

Enquiry on the Dating of the Jyotisa Vedanga

Aman Chawla

February 24, 2024

Abstract

In this note, the author presents a few questions related to an earlier preprint on the dating of the Jyotisa Vedanga. These are meant to guide our approach to better establishing the date of the text.

This paper consists of eight questions. We begin forthwith:

1. Apart from angular distance between the solstice and the star, can linear distance also be computed and plotted? Is it of relevance? Will it also show the epicycles that are clearly visible in the angular distance plot?
2. How can the algorithm used be modified for large time intervals? Is an approach that consists of using it repeatedly for smaller distances and then accumulating the results valid? If not, what is a better approach?
3. What is the temporal accuracy of the present estimate provided in the earlier preprint?
4. The earlier preprint was based on precession considerations alone; what about other features of astronomical dynamics and related factors?
5. Does Lagadha's earthly location have an impact on his observations? If so, how does it impact them? And by how much?
6. Suppose Lagadha's observation was based in part on meditation or internal vision; how does that affect the response to the previous question?
7. Might gravitational lensing have any impact on Lagadha's observations? If so, can it be incorporated into a new algorithm for establishing the date of the observations?
8. Is there a fractal nature to the plot in the earlier preprint? If so, can it be quantified?