

BIO-DATA AND ACHIEVEMENTS OF PANKAJ S. JOSHI

DESIGNATION AND ADDRESS

Provost (Vice-Chancellor)

Charotar University of Science and Technology

CHARUSAT Campus

At Changa-388 421

District Anand, Gujarat State

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ACADEMIC QUALIFICATIONS

M. Sc (1975), Ph. D. (1979).

Thesis: 'A Study of Causality Principle in General Relativity'.

POSITIONS HELD AND RESEARCH EXPERIENCE

1. Provost (Vice-Chancellor) at Charotar University of Science and Technology, CHARUSAT Campus, Changa, Anand District since 1st May 2018 to till date.
2. Senior Professor (HAG scale, 2009-2018); Professor (H-scale, 2001-2009); Professor (G-scale, 1998-2001); Associate Professor (F-scale, 1993-1998); Reader (E-scale, 1988-93); Fellow (D-scale, 1983-88), all at the Department of Astronomy and Astrophysics, Tata Institute of Fundamental Research, Mumbai, India.
3. National Science Foundation (NSF, USA) Research Fellow, University of Pittsburgh, Pittsburgh, PA, U.S.A. (1981-83).
4. Visiting Fellow, Tata Institute of Fundamental Research, Bombay (1979-81).
5. University Grants Commission Research Fellow, worked on the project 'Gravitation Radiation and Gravitational Collapse', Saurashtra University (1975-79), India.
6. Visiting Scientist at the D.A.M.T.P., Cambridge University, Cambridge, U.K. (Sept-Octo, 1983); Held Visiting Positions over the years at many Universities in India and abroad, for Collaborations/Seminars/Discussions.
7. UGC Visiting Professor at many Indian Universities to deliver courses of lectures to post-graduate students and faculty members.
8. S.E.R.C. (U.K.) Visiting Scientist at the Faculty of Mathematical Studies, University of Southampton, U.K. (Feb-March 1987); Awarded a British Council Fellowship to visit Universities in U. K. (1987).

9. First Long Term Visitor at the Black Hole Initiative, Harvards University (2016); Distinguished Visitor, Osaka City University, Osaka (March 2016); Visiting Professor, Dept of Theoretical Physics, University of Basque Country, Spain (Sept-Octo 1998); Faculty of Math. Sciences, University of Natal, South Africa (Feb-March 1999); Queen Mary and West eld College, London (1998); Milano Polytechnic, Italy (1995, 1998); Invited as Visiting Professor by the University of Cincinnati, USA, and many other top academic centers.
9. Financed Research Projects: Classical and Quantum Aspects of Strong Gravitational Fields, financed by CERN, Switzerland (1997-99), collaborators: Profs Louis Witten (University of Cincinnati, USA), Cenalo Vaz (Portugal); Spanish government grant at the University of Basque Country, Spain, with an international research team of some 20 members (2000); and such others.

RESEARCH INTERESTS

Gravitation Theory and Cosmology; Quantum Gravity; Gravitational Collapse, Cosmic Censorship and Black Hole Physics; Spacetime Structure and the General Theory of Relativity; Relativistic Astrophysics.

INVITED LECTURES

Invited lectures at very many National and International Conferences, Meetings; Review Seminars etc. in India and abroad (A select list given in Appendix I, II).

PUBLICATIONS

(a) Research Papers:

More than 200 research papers published in reputed international journals, conference proceedings etc; detailed list available at, [https:// inspirehep.net/ search? ln=en&nd+a+p+s+joshiof=hbaction,sarch=Searchsf=earliestdateso=d](https://inspirehep.net/search?ln=en&nd+a+p+s+joshiof=hbaction,sarch=Searchsf=earliestdateso=d)

(b) Research Monographs, Books, Conference Proceedings:

1. Joshi P.S. (2015), The Story of Collapsing Stars {Black Holes, Naked Singularities and the Cosmic Play of Quantum Gravity, Oxford University Press, Oxford, 2015; paperback edition being released in Feb 2018.
2. Joshi P. S., (2012), Gravitational Collapse and Spacetime Singularities, Paperback Edition; Cambridge University Press, included in their monograph series, Cambridge Monographs on Mathematical Physics
3. Joshi P. S. (2011), (ed. with R. Tikekar, N. Dadhich, K. Jotania, A. M. Vaidya, M. H. vasavada), A Tribute to P C Vaidya, Special issue of Mathematics Today, Vol 26 (2011).

