

Biodata of Dr. J. J. Rawal

Dr. J. J. Rawal has received M.Sc. degree (Applied Mathematics), M.Sc. (P u r e Mathematics) both from University of Mumbai, M. Phil. from University of Calcutta through Satyendranath Bose Institute of Physical Sciences and Ph.D. from University of Mumbai through TIFR in Astrophysics under the supervision of Professor J. V. Narlikar, Professor Sukumar Biswas. Dr. Rawal was born in Halvad, a small town of Surendranagar District of Gujarat on March 30, 1943. Dr. Rawal was Director Research, Nehru Planetarium and also Director of Nehru Planetarium of Nehru Centre, Worli, Mumbai. He was the President of Janseva Kendra, Borivali during the year 2000 - 2017. He was the Vice-Chairman and then Chairman of the Indian Physics Association (Mumbai Chapter) during 1992- 2001. Professor Rawal is now President of the Indian Planetary Society.



In the 70s and 80s he studied the formation of the Solar system and satellite systems of planets and theorized and predicted the existence of the outermost rings around planets Saturn and Uranus, full ring system of Neptune and new satellites going around the giant planets Jupiter, Saturn, Uranus and Neptune which were later on confirmed by earth based Hubble Space Telescope and by the pioneer and voyager space probes when they flew past these planets. Dr. Rawal conducted research on Rings around Galaxies, Clouds of Comets around the Solar and Satellite Systems, Lagrangian Points, Planetary Distance Law, Resonant Structures in the Solar System, New asteroidal Belts in the Solar and Satellite Systems, Intra-Mercurial Planets, ring system around the sun, whether there are satellites around Mercury and Venus. He also studied Einstein's Theory of Relativity and published several research papers. So far he has published 40 research papers in national and international Research Journals. Recently he has published research papers titled: (i) Are There Rings and unknown Satellites Around Pluto?, (ii) Are There Rings Around the Sun?, (iii) Mass as the fifth dimension of the Universe and others. Even today his research work is going on. He predicted the existence of tenth and eleventh Planet into the solar system, which were discovered many years later.

Dr. Rawal has been writing Weekly Science Column in Janmabhoomi Pravasi for the past 40 years. He has also written articles in almost all leading National Newspapers. Presently he is also writing Weekly Science Column in Janmabhoomi Pravasi, Mumbai Samachar and Gujarat Guardian, Phulchhab, Kutchmitra, Daman Ganga Times. Dr. Rawal has written over 4000 articles on Science and Astronomy in various newspapers and magazines in Gujarati, Hindi and English and given that many lectures at various places such as schools, Collages, University, Rotaries, Lions, Mandals, Social Groups slum area etc. in the country and abroad and also given scores of radio and TV Programmes. He has written 8 science fiction stories. His series of radio talks in Gujarati on the Life and work of Einstein ran for 80 talks in 2005, on the occasion of the Centenary Year of Einstein's Special Theory of Relativity and was a talk of the town. He has given many such radio talks. He has written 30 booklets on Astronomy and Science. Recently he has written books entitled: (1) The Orion: Antiquity of Vedas in English and Gujarati. This is a revised version of Bal Gangadhar Tilak's Orion. Its Foreword has been written by internationally renowned Astrophysicist Professor Jayant V. Narlikar (2) Science of 2nd Millennium Part 1 & 2 (3) Life and Work of Galileo (4) Life and Work of Newton (5) Life and Work of Einstein all in Gujarati and English. They are published by Nav Bharat Sahitya Mandir in 2012. Recently his book entitled 'Brahmand Darshan' in Gujarati has been published by University Granth Nirman Board, Gujarat. His book entitled 'Science in Ancient India' has been published in 2006.

He is a recipient of prestigious Shri Munubhai Mehta Award, Marathi Vigyan Parishad's Smt. Manoramabai Apte Award, Award for Science writing by Govt. of Gujarat, Gujarat Ratna Award, and

several other prestigious awards.

He has received Nation's prestigious award for science popularization in the country given by Department of Science and Technology, Ministry of Science and Technology, Government of India, at the hands of the then State Minister of Science and Technology, Government of India. He was honoured for his discoveries in the Solar System by Marathi Vigyan Mahasangh and Marathi Vigyan Parishad combined at the hands of Professor B. M. Udgaonkar, very senior and respected Professor of TIFR and right hand of Dr. H. J. Bhabha. He has been given Civil Honour by Corporation of Greater Mumbai, Corporations of Rajkot, Halvad and Bhuj for his contribution in research in the field of science. He won the UGC School of Einstein Theory of Relativity Award which was held at Kolhapur in 1982. He has received Awards from various Organizations like Amrita, Shri Kilachand Memorial Award, journalist Chhaganbhai Mehta Memorial Award, Saurashtra Education Foundation, Kala Gurjari, Allen Career Institute, Shri M. D. Mehta Memorial Award and like. He has received Aryabhata Award from All India Ramanujan Mathematics organisation.

He has been honoured by Shri Narendrabhai Modi, Hon'ble Chief Minister of Gujarat on the eve of Republic Day 26th January 2010.

