V. Narlikar
 (Status Report for INSA, 1994)
Indian National Science Academy, Diamond Jubilee Publication
 Ed. Sudhanshu S. Jha, 65

1996

- 234A Crisis in cosmology: Observational constraints on Omega and H
J.S. Bagla, T. Padmanabhan and **J.V. Narlikar**
Comments on Astrophysics, **18**, 275
- 235A The quasi-steady state cosmology: analytical solutions of field
equations and their relationship to observations
Rainer Sachs, **J.V. Narlikar** and Fred Hoyle
Astronomy and Astrophysics, **313**, 703
- 236A The energy distribution for a spherically symmetric
isolated system in general relativity
A.N. Petrov and **J.V. Narlikar**
Foundations of Physics, **26**, 9, September.
- 237B The Hubble constant
J.V. Narlikar
Proceedings of the XVII ASI Meeting at Gauhati, Ed. H.L. Duorah
Bulletin of the Astronomical Society of India, **24**, 835
- 238B An alternative cosmology
J.V. Narlikar
Proceedings of the 7th Asian Pacific Regional Meeting of the IAU
Journal of the Korean Astronomical Society, **29**, S1

1997

- 239A On the Hubble and the cosmological constant
F. Hoyle, G. Burbidge and **J.V. Narlikar**
Monthly Notices of the Royal Astronomical Society, **286**, 173
- 240A High energy radiation from the center of the local super cluster
H.C. Arp, **J.V. Narlikar** and H.D. Radecke
Astroparticle Physics, **6**, 387
- 241A Time dilation in the supernova light curve and the variable
mass hypothesis
J.V. Narlikar and H.C. Arp
The Astrophysical Journal Letters, **482**, L119
- 242A Cosmic iron whiskers: their origin, length distribution
and astrophysical consequences
J.V. Narlikar, N.C. Wickramasinghe, R. Sachs and F. Hoyle
International Journal of Modern Physics, **D6**, 125

- 243A The quasi-steady state cosmology: a problem of stability
S. Banerjee and **J.V. Narlikar**
The Astrophysical Journal, **487**, 69
- 244B An alternative to the big bang cosmology
J.V. Narlikar
Proceedings of VII Asian-Pacific Regional Meeting of the
IAU, Eds H.M. Lee, S.S. Kim and K.-S. Kim, *Journal
of the Korean Astronomical Society*, **29**, S1
- 245B Anomalous redshifts and the variable mass hypothesis
J.V. Narlikar
Astrophysics and Space Science, **244**, 177
Also in : *Modern Mathematical Models of Time and Their Applications to Physics
and Cosmology*, Eds. W.G. Tiffitt and W.J. Cocke, (Kluwer), 177
- 246B Astro-particle physics in the quasi-steady state cosmology
J.V. Narlikar
Proceedings of the IIT Workshop on *Early Universe*,
Ed. V.B. Johri (Hadronic Press), 65
- 247B Education in astronomy and astrophysics: the Indian experience
J.V. Narlikar and N.C. Rana
1997 COSPAR, Advanced Space Research, **20**, 1401
- 248B Quasi-steady state cosmology: some recent developments
J.V. Narlikar
Proceedings of the Bangalore Discussion Meeting on
Big bang cosmology and alternatives: a critical appraisal
Journal of Astrophysics and Astronomy, **18**, 353
- 249C Alternative cosmologies
J.V. Narlikar
in Report of IAU Commission 47 (Cosmology), in *Reports on Astronomy
XXIII A*, Ed. I. Appenzeller, (Kluwer, Dordrecht), 495
- 250C Relativistic cosmology
J.V. Narlikar
Lectures at the First Inter University Graduate School at IUCAA, Pune
in *Geometry, Fields and Cosmology, Techniques and Applications*,
Eds. B.R. Iyer and C.V. Vishveshwara, (Kluwer, Dordrecht), 479

1998

- 251A The cosmological debate: Big Bang Vs QSSC
J.V. Narlikar
Universe & Beyond, **1**, 2.

