

PAPERS PUBLISHED

- I. *Von Neumannian regularity in semirings*; (with M.K. Sen), Kyungpook Math. J. **35** (1995), no. 2, pp. 249 – 258.
- II. *Characterization of regular semirings*; Mat. Vesnik **48** (1996), no. 3-4, pp. 83 – 85.
- III. *A characterization of regular semirings*; An. Stiint. Univ. Al. I. Cuza Iasi Sect. I a Mat. **41** (1995), no. 1, 31 – 36 (1996).
- IV. *AC congruence-free semirings*; J. Pure Math. **12** (1995), pp. 44 – 49.
- V. *Some aspects of Euclidean semiring*; Bull. Calcutta Math. Soc. **91** (1999), no. 3, pp. 207 – 214.
- VI. *Subdirect products of a distributive quasi-lattice and a ring*; (with Shamik Ghosh), Bull. Cal. Math. Soc. **91** (1999), no. 5, pp. 397 – 404.
- VII. *Congruences on inversive semirings*; (with M.K. Sen and Shamik Ghosh), Algebra and Combinatorics, (Proceedings of The International Conference in Algebra and Combinatorics at The Chinese University of Hong Kong, 1997), pp. 391 – 400, Springer, Singapore, 1999.
- VIII. *A new class of ideals in semirings*; (with Shamik Ghosh), Southeast Asian Bull. Math. **23** (1999), pp. 253 – 264.
- IX. *A study of a new class of ideals in semirings*; (with M. K. Sen and Shamik Ghosh), FILOMAT, **13** (1999), pp. 41 – 52.
- X. *Direct k -summands in semirings*; J. Pure Math. **17** (2000), 43 – 51.
- XI. *Subdirect product of semirings*; Internat. J. Math. Math. Sci. **26** (Issue 9) (2001), 539-545.
- XII. *p -ideals in p -regular semirings*; (with M.K.Sen and Shamik Ghosh) Southeast Asian Bull. Math. (2002) Vol **26** Issue 4, 439-452.
- XIII. *Exact sequences of semimodules*; (with M.R. Adhikari) Bull. Cal. Math. Soc. **94**, (1) 23-32 (2002)
- XIV. *A note on strongly Euclidean semiring*; Kyungpook Math. J. **43** (2), June 2003, 163-167.
- XV. *On p -prime ideals in a semiring*; (with U. Dasgupta) South-East Asian Bull. Math.(2005) **29**: 859-872
- XVI. *On Some Congruences in semiring* (with U. Dasgupta) J.Pure Math.,**24**,(2007, published in Feb.2009)pp.77-88.
- XVII. *p -radical of a semiring* (with U. Dasgupta) South-East Asian Bull. Math 35(2), 2011,

pp.203-210.

- XVIII. *Further Investigations on p-Prime Ideals* (with U. Dasgupta) J. Pure Math., 26 (2009, published in March.2011) pp.99-113.
- XIX. **Concept of Sunya in Indian Antiquity** : J. Pure Math. 26 (2009, published in March.2011) pp.15-49.
- XX. *Srinivasa Ramanujan : Transcending Kanigel's Canvas* : Mathematics Newsletter, Ramanujan Math. Soc., Vol. 24 (3), Dec. 2013, Page 1-14

Books Published

1. *Topics in Abstract Algebra* : (Jointly with Dr. M.K. Sen of Dept. of Pure Mathematics, University of Calcutta & Dr. Shamik Ghosh of Dept. of Mathematics, Jadavpur University, Kolkata). The book is written according to the new UGC syllabus **for UG level**. It was first published in 2004 by Universities Press, Hyderabad and distributed by Orient Blackswan, India. (ISBN 81 7371 462 2)
2. *Rudiments of Mathematics (Vol. I ,II and Vol. III)* : (Jointly with Prof. M.N. Mukherjee, Dept. of Pure Maths. C.U., Dr. S. Sinha Roy and Dr. U. Dasgupta) The book is intended **for Plus two level** and published by Academic Publishers, Kolkata. It was first published in 2004. (Vol. I-ISBN 81 87504 59 5; Vol.II- ISBN 81 87504 74 9)
3. *Prarambhik Ganit (Vol. I, II and Vol. III)(In Bengali)* : (Jointly with Prof. M.N. Mukherjee, Dept. of Pure Maths. C.U., Dr. S. Sinha Roy and Dr. U. Dasgupta) The book is intended **for Plus two level** and published by Academic Publishers, Kolkata. It was first published in 2004. (Vol. I-ISBN 81 87504 62 5; Vol. II- ISBN 81 87504 77 3)