The book entitled 'Brahmand Darshan' in Gujarati written by Dr. J. J. Rawal was released by the first lady the then Chief Minister of Gujarat Smt. Anandiben Patel in a special function arranged on 14th September, 2015 at Swarnim Sankul, Gandhinagar, Gujarat. On the Eve of Independent Day of 2016 he was felicitated by Shri Vijaybhai Rupani Chief Minister of Gujarat. He was also felicitated by Gujarat Council of Educational Research and Training, Gandhinagar for his research work and science popularization and scientific activities at the hands of Vijaybhai Rupani, Hon'ble Chief Minister of Gujarat Dr. Rawal was felicitated by Halvad Yuvak Mandal for his contribution in Astronomy on April 24, 2012. Dr. Rawal was honoured by citizens of Mota Devalia by Purushotam Rupala the then National Vice President of Bharatiya Janta Party and Pujya Apurva Swamy of BAPS on 16th February, 2013. Dr. Rawal is a Fellow of Gujarat Academy of Science and also a member of American Astronomical Society and National Academy of Science of India and several other scientific society. He was a Visiting Professor in the Department of Physics, University of Mumbai for 16 years teaching Astrophysics in the final year of M. Sc.. In connection with International Conferences and Short Visiting Fellowships

IPS and Professorships, he has visited USA, Japan, Germany, Australia, South Korea, Iran, Austria, Czechoslovakia Malaysia several times. He is Hindi Kovid, Sanskrit Bhushan, Sanskrit Kovid and has Diploma in German Language.

Dr. Rawal was invited as the Visiting Professor by the University of Malaya, Kuala Lumpur, Malaysia for one month in September, 2012. He has been invited to be the Visiting Professor for two years in the University of Malaya, which he did not accept. Dr. Rawal was adjunct Professor of Physics in Saurashtra University, Rajkot, Gujarat. He was Professor Emeritus at CHARUSAT.

Dr. Rawal is the Founder President of the Indian Planetary Society and he is heading the Society in its endeavour to popularize Astronomy and allied subjects and to carry out research in these fields, and under his Presidentship the Society has received two very prestigious awards (1) National Awards for Society's scientific activities in the year 2005 given by Department of Science and Technology, Ministry of Science and Technology, Government of India and (2) Mahavir Foundation Award of Rs. 10 lakhs given by Chennai based Mahavir Foundation. Under his guidance the Society held six national and international conferences two in Mumbai and one in each Ahmedabad, Bhuj, (CHARUSAT) Changa and Surat. He is Trustee of Saurashtra Education Foundation, Rajkot. Society also carries out research in Astrophysics and allied subjects. Dr. Rawal has interest in music, singing, drawing, reading, art, history, philosophy and travelling.

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उमामहेश्वरन आर./Umamaheswaran. R
विशिष्ट वैज्ञानिक एवं वैज्ञानिक सचिव, इसरो
Distinguished Scientist &
Scientific Secretary, ISRO

No. ISRO:SS:3.14:2020

October 27, 2020

Dear Dr. JJ Rawal,

Thank you for your email dated 15th October, 2020. It is interesting that your earlier work referred to the possible existence of a ring at 27 solar radii and a test of this could in principle be carried out with a wide field coronagraph.

The cameras onboard ISRO's Aditya-L1 mission are now designed to cover the region only upto 3 solar radii. The coronagraphic images from the VELC payload, could in principle be used to search for the presence of such a ring, though may not be optimal, given your predicted distance of 27 solar radii. The sensitivity to detect a faint signal from this ring, has to be carefully estimated.

The VELC payload development is led by the Indian Institute of Astrophysics. I would encourage you to interact with Prof. Annapurni Subramaniam, Director, IIA to pursue a dialog with relevant scientists at IIA, in addressing the feasibility of this observation.

Thank you for your keen interest in the Aditya-L1 program of ISRO.

Wishing you the best.

Yours Sincerely,

(Umamaheswaran.R)

Dr. JJ Rawal
President
The Indian Planetary Society
Former Director & Director Research: Nehru Planetarium, Mumbai
Former President: Indian Physics Association (Mumbai Chapter)

Cc:

Chairman, ISRO/Secretary, DOS (For kind information)

भारतीय अन्तरिक्ष अनुसंधान संगठन / Indian Space Research Organisation

6/14/2021

Gmail - Reminder for Aditya L1 project



Dr. Rawal J. J. <ips.science@gmail.com>

Reminder for Aditya L1 project

Annapurni Subramaniam <purni@iiap.res.in>
To: "Dr. Rawal J. J." <ips.science@gmail.com>

Thu, May 20, 2021 at 2:57 PM

Dear Dr. Rawal,

The VELC science team has provided the following response to your query. Hope you find it useful.

Thank you for sharing your work and interests on ring structures around the Sun at close distances — inner to Mercury's orbit, at 27 solar radii and on your interests in checking if VELC instrument onboard Aditya-L1 is useful for studying such rings.

The VELC instrument onboard Aditya-L1 is not designed to observe any structures beyond 3 solar radii, and its photometric sensitivity is not good enough to measure supposedly these very faint dust rings at distances farther out. VELC instrument will **always** be observing the Sun's corona with a field-of-view (FOV) upto 3 solar radii.

Dust rings around the Sun at Mercury's orbital distance and at further larger distances, coinciding with Venus and beyond, are well known. However, your proposal/inferences of a ring as close as 27 solar radii from the Sun appears new. Current understanding of dust distribution in the inner solar system (see references below) predicts a dust free zone close to the Sun, and there are currently attempts to study it using the NASA's Parker Solar Probe (PSP, launched in 2018), which is an in situ probe and currently in orbit around the Sun. Please check: <http://parkersolarprobe.jhuapl.edu/The-Mission/index.php#Where-Is-PSP>. Please, however, note that PSP's science goals are mainly to study the Sun's corona and solar wind.

