

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

May 23, 2014

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*Reconsidering Spheres in the Celestial and Terrestrial Dimensions. The Qiyao rangzai jue, Fu tian li, and their application*

**Abstract:** This paper aims to reconsider the boundary between the official and unofficial spheres in the Chinese astronomical tradition through an intensive investigation into the following three texts concerning astral sciences: the *Qiyao rangzai jue* (七曜攘災決), *Fu tian li* (符天曆) and a Dunhuang document (P 4071). The *Qiyao rangzai jue* provides a sort of planetary ephemeris, while a quadratic interpolation theory is applied to the computation of the solar equation in the *Fu tian li*. Due to the adoption of the same epoch and other similarities, we can assume a close relationship between these two astronomical texts both compiled in the early ninth century. To consider how these two texts were used in given social milieus, we can benefit from the manuscript P 4071 preserved in the Bibliothèque nationale de France concerning a horoscope for a person born in 930. The term *fu tian* appears in the head of the passage, so that the horoscope was probably cast on the basis of computations in the *Fu tian li*. Unfortunately, we have no ephemeris for the *Fu tian li* except for concerning the solar equation; however, we will get a good insight into the relationship between the *Fu tian li* and the document by comparing the latter with the ephemerides of the *Qiyao rangzai jue*. The extant sources in Chinese hardly provide us with a perspective on astronomical practice in an unofficial sphere, in which foreign elements such as horoscopes undoubtedly played a certain role. We will surely shed new light on this issue by treating the aforementioned three sources. In addition, although the *Fu tian li* was called *xiao li* (小曆) and never adopted officially by any Chinese dynasty, it had a long-standing presence even in official spheres from the Tang to the Yuan periods. Therefore, dealing with these sources devoted to the celestial sphere will also lead us to reconsider the boundary between the official and unofficial spheres in the Chinese astronomical tradition.