4. Joshi P. S., (2008), Gravitational Collapse and Spacetime Singularities, Cambridge University Press, included in their monograph series, Cambridge Monographs on Mathematical Physics.
5. Joshi P. S. (2007), (ed. with N. Dadhich and P. Roy), Raychaudhuri Equation at the Cross-roads, a Special Volume in honour of A. K. Raychaudhuri, Pramana -Journal of Physics, Vol. 69, No. 1, Indian Academy of Sciences and Springer, Bangalore.
6. Joshi P.S. (ed.), (1996), Singularities, Black Holes and Cosmic Censorship, Proceedings of the Raychaudhuri Session at the International Conference on Gravitation and Cosmology (ICGC95), IUCAA Publication, Pune, 1996.
7. Joshi P. S., (1996), Global Aspects in Gravitation and Cosmology, Clarendon Press (OUP), Oxford; the paperback edition, with corrections (The International Series of Monographs on Physics, Vol 87).
8. Joshi P. S., (1993), Global Aspects in Gravitation and Cosmology, Clarendon Press (OUP), Oxford (The International Series of Monographs on Physics, Vol 87).

(c) Books towards Science Popularization and Public Outreach

More than 15 books published on Science and Cosmology (details given in List of Publications), for children, students, citizens, towards Science Popularization; Received excellent response: Total aggregate circulation of about 200 thousand copies till the date; Published by Oxford University Press (India), Gurjar Granth Ratna Publications Ahmedabad, Yagna Prakashan, Vadodara, and others; Many of these into Fourth/Fifth editions.

HONOURS, AWARDS AND DISTINCTIONS:

- INSA-Vainu Bappu Memorial Award (2019) has been awarded to Dr. Pankaj S. Joshi by the Indian National Science Academy (INSA), New Delhi vide its letter dated 17 August, 2020.
- The World Academy of Sciences, Italy, has elected Dr. Pankaj S. Joshi as a Fellow of The World Academy of Sciences (TWAS) for the advancement vide its letter dated 15 December 2020.
- Achala Education Foundation Trust has selected Dr. Pankaj S. Joshi for 'Saraswat Award' by the his excellency hon'ble Governor Acharya Devvratji vide its letter dtd 16 February 2021.
- The Indian National Science Academy (INSA) has nominated Dr. Pankaj S. Joshi as Convener of Ahmedabad Chapter (INSA) local chapter vide its letter dated 24 February 2021.

- Annual Oration Award 2018, of the Society of Cancer Research and Communications (SCRAC), Mumbai.
- DAE C. V. Raman lecture award 2017, by the Indian Physics Association (IPA).
- The article ‘Modern Cosmology and Ancient Traditions’, published by the well-known USA magazine, Nautilus, January 2017.
- Received the First Professor A.R. Rao Research Award, and delivered the first Prof A. R. Rao Memorial Lecture, Professor A R Rao Foundation, Ahmedabad, December, 2016.
- The first Long Term Visitor at the ‘Black Hole Initiative’ of the Center for Astrophysics and Harvard University; September 2016; Gave the Inaugural Colloquium in Physics.
- Served as Adjunct Faculty, New York University, NYU International Learning Program, USA, gave Course of Lectures, ‘Cosmic Frontiers I and II’, on Astrophysics and Cosmology, meant for students internationally, 2016, 2014.
- Invitation Fellowship as ‘Distinguished scholar from abroad’, Osaka City University, Osaka, Japan, March 2016.
- Saraswat Gaurav Award, for overall academic, teaching and research contributions, Gujarat Vishvakosh, Ahmedabad, May 2015.
- Prof. A. C. Banerji Gold Medal and Memorial Lecture Award, by the National Academy of Sciences, India, 2013.
- Our work on collapsing massive stars chosen as one of the 16 frontier research articles for the ‘Collector’s Edition’ Special Issue on Physics by the ‘Scientific American’, that included our review article ‘Naked Singularities’ (May 2013).
- Sandipani Gaurav Award (2013), by the Sandipani Sanskriti Pratishthan, Porbandar (Gujarat).
- The Vaidya-Raychaudhuri Lecture Endowment Award (2012), by the Indian Association of General Relativity and Gravitation (IAGRG), India.
- Elected Fellow, Indian National Science Academy (INSA), New Delhi (2012).
- The 8th S.Chandrasekhar lecture; Nehru Center, Mumbai, on ‘Life and death of Massive Stars’, 2012.
- Umanga Foundation Award for Contribution to Research and Knowledge (Bharatiya Vidya Bhavan, Mumbai, October 2011).

