

A Mathematical Genius

Maria Gaetana Agnesi

[16 April 1718 - 9 January 1799]



Special Scientific Achievements

Publication of *Analytical Institutions* (1748).

Election to the Bologna Academy of Sciences.

Professor for mathematics at the University of Bologna.

1718 Maria Gaetana Agnesi is born as the oldest of 21 children in Milan. Her affluent father recognizes and supports her extraordinary intellectual abilities.

1731 - 1733 She learns Greek, Hebrew, French, Spanish and German. Quite early she develops an intense interest in mathematics.

The Agnesi house is a gathering place of the most distinguished intellectuals of the day. Maria participates in most of the seminars, engaging with the guests in abstract philosophical and mathematical discussions.

1738 Maria Agnesi publishes a collection of complex essays on natural science and philosophy.

1748 At 29, Maria Agnesi publishes an encompassing synthesis of mathematics. She outlines various examples, exercises, and own derivatives and interpretations. The textbook *Analytical Institutions* is regarded as first and most complete work on finite and infinitesimal analysis and is translated in many languages. Due to her success, Maria is elected to the Bologna Academy of Sciences.

1750 Pope Benedict XIV. appoints Maria Agnesi as a professor at the University of Bologna. Despite the motivation by Laura Bassi, first female professor of Italy, Maria Agnesi does not teach.

1752 After the death of her father, Maria Agnesi leaves the university and her family. Being a religious woman, she devotes the rest of her life to charitable work. She ends her mathematical career and works with poor and homeless sick people, giving shelter in her home.

1771 - 1799 Maria is given an appointment as the director of a home for ill and infirm people. She takes care of ill and dying women for 28 years until her own death on January 9, 1799.

Note:

There are many speculations of Maria Agnesi's motivation to give up her academic career. Despite the recognition, she was perceived as "random divergence from the female norm". The father seems to have actively chosen to set his talented daughters Maria Gaetana and Maria Teresa (musician) into scene to cause sensation.

A permanent confrontation with prejudice and the disengagement from the family might have played an important role in taking up a more traditional female function in charitable work.

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