

Biographical Encyclopedia of Astronomers

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Li Chunfeng

Born Yong County, Qizhou, (Shaanxi), China, 602

Died China, 670

Li Chunfeng contributed to the study of armillary spheres and to the improvement of the calendar. His father, Li Bo (Huangguanzi), his son Li Yan, and his grandson Li Xianzong all served as Taishiling (director of the Imperial Bureau of Astronomy and Calendrics). Li Chunfeng fully understood astronomy, mathematics, and divination. He was appointed Jiangshilang (a low-level official post) in the *Taish-iju* (Bureau of Astrology and Historiography) in the early Zhenguan (627-648) period because of his objection to the Wuying calendar of Fu Renjun. In the 7th year of the Zhenguan period (633), Li Chunfeng made an armillary sphere, which was the first design using the three-layer armillary. At the same time, Li Chunfeng wrote *Faxiang zhi* (A history of instruments and their uses) in seven volumes for the emperor. It summarized and analyzed ancient armillary spheres.

Li Chunfeng was promoted several times to official posts: *Chengwulang*, *Taichang*, and *Taishicheng*. He edited the *Tianwen zhi* (Monograph on astronomy and astrology), *Lüli zhi* (Monograph on harmonics and the calendar), and *Wuxing zhi* (Monograph on the five phases) in both *the Jin shu* (History of the Jin dynasty) and *Sui shu* (History of the Sui dynasty). The *Tianwen zhi* of *the Jin shu* summarized the history of astronomy in ancient China in greater detail than ever before. In about 648, Li Chunfeng was promoted to *Taishiling*

In 664, Li Chunfeng worked out the Linde calendar and published it the following year. The Linde calendar not only applied Liu Chuo's quadratic interpolation with equal intervals, but also improved and perfected other calculation methods. Li Chunfeng's calculation methods were regarded as concise and precise. He also once predicted a solar eclipse

To meet the needs of mathematical education in the dynasty, Li Chunfeng collated *The Ten Mathematical Classics* and added his commentaries to them with the assistance of Liang Shu, Wang Zhenru, and others. The *Ten Mathematical Classics* exerted a great influence on the development of mathematics in China, and even in neighboring countries. Li Chunfeng's commentaries on other works are also of great importance. For instance, some paragraphs he wrote on the *Zhuishu* by Zu Chongzhi and his son Zu Geng became the only surviving record of the work after the loss of the *Zhuishu*. Other works by Li Chunfeng include *Dianzhang Wenwu zhi* (A History of Cultural Geography and Dynastic Regulations) and *Yisi Zhan* (Divinations of the Year Yisi).

Deng Kehui

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