- President (2010-12), Indian Association of General Relativity and Gravitation (IAGRG), India.
- ‘Scientific American’ (2009), review article on our work in Black Holes physics and Gravitational Collapse of Massive Stars. The article naked singularities published Feb 2009, as their International Cover story, translated in more than 17 international languages.
- The research monograph, Gravitational collapse and space-time singularities (2008), included in the prestigious series, ‘Cambridge monographs on mathematical physics’; Cambridge University Press (2008); Paperback edition (2012).
- Elected Fellow, The National Academy of Sciences (NASI), India (2006).
- Elected Fellow, Gujarat Science Academy, Ahmedabad (2006).
- Prize and Award by the Gravity Research Foundation, USA, for research work on the Final Fate of Gravitational Collapse (1991). Other winners that year included M. Turner (NASA/Fermi Lab), S. Coleman (Harvard), L. Krauss (Yale), J. Preskill (Caltech), and F. Wilczek (Princeton).
- Public Service and Best Citizen Award (2001), Shishu Vihar, Gujarat, for contributions to education, students, and science popularization.
- Awarded the Nuffield Foundation Fellowship to work at the DAMTP, Cambridge University (1981).
- National Merit Scholarship holder of Govt of India (1969-73); University First in M.Sc. exams etc.
- Served on several National Committees, Member, National Advisory Committee to the University Grants Commission, India, for Gravitation and cosmology (1992-1994); Member, Advisory Committee on Gravitation and Cosmology, IUCAA (1994), and others.
- Served as Member on Scientific or Organizing Committees for very many conferences, including the ‘Physics of Black holes’ (Bangalore, 1997), the International GR15 (1997), International Conf. on Grav. And Cosmology (ICGC), IAGRG, and others.
- Very many citations of our research papers and books received in international journals of repute.
- Awarded Honorable Mention (1980, 85, 86, 87, 88, 92) by the Gravity Research Foundation, USA, for researches in gravitation physics.

- The Oxford University Press published the monograph entitled, Global aspects in gravitation and cosmology (1993), Paperback ed. (1996), published by the Clarendon Press, Oxford; included in their reputed series ‘The International Series of Monographs on Physics’; widely cited with excellent internationally reviews.

TEACHING AND EDUCATION CONTRIBUTIONS

1. Guided Twelve students for their Phd; Ten Post-Doctoral Fellows have worked under my advice.
2. Gave summer and research projects to more than 50 students over past years.
3. Taught regularly courses at the Graduate School, TIFR, and elsewhere; gave Lecture courses on Gravitation and Cosmology, at Bombay University, IUCAA, and at various Universities, at Summer/Winter Schools, and at different centers in the country (select list given in Appendix III).
5. Over the years, regularly interacted with University and College teachers, who visited to discuss/initiate new research projects; resulting in many research publications for them.
6. Developed at TIFR a research group working on gravitation theory, black hole physics, gravitational collapse and cosmology, that included regular members, post-docs and students.
7. Worked frequently as examiner/adviser with various Universities, contributing to teaching and education.
8. Contribution to Research at Indian Universities: Our research, and in particular the OUP and CUP monographs, generated and inspired within the University Community in India, more than 100 research publications in reputed international journals over past years.

SCIENCE REFEREEING WORK

- Regularly worked and consulted as referee to many National and International Research Journals such as Classical and Quantum Gravity, General Relativity and Gravitation, Int.J. of Mod. Physics, Physics Letters
- B, Mod.Physics Letters, Pramana, Mathematical Reviews, Cambridge University Press, and others. Also a reviewer of International Science Proposals for many organizations.

