

SAW Three Month Workshop

Mathematical Practices in relation to the Astral Sciences

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Comparing a corpus of commentarial texts on Armillary Spheres: Bhāskara, Pṛthūdḥaka, Āmarāja, Parameśvara

Sho Hirose introduced the armillary sphere described by Parameśvara (ca. 1440) consisting of two sets of rings, each representing the horizontal coordinate and the equatorial coordinate. The two sets of rings were linked by a specific circle, the unmaṇḍala which is inclined with respect to the local latitude.

Agathe Keller presented the first known commentary describing the construction of an armillary sphere in Sanskrit. Bhāskara (629)'s description starts with a reflection on the use of the instrument as an artificial means to attain the truth. His description was read, quoted or paraphrased by subsequent authors.

Clemency Montelle considered the account of the construction made by 12th century commentator Āmarāja. She reflected on the list of 58 rings provided at the end of his commentary, highlighting that some rings are fixed and others rotate. She also studied the ways planetary motion would have been captured according to the commentator.