

SAW Seminar: Mathematical practices in the context of the astral sciences

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How the ephemeris of the sun was compiled in the Ming period? On the Wei du Taiyang Tongjing and the calculation of the sun with Chinese-Islamic System

Abstract: This presentation is a case study on the Islamic ephemeris of the sun in the Chinese texts. It will focus on the book *Wei du Taiyang Tongjing* 緯度太陽通徑 (A Gateway to the Islamic Method for the Calculation of the Sun) compiled by the early Ming Chinese calendar maker Yuan Tong (元統, f l. 1384-1393) who was the director of the Bureau of Astronomy of the Ming dynasty. This book treats the parts on the calculation of the sun in the *Huihui Lifa* 回回曆法 (The Chinese-Islamic System of Calendrical Astronomy, a set of *zīj* in Chinese) and tries to introduce how to calculate and obtain the ephemeris of the sun in a selected year with the numerical tables in the *Huihui Lifa*. It also provides a sample of the ephemeris for the sun in 1396 洪武二十九年 which not only sheds light on the process of compiling a ephemeris with the *Huihui Lifa*, but also gives new information about the transmission and adoption of the *Huihui Lifa* in the earlier Ming period.