

**International Web-Conference on History of Mathematics  
December 20-22, 2020**

**Indian Society for History of Mathematics , Delhi, India.**

**SCHEDULE**

**All times refer to the Indian Standard Time which is GMT +5.30 hours**

**December 20, 2020 (Sunday)**

**Inaugural Function : 10.00-10.30 AM**

Welcome : M.S. Sriram , President, ISHM .  
Introduction of the speaker, Prof R.C. Gupta : K. Ramasubramanian,  
Academic Secretary, ISHM.  
Inaugural Address: Prof. R.C. Gupta, Jhansi, Founding member, ISHM and  
Past Editor, *Ganitabhāratī*.  
Vote of Thanks : Mahesh Joshi, Administrative Secretary, ISHM.

**Session 1 : 10.30 AM – 1.15 PM**

Chair : Prof. S. G. Dani , UM-DAE Centre for Basic Sciences, Mumbai

- 1.M.S. Sriram, K.V. Sarma Research Foundation, Chennai : 10.30- 11.00 AM  
Some not-well-known Calculus ideas in the Kerala school of Astronomy and Mathematics
- 2.Venketeswara Pai, IISER, Pune : 11.00 AM – 11.30 AM  
Semi-regular continued fraction method as given in *Dṛkkaraṇa*
- 3.Aditya Kolachana, IIT Madras, Chennai : 11.30 AM – 12 Noon  
In-depth look at the first method of *Udayalagna* computation in *Lagnaprakaraṇa*
- 4.K. Mahesh, IIT Bombay, Mumbai : 12 Noon - 12.30 PM  
Dissectional proof of an algebraic identity found in *Āryabhaṭīyabhāṣya*
- 5.K. Ramasubramanian and D.G. Sooryanarayan, IIT Bombay, Mumbai : 12.30 PM – 1.15 PM  
A Study of Nārāyaṇa Paṇḍita's  $4 \times 4$  Pandiagonal Magic Squares with *Turagagati*.

## Session 2 : 2 PM – 5 PM

Chair : Prof. M.S. Sriram, Prof. K.V. Sarma Research Foundation, Chennai and  
Prof. Tarun Kumar Das, University of Delhi.

1. Satyanad Kichenassamy, LMR, CNRS & Universite de Reims Champagne-Ardenne, Reims, France. 2.00 PM – 2.30 PM  
On the impact of History on modern research and teaching.
2. Niccolò Guicciardini, Università degli Studi di Milano, Italy. 2.30 PM–3.00 PM  
David Gregory's manuscript "Isaaci Newtoni Methodus Fluxionum" (1694): its significance for the scribal circulation of Newton's mathematical methods.
3. Agathe Keller, Sphere, CNRS & Université de Paris, Paris 3.00 PM – 3.30 PM  
D. E. Smith and the writing of a "History of Hindu Mathematics"
4. Jens Hoyrup, Roskilde University, Denmark 3.30 PM – 4.00 PM  
Two algebraic unknowns in Latin and Italian mathematics, 1200-1500: known but not considered anything special.
5. Saeed Seyed Agha banhashemi, I.H. University, Iran. 4.00 PM – 4.30 PM  
Role of History of Mathematics on Education of Mathematics
6. Eka Ratna Acharya and Krishna Prasad Bhatt, Tribhuvan University, Nepal. 4.30 PM–5.00 PM  
Daibagya Balbhadrā & *Balbodhini* with Acharya Satananda & *Bhashwati*.

**December 21, 2020 (Monday)**

## Session 3 : 10 AM – 1 PM

Chair : Prof. Anupam Jain, Kundakunda Gyanpitha, Indore.

