## Use of Geometry in Indian Astronomy



Indian astronomy made remarkable progress after the introduction of Hellenistic astronomy sometime in the third or fourth century CE. The most characteristic aspect of this new astronomy is the use of geometry and geometrical models. The Aryabhatiya, written by Aryabhata (born 476 CE), is the earliest Sanskrit text on mathematical astronomy, where we find a table of sines, eclipse computations, etc. Trigonometry became the most frequently used tool after Aryabhata. Several kinds of graphical representations were also used. Indian astronomers used different epicycles to explain the observed movements of the planets. This lecture will focus on the use of geometry in Indian mathematical astronomy.



Michio Yano is professor emeritus at Kyoto Sangyo University in Japan and chief editor of SCIAMVS, an international journal for the history of exact sciences in antiquity and the Middle Ages.

## University of Notre Dame Wednesday, June 24, 2015, 7:00 pm Auditorium of the Hesburgh Center for International Studies A public lecture (with reception to follow) in association with the Twelfth Biennial History of Astronomy Workshop www.nd.edu/~histast/

Generous support is provided by the Graduate Program in the History and Philosophy of Science, the Reilly Center, and the Institute for Scholarship in the Liberal Arts (ISLA) at the University of Notre Dame, along with the Adler Planetarium.