SELECTED ACADEMIC CONTRIBUTIONS

- Over past years, a research group in the above areas developed at TIFR; received regularly visiting applications from excellent centers abroad, and from within India; distinguished visitors included R. Penrose, Ramesh Narayan, R. Wald, L. Witten, M. A. H. MacCallum and others.
- Organized the conference, ‘Geometrical aspects of relativity’, December 1984, TIFR, Mumbai.
- Organized a Symposium ‘50 Years of Vaidya Metric’, at the Silver Jubilee Conference of the Indian Association of General Relativity and Gravitation (1994), to review the developments and applications further to discovery of Vaidya metric.
- Organized a three-days International Workshop on ‘Gravitational Collapse and Cosmic Censorship’ (IUCAA, Pune, 1995).
- Organized a ‘Session on The Raychaudhuri Equation’ at the International Conference on Gravitation and Cosmology (ICGC, 1995); Well-known authorities (USA, UK, Australia) participated.
- Organized an International Workshop on ‘Cosmic Censorship, Black Holes and Naked Singularities’ (Mumbai, March 3-10, 2006).
- Gave many Colloquia regularly at TIFR, which include, ‘Death of a Massive Star’, 12 July, 2006; ‘Gravitational Collapse’, (DTP colloquium), 26 Sept, 2006; ‘The Raychaudhuri equation in Modern Cosmology and Gravitational Collapse’, 10 Aug 2005; ‘The Black Hole Conundrum’, 19 Aug 2004; and others.
- Member, SOC, for many National and International Conferences, e.g. International Conference on Gravitation and Cosmology 4 (ICGC4), Cochi; ICGC7 (Goa, 2011); Member, IUCAA (Pune) Review Committee on Gravitation and Cosmology, to review their Research Associate Program.
- Organized the lectures by Roger Penrose (Jan. 2003) and Ramesh Narayan (2014) at TIFR.

PUBLIC UNDERSTANDING OF SCIENCE

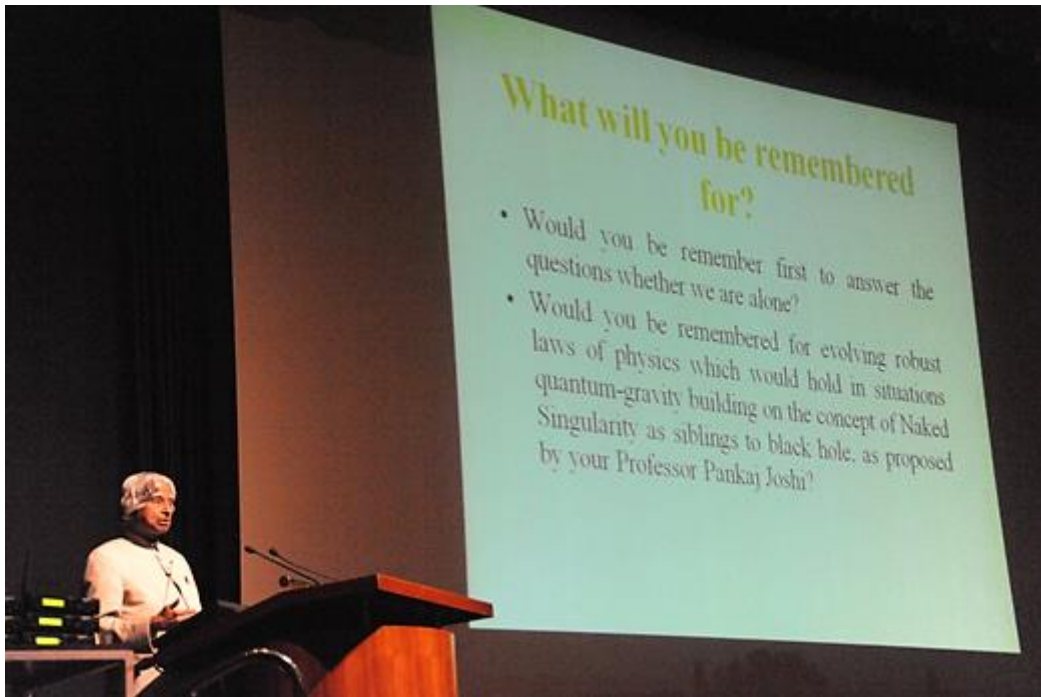
1. Recent book ‘Story of Collapsing Stars’ (OUP), describing our work on Gravitational Collapse, Black Holes etc at popular level received excellent response; reviewed by Nature (placed in ‘Best Five’ series), Physics Today, Choice, and others.

