

**Jayant V. Narlikar**

**LIST OF PUBLICATIONS – II**

---

**Semitechnical/Popular Publications**

E: *Publications in English*

H: *Publications in Hindi*

M: *Publications in Marathi*

S: *Publications in Sanskrit*

**Those marked with an asterisk are texts of public lectures.**

**1961**

- 1E Galaxies  
A review of the above book by H. Shapley (Harvard),  
*The Observatory*, **81**, 253

**1964**

- 2E Gravitational collapse  
*Discovery*, March issue, 16
- 3E A new look at gravitation  
*New Scientist*, June 18, 730  
Reprinted in *School Science*, December issue, 321

**1965**

- 4E An unsteady universe?  
*New Scientist*, June 17, 771
- 5E Quasars, QSGs and cosmology.  
*Science Reporter*, **2**, 531
- 6E The measure of the universe  
A review of the above book by J.D. North (Oxford),  
*Cambridge Review*, **88**, 488

**1968**

- \*7E The Universe and the laws of physics  
*Lokmanya Tilak Lectures*, University of Poona

- 8E The logic of special relativity  
A review of the above book by S.J. Prokhovnik (Cambridge)  
*British Journal for the Philosophy of Science*, **19**, 267
- 1969**
- 9E The arrow of time  
*Science Today*, June issue, 11
- 1970**
- 10E The interaction of laboratory science and astronomy  
*The American Scientist*, **58**, 290
- 11E Exploring the Universe  
Souvenir, *Interschool Science Exhibition*, Bombay, 11
- \*12E Universe and the arrow of time  
Friday Evening Discourse at the Royal Institution, London  
*Proceedings of the Royal Institution*, **44**, 64
- 13E Relativity theory : Its origins and impact on modern thought  
A review of the book by L. Pierce Williams (Wiley)  
*British Journal for the Philosophy of Sciences*, **XX**, 216
- 1971**
- 13aE Scale invariance and gravity  
A review of a paper by Y. Fujii  
*Nature*, **234**, 1
- 1973**
- 14E Was the universe born with a big bang?  
*Science Today*, January issue, 9
- 15E Steady state defended.  
*Cosmology Now*, Ed. L. John (B.B.C.), 69
- 16E Particle creation in a big bang universe  
*Nature*, **246**, 378
- \*17M Anu ani vishva  
(Atom and the universe)  
*Presidential address to the Marathi Vidnyan Parishad at Jalna*, November 17

**1974**

- \*18E Copernicus and modern astronomy  
Lecture given at the Birla Industrial and Technological Museum on the quincentenary of Nicolaus Copernicus  
*Indian Journal of History of Science*, **9**, 151
- 19E Copernicus and after  
A review of the book 'The Planets Today' (The Royal Society, London),  
*Science Today*, September issue, 49
- 20E Action at a distance electromagnetism (ADE)  
*Science Today*, November issue, 22
- 21M Vidnyan ani ganit  
(Science and Mathematics)  
*Rudravani*, Diwali issue, 52

**1975**

- 22E Second thoughts on general relativity?  
*Science Today*, December issue, 22
- \*23M Ganit ani vidnyan  
(Mathematics and Science)  
*Dr. G.M. Phadke Memorial Lectures* (Mumbai Marathi Grantha Sangrahalaya)
- 24E QSO redshifts and the steady state cosmology  
(With P.K. Das), *Nature, News and Views*, **258**, 660
- 25E Fifth seminar on general relativity and gravitation  
*Bulletin of the Astronomical Society of India*, **3**, 18

**1976**

- 26E How are distances of astronomical objects measured?  
*Science Today*, January issue, 61
- 27E Inspiring moments in the lives of great astronomers  
*Vivekanand Kendra Patrika*, 14
- 28E A look at cosmology as a branch of science  
*Physics News*, **7**, 1
- 29E Cosmology : in ancient and modern times  
*The Hindustan Times*, October 31

- \*30E The role of scientific outlook in the development of science and society  
*Jawaharlal Nehru Memorial Lecture (Jawaharlal Nehru Memorial Fund)*
- 31E How does the astronomer measure masses?  
*Science Today*, December issue, 71
- 32E Cosmology, then and now  
*Overseas Hindustan Times*, November 11
- 33E Scientific attitude and development in science and technology  
*School Science*, December issue, 3
- 34E Planetaria for science study  
*Free Press Journal*, December 12
- 35E Winter school on high energy astrophysics  
(With S.M. Chitre),  
*Bulletin of the Astronomical Society of India*, **4**, 33
- 36E Tensors, relativity and cosmology  
Review of the above book by E.A. Lord (Tata McGraw Hill)  
*Physics News*, **7**, 141
- 37E Report on the IAU Symposium on radio astronomy and cosmology  
*Bulletin of the Astronomical Society of India*, **4**, 92
- 38M Antaral ahe tari kase?  
(What is the space like?)  
*Kirloskar*, March issue, 26
- 39M Gurutviya avapat  
(Gravitational collapse)  
*Marathi Vishvakosh*, **5**, 150
- 40M Ganitatil gamati-jamati, I  
(Fun with mathematics, I)  
*Kirloskar*, August issue, 20
- 41M Ganitatil gamati-jamati, II  
(Fun with mathematics, II)  
*Kirloskar*, September issue, 23
- 42M Ganitatil gamati-jamati, III  
(Fun with mathematics, III)  
*Kirloskar*, October issue, 41

43M Ganitatil gamati-jamati, IV  
(Fun with mathematics, IV)  
*Kirloskar*, December issue, 47

1977

44E What is the universe like?  
*School Science*, March issue, 3

\*45E Did the universe have an origin?  
*The Third Vikram Sarabhai Lecture*, Institute of Engineers, Bombay  
*Nuclear India*, **16**, 1, 2

\*46E The magic lamp of the twentieth century  
*Visvesvaraya Memorial Lecture*, Institute of Engineers, Pune,  
*Engineers' Day Souvenir*, 1

47E A cosmic anomaly?  
*Science Today*, December issue, 24

48M Janata vidnyanache swagat kenvha karil?  
(When will the masses welcome science?)  
*Gramodyog*, January : Republic Day issue, 3

49M Vaidnyanik drishtikon mhanaje kay?  
(What does scientific outlook mean?)  
*Kirloskar*, January, 26

50M Yuddha ani samrakshan : shambhar varshanantar  
(War and defence : a hundred years hence.)  
*Dharmabhaskar*, Special issue on Defence, July-August, 21

51M Ganitatil gamati-jamati, V  
(Fun with mathematics, V)  
*Kirloskar*, February issue, 41

52M Ganitatil gamati-jamati, VI  
(Fun with mathematics, VI)  
*Kirloskar*, March issue, 61

53M Ganitatil gamati-jamati, VII  
(Fun with mathematics, VII)  
*Kirloskar*, April issue, 41

54M Ganitatil gamati-jamati, VIII  
(Fun with mathematics, VIII)  
*Kirloskar*, June issue, 57

- 55M Ganitatil gamati-jamati, IX  
(Fun with mathematics, IX)  
*Kirloskar*, July issue, 59
- 56M Ganitatil gamati-jamati, X  
(Fun with mathematics, X)  
*Kirloskar*, August issue, 33
- 57M Ganitatil gamati-jamati, XI  
(Fun with mathematics, XI)  
*Kirloskar*, September issue, 49
- 58M Ganitatil gamati-jamati, XII  
(Fun with mathematics, XII)  
*Kirloskar*, October issue, 49
- 59M Ganitatil gamati-jamati, XIII  
(Fun with mathematics, XIII)  
*Kirloskar*, December issue, 49

**1978**

- 60E Comets and the origin of life  
*Science Today*, January issue, 19
- 61E Science and the future of man  
*Diamond Jubilee Number, Indian Medical Association* (Banaras), 17
- 62E New evidence for a black hole?  
*Science Today*, June issue, 21
- 63E White holes : to be or not to be?  
*Science Today*, July issue, 22
- 64E Cosmic tachyons : an astrophysical approach  
*The American Scientist*, **86**, 587
- 65E Science and human survival  
*Society and Science*, **1**, 11
- 66E Nobel prizes in physics, 1978  
*Science Today*, December issue, 43
- 67E Nobel recognition of cosmology  
*Bulletin of the Astronomical Society of India*, **6**, 111
- 68H Vah umra hi kuchh aur thi, vah rang hi kuchh aur tha  
(That was the age, that was the colour)  
Compiled by Alok Mehrotra, *Dharmayug*, March 19

- 69H Nakshatrashalaon ki awashyakata kyon hoti hai?  
(Why are planetaria needed?)  
*Jyoti Janadhara*, March issue, 28
- 70H Kya brahmand ka koi udbhava tha?  
(Did the universe have an origin?)  
*Paramanu*, July-September issue
- 71M Ahe jadoochoa diva ahe  
(Yes, there is a magic lamp)  
*Kirloskar*, January issue, 33
- 72M Wadhanare tantra vidnyan  
(The expanding science and technology)  
*Kirloskar*, May issue : 700th special number, 82
- 73M Vidvan sarvatra "pujya" te?  
(Are intellectuals being ignored everywhere?)  
*Maharashtra Times*, June 11
- 74M Visavya shatakatil jadoochoa diva  
(The magic lamp of 20th Century)  
*Navabharat*, August issue, 9
- 75M Gita-parityaga  
(The abandonment of Gita : in sanskrit)  
*Dharmabhaskar*, August issue, 21
- 76M Ganitatil gamati-jamati, XIV  
(Fun with mathematics, XIV)  
*Kirloskar*, January issue, 49
- 77M Ganitatil gamati-jamati, XV  
(Fun with mathematics, XV)  
*Kirloskar*, February issue, 49
- 78M Ganitatil gamati-jamati, XVI  
(Fun with mathematics, XVI)  
*Kirloskar*, March issue, 33
- 79M Ganitatil gamati-jamati, XVII  
(Fun with mathematics, XVII)  
*Kirloskar*, April issue, 49
- 80M Ganitatil gamati-jamati, XVIII  
(Fun with mathematics, XVIII)  
*Kirloskar*, June issue, 17
- 81M Ganitatil gamati-jamati, XIX  
(Fun with mathematics, XIX)  
*Kirloskar*, July issue, 45

82M Ganitatil gamati-jamati, XX  
(Fun with mathematics, XX)  
*Kirloskar*, August issue, 27

1979

83E Einstein and cosmology  
*Physics News*, **10**, 1

84E Binary pulsar and general relativity  
*Bulletin of the Astronomical Society of India*, **7**, 20

85E Astrology : a pseudo science  
*Indian Atheist*, December issue, 29

86E The substantial space and void nature of elementary  
material particles  
Review of the above book by P. Tewari (Satyasaibaba Publishers),  
*Current Science*, **48**, 516

87E Mother tongue as machine of instruction for science  
*Lokarajya*, October 1, 18

\*88M Vidnyan ani manavacha jeevan sangharsh  
(Science and human survival)  
*Banhatti Memorial Lectures* of Padmavati Pratishthan  
(Deccan Education Society, Pune)

89M Udatya tabakadya  
(Flying saucers)  
Lecture delivered at the 1978 Annual Meeting at Tarapur  
of the Marathi Vidnyan Parishad, *Navaneet*, January issue, 93.

90M Majhya paribhashepramane he ganit navech  
(This is not mathematics as per my definition)  
*Maharashtra Times*, January 28

91M Dr. Jayant Narlikar yanchi bhumika  
(The view point of Dr. Jayant Narlikar)  
*Maharashtra Times*, March 11

92M Udatya tabakadya : tathakathit vidnyan  
(Flying saucers : pseudo science)  
*Kesari*, May 27

\*93M Marathi bhashetun vidnyan  
(Science through Marathi Language)  
Lecture delivered at Rajbhasha Seminar arranged by  
Government of Maharashtra, *Lokarajya*, October issue, 23



- \*94M Vidnyan, vainyanik ani samaj : ek trikon  
(Science, scientists and society : a triangle)  
Lecture delivered at the Annual Meeting at Vadodara of the  
Marathi Vidnyan Parishad  
*Vidnyanyug*, December issue, 13

**1980**

- 95E If there were no gravity  
*Science Today*, January issue, 45
- 96E The expanding horizons of cosmology  
*Indian Horizons*, **XXIX**, 2, 5
- 97E Anomalous redshifts of quasars  
*Science Today*, May issue, 33
- 98M Subuddhatechi univ bharun kadhil  
(Will make up for the scarcity of reasoning)  
*Maharashtra Times*, January 6
- 99H Jai Varanasi Express.  
(Three cheers for Varanasi Express)  
*Dharmayug*, 23 March

**1981**

- 100E Astronomer's cricket puzzle  
*Science Today*, January issue, 52
- 101E Current trends in cosmology  
*Indian News*, Washington D.C., March 2, 5
- 102E What do quasar alignments mean?  
*Science Today*, June issue, 25
- 103E Was there a big bang?  
*New Scientist*, July 2, 19
- 104E Science and the uncanny  
*Society and Science*, **4**, 52
- 105E Voids are also important.  
*Science Today*, November issue, 33
- 106E Science fiction films : how much science? how much fiction?  
*Science Today*, December issue, 5

- 107E Is the universe rotating?  
*Science Today*, December issue, 33
- 108E Energy machines in outer space  
*PTI Science Service*, December
- 109E IAU Regional meeting at Bandung  
*Physics News*, **12**, 113
- 110M Superfast trainche superganit  
(The supermaths of the superfast train)  
*Maharashtra Times*, May 31
- 111M Prithvipalikade jeevashrishti ahe ka?  
(Is there extraterrestrial life?)  
*Kesari*, August 28
- 112M Khagolshastratil suras ani chamatkarik goshti  
(The strange and interesting things in astronomy)  
*Tarun Bharat*, Diwali issue, 101
- 113M Vaidnyanik jagriti havi  
(There is need for scientific awakening)  
*Kesari*, Diwali issue, 70

**1982**

- 114E Black hole blues  
*New Scientist*, January 14, 103
- 115E Ancient Indian science : mathematics  
*Akashwani*, May 16, 2
- 116E Science is learned best in the mother tongue  
*Sunday Observer*, October 3
- 117E Wanted: new ideas to explain extragalactic energy sources  
*Sunday Observer*, November 7
- \*118E Modern cosmology  
*Department of Physics, Decennial Lectures*, Bombay University, 19
- \*119E Learning to live with science and technology  
*Eighteenth Founder Memorial Lecture*, Shriram Institute for Industrial Research, New Delhi, April 26
- \*120E Inertia and cosmology  
*G.C. Sen Memorial Lecture*, Jadavpur University, July 22

- 121E The cosmology of infinity  
Review of the above book by F. Anson Firth (Morris Publishing Co. Canada),  
*Bulletin of the Astronomical Society of India*, **10**, 258
- 122E Progress in cosmology  
Review of the above book edited by A.W. Wolfendale (D. Reidel),  
*Bulletin of the Astronomical Society of India*, **11**, 356
- 123E Physics and philosophy: do the twain meet?  
Review of the book *Cosmology, Physics and Philosophy* by B. Gal-Or (Springer-Verlag),  
*Journal of Scientific and Industrial Research*, **41**, 680
- 124E The redshift controversy in quasar astronomy  
*Physics News*, **13**, 3, 1
- 125H Brahmandiya utpatti: Kuchh vaigyanik vicharadharayen  
(The origin of the universe: some scientific ideas)  
*Vaigyanik*, July-December issue
- 126M Vidnyan ani adbhut  
(Science and the uncanny)  
*Tatparya*, April issue, 25
- 127M Eka shastriya pustakacha khelakhandoba  
(The spoiling of a scientific text)  
*Maharashtra Times*, July 7
- 128M Bahya akashatil urjayantre  
(Energy machines in outer space)  
*Ravivar Sakal*, August 1
- 129M Kahi vaidnyanik kisse  
(Some scientific anecdotes)  
*Rutugandh*, Diwali issue, 159
- 130M Jagatalya prasiddh durbini  
(Famous telescopes in the world)  
*Reshma*, Diwali issue, 23
- 131M Apangatvala na-jumannara shastradnya - Stephen Hawking  
(Stephen Hawking - a scientist who surmounted disabilities)  
*Titiksha*, **6**, 10
- \*132M Ase he ganit, ase he ganiti  
(This is how mathematics is : this is how mathematicians are)  
*Bhaskaracharya memorial lecture*, Souvenir of Maharashtra Ganit Adhyapak Mahamandal's Annual Conference in Amaravati, December 26

- 133M Vidnyan-vedha, I: Vaidnyanik sankalp mhanje manucha masa  
(Science perspectives, I: Scientific projects grow like Manu's fish)  
*Kirloskar*, January issue, 42
- 134M Vidnyan-vedha, II: Halleyshi hastandolan  
(Science perspectives, II: Shaking hands with Halley)  
*Kirloskar*, February issue, 43
- 135M Vidnyan-vedha, III: Phalajyotishache thotand  
(Science perspectives, III: The fraud that is astrology)  
*Kirloskar*, March issue, 37
- 136M Vidnyan-vedha, IV: Dishabhul karanare `vaidnyanik samshodhan'  
(Science perspectives, IV: The misleading `scientific research')  
*Kirloskar*, April issue, 33
- 137M Vidnyan-vedha, V: Genetic engineering  
(Science perspectives, V: Genetic engineering)  
*Kirloskar*, June issue, 49
- 138M Vidnyan-vedha, VI: Darwinchya siddhantala virodh  
(Science perspectives, VI: An opposition to Darwin's theory)  
*Kirloskar*, July issue, 34
- 139M Vidnyan-vedha, VII: Field-samiticha ahwal  
(Science perspectives, VII: The Field Committee's report)  
*Kirloskar*, August issue, 40
- 140M Vidnyan-vedha, VIII: Anuchya antarangasathi vishwakade dhav  
(Science perspectives, VIII: Resorting to the cosmos to probe the heart of the atom.)  
*Kirloskar*, September issue, 53
- 141M Vidnyan-vedha, IX: Varyachi shakti  
(Science perspectives, IX: Wind Power)  
*Kirloskar*, October issue, 56
- 142M Vidnyan-vedha, X: Vidnyan ani gupt-police  
(Science perspectives, X: Science and detectives)  
*Kirloskar*, December issue, 37

### 1983

- 143E White holes: cosmic energy machines  
*New Scientist*, February 24, 516
- 144E A New Research Institute for Sri Lanka  
*Science Today*, March issue, 8
- 145E Mysterious energy machines in outer space  
*Science Today*, May issue, 19