Latest results from PSP, based on the analyses of its closest approach at around 30 solar radii, (note the PSP has already had perihelion passages closer than 27 solar radii, twice, and results from these approaches are yet to be out), are published in this paper: <https://sppgway.jhuapl.edu/bibcite/reference/1283>. These results indicate that there is no stable bound orbit of dust grains forming a ring inner to 35 solar radii, but they have measured much finer beta - meteoroids which are outward ejected dust going away from the Sun in hyperbolic orbits. The source of these beta - meteoroids is however unknown, except that the above PSP results indicate that they are from within 10 - 30 solar radii from the Sun. And, you may please check your work in relation to this finding.

Hope the above information on NASA's PSP and its in-situ observations are useful to you.

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Prof. (Dr.) Annapurni Subramaniam, FASc., FNASc.,
Director & Professor,
Indian Institute of Astrophysics,
Bangalore - 560034

Honours and Awards to Dr. J.J. Rawal

1. In 2006 Dr. Rawal received Prestigious National Award for popularization of Science in the country given by Department of Science and Technology, Ministry of Science and Technology, Government of India.
2. In 1996 Dr. Rawal received Prestigious National Award for popularising science in the country given by Marathi Vigyan Parishad's Smt. Manoramabai Apte Award at the hands of the then Chief Minister of Maharashtra.
3. He has been honoured by Marathi Vigyan Parishad and Marathi Mahasangh combined for his Astronomical discoveries at the hands of Professor B.M. Udagaonkar, very prestigious Professor of Tata Institute of Fundamental Research, Mumbai

Dr. Rawal was given the following Awards and Honours:

- i. Civil Honours by the Municipal Corporation of Greater Mumbai,
 - ii. Municipal Corporation of Rajkot
 - iii. Municipal Corporation of Bhuj
 - iv. Municipal Corporation of Halvad and Balapur Village.
4. Yogiji Maharaj Centenary Award at the hands of Pramukh Swami in 1995.
 5. Felicitated by Citizens of Mumbai at the hands of Murari Babu in the year 2013.
 6. Honoured by the then Chief Minister of Gujarat Shri Narendrabhai Modi at the Eve of Republic Day 26th January 2012
 7. Honoured by the Chief Minister of Gujarat Shri Vijaybhai Rupani on 15th August 2016 at Morbi.
 8. Honoured by Gujarat Council on Educational Research and Training (GCERT)
 9. Award by Gujarat Government for his writing scientific articles in Gujarati Newspaper at the hands of Arun Jetley and in presence of the then Chief Minister, Keshubhai Patel.
 10. Dr. Rawal Gujarat Ratna Award and Halvad Ratna Award
 11. Felicitated by Halvad Yuvak Mandal
 12. Aryabhata Award by All India Ramanujan Mathematics Organization
 13. Felicitated by all Rotary and Lions Clubs of Mumbai and Rotary Club of Surat, Rajkot and so on.
 14. Felicitated by Borivali Education Society
 15. Felicitated by Saurashtra Education Foundation at its Science Centre, Rajkot
 16. Felicitated by Kala Gurjari (Sthapak Sanstha) at Vile Parle, Mumbai
 17. Award by Amrita at the hands of Daruwala Saheb, the than Editor of Mumbai Samachar
 18. Dr. Rawal was given Life Time Achievement Award by Sandipani Vidyaniketan of Shri Bhaishri Shri Rameshbhai Oza in the year 2007.
 19. Morbi Yuva Gyanotsav Award.

20. Ma Khambhala Temple of Mandal (Viramgam) Award.
21. Golden Jubilee Award of K.J. Somaiya Education Complex.
22. Vande Mataram Munch Award, Gandhinagar.
23. Halvad Brahmamitra Award
24. Dinsha Patel Planetarium Award
25. Vishva Sanvad Kendra Award
26. Acharya Chanakya Samman 2020 by Chanakya Varta-International Fortnight Magazine at the hands of Shri Bhagatsinha Koshyari, Governor of Maharashtra on January 18, 2020 for the Research on Astronomy and Astrophysics.
27. Prestigious Award from Vadlo an NGO in Mumbai
28. "Inspire" Award from Ministry of Science and Technology, Government of India.
29. Award from Gujarat, Rajasthan, Haryana Regional Science Techno Fair committee.
30. Award from Gujarati Digamber Samaj.
31. "Saurashtra Sabdyagya" Award
32. Trivedi Mewada Brahmin Sanstha Award
33. Rotary Club of Bombay West-Life Time Achievement Award
34. Jageshwar Mahadev Temple Trust Award, Halvad.
35. Award from Borivali citizens at the hands of Shri Vinod Tawde (MLA) and Shri Gopal Shetty (MP).
36. Award from Baroi-Mundra Kutch citizens
37. Award from Jilla Panchayat Samiti Valsad, Gujarat.
38. Award from Bhartiya Janta Party, Borivali, Mumbai
39. Award of Pride of Gujarat & Maharashtra Award
40. Award from Maha Gujarat Sangh
41. Mid Day Newspaper Award and Several other Awards
42. Dr. Rawal received School of Einstein's General Theory of Relativity Award which was held at Shivaji University, Kolhapur in 1982.
43. Gaurav Award from Sandipani Niketan of Bhai Shree Rameshbhai Oza and several other Awards.