- 252A Quantum fluctuations in radiation dominated anisotropic cosmology
Thant Zin Naing and **J.V. Narlikar**
Journal of Astronomy and Astrophysics, **19**, 133
- 253A Non-conformal fluctuations in radiation dominated anisotropic cosmology
Thant Zin Naing and **J.V. Narlikar**
Journal of Astronomy and Astrophysics, **19**, 141
- 254A Rival Theories in Cosmology
J.V. Narlikar
Prajna, Journal of Sardar Patel University, **8**, 1
- 255B Distance scale of the universe and its implications for cosmology
J.V. Narlikar
Proceedings of the TIFR Golden Jubilee Workshop, August 1996, Eds. P.C. Agrawal and P.R. Vishwanath (University Press), 1
- 256B Crucial tests in cosmology
J.V. Narlikar
Proceedings of the UPSO Silver Jubilee Workshop on 'Astronomy with Moderate Size Optical Telescopes', UPSO, Naini Tal, April 1997, *Bulletin of the Astronomical Society of India*, **26**, 609
- 257B Metallic whiskers in extragalactic astronomy
J.V. Narlikar
Proceedings of the Workshop on 'Light Scattering by Small Particles and its Application in Astrophysics' organised by IUCAA at Physics Department, Bhavnagar University, Bhavnagar, 16
- 258B Mach's principle in electrodynamics and inertia
J.V. Narlikar
Black Holes Gravitational Radiation and the Universe,
Eds. Bala Iyer and Biplab Bhawal, (Kluwer), 509
- 259B Making science simple
J.V. Narlikar
Education for the Twenty First Century : Issues and prospects, Contributions to the work of the International Commission on Education for the Twenty-first Century, (UNESCO, France), 335
- 260B The search for living cells in stratospheric samples
J.V. Narlikar, S. Ramadurai, Pushpa Bhargava, S.V. Damle, N.C. Wickramasinghe, David Lloyd, Fred Hoyle and D.H. Wallis
Proceedings of SPIE Conference on *Instruments, Methods and Mission for Astrobiology*, Ed. Richard B. Hoover, (SPIE), **3441**, 301
- 261C The cosmological debate : Big Bang vs QSSC
J.V. Narlikar
Souvenir Centenary Year, Department of Mathematics, BHU, Ed. S.N. Lal, 83

- 262C India
(a status report on teaching of astronomy in India)
J.V. Narlikar and N.C. Rana
Proceedings of the IAU Colloquium 162 on *Teaching of Astronomy*,
Eds. L. Gougenheim, D. McNally and J.R. Percy, (Cambridge), 32
- 263C Theories and observations in cosmology
J.V. Narlikar
Proceedings of the Indian National Science Academy -A, **64**, 2, 225

1999

- 264A The quasi-steady state cosmology: a study of angular size against redshift
Shyamal K. Banerjee and **J.V. Narlikar**
Monthly Notices of the Royal Astronomical Society, **307**, 73
- 265A Structure formation in the quasi-steady state cosmology : a toy model
Ali Nayeri, Sunu Engineer, **J.V. Narlikar** and Fred Hoyle
The Astrophysical Journal, **525**, 10
- 266B The quasi-steady state cosmology : theory and observations
J.V. Narlikar
Pramana, **53**, 6, 1093
- 267B Quantum mechanics via path amplitudes
J.V. Narlikar
Physics Education, **16**, 1, 31
- 268B Spinning universes in Newtonian cosmology
J.V. Narlikar
On Einstein' Path, Ed. Alex Harvey (Springer), 319
(an essays in honour of Engelbert Schucking)
- 269B An alternative cosmology: the QSSC
J.V. Narlikar
Proceedings of the IAU Symposium No. 183 on *Cosmological parameters and the evolution of the universe*, Ed. K. Sato (Kluwer, Dordrecht), 277
- 270B Cosmology
J.V. Narlikar
Transactions of the International Astronomical Union, Ed. J. Andersen, **XXIIIB**, 173
- 271B The case against the big bang
J.V. Narlikar
Comptes Rendus, **327**, Series II b, 841
- 272B Reply to Professor Silk
J.V. Narlikar
Comptes Rendus, **327**, Series II b, 859

