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German astronomer noted for calculating calendars and ephemerides as well as for discovering a comet. Name variations: Maria Winkelmann. Born Maria Margarethe Winkelmann on February 25, 1670, in Panitzsch, Germany; died of fever on December 29, 1720, in Berlin; taught by father, uncle, and private tutors; married Gottfried Kirch, in 1692; children: four, including Christfried Kirch, Christine Kirch, and Margaretha Kirch.

Awards:

medal, Berlin Academy (1711). Publications: astrological pamphlets (1709–12), calendars, ephemerides.

Maria Winkelmann Kirch stands as an important example of a woman astronomer who, although she worked as partner to her astronomer husband, was not allowed to succeed him in his official capacity upon his death.

Kirch was born Maria Margarethe Winkelmann on February 25, 1670, in Panitzsch, near Leipzig, the daughter of a Lutheran cleric. Interested at a young age in astronomy, she was tutored by her father and by an uncle after her father's death. She became an advanced student of noted amateur astronomer Christoph Arnold and later Gottfried Kirch, Berlin Academy astronomer, whom she married in 1692. The couple spent most of their time calculating calendars and ephemerides, with Maria as an "unofficial" assistant. However, her role was widely known throughout astronomical circles, and she gained fame in her own right through her discovery of a comet in 1702, and publication of astrological pamphlets between 1709 and 1712. Upon Gottfried's death in 1710, Maria petitioned the Berlin Academy of Sciences for 18 months for an appointment as assistant astronomer and calendar maker. The academy, fearful of setting a precedent by hiring a woman for such an important position, refused her request, but allowed her six months' housing and salary. In what was perhaps a peacemaking gesture, the academy presented her with a medal in 1711.

Kirch moved her family to Baron von Krosigk's private observatory in Berlin and produced calendars as well as daily observations of the planets, eclipses and sunspots with the aid of two students. After Krosigk's death in 1714, Kirch worked briefly as an assistant to a professor of mathematics at Danzig and had a private position at the deceased [Johannes Hevelius](#)' observatory. In 1716, Kirch and her son Christfried turned down an invitation from [Peter I](#) the Great to become astronomers in Moscow when Christfried was appointed one of two observers for the Berlin Academy (his father's old position). Kirch became unofficial

assistant to her son. In 1717, she was reprimanded by the academy for being too "visible" and warned to stay in the background. When she refused, she was removed from the observatory and, lacking her own equipment, was forced to end her observations. Maria Kirch died of fever in Berlin on December 29, 1720.

Christfied Kirch occupied the observer's position at the Berlin Academy until his death in 1740. His sister **Christine Kirch** was his assistant and, for many years, was the calculator of Silesia's calendar.

SOURCES:

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