- 146E Lokamanya Tilak and the astronomical dating of the Vedas  
*Tilak Society*, Allahabad, Special Number, 3
- 147E Are quasars really far away?  
*New Scientist*, September 29, 920
- 148E How old are the Vedas?  
*Science Age*, October/November issue, 10
- 149E The exploding universe  
*The Illustrated Weekly of India*, November 6, 6
- 150E Nobel Prize 1983  
*Physics News*, **14**, 77
- 151E Nobel Laureate Subramanyan Chandrasekhar  
*Nizamiah Observatory Platinum Jubilee Souvenir*, 46
- 152E Did he get the right number?  
*The Illustrated Weekly of India*, 32
- 153E Astronomy through the ages, I  
(Comic strip with Sabir)  
*Science Age*, August issue, 48
- 154E Astronomy through the ages, II  
(Comic Strip with Sabir)  
*Science Age*, September issue, 60
- 155E Astronomy through the ages, III  
(Comic strip with Sabir)  
*Science Age*, October/November issue, 70
- 156E Astronomy through the ages, IV  
(Comic strip with Sabir)  
*Science Age*, December issue, 58
- 157H Brahmand ki utpatti ke kuchh kshan bad  
(A few moments after the creation of the universe)  
*Paramanu*, **8**, 4, 6
- 158H Bharatiya samskriti mein vigyan ki parampara  
*Bharatiya Samskriti*, **2**, 422, Edited by Prabhakar Machwe  
(Bharatiya Samskriti Parishad, Calcutta)
- 159H Khagol-bhautiki, ek najaria  
(A glance at astrophysics)

- 160M Samharak shastrastrancha manavjatilach dhoka  
(Danger to mankind from destructive weapons)  
Translation of a lecture by Arthur C. Clark  
*Kirloskar*, May issue, 38
- 161M Nobel paritoshik vijete pradhypak Chandrasekhar  
(Nobel prize winner Professor Chandrasekhar)  
*Maharashtra Times*, November 16
- 162M Vdinyanyug ani vidnyansahitya  
Science-Age & Scientific Literature  
*Srishtidnyan*, November issue, 323
- 163M Vaidnyanik parampara  
(Scientific tradition)  
*Dharmabhaskar*, Diwali issue, 19
- 164M Ekikaranakade vatchal  
(Progress towards unification)  
*Souvenir*, Udgir Meeting of Marathi Vidnyan Parishad, 26
- 165M Vidnyan-Vedha, XI: Einsteinla Nobel-paritoshik kase milale?  
(Science perspectives, XI: How did Einstein get the Nobel Prize?)  
*Kirloskar*, January Issue, 43
- 166M Vidnyan-Vedha, XII: Shrilanketil abhinav adhyayan samstha  
(Science perspectives, XII: A new institute for fundamental studies in Sri Lanka)  
*Kirloskar*, February Issue, 33
- 167M Vidnyan-Vedha, XIII: Vishvat apan ekate ahot?  
(Science perspectives, XIII: Are we alone in the universe?)  
*Kirloskar*, April issue, 45
- 168M Vidnyan-Vedha, XIV: Bahya jeevasrishtichi prithvivar  
dhavaladhaval?  
(Science perspectives, XIV: Are extraterrestrial living  
beings interfering with the Earth?)  
*Kirloskar*, May issue, 57
- 169M Vidnyan-Vedha, XV: Vaidnyanik samshodhan ani shasakiya  
niyantran  
(Science perspectives, XV: Scientific research and government control)  
*Kirloskar*, June issue, 38
- 170M Vidnyan-Vedha, XVI: Suryache akunchan hot ahe ka?  
(Science perspectives, XVI: Is the sun shrinking?)  
*Kirloskar*, July issue, 42

- 171M Vidnyan-Vedha, XVII: Vadnyanik samshodhanasathi  
laganari ganakayantre  
(Science perspectives, XVII: Computer needed for scientific research)  
*Kirloskar*, August issue, 48
- 172M Vidnyan-Vedha, XVIII: Antarat samshodhan ha pandhara  
hatti ahe kay?  
(Science perspectives, XVIII: Is space research a white elephant?)  
*Kirloskar*, September issue, 92
- 173M Vidnyan-Vedha, XIX: Antaratatun vedh  
(Science perspectives, XIX: Space Observations)  
*Kirloskar*, October issue, 40
- 174M Vidnyan-Vedha, XX: Vdinyanachi vatchal  
(Science perspectives, XX: The march of science)  
*Kirloskar*, December issue, 53

#### 1984

- 175E Why was Fred Hoyle passed over in this year's Nobel Awards?  
*Science Age*, January issue, 8
- 176E Perils from outer space  
*The Illustrated Weekly of India*, May 13,36
- 177E On popularizing science  
*Souvenir, Department of Mathematics*, IIT, Bombay, 21
- 178E Two cheers for general relativity  
*Science Today*, May issue, 20
- 179E Was there really a big bang?  
*UNESCO Courier*, September issue, 13
- \*180E Recreational aspects in the study of Mathematics  
The P.L. Bhatnagar Lecture of the Association of Mathematics Teachers of India  
*Souvenir of the Joint Conference of AMTI and MGAM at Pune*,  
December 7, 1
- 181E Astronomy through the ages, V  
(Comic strip with Sabir)  
*Science Age*, January issue, 58
- 182E Astronomy through the ages, VI  
(Comic strip with Sabir)  
*Science Age*, February issue, 52

- 183E Astronomy through the ages, VII  
(Comic strip with Sabir)  
*Science Age*, March issue, 52
- 184E Astronomy through the ages, VIII  
(Comic strip with Sabir)  
*Science Age*, April issue, 54
- 185E Astronomy through the ages, IX  
(Comic strip with Sabir)  
*Science Age*, May issue, 60
- 186E Astronomy through the ages, X  
(Comic strip with Sabir)  
*Science Age*, June issue, 62
- 187E Astronomy through the ages, XI  
(Comic strip with Sabir)  
*Science Age*, July issue, 52
- 188E Astronomy through the ages, XII  
(Comic strip with Sabir)  
*Science Age*, August issue, 64
- 189H Kya vastav mein bhari dhamaka hua bhi tha?  
(Was there really a big bang?)  
*Unesco Doot*, November issue, 13
- 190H Vishpotit brahmand, I  
(The universe that exploded, I)  
*Vigyan*, February issue, 1
- 191H Vishpotit brahmand, II  
(The universe that exploded, II)  
*Vigyan*, April issue, 1
- 192H Vishpotit brahmand, III  
(The universe that exploded, III)  
*Vigyan*, May issue, 1
- 193M Nobel che mankari : Dr. Subrahmanyam Chandrasekhar  
(Nobel prize winner : Dr. Subrahmanyam Chandrasekhar)  
*Kirloskar*, January issue, 26
- 194M Bahurangi pratibhecha vaidnyanik : Fred Hoyle  
(Fred Hoyle : A scientist of multisplendoured talents)  
*Kirloskar*, February issue, 44
- 195M Kharokhar vidnyan tatastha ahe ka?  
(Is science really neutral?)  
*Marathi Vidnyan Parishad Patrika*, February issue, 239



- 196M Gurutvakarshanachya shodhache shreya konala?  
(Who should be credited with the discovery of gravitation?)  
*Kirloskar*, April issue, 5
- 197M Nirmitcha anand, manache samadhan he samshodhanatach  
labhate  
(The joy of creation and mental satisfaction are found  
only in research)  
*Lokaprabha*, September 9, 8
- 198M Vishvacha adishodh  
(The research on the origin of the universe)  
*Kirloskar*, Diwali issue, 121

#### 1985

- 199E The aftermath of the big bang  
*The Hindustan Times*, Sunday Magazine, January 13
- 200E Does the universe have a twist?  
*New Scientist*, 17 January, 30
- \*201E Life in the universe  
Indian Merchants' Chamber, Economic Research & Training  
Foundation's *Pranlal Devkaran Nanji Memorial Lecture*,  
February 27
- 202E Are we alone in the universe?  
*The Hindustan Times*, Sunday Magazine, April 14
- 203E Were our ancient ancestors scientifically advanced?  
*Science Age*, April issue, 2
- 204E The explosion in astronomical research : can we cope with it?  
(With A.K. Kembhavi),  
*Science Age*, April issue, 4
- \*205E The contributions of astronomy to our understanding of the physical world  
Golden Jubilee Lecture at the Indian Institute of Science, Bangalore  
*Bulletin of Sciences*, April-May 1985
- 206E La cosmologia quantistica e l'origine dell'universo  
(Translated in Italian from the original English, titled  
Quantum cosmology and the origin of the universe)  
*Sepere*, August issue, 31
- 207E Was there really a big bang ?  
*Sunday Statesman*, September 1

- 208E Once upon a universe  
Review of the book *The Left Hand of Creation* by J.D. Barrow and J. Silk (Basic Books/Heinemann),  
*Science Today*, January issue, 32
- \*209E The scientific tradition in India from ancient to modern times  
Foundation Day Oration at Ramakrishna Mission's Institute of Culture,  
*Bulletin of the Ramakrishna Mission Institute of Culture*, **XXXVI**, 4, 75.
- 210E The mathematical theory of black holes  
Review of the above book by S. Chandrasekhar (Clarendon Press),  
*Foundations of Physics*, **15**, 911
- 211E Third Rome meeting of astrophysics on 'Cosmic background radiation and fundamental physics', 1984 December 11-15  
*Bulletin of the Astronomical Society of India*, **13**, 94
- \*212H Vigyan, brahmand aur manav  
(Science, universe and man)  
*Ravishankar Shukla Memorial Lectures* (Rajpal and Sons, Delhi)
- 213H Avismaraniya  
(Unforgettable)  
*Dharmayug*, June 23, 9
- 214H Brahmand mein bhutadravyon ke vichitra khel  
(Strange interactions of particles in the universe)  
*Saptahik Hindustan*, December 8, 17
- 215M Puranatil vidnyan-vikasachi vanagi  
(Proofs of science development in the ancient scriptures)  
*Maharashtra Times*, March 10
- 216M Vaidnyanik Shodh antardnyanane lagat nahit  
(Scientific discoveries are not made through inner knowledge)  
*Maharashtra Times*, April 28
- 217M Vidnyankathetil marathi bhasha  
(Marathi language in science fiction stories)  
*Yugavani*, May-June issue, 5
- 218M Shaikshanik gulamgiri kadhi sampanar ?  
(When will the slavery in education end ?)  
(With M.J. Narlikar)  
*Lokaprabha*, August 18, 10
- 219M Shikshakansathi hitaguj  
(Intimate dialogue with teachers)  
*Jeevan Shikshan*, September issue, 4

- 219aM Khagolshastratun milnara vaidnyanik drishtikon  
(Scientific outlook through astronomy)  
*Souvenir* of Akashwani Science Fair 1985, Mulji Jetha School, Jalgaon
- 220M Archeopteryx: asali ki nakali ?  
(Archeopteryx: real or forgery ?)  
*Ravivar Sakal*, Diwali issue
- 221M Dev ani vaidnyanik  
(God and the scientist)  
*Tonic*, Diwali issue
- 222M Arambhshurah khalu bharatiyah  
(Indians are good beginners only)  
*Aisi Akshare*, Diwali issue, 45
- 223M Vidnyangangechi avakhal valane, I: Prithvi viruddh Surya  
(The meandering flow of science; I: The Earth vs the Sun)  
*Kirloskar*, January issue, 56
- 224M Vidnyangangechi avakhal valane, II: Ek khagolshastriya trikut,  
Copernicus - Tycho - Kepler  
(The meandering flow of science, II: An astronomer's triangle,  
Copernicus - Tycho - Kepler)  
*Kirloskar*, March issue, 96
- 225M Vidnyangangechi avakhal valane, III: Bandakhor shastradnya  
'Galileo Galilei'  
(The meandering flow of science, III: The rebel scientist,  
'Galileo Galilei').  
*Kirloskar*, April issue, 67
- 226M Vidnyangangechi avakhal valane, IV: Newtonchya jeevanatil  
don vad  
(The meandering flow of science, IV: Two controversies in the life of Newton)  
*Kirloskar*, May issue, 88
- 227M Vidnyangangechi avakhal valane, V: Baladapi subhashitam grahyam  
(The meandering flow of science, V: One should learn even from youngsters)  
*Kirloskar*, June issue, 41
- 228M Vidnyangangechi avakhal valane, VI: Budhagrahapasun jhalela bodh  
(The meandering flow of science, VI: The lesson from planet Mercury)  
*Kirloskar*, July issue, 70

### 1986

- 229E What's new in astronomy?  
*Science Age*, August issue, 45

- 230E Astrophysics: tempting glamour  
*Science Today*, November issue, 68
- \*231M Vidnyan ani khagolshastra  
(Science and Astronomy)  
*R.S. Dubhashi Memorial Lecture*  
Bahishal Shikshan Mandal, Poona University
- 232M Khagolshastra ani vaidnyanik paddhati  
(Astronomy and the scientific method)  
*Paramarsh*, 8, 3
- 233M Vedhashalanchya ramya parisarat  
(In the pleasant surroundings of the observatories)  
*Tonic*, Diwali issue
- 234M Vishvat manus ekatach ahe ka?  
(Is man alone in the universe ? translated by Chandrasekhar Kulkarni)  
*Mumbai Sakal*, Sunday, May 11
- 235M Savarkaranchi vidnyan-nishtha  
(Savarkar's devotion to Science)  
*Savarkar Centenary Number*, 31
- 236M Khagolshastrachi vaidnyanik chaukat  
(The scientific framework of astronomy)  
*Srushtidnyan*, May issue, 131
- 236aM Amha ghadavile matapityani  
(Our parents shaped our personalities)  
*Swarajya*, Diwali number 1, November

**1987**

- 237E The physics astronomy frontier  
*Physics Education*, January-March issue, 45
- 238E Not with a bang  
*Science Today*, February issue, 17
- 239E The future of man in the twentyfirst century  
*The Heritage*, April issue, 33
- \*240E Popularizing science: making a mess of a message  
*Science Age*, June issue, 12  
(Text of the National Science Day Lecture at Delhi)
- \*240aE Unity beneath diversity: The message of science  
*DST Report 1987*, 25  
(First National Science Day Lecture, Delhi)

- 241M Neptune cha shodh  
(The discovery of Neptune)  
*Kishor*, April-May issue, 30
- 242M Vidnyanacha sandesh-vividhatetil ekata  
(The message of science - unity amongst diversity)  
*Maharashtra Times*, May 3
- 243M Char puncture ani devadut  
(Four punctures and the angel)  
*Sakal*, September 4
- 244M Vidnyan ani samaj  
(Science and society)  
*Pudhari*, Science Supplement, October 31
- 245M Vaidnyanikanche suras kisse  
(Interesting anecdotes about scientists)  
*Dnyanavikas*, Diwali issue, 29
- 246M Ekvisavya shatakakade watchal  
(March towards the twentyfirst century)  
*Kistrim*, Diwali issue, 36
- 247M Vidnyanyugat Bharat  
(India in the age of science)  
*Mauj*, Diwali issue, 144

**1988**

- \*248E The bending of light by gravity  
(Pandya Endowment Lecture)  
*Physics News*, **19**, 47
- 249E Restoring varsity confidence  
*Science Herald*, September 30
- 250E A new experiment  
*The Economic Times*, October 12
- 251E IUCAA : A new experiment in the universities' sector  
*Bulletin of the American Chapter of the Indian Physics Association*, **2**, 7
- 252E To infinity and beyond : A Cultural History of the Infinite  
Review of the above book by Eli Maor (Birkhauser, Boston)  
*Foundations of Physics Letters*, **1**, 199
- 253H Bharatiya sanskriti mein vigyan ki adbhut parampara  
(The unusual tradition of science in Indian culture)  
*Sanmarg*, Indian Culture Special Issue, August 15

- 254M Ganitache avamulyan karu naka  
(Do not undervalue mathematics)  
*Yojana*, May 1-15, 5
- 255M Majhe Morumama  
(My uncle Moru)  
*Maharashtra Times*, September 11
- 256M Khagolvidnyanache nave kendra  
(A new centre for astronomy)  
*Maharashtra Times*, September 26  
(article reproduced in several other Marathi papers)
- 257M Vidnyanachya lata  
(The waves of science)  
*Ghardar*, Diwali issue, 16

**1989**

- 258E Curiosity corner  
*2001*, January, .93
- 259E Why do I believe in ETs ?  
*Society*, January, 62
- 260E Non-cosmological redshifts (In Italian)  
*l'Astronomia*, Milano, February issue, 7
- 261E When the light went out  
*The Indian Post*, January 29, 2
- \*262E Man and the universe  
*Madan Mohan Malaviya Memorial Lecture*, Banaras Hindu University  
February 27/28
- 263E Creativity, Society and Science  
*India International Centre Quarterly*, Futures : Special Spring Number, 25
- 264E Reaching out to the heavens  
*India Digest*, Hong Kong, May/June, 2
- 265E What is India's role in the study of the cosmos?  
*The Times of India*, October 3
- 266E Bye - Bye Bombay!  
*The Indian Post*, May 25
- 267E Quasars, redshifts and controversies  
A review of the above book by H. Arp (Berkeley, Interstellar Media)  
*American Journal of Physics*, **57**, 189

- 268E Intellectual mastery of nature : Theoretical physics from Ohm to Einstein, Vol. II.  
A review of the above book by Christa Jungnickel and Russell McCormach  
*Foundations of Physics*, **19**, 4
- 269E Water transport and its ecological aspects  
*Progressive Maharashtra Annual*, 6-A
- 270E Presenting the future  
2001, August, 16
- 271E Ecological aspects of water transport  
*Industrial Development of Maharashtra*, 45
- 272H Vigyan keval matrubhasha mein hi padhaya jana chahiye  
(Science should be taught in mother tongue only)  
*Navabharat Times*, March 3
- 273M Anantapalikade  
(Beyond the infinite)  
*Maharashtra Times*, January 1
- 274M Khagolshastrachi vaidnyanik chaukat  
(The scientific framework of astronomy)  
*Suryamalechi Kahani*, Ed. Niranjan Ghate. (Pramod Prakashan), 5
- 275M Vidnyankatha ani vangmayachaurya  
(Science Fiction and Plagiarism)  
*Tarun Bharat*, May  
Also, in *Sahitya-Suchi*, May, 26
- 276M Vidnyan, tantradnyan ani Marathi bhasha  
(Science technology and the Marathi language)  
*Ruchi*, August issue
- 277M Vidnyan ani tantradnyanachi Maharashtraatil char dashake  
(Four decades of science and technology in Maharashtra)  
*Marathi Jagat*, Ed. M.M. Karnik (Mauj), 171
- 278M Cambridge  
*Maharashtra Times*, Diwali Number, 3
- 279M Pustake, lekhak ani mi  
(Books, writers and I)  
*Maharashtra Times*, December 17

**1990**

- 280E New observations of cosmic relic radiation  
*Physics Education*, July-September, 156

