

INTERNATIONAL CONFERENCE ON THE HISTORY AND HERITAGE OF MATHEMATICAL SCIENCES *and* THE ROLE OF TECHNICAL LITERATURE IN SANSKRIT AND OTHER LANGUAGES

Cochin: December 19-22, 2002
Sukrtindra Oriental Research Institute
Thammanam, Cochin- 682032, Kerala, India

A Brief Report



Hon'ble Justice V. R. Krishna Iyer inaugurates by lightening the lamp

The International Conference on the History and Heritage of Mathematical Sciences was organized by the **Indian Society for History of Mathematics (ISHM)**, **Sukrtindra Oriental Research Institute** at Cochin and the **Kerala Mathematical Association (KMA)** and sponsored by the Government organizations Indian Council for Historical Research (ICHR), Council for Scientific and Industrial Research (CSIR) and Indian National Science Academy (INSA), Rashtriya Sanskrit Vidyapeetha at Tirupati and also by local well-wishers. The conference was held during December 19-22, 2002 at the newly inaugurated Sukrtindra Hall at Sukrtindra Oriental Research Institute, Thammanam, Cochin.



Inaugural address by Hon'ble Justice Iyer

The conference was inaugurated by Hon'ble Justice Shri. V. R. Krishna Iyer on 19th December 2002 and the inaugural function was presided over by Dr G. S. Pandey, President of ISHM. After the Presidential address by Prof. Pandey and the inaugural address by the Hon'ble Justice, the book Science Texts in the Manuscript Repositories of Kerala and Tamil Nadu edited by Dr K. V. Sarma was released by Prof G. S. Pandey by giving a copy of the book to Dr. T. Thrivikraman, the chief coordinator of the Conference and Academic Secretary of the K M A. Dr. V. Nithyanatha Bhat, Director of the Institute and General Convener of the Conference, welcomed the gathering and Dr B. S. Yadav, Chairman of the Organizing Committee and Administrative Secretary of the ISHM, offered felicitations. Dr. T. Thrivikraman proposed Vote of Thanks.



Professor G. S. Pandey presenting the first copy of Dr. K. V. Sarma's book to Dr. Thrivikraman

Professor S. R. Sarma (Aligarh) inaugurated the Sanskrit Science Exhibition organized by the Rashtriya Sanskrit Vidyapeetha, Tirupati. There was also an exhibition- cum- sale of books edited by Dr. K. V. Sarma.



Presidential address by Professor G. S. Pandey

The Key Note Address of the Conference was delivered by the ISHM President Dr. G. S. Pandey. Prof. Pandey spoke on “Calendar Systems of Ancient India”. This was followed by an invited talk by Dr. K. V. Sarma on “Astronomy in Kerala – Significant Advances” which was read out by Sri. S. K. Nair. Prof U. N. Singh Memorial Lecture was delivered by Dr. P. Achuthan, Retired Professor of Mathematics from I I T Madras. Prof. Achuthan spoke on the “Historical Perspective of Certain Ideas and Equations in Mathematical Sciences”.

Apart from these there were three more invited talks on the first day.

Dr. Elart Von Collani (Wurzberg, Germany) spoke on “The Forgotten Science of Prediction”, Dr. Kamal. C. Chanda (Texas, U.S.A) gave a talk on “The Historical Development of a class of Nonlinear Processes” and Dr. Mohammed Bagheri (Tehran, Iran) talked on “Kushyar ibn Labban’s Treatise on Hindu Arithmetic”. The following two contributed papers were also presented on the first day of the conference. Prof. N. Shiva Kumar from Bangalore presented a paper on “Distinct Mathematical Features of Tiloyapannatti” and Miss Mythreyi, from Chennai, read a paper on “Mathematical Implications in the Kolam Heritage of Our Culture”.