2. Regularly contributed over past years to enhance public understanding of science, through more than 200 popular articles and similar number of talks in various public fora.
3. Wrote more than 15 popular books on science and cosmology, many of these went into more than three editions, the latest of these being 'Tara Srushti' (4th edition), 'Brahmand-Darshan' (3rd edition), and 'Vigyan Goshti' (3rd edition). These were published by the Oxford Univ. Press, India, and other publishers.
4. Some of our works attracted excellent attention of popular science media and was reported in detail the 'New Scientist' (2000, 2006), 'Physics World' (2006), 'The Frankfurter Allegemine' (2012), Germany, 'Nature' Asia, and in many other news reports in various publications.
5. Conducted many TV and Press Interviews and Discussions, to explain recent cosmology and astrophysics developments towards public understanding of science.

APPENDIX I:
Invited Plenary Lectures at Major International Conferences (selected)

- Invited Plenary talk on ‘Gravitational Collapse and Space-time Singularities’ at the International meeting on ‘Singularities of general relativity and their quantum fate’, Banach Center, Warsaw (June 2016).
- Invited Talk on ‘Black hole physics’ at the IUPAP conference on ‘Computational Physics’, November 2015, IIT, Guwahati.
- Invited Plenary talk on ‘Gravitational Collapse and Black Hole Physics’, at the Japan Physical Society (JPS) Meeting, Osaka, September 2015.
- Invited Inaugural Talk, ‘Gravitational Collapse: Recent Perspectives’, the Shanghai Conference on ‘Collapsing Objects”, Fudan University, October 21-24, 2013, China.
- Invited Review lecture on ‘Gravitational collapse, black holes and singularities: Recent developments and astrophysical applications’, at the COST (European Cooperation in Science and Technology) Conference on, ‘Black Holes: From Quantum to Gravity’, (April 23- 25 April, 2012, Malta.
- ‘Collapsing a Massive Star’, at Chandrayana, the Chandra Centenary Symposium, Institute of Mathematical Sciences, Chennai, 3-7 January 2011.
- ‘Present Status of Cosmic Censorship’; at the ‘International Workshop on Dynamics and Thermodynamics of Black Holes and Naked Singularities’, May 13-15, 2004, Milan, Italy.
- ‘Gravitational Collapse End States’; at the conference, ‘Provocative Universe’ 30 June- 2 July 2003, IUCAA, Pune.
- ‘Gravitational collapse: The Story so far’; at the ‘4th International Conference on Gravitation and Cosmology: Cosmology, Black Holes and Compact Objects’, 4-7 Jan. 2000, IIT, Kharagpur, India.
- ‘Singularities in General Relativity’ at the Moriond Conference on ‘Perspectives in Neutrinos, Atomic Physics and Gravitation’, Villars sur Ollon, Switzerland, 1993.

***DR A P J KALAM'S COMMENT ON OUR WORK,
GIVEN AT HIS PUBLIC LECTURE:***



APPENDIX II:
Other Invited Talks (selected)

- ‘Gravitational collapse, Black Holes and Naked singularities’, Inaugural Colloquium in Physics, Black Hole Initiative, Harvard University, USA, September, 2016.
- ‘Gravitational collapse’, at the ‘International conference on High Frequency Gravity Waves’, Austin, USA (2010).
- Plenary review talk ‘the formation of black holes vs naked singularities in gravitational collapse: The state of the arts’, International Workshop on ‘Thermodynamics of black holes and naked singularities’, Milan, Italy, May, 2007.
- ‘In-formation: Thoughts on Science-Spirituality Interface’, Conference on ‘Information as Science and Spirituality’, India Habitat Center, New Delhi, 19 March 2007.
- ‘Students and the World of Science’: Taral Memorial Lecture, 7 Octo 06, Bhavnagar.