The following theoretical predictions of Dr. J. J. Rawal have come true through observations by NASA's space probes Pioneer 11, Voyager 2, Hubble Space Telescope, Parker Soar Space probe and Earth-based observations by telescopes

[1]

Outermost ring of Saturn and its new Satellites

Observation by Pioneer spacecraft send by NASA when it flew past Saturn in September, 1976

Published paper

- i. Modified Titius –Bode Empirical Relation,
Bulletin of Astronomical Society of India, Vol. 6, pg.92-95, 1978
- ii. Resonant Structures in the Solar System
The Moon and the Planets 24, 407-414, 1989
- iii. Contraction of Sub-Solar Nebula
Earth, Moon and Planets 49, 265-274, 1989
- iv. Sky & Telescope, December 1981p. 541
- v. Planetary Distance Law and Resonance, J. Astrophys. Astr. 10, 257-259 (1989)
- vi. Further consideration of Contraction of Solar Nebula, Earth Moon and Planets, 34, 93-100, 1988

[2]

Discovery of 20 more Satellites of Saturn

Observation by Astronomers of Carneg Institue of Science in October, 2019

Published Papers

- i. Modified Titius –Bode Empirical Relation,
Bulletin of Astronomical Society of India, Vol. 6, pg.92-95, 1978
- ii. Resonant Structures in the Solar System
The Moon and the Planets 24, 407-414, 1989
- iii. Contraction of Sub-Solar Nebula
Earth, Moon and Planets 49, 265-274, 1989
- iv. Sky & Telescope, December 1981p. 541
- v. Planetary Distance Law and Resonance, J. Astrophys. Astr. 10, 257-259 (1989)
- vi. Further consideration of Contraction of Solar Nebula, Earth Moon and Planets, 34, 93-100, 1988

[3]

Rings Around Galaxies

Observation

New Surveys have unveiled a thick ring of hundreds of millions of stars around the outskirts of our Milky Way Report of Robert Irion Jan 6, 2003; Science, 3, January, p 62

Astronomers at the Sloan Digital Sky survey (SDSS) Apache Point Observatory in Sunspot, New Mexico

Independently, European and Australian astronomers at the Roque de Los Muchachos Observatory in La Palma, Canari Islands, spotted the Taurus in two other directions, strengthening the suspicion that it girdles the galaxy,

Published papers

- i. Is There a Ring Around Milky Way?

Indian Journal of Radio & Space Physics, Vol.11, pp. 100-101, June 1982

[4]

Are There Rings Around the Sun?

Observations:

Parker Solar Probe NASA's Solar Probe found Tantalizing Evidence of Rings Around the Sun by Becky Ferreira

05 December, 2019

The Parker Solar Probe captured evidence of a passible dust-free zone, hinting at rings, along with insights into “magnetic islands” and plasma “blobs”

These weird solar features are described in one of four new papers published in Nature on Wednesday, based on dispatches from a record-breaking NASA space craft called the Parker Solar Probe.

Published Papers

- i. Resonant Structures in the Solar System
The Moon and the Planets, 24, (1981), 407-414
- ii. Contraction of the Solar Nebula
Earth, Moon and Planets 31 (1984), 175-182
- iii. Are There Rings Around
Earth, Moon and Planets (2012) 108, 95-99
- iv. Planetary Distance Law and Resonance
J. Astrophys Astr. 10, 257-259(1989)
- v. Modified Titius –Bode Empirical Relation
Bulletin Astronomical Society of India 6, 92-95, 1978
- vi. Further considerations of Contraction of Solar Nebula
Earth, Moon and Planets 34, 93-100, 1986
- vii. News Notes Sky & Telescope December 1981 p. 541
- viii. Formation of the Solar System
Astrophysics and Space Science 119, 159, 166 (1986)

[5]

Outermost Ring Around Uranus and its new Satellites

Observations

Voyager 2 Space craft send by NASA when it flew past Uranus in January 1986

Paper Published

- i. Sky and Telescope, December 1981, p 541
- ii. Modified Titius-Bode Empirical Relation
Bulletin of Astronomical Society of India, 6, 92-95, 1978
- iii. Contractions of Sub-Solar Nebula, Earth ,
Moon and Planets 44, 265-274, 1989
- iv. Planetary Distance Law and Resonance
J. Astrophys Astr. 10, 257-259(1989)
- v. Further considerations of Contraction of Solar Nebula
Earth, Moon and Planets 34, 93-100, 1986
- vi. Formation of the Solar System
Astrophysics and Space Science, 119, 159-166 (1986)

[6]

Rings Around Neptune and its new Satellites.

Observations

Voyager 2 space craft sent by NASA which flew past Neptune in September 1989

Paper Published

- i. News Notes Sky & Telescope December 1981 p. 541
- ii. Resonant Structures in the Solar System
The Moon and the Planets, 24, (1981), 407-414
- iii. Contractions of Sub-Solar Nebula,
Earth , Moon and Planets 44, 265-274, 1989
- iv. Planetary Distance Law and Resonance
J. Astrophys Astr. 10, 257-259(1989)
- v. Further considerations of Contraction of Solar Nebula
Earth, Moon and Planets 34, 93-100, 1986
- vi. Modified Titius-Bode Empirical Relation
Bulle of Astro. Soc. of India 6, 92 – 95, (1978)
- vii. Formation of the Solar System
Astrophysics and Space Science 119, 159-166, (1986)

[7]

14th Satellite of Neptune

Observations

Hubble Space Telescope Discovery by team of astronomers of such for Extra-terrestrial Intelligence Institute at Mount View California headed by Dr. Mark Solasters in March, 2019

Paper Published

- i. News Notes Sky & Telescope December 1981 p. 541
- ii. Resonant Structures in the Solar System
The Moon and the Planets, 24, (1981), 407-414
- iii. Contractions of Sub-Solar Nebula,
Earth , Moon and Planets 44, 265-274, 1989
- iv. Planetary Distance Law and Resonance
J. Astrophys Astr. 10, 257-259(1989)
- v. Further considerations of Contraction of Solar Nebula
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- vi. Modified Titius-Bode Empirical Relation
Bulle of Astro. Soc. of India 6, 92 – 95, (1978)
- vii. Formation of the Solar System
Astrophysics and Space Science 119, 159-166, (1986)