- 281E IUCAA : A new experiment in the university sector  
*Current Science*, **59**, 962
- \*282E A sense of humour  
Men and Books Lecture at the Sahitya Akademi, New Delhi  
*Indian literature*, November-December, 67
- \*283E Cosmology and local environment  
Lectures at the Indian Institute of Advanced Study, Shimla  
*Manohar Publications*, Delhi and IAS, Shimla
- 284E Search for extraterrestrial intelligence  
*Swasth-o-Manush*, Calcutta, 3
- \*285E Science popularisation : a personal account  
*Indira Gandhi Award Lecture*, INSA News, July-August, 3
- \*286E Stars as fusion reactors  
DAE-IPA C.V. Raman Lectures at Bombay  
*Physics News*, **21**, 61
- 287E Gravitational lenses  
Review of the above book edited by J.M. Moran, J.N. Hewitt and K.Y. Lo (Springer)  
*Indian Journal of Physics*, **64B**, 5
- 288H Hindi mein vigyan ki padhai  
(The teaching of science in Hindi)  
in *Rashtriya Asmita Aur Hindi*, Edited by Dr. Sushila Gupta, 17  
(Dirgha Sahitya Samsthan, Delhi)
- 289H Doordarshan kitna hit aur kitna ahit?  
(TV - how much good how much bad?)  
*Navaneet*, October, 61
- \*290M Uddishta utkrishateche  
(Aiming at excellence)  
*Convocation address* at Marathwada University, January 28
- 291M Chip Arpchi vaidnyanik zunj  
*Sakal*, February 1
- 292M Patrapariwar : Gangadhar Mahambare yans patra  
(Letter to Gangadhar Mahambare)  
*Sahitya Suchi*, April issue, 24.
- 293M Letter to Editor  
*Sahitya Suchi*, April issue
- 294M Unhalyatalya suttitale anubhav  
(Recollections of summer vacations)  
*Maharashtra Times*, May 6



- 295M Vidnyanabaddalche audasinya ghatak  
(Indifference to science is dangerous)  
*Sakal*, September 13
- 296M Yala jevan aise naav  
(This is called a meal!)  
*Maharashtra Times*, October 14
- 297M Vidnyanasahitya-nirmititil samasya  
(The problems of creating scientific literature)  
*Vidnyanasahitya ani Sankalpana*, eds. V.D. Kulkarni and Niranjan Ghatge  
(Nihara Prakashan), 27

**1991**

- 298E Ecological sustainability and technological pressures from the viewpoint  
of an astronomer  
*The Making of an Earth Citizen*, Indira Gandhi Memorial Trust, 87
- 299E What if the big bang didn't happen?  
*New Scientist*, March 2, 48
- 299aE Reaching out to the heavens  
*Souvenir of the First Amateur Astronomers' Meet Pune*, IUCAA/JVP, Pune, 7
- 300E What if the big bang didn't happen?  
(Condensed from the *New Scientist* article of March 2, 1991)  
*Bulletin of the American Chapter of the Indian Physics Association*, 7
- 301E Light moments  
Review of the book *Silhouettes* by A.N. Kothare, S. Balsan and S. Palsule  
*Times*, Sunday Review, February 10
- \*302E Learning to live with science and technology  
*Indian Science - Era of Stabilisation*  
Ed. by J.K. Nigam (Wiley Eastern), 259
- 303E On resistance to new ideas in astronomy  
*Cruz del Sur*, Newsletter of the XXIst General Assembly of the IAU  
at Buenos Aires, Argentina, July 24
- 304E Indian Science and the university system  
*Education*, July-September, 15
- 305E Anatomy of a Genius  
Review of the books *Chandra* by K.C. Wali and *Truth and Beauty* by S. Chandrasekhar  
*Indian Express*, Sunday Magazine, October 20
- 306H Vaidnyanik drishtikon se phalit jyotish ka mulyankan  
(An evaluation of astrology from the scientific standpoint, Translator Durga Ghatge)  
*Deshabandhu*, Diwali Issue, 17

- 307M Antar-vidyapeeth khagol va khagol bhautiki kendra (IUCAA)  
*Yojana*, June, 4
- 308M Vaidnyanik chaukatitoon phalajyotishache mulayankan  
(An evaluation of astrology from the scientific standpoint)  
*Miloon Saryajani*, August, 17
- 309M Torun  
*Maharashtra Times*, September 22
- 310M Majhe Vasantmama  
(My uncle Vasant)  
*Maharashtra Times*, December 8

**1992**

- 311E Set higher norms for science journalism  
*The Times of India*, January 11
- 312E Science journalism in India and abroad  
*MAEER's MIT Pune Journal*, February, 9
- 313E Journalistic lore  
Review of the book *A Life in Science* by Michael White and John Gribbin  
*The Weekend Observer*, March 14
- 314E Anguish and Joy in the unexpected  
*The Sunday Times of India Review*, April 5
- 314aE Other-worldly matters conversation with Carl Sagan  
*SPAN*, February, 38
- 315E Saga of a sage scientist  
Review of the book *Abdus Salam* by Jagjit Singh  
*The Independent*, September 5
- 316E Cross-pollinating Indian universities  
*The Weekend Observer*, October 17
- 317E The excitement of being a scientist  
*Bulletin of the Indian Association of Physics Teachers*, October, 309
- 318E Indian astronomy : past, present and future and French collaborations  
*MAEER's MIT Pune Journal*, November-January, 9
- 318aE IUCAA  
*Mathematical Education*, January-March, 207

- 319H Samsar ke mahan ganitagya  
Review of the book of the above title by Gunakar Mulay  
*Dharmayug*, May 16
- 319aM Gele te unhalyache divas  
(Gone are those summer days)  
*Sakal*, May 12
- 320M Rashtriya shikshan (National education)  
*Shikshan Samiksha*, 2-3, 35
- 320aM Mahasphotachya parshwabhumivar umatleli paulchinhe?  
(Footprints on the big bang background?)  
*Maharashtra Times*, May 17
- 321M Khagolvidnyanatil suras ani chamatkarik goshti  
(Interesting and strange aspects of astronomy)  
Articles 1-5  
*Pasay*, August-December, 4,4,2,4, January, 5
- 322M Khagolshastradware vidnyan-prasar  
(Popularisation of science through astronomy)  
Souvenir, *Vidnyan-Tantradnyan Samshodhan ani Bharatiya Samaj*,  
Seminar arranged by Maharashtra Mandal, BARC, Bombay, November
- 322aM Rajyatil vidnyanachi vatchal  
(The march of science in the state)  
*Maharashtra Times*, June 18
- 323M Gangepasun grantakade  
(From Ganga to Granta)  
*Tamasa-tarang*, London, June issue; also reproduced in  
*The Maharashtra Times*, December 13
- 324M Bharatat chalat aleli shastriya parampara  
(The scientific traditions in India)  
Translated by M.D. Abhyankar  
*Jeevan-Vikas*, 36, Issue 12, 553
- 325M Vidnyan ani tantradnyanatil Maharashtraatil geli char dashake  
(The last four decades of science and technology in Maharashtra)  
*Souvenir of the All India Marathi Science Congress*, Solapur, 36

### 1993

- 326E The scientific temper  
*Man and Development*, XV, 1
- 327E Parsecstones in astronomy 1 : Measurements of the radius of the earth  
*Khagol*, No. 1, January

- 328E The practical life of a theorist  
Review of the book *Genius : Richard Feynman and Modern Physics* by James Gleick  
*The Metropolis*, March 20-21
- 329E Parsecstones in astronomy 2 : Does the earth move?  
*Khagol*, No. 2, April
- 330E IUCAA dedicated  
*Current Science*, **64**, 551
- 331E Sci-Fi and I  
*Deccan Herald*, May 30
- 332E Challenge for the big bang  
*New Scientist*, June 19, 27
- 332aE A matter of gravity  
*Bulletin of the Astronomical Society of India*, **21**, 673
- 333E Parsecstones in astronomy 3 : The spin of the earth.  
*Khagol*, No. 3, July
- 334E Need for scientific temper  
*Mainstream*, July 3, 7
- 335E A walk down memory lane  
*Seminar*, 409, 38
- 336E Chandrasekhar and his limit  
Review of the above book by G. Venkataraman  
*Physics Education*, 10
- 337E Cultivating a scientific temper  
*Business India*, 15th Anniversary Issue, 199
- 338E The life of Isaac Newton  
Review of the above book by R. Westfall, Cambridge  
*The Indian Express*, August 4
- 339E The excitement of doing science  
*Sovenir of Poornaprajna Education Centre*, October
- 340E Parsecstones in astronomy 4 : Advent of the Heliocentric theory.  
*Khagol*, No. 4, October.
- 341E Homage to the infinite  
*The Statesman*, Sunday Supplement, November 7

- 342E Scientific temper in the twenty first century : Dangers of the widening gap between the 'Haves' and the 'Have-nots'  
*Challenges of the Twenty-first Century : Proceedings of the Third Indira Gandhi Memorial Conference*, New Delhi (Indira Gandhi Memorial Trust), 319
- 342aE Science & Superstition  
*The Times of India*, July 8
- 343E School education: Some radical suggestions for changes and opening remarks as session Chairman  
*MAEER'S MIT Pune Journal*, **2**, 15
- 344E Elementary particles and the universe  
Review of the above book by J.H. Schwarz  
*Space Science Reviews*, **63**, 393
- 344aE News from IUCAA  
*Current Science*, **65**, 730
- 345H Rashtriyata ka aaj ka sandarbh  
(The relevance of nationalism today)  
*Dharmayug*, April 16-30, 18
- 346M Jevha rashtrapatincha javai parisamvadala yeto  
(When the President's son in law attends a conference)  
*Maharashtra Times*, March 14
- 347M Jagacha bhar  
(The weight of the world)  
Review of the above anthology of Asimov's stories translated in Marathi  
*Maharashtra Times*, September 26
- 348M Majhe samakalin kathakar  
(My contemporary story-writers)  
*Kathashatabdi*, Ed. Vijaya Rajadhyaksha and Ashok Ranade,  
(Granthali : Bombay), 54
- 349M Pu La : ek purushottam  
(P.L. : one of the best amongst men)  
*Sakal*, November 8, 3
- 350M Vidnyankatha ani mi  
(Science Fiction and I)  
*Shri Malhar*, Diwali issue, 18
- 351M Shaletalya athwani - kahi ambat, kahi god  
(Bitter-sweet memories of schooldays)  
*Chhava*, Diwali issue, 34

- 352M Gurutvakarshanachi kimaya  
(The strange effects of gravity)  
*Nirmal Ranavara*, Diwali issue, 22
- 353M Tari mi alpapathit  
(Still I am poorly read)  
*Maharashtra Times*, November 21, 5
- 354M Vidnyan Sahitya  
(Scientific literature)  
*Marathi Vangmayatil nave pravah*, ed. Sharankumar Limbale, 171-179
- 354aM Vaidnyanik drishtikonacha prasar  
(The spread of scientific outlook)  
Presidential remarks in the *Ninth Science Writers Camp*, Ed. A.P. Deshpande, 20

**1994**

- 355E Farewell to merit  
*Sunday Herald*, January 9
- 356E Secrets of the universe: Was there a big bang?  
*The Times of India*, April 23
- 357E Parsecstones in astronomy 5 : The "How" and "Why" of planetary motion.  
*Khagol*, No. 5, January
- 358E Parsecstones in astronomy 6 : The universality of the law of gravitation.  
*Khagol*, No.6, April
- 359E The Inter-University Centre for Astronomy and Astrophysics  
*Southern Sky Magazine*, May/June, 22
- 359aE The big bang  
*Sunday*, July 31 – August 6, 40
- 360E Parsecstones in astronomy 7 : From Laplace to Leverrier : Further checks on  
Newton's gravity.  
*Khagol*, No. 7, July
- 361E Conformism vs originality : The dilemma of modern science  
*The Times of India*, July 30
- 362E A pattern of resistance - New ideas in astronomy  
*The Statesman*, Festival '94, Calcutta, 109
- 362aE Fred Hoyle : A profile  
*Mainstream*, **XXXII**, 22
- 363E Fred Hoyle : Reaching for the stars  
*The Times of India*, August 13

- 363aE The IUCAA story 1987-1992  
*MAEER'S MIT Pune Journal*, **II**, 13
- 364E Parsecstones in astronomy 8 : The discovery of binary stars.  
*Khagol*, No. 8, October.
- 365E Signs in the sky - The irrationality of astrology  
*The Times of India*, October 22
- 366E Abbe' Georges Lemaitre : Father of the Primeval Atom  
*Current Science*, **67**, 950
- 367E Mediocrity to the fore - Why scientists suffer in India  
*The Times of India*, November 26
- 368E Committee work in lieu of science  
*The Times of India*, December 12
- 369E An all-rounder  
*Education science and human values*, Essays in honour of Professor D.S. Kothari  
Eds. - R.C. Mehrotra, Ramesh K. Arora.  
Published by Wiley Eastern Limited.
- 370E Cambridge : A tradition of excellence  
*Science Reporter*, Festival Issue - 1994, 30
- 371E Recreational aspects in the study of mathematics  
*Ramanujam birth anniversary programme souvenir*,  
*Date with Maths by Maths Lovers*, Pune, December 22, 9
- 372E Education through astronomy  
*Science in Society*,  
Edited by Yash Pal, Ashok Jain, Subodh Mohanti  
Gyan Publishing House, New Delhi
- \*372aH Samaj, vigyan aur patrakarita  
(Society, Science and Journalism)  
Makhanlal Chaturvedi Memorial Lecture,  
Makhanlal Chaturvedi National University for Journalism
- 373M Jenva chakachi hava jate  
(When the tyres got punctured)  
*Tonic-94*, 12
- 374M Srishtividnyan gathechi gatha  
(The saga of Srishtividnyan Gatha)  
*Ravivar Sakal*, December 18
- 375M Srishtividnyan gathemagachi bhumika  
(The background to Srishtividnyan Gatha)  
*Maharashtra Times*, Bombay, December 28

- 376M Vaidnyanik drishtikonacha prasar  
(The spread of the Scientific temper)  
*9th Vidnyan Lekhak Shibir-93*, 20
- 377M Jidnyasapurtisathi mahitiche bhandar  
(Storehouse of information for satisfying curiosity)  
*Maharashtra Times*, October 16
- 1995**
- 378E Parsecstones in astronomy 9 : Stellar Studies in Bulk  
*Khagol*, No. 21, January
- 379E Age of the Universe : Did it have a beginning?  
*The Times of India*, January 30
- 380E Declining standards : The law of social thermodynamics  
*The Times of India*, February 22
- 381E Bhutas: Some reflections on modern scientific concepts  
and traditional Indian thoughts  
*Prakriti, the Integral Vision; The Nature of Matter*, **4**,  
Ed. Kapila Vatsyayan (Indira Gandhi National Centre for the Arts), 1
- 382E Man, Nature and the Universe  
*Prakriti, the Integral Vision; Man in Nature*, **5**,  
Ed. Kapila Vatsyayan (Indira Gandhi National Centre for the Arts), 9
- 383E The concept of a university  
*India 2000 : Global Civilization and Cultural Roots*.  
Eds. S.P. Ganguly and Pramod Talgeri (Wiley Eastern)
- 384E Destination India : The three travails of tourism  
*The Times of India*, April 10
- 385E Parsecstones in astronomy 10 : The discovery of helium  
*Khagol*, No. 22, April
- 386E The right to work : The perpetual holiday mood  
*The Times of India*, May 23
- 387E Willy Fowler (1911-1995)  
*Current Science*, **69**, 192
- 388E Extraterrestrial life : Are we alone in the universe?  
*The Times of India*, July 3
- 389E Parsecstones in astronomy 11 : Astronomical spectroscopy  
*Khagol*, No. 23, July.



- 390E The alien factor : No evidence to support the myth.  
*The Times of India*, July 29
- 391E Fantastic voyage....from here to eternity!  
*Bobmaitri*, **32**, 4, July-August
- 392E The excitement of doing science  
*Silver Jubilee Souvenir-94-95* of Physics Post Graduate Centre
- 393E Signs in the sky : The irrationality of astrology.  
*Universe*, **1**, 2 & 3, 5
- 394E Brief history of time : India is a nation on holiday.  
*The Times of India*, August 19
- 395E Stories of the future  
*Biblio Magazine*, August-September, 30
- 396E Going back in time : Science and technology in epics.  
*The Times of India*, September 16
- 397E Parsecstones in astronomy 12 : The galactic centre.  
*Khagol*, No. 24, October.
- 398E Total solar eclipse : Shedding light on a dark phenomenon.  
*The Times of India*, October 21.
- 399E Solar eclipse : Beliefs, superstitions and facts  
*Maharashtra Herald*, Just for kids supplement, October 21
- 400E Lacking sparkle : Two cheers for bureaucracy  
*The Times of India*, December 13
- 401E Four questions that history might answer  
*Science, Philosophy and Culture, Part I*,  
Eds. D.P. Chattopadhyaya and Ravinder Kumar, 178.
- 402E Newton explained to the layman  
Review of *Newton's Principia for the Common Reader* by  
S. Chandrasekhar (Oxford 1995),  
*Indian Express*, October 29
- 403E Structure formation in the universe  
Review of the above book by T. Padmanabhan (Cambridge 1994),  
*Space Science Reviews*, **73**, 436.
- 404H Shwet baonose shyam vivar tak : Chandrasekhar Subrahmanyam  
(From white dwarfs to black holes : Chandrasekhar Subrahmanyam)  
*Srot*, 1

- 405M Eka udar sahyikachya sahasat  
(In the company of a liberal literary figure)  
*Sakal*, January 25
- 406M Awhan anuttarit prashnanche  
(The challenge of unanswered questions)  
*Maharashtra Times*, Sunday, March 12
- 407M Ajachya Bharat Agarkaranchi bhumi  
(Agarkar's standpoint in today's India)  
*Lokasatta*, Sunday, March 19
- 408M Morumamancha kootaprasna  
(Morumama's Challenge-problem)  
*Loksatta*, Gudhi-padva special supplement, April 1
- 409M Ase he ganit ase he ganiti 1 : Sinhacha panja  
(Mathematics and mathematicians 1 : The lion's paw)  
*Chhatra Prabodhan*, April, 9, 27
- 410M Ase he ganit ase he ganiti 2 : Euler ani Konigsbergche saat pool  
(Mathematics and mathematicians 2 : Euler and the Seven Bridges of Konigsberg)  
*Chhatra Prabodhan*, June, 10, 27
- 411M Shaletalya ambat goad athavani  
(Bitter sweet memories of school)  
*Suvarna-Mahotsava Smaranika*, Malegaon Education Society, Malegaon, 59
- 412M Shaletalya ambat goad athavani  
(Bitter sweet memories of school)  
*Phulbag*, April, 40
- 413M Pariksha paddhati : kahi vichar  
(Some thoughts on the examination system)  
*Kathashri*, Diwali Number, 51
- 414M Prayog pahave karun :  
(Let us experiment)  
Srujan Anand Shikshan Patrika, Prayogsheelata  
*Prayogsheel Shikshan Special Issue*
- 415M Ase he ganit ase he ganiti 3 : Khare kinva khote  
(Mathematics and mathematicians 3 : True or false)  
*Chhatra Prabodhan*, No. 1, August, 13
- 416M Ase he ganit ase he ganiti 4 : Bharatatil prachin udaharane  
(Mathematics and mathematicians 4 : Examples from Ancient India)  
*Chhatra Prabodhan*, No.2, September, 15.

