



Conference on South Asia's Manuscript Traditions and Mathematical Contributions

jointly organized by

SAMHiTA (IIC-International Research Division, Delhi)

and

CTIKS, IIT Bombay

4-5 September, 2025

This conference seeks to shed light on the rich and diverse traditions of South Asia—particularly India—which have preserved knowledge through a variety of media and practices, including oral transmission, sculptural representation, epigraphy and manuscripts. Among them, manuscripts crafted on materials such as palm leaf, *sañci patra* and paper stand out for the ingenious ways in which mathematical thought was embedded in elegant metrical compositions.

Indic manuscripts span a vast array of ancient scripts exhibiting unique graphemic structures, markedly different from more familiar scripts such as *Devanāgarī* or Latin. In deciphering them, scholars face challenges that include variations in character shape and size, slips of omissions and commissions by the scribes in the form , complete calligraphic diversity and layout irregularities, degraded pages, faded ink, and physical damage over time. The exhibition will provide a glimpse of these variations and the challenges they pose to scholars in deciphering the content of the manuscripts.

The invited talks will focus on key textual sources, pedagogical innovations, and interdisciplinary applications of *gaṇitaśāstra*. Some presentations will highlight the historical development of mathematics, while others will shed light on exchanges with other knowledge systems across Asia and beyond. In sum, the thematically organized sessions will showcase not only the content of studying South Asia's mathematical heritage, but also its depth and the enduring relevance of its study.

DAY ONE: THURSDAY 4th SEPTEMBER 2025

❖ INAUGURAL SESSION ❖

Seminar Rooms I – III (First Floor, Kamaladevi Complex)

- 10:00–10:05 a.m. Welcome address by **Shri K.N. Shrivastava**, Director, IIC
10:05–10:10 a.m. Introduction to SAMHiTA, by **Dr Sudha Gopalakrishnan**,
Project Director
10:10–10:20 a.m. Inaugural Remarks by **Shri Shyam Saran**, President, IIC
10:20–10:30 a.m. Outline of the Conference by **Prof. K. Ramasubramanian**
(Conference Convener)

❖ 10:30 to 11:00 a.m.: High tea ❖

- 11:00 a.m.–12:00 p.m. Keynote address by **Prof. Manjul Bhargava** on “A Survey
of Bharatiya contributions to global mathematics.”

❖ SESSION 2 ❖

- 12:00–12:45 p.m. Plenary talk by **Prof. M. S. Sriram** on “Calculus in
Bhāskara’s *Grahagaṇitādhyāya*: Rates of motion of planets
and their stationary points”
12:45–01:15 p.m. Technical presentation by **Prof. Venketeswara Pai R**, Associate
Professor, IISER Pune on “*Drkkaraṇa*: Malayalam/
Manipravalam Textual Traditions in Mathematical
Astronomy.”

❖ 1:15 to 2:00 p.m.: Lunch break ❖

- 02:00–02:45 p.m. Plenary talk by **Prof. Amartya Kumar Dutta** on “Algebraic Insights
in Algorithms and Innovations of Indian Mathematics.”
02:45–03:15 p.m. Technical presentation by **Prof. Aditya Kolachana** on “Practical
problems discussed in Indian Mathematical Works.”

❖ 3:15 to 3:45 p.m.: Tea break ❖

04.00 p.m.: Cultural Program

Lecture demonstration: Sarangi and Vocal
by **Prof Deepak Paramashivan**

06:30 pm: Special Session (Art Gallery, IInd Floor)

Welcome Remarks: **Shri Shyam Saran**, President, IIC
Remarks by Guest of Honour: **Dr S. Jaishankar**, Hon. Minister of External Affairs,
Govt. of India
Vote of Thanks: **Shri K.N. Shrivastava**, Director, IIC

DAY TWO: FRIDAY 5th SEPTEMBER 2025

Conference Room-II (Second Floor, above IIC Dining Hall)

❖ SESSION 3 ❖

- 09:30–10:15 a.m. Plenary talk by **Prof. Clemency Montelle** on “From Āryabhaṭa to Bhāskara: A Journey Through Indian Trigonometry.”
- 10:15–11:00 a.m. Plenary talk by **Prof. K. Ramasubramanian** on “From Bhāskara to Nityānanda: Techniques for the Evaluation of Sines in India.”
- 11:00–11:30 a.m. Technical presentation by **Prof. Mahesh K** on “Reasoning methods (*upapatti*) and Expository Techniques in Commentaries.”

❖ 11:30 a.m. to 12:00 noon: Tea break ❖

- 12:00–12:30 p.m. Technical presentation by **Prof. Najaf Haider** on “Thakkura Pheru’s *Gaṇitasāraśaṁudī*: A Fourteenth-Century Treatise on Mathematics.”
- 12:30–01:00 p.m. Technical presentation by **Prof. Chander Shekhar** on “References to Indic Mathematics, Especially Reckoning in Perso-Arabic Sources: Study of Al-Khwarizmi’s Works.”

❖ 1:00 to 2:00 p.m.: Lunch break ❖

❖ SESSION 4 ❖

- 02:00–02:45 p.m. Plenary talk by **C.K. Raju** on “Busting Macaulay: The epistemic test, the theft of calculus by ‘Christian discovery’, and the myths and superstitions in the present-day teaching and practice of axiomatic math.”
- 02:45–03:30 p.m. Plenary talk by **Prof. Eva Orthmann** on “Translations of Sanskrit Texts into Farsi.”

❖ 3:30 to 4:00 p.m.: Tea break ❖

- 04:00–04:30 p.m. Technical presentation by **Prof. M. A. Alwar** on “Mnemonic Devices and Compositional Features Including *Katapyādi* System and the Role of *Chandas*.”
- 04:30–05:00 p.m. Technical presentation by **Prof. Deepak Paramashivan** on “From Rāga to Rhythm: Mathematical Structures in Indian Folk and Classical Music.”

❖ VALEDICTORY SESSION ❖

- 05:00–05:05 p.m. Introduction to the speaker by **Prof. K. Ramasubramanian**
- 05:05–05:10 p.m. Remarks by the Chair, **Shri Govind Mohan**
- 05:10–05:55 p.m. Valedictory Address by **Prof. M.D. Srinivas**
- 05:55–06:00 p.m. Vote of Thanks by **Secretary, IIC**

❖ 06:00 to 06:30 p.m.: High tea ❖