

From: Thomas Hockey et al. (eds.). *The Biographical Encyclopedia of Astronomers*, Springer Reference. New York: Springer, 2007, p. 823

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science+business media

[http://dx.doi.org/10.1007/978-0-387-30400-7\\_1001](http://dx.doi.org/10.1007/978-0-387-30400-7_1001)

## Nayrīzī: Abū al-‘Abbās al-Faḍl ibn Ḥātīm al-Nayrīzī

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*Flourished* **Baghdad, (Iraq), last half of the 9th century**

Nayrīzī is reputed to have been among the best mathematicians and astronomers of his day, though not much biographical information is known. In astronomy, his best-known work, a commentary on the *Almagest* of **Ptolemy**, is no longer extant. This must have been one of the earliest commentaries to be written in Arabic, because the *Almagest* had been first translated into Arabic only a century earlier. He is also credited with the composition of two *zīj*es (astronomical tables used for predicting planetary motions). The longer was said, by the bio-bibliographer Ibn al-Qiftī, to have been based on the *Sindhind*, an Indian classic in astronomy. The shorter was, presumably, based upon the *Almagest*. These works were cited by several astronomers from the ‘Abbāsīd period, although they are no longer extant. Three shorter, more specialized treatises survive: (1) on the spherical astrolabe; (2) on finding the *qibla* direction (the direction toward Mecca, toward which pious Muslims pray five times a day); and (3) on constructing hour lines in a hemispherical sundial. **Ibn Yūnus**, in his own *zīj*, criticized some elements of Nayrīzī's astronomical work while praising him as a renowned mathematician.

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### Selected References

King, David A. (1993). *Astronomy in the Service of Islam*. Aldershot: Variorum. (Reprints of several papers dealing with mathematical astronomy, including discussions of the problem of the *qibla* direction.)

Sabra, A. I. (1974). "Al-Nayrīzī." In *Dictionary of Scientific Biography*, edited by Charles Coulston Gillispie. Vol. 10, pp. 5-7. New York: Charles Scribner's Sons. (An overview of what is known of Nayrīzī's life and scientific work, as well as the biographic and bibliographic source materials and important secondary materials.)

Schoy, Carl (1922). "Abhandlung von al-Faḍl b. Ḥātīm an-Nayrīzī: Über die Richtung der Qibla." *Sitzungsberichte der Bayerischen Akademie der Wissenschaft zu München*: 55-68. (A German translation of Nayrīzī's treatise on finding the direction of the *qibla*.)

Seemann, Hugo and T. Mittelberger (1925). "Das kugelförmige Astrolab nach den Mitteilungen von Alfonso X. von Kastilien und den vorhandenen arabischen Quellen." *Abhandlungen zur Geschichte der Naturwissenschaften und der Medizin* 8: 32-40. (A discussion of the spherical astrolabe and its origins in the Arabic world.)