- 417M Ganitane taryancha vedh ghenare Subrahmanyam Chandrasekhar  
(Subrahmanyam Chandrasekhar, who observed the stars through mathematics)  
*Maharashtra Times*, August 27
- 418M Ase he ganit ase he ganiti 5 : Chakravyuha  
(Mathematics and mathematicians 5 : Mazes)  
*Chhatra Prabodhan*, 3, September, 9
- 419M Mumbapuri tu mazi nirasha kelis  
*Maharashtra Times*, November 5
- 420M Ase he ganit ase he ganiti 6 : Sankhyancha Mitra : Srinivas Ramanujan  
(Mathematics and mathematicians 6 : Srinivas Ramanujan, the friend of numbers)  
*Chhatra Prabodhan*, Diwali Number, October, 13.
- 421M Mazi Aai  
(My mother)  
*Chitralkha*, Diwali Number.
- 421aM Bhootakalat punargaman : Mahakavyatil vidnyan va tantradnyan  
(Visiting the past : science and technology in our epics)  
*Ayudh*, Diwali Number, 9
- 422M Doordarshanvar Mahabharata  
(Mahabharata on Doordarshan)  
*Maharashtra Times*, Annual Diwali Number, 7.
- 423M Dudh pinara Ganapati  
(The milk-drinking Ganesha)  
*Marathi Vidnyan Parishad Patrika*, November
- 424M Grahangatha I : Agalavegala prayog  
(The Story of eclipses :)  
*Ravivar Sakal*, December 10
- 425M Grakangatha II : Grahana ani gurutvakarshan  
(The Story of eclipses :)  
*Ravivar Sakal*, December 17
- 426M Grahangatha III : Suryamalebaheril grahane  
(The Story of eclipses :)  
*Ravivar Sakal*, December 24
- 427M Grahangatha IV : Vaishwik grahane  
(The Story of eclipses :)  
*Ravivar Sakal*, December 31
- 428M Ase he ganit ase he ganiti 7 : Gola-phulicha khel  
(Mathematics and mathematicians 7 : The game of nots and crosses)  
*Chhatra Prabodan*, 7, November

- 429M Ase he ganit ase he ganiti 8 : Carl Friedrich Gauss  
(Mathematics and mathematicians 8 : Carl Friedrich Gauss)  
*Chhatra Prabodhan*, 6, December, 21

**1996**

- 430E Parsecstones in astronomy 13: Catching glimpses of the extragalactic world  
*Khagol*, No. 25, January
- 431E Origin(?) of the Universe  
to *Resonance Journal of Science Education*
- 436E Part-1, Historical background, *Resonance*, January, 7  
Part-2, The expanding universe, *Resonance*, February, 12  
Part-3, The big bang, *Resonance*, March, 6  
Part-4, The first three minutes, *Resonance*, April, 5  
Part-5, Observational cosmology, *Resonance*, June, 8  
Part-6, Present challenges in cosmology, *Resonance*, July, 6
- 437E Fantastic voyage....from here to eternity!  
*Date with Maths*, January 22
- 438E World Beat : India  
*Mercury, The Journal of the Astronomical Society of the Pacific*  
January-February, 25, 1, 5
- 439E Cosmic collisions - Averting peril from outer space  
*The Times of India*, February 24
- 440E From white dwarfs to black holes  
(Subrahmanyan Chandrasekhar: 1910-1995)  
*Physics Education*, January-March
- 441E Science for the 21<sup>st</sup> Century  
*New India Digest*, March-April, 16
- 442E Learning and talent  
*The Times of India*, March 16
- 443E The ice age cometh  
(A science fiction story) in *Science Reporter*, March 15
- 444E Parsecstones in astronomy 14: Hubble's law  
*Khagol*, No.26, April
- 445E Science in mother tongue : From Einstein to the common man  
*The Times of India*, April 13
- 446E Science made simple  
*The UNESCO Courier*, April issue

- 447E Chandra, Newton and the principia  
*Current Science*, **70**, May 10, 807
- 448E Discovery of Neptune and the search for new planets  
*The Times of India*, June 8
- 449E Parsecstones in astronomy 15: The beginning of theoretical cosmology  
*Khagol*, No.27, July
- 450E Curbing brain drain  
*The Times of India*, August 10
- 451E Mars:knock, knock, who is there ?  
*The Times of India*, August 18
- 452E Parsecstones in astronomy 16: Classification of stars  
*Khagol*, No.28, October
- 453E No more Ramans, Boses & Sahas  
*The Times of India*, October 7
- 454E Space age superstitions  
*The Times of India*, November 11
- \*455E Myths, beliefs and facts in astronomy  
(*Kumari Meera Memorial Lecture*)
- 456E Homage to the cosmos  
*In quest of universal peace*, World Philosophers Meet, Pune
- 457E Sidelining the spectacular  
*The Times of India*, December 14
- 458E New ideas in science : Brakes on new breakthroughs  
*The Times of India*, January 4
- 459M Ase he gaint ase he ganiti 9 : Ganitadnyanchya gamati  
(Mathematics and mathematicians : Anecdotes of mathematicians)  
*Prabodhan*, January, 7, 13
- 460M Ase he ganit ase he ganiti 10 : Kahi koot prashna  
(Mathematics and mathematicians : Some puzzles)  
*Chhatra Prabodhan*, February, 8, 25
- 461M Pruthvi palikadil sajeev srushti  
(Extraterrestrial life)  
*Amrut*, January, 97
- 462M Prayog pahave karoon  
(One should experiment)  
*Srujan Anand Shikshan Patrika*, January 26, 4

- 463M G. Marconi - Aaj ani udya  
(G. Marconi - Today and tomorrow)  
*Tarun Bharat*, Solapur, February 28
- 464M Ase he ganit ase he ganiti 11 : Sarvat hushar shetkari  
(Mathematics and mathematicians : The cleverest farmer)  
*Chhatra Prabodhan*, March, 9, 25
- 465M Pariksha padhhati - kahi vichar  
(A few thoughts on the examination system)  
*We need you Society Smaranika*, April
- 466M Morumamancha koot prashna  
(Morumama's puzzle)  
*Footprints MES Bal Shikshan Mandir School Magazine*, April, 52
- 467M Jeva manasane manuskila nirop dila  
(When man bade goodbye to humanity)  
*Maharashtra Times*, Sunday , August 4, 4
- 468M Tathakathit mystery spot  
(The so-called mystery spot)  
*Sakal*, August 10
- 469M Vidnyanyugat Bharat  
(India in the Age of Science)  
*Gust*, Diwali Number of the Weekly Nai Gust Times, 239
- 470M Pariksha padhhati - kahi vichar  
(A few thoughts on the examination system)  
*Kathashri*, Diwali Number

**1997**

- 471E Parsecstones in astronomy 17: Understanding of stellar structure  
*Khagol*, No.29, January
- 472E New ideas in science : Brakes on new breakthroughs  
*The Times of India*, January 4
- 473E Evolution of an astrophysicist  
*Bulletin of the Astronomical Society of India*, 25, 37, 50
- 474E Search for new planets  
*Studies in History of Sciences*, Calcutta, 90
- 475E Powers of ten : About the relative size of things in the universe  
Review of the above book by Phillip and Phyllis Morrison and the Office of Charles and Ray Eames (Scientific American Library)  
*Resonance*, March, 93

- 476E The Importance of Experiments  
*Physics Education*, January-March, **13**, 339
- 477E Cranks' Constant.  
*The Times of India*, March 29
- 478E Parsecstones in astronomy 18: The steady state theory  
*Khagol*, No.30, April
- 479E Popularising science : A weapon against superstition  
*The Times of India*, June 28.
- 480E Parsecstones in astronomy 19: Astronomical telescopes  
*Khagol*, No. 31, July
- 481E Attacking achievements  
*The Times of India*, July 17
- 482E The Balance Sheet  
*Deccan Herald*, August 19
- 483E Alphabetical march  
*The Times of India*, August 30
- 484E Parsecstones in astronomy 20: The advent of radio astronomy  
*Khagol*, No.32, October
- 485E Bureaucratic gravity  
*The Times of India*, October 4
- 486E Stars in our skies: Looking beyond our galaxy  
*The Times of India*, November 24
- 487E In relative terms: The heavier side of gravity  
*The Times of India*, December 26
- 488E The decline of higher education  
*Special issue of Biblio*, December, 28
- 489E Encounters with Chandra  
*S. Chandrasekhar: The Man Behind the Legend*, K.C. Wali, Ed.(Imperial College Press), 172
- 490H Mahabharatiya doordarshan  
(Doordarshan at the time of Mahabharat)  
Seven part serial in *NavbharatTimes*, February 2,9,16,23, March 2,9,16  
Also in *Deshabandhu*, March 16,23,30 April 6,13,27

- 491H Yadon ki durbin se  
(Thoughts through telescope)  
*Pradnya*, (Kashi, Hindu Vishwavidyalaya Patrika, Mahamana Smruti Ank),  
**Part1 and II**, 7
- 492H Manav kalyan mein khagolvigyan ka yogadan  
Nain Singh Rawat Memotial Lecture, U.P. Academy of Public Administration  
in *Nain Singh Lectures*, 1, (CDS, UPAA, Nainital), 25
- 493M Puranatil vidnyan : Khare kiti khote kiti  
(Mythological science: how much authentic, how much imaginary?)  
*Marathi Vidnyan Parishad Patrika*, January, 3
- 494M Antaratil sankate I : Suryacha prakop  
(The problems in the universe : )  
*Ravivar Sakal*, January 5
- 495M Antaratil sankate II : Jenva taryacha spot hoto  
(The problems in the universe : )  
*Ravivar Sakal*, January 12
- 496M Antaratil sankate III : Prithvishi honarya takri  
(The problems in the universe : )  
*Ravivar Sakal*, January 19
- 497M Antaratil sankate IV : Antaratil jantu  
(The problems in the universe : )  
*Ravivar Sakal*, January 26
- 498M Mazi kalpak Aai  
(My imaginative mother)  
*Ravivar Sakal*, April 20
- 499M Majhi kalpak Aai  
(My imaginative mother)  
*Suvarta*, July, 17
- 500M Acharya Atre: Kahi athavani  
(Acharya Atre, some reminiscences)  
*Acharya Atre, Pratibha ani Pratima*, Ed. V.B. Deshpande  
(Prestige Publications, Pune), 646
- 501M Sampale mangalache amangaltwa  
(The inauspiciousness of Mars is over)  
*Andhashraddha Nirmulan Vartapartra*, 56
- 502M Mangalavar abhiyan  
(The Martian campaign)  
*Pudhari (Bharari)*, August 28



- 503M Mazi Shala  
(My School).  
*Kesari*, October 22
- 504M Bharatiya vaidnyanik vatavaran - Nirmitchi avashyakata  
(The need for a scientific environment in India)  
*Kathashri*, (Diwali Issue), 18
- 505M Pradhusan aani khagol nirikshan.  
(Pollution in observational astronomy)  
*Vanrai*, (Diwali Issue), 98
- 506M Vaidyanaynik chaukatitun phaljyotishashe mulyankan.  
(Astrology evaluated within the scientific framework)  
*Lokmat*, November 2
- 507M Vedh gurutwakarshanacha  
(Probing gravity)  
*Sakal*, December 28

**1998**

- 508E A Burning Question  
'Think it over', *Resonance*, March, 70
- 509E A star is born  
*50 years of scientific and techological cooperation between France and India*,  
January 1998, 77
- 510E Parsecstones in astronomy 21 : The counting of radio sources  
*Khagol*, No.33, January
- 511E Astronomy and human welfare  
in Progress and Partnership through Physics, Ed. Hema Raghavan, Gargi College,  
Delhi (Proceedings of seminar held on November 21, 1997)
- 512E Graves of academe : Vice-Chancellors' diffused role  
*The Times of India*, March 21
- 513E To Pune with love  
*Mid-Day*, March 31, XVII
- 514E Cosmological constant : Flying carpets still to take off  
*Times of India*, April 29
- 515E Le big bang, une conception bien fumeuse (In French)  
(The big bang, A fairly hazy notion)  
with G. Burbide and F. Hoyle  
*La Recherche*, Paris, April, 104

- 516E Parsecstones in astronomy 22 : The origin of elements  
*Khagol*, No.34, April.
- 517E Science as society : Realising the 'Jai Vigyan' slogan  
*The Times of India*, June 13
- 518E Parsecstones in astronomy 23 : The cosmic microwave background  
*Khagol*, No.35, July
- 519E Let's not allow them to patronise us  
*The Sunday Times of India*, August 2
- 520E Teaching troubles : Low ranking for coaching classes  
*The Times of India*, August 21
- 521E Linguistic liberties: Not stating the obvious  
*The Times of India*, September 17
- 522E Parsecstones in astronomy 24 : The discovery of quasi-stellar sources  
*Khagol*, No.36, October
- 523E Stars in our eyes : Watching a celestial cricket match  
*The Times of India*, November 21
- 524E Models of inspiration : Enduring legacy of scientific works  
*The Times of India*, December 15
- 525E Are we alone in the universe  
*Man & Development*, December 1998
- 526E Challenges and benefits of studying astronomy  
*New Vision*, Journal of Swami Ramanand Teerth University, Nanded, 1
- 527H Anya grahopar jeev srushti ki sambhavana  
(A likelihood of life on other planets)  
*Danik Bhaskar*, Indore, June 9
- 528H Meri najar me dharm : Niyantrit aacharan hi dharm hai  
(Religion through my eyes : Controlled behaviour is religion)  
*Navbharat Times*, August 19
- 529H Brahmand ki utpatti : Prachin evam adhunik dharanaae  
(Origin of the universe : Old and new ideas)  
*Vigyan Bharati Pradeepika*, 13
- 530M IUCAA pahave bandhun  
(The Building up of IUCAA)  
*Sakal*, January 30

- 531M Yugapravartak vaidnyanikache manohari darshan  
(Entertaining view of an epoch setting scientist)  
Review of biography of Einstein by M.R. Gunye  
*Maharashtra Times*, February 1
- 532M Vaidnyanik drustikon  
(Scientific outlook)  
*Solapur Tarun Bharat*, February 28
- 533M Sakshar kon - Nirakshar kon? : Pannas varshanantar  
(Who is literate - who is illiterate? : After 50 years)  
*Maharashtra Times*, May 23
- 534M Gurutviya bhinge  
(Gravitational lenses)  
*Chhatra Prabodhan*, Diwali Special Issue
- 535M Urja aani paryavaran  
(Energy and environment)  
*Vanarai*, Diwali Special Issue
- 536M Vidnyan aani dharm : Ek sanwad  
(Science and religion : A dialogue)  
*Suvarta*, Christmas Issue
- 536aM Vedhashalanchya ramya parisarat  
(In the pleasant environment of observatories)  
*Tonic*, Geography Special Number

**1999**

- 537E Doomsday forecast : Curing a non-existent malady  
*The Times of India*, January 25
- 538E Parsecstones in astronomy 25 - Pulsars : The cosmic time-pieces  
*Khagol*, No.37, January
- 539E Science, the scientific attitude and anti-science movement  
14th IHEU World Congress Commemorative Volume, Eds. Suman Oak and S.V. Raju, 161
- 540E Eyes wide shut : Big bang theorists out of orbit  
*The Times of India*, April 10
- 541E Higher education in the twentyfirst century  
*Higher Education : Chanllenges and Visions*, University of Pune, Ed. Prashant K. Sinha, 33
- 542E Parsecstones in astronomy 26 - Dark matter in the universe  
*Khagol*, No.38, April

- 543E No fizz and spark : Decline of science education  
*The Times of India*, May 6
- 544E Parsecstones in astronomy 27 - Molecules in space  
*Khagol*, No.39, July
- 545E India in the twenty-first century  
*New India Digest*, **71**, 10
- 546E The interaction between nuclear science and astronomy  
*Universe & Beyond*, **3**, 6
- 547E Parsecstones in astronomy 28 - Contributions of space astronomy  
*Khagol*, No.40, October
- 548E A modern mindset : Combining tradition and technology  
*The Times of India*, October 23
- 549E The numbers game : Overcoming the millennium mania  
*The Times of India*, November 11
- 550E Science and technology  
*Celebrate India 2000 : Endings and beginnings*, Tulika
- 551E Fred Hoyle : A profile  
*Petals*, (a publication of The South Indian Cultural Association Senior Secondary School, Indore), 26
- 552E The concept of God  
*Gentleman*, December Issue
- 553E The selection effect : The inaccuracy of millennium rankings  
*The Times of India*, December 28
- 554E A different approach to cosmology  
with Geoffrey Burbidge and Fred Hoyle  
*Physics Today*, **52**, 4, 38
- 555E Observational cosmology with the new radio surveys  
A review of the above book by M.N. Bremer, N. Jackson and I. Perez-Fournon  
(Kluwer Academic Publishers)  
*Space Science Reviews*, **87**, 540
- 556E The cosmic microwave background  
A review of the above book by C.H. Lineweaver, J.C.T. Bartlett, A. Blanchard,  
M. Signore and J. Silk (Kluwer Academic Publishers)  
*Space Science Reviews*, **87**, 541
- 557E The American astronomical society's first century  
A review of the above book by David H. DeVorkin  
*Nature*, **409**, 213

- 558E Mr Tompkins makes a comeback  
A review of the above book by Peter Rodgers (IOP)  
*Physics World*, **12**, 11
- 559M Sudur vishwacha abhyasak  
(Observer of the distant universe)  
*Sakal*, March 21
- 560M Urja aani paryavaran  
(Energy and environment)  
*Shikshan Sankraman*, April, 16
- 561M Maze `Sushlok' Aajoba  
(My `Sushlok' Grandfather)  
*Maharashtra Times*, May 9
- 562M Ekvishave shatak : Swapne ani avhane  
(Twenty-first century : Dream and challenges)  
*Raviwar Sakal*, July 11
- 563M Apangatvala na-jumannara shastradnya - Stephen Hawkin  
(Stephen Hawking - a scientist who surmounted disabilities)  
*Apangasmurti*, August 15
- 564M Khare kiva khote  
(True or false)  
*Shikshan Sankraman*, October, 18
- 565M Bahurangi pratibhecha viadnyanik  
(A scientist of multifaceted talents)  
*Vishranti*, Diwali Issue.
- 566M Pradushan aani khagol nirikshan  
(Pollution in observational astronomy)  
*Vidnyan Vedh*, (a publication by Marathi Vidnyan Parishad, Barshi)
- 567M Ekvisavya shatkat  
(In the twentyfirst century)  
*Patrika*, (a publication by Marathi Vidnyan Parishad), December Issue, 3
- 568M Bharatatil prachin udaharane  
(Examples from ancient India)  
*Shikshan Sankraman*, December, 5