2000

- 273A Possible interpretations of the magnitude-redshift relation for supernovae of type IA
S.K. Banerjee, **J.V. Narlikar**, N.C. Wickramasinghe, F. Hoyle and G. Burbidge
The Astrophysical Journal, **119**, 2583
- 274B The lighter side of gravity: How Swami Gurutwananda received enlightenment
J.V. Narlikar
Current Science, **78**, 4, 510
- 275B Cosmology : Past, present and future
J.V. Narlikar
Current Science, **78**, .9, 1071
- 276B Structure formation in the quasi-steady state cosmology
J.V. Narlikar
General Relativity and Gravitation, **32**, 6, 1091
(George Ellis Festschrift)
- 277B The counting of radio sources: A personal perspective
J.V. Narlikar
The Universe : Visions and Perspectives, Eds. A. Kembhavi and N.Dadhich (Kluwer, Dordrecht), 213
- 278B Stochastic creation process and large scale structure in cosmology
J.V. Narlikar
Abstracts of an International Conference on *Recent Developments in Statistics and Probability and Their Applications*, 339
- 279B Astronomy and astrophysics in India
J.V. Narlikar
Encyclopedia of Astronomy and Astrophysics, **I**, 131
- 280B Cosmology : A brief history
J.V. Narlikar
Encyclopedia of Astronomy and Astrophysics, **I**, 552

2001

- 281A The quasi-steady state cosmology
J.V. Narlikar
Acta Scientiarum, **22**, 5, 1241
- 282A Search for ancient Indian records of the sighting of supernovae
J.V. Narlikar and Saroja Bhate
Current Science, **81**, 6, 701

- 283A Search for ancient Indian records of the sighting of supernovae
J.V. Narlikar and Saroja Bhate
Indian Journal of History of Science, **36**, 3-4, 172
- 284B Cosmology : Past, present and future
J.V. Narlikar
 Proceedings of the IPA Seminar on *Physics in 20th Century and Emerging Trends for the New Millennium*, Ed. B.K Jain (Indian Physics Association), 18
- 285B Third-world astronomy network
J.V. Narlikar
Astronomy for Developing Countries, IAU Special Session at 24th General Assembly, Ed.A. Batten (Astronomical Society of the Pacific), 324
- 286B Action at a distance in electrodynamics and inertia
J.V. Narlikar
Instantaneous Action at a Distance in Modern Physics: 'Pro' and 'Contra', Eds. A. Chubykalo, V. Pope and R. Smirnov-Rueda (Nova Science Publishers), 19
- 287B The evolution of alternative cosmologies
J.V. Narlikar
Historical Development of Modern Cosmology, Eds. V.J. Martínez, V. Trimble and M.J. Pons-Bordería, (Astronomical Society of the Pacific Conference Series), 175
- 288C Standard cosmology and alternatives : A critical appraisal
J.V. Narlikar and T. Padmanabhan
Annual Reviews Astronomy & Astrophysics, **39**, 1, 211

2002

- 289A Comparison of cosmological models using Bayesian theory
 Moncy V. John and **J.V. Narlikar**
Physical Review D, **65**, 043506-1
- 290A Dynamics of ejection from galaxies and the variable mass hypothesis
J.V. Narlikar, R.G. Vishwakarma, S.K. Banerjee, P.K. Das and H.C. Arp
International Journal of Modern Physics D, **11**, 2, 245
- 291A Interpretations of the accelerating universe
J.V. Narlikar, R.G. Vishwakarma and G. Burbidge
Publications of the Astronomical Society of the Pacific, **114**, 1092
- 292B Creation of matter and anomalous redshifts
J.V. Narlikar
Gravitation and Cosmology: From the Hubble Radius to the Planck Scale, Eds. R.L. Amoroso, G.Hunter, M. Kafatos and J-P Vigier, (Kluwer: Dordrecht), 11
- 293B Absorber theory of radiation in expanding universe
J.V. Narlikar
Gravitation and Cosmology: From the Hubble Radius to the Planck Scale, Eds. R.L. Amoroso, G. Hunter, M. Kafatos and J-P Vigier, (Kluwer: Dordrecht), 81