[8]

Plunge of a comet into Jupiter, July 1994

Observations by Galileo Space craft and Hubble Space Telescope

Paper Published

A Hypothesis on the Oort Clouds of Planets

Earth, Moon and Planets 54, 89-102 (1991)

[9]

Disruption of Phobos - a satellite of Mars

Paper Published by UC Berkeley team

Benjamin Black and Tushar Mittal, 2015

Paper Published by J.J. Rawal

- i. Resonant Structures in the Solar System
The Moon and Planets 24, 407-414 (1981)
- ii. Contractions of Sub-Solar Nebula
Earth, Moon and Planets 44, 265-274, (1989)

[10]

Four Satellites of Pluto

Observation by Hubble Space Telescope

Paper Published

Are there rings around Pluto?

IJFPS, 1, pp 6-10, 2011

[11]

Satellites of Jovian System

Observed by Voyager 1 and 2

Paper Published

- i. Modified Titius-Bode Empirical Relation
Bull. Astr. Soc. India, 6,92-95, (1978)
- ii. Contractions of Sub-Solar Nebula
Earth, Moon and Planets 44, 265-274 (1989)

[12]

Three New Asteroidal Belts between Mars and Jupiter in addition to one already in existence.

Observed by Low et al (1984) have reported the findings of IRAS of three more asteroidal belts at distances 2.2, 2.3 and 3.2 AU in addition to the already existing one in asteroidal belt at a mean distance 2.8 AU

Paper Published

- i. Contraction of the Solar Nebula
Earth, Moon and Planets 31, 175-182 (1984)
- ii. Sky & Telescope, December 1981, p. 541
- iii. Further Considerations of Contraction of Solar Nebula
Earth, Moon and Planet, 34, 93-100 (1986)
- iv. Planetary Distance Law and Resonance
J. strophys. Astr. 10, 257-259 (1989)

[13]

10th Planet Beyond Pluto

Observed by Jewitt and Luu 1992 QB1 moving beyond the orbit of Neptune on August 30, 1992 using a 2.2 meter telescope and sophisticated Charge Coupled Device (CCD) Camera on Mouna Kea Hawaii

Paper Published

- i. Modified Titius-Bode Empirical Relation
Bull. Astron. Soc India 6, 92-95 (1978)

- ii. Contraction of Solar Nebula
Earth, Moon and Planets 31, 175-182 (1984).

[14]

11th Planet Beyond Pluto

Observed by NASA Scientists in 2005.

Paper Published

- i. Contraction of the Solar Nebula
Earth, Moon and Planets 31, 175-182 (1984)
- ii. Sky & Telescope, December 1981, p. 541
- iii. Further Considerations of Contraction of Solar Nebula
Earth, Moon and Planet, 34, 93-100 (1986)
- iv. Planetary Distance Law and Resonance
J. strophys. Astr. 10, 257-259 (1989)

[15]

Tides in the Solar System showing volcanic Activities on Triton, IO

Observed by Voyager 2 (1989)

Paper was submitted to Bull. Astr. Soc. India in 1986 it was rejected but in 1998 it came true.

[16]

Rawal's theory of Contraction of Solar Nebula provided theoretical support for existence of Chiron small planet between Saturn and Uranus discovered by Charles T. Kowal in 1977.

~ Dr. J. J. Rawal and Eminent Personalities ~



Dr. J. J. Rawal accepts the National Award and a Certificate on the behalf of IPS for best efforts in Science and Technology Communication during the year 1999-2003 from the Minister for Science & Technology, Shri Kapil Sibal on the occasion of Science Day, 27th February 2005. From left: Dr. K. Kasturirangan & Dr. V. S. Ramamurthy



His Excellency Shri M K Narayanan, Governor of West Bengal presenting the 14th Mahaveer Award to President of the Society the Indian Planetary Society for its scientific activities which was received by Dr. J. J. Rawal and seen in the picture are Former Chief Justice of India, M. N. Venkatachaliah and Shri N. Sugulchand Jain, Chairman of the Society

~ Dr. J. J. Rawal and Eminent Personalities ~



Dr. J. J. Rawal with Hon'ble President of India Dr. A.P.J. Abdul Kalam visit the science centre set up by IPS Smt. Kokilaben Ambani, Pujya Bhai Shri Rameshbhai Ojha and Dr. Mohanbhai I. Patel.



Dr. J. J. Rawal explaining Exhibition to Dr. A.P.J. Abdul Kalam (the then President of India) and seen in the picture are Smt. Kokilaben Ambani, Dr. Mohanbhai Patel and Pujya Bhaishri Rameshbhai Oza.

~ Dr. J. J. Rawal and Eminent Personalities ~



Dr. J. J. Rawal and Former President Dr. A P J Abdul Kalam together on one dais in a function held in Ankleshwar in the year 2015.



Dr. J. J. Rawal was felicitated by Puja Murari Bapu. Looking on, is an Eminent industrialist Shri Damjibhai Laljibhai Shah (Anchorwala).

~ Dr. J. J. Rawal and Eminent Personalities ~



Dr. J. J. Rawal was felicitated by Shri Narendra Modi (the then Chief Minister, Gujarat) on the eve of Republican Day 2009



Dr. J. J. Rawal with the then Hon'ble Chief Minister of Gujarat State Shri Narendra Modi.