## 2000

- 569E Science journalism in India and abroad  
*Vritta Vidya*, January 3 and January 7
- 570E Reaching out to the sky  
*Innovative India*, Eds. L.K. Sharma and Sima Sharma, (Mediland Ltd., U.K.),188

- 571E Quo vadis, Indian science?  
*Hindustan Times*, Special Issue, 30
- 572E Astronomy in the millennium  
*Prabuddha Bharata*, **105**, 22
- 573E Parsecstones in astronomy 29 : Large scale structure of the universe  
*Khagol*, No.41, January
- 574E Science of the times : From abstract concepts to daily life  
*The Times of India*, March 1
- 575E Hype, Hype, Hurray : The scientist in the marketplace  
*The Times of India*, April 13
- 576E Parsecstones in astronomy 30 : Launch pads for the new millennium  
*Khagol*, No.42, April
- 577E IUCAA : A novel experiment in the Indian university sector  
*American Chapter of the Indian Physics Association Newsletter*, **14**, 1, April
- 578E Venture funding for new ideas in science  
*Nature*, **404**, 707
- 579E It's question time : Children must look for answers  
*The Times of India*, May 23
- 580E The culture of science  
(D.P. Chattopadhyaya Festschrift)  
*History, Culture And Truth*, Eds. Daya Krishna and K. Satchidananda Murthy,  
Kaliki Prakash, New Delhi, 105
- 581E Relative theories : Crossing the light speed barrier  
*The Times of India*, June 21
- 582E The billion booby trap : India has no cause to cheer  
*The Times of India*, August 4
- 583E QSSC : Requiem for Big Bang?  
*Science Reporter*, August 2000, 44
- \*584E The relevance of Raja Rammohun Roy in the present age of science and technology  
Raja Rammohun Memorial Lecture delivered at Mumbai on December 12, 2000  
*Granthaana : Indian Journal of Library Studies*, **VII**, No.1 & 2, 5
- 585E Celestial comeback : Planets are in orbit again  
*The Times of India*, November 18

- 586H Samaj va vidnyan ke beech setu bane sahitya  
(Let literature be a bridge between science and society)  
*India Today*, 18
- 587H Puranomai vigyan : Kasoti kya ho?  
(What is the scientific criteria for testing whether our ancient scriptures contain science)  
*Vibha*, Vigyan Bharati Smarika, 13
- 588M Pannas varshananter  
(After 50 years)  
*Parivartan : Sankalpana, Vedh Ani Vastav*, Commemoration volume in honour of Professor J.M. Waghmare, 64
- 589M Maze jara chuklech  
(I think I erred there)  
*Prerak Lalkari*, March-April 2000, 14
- 590M Mazya chhatra jeevanatale sansmarniya prasang  
(Memorable occasions in my student life)  
*Chhatra Prabodhan*, April, 19
- 591M Gelya sahasrakatale khagol vidnyanache aitihashik tappe  
(The historical mile stones of astronomy in the last millennium)  
*Souvenir 2000*, Ramkrishna Math, Pune, April, 14
- 592M Khagolvidnyanachya paulkhuna : I. Pruthvi sthir, ki surya sthir  
(Landmarks in astronomy: I. Which is at rest? The Earth or the Sun?)  
*Ravivar Sakal*, May 7
- 593M Khagolvidnyanachya paulkhuna : II. Gurutvakarshanachya niyamacha shodh  
(Landmarks in astronomy: II. The discovery of the law of gravitation)  
*Ravivar Sakal*, June 4
- 594M Khagolvidnyanachya paulkhuna : III. Durbini : Khagol vaidnyanikache divyachakshu  
(Landmarks in astronomy: III. Telescopes : the devine eyes of the astronomer )  
*Ravivar Sakal*, July 2
- 595M Navya sahasrakachya umbarthyavarun  
(From the threshold of the new millennium), Introductory article to the book *Shatak Shodhanche* by Mohan Apte (Rajhans Prakashan, Pune), 5
- 596M Vidnyanyug  
(The age of science)  
*Pudhari*, July 30
- 597M Khagolvidnyanachya paulkhuna : IV. Taryanche rahasya  
(Landmarks in astronomy: IV. The secret of stars)  
*Ravivar Sakal*, August 6

- 598M Navya sahasrakatil vidnyan tantradnyanachi romaharshak kshtije  
(A review of the horizons of science and technology in the new millennium)  
*Lokmat*, August 20
- 599M Khagolvidnyanachya paulkhuna : V. Aakashgangechya teeravarun  
(Landmarks in astronomy: V. From the banks of the Milky Way)  
*Ravivar Sakal*, September 3
- 600M Khagolvidnyanachya paulkhuna : VI. Vishwache prasaran  
(Landmarks in astronomy: VI. Expansion of the universe)  
*Ravivar Sakal*, October 1
- 601M Ekvisavya shatakati uchcha shikshan : Sandhi aani avhane  
(Higher Education in twenty-first century : Opportunity and challenges)  
*Udache Shikshan : Antarang aani avhane*, Ed. R.T. Bhagat, Madhuraj Publication Pvt. Ltd., 42
- 602M Kelyache samadhan  
(Job satisfaction)  
*Saptahik Sakal*, October 28
- 603M Batatyachya chalit udati tabakadi  
(Flying saucer at the Batata chawl : A science fiction story)  
*Maharashtra Times*, Diwali Issue, 30
- 604M Khagolvidnyanachya paulkhuna : VII. Navya gavakshatun vishwarupdarshan  
(Landmarks in astronomy: VII. Views of the universe through new windows)  
*Ravivar Sakal*, November 5
- 605M Pudhalya dashakatale khaolvidnyan aani vishwarachana  
(Astronomy and the structure of the universe in the next ten years)  
*Kalniray*, Diwali Issue, 118
- 606M Vidnyan, tantradnyan aani Marathi bhasha  
(Science, technology and Marathi Language)  
*Kathashri*, Diwali Issue, 37
- 607M Akashatale dole  
(Eyes in the sky : A science fiction story)  
*Saptahik Sihasan*, Diwali Issue, 13
- 608M Abhayaranya  
(Sanctuary : A science fiction story)  
*Chhatra Prabodhan*, Diwali Issue, 9
- 609M Vidnyanachi navi kshitiye  
(New horizons of science)  
*Setubandh*, Diwali Issue, 38



- 610M Khagolvidnyanachya paulkhuna : VII. Pudhachya shatakatil apeksha va avhane  
(Landmarks in astronomy: VII. Expectations and Challenges of the next century)  
*Ravivar Sakal*, December 3
- 611M Aathavan aani shikvan  
(Memories and lessons of science in the 20<sup>th</sup> century)  
*Ravivar Sakal*, December 24

**2001**

- 612E Astronomy : Projections for the future  
*Prabuddha Bharata*, **106**, 22
- \*613E Opposition to new ideas in science  
(Lecture delivered to the Breakthrough Science Society, Kerala State Chapter, May 23, 2000)  
*Breakthrough*, **9**, 1, 2
- 614E The right equations : Desperately seeking science  
*The Times of India*, January 20
- 615E Science, anti-science and the scientific outlook  
*One India One People*, 6
- 616E Why did I opt for career in science?  
*Resonance*, March, 90
- 617E Red stars over China : Science lessons from supernovas  
*The Times of India*, April 21
- 618E Cosmic puzzles and speculations  
*The Earth Has No Corners*, Ed. K.L. Nandan, 185  
(Felicitation Volume on the 70<sup>th</sup> Birthday of Dr Karan Singh)
- 619E Star of superstition : UGC has its head in the clouds  
*The Times of India*, May 14
- 620E Vedic astrology or jyotirvigyan  
*Economic and Political Weekly*, June 16
- 621E Mere shadow play : Hippos under an eclipsed Sun  
*The Times of India*, July 21
- 622E An astro-trilogy  
A review of three books, (i) Indian Mathematics and Astronomy: Some Landmarks,  
(ii) Indian Astronomy, An Introduction and (iii) Astrology: Believe it or not? by  
S. Balachandra Rao  
*Current Science*, **81**, 2, 215
- 623E The great rebel : Fred Hoyle's contribution to astronomy  
*The Times of India*, September 4

- 624E Fred Hoyle : Scientist of multifaceted talents  
*Current Science*, **81**, 7, 843
- \*625E Science and religion : Approach towards a synthesis  
*Creeds of Our Times*, (Foundation of Universal Responsibility, Delhi), 267
- 626E Astronomy in the millennium  
*Souvenir : Mini School on Astronomy & Astrophysics*, 10
- 627E Half measures : Badly begun in never done  
*The Times of India*, November 29
- 628E IUCAA : A new experiment for Indian universities  
*Organizations and Strategies in Astronomy II*, Ed. A. Heck (Kluwer), 29
- 629E Search for extra-terrestrial intelligence  
*Souvenir*, National Children's Science Congress – 2001, 39
- 630H Itihaskaro ke liye char saval  
(Four questions for historians)  
*Shaishanik Sandarbha*, April-May, 43
- 631H Ekeesavi sadi me vidnyan  
(Science in the twentyfirst century)  
*Akshar Parva*, June
- 632H Bhavishya hum rachenge, sitare nahi  
(We control our future and not the stars)  
*Navbharat Times*, August 22
- 633H Ekeesavi sadi me vidnyan  
(Science in the twentyfirst century)  
*Vagarth*, September
- 634H Vigyan me kariyar – Mera chunav  
(Career in science – My choice)  
*Srot*, November
- 635H Ekeesavi sadi me vidnyan  
(Science in the twentyfirst century)  
*Smarika*, National Science Exhibition – 2001, 20
- 636M Navya sahasrakachya umbarthyavarun bhavishavedh  
(Outlook for the future on the threshold of the new millennium)  
*Chhatra Prabodhan*, February, 3
- 637M Vidnyan aani tantradnyan : Aathavan aani shikvan  
(Science and technology : Memorable results and lessons)  
*Shikshan Sankraman*, February, 8

- 638M Kelyache samadhan  
(Job satisfaction)  
*Maitra, 6*
- 639M Manala phulavanare Pu.La. : Ek abhivadan  
(P.L. who brought joy to our minds)  
*Tarun Bharat, June 10*
- 640M Mumbaishimatla anusanhar  
(The nuclear devastation of “Bombay-shima”)  
*Maharashtra Times, August 5*
- 641M Ekvishave shatak : Swapne ani avhane  
(Twenty-first century : Dreams and challenges)  
*Vidnyanyug, August*
- 642M 21 June, 2001 che suryagrahan  
(Solar eclipse dated June 21, 2001)  
*Marathi Vidnyan Parishad Patrika, August*
- 643M Bahurangi pratibhecha vaidnyanik  
(Fred Hoyle : Scientist of Multi-Faceted Talents)  
*Ravivar Sakal, August 26*
- 644M Bhavishyavedh  
(Forecasting)  
*Amrut, September*
- 645M Jyotirvidnyan : Vidnyan navhe  
(Vedic astrology or jyotirvigyan)  
*Marathi Vidnyan Parishad – Patrika, Diwali Issue.*
- 646M Dakshin golardhatun pahilele suryagrahan  
(Total solar eclipse witnessed from the southern hemisphere)  
*Gammat Jammata, Diwali Issue*
- 647M Dhakata bhau  
(Younger brother)  
*Maharashtra Times, Diwali Issue*
- 648M Jotish vishyach bhavisha kay asel!  
(What will be the future of Jyotish)  
*Milun Saryajani, Diwali Issue*
- 649M Dakshin golardhatun pahilele suryagrahan  
(Total solar eclipse witnessed from the southern hemisphere)  
*Dharmabhaskar, Diwali Issue*
- 650M Vidnyan aani tantradnyan : Aathavan aani shikvan  
(Science and technology : Memorable results and lessons)  
*Tonic, 26*

651M Gelya sahasrakatil vishwasankalpanecha vikas  
(The development of cosmology in the last millennium)  
*Vidnyan Vedh*, Marathi Vidnyan Parishad, Barshi, 26

**2002**

652E Science and me  
*Science And You*, (National Book Trust, India), 111

653E Creativity, Society and Science  
*India International Centre Quarterly*, **28** (Special Commemorative Volume), 164

654E Finding the treasure  
*SLIMlines*, January-February, 1

655E Knowledge creation : Higher education as primary goal  
*The Times of India*, March 13

656E Science journalism in India and abroad  
*Indian Journal of Science Communication*, **1**, 1, 23

657E Astronomy at the millennium  
*Proceedings of Andhra Pradesh Akademi of Sciences*, **6**, 2, 87

658E QSSC : Requim for big bang?  
*ECHO*, 13

659E Distant wanderers: The search for planets beyond the solar system  
A review of the above book by Bruce Dorminey  
*Current Science*, **82**, 10, 1289

660E Virtual database: Future of scientific information  
*The Times of India*, June 21

\*661E Current speculations about the origin of the universe  
*India International Centre Quarterly*, **29**, 1, 115

\*662E Challenges and benefits of studying astronomy  
(Jawaharlal Nehru Birth Centenary Award Lecture delivered to the Indian Sciene Congress  
Association, Kolkata, March 21)  
*Everyman's Science*, **XXXVII**, 1, 8

663E Looking at the future, learning from the past  
*Mantram*, July

664E Original sins: Lack of integrity in R&D  
*The Times of India*, November 22

- 665H Bachhe jawab dhundhane ko tatpar rahe  
(It's question time : Children must look for answers)  
*Harkara*, 16
- 666H Do shabdh  
(Two words)  
*Bal Vaidnyanik*, Preface for Standard 7 textbook
- 667H Jyotish vidnyan nahi hai  
(Astrology is not a science)  
*Srot*, August
- 668H Ekeesavi shati me vidnyan  
(Science in the twentyfirst century)  
*Ekeesavi Shati Ka Bhavishya*, 20
- 669H Naummidi mein vidnyan ki khoj : Uchit samikaran  
(The right equations : Desperately seeking science)  
*Harkara*, August-October, 2
- 670M Don paryay  
(Two options)  
*Dharmabhaskar*, January
- 671M Matrubhashet vidnyan ! Einstein te samanya manus !!  
(Science in mother tongue – From Einstein to common man)  
*Vishwa Vidnyan*, January
- 672M Dakshin golardhatun pahilele suryagrahan  
(Total solar eclipse witnessed from the southern hemisphere)  
*Dhyas Vidnyanacha*, Marathi Vidnyan Parishad, Kolhapur
- 673M Dakshin golardhatun pahilele suryagrahan  
(Total solar eclipse witnessed from the southern hemisphere)  
*Maitra Jeevanche*, 9
- 674M Prashnotaracha taas : Mulanni shodhak vruti banavavi  
(It's question time : Children must look for answers)  
*Vishwa Vidnyan*, February
- 675M Vidnyanyug va vidnyansahitya  
(The age of science and the literature of science)  
*Amrutsanchay*, 45
- 676M Sphurtiche aadarsh : Vaidnyanik karyacha chirkal varasa  
(Model of inspiration : Enduring legacy of scientific works)  
*Vishwa Vidnyan*, March
- 677M Phalajyotish aani vidnyan  
(Astrology and science)  
*Dhanurdhari*, March

- 678M Navya sahasrakachya umbarthyavarun bhavishavedh  
(Outlook for the future on the threshold of the new millennium)  
*Vidyasanvardhan*, 1
- 679M Pudhalya dashakatil khaolvidnyan aani vishwarachanashastra  
(Astronomy and the structure of the universe in the next ten years)  
*Pursharth*, March
- 680M Hype Hype Hurray! Bazarpetheat vidnyanik  
(Hype Hype Hurray – The scientist in the marketplace)  
*Vishwa Vidnyan*, April
- 680aM Phalajyotish he shastra nahi  
(Astrology is not a science)  
*Amrut*, April, 124
- 681M Ekvishavya shatakat  
(In the twenty-first century)  
*Vidnyanyug*, May
- 682M Tari mi alp-patith  
(Still I am ill-read)  
*Balvikas*, June
- 683M Abhayaranya  
(Sanctuary : A science fiction story)  
*Anubhav*, 24
- 684M Bhutkalacha magova.. Mahakavyatil vidnyan va tantradnyan  
(Going back in time – Science and technology in epics)  
*Vishwa Vidnyan*, August
- 685M Yogya samikarane! Vidnyanachi nitanth nikad!!  
(The right equations – Desperately seeking science)  
*Vishwa Vidnyan*, September
- 686M Chandrachi safar  
(A journey to the moon)  
*Vachu Anande*, 47
- 687M Prof. Visarbhole  
(Prof. Visarbhole)  
*Tonic*, 34
- 688M Ganitatil gamati-jamati  
(Recreations in mathematics)  
*Gammat Jammata*, Diwali Issue, 9

- 689M Mazya chhatra jeevanatale sansmarniya prasang  
(Memorable incidents from my student days)  
*Aayushyateel Wadal-lata*, 6
- 690M Aathavaninchya durbinitun  
(From the telescope of memories)  
*Chhatra Prabodhan*, Diwali Issue, 71
- 691M Bharatiya shastradnyanche sumar bhavitavya ! Bharatiya shastradnya vyathith ka??  
(Mediocrity to the fore – Why scientists suffer in India)  
*Vishwa Vidnyan*, December
- 692M Vidnyan, tantradnyan aani Marathi bhasha  
(Science, technology and Marathi Language)  
*Marathi Pathyapustak*, IInd year Science, Pune University, 143

**2003**

- 693E Monumental marvels : Science through the looking glass  
*The Times of India*, January 28
- 694E Search for micro-organisms in outer space  
*Surya*, 1,6, 11
- 695E Science & speculation : Behind the veil of cosmology  
*The Times of India*, May 2
- 696E Asking for the moon : Back to basics in space  
*The Times of India*, May 30
- 697E The sky's the limit : We need more star-gazing in schools  
*The Times of India*, August 11
- 698E Higher education in the twentyfirst century  
*Tapasya*, 43
- 699E A fine balance : Creativity as cornerstone of science  
*The Times of India*, November 5
- 700E A matter of record : Life in the abode of monks  
*The Times of India*, December 29
- 701E At the helm of action  
*The TMTJ Journal of Management*, December, 47
- 702H Ekeesavi sadi me vidnyan  
(Science in the twentyfirst century)  
*Vidnyan Prakash*, January, 3

