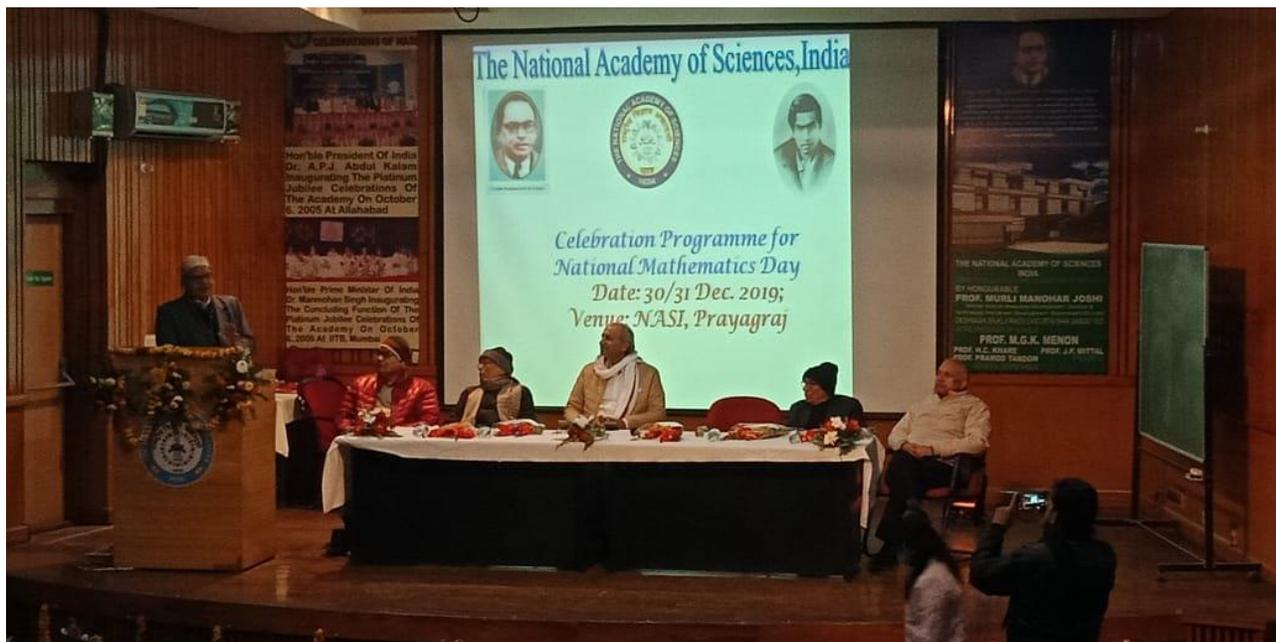


The National Academy of Sciences, India

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**A Report on the National Mathematics Day – 2019:
Workshop on “History of Mathematics before 16th century”**

(December 30-31, 2019)



Celebration of National Mathematics Day, 2019

The National Academy of Sciences, India (NASI), the first Science Academy of this country, organized a two-day Workshop on “**History of Mathematics before 16th century**” to celebrate the National Mathematics Day on Dec. 30-31, 2019 at its head-quarters at Prayagraj. This was to celebrate the birth anniversary of eminent mathematician Srinivasa Ramanujan. The main objective of the workshop was to arrange a series of popular lectures on history of ancient Indian Mathematics such as Arithmetic, Algebra, Geometry, Calculus, Spherical Trigonometry and Astronomy etc. It was attended by more than 200 students/researchers/teachers from all across the country; they were from Universities, IITs, IISERs, NITs, and several prestigious universities of India.

The inaugural function started with welcome address by Dr. Niraj Kumar, Executive Secretary, NASI & Local Coordinator of the workshop. He

welcomed all the dignitaries, scientists, researchers & students present in the auditorium and also threw light on the Journey of NASI since its inception. Prof. Satya Deo, Convener of the workshop, NASI, Senior Scientist at HRI, Prayagraj and former Vice-Chancellor, APS University, Rewa, explained the main objectives of the workshop. He explained the inspiring life of Ramanujan & his work on Number Theory. He also talked about how our Vedic mathematicians had developed the Geometry of 'Sulbasutra', the Pythagorous Theorem and the Decimal place value system long before it was conceived by anyone in the world. The works of Aryabhat, Brahmagupta and Bhaskaracharya were also discussed and highlighted by him. He told that in 2012, the Government of India declared 22nd December as National Mathematics Day in the memory of Srinivasa Ramanujan. Prof. K. Ramasubramaniam, IIT Bombay, delivered the key note address and explained our ancient contributions with the help of Shlokas from our Indian Vedas. The vote of thanks was proposed by Dr. Santosh Shukla, AES, NASI. Prof. S. L. Srivastava, and Prof. U. C. Srivastava Co-ordinators Science Communication Programme, NASI, Profs S.S.Khare, H.K.Mukherjee and Ramji Lal also graced the occasion.

The speakers- Prof. Satya Deo, Prof. K. Ramasubramaniam and Prof. S. S. Khare delivered lectures on "[Appreciating India's Contribution to Science and Mathematics](#)", "[An Introduction to Śulbasūtras and Chandasśāstra](#)" and "[India's Contribution to Mathematics](#)" respectively in the first day of the workshop.

The workshop continued on 31st Dec. 2019 in which the lectures were delivered by the aforesaid distinguished mathematicians, as well as by Prof. Ramji Lal and Prof. H.K. Mukherjee on history of ancient Mathematics. All the participants highly benefitted from the course contents and lectures delivered in the workshop. Sri B. P. Singh & Dr. Pavitra Tandon, AES, NASI, Ms Archana Pant, Dr. Chitranjan Sharma and other staff members as Mr Shaktisheel Chaturvedi, Mr. Ankit Trivedi, Dr. Smita Venkatesh, Dr. Vridhhi Nigam, Ms Rashmi Misra, Mr. Ashutosh and Mr Rajeev Mishra were present during the two days workshop and supported the programme with their active participation.

Outcomes of the Workshop:

1. Among the world's ancient civilizations, India made fundamental, wide-ranging and valuable contributions to the development of mathematics.
2. Through its advances in Astronomy, number systems, geometry, algebra, trigonometry, and algorithmic methods, India contributed immensely to some of the foundations of modern mathematics.
3. Indian Mathematicians had vast knowledge of practical Mathematics which they applied in various constructions, astronomy and also day to day work of life.
4. The history of ancient mathematics in India has not received from the academic world the attention it deserves. Therefore, we may hope that the present workshop will stimulate interest in this rich field among mathematicians and students alike so that more facts may come out.