- 294B The lighter side of gravity
J.V. Narlikar
 Proceedings of the 16th International Conference on *General Relativity and Gravitation* Eds. N.G. Bishop and S.D. Maharaj (World Scientific), 315
- 295B Possible detection of extraterrestrial life in stratospheric samples
 David Lloyd, N.C. Wickramasinghe, Melanie J. Harris, **J.V. Narlikar**, P. Rajaratnam, Pushpa Bhargava, S. Shivaji, G.S.N. Reddy, Michael P. Turner, S. Al-Mufti, Max K. Wallis, S. Ramadurai and F. Hoyle
 Proceedings of the International Conference entitled '*Multicolour Universe*', Eds. R.K. Manchanda and B. Paul, (Tata Institute of Fundamental Research, Mumbai), 367
- 295aB The detection of living cells in stratospheric samples
 M.J. Harris, N.C. Wickramasinghe, D.Lloyd, **J.V. Narlikar**, P. Rajaratnam, M.P. Turner, S. Al-Mufti, M.K. Wallis, and F. Hoyle
 Proceedings of the SPIE Conference, **4495**, 192
- 296C Astronomy at the millennium
J.V. Narlikar
 Proceedings of Andhra Pradesh Akademi of Sciences, **6**, 2, 87

2003

- 297A Microorganisms cultured from stratospheric air samples obtained at 41 km
 M. Wainwright, N.C. Wickramasinghe, **J.V. Narlikar** and P. Rajaratnam
FEMS Microbiology Letters, **218**, 1, 161
- 298A The quasi-steady-state cosmology
J.V. Narlikar
Chaos, Solitons and Fractals, **16**, 469
- 299A Inhomogeneities in the microwave background radiation interpreted within the framework of the quasi-steady state cosmology
J.V. Narlikar, R.G. Vishwakarma, Amir Hajian, Tarun Souradeep, G. Burbidge and F. Hoyle
The Astrophysical Journal, **585**, 1
- 300A Did silicon aid in the establishment of the first bacterium?
 M. Wainwright, K. Al-Wajeih, N.C. Wickramasinghe and **J.V. Narlikar**
International Journal of Astrobiology, **2**, 3, 227
- 301B Progress towards the vindication of panspermia
 N.C. Wickramasinghe, M. Wainwright, **J.V. Narlikar**, P. Rajaratnam, M.H. Harris and D. Lloyd
Astrophysics and Space Science, **283**, 403
- 302B Detection of microorganisms at high altitudes
J.V. Narlikar, N.C. Wickramasinghe, M. Wainwright and P. Rajaratnam
Current Science, **85**, 1, 23
- 303B Working with Fred on action at a distance
J.V. Narlikar
Astrophysics and Space Science, **285**, 389

- 304B A balloon experiment to detect microorganisms in the outer space
J.V. Narlikar, David Lloyd, N.C. Wickramasinghe, Melanie J. Harris, Michael P. Turner, S. Al-Mufti, Max K. Wallis, M. Wainwright, P. Rajaratnam, S. Shivaji, G.S.N. Reddy, S. Ramadurai and F. Hoyle
Astrophysics and Space Science, **285**, 555
- 305C Action at a distance and cosmology : A historical perspective
J.V. Narlikar
Annual Review of Astronomy and Astrophysics, **41**, 169

2004

- 306A Are these stratospheric nanoparticles bacteria?
M. Wainwright, N.C. Wickramasinghe, **J.V. Narlikar** and P. Rajaratnam
Microbiology, **150**, 756
- 307A Confirmation of the presence of viable but non-culturable bacteria in the stratosphere
M. Wainwright, N.C. Wickramasinghe, **J.V. Narlikar** , P. Rajaratnam and J. Perkins
International Journal of Astrobiology, **3**, 1, 13
- 308A Functions and possible provenance of primordial proteins
Andrei P. Sommer, Norimune Miyake, N. Chandra Wickramasinghe, **Jayant V. Narlikar**,
and Shirwan Al-Mufti
Journal of Proteome Research, **3**, 6, 1296
- 309B Time keeping in special relativity
J.V. Narlikar
Physics Teacher, **46**, 4, 111
- 309aC Studies on bacteria-like particles sampled from the stratosphere
M. Wainwright, P.K. Weber, J.B. Smith, I.D. Hutcheon, B. Klyce, N.C. Wickramasinghe,
J.V. Narlikar and P. Rajaratnam
Aerobiologia, **20**, 237