Book Edited

Linear Algebra :Theory and Applications : (Written by Yuma Ju, Wenxun Xing, Cuiqin Lin, Jinde Hu, Feiyan Wang of Dept. of Mathematics, Tsinghua University , Beijing, China). The book is of **PG level**, published by **CENGAGE Learning, Asia** from Singapore in 2010. (ISBN 978-981-4232-00-5)

Book Translated

Antaheener Antarzami: Bengali translation of Srinivasa Ramanujan’s biography “**The Man Who Knew Infinity**” by Robert Kanigel, upon being commissioned by the National Committee for Celebrating 125th Birth Anniversary of Srinivasa Ramanujan, through Ramanujan Mathematical Society. The translated book contains an “*Addendum*” part, which is an original contribution and which along with the main book is also translated in nine other Indian languages. It is published by National Book Trust, India. (ISBN 812376664-3). The book was formally released on 19th July, 2013 by Nobel Laureate Bharatratna Prof. Amartya Sen at a program organized by ISI Kolkata at R.N. Tagore Centre of ICCR, Kolkata, in presence of Padmabibhusan Prof. M.S. Raghunathan, FRS and Prof. Bimal Roy, Director, ISI Kolkata.

Subtitle Translated

Translated the subtitles of the animation film **CHAOS** (with French voice over) into Bengali. The film is made by Prof. Etienne Ghys of Ecole Normale Superiere of France. It can be seen in www.CHAOS-MATH.org with due acknowledgement mentioned.

F. SEMINARS/CONFERENCES ADDRESSED/ATTENDED ABROAD :

- Participated in the *International Conference on Algebra and its Applications, (ICAA 2002)* held at Tawana Ramada Hotel, Bangkok, and presented a paper entitled *p-IDEALS IN p-REGULAR SEMIRINGS*; the conference was organized by Dept. of Mathematics, Faculty of Science, [Chulalongkorn University, Bangkok, Thailand](http://www.chulalongkorn.ac.th) and during 18th – 20th March, 2002. The trip was jointly sponsored by **CSIR**, (Council for Scientific and Industrial Research, India), **DST** (Department of Science and Technology, Government of India), and **Department of Higher Education**, Govt. of West Bengal, India.
- Participated in the *ICM-2002, Satellite Conference on Algebra and Related Topics*, held at the [Chinese University of HongKong, HongKong, China](http://www.cuhk.edu.hk) and presented a talk entitled *A NEW CLASS OF IDEALS IN SEMIRINGS* during

14th –17th August, 2002. The trip was sponsored jointly by INSA (Indian National Science Academy), and UGC (University Grants Commission, Government of India).

- Participated in the *18th Conference for Young Algebraists (AAA65)* held at the [Potsdam University, Potsdam, Germany](#) and presented a talk entitled ON A NEW CLASS OF IDEALS IN SEMIRINGS during 21st –23rd March 2003. The trip was partially sponsored by the Department of Higher Education, Govt. Of West Bengal, India.
- Attended the **International Congress of Mathematicians** (ICM 2006) at **Madrid, Spain** upon selection by NBHM as a member of the fully sponsored official Indian delegation during 22nd to 30th August, 2006.
- Attended on invitation the **XXIII International Congress of History of Science and Technology** (ICHST 2009) at **Budapest, Hungary** and presented a paper entitled ‘CONCEPT OF SUNYA IN INDIAN ANTIQUITY’ during 28th July–2nd August, 2009. The trip was sponsored by UGC, Govt. Of India and INSA .

G. SOME SEMINARS/CONFERENCES/SCIENCE CAMP ADDRESSED DURING LAST FEW YEARS :

- Gave a lecture at the Applied Statistical Unit of **Indian Statistical Institute, Kolkata** entitled “**Zero- An eternal enigma**” on 24th October, 2008.
- Gave a lecture at the Department of Mathematics, **Presidency College, Kolkata** entitled “**Zero- An eternal enigma**” on 4th December, 2008.
- Gave a lecture at the Department of Mathematics, **Indian Institute of Science Education and Research (IISER, Kolkata)** entitled “**Constructibility- An old enigma**” on 29th March, 2009.
- Gave an enrichment lecture on “**What do the dividers do in our Geometry box?**” at the **JBNSTS** during a Middle School Teachers training camp on 29th May, 2009.
- Gave an enrichment lecture on “**Prime Numbers-A Gateway to Cryptography**” at the **JBNSTS** during a **DST (Govt. of India) sponsored Science Orientation Camp** for motivated students of class XII, on 7th June, 2009.