- 703H Ekeesavi sadi me vidnyan  
(Science in the twentyfirst century)  
*Hindi Mein Vidnyan-Bhavana*, 31
- 704M Yetya dashakatil khaolvidnyan aani vishwarachanashastra  
(Astronomy and the structure of the universe in the coming ten years)  
*Akashdarpan*, January-February, 3
- 705M Kai. Shri Varadananda Bharati : Kahi Aathavani  
(Late Shri Varadananda Bharati : Some memories)  
*Sanskriti Vandana*, 28
- 706M Gelya sahasrakatil vishwasankalpanechea vikas  
(The development of cosmology in the last millennium)  
*Sahasrakatil Vidnyan*, 1
- 707M Manogat  
(Instrospection)  
*Loksatta-Lokmudra*, March 9
- 708M Ek aashavadi shastradnya  
(One optimistic scientist)  
*Maharashtra Times*, March 9
- 709M Prithvibaheeril jeevshristi  
(Extraterrestrial life)  
*Marathi Vidnyan Parishad Patrika*, April, 4
- 710M Andhashradhankade pahanyachi chikitsak drishti  
(A rational way of looking at superstitions)  
A review of the book entitled “*Jyotishakade janyapurvi*” by Prakash Ghatpande  
*Lokrang*, April 13
- 711M Ek aashavadi shastradnya  
(One optimistic scientist)  
*Gaurav Granth*, 14
- 712M Vaidnyanik drustikon  
(Scientific outlook)  
*Nirantar Shikshan*, April, 8
- 713M Chandrala gavasani  
(Orbiting the Moon)  
*Loksatta-Lokrang*, June 15
- 714M Tu mazi nirasha kelis  
(You disappointed me! )  
*Gomantbharati*, (Text book of 11<sup>st</sup> Standard of Goa Board of Secondary and Higher Secondary Education), 81



- 715M Vaidnyanik drustikon  
(Scientific outlook)  
*Vyaktimatav Vikas Deendarshika 2003-04*
- 716M Aakashvani aani me  
(Aakashvani and I)  
*Suvarnamudra, 75*
- 717M Apangatvala na-jumannara shastradnya – Sir Stephen Hawking  
(Sir Stephen Hawking – a scientist who surmounted disabilities)  
*Paulkhuna, 29*

**2004**

- 718E Past perfection : Science in the service of arts  
*The Times of India, February 10*
- \*719E The message of science fiction : Prophetic or trivial  
Article based on the lecture delivered in the Antara Series of the Sahitya Akademi  
in July 2000.  
*Antara, 159*
- \*720E Some unsolved problems in astronomy and astrophysics  
(Invited talk at the Regional Conference on Physics Research in the North East, Dibrugarh,  
November 9, 2002)  
Proceedings of the 3<sup>rd</sup> Regional Conference on Physics Research in the North East, Dibrugarh,  
Eds. D.K. Choudhury and P. Purkayastha, 3
- 721E Great teachers who have taught me  
*Quality Enhancement in Teacher Education, 155*
- 722E The ice age cometh  
*Educare, 33*
- 723E Here comes the Sun : The star can do some strange things  
*The Times of India, August 7*
- 724E Recollections and projections  
*Bharati, 54*
- \*725E Creating successful scientific institutions  
*Ideas that have Worked, 99*
- 726E Science journalism in India and abroad  
*Science Reporter, December*
- 727E Salad Days  
*Souvenir, 43* (Article published on the occasion of the 70<sup>th</sup> Annual Meeting of the  
Indian Academy of Sciences, Bagalore at the Banaras Hindu University, Varanasi.)

- 728E The excitement of doing science  
*One Hundred Reasons to be a Scientist*, 175
- 729H Jyotishshastra ka vaidnyanik mulyankan  
(An evaluation of astrology from the scientific standpoint)  
*Tarksheel*, 19
- 730M Kristi bhikshunchya mathit bhartiya vaidnyanik  
(An Indian scientist in the abode of Christian monks)  
*Bonjur*, 14
- 731M Ujavya sondecha Ganapati  
(Ganesha with right handed trunk)  
*Marathi Katha : Visave Shatak*, 415

## 2005

- 732E Beautiful mind : A 100 years since Einstein launched himself  
*The Times of India*, January 1
- 733E Time-keeping in special relativity  
*Virat Surya*, January, 49
- 734E Diaryspeak of how a Puneite became Senior Wrangler in imperial England  
*The Indian Express, Pune Newslines*, February 8
- \*735E The culture of science  
(Article based on the C.D. Deshmukh Memorial Lecture delivered at the India International Centre, New Delhi)  
*India International Centre Quarterly*, 156
- 736E Eclipse of reason  
*The Times of India*, June 4
- 737E Reaching for the stars  
*The Times of India*, July 30
- 738E Star wars amongst the dons  
A review of the book entitled "*Conflicts in the Cosmos: Fred Hoyle's life in science*" by Simon Mitton  
*Sunday Times of India*, September 4
- 739E Challenges and benefits of studying astronomy  
*Souvenir*, 65
- 740E Yehi hai right size, baby  
*The Times of India*, October 15

- 741E When exciting science is done in colleges, not in labs  
*Indian Express*, October 22
- 742E Hermann Bondi (1919 – 2005)  
*Current Science*, **89**, 10, 1767
- 743E Origin (?) of the universe  
Part-2, The Expanding Universe  
*Resonance*, December (Reproduced from 432E)
- 744E The science-society interaction  
*Swasti*, **3**, 18
- 745E Tools for science education  
*People Science Education Abstracts*, 85
- 746H Kaise bane Oxford, Cambridge ki takkar ke sansthan  
(How can we build institutions like Oxford and Cambridge?)  
*Dainik Bhaskar*, July 20
- \*747H Badalti duniya mein Hindustan  
(The role of India in a changing world)  
*Rachana*, January-April, 3
- 748H Khatare ki aahat  
(Signs of danger)  
*Aha! Zindagi*, September (Expressed in words by Ramesh Nirmal)
- 749H Phalit jyotish aur vidnyan  
(Astrology and science)  
*Tarksheel*, 23
- 750M Vaidnyanik drustikon  
(Scientific outlook)  
*Vidnyanvahini*, 89
- 751M Eka mahanagaracha mrutyu  
(The death of a megapolis)  
*Loksatta*, August 7
- 752M Mahavidyalayanmadhyehi sanshodhan karya  
(When exciting science is done in colleges, not in labs)  
[Translation of article which appeared in Indian Express dated October 22 under the “India empowered to me is” series dated October 22]  
*Loksatta*, October 24
- 753M Prithvibaheeril jeevshristi  
(Extraterrestrial life)  
*Navakal*, October 16, 20, 21 and 22

- 754M Jagtikikaran : Kahi vichar  
(Globalization : Some thoughts)  
*Aashay*, 43
- 755M Ek upekshit shastradnya Alfred Wegener  
(Alfred Wegener : A neglected scientist)  
*Tonic*, 18
- 756M Project solspace  
(Project solspace)  
*Chhatra Prabodhan*, Diwali Issue, 114
- 757M Lambi, kshetraphal ani ghanaphal  
(Length, area and volume)  
*Shaikshanik Samachar Patrika*, 9
- 758M Mazya sasubai Kumutai  
(My mother-in-law Kumutai)  
*Jeevandhara*, 7

**2006**

- 759E The scientific temper: Indispensable to enlightened citizenship  
*Prabuddha Bharata*, January
- 760E Science as a aid towards value education  
*Philosophy and Science of Value Education in the Context of Modern India*, 147
- 761E The excitement of doing science  
*Trillium 2005*
- 762E Science without borders  
*The Times of India*, May 9
- 763E A challenge in the sphere of higher education  
*Vision and Values – Science • Defence • Education • Ethics*, 252  
(Essay in honour of Dr D.S. Kothari on his birth centenary)
- 764E A search for life in the universe  
*Dissertatio cum Nuncio Sidereo III*, 3
- 765E The excitement of doing science  
*Shillong College Golden Jubilee Magazine 2006*, 7
- 766E The culture of science  
*Science and Spirituality in Modern India*, 65
- 767E Darkness at noon  
*The Times of India*, November 18

- 768E Yash : A man with multiple – vision  
*Yash Pal : Eighty Years Young*, 21
- 769E Inspiration and thrill in science  
*Science Quest*, 9
- 770E Truth imitates fiction  
*The Times of India*, December 30
- \*771E Modern cosmology from a historical perspective  
(Article based on the Second Hasi Majumdar Memorial Lecture delivered at the Calcutta University, Kolkata.)  
*Science and Culture*, **72**, 9-10, 277
- \*772E The role of science fiction in the present age of science  
(Article based on the keynote address delivered at the Natinoal Conference for Science Fiction Writers, Aurangabad)  
*Dream 2047*, December
- 772aE Tradition of science in Indian culture  
*Indian Culture : Science and Society*, 23
- 773H Vidnyan me kariyar – Mera chunav  
(Career in science – My choice)  
*Samaz Zaroka*, 35
- 774H Taron ko chhu lene ki hasrat  
(Reaching out to the stars)  
*Vikas Sahyatri*, 4
- 775M Sphot  
(An explosion)  
*Aaisi Akshare*, July
- 776M Time machinechi kimaya  
(Miracle of the time machine)  
*Marathi Vidnyan Parishad – Patrika, Diwali Issue*, November, 8
- 777M Akraman  
(Invasion)  
*Dharmabhaskar*, Diwali Issue, 6
- 778M Suryacha prakop  
(Sun's fury)  
*Dhananjay*, Diwali Issue, 8
- 779M Vidnyan ani me : Me vaidnyanik kasa zalo?  
(Science and me : How I became a scientist?)  
*Souvenir – Jawaharlal Nehru National Science Exhibition*, 12

780M Vidnyan sanshodhanatil uttejana  
(The experiment of scientific research)  
*Aamhi shastradnya ase zalo*, 187

781S Mallikabodha  
(Lesson for Mallika)  
*Samarpanam*, 28

**2007**

782E Change your mindset  
*The Indian Express*, January 1

783E Memory plus  
*The Times of India*, March 31

\*784E Learning to live with science and technology  
(Article based on the T.A. Pai Memorial Lecture delivered at the T.A. Pai Management Institute,  
Manipal)  
*Journal of the Kanara Chamber of Commerce & Industry*, 17

785E Exciting research out of labs into universities  
*India Empowered*, 199

786E Journey without maps  
*The Times of India*, July 28

787E Cultivating the right scientific temper  
*One India One People*, August, 56

788E From scientific literacy to scientific research: the Indian experience  
*The Republic of Science: Golden Jubilee Vignettes*, 15

789E Where time stands still  
*The Times of India*, November 10

790E My greetings to Bhal...  
*B.M. Udgaonkar : Eminent Scientist & Educationist*, 23

791E Why study astronomy  
*The Joy of Physics*, October, 5

792H Vidnyan, samaj aur patrakarita  
(Science, Society and Journalism)  
*Anchalik Patrakar*, February-March, 2

793H Bhari dopahari mein andhera  
(Darkness at noon)  
*Navbharat Times*, August 8

- 794M Davadu naka kshana he molache!  
(These moments are precious, don't waste them!)  
*Sakal*, January 3
- 795M Krishnakand  
(Dark Matter)  
*Chhatra Prabodhan*, 3
- 796M Kuthe shodhishi vidnyaneshwar?  
(Where shall we find young scientific leaders?)  
*Sakal*, February 6 and 28
- 797M Vidnyan ani me : Me vaidnyanik kasa zalo?  
(Science and me : How I became a scientist?)  
*Shikshan Sankraman*, February, 13
- 798M Mala ho krishnavivar disale...!  
(Oh! I saw the black hole)  
*Sakal*, April 10
- 799M Paradhin nahi jagati putra manavacha...  
(Man in this world is not a helpless animal)  
*Sakal*, May 9
- 800M Vidnyanyugat vidnyankathanchi bhumika  
(The role of science fiction in the age of science)  
*Pudhari*, May 20
- 801M Paradhin nahi jagati putra manavacha!  
(Man in this world is not a helpless animal)  
*Vidnyan Vichar*, June, 6
- 802M Anubhav gairvyavasthapanacha, ayogya manovruticha  
(The result of bad management and wrong mindset)  
*Sakal*, June 12
- 803M 'VVIP' yeti ghara | jae shanti deshantara ||  
(When the VVIPs arrive, we lose all our peace)  
*Sakal*, July 10
- 804M Aajachya antaryugatil kahi andhashradha  
(Some space-age superstitions of modern times)  
*Sakal*, August 7
- 805M Vidnyan sahitya  
(Science fiction)  
*Sathottari Marathi Vangmayatil Pravah*, 299
- 806M Udatya tabakadya : antaral yugatil andhashradha  
(Flying saucers : superstitions of the space age)  
*Sakal*, September 5

- 807M Samratchi navi vastre : Adrushya padarth ani adrushya urja  
(The Emperor's new clothes : Dark Matter and dark energy)  
*Sakal*, October 9
- 808M Svayampurta prashna ani vidnyan shikshan  
(Science teaching and spontaneous questions)  
*Sakal*, November 6
- 809M NRI astanache kahi anubhav  
(Some experiences as an NRI)  
*NRiPO*, November, 13
- 810M June te sone : Kharokhar ka paishapurte?  
(Old is gold : In reality or just for money?)  
*Sakal*, December 4
- 811M Paradeshatuni sone lutuni Moru paratuni aala..  
(On returning as an NRI)  
*Swa..Desh!* , 8

**2008**

- 812E An astronomer's cricket puzzle  
*Safari*, March, 15
- 813E Pune in 2020 : A dream  
*DNA*, February 26
- 814E The role of science fiction in the present age of science  
*Proceedings of the Eighth National Conference for Science Fiction Writers*, 7
- 815E The great escape to space  
*The Indian Express*, March 15
- 816E Scientific research : What it means to me  
*Mens Sana Monographs*, 6, 1, 135
- 817E By Jupiter, it's not in your stars  
*Financial Chronicle*, April 22
- 818E Eclipse of reason : Superstition continues to thrive in India  
*Via Lactea*, May 4
- 819E IISER, NISER, are we any wiser?  
*Financial Chronicle*, May 8
- 820E Infinite human quest  
*Financial Chronicle*, May 12



- 821E The science behind God  
*Financial Chronicle*, June 4
- 822E Science vs religion  
*Financial Chronicle*, June 23
- 823E It's all about thinking fresh  
*Financial Chronicle*, July 21
- 824E Necessity invents science  
*Financial Chronicle*, August 25
- 825E Science journalism in India and abroad  
*NCSTC Communications*, August
- 826E Gravity can create illusions  
*Financial Chronicle*, September 28
- 827E Traveller's tales : I posed with Einstein  
*Reader's Digest*, October
- 828E Space and the common man  
*Financial Chronicle*, October 26
- 829E Effective funding for research  
*Financial Chronicle*, December 7
- 830H Him yug ki vapsi  
(Return of the Ice Age)  
*Navneet*, February, 101
- 831H Chitthi aiye hai  
(The letter has come)  
*Chakmak*, March, 1
- 832H Bharat aur videsho mein vidnyan patrakarita  
(Science journalism in India and abroad)  
*NCSTC Communications*, August
- 833M Khagolshastradnyanna avahan  
(A challenge to astronomers)  
*Loksatta*, March 20
- 834M Mazi shala  
(My school)  
*Jeevan Shikshan*, July issue, 6
- 835M Mazi shala  
(My school)  
*Panchavati Patrika*, May

- 836M Maze vadil  
(My father)  
*Sakal*, October 26
- 837M Newtonchya bagetale safarchandache zad  
(Apple tree in Newton's garden)  
*Marathi Vidnyan Parishad Patrika*, Diwali Issue (November), 10
- 838M Wrangleriche diwas  
(Working for Wranglership)  
*Mouj*, Diwali Issue
- 839S Kodagarvapariharaha  
(In which Koda's pride is lost)  
*Gunjarava*, 41

**2009**

- 840E Superstitions of space age  
*Financial Chronicle*, January 4
- 841E 400 years of astronomical discoveries  
(Co-written with T. Padmanabhan)  
*DNA*, January 5
- 842E India's scientific legacy  
Review of the book *Technology at the core : Science and technology with Indira Gandhi* by  
Ashok Parthasarathi  
*Nature*, **457**, 150
- 843E Sunspots revealed  
(Co-written with T. Padmanabhan)  
*DNA*, January 13
- 844E Sankranti's solar connection  
(Co-written with T. Padmanabhan)  
*DNA*, January 21
- 845E Virtues of studying astronomy  
*Financial Chronicle*, January 25
- 846E Distance units in astronomy  
(Co-written with T. Padmanabhan)  
*DNA*, January 28
- 847E The golden age of Indian astronomy  
*Heritage India*, **2**, 1, 22

- 848E Landings on Mars  
(Co-written with T. Padmanabhan)  
*DNA*, February 2
- 849E Strange visitors to our skies  
(Co-written with T. Padmanabhan)  
*DNA*, February 9
- 850E The rise and fall of Pluto  
(Co-written with T. Padmanabhan)  
*DNA*, February 16
- 851E The message of science fiction  
*Financial Chronicle*, February 22
- 852E Uranus has rings too  
(Co-written with T. Padmanabhan)  
*DNA*, February 23
- 853E The different views of Saturn  
(Co-written with T. Padmanabhan)  
*DNA*, March 2
- 854E The scientific temper  
*Dream 2047*, **11**, 6, 35
- 855E Here comes the sun's eleven-year cycle  
(Co-written with T. Padmanabhan)  
*DNA*, March 10
- 856E The best clocks in the cosmos  
(Co-written with T. Padmanabhan)  
*DNA*, March 16
- 857E Catching Uranus : Saga of missed opportunities  
(Co-written with T. Padmanabhan)  
*DNA*, March 23
- 858E Hazards of observing the sky  
*Financial Chronicle*, March 29
- 859E Seeing the earth spin  
(Co-written with T. Padmanabhan)  
*DNA*, March 30
- 860E A statistical test of astrology  
(Co-written with Sudhakar Kunte, Narendra Dabholkar and Prakash Ghatpande)  
*Current Science*, **96**, 5, 641

