

Set time right - the impact of (mis-)calculating the Hijri Epoch in late imperial China

Upon the establishment of the Ming dynasty, the first emperor ordered the translation and adaptation of the Hijri Islamic calendar and its related calculation methods and ushered in a new era in the application of Islamicate mathematical astronomy in early modern China. To coordinate the Hijri and the Chinese calendrical systems, as well as to make use of these calendrical systems for its political causes, the Ming court devised algorithms that established reference points, including the Hijri Epoch (li yuan 曆元) and Year 1 of the Hexadecimal Cycle (jiazi nian 甲子年).

In the case of the Hijri Epoch factor, lack of attentiveness to a required coordination of the solar and lunar systems led a flawed algorithm and subsequently a flawed result. This talk will explore the impact of such a flaw on the application of astronomy at the court and outside of it between the 14th and 17th centuries. The set of astronomical algorithms and reference points that were established during the late 14th century continued to be used, with some modification, as factors in the various astronomical calculations and adjustments taken in the Chinese courts up to the 17th century. They impacted the way Islamic astronomy was implemented at the Chinese courts, its level of accuracy and eventually its inferiority vis-à-vis European astronomical predictions. As such, the calculation of these factors became a subject of debate among Chinese astronomers that lingered even long after the Hijri calendar fell out of grace at the Chinese court. At the same time, these calculated factors greatly shaped the cultural and religious identities of China's Islamic communities by producing a flawed timeframe for the history of Islam in China

Orateur: WEIL, Dror (University of Cambridge)