2005

- 310A QSSC re-examined for the newly discovered SNe Ia
R.G. Vishwakarma and **J.V. Narlikar**
International Journal of Modern Physics D, **14**, 2, 345
- 311B Alternative ideas in cosmology
J.V. Narlikar
The Scientific Legacy of Fred Hoyle, Ed. D. Gough, (Cambridge University Press), 127
- 312B Astronomy, pseudoscience and rational thinking
J.V. Narlikar
Teaching and Learning Astronomy, Eds. Jay M. Pasachoff and John R. Percy,
(Cambridge University Press), 164

- 313C Einstein's legacy : Relativistic cosmology
J.V. Narlikar
Current Science, **89**, 12, 2114

2006

- 314A Stellar and extragalactic radiation at the earth's surface
J-C. Pecker and **J.V. Narlikar**
Journal of Astrophysics and Astronomy, **27**, 1, 1
- 315A Bacillus aerius sp. nov., Bacillus aerophilus sp. nov., Bacillus stratosphericus sp. nov. and Bacillus altitudinis sp. nov., isolated from cryogenic tubes used for collecting air samples from high altitudes
S. Shivaji, P. Chaturvedi, K. Suresh, G.S.N. Reddy, C.B.S. Dutt, M. Wainwright, **J.V. Narlikar** and P.M. Bhargava
International Journal of Systematic and Evolutionary Microbiology, **56**, 1465
- 316A On searches for gravitational waves from mini-creation events by laser interferometric detectors
B.P. Sarmah, S.K. Banerjee, S.V. Dhurandhar and **J.V. Narlikar**
Monthly Notices of the Royal Astronomical Society, **369**, 89
- 317B The case for alternative cosmology
J.V. Narlikar
Proceedings of the 9th Asian-Pacific Regional IAU Meeting 2005, Eds. W. Sutantyo, P.W. Premadi, P. Mahasena, T. Hidayat and S. Mineshige, (Department of Astronomy and the Bosscha Observatory, Institut Teknologi Bandung, Indonesia and the Indonesian Astronomical Society), 191
- 318B The quasi-steady-state cosmology
J.V. Narlikar
Current Issues in Cosmology, Eds. Jean-Claude Pecker and Jayant V. Narlikar, (Cambridge University Press), 139
- 319B Gravitational collapse with negative energy fields
J.V. Narlikar
Proceedings of the SARS Einstein Centennial Meeting, Eds. Sudan Hansraj, Keshlan Govinder and Sunil Maharaj, 6
- 320C Amal Kumar Raychaudhuri
J.V. Narlikar
Biographical Memoirs of Fellows of the Indian National Science Academy, Ed. V, Ramamurti, (Indian National Science Academy), 169

2007

- 321A Modeling repulsive gravity with creation
R.G. Vishwakarma and **J.V. Narlikar**
Journal of Astrophysics and Astronomy, **28**, 1, 17
- 322A Cosmology and cosmogony in a cyclic universe
J.V. Narlikar, Geoffrey Burbidge and R.G. Vishwakarma
Journal of Astrophysics and Astronomy, **28**, 2&3, 67

- 323B Einstein's legacy : Relativistic cosmology
J.V. Narlikar
The Legacy of Albert Einstein, Ed. Spenta R. Wadia, (World Scientific), 193
- 324B Gravitational collapse with negative energy fields
J.V. Narlikar
Mathematical Physics, Proceedings of the 12th Regional Conference on Mathematical Physics at Islamabad, Eds. M.J. Aslam, F. Hussain, A. Qadir, Riazuddin and H. Saleem, (World Scientific), 375
- 325B TWAN: A way of networking third-world astronomers
 J.V. Narlikar
Astronomy for the developing world, Eds. J.B. Hearnshaw and P. Martinez, (Cambridge University Press), 3

2008

- 326B Why can't cosmology be more open?
J.V. Narlikar
Nature India, January 16
- 327C Cosmological redshift
J.V. Narlikar
PRAYAS, 3, 5, 131