1. Amartya Kumar Dutta, Indian Statistical Institute, Kolkata 10. AM – 10.30 AM  
Arithmetic Mean in Ancient India and Europe.
2. Ramakalyani Venkataraman Prof. K.V. Sarma Research Foundation, Chennai. 10.30 AM- 11 AM  
*Kṣetravyavahāra* in *Buddhivilāsinī*
3. S.G. Dani, Univ. of Mumbai- DAE Centre for Basic Sciences 11 – 11.30 AM  
Mensuration of the Bow figure in Ancient Times
4. Sita Sundar Ram, Kuppaswami Sastry Research Institute Chennai, 11.30 – 12PM  
Nonlinear Equations in *Bijaganita*

- 5.K. Gopinath, Indian Institute of Science, Bengaluru, 12 Noon – 12.30 PM  
Indic Combinatorics and Computer Language Design
6. Omkar Lal Shrivastava and Sumita Shrivastava, Government Kamladevi Rathi Girls P.G. College, Rajnandgaon  
Prime Numbers in Tiloyasāra 12:30 – 12:50PM
7. G.S. Rawat and Mahesh Joshi, Kumaun University, Nainital, 12.50 – 1.00 PM  
Bhaskara-I: An Ancient Mathematician and Astronomer (600 – 680 AD)

**Session 4 : 2 PM – 5 PM**

Chair : Prof. Mahesh Joshi, Kumaun University and Dr. Darshana Prajapati,  
M B Patel Institute of Technology, V V Nagar, Gujarat.

- 1.S.A. Katre, Savitribai Phule Pune University, Pune 2 PM – 2.30 PM  
Names of Decimal Places in Sanskrit Language
- 2.Anupam Jain, Kundakunda Gyanpitha, Indore 2.30 PM- 3.00 PM  
*Līlāvātī, Ek Lokpriya Naam*
- 3.Dipak Jadhav, Govt. Boys' Higher Secondary School, Barwani, MP 3 – 3.30 PM  
In how many days will he meet his wife?
- 4.Shrenik Bandi, IPS Academy, Indore 3.30 PM – 4. PM  
Numbers, *Mantras*, *Yantras* in Indian Traditions
- 5.Avinash Sathaye, University of Kentucky, USA 4 PM – 4.30 PM  
Generalised Brahmagupta – Jayadeva – Bhaskara Problem
- 6.Amita Joshi, IPS Academy, Indore 4.30 PM – 5 PM  
Ramanujan, The Lost Master of Mathematics

**Technical Session : 5 PM – 6:30 PM**

Chair : Prof. Omkar Lal Shrivastava, Government Kamladevi Rathi Girls P.G. College,  
Rajnandgaon and Mahesh Joshi, Kumaun University

**Ab-30 to Ab-43**

**December 22, 2020 (Tuesday)**

**Session 5: 10. 00 AM – 12.30 PM**

Chair : Prof. K. Ramasubramanian, IIT Bombay, Mumbai.

1. Jonathan Crabtree, Australia 10 AM – 10.30 AM  
Brahmagupta's Definition of *Sunya* Failing to be Transmitted to Renaissance  
Europe via the Arabic World
2. Keshav Melnad, IIT Gandhinagar 10. 30 AM – 11 AM  
Rationale behind Corrections to Solar Longitude in the Indian Tradition
3. K.V.V.N.S. Sundari Kameswari, IMSEC, Ghaziabad 11 AM – 11.30 AM  
On Nilakantha's explanation of planetary motion in 15<sup>th</sup> century<sup>3</sup>.
4. Udayaraj Patare, Ahmadnagar College, Ahmadnagar 11.30 AM- 12 Noon  
A Model-Based Analysis of Covid-19 Big Data: An Advanced Linear Algebraic Approach
5. M.D. Srinivas, Centre for Policy Studies, Chennai 12 Noon – 12.30 PM  
Folding Method of Narayana for the Construction of *Sarvatobhadra* or Most-Perfect Magic  
Squares

**Valedictory Function 12.30 PM- 1 PM**

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|---------------------------|-----------------------------|---------------------|
| Srinivasa Ramanujan       | : Prof. M.D. Srinivas       | 12.30 PM – 12.45 PM |
| Summary of the Conference | : Prof. Darshana Prajapati, | 12.45 PM – 12.55 PM |
| Vote of Thanks            | : Prof. Anupam Jain         | 12.55 PM – 1 PM     |