- 861E Issac Newton : Who started it all  
(Co-written with T. Padmanabhan)  
*DNA*, April 6
- 862E Albert Einstein and bending of light  
(Co-written with T. Padmanabhan)  
*DNA*, April 13
- 863E Stars brighten and stars fade  
(Co-written with T. Padmanabhan)  
*DNA*, April 21
- 864E Hubble vision  
(Co-written with T. Padmanabhan)  
*DNA*, April 27
- 865E Plenty of moons  
(Co-written with T. Padmanabhan)  
*DNA*, May 4
- 866E Spheres of the master  
*Heritage India*, **2**, 2, 90
- 867E Various observatories in India  
(Co-written with T. Padmanabhan)  
*DNA*, May 11
- 868E Why study astronomy?  
*Dream 2047*, **11**, 8, 38
- 869E A law that isn't  
(Co-written with T. Padmanabhan)  
*DNA*, May 18
- 870E The starry episodes of lunar occultations and quasars  
(Co-written with T. Padmanabhan)  
*DNA*, May 25
- 871E The transit of Venus  
(Co-written with T. Padmanabhan)  
*DNA*, June 1
- 872E James Maxwell (1831 – 1879)  
(Co-written with T. Padmanabhan)  
*DNA*, June 8
- 873E The beginning of radio astronomy  
(Co-written with T. Padmanabhan)  
*DNA*, June 15

- 874E Eratosthenes and the radius of the Earth  
(Co-written with T. Padmanabhan)  
*DNA*, June 22
- 875E A historic explosion  
(Co-written with T. Padmanabhan)  
*DNA*, June 29
- 876E The ever changing Moon  
(Co-written with T. Padmanabhan)  
*DNA*, July 6
- 877E The culture of science  
*Jijnasa*, 17
- 878E Opposition to new ideas in science  
*Jijnasa*, 35
- 879E Total solar eclipse  
(Co-written with T. Padmanabhan)  
*DNA*, July 13
- 880E The giant leap for mankind  
(Co-written with T. Padmanabhan)  
*DNA*, July 20
- 881E Astronomical times  
(Co-written with T. Padmanabhan)  
*DNA*, July 27
- 882E Tracking the heavens  
*Heritage India*, 2, 3, 83
- 883E Eris: Largest known dwarf planet  
(Co-written with T. Padmanabhan)  
*DNA*, August 3
- 884E Remembering MWC  
*Professor M.W. Chiplonkar Centenary Souvenir*, 27
- 885E Vainu Bappu and his comet  
(Co-written with T. Padmanabhan)  
*DNA*, August 10
- 886E The discovery of Helium  
(Co-written with T. Padmanabhan)  
*DNA*, August 17
- 887E Why is Pluto not a planet?  
(Co-written with T. Padmanabhan)  
*DNA*, August 24

- 888E First astronomical use of a telescope  
(Co-written with T. Padmanabhan)  
*DNA*, August 31
- 889E Catching and classifying Ceres  
(Co-written with T. Padmanabhan)  
*DNA*, September 7
- 890E Discovery of Neptune : A triumph for science  
(Co-written with T. Padmanabhan)  
*DNA*, September 14
- 891E Unequal equinoxes  
(Co-written with T. Padmanabhan)  
*DNA*, September 21
- 892E The holy grail of cosmology  
(Co-written with T. Padmanabhan)  
*DNA*, September 28
- 893E Meghnad Saha and his equation  
(Co-written with T. Padmanabhan)  
*DNA*, October 5
- 894E Subrahmanyan Chandrasekhar & white dwarfs  
(Co-written with T. Padmanabhan)  
*DNA*, October 12
- 895E The first surface image of planet Venus  
(Co-written with T. Padmanabhan)  
*DNA*, October 19
- 896E Searches for microlife in the Earth's atmosphere  
*Via Lactea*, October
- 897E The H-R diagram and the life of a star  
(Co-written with T. Padmanabhan)  
*DNA*, October 25
- 898E Eddington and the bending of light  
(Co-written with T. Padmanabhan)  
*DNA*, November 2
- 899E C.V. Raman and the Raman effect  
(Co-written with T. Padmanabhan)  
*DNA*, November 9
- 900E The catastrophic hole  
(translated by Vijay Rale)  
*Chhatra Prabodhan*, Diwali Issue, 5

- 901E Making the universe move  
(Co-written with T. Padmanabhan)  
*DNA*, November 16
- 902E The galactic neighbours  
(Co-written with T. Padmanabhan)  
*DNA*, November 23
- 903E Gamma-ray bursts  
(Co-written with T. Padmanabhan)  
*DNA*, November 30
- 904E Special areas scientific research: advancing the cause in India  
*The Hindu*, December 3
- 905E The cosmic web  
(Co-written with T. Padmanabhan)  
*DNA*, December 14
- 906E A shower of light in the skies  
(Co-written with T. Padmanabhan)  
*DNA*, December 14
- 907E Jantar Mantar and its yantras  
(Co-written with T. Padmanabhan)  
*DNA*, December 21
- 908E Why study astronomy?  
(Co-written with T. Padmanabhan)  
*DNA*, December 28
- 909E Tools for science education  
*Science Communication*, 108
- 910H Vaidnyanik manovruti  
(The scientific temper)  
*Dream 2047*, **11**, 6, 6
- 911H Newton ka bagicha aur seb ka pedh  
(The apple tree in Newton's garden)  
*Chakmak*, February
- 912H Khagol vidyan ka adhyayan kisiye?  
(Why study astronomy?)  
*Dream 2047*, **11**, 8, 7
- 913H Phalit jyotish ki prayogik jaanch  
(A statistical test of astrology)  
*Srote*, June

- 914M Makar Sankranti  
(Makar Sankranti)  
*Loksatta*, January 1
- 915M Khagol varsha  
(International year of astronomy)  
*Loksatta*, January 2
- 916M Prithvi phirte ka surya?  
(Which moves, the Sun or the Earth?)  
*Loksatta*, January 3
- 917M Chandravarun akashdarshan  
(The sky seen from the Moon)  
*Friend*, No.1, 8
- 918M Tari mi alpapathit  
(Still I am poorly read)  
*Granthanchya Sahavasat*, 61
- 919M Nile akash ... saptarangi indradhanushya ani kalya akashat soneri surya ... kashi ghadate hi jadu?  
(Why is the sky blue?)  
*Friend*, No.2, 4
- 920M Khagol vidnyan ka shikave?  
(Why study astronomy?)  
*Chhatra Prabodhan*, May
- 921M Adbhut grahamala  
(Wonderful world of planets)  
*Friend*, No.3, 4
- 922M Mazi kalpak Aai  
(My imaginative mother)  
*Panchavati Patrika*, May
- 923M Galileo ne ghadavun aanaleli kranti  
(The revolution brought about by Galileo)  
*Souvenir of the Agarkar High School & Junior College*, 17
- 924M Olakh grahamalechi  
(Getting acquainted with our planetary system)  
*Friend*, No.4, 4
- 925M Vidnyan sanshodhanatil uttejana  
(The experiment of scientific research)  
*Vidnyanyatri*, 83
- 926M Udatya tabakadyanche rahasya  
(The mystery of flying saucers)  
*Learn More*, October 15, 5



- 927M Ujavya sondecha ganapati  
(Ujavya sondecha ganapati)  
*Vedhak vidnyankatha*, 88
- 928M Putravati bhava  
(Putravati bhava)  
*Vedhak vidnyankatha*, 106
- 929M Chidreshavanartha  
(The catastrophic hole)  
*Chhatra Prabodhan*, Diwali Issue, 5
- 930M Khadkat rutalele mangalavaril jeevashma!  
(Fossilised life in martial meteorities!)  
*Learn More*, December 15, 6
- 931S Kalpanasharadiyam  
(About Kalpana and Sharad)  
*Gunjarava*, 11

**2010**

- 932E LHC : The large hype creator  
*The Asian Age*, April 28
- 933E P.C. Vaidya (1918 – 2010)  
*Current Science*, **98**, 10, 1389
- 934E Are we alone in this universe?  
*The Asian Age*, May 26
- 935E Streets echo the culture of a city  
*The Asian Age*, June 23
- 936E The curious child  
*The Asian Age*, July 28
- 937E Use time as a tool, not as a crutch  
*The Asian Age*, August 25
- 938E Big bang and other prejudices  
*The Asian Age*, September 22
- 939E Geoffrey Ronald Burbidge  
*Physics Today*, October, 65
- 940E The sum of ego & challenges  
*The Asian Age*, October 27

- 941E Fred Hoyle : A scientist of multi-faceted talents  
*Resonance*, October, 865
- 942E We still lack the urge  
*The Asian Age*, November 24
- 943E Tilak and the star of the Vedas  
*The Asian Age*, December 22
- 944H Khagol shastra kyon seekhe?  
(Why study astronomy?)  
*Srot*, June
- 945H Vidnyan, main aur vidnyan ka romanch  
(Science, I and excitement of it all)  
*Shaishanik Sandarbha*, May-June, 5
- 946H P.C. Vaidya  
(P.C. Vaidya)  
*Srot*, September
- 947H Vidnyan, samaj aur patrakarita  
(Science, Society and Journalism)  
*Hindi Patrakarita ke nutan kshitij*, 3
- 948H Vidnyan, samaj aur patrakarita  
(Science, Society and Journalism)  
*Vigyan Evam Paryavaran Sanchar*, 17
- 949M Nobelche mankari Subramanyan Chandrasekhar  
(Nobel Laureate Subramanyan Chandrasekhar)  
*Learn More*, January 15, 6
- 950M Vidnyan ani me : Me vaidnyanik kasa zalo?  
(Science and me : How I became a scientist?)  
*Jeevan Shikshan*, February issue, 12
- 951M Olakh shastradnyanchi  
(Getting to know the scientists)  
*Learn More*, February 15, 5
- 952M Sunitabai aani me  
(Sunitabai and I)  
*Nripojagat*, February issue, 13
- 953M Khagol vidnyan ka shikave?  
(Why study astronomy?)  
*Marathi Vidnyan Parishad Patrika*, March, 4

- 954M Vidnyan ani me : Me vaidnyanik kasa zalo?  
(Science and me : How I became a scientist?)  
*Dnyanda, 25*
- 955M Durbininchya purvi  
(Before the telescopes arrived)  
*Learn More, May 15, 5*
- 956M Yala jevan aise naav  
(This is what is called a meal)  
*Panchavati Patrika, May*
- 957M Khagol vidnyanala chalna .....1960 - 2010  
(A boost for astronomy ..... 1960 – 2010)  
*Marathi Vidnyan Parishad Patrika, May, 20*
- 958M Nicolaus Copernicus  
(Nicolaus Copernicus)  
*Learn More, June 15, 5*
- 959M Bahurangi pratibhecha vaidnyanik  
(Fred Hoyle : Scientist of Multi-Faceted Talents)  
*Learn More, July 15, 5*
- 960M Nate akashashi...  
(Relationship to the sky)  
*Learn More, August 1, 5*
- 961M Vidnyanacha sandesh : vividhatetil ekata  
(Unity amongst diversity : The message of science)  
*Vidnyan Vedh, 58*
- 962M Mahan ganiti 'Gauss'  
(Great mathematician 'Gauss')  
*Learn More, September 1, 7*
- 963M Chakravuha  
(Mazes)  
*Learn More, October 1, 5*
- 964M Me vaidnyanik kasa zalo?  
(How I became a scientist?)  
*Learn More, November 1, 14*
- 965M Apaharan  
(Kidnapped)  
*Dhananjay, Diwali Issue, 129*
- 966M Gangatiri aani grantakathi  
(Fom Ganges to Granta)  
*Sadhana, (Diwali Issue), November 6, 20*

967M Aakadyanche chamatkar  
(Fun with numbers)  
*Learn More*, December 1, 6

2011

968E Sky-gazing for survival  
*The Asian Age*, January 19

969E Prahlad Chunilal Vaidya (23 May 1918 - 12 March 2010)  
(Co-written with A.M. Vaidya)  
Biographical Memoirs of Fellow of the Indian National Science Academy, **39**, 135

970E Educating India  
*The Asian Age*, February 16

971E Deemed unfit  
*The Asian Age*, March 16

972E Chandra's influence on Indian astronomy  
Physics News, **41**, 2, 91

973E Don't blind kids with science  
*The Asian Age*, April 13

\*974E To appreciate excellence : The core of positive learning  
*University News*, **49**, 14, 25  
Convocation address delivered at the Dhirubhai Ambani Institute of Information and Communication  
Technology, Gandhinagar.

975E Shani & Mangal of futurology  
*The Asian Age*, May 11

976E The message from Aristarchus (Comic Serial Episode 1 : John Pringle)  
*Brainwave*, May, 26

977E Monkeys, morals, mathematics  
*The Asian Age*, June 8

978E The message from Aristarchus (Comic Serial Episode 2 : Alok)  
*Brainwave*, June, 25

979E The great illusion in twilight zone  
*The Asian Age*, July 6

980E The message from Aristarchus (Comic Serial Episode 3 : The space academy)  
*Brainwave*, July, 25

981E Cosmic catastrophes  
*The Asian Age*, August 3

- 982E Frontiers of free inquiry  
*The Asian Age*, August 31
- 983E The message from Aristarchus (Comic Serial Episode 4 : Cyclops)  
*Brainwave*, August, 25
- 984E Taxila aglow, but Nalanda in shadow  
*The Asian Age*, September 28
- 985E The message from Aristarchus (Comic Serial Episode 5 : The Message)  
*Brainwave*, September, 23
- 986E The message from Aristarchus (Comic Serial Episode 6 : Aristarchus)  
*Brainwave*, October, 21
- 987E Arithmetic of nostalgia  
*The Asian Age*, October 28
- 988E Who is faster : you or light?  
*The Asian Age*, November 23
- 989E The Mahamana: A connoisseur and collector of excellence  
*Souvenir, B.H.U. Alumni Association, Mumbai*, 21
- 990E The science of plagiarism  
*The Asian Age*, December 21
- 991H Dnyan-vidnyan ke kshetra mein Hindi  
(The role of hindi in the fields of knowledge and science)  
*Akshara*, 42
- 992H Hindi se hi pategi vidnyan aur samaj ke beech ki khaee  
(Through Hindi alone, can we bridge the gap between science and society?)  
*Navneet Hindi Digest*, September, 60
- 993H Jai Varanasi Express.  
(Three cheers for Varanasi Express)  
*Chakmak*, December
- 994M Vidnyanachya aika haka  
(Listen to the call of science)  
*Sakal*, January 1
- 995M Vidnyanachya aika haka  
(Listen to the call of science)  
*Shikshan Sankraman*, February, 5
- 996M Vidnyan kshetrat don pavale magech!  
(Two steps backwards in the scientific fields)  
*Loksatta*, May 1

- 997M Te hi no divasa gataha  
(Gone are those old days)  
*Aathavanitil shala ani shikshak*, 97
- 998M Jai Varanasi Express  
(Three cheers for Varanasi Express)  
*NRIPOJAGAT*, 13
- 999M Vidnyankathechya gabhyat  
(Into the heart of science fiction)  
*Sanvedana*, 30
- 1000M Ek purushottam  
(One of the best amongst men)  
*Tuziya jaticha | milo amha koni ||*, 44
- 1001M Acharya devo bhav  
(Treat the teacher like God)  
*Tonic*, 10
- 1002M Galileo ne ghadavun aanaleli kranti  
(The revolution brought about by Galileo)  
*Shikshan Sankraman*, November, 10
- 1003S Ahimsa paramo dharmah  
(Non-violence in the supreme religion)  
*Samarpanam 2011*, 77
- 1004S Parihasvijalpitan  
(A collection of Sanskrit PJs)  
*Gunjarava*, 18

## 2012

- 1005E Chasing an elusive particle  
*The Asian Age*, January 18
- 1006E Black holes & bureaucracy  
*The Asian Age*, February 15
- 1007E Seeing is believing? Not always  
*The Asian Age*, March 23
- 1008E Rolling super-eyes heavenwards  
*The Asian Age*, April 11
- \*1009E The culture of science  
*IIC Quarterly*, **38**, 3 &4, 290
- 1010E Names in stellar frames  
*The Asian Age*, May 9

- 1011E A planet that never was  
*The Asian Age*, June 8
- 1012E Light traveller  
*The Asian Age*, July 4
- 1013E Footprints, shadows and reality  
*The Asian Age*, July 6
- 1014E A witch, a barber and a paradox  
*The Asian Age*, August 1
- 1015E Small controversy, stellar credit  
*The Asian Age*, September 6
- 1016E Science and me – The excitement of doing science  
*IAPT Bulletin*, 4, 9, 230
- 1017E Superstitions of the space age  
*The Asian Age*, September 30
- 1018E Footprints, shadows and reality  
*Indradhanush*, 51
- 1019E The podium worthies  
*The Asian Age*, October 24
- 1020E Tripped by triplicates  
*The Asian Age*, November 21
- 1021E Know the universe, one star at a time  
*The Asian Age*, December 19
- 1022M Avakashala gavasani  
(Reaching out to the space)  
*Sakal*, April 8
- 1023M Pruthvi palikadil sajeev srushti  
(Life outside the Earth?)  
*Disha Diary 2012-2013*, 38
- 1024M Jevha Rashtrapatincha javai parisanvadala yeto  
(When the President's son-in-law attends the conference)  
*Panchavati Jeshtha Nagrik Sangh 2012*, 21
- 1025M Peruwaditil pushpak prakaran  
(The pushpak episode of Peruwadi)  
*Mouse*, 14

- 1026M Eka mahanagaracha mrutyu  
(The death of a metropolis)  
*Saptarang, Sakal*, July 1
- 1027M Mayajal  
(Maya's problems)  
*Chhatra Prabodhan*, Diwali Issue, 47
- 1028M Kutumb rangalay Saraswatichya darbari  
(A family dedicated to the goddess of learning)  
*Shabdadeep*, November, 54
- 1029S Asamanya khalu mama mata  
(My mother was an extraordinary person)  
*Gunjarava*, 7

**2013**

- 1030E Mathematics : The queen of sciences  
*Manorama Yearbook 2013*, 480
- 1031E The prodigy & the alchemist  
*The Asian Age*, January 16
- 1032E Don't stop at invention. Innvoate.  
*The Asian Age*, February 13
- 1033E Nurturing excellence  
*The Asian Age*, March 13
- 1034\*E Cosmic perspectives on human existence  
16<sup>th</sup> Dr Sarvepalli Radhakrishnan Memorial Lecture at Indian Institute of  
Advanced Study, Shimla,  
*Summerhill, XVIII*, 1, 2
- 1035E Science & speculation : 60 of separation  
*The Asian Age*, April 10
- 1036E Mobile maniacs  
*The Asian Age*, May 8
- 1037E Those little chaps called quasars  
*The Asian Age*, June 5
- 1038E Oh! The joy of mind-benders  
*The Asian Age*, July 3
- 1039E Bradman's nightmare  
*The Asian Age*, July 18