2009

- 328A Stratosphere microbes might hold clues to life on earth
J.V. Narlikar
Nature India, published online on 25 March 2009
- 329A *Janibacter hoylei* sp. nov., *Bacillus isronensis* sp. nov. and *Bacillus aryabhatai* sp. nov., isolated from cryotubes used for collecting air from the upper atmosphere
 S. Shivaji, Preeti Chaturvedi, Zareena Begum, Pavan Kumar Pindi, R. Manorama, D. Ananth Padmanabhan, Yogesh S. Shouche, Shrikant Pawar, Parag Vaishampayan, C.B.S. Dutt, G.N. Datta, R.K. Manchanda, U.R. Rao, P.M. Bhargava and **J.V. Narlikar**
International Journal of Systematic and Evolutionary Microbiology, **59**, 2977
- 330B Critical reactions to the hot big bang interpretation
 Geoffrey Burbidge and **Jayant V. Narlikar**
Finding the Big Bang, Eds. P. James E. Peebles, Lyman A. Page, Jr. and R. Bruce Partridge, (Cambridge University Press), 267
- 331B Post-Independence Indian achievements in astronomy
Jayant V. Narlikar and Rajesh K. Kochhar
Science in India, Ed. Jayant V. Narlikar, (PHISPC and VIVA), 287
- 332B Alternative cosmologies
J.V. Narlikar
Cosmology and Gravitation : XIII Brazilian School of Cosmology and Gravitation, Eds. M. Novello and S.E. Perez Bergliaffa, (AIP Conference Proceedings), **1132**, 1

- 333C Indian achievement in astronomy, astrophysics, relativity and cosmology
J.V. Narlikar
India in the World of Physics: Then and Now, Ed. Asoke N. Mitra, (PHISPC), 417

2010

- 334A Microbes in the stratosphere
J.V. Narlikar
Scientific American India, April, 36
- 335A A critique of supernova data analysis in cosmology
Ram Gopal Vishwakarma and **Jayant V. Narlikar**
Research in Astronomy and Astrophysics, **10**, 12, 1195
- 336B Einstein and cosmology
J.V. Narlikar
Remembering Einstein, Ed. B.V. Sreekantan, (Oxford University Press), 35
- 337B Fred Hoyle's universe
J.V. Narlikar
Resonance, October, 875
- 338B Cosmology and mini-creation events
J.V. Narlikar
Proceedings of the Conference "Evolution of Cosmic Objects through their Physical Activity" dedicated to Viktor Ambartsumian's 100th anniversary, Eds. Haik Harutyunian, Areg Mickaelian, Yervant Terzian, 243
- 339B The local contribution to the Microwave Background Radiation (MBR)
J.V. Narlikar, J-C. Pecker and N.C. Wickramasinghe
Proceedings of the Conference "Evolution of Cosmic Objects through their Physical Activity" dedicated to Viktor Ambartsumian's 100th anniversary, Eds. Haik Harutyunian, Areg Mickaelian, Yervant Terzian, 259
- 340B Cosmology and the origin of nuclei
J.V. Narlikar
Uzbek Journal of Physics, **12**, 4-6, 262
- 341B The role of a virtual library in the coming decades
J.V. Narlikar
Proceedings of the Library and Information Services in Astronomy VI Conference on 21st Century Astronomy Librarianship, from the New Ideas to Action
Astronomical Society of the Pacific Conference Series, Eds. E. Isaksson, J. Lagerstrom, A. Holl and N. Bawdekar, 3
- 342C General relativity and astrophysics
J.V. Narlikar
Astronomy in India : A Historical Perspective, Ed. T. Padmanabhan, (Springer), 49

2011

- 343A Beetham's problem
J.V. Narlikar
Mathematics Today, **26**, 21
- 344B Mach's principle
J.V. Narlikar
Resonance, April, 310
- 345B What a student can learn from the Saha equation
J.V. Narlikar
Physics Teacher, **53**, 1-2, 107

2012

- 346B A static universe (Un univers statique!)
J.V. Narlikar
Un autre cosmos?, Eds. Thomas Lepeltier, Jean-Marc Bonnet-Bidaud, (Vuibert), 45
- 347B The variable mass hypothesis
J.V. Narlikar
Proceedings of Mario Novello's 70th Anniversary Symposium, Eds. Nelson Pinto Neto and Santiago E. Perez Bergliaffa, (Editora Livraria de Física), 219
- 348B Quasars in the life of astronomers : Alternative views and ideas
J.V. Narlikar
Fifty Years of Quasars, Eds. Mauro D'Onofrio, Paola Marziani and Jack W. Sulentic, (Springer), 73
- 349B Some conceptual problems in GR
J.V. Narlikar
Journal of the Tensor Society, **6**, 2, 47