On the second day of the conference (20 December, 2003), there were nine invited talks. Dr. S. Dani, from Mumbai (TIFR), gave a talk on “Some observations on Sulba Sutras”. Dr. Venkatesh Murthy, from Tirupati, made a power point presentation on “Sidereal Period of some Heavenly Bodies in the Aryabhatiya of Aryabhata-I”. Dr. Saeed Hashmi (Tehran, Iran) talked on the “Role of History of Mathematics in the Education of Mathematics”. Dr. B. S. Yadav, from Delhi, spoke on the “History and Present State of Riemann Hypothesis”. Dr. A. P. Singh (Jammu) gave a lecture on “Historical Introduction to complex Dynamics”. Dr. S. Madhavan, from Thiruvananthapuram, presented “Venvaroha from a Modern Perspective”. Dr. S. R. Sarma, from Aligarh, made a power point presentation on “Descriptive Catalogue of Astronomical Instruments: A Preview”. The eldest invited speaker Prof. Sailesh Das Gupta, from Kolkatta, talked on “Pi, an Unending Story of Mathematics”. Dr. N. K. Sundareswaran of Kalady Sanskrit University talked on the “Evaluation of $\sqrt{2}$ and Kelallur Nilakantha Somayajin, the Bhasyakara”.



Apart from these presentations there were six contributed papers in the paper reading session on the second day. Prof. P. Sarada Devi, from Mumbai, presented a paper on “Mathematics, a tool for Spiritually- Indian Context”. Dr. Nita. H. Shah of Gujarat University presented “Mathematics as a tool for Economic and Social Issues”. Dr. Srivathsa, from Bangalore, presented a “Holistic View of Mathematical Concepts in Vedas”. A joint paper by Mr. Francis Cyriac and Prof. Suresh Singh (Thiruvananthapuram) entitled “History of Algebra from Ancient to Medieval Periods: A Profile” was presented by Mr. E. Francis Cyriac. Prof. Shriram M Chautaiwale, from Yavatmal, presented a paper entitled “On Sum of Squares or Cubes of Terms in Arithmetic Progression: A Brief Review and Inductive Proofs”.

After the academic sessions there was a fine cultural programme in the evening consisting of music performances by Prof. Ramesh Kumar and his group.

On the third day (21 December 2003) there were nine invited talks beginning with the talk by Dr. Kanhaiyajee Jha of Jamshedpur on “Evolution and Relevance of Ancient Mathematics to Modern Science”. The next speaker was Dr. V. Krishnakumar from Kozhikode who spoke on “Some Remarks on Ganita section of Aryabhatiya”. Dr J. S. Chahal (Brigham Young University, U. S. A) talked on “Euclidean Algorithm from Euclid to Kronecker”. Dr. K. P. Rajappan from Tripunithura spoke on “Sanskrit and Modern Computers”. Dr. K. Ramasubramanian from Chennai gave a talk on “The Measurement of Terrestrial Latitudes of an Observer: New Approach of Nilakantha”. Dr. Parameshwar Jha (Supaul) gave an account of “Mathematical Sciences in the Dark Age of Ancient India”. Er. P. Rajasekhar (Cochin) explained “Infinite Series Expansions in Yuktibhasha”. Dr. S. A. H. Rizvi (Bidar) talked on “Some Methods of Root Extraction of Non-squares” from Sanskrit, Arabic and Persian sources. Finally Dr. K. Srinivasa Rao, from Chennai, talked on “Ramanujan’s Note Books: A National Heritage”.

The Valedictory Function of the conference was held at 4:30 pm and Prof. M. G. S. Narayanan, Chairman, Indian Council of Historical Research delivered the Valedictory Address. Several participants spoke on the occasion. It was resolved that a Centre for Research in the History of Mathematical Sciences be started as a unit of the Sukrtindra Oriental Research Institute. Dr V. Madhukar Mallayya, the Organizing Secretary, proposed Vote of Thanks and the Valedictory Function came to a close at 6:30 pm.

On the next day (22nd December 2003), the delegates were taken for a local trip to places of Historical and cultural importance.

There were 24 invited talks and 8 contributed papers. About 70 delegates participated in the conference.

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