- 1040E Gravity of life  
*The Asian Age*, July 31
- 1041E Twisting facts into a black hole  
*The Asian Age*, August 28
- 1042E The sum of gender bias in haloed halls  
*The Asian Age*, September 25
- 1043E The Bose is Higgs boson  
*The Asian Age*, October 23
- 1044E Take up one idea  
*The Asian Age*, November 20
- 1045E It's all in the label!  
*The Asian Age*, December 18
- 1046H Seeta aur Geeta : Ek kavya – vidamban  
(Seeta and Geeta : a poetic parody)  
*Deep Bhava*, 232
- 1047M Samajala vidnyanabhimuk karanyachi garaj  
(The need for making the society scientifically literate)  
*Sadhana*, January 12
- 1048M Safarchand ani gurutvakarshan  
(The Apple and gravity)  
*Saptarang, Sakal*, February 3
- 1049M Shastrakatyachi kasoti!  
(On scientific testing!)  
*Chhatra Prabodhan*, 3
- 1050M Pruthvi sthir ki surya?  
(Is the Earth at rest or the Sun?)  
*Saptarang, Sakal*, March 3
- 1051M British bobbyche bavankashi anubhav  
(Factual experiences of the British policeman)  
*Saptarang, Sakal*, April 7
- 1052M Juna te sona; pan vachvaycha kasa?  
(Old is gold : But how to preserve it?)  
*Saptarang, Sakal*, May 5
- 1053M Cambridge vidyapeeth : Avaghe 800 vayaman!  
(Cambridge University : Aged only 800 years!)  
*Saptarang, Sakal*, June 2

- 1054M Me chautha sinh  
(4<sup>th</sup> lion – [an open letter to political leader])  
*Bharatiya Grahak Chalval*, 294
- 1055M Kisse Cambridgechya Tripos pariksheche  
(Stories of the Cambridge tripos)  
*Saptarang, Sakal*, July 7
- 1056M Savarkaranchi vidnyan-nishtha  
(Savarkar's devotion to Science)  
*Swa. Veer Savarkar 'Sahasdin' Smaranika*, 31
- 1057M 'Aryabhata' navhe; 'Aryabhata'!  
(Not 'Aryabhata'; 'Aryabhata'!)  
*Saptarang, Sakal*, August 4
- 1058M Jar gurutvakarshan nasta tar ...!  
(If there were no gravity...!)  
*Saptarang, Sakal*, September 1
- 1059M Vidnyanatala sangarsh : Prastapith virudha navodit  
(Conflict in science between the established and the new)  
*Saptarang, Sakal*, October 6
- 1060M ... Sapadla re sapadala!  
(Found at last!)  
*Saptarang, Sakal*, November 3
- 1061M Mulgi zali ho!  
(A girl is born!)  
*Mouj, Diwali Issue*, 78
- 1062M Ase vinod, ase vaidnyanik!  
(Human and the scientist)  
*Saptarang, Sakal*, December 1
- 1063M Kalpanepekshai vastav adabhut  
(Reality is more wonderful than imagination)  
*Chaturang, Loksatta*, December 14
- 1064M Vaidnyanik drushtikonachi garaj  
(The need for the scientific outlook)  
*Vanarai Special Issue 2013*, 65

## 2014

- 1065E A universe made for man  
*The Asian Age*, January 15

- 1066E The importance of dissent  
*The Asian Age*, February 12
- 1067E Bhaskara's questions to Lilavati still dazzle  
*The Asian Age*, March 13
- 1068E The egoist's guide to the galaxy  
*The Asian Age*, April 9
- 1069E What ails Indian science?  
*The Asian Age*, May 7
- 1070 E Ladder to virtual libraries  
*The Asian Age*, June 4
- 1071E Curious Case of dark matter  
*The Asian Age*, July 2
- 1072E Physics, are we done?  
*The Asian Age*, July 23
- 1073E Speakers anonymous  
*The Asian Age*, August 27
- 1074E Strange tales of the stars  
*The Asian Age*, September 24
- 1075E The eccentric geniuses  
*The Asian Age*, October 22
- 1076E Quo vadis cosmology?  
*Khagol*, October, 4
- 1077E Imagination is limited, not physics,  
*The Asian Age*, November 19
- 1078E Of God and cheeky geeks  
*The Asian Age*, December 17
- 1079M Parkiya jeevshrustishi sanvad sadhata yeil ka?  
(Can we contact alien cultures?)  
*Saptarang, Sakal*, January 5
- 1080M Bhaskaracharya dwitiya  
(Bhaskaracharya II)  
*Saptarang, Sakal*, February 2
- 1081M Kahi pauranik kisse...asehi!  
(Some stories from our ancient puranas)  
*Saptarang, Sakal*, March 2

- 1082M Uranus ani Neptune : kon mhanta vaidnyanik chukat nahit?  
(Uranus and Neptune : who says that scientists are infallible?)  
*Saptarang, Sakal, April 6*
- 1083M Eka prakhyat prayogamagach ramayan!  
(The trials and tribulations behind a famous experiment)  
*Saptarang, Sakal, May 4*
- 1084M Einsteinla 'Nobel' kasa milala?  
(How Einstein was awarded the Nobel Prize?)  
*Saptarang, Sakal, June 1*
- 1085M Tarkashudha vicharsarni ani ganit  
(Mathematics and logical thinking)  
*Saptarang, Sakal, July 6*
- 1086M Bharatiya vidnyanabaddalcha yakshaprashna  
(A question about Indian science)  
*Saptarang, Sakal, August 3*
- 1087M Sansmarniya mohim  
(A memorable campaign)  
*Lokmat, August 17*
- 1088M Narendra Dabholkar yanchyabarobarchi ek sansmarniya mohim  
(An operation with Narendra Dabholkar)  
*Saptahik Sadhana, August 30*
- 1089M Samarabhshuraha khalu bhariyaha  
(We Indians make great beginnings only)  
*Saptarang, Sakal, September 7*
- 1090M Yashache nave tatvadnyan  
(New philosophy for success)  
A review of the book 'Chala Ayushya Ghadvuya' by Arvind Pendse and Pratibha Deshpande.  
*Maharashtra Times, September 7*
- 1091M Patrick Moore yanchya 'asmani' aakhyaeka  
(Heavenly tales of Patrick Moore)  
*Saptarang, Sakal, October 5*
- 1092M Ek sansmarniya mohim  
(A memorable campaign)  
*Saptahik Sadhana, October 11*
- 1093M Wrangleriche avhan  
(The challenge of Wranglership)  
*Manashakti Diwali Issue, 22*

- 1094M Aatpatnagaratalya metrochi kahani  
(The story of metro in a typical city)  
*Saptarang, Sakal*, November 2
- 1095M Vedhshalenchya ramya parisarat  
(In the pleasant environment of observatories)  
*Tonic*, 190
- 1096M Avakash ek prayogshalach  
(Space is a big laboratory)  
*Mitrangan (Diwali Issue)*, 14
- 1097M IUCAAchi gosta  
(The IUCAA story)  
*Maze Punyabhushan (Diwali issue)*, 60
- 1098M Gosti ganitnyanchya  
(Tales of mathematicians)  
*Saptarang, Sakal*, December 7

## 2015

- 1099E Logical thinking in Mathematics and elsewhere  
*Manorama Yearbook 2015*, 140
- 1100E Tracing supernova 1054  
*The Asian Age*, January 14
- 1101E The spirit of inquiry  
*The Asian Age*, February 19
- 1102E Where's science in the bombast?  
*The Asian Age*, March 11
- 1103E Challenge the ego  
*The Asian Age*, April 8
- 1104E The gender games geniuses play  
*The Asian Age*, May 8
- 1105E Probity begins at home  
*The Asian Age*, June 3
- 1106E Guardians of our galaxy  
*The Asian age*, July 3
- 1107E The maze & the magic of numbers  
*The Asian age*, July 29

- 1108E Kepler - 452b: A space odyssey  
*The Asian Age*, August 27
- 1109E Relativity & comedy of errors  
*The Asian Age*, September 23
- 1110E The rhyme of reason & logic  
*The Asian Age*, October 30
- 1111E Science is not free from errors  
*The Asian Age*, November 12
- 1112E A rebel genius  
*The Asian Age*, December 16
- 1113H Dharti ka ghoda  
(The Trojan horse)  
*Navneet Hindi Digest*, February, 64
- 1114H Dnyan-vidnyan ke kshetra mein Hindi  
(Hindi in the areas of knowledge and science)  
*Chintan ki vividha dishayein*, 36
- 1115H Krishna vivar  
(Black hole)  
*Electroniki aapke liye*, 17
- 1116H Vidnyan keval matrubhasha mein hi padhaya jana chahiye  
(Science should be taught in mother tongue only)  
*Rashtrabhasha*, August-September, 36
- 1117M Vaidnyanikanche vinod  
(Amusing episodes of scientists)  
*Saptarang, Sakal*, January 4
- 1118M Praiksha paddhati : Kahi vichar  
(A few thoughts on our examination system)  
*Shikshan Sankraman*, January, 5
- 1119M Khagolvidnyanache don mahaprakalpa  
(Two big projects in astronomy and astrophysics)  
*Saptarang, Sakal*, February 1
- 1120M Vidnyan va dharma - ekatrikanacha drushtikon  
(Science & Religion - Approach towards a synthesis)  
*Navabharat*, February Issue, 15
- 1121M Puranatil vangi 'vidnyanvikasa'chi  
(Speculations about science in the Puranas)  
*Saptarang, Sakal*, March 1

- 1122M Tarkashuddha yuktivad : Kahi majedar udaharana!  
(Logical reasoning : Some interesting examples)  
*Saptarang, Sakal, April 5*
- 1123M Gunanchi kadar hotech...  
(Virtues are rewarded in the end?)  
*Saptarang, Sakal, May 3*
- 1124M Adhikar ani jababdarya  
(Privileges and responsibilities)  
*Saptarang, Sakal, June 7*
- 1125M Ganit ani vyuharachana  
(Mathematics and mazes)  
*Saptarang, Sakal, July 5*
- 1126M Dialogue between father and daughter  
*Sanvad Baaplekincha, 12*
- 1127M Yogya aakarache mahatva!  
(Why size is important?)  
*Saptarang, Sakal, August 2*
- 1128M IUCAA aani Correa  
(IUCAA and Correa)  
*Marathi Vidyan Parishad Patrika, August Issue, 12*
- 1129M Gurutvakarshanachi kimaya  
(The wonders of gravitation)  
*Saptarang, Sakal, September 6*
- 1130M Kam bandh; sutti chalu  
(Nation on a holiday)  
*Saptarang, Sakal, October 4*
- 1131M Mahatva Astrosatcha  
(The importance of Astrosat)  
*Saptarang, Sakal, November 1*
- 1132M Vyapak sapekshata  
(General relativity)  
*Marathi Vidnyan Parishad - Patrika, November, 91*
- 1133M Ganit aani chakravyuha  
(Mathematics and the mazes)  
*Dharmabhaskar Diwali Issue, 80*
- 1134M Jevha vaidnyanik chuka kartat...  
(When scientists make mistakes)

*Saptarang, Sakal*, December 6

- 1135M Char nagarantale char pavsale  
(Four rains in four cities)  
*Bhavatal* (Diwali Issue), 76

**2016**

- 1136E Should I return my Sahitya Akademi Award?  
*Current Science*, **110**, 1, 7
- 1137E Cambridge tales  
*The Asian age*, January 13
- 1138E The strange behaviour of gravity  
*The Asian Age*, February 10
- 1139E Why science needs journalism  
*The Asian Age*, March 16
- 1140E How science demolishes ego  
*The Asian Age*, April 13
- 1141E Raja Jai Singh and his zij  
*The Asian Age*, May 5
- 1142E When some are more equal than others...  
*The Asian Age*, June 3
- 1143E Are we serious about clean India?  
*The Asian Age*, July 26
- 1144E A challenge to 'smart cities'  
*The Asian Age*, August 20
- 1145E Difficult problems, simple solutions  
*The Asian Age*, September 15
- 1146E Our strange universe  
*The Asian Age*, October 21
- 1147E Gravitational waves : Their searches and discovery  
*Pragaami Tarang*, **VIII**, 1
- 1148E Discoveries take science by surprise  
*The Asian Age*, November 29
- 1149E Here's why science declined in India  
*The Asian Age*, December 14



- 1150H Rashtriya ekata, vidnyan aur hindi ka tribhuj  
(National integration, Science and Hindi : A triangular interaction)  
Rashtreeya ekta kee kadee : Hindi Bhasha aur Sahitya, 32
- 1151H Vaidnyanik drustikon  
(Scientific outlook)  
*Vaidnyanik drustikon*, 1
- 1152M Fred Hoyle : Shatak gajavnara shastradnya  
(Fred Hoyle : Whose centenary is being celebrated)  
*Saptarang, Sakal*, January 3
- 1153M 'Pauranik vidnyan' an puravyancha nikash  
(Ancient science and evidence for it)  
*Sakal*, January 30
- 1154M Bullet trainchya yugat  
(In the age of the bullet train)  
*Saptarang, Sakal*, February 7
- 1155M Gurutvakarshanachya lahari  
(Gravitational waves)  
*Lokrang, Loksatta*, February 21
- 1156M Shastradnyanchya vyatha  
(The problems of scientists)  
*Saptarang, Sakal*, March 6
- 1157M Einsteinbarobar photo!  
(A photograph with Einstein!)  
*Saptarang, Sakal*, April 3
- 1158M Khagol vidnyan ka shikave?  
(Why study astronomy?)  
*Vidnyanvahini*, 48
- 1159M Vaidnyanikanche gun-dosh  
(Scientists with their pluses and minuses)  
*Saptarang, Sakal*, May 1
- 1160M Swachatechya magavar...!  
(On the track of clealiness)  
*Saptarang, Sakal*, June 5
- 1161M Sagale saman? navhe; kahijan adhik saman!  
(All are equal, but some are more equal than others)  
*Saptarang, Sakal*, July 3
- 1162M Katkasaricha vidnyan  
(Cut cost science)  
*Saptarang, Sakal*, August 7

- 1163M Aapla shahar smart kasa honar?  
(How will our city becomes smart?)  
*Saptarang, Sakal*, September 4
- 1164M Atyant hushar ganiti : von Neumann  
(von Neumann : a brilliant mathematician)  
*Saptarang, Sakal*, October 2
- 1165M Aani surya hasla!  
(And the Sun laughed!)  
*Chhatra Prabodhan*, Diwali Issue, 23
- 1166M Aamche tatyaa  
(My father)  
*Jadan Ghadan*, November - December Issue, 11
- 1167M Shejaranyo firku naka ekade ...  
(Neighbours do not come this way)  
*Dharmabhaskar*, November-December Diwali Issue, 21
- 1168M Cambridgemadhale 'Proctor' aani tyanche 'Bulldog'  
(Proctor and his bulldogs in Cambridge)  
*Saptarang, Sakal*, November 6
- 1169M Vidnyanat prayogancha mahima  
(The importance of experiments in science)  
*Saptarang, Sakal*, December 4

## 2017

- 1170E Wonderful world of mathematics  
*The Asian Age*, January 28
- 1171E How a good teacher operates...  
*The Asian Age*, February 22
- 1172E How many cheers for democracy?  
*The Asian Age*, March 10
- 1173E TV sets in the cosmos?  
*The Asian Age*, April 14
- 1174E Some exciting glimpses of the cosmos and beyond  
Review of the book 'The Hunt for Fulcan' by Thomas Levenson (Random House)  
*The Asian Age*, June 9
- 1175E Help those in need, but avoid quotas  
*The Asian Age*, July 4

- 1176E When scientists are irrational  
*The Asian Age*, July 20
- 1177E There's nothing absolute about time  
*The Asian Age*, September 28
- 1178E Time and its unidirectional flow  
*The Asian Age*, December 12
- 1179M Sir salamat magar helmet ki mijas...  
(Respect the helmet to save your head)  
*Loksatta*, January 29
- 1180M Sanskrit bhashetale vinod : Kahi udaharane  
(Some examples of humour in Sanskrit)  
*Dharmabhaskar*, February Issue, 13
- 1181M Abhayaranya  
(Sanctuary : A science fiction story)  
*Safar Vidnyankathanchi*, 6
- 1182M Mazi kalpak Aai  
(My imaginative mother)  
*Mazi Aai*, 25
- 1183M Tisrya peedhiche aatmakathan  
(A self account by the third generation)  
*Tisrya Peediche Aatmakathan*, 101
- 1184M Aani surya hasla!  
(And the Sun laughed!)  
||*Pune Pratishthan*||, Diwali Issue, 9
- 1185M Khagolshastra ani vaidnyanik paddhati  
(Astronomy and the scientific method)  
*Aahuti*, Diwali Issue, 17

## 2018

- 1186E Time is money : Why must we waste it?  
*The Asian Age*, January 31
- 1187E Science should have the last word  
*The Hindu*, February 17
- 1188E The many joys of learning science  
*The Asian Age*, April 24
- 1189E 'No work but full pay' defies all logic  
*The Asian Age*, May 25

- 1190E Abolishing merit ranking a good idea  
*The Asian Age*, July 5
- 1191E Chaos, catastrophe and mathematics  
*The Asian Age*, September 16
- 1192E Our society is ridden with superstition  
*The Asian Age*, December 8
- 1193M Ek prerak phone call  
(A phone call that prompted action)  
*Chaturang, Loksatta*, January 13
- 1194M Aapan aahot kuthlya shatkat?  
(In what century are we living?)  
*Sakal*, March 17
- 1195M Dheyasakta Stephen  
(Stephen Hawking : A motivated scientist)  
*Lokrang, Loksatta*, March 18
- 1196M Prapte tu shodashe varshe...  
(When they reach the age of sixteen)  
*Chaturang, Loksatta*, June 16
- 1197M Vaidnyanik andhashraddha  
(Scientific outlook and superstitions)  
Sanvad Sarjanshil Mananshi, Diwali Issue, 34
- 1198M Me vaidnyanik ka aani kasa zalo?  
(Why and how I became a scientist?)  
*Mouj*, Diwali Issue, 202

## 2019

- 1199E Are we aliens?  
*Down to Earth*, 53
- 1200H Bachpan ki kuch yaadein  
(A few childhood memoirs)  
| *Pitrudevo Bhava* |, 20
- 1201M Vidyanagariche aavahan  
(The challenge of a science city)  
*Sakal*, January 2
- 1202M Marathi bhashetun vidnyan  
(Science in Marathi)  
*Rachna*, 11

- 1203M Vaidnyanik drustikon  
(Scientific outlook)  
*Manashakti*, Diwali Issue, 12
- 1204M Vidnyan aani guptapolice  
(Science and detectives)  
*NRIPOJAGAT*, 15
- 1205M Prakash pradushan : Avakash nirikshanatil adthala  
(Light pollution : An obstacle to space observations)  
*Vanarai*, 8
- 1206M Time machinechi kimaya  
(The miracle of time machine)  
*Kishor*, 12
- 1207M IUCAAcha shreeganesha  
(The starting of IUCAA)  
*Jesthaparva*, Diwali Issue, 59