2013

- 350A An Indian test of Indian astrology
J.V. Narlikar
Skeptical Inquirer, **37**, 2, 45
- 351B Redshifts and the hypothesis of variable particle masses
J.V. Narlikar
Journal of Computational Methods in Science and Engineering, **13**, 1-2, 163

2014

- 352A Stratosphere microbes might hold clues to life on earth
J.V. Narlikar
Nature India, **1**, 36

- 353C The mystery of dark matter and dark energy : A cosmological challenge
J.V. Narlikar
Physics News, **44**, 3&4, 11

2015

- 354A Trials and tribulations of playing the devil's advocate
J.V. Narlikar
Research in Astronomy and Astrophysics, **15**, 1, 1
- 355A The local contribution to the microwave background radiation
Jean-Claude Pecker, **Jayant V. Narlikar**, Francois Oehsenbein and Chandra Wickramasinghe
Research in Astronomy and Astrophysics, **15**, 4, 461
- 356A Gravitational wave background in the quasi-steady state cosmology
J.V. Narlikar, S.V. Dhurandhar, R.G. Vishwakarma , S.R. Valluri and S. Auddy
Monthly Notices of the Royal Astronomical Society, **451**, 1390
- 357A The early days of general relativity
J.V. Narlikar
Current Science, **109**, 12, 2214
- 357B What a student can learn from the Saha equation
J.V. Narlikar
Applied Mathematics, Springer Proceedings in Mathematics & Statistics, Eds. S. Sarkar, U. Basu and S. De, **146**, 89
- 358C Indian astronomy - Concepts and procedures
J.V. Narlikar
Review of the book by S. Balachandra Rao
Ganita Bharati - Bulletin of the Indian Society for History of Mathematics, **36**, 2, 205

2016

- 359B What should we expect from a model of the universe?
J.V. Narlikar
La Nuova Critica, Rivista Di Scienze Dell'uomo E Di Filosofia Delle Scienze, Nuova Serie, I-II, 9

2017

- 360B Some conceptual problems is cosmology
J.V. Narlikar
Proceedings of the National Conference on Current Issues in Cosmology, Astrophysics and High Energy Physics (CICAHEP), Ed. Umananda D. Goswami, **1**, 3

- 361B Chip Arp (1927-2013)
J.V. Narlikar
The Galileo of Palomar : Essay in memory of Halton Arp, Eds. Christopher. C. Fulton and Martin Kokus,
 (Apeiron, Montreal), 1
- 362B The local contribution to the microwave background radiation
 Jean-Claude Pekcer, **Jayant V. Narlikar**, François Ochsenbin and Chandra Wickramasinghe
The Galileo of Palomar : Essay in memory of Halton Arp, Eds. Christopher. C. Fulton and Martin Kokus,
 (Apeiron, Montreal), 37
- 363B An empirical approach to periodic redshifts
Jayant V. Narlikar, Ram G. Vishwakarma, Shyamal K. Banerjee, P.K. Das and Christopher C. Fulton
The Galileo of Palomar : Essay in memory of Halton Arp, Eds. Christopher. C. Fulton and Martin Kokus,
 (Apeiron, Montreal), 341
- 364B Relativistic paths : A Feynman problem
Jayant V. Narlikar
Gravity and the Quantum : Fundamental Theories of Physics, Eds. J.S. Bagla and S. Engineer, (Springer), 317

2018

- 365A Is it no longer necessary to test cosmologies with type Ia supernovae?
 Ram Gopal Vishwakarma and **Jayant V. Narlikar**
Universe, **4**, 6, 73
- 366A Gravitational wave signature of a mini creation event (MCE)
 S.V. Dhurandhar and **J.V. Narlikar**
Classical and Quantum Gravity, **35**, 135003
- 367B Gravitational waves from mini-creation events
J.V. Narlikar
The Physical Universe, Eds. Sanjay M. Wagh, Sunil D. Maharaj and Gayoung Chon, (Central India
 Research Institute, Nagpur), 119
- 368C The evolution of modern cosmology as seen through a personal walk across six decades
J. V. Narlikar
The European Physical Journal H, **43**, 1, 43

2019

- 369A Why can't cosmology be more open?
J.V. Narlikar
International Journal of Cosmology, Astronomy and Astrophysics, **1**, 1, 1