~ Dr. J. J. Rawal and Eminent Personalities ~



Dr. J. J. Rawal receiving Sandipani Gaurav Award at the hands of Her Excellency Dr. Kamla Beniwal, Governor of Gujarat and Pujya Bhaishri Rameshbhai Oza



Dr. J.J. Rawal with RSS Chief Shri Mohan Bhagwat

~ Dr. J. J. Rawal and Eminent Personalities ~



Dr. J.J. Rawal with Morari Bapu Maha Mandaleshwar Swami Vishweshwaranand Giriji and Dr. Mohanbhai I. Patel and Shri Damjibhai Shah (Anchorwala).



Dr. J.J. Rawal with Morari Bapu from left to right Shri Bhikubhai Gadavi, Shri Bosamiya, Hon'ble Ram Naik, Shri Hashmukh Upadhyay, Shri Narhari Koya and others.

~ Dr. J. J. Rawal and Eminent Personalities ~



Dr. J. J. Rawal conversing with Pujya Murari Babu. Looking on is Maha Mandaleshwar Pujya Shri Vishveshwaranand Giriji Maharaj.



Dr. J. J. Rawal with Pujya Murari Babu and Mahamandleshwar Pujya Shri Vishveshwaranand Giriji Maharaj.

~ Dr. J. J. Rawal and Eminent Personalities ~



Release of Book "Brahmand Darshan" by Smt. Anandiben Patel the then Chief Minister of Gujarat State with Shri Bhupendrabhai Chudasama, Education Minister of Gujarat.



Dr. J.J. Rawal with Hon'ble Education Minister of Maharashtra Shri Vinod Tawde and M.P. Shri Gopal Shetty.

~ Dr. J. J. Rawal and Eminent Personalities ~



Professor J. J. Rawal, President of the Indian Planetary Society delivering lecture on “Space” at the Occasion of naming Mahaveer Nagar Chawk as Kalpana Chawala Chawk. Sitting on the dias an Shri Yogesh Sagar, Shri Gopal Shetty, Smt. Sailaja Girkar, Shir Nitin Gadkari and Shri Ram Naik.



Hon'ble Ram Naik and Shri Gopal Shetty and Mrs. Sailaja Girkar visited the Science Library at the Indian Planetary Society.

~ Dr. J. J. Rawal and Eminent Personalities ~



Professor M.G.K. Menon Professor K. Kasturirangan , Dr. Mohanbhai I. Patel (D.Sc.), Shri Damjibhai Shah (Anchorwala), Shri Narhari Koya (Eminent Industrialist), Shri Kantisen Shroff, Dr. J. J. Rawal, Shri Jitu Singh, Shri Hashmukhbhai Upadhyay (Ex. Minister of Maharashtra) Shri Mathuradas Mehta and Shri Yogesh Patel on the dias of International Conference on Life and Work of Galileo.



Dr. J. J. Rawal and Mrs Devika Rawal with Professor P.C. Vaidya and Mrs. Vaidya. Professor P.C. Vaidya was an Eminent Mathematician and Astrophysicist of the World.

~ Dr. J. J. Rawal and Eminent Personalities ~



Dr. J.J. Rawal is being felicitated Kala Gurjari L to R Prof. Yashvant Trivedi, Dr. Mohanbhai Patel, Smt. Jayavantiben Mehta and Shri Dwirek Raj.



Dr. H. N. Sethna releases the Commemorative Issue of Kids' Science during the International Seminar on Theories of Einstein during 7-9 January 2005

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Dr. J. J. Rawal, Dr. Hiranandanai lightning lamp for lecture on "Our Wonderful Universe" given by Dr. J.J. Rawal.



Shri Balvantbhai Parekh Chairman, Pidilite company and Dr. J. J. Rawal with Dr. H.N. Shethna at the Press Conference for International conference on Einstein Theory in 2005.

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Param Pujya Pramukh Swamy Maharaj presents Yogiji Maharaj Centenary Award to Dr. J. J. Rawal



Dr. J.J. Rawal was invited to deliver a lecture on 'Science and Religion' by Gayatri Parivar Trust, Nagpur.



Dr. J. J. Rawal with Virbhadra Singh, Chief Minister of Himachal Pradesh.



Dr. J. J. Rawal getting Blessing of Acharya Chandanaji of Virayatan, Kachchh.



Dr. J.J. Rawal was honoured by Kala Gurjary, Mumbai.

~ Dr. J. J. Rawal and Eminent Personalities ~



રાષ્ટ્રીય અને આંતર રાષ્ટ્રીય સામાયિક "ચાણક્યવાર્તા" તરફથી ડૉ. જી.જી. રાવલને તેની વિજ્ઞાનશોધો અને વિજ્ઞાનપ્રચાર માટે 18 જાન્યુઆરી 2020ના દીને રાજભવનમાં "આચાર્ય ચાણક્ય સન્માન-2020" અર્પણ કરી રહેલા મહારાષ્ટ્રના માનનીય રાજ્યપાલ ડૉ. ભગતસિંઘ કોસ્વારી, તેમની બાજુએ ઉત્તરપ્રદેશના પૂર્વ રાજ્યપાલ માનનીય શ્રી રામ નાઈકજી, શ્રી લક્ષ્મીનારાયણ ભાલાજી અને સામાયિકના મુખ્ય સંપાદક ડૉ. અમિત જૈન નજરે પડે છે. ડૉ. જી.જી. રાવલની જમણી બાજુએ શ્રી રવિન્દ્ર સંઘવી, અને મહારાષ્ટ્રના મેગેજીનના પ્રભારી આશાસિંહ દેવાસી નજરે પડે છે.