- Gave an enrichment lecture on **“Prime Numbers-A Gateway to Cryptography”** at the **JBNSTS** during a **DST (Govt. of India) –INSPIRE Science Camp** entitled **“Science and You”** for motivated students of class XI, on 15th September, 2009.
- Gave an enrichment lecture on **“Prime Numbers-A Gateway to Cryptography”** at the **JBNSTS** during a **DST (Govt. of India)-INSPIRE Internship Science Camp** for motivated students of class XI, on 15th October, 2009.
- Gave a lecture at the Department of Mathematics, **Indian Institute of Science Education and Research (IISER, Kolkata)** entitled **“Zero - An eternal enigma”** on 4th November, 2009.
- Gave an enrichment lecture on **“What do the dividers do in our Geometry box”** at the **JBNSTS** during a **DST (Govt. of India)-INSPIRE Internship Science Camp 2009, entitled “Fascinating Science”** for motivated students of class XI, on 13th December, 2009.
- Gave an enrichment lecture on **“What do the dividers do in our Geometry box”** at the **JBNSTS** during a **DST (Govt. of India)-INSPIRE Internship Science Camp 2010, entitled “Creative Science”** for motivated students of class XI, on 28th January, 2010.
- Invited at the **Centre for Mathematics Education, Department of Mathematics, Visva-Bharati** on 14th February, 2010 during a 3-day National Seminar on **Math Phobia-Its Genesis and Remedies** and gave a lecture entitled **“Math Phobia – Some Unpalatable Truth”**.
- Lectured as a resource person to the teacher participants for two days, 19th and 20th March, 2010, at the **Orientation Programme on Revised Naba Ganit Mukul for Class II**, at the West Bengal Board of Primary Education, Calcutta.
- Gave an enrichment lecture on **“Constructibility”** at the **JBNSTS** during a **DST (Govt. of India)-INSPIRE Internship Science Camp 2010, entitled “ Science Beyond School”** for motivated students of class XI, on 21st March, 2010.
- Gave an enrichment lecture on **“Zero-An Eternal Enigma”** at the **JBNSTS** during a seminar for Senior Scholars of JBNSTS on 28th March, 2010.
- Lectured as a resource person to the teacher participants 22nd April, 2010, at the **Teacher Training Programme at Primary Level on Revised Naba Ganit Mukul for Class I and Class II**, at the West Bengal Board of Primary Education, Calcutta.

- Gave an orientation lecture on Mathematical Science entitled “**Constructibility-an old enigma**” at the **University of Kalyani** during a **DST (Govt. of India)-SEATS Science Camp** for motivating students of class XI, on 24th June, 2010.
- Gave an enrichment lecture on “**Constructibility**” at the **JBNSTS** during a **DST (Govt. of India)-INSPIRE Internship Science Camp 2010, entitled “ Bijyan Bhabna**” for motivated students of class XI, on 14th July, 2010.
- Gave an enrichment lecture on “**Constructibility- an Old Enigma**” at the Jodhpur Park Boys School for students of class XI, on 27th July, 2010.
- Gave a lecture on **The number Zero and Mathematics at Primary Level** to the teacher participants and conducted an interactive session with them as the principal resource person on 12th October, 2010 at a Special Seminar organized at the Vidyasagar Sabhaghar of Acharyya Prafulla Chandra Bhavan by The West Bengal Board of Primary Education.
- Lectured as a resource person to the teacher participants on 9th November, 2010, at the **In-service Teacher Training Program at Primary Level on Revised Naba Ganit Mukul for Class I – III**, at the West Bengal Board of Primary Education, Calcutta.
- Gave an enrichment lecture on “**Zero- An eternal enigma**” at the J B Center of Excellence during a **JBNSTS-WAST Advance Teachers Training Program** for teachers of plus two level, on 22nd November, 2010.
- Gave an enrichment lecture on “**The Story of Calculus**” at the J B Center of Excellence during a **DST (Govt. of India)- SEATS Science Camp** for motivating students of class XI on 16th December, 2010.
- Gave a talk on “**Zero- An eternal enigma**” at the Program **Celebrating Mathematics** organized by the **British Council** at Birla Industrial and Technical Museum on 28th January 2011.
- Gave the **R.C. Gupta Endowment Lecture** on ‘**Concept of Sunya in Indian Antiquity**’ at the Fortieth Annual Conference of AIMT held at RK Mission Sikshanmandira, Belur Math on 30th January, 2011.
- Gave an enrichment lecture on “**The Story of Calculus**” at the J B Center of Excellence during a **DST (Govt. of India)-INSPIRE Internship Science Camp 2010, entitled “Explore the Ecstasy of Science**” for motivated students of class XI, on 4th February, 2011.

