ŚRĪPATI'S VERSIFIED INSTRUCTIONS ON THE SCHEMATIZATION OF LUNAR ECLIPSES

JAMBUGAHAPITIYE DHAMMALOKA

Diagrammatic representation of astronomical phenomenon is a significant characteristic in Indian astronomy as in other astronomical traditions. Almost all the theoretical astronomical texts known as siddhāntas in Sanskrit consist of verbal instructions in verse-form as to how relevant astronomical phenomenon are diagrammatically represented. Detailed explanations and instructions on schematization are specifically given in relation to lunar and solar eclipses in these texts. Pertinent proportions, assignation of directions, different positions of contacts, magnitude of obscurity etc. are the particulars that are taken into consideration in these explanations. One of such texts is the Siddhāntaśekhara composed by Śrīpati, an eleventh century astronomer-mathematician, of which the sixth and seventh chapters are dedicated to lunar and solar eclipses respectively. In the chapter on lunar eclipses Śrīpati provides instructions in the form of cryptic verses to draw a few different lunar ecliptic diagrams some of which do not follow the traditional method of schematic representation. Therefore, this research intends to reproduce those diagrams based on Śrīpati's explanations and instructions, and then examine how different they are from the diagrams that are explained in other astronomical texts written by his predecessors.