Dr. H. N. Sethna releases the Commemorative Issue of Kids' Science during the International Seminar on Theories of Einstein during 7-9 January 2005

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Pictorial History of the Indian Planetary Society

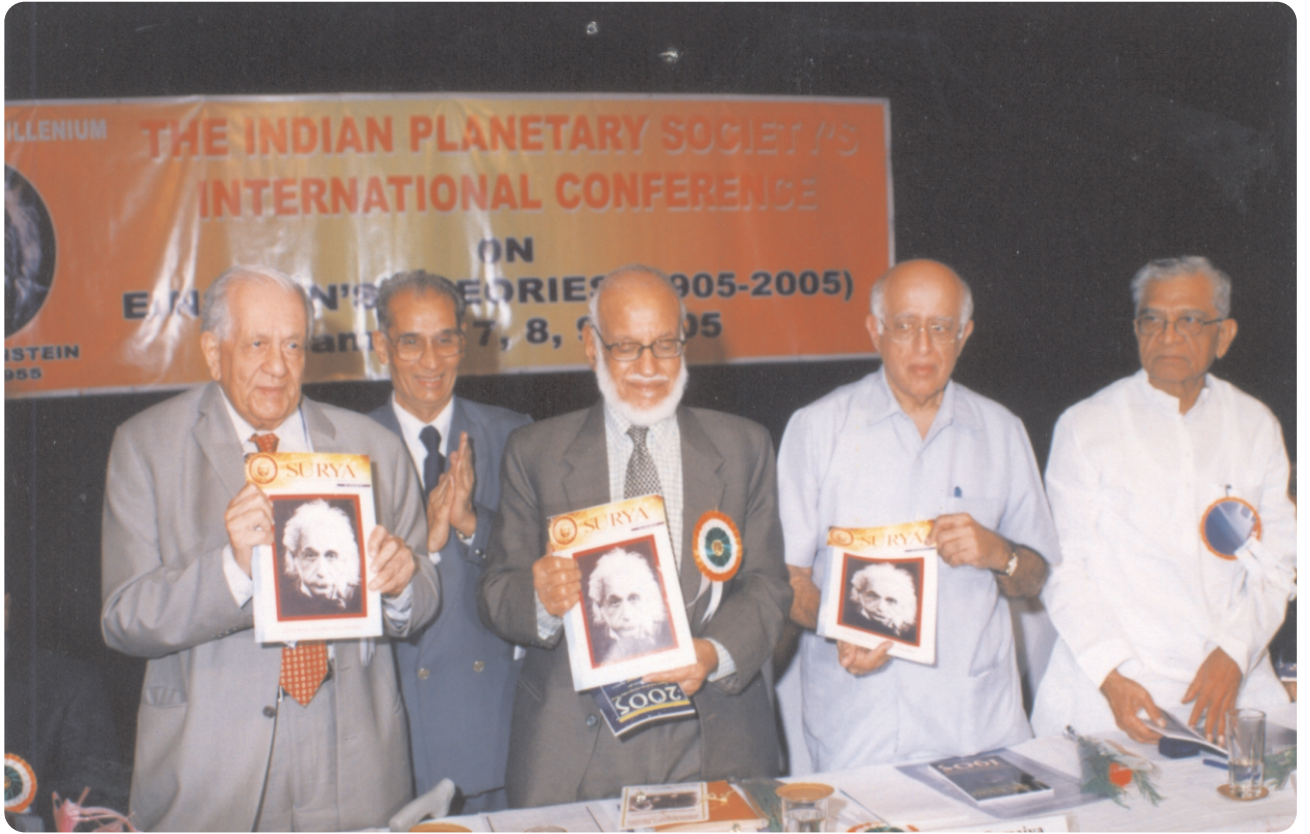


Dr. J. J. Rawal receiving Cheque from Shri Pravinchandra Gandhi, Chairman of the Janmabhoomi Group of Newspapers for establishing an Earthquake Science and Research Centre at its Inauguration Function held at IMC on 25th November 2003



Dr. J. J. Rawal explaining the phenomena of "Transit of Venus" to the teachers & students of Himachal Pradesh on 8th June 2004

~ Dr. J. J. Rawal and Eminent Personalities ~



Dr. H. N. Sethna releases the Commemorative Issue of Virat Surya at the Inaugural Session of the International Seminar on ETCC on 7th January 2005



Dr. J. J. Rawal, President IPS giving lecture to the audience, entitled "India in Space Age" at the inauguration function of Space Science Exhibition, installed by ISRO at Kutchmitra District Community Science Center of the IPS on 25th Jan. 2008.

~ Dr. J. J. Rawal and Eminent Personalities ~



Dignitaries on the Dais during Celebration function on completion of 11 years of IPS and Dr. J. J. Rawal entering into his 70th year of meaningful life - 22nd April 2012 at Navinbhai Thakkar Hall, Vile Parle (E), Mumbai. From left: Pujya Morari Babu, Dr. J. j. Rawal, Dr. Mohanbhai I. Patel, Shri Damjibhai Shah and Shri Kantisen Shroff.



Dignitaries on the Dais at the National Conference at Surat during 20th to 22nd December 2010. Seen from right in the pic: Prof. Dani of TIFR and Dr. J. J. Rawal, Dr. Mohanbhai I. Patel, Kum. S. Aparna (IAS), Hon'ble Commissioner, Surat Municipal Corporation.