- Lectured as master resource person to the teacher participants on 21st February, 2011 at the **In-service Teacher Training Program** on transaction of the revised Naba Ganit Mukul for Class III, at the Vidyasagar Sabhaghar of Acharyya Prafulla Chandra Bhavan of West Bengal Board of Primary Education, Calcutta.
- Gave an enrichment lecture on **“Constructibility-An Old Enigma”** at the J B Center of Excellence during a **DST (Govt. of India)-INSPIRE Internship Science Camp 2011, entitled “New Perception of Science”** for motivated students of class XI, on 14th March, 2011.
- Gave an enrichment lecture on **“Zero-An Eternal Enigma”** at the J B Center of Excellence during a Teachers’ Training program for middle school teachers on 1st April, 2011.
- Gave an enrichment lecture on **“Constructibility - An Old Enigma”** at the J B Center of Excellence during a **DST (Govt. of India) - INSPIRE Internship Science Camp 2011, entitled “Enjoying Science”** for motivated students of class XI, on 28th June, 2011.
- Gave an enrichment lecture on **“Constructibility-An Old Enigma”** at the **Ramakrishna Mission Sikshanmandira** during a C.T.E. (**MHRD, Govt. of India**)-orientation programme for in-service teachers on 21st September, 2011.
- Gave an enrichment lecture on **“Prime Numbers-A Gateway to Cryptography”** at the Dept. of Physics, **Jadavpur University** during a **DST (Govt. of India) – INSPIRE Internship Science Camp** entitled “Wonderful World of Science” for motivated students of class XI, on 19th October, 2011.
- Gave an enrichment lecture on **“The Story of Calculus”** at the J B Center of Excellence during a **DST (Govt. of India)-INSPIRE Internship Science Camp 2012**, for motivated students of class XI, on 25th April, 2012.
- Gave a talk on Srinivasa Ramanujan : Life and Work, based on the Book **Antaheener Antarzami**, at Belur Vidyamandira on 22nd September, 2012.
- Gave a talk on Srinivasa Ramanujan : Life and Work, based on the Book **Antaheener Antarzami**, at Gurudas College on 12th October, 2012.
- Gave an enrichment lecture on **“Constructibility”** at the Jadavpur University (Triguna Sen Memorial Auditorium) during a **DST (Govt. of India)-INSPIRE Internship Science Camp 2012**, for motivated students of class XI, on 2nd November, 2012.

- Gave a talk on S. Ramanujan on 24th December, 2012 at Bose Institute (Main Campus), during a **conference on “Impact of Ramanujan’s Contributions in Recent Trends of Mathematical Sciences (IRCMS – 2012)”** organized by Indian Society of Non-Linear Analysts (ISNA) and Department of Physics, Jadavpur University jointly.
- Gave an invited talk on the occasion of **National Science Day, 2013** at National Metallurgical Laboratory, Jamshendpur, on 28th February, 2013.
- Gave an enrichment lecture on **“The Story of Calculus”** at the J B Center of Excellence during a **DST (Govt. of India)-INSPIRE Internship Science Camp 2013**, for motivated students of class XI, on 26th April, 2013.
- Gave a talk on **Srinivasa Ramanujan : Life and Work**, based on the Book **Antaheener Antarzami**, at the J B Center of Excellence during a **DST (Govt. of India)-INSPIRE Internship Science Camp 2013**, for motivated students of class XI, on 26th April, 2013.
- Gave a lecture on Life and work of Srinivasa Ramanujan at the Press Club, Kolkata, during *Mathematics and Science Communication Workshop for Media Persons* organized by **Vigyan Prasar (DST)** and **National Council for Science and Technology Communication (NCSTC)** on 6th June, 2013.
- Gave an enrichment lecture on **“The Story of Calculus”** at the J B Center of Excellence during a **DST (Govt. of India)-INSPIRE Internship Science Camp 2013**, for motivated students of class XI, on 27th November, 2013.

Some Conferences Attended During Recent Past

- Attended the **International Congress of Mathematicians (ICM 2010)** at **Hyderabad, India** upon selection by NBHM as a member of the fully sponsored official Indian delegation during 19th to 27th August, 2010.
- **Conference in Number Theory: A National Conference** organized by Department of Mathematics, Jadavpur University, celebrating the 125th birth Anniversary of Srinivasa Ramanujan, during December 12-14th 2012.
- **The Legacy of Srinivasa Ramanujan: An International Conference** organized by

Delhi University during 17th -22nd December, 2012 commemorating the 125th birth

Anniversary of Srinivasa Ramanujan.

Mention of some of my research papers can be found in the Text / Bibliography of the following Books:

1. **Semirings and their Applications**: Jonathan S. Golan; University of Haifa (Israel); **Kluwer Academic Press**.
2. **A Guide to the Literature on Semirings and their Applications in Mathematics and Computer Sciences**: Kazimierz Glazek, University of Zielona Gora, Poland; **Kluwer Academic Press**.
3. **Algebras and Combinatorics**: K. P. Shum, E.J. Taft, Z.X. Wan (ed.); **Springer, Singapore**.

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