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NATIONAL SEMINAR ON INDIAN ASTRONOMY AND MATHEMATICS (5-12TH CENTURY AD) & THEIR RELEVANCE IN THE 21ST CENTURY

(The Asiatic Society, Kolkata, 14-15 March 2002)

The Asiatic Society, organised a two day seminar on Indian Astronomy & Mathematics (5-12th Century) at its Vidyasagar Hall on 14-15th March, 2002. The seminar had six sessions including the inaugural session. The inaugural session was addressed by a number of distinguished scholars like Prof. Ashok Nath Basu (Vice-Chancellor, Jadavpur University), Dr R Subramanium (Director, M P Birla Planetarium), Prof. Nityananda Saha (Vice-Chancellor, Kalyani University), Dr Bikash Sinha (Director, Saha Institute of Nuclear Physics), Prof M C Chaki (Former Sir Ashutosh Birth Centenary Professor of Higher Mathematics, Calcutta University) under the Chairmanship of Prof. Biswanath Banerjee (President, The Asiatic Society). Prof. Basu and Prof. Saha in their addresses emphasized that the critical assessment of history from time to time based on new materials is extremely important for clearer picture of different facets of human activities. Dr. Subramanium underlined the glorious activities in field of Indian Astronomy in the past along with observations made from time to time. Dr. Sinha presented important episodes from the works of great Indian scholars like Āryabhaṭa, Brahmagupta, Bhāskara, Ramanujan and construction and observations made from GMRT and others from time to time. Prof Chaki in his key-note address observed that the nature and character of evidence have considerably changed, and the new materials found in the process have influenced the dates of earlier sources and even status of knowledge. According to him, a time has come when reassessment of materials from varieties of perspectives need to be accomodated to set the knowledge of science in proper historical sequence. Prof. Banerjee in his Presidential address emphasized on the role of the Asiatic Society in the last 200 years in the field of science and in disseminating the knowledge through its various programmes in History of Science. Prof. Manabendu

Banerjee, General Secretary, the Asiatic Society, welcomed all the delegates and the other participants for taking part and contributing to the seminar.

In all 36 papers were presented. The list of speakers with titles will be of interest :

M K DASGUPTA - Astronomy vis-a-vis Mathematical Sciences : Past & Present

SANDIPAN CHAUDHURY - Scientific Rationale of Astrology

RAMKRISHNA BHATTACHARYYA - Science and Superstitution in Indian Astronomy.

AMALENDU BANDYOPADHYAYA - Astronomy during the period from 5th to 12th Century AD

A K BAG - Some Achievements of ancient Indian Mathemàtics and Astronomy and their relevance in the 21st Century.

D K CHAKRAVORTY - Some historical aspects and relevance of 5th to 12th century AD Science to the present day Space Study.

J DAS - On Some Contributions of Brahmagupta.

N K CHAKRABORTY - Jaina Mathematics : Mahāvīra & Śrīpati.

SAILESH DASGUPTA - An Unending Story in Mathematics.

B N BASU - Vedic Astronomy : its relevances today.

M S KHAN - Al-Bīrūnī's Appreciation of Indian Astronomy and Astronomers.

ANUSUYA BHOWMIK - Impact of Astronomy in Ancient Architecture.

S SAR - Relevance of Bhāskarācāraya's work in the present day context.

KOUSHIK GHOSH - Searches for Low Mass Stars and Brown Dwarfs

BIKAS CHAKRABORTI - Neural Network Modelling and Indian Concept of Mind.

KRISHNA DE - Brahmagupta: A Stalwart of Hindu Mathematics.

BALAI CHAKI - A Brief History of Indian (Hindu) Algebra (5th century to 12th century AD)

RAMESH CHANDRA PODDAR - History of the Science Researches in the Asiatic Society.

SWAPAN KUMARADHIKARY - Influence of Indian Mathematicians on the Rules of Algebra by Rene Descartes.

ANUPAM JAIN - Development of Mathematics in Jainism during 5th to 12th Century AD.

K S CHAUDHURI - Development of Mathematical concepts in ancient India : some aspects.

NIKHILESH BHATTACHARYYA - Date and Place of Birth of Debaraja.

PRADIP K MAJUMDAR - On the Method of Continued Fraction for Solving Indetermine Quadratic Binomial Equations.

NUPUR DASGUPTA - Bricks to Stone : Geometry, Architecture and the Bridge between Previous and Post Gupta Structural Engineering.

MUNIBUR RAHMAN CHOWDHURY - Apurba Chandra Datta and *Jyotish Darpan.*

K K VELUKUTTY - Thiruvallvar: A Mathematician and the Author of *Karaṇaratna*.

SANJAY SEN - Resurgence of an Ancient Device of Computation : ABACUS.

PRABHAS RAY CHOWDHURY - Solar Neutrinos and the Solar Activity Cycle.

CHANDANA ROY CHOWDHURY and R L BRAHMACHARY - Jaina Philosophy of a 4-Dimensional Universe requiring no Creator.

S S DE - Cosmology in Mahajana School of Buddhism

BHOLA ISHWAR - Unsolved Restricted 3 Body Problem.

SRABANI DUTTA - Indian Calendar.

G P SANDITYA - Research in Mathematics and Astronomy in the Asiatic Society.

There was a special session on Bio-Technology and Biology. Following three papers were presented:

ANITA BANDYOPADHYAYA and R L BRAHMACHARY - Gajaśāstra in the light of Modern Science.

BANDANA MUKHOPADHYAYA and R L BRAHMACHARY - A Striking Example of Ecological Wisdom in Buddhistic texts.

SRABANI SEN - Ichthyology and Pisciculture of Hindus from Ancient times up to 12th century.

At the concluding sessions, DR BALAI CHAKI, one of the Members of the Organising Committee informed that the Proceedings of the Seminar would be printed soon, and extended a vote of thanks to all the delegates.

Balai Chaki