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डा. आर. चिदम्बरम्
भारत सरकार के प्रमुख वैज्ञानिक सलाहकार
एवम्
अध्यक्ष, मंत्रिमण्डल को वैज्ञानिक सलाहकार समिति
(पूर्व अध्यक्ष, परमाणु ऊर्जा आयोग)
Dr. R. Chidambaram
Principal Scientific Adviser to the Govt. of India
&
Chairman, Scientific Advisory Committee to the Cabinet
(Former Chairman, Atomic Energy Commission)



सत्यमेव जयते

विज्ञान भवन एनेक्सी
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E-mail : chairman@tifac.org.in
rajachid@nic.in

Ref: RC/HBC/PSA/ 65/113

July 26, 2013

Dear Prof. Pankaj Joshi,

Thank you very much for sending the special issue of Scientific American which is indeed a collector's edition with exceptionally well written articles; in particular I enjoyed reading (though I can't say I understood it fully) your article on 'Naked Singularities' and your comments on the event horizon of the black hole. It will be a great pleasure to spend some time with you when you are free. I shall be looking forward to our meeting.

With warm regards,

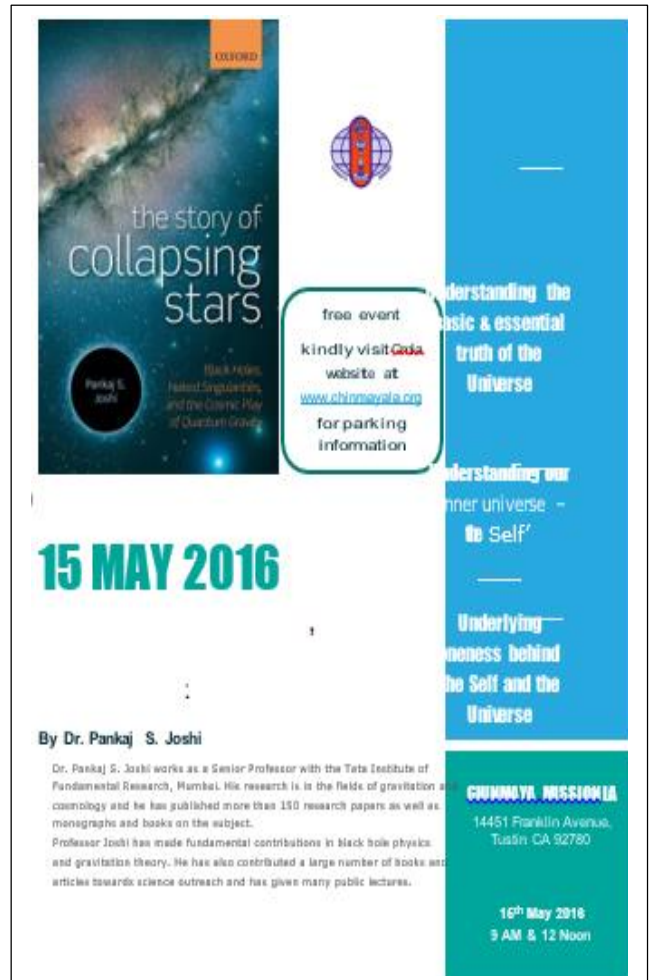
Yours sincerely,

R. Chidambaram
(R. Chidambaram)

Prof. Pankaj S. Joshi,
Senior Professor
Department of Astronomy and Astrophysics,
TIFR,
Homi Bhabha Road,
Mumbai 400005.

