

SAW Seminar:

History and Philosophy of Mathematics

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Indian elements of al-Khwarizmi's astronomy

Al-Khwārizmī's astronomical work *Zīj al-Sindhind* (early ninth century) is very important because there survived only a few Indian texts on mathematical astronomy before him. Only Āryabhata, Varāhamihira, Brahmagupta, and Bhāskara I predate him. So-called modern *Suryasiddhānta* was barely formed in the time of al-Khwārizmī. We know no original Sanskrit text(s) on which al-Khwārizmī's Arabic work is based, nor his Arabic translation is known to us. What we have is only the Latin translation of Adelad of Bath (early twelfth century).

The Latin text was published by Suter in 1914. Neugebauer published English translation with commentary in 1962. This is an indispensable work for further study. I am very much indebted to Neugebauer's work. Although I have no knowledge of Latin and I am poorly informed of Islamic-Arabic astronomy, I would like to give some comments from the viewpoint of the history of Indian astronomy. Especially I want to compare al-Khwārizmī's planetary theory with that of India and raise some questions.