~ Dr. J. J. Rawal and Eminent Personalities ~



Dr. J. J. Rawal with Union Minister Shri Nitin Gadkari, Shri Ram Naik, Shri Gopal Shetty, Shri Yogesh Sagar and other BJP dignitaries



Shri M.V. Kamath (Renowned journalist) releasing a book on the Indian Planetary Society. Looking is Shri P.K. Ravindranath (Eminent Journalist).

~ Dr. J. J. Rawal and Eminent Personalities ~

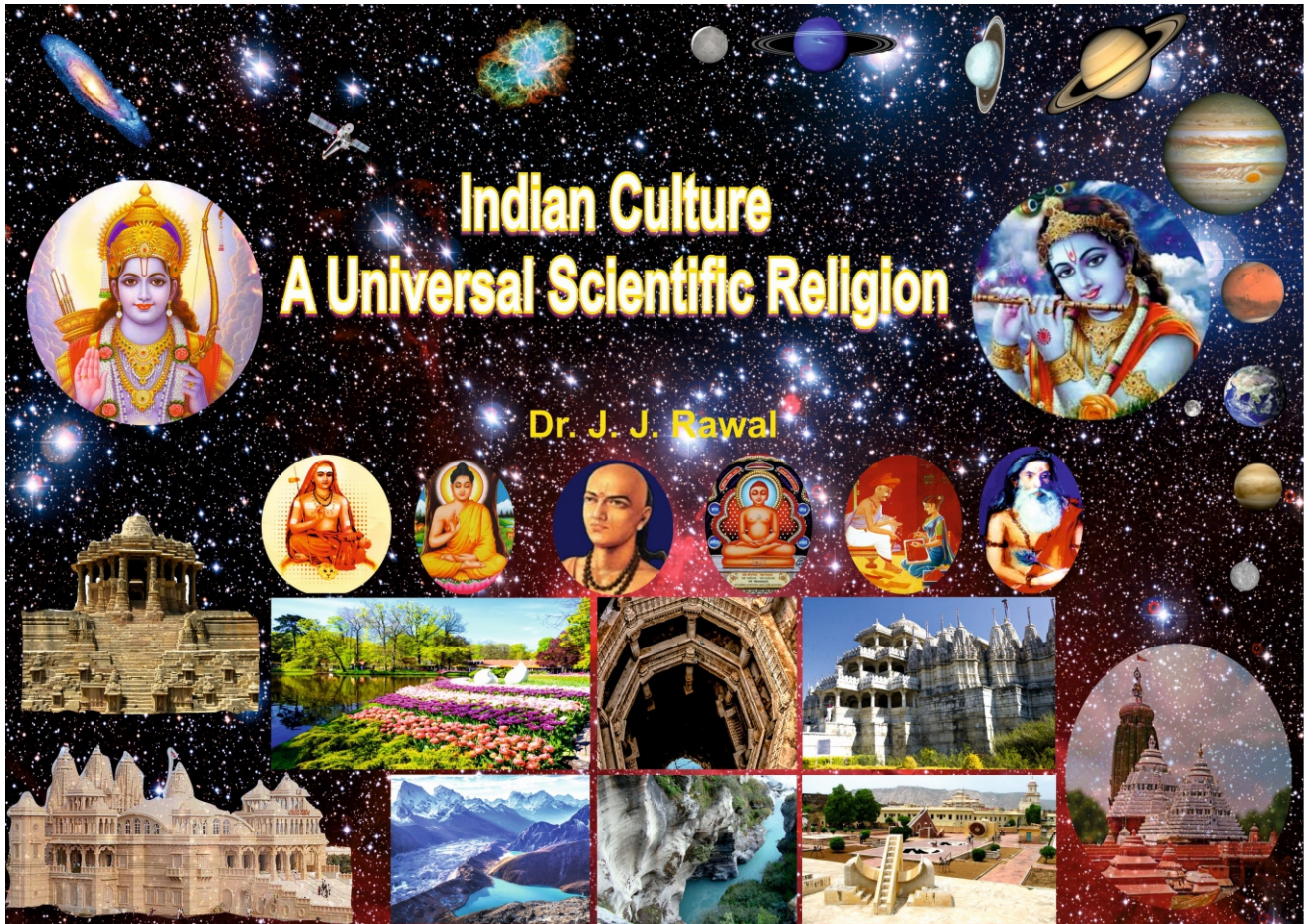


Dignitaries sitting on the Dais of the celebration programme on completion of 11 years of IPS and 70th years of Dr. J.J. Rawal.



Dr. J.J. Rawal receiving Award for the Best Gujarati Science Writer for the year 1998-1999 at the hands of Shri Arun Jetli, Hon. Union Minister of State Information and Broadcasting. Mr. Keshubhai Patel, Chief Minister of Gujarat and Mrs. Malati Atit, Mayor of Ahmedabad are also seen in the picture.

~ Dr. J. J. Rawal and Eminent Personalities ~



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दूरध्वनी - : (0712) 723003. 721589

Bombay.
30.12.95

Dear Dr. Rawal,

Thanks for the kind attention during our visit to the Planetarium. We hardly ever get time for these things, but being an old scientist the desire lurks to see new methods for explaining the old ideas.

The Planetarium is in excellent shape, and it is good that every day you have a programme in Marathi and Hindi. I was happy to find the Hindi version in Chaste Hindi.

I thank you once again for your courtesy, and the interest in showing us the programme. Kindly give my regards to Prof. Venkataraman, who is a unique combination of a scientist and a poet.

Rajendra Singh
Kashav Kunj
Thandewala
New Delhi 55.

Rajendra Singh

Dr. Rawal, By Directiv
Naha Planetarium
Anna-Basant Rd, Wala.
Bombay 18