- ‘Cosmic mysteries’, Invited talk at the SCRAC monsoon Conference on ‘Inuence of Science on Literature and Films’, Sept 06, Mumbai.
- ‘Gravitational Death of a Massive Star’, July 2006, Nat. Inst. of Advanced Studies (NIAS), Bangalore.
- ‘Cosmology Today’, a Lecture given at the M S University of Baroda, Vadodara, 7 Jan 2006.
- ‘Black holes, Singularities and Hawking Radiation’, Lecture at Department of Physics, South Gujarat University, 1 Octo 2005.
- ‘Black hole theory and Universe’, lecture at the Science and Technology Fair, Bhavnagar, 28 Dec 2004.
- ‘Sciences in Ancient India’, Ananthacharya Indological Institute, Mumbai, April, 2004, at the Meeting: "National Seminar on Sciences in Ancient India".
- ‘The puzzle of black holes’ at the ‘Einstein’s Theories Centenary Conference’, Ind.Planetary Soc., Mumbai, 7-9 Jan 05.
- Invited to Chair the session, ‘Global aspects, singularities and cosmic censorship’ at MG10, Rio, Brazil, July 2003.
- ‘Visibility of a Spacetime Singularity’, IAGRG24 conference, Jamia Milia Islamia, New Delhi, 8 Feb 2007.
- ‘Gravitational Collapse End State’, Colloquium at the Harishchandra Institute, Allahabad, Nov 8, 2004.
- ‘The Puzzle of Black Hole’ CSMCRI, Bhavnagar, Octo 2004.
- ‘Gravitational Collapse and Gravitational Radiation’, Silver Jubilee Conference, "Recent Trends in Natural Sciences", Feb 04, Bhavnagar University.
- ‘Recent exciting developments in Physics and Mathematics’, Feb 04, Bhavnagar University.
- Theoretical Physics Seminar Circuit (TPSC) invited speaker at important physics centers in India (1996-98).
- ‘Final fate of Gravitationally Collapsing Massive Stars’ at the ‘Visitors Program’, Platinum Jubilee Session, Delhi University, 1997.

- Invited for talk at conference ‘Mathematical theories of gravitation’, International Banach Center, Warsaw, 1996.
- ‘Singularities, Gravitational Collapse and the Raychaudhuri Equation’ at the Raychaudhuri Session, International Conference on Gravitation and Cosmology (ICGC95), Pune, Dec. 1995.
- ‘The Nature of Singularities in Gravitational Collapse’ at the International Workshop on Gravitational Collapse and Cosmic Censorship, IUCAA, Pune, Dec. 1995.
- ‘Recent Developments in Gravitational Collapse’ at the ‘Symposium on Early Universe 94’, Indian Institute of Technology, Madras, Dec. 1994



- ‘Gravitational Collapse and Cosmic Censorship’ at the Indian Association for General Relativity and Gravitation (IAGRG) Silver Jubilee Conference, Pune Feb.1994.
- Invited for a talk at the conference on ‘Quantum aspects of black holes’, (Inst. for Th. Physics, Santa Barbara), USA, 1993.
- Invited to give a talk at the Aspen Workshop on ‘Cosmic Censorship’, USA, 1992.
- ‘The Structure of Naked Singularities and Cosmic Censorship Hypothesis’ at the Sixth Annual Conference of the Ramanujan Mathematical Society, Rajkot, 1991.
- ‘Quantum Effects near Spacetime Singularities’, Workshop on ‘Early Universe’, Pune, 1989.
- ‘Structure of Spacetime Manifolds’ at the Mathematics Research Seminar, Sardar Patel Univ. Vallabh Vidyanagar, 1989.
- ‘Singularity Avoidance in Quantum Gravity’, 5th Marcel Grossmann Meeting, Perth, Australia, 1988.

- ‘General Relativity and Spacetime Topology’, Frontier Symposium at the Platinum Jubilee Session of the Indian Science Congress, Pune, 1988.
- ‘The Cosmic Censorship Problem’ at the Indian Association for General Relativity and Gravitation (IAGRG) Conference, Vishakhapatnam, 1987.
- Paper presented on ‘Axions and Dark Matter’ at the IAU Symposium No. (1986).
- ‘Conformal Quantization in Singular Spacetimes’, Summer School on Topological Properties and Global Structure of Spacetime’, Erice, Italy, 1985.
- ‘Light Cone Cuts of Schwarzschild Geometry’, GRG10, Padova, Italy, 1983.
- ‘Gravitational Collapse and Singularities’, IAGRG Conference, Bangalore, 1980.
- Paper presented on ‘Causality Violations in Spacetimes’ at the Einstein Centenary Symposium, Ahmedabad, 1979.
- ‘Spacetime Topology’, IAGRG Conference, Bhavnagar, 1977.
- ‘Complex Periodic Functions’ at Gujarat Mathematical Society Conference, Visnagar, 1975

Appendix III: Teaching, Invited Lecture Courses etc (selected)

- ‘Gravitational Collapse’ (3 lectures), Lecture Course given at the ‘IUCAA School on Gravitation and Astrophysics’, March 15-18, 2011, Jamia Millia Islamia, New Delhi.
- A Topical course, ‘Gravitation and Cosmology, TIFR Graduate School, 2006-07. Graduate course, ‘Statistical Mechanics’ at the TIFR Graduate School, 2004-05. Graduate course, ‘Classical Mechanics’ at the TIFR Graduate School, 2001.
- A course of 3 lectures on ‘Collapse and Cosmic Censorship’ (26-29 March 03), at ‘Workshop on gravitational collapse and recent developments’, CIRI, Nagpur.
- A course of 6 lectures on ‘Cosmology’ at IUCAA, Pune in the ‘Summer School on Astronomy and Astrophysics’, May 1995.
- Graduate course, ‘Mathematical Methods in Physics’ at the Graduate School, TIFR, Bombay, Sept.1993-Jan.1994.
- UGC Visiting Professor at the Sardar Patel University, Vallabh Vidya Nagar, ‘Gravitation and Cosmology’ (4 lectures), 1993.
- A Course of 8 lectures on "Gravitational Collapse and Naked Singularities" at IUCAA, Pune (1991).
- Graduate course, ‘Classical Mechanics’ at the Graduate School, TIFR, Bombay, 1990.
- A one-year graduate course on ‘General Relativity and Cosmology’ at Bombay University, 1988-89.
- A course on ‘Cosmic Censorship’ (5 lectures) at UGC All India School on ‘Advanced topics in General Relativity’, Jadavpur University and Indian Association of Cultivation of Science, Calcutta, 1988.
- A course (20 lectures) on ‘Relativity Theory’ given at the Nehru Science Center and Planetarium, Bombay, 1987.
- UGC Visiting Professor at the Saurashtra University, Rajkot (10 lectures) ‘Spacetime Structure’, 1986.
- A course on ‘Singularities’ (10 lectures), UGC Conference on ‘Differential Geometric Methods in Relativity’, Aligarh, 1986.
- A course on ‘Penrose Diagrams and Killing Vectors’ (3 lectures) at UGC School on ‘Gravitation, Gauge Theories and Early Universe’, Bangalore, 1985.
- UGC Visiting Professor at the Shivaji University, Kolhapur, (10 lectures) ‘Gravitational Collapse and Spacetime Singularities’, 1985.
- Gave a two-semester advanced course (non-credit) covering ‘Topological and Differential Geometric Methods in Physics’, at the School of Physics, TIFR, attended by many faculty members and students here (1984-85).
- A course on ‘Global Aspects in Gravitation’ (10 lectures), at the UGC Winter School, Saurashtra University, 1979.
- A course (6 lectures) given at Raman Research Institute, Bangalore, on Causality in Spacetimes’, 1979.
- Gave graduate courses on ‘Real Analysis’, ‘Differential Geometry’ and ‘Differentiable Manifolds’ at Saurashtra University during 1975-78.

**APPENDIX IV:
Science Books towards Public Outreach:**

- Joshi P. S. (2013), Brahmand Goshthi, Gurjar Prakashan, Ahmedabad.
- Joshi P. S. (2011), Vigyan Goshti, Trust Taral Pub, Gujarat; A set of Three books on Basic Scientific questions on Cosmos, Human body, and the World around us, meant for students and others.
- Joshi P. S. (2010), Brahmand-Darshan, 4th edition, Yagna Prakashan, India. A collection of popular articles on science and its connection to other aspects of life.
- Joshi P. S. (2009), Tara-Srushti, 3rd edition, Trust Taral, Gujarat, an exposure to Stars and Relativity meant for students and general public.
- Joshi P. S. (during 1981-2014), More than 25 books published on Science and Cosmology, for children, students and enlightened citizens, towards public understanding of science. Published by the Oxford University Press, India, and other publishers; many went into three editions and more.

Important Selected Attachments below include:

- First pages of my 2008 Cambridge monograph, and the praise by their Editors. The 'Scientific American' Cover pages (English and German).
- The Editorial comments by the Editor in Chief, of the SciAm German edition, 'Spektrum', and other relevant details: