

Enrico Fermi
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On Sept 29, 2001, the United States and Italy issued stamps commemorating the 100-year anniversary of Enrico Fermi's birth. A copy of the U. S. stamp was sent free with last issue of Philamath. MSU member **Ronnell Townsend**, a frequent contributor to several philatelic journals, provided the stamps and we offer a great big *Thank You* for his kind and generous donation. The stamp is shown below.

The equation in the upper left corner of the U.S. stamp on the left appears to be incorrect. Some believe this was a prank engineered by Fermi. Of course he may have simply written it down wrong but The Pope – as Fermi was known to his students – was deemed infallible. The stamp shows the equation $\alpha = h^2 / (ec)$; it should be $\alpha = e^2 / (hc)$. Does the Italian Fermi stamp on the right show the same error?



Enrico Fermi, born Sept 29, 1901 in Rome, Italy, the son of a high ranking Italian civil servant, sought solace in physics after the death of his older brother. He developed into a child prodigy, received a doctorate in physics from the University of Pisa in 1921, studied in Germany, and returned to Italy to teach. He was appointed professor of theoretical physics at the University of Rome in 1925 and was known affectionately as the 'The Pope' by his students because of his infallibility in physics.

Fermi discovered the weak force, one of the four basic forces known in nature. He was the first to split the atom and this won for him the Nobel Peace Prize in Physics in 1938.

When Mussolini introduced anti-Semitic laws in Italy Fermi and his Jewish wife left for the United States with a tourist visa with no intent on returning. He began teaching at Columbia University in 1939 where he concentrated his efforts on creating a controlled nuclear reaction. Fermi and the physicist Szilard designed and built the world's first nuclear reactor for the Manhattan Project. The first man-made chain-reaction occurred Dec 2, 1942. The pile (Fermi's word for the construct) first went critical at 2:20 PM and Fermi let it continue for 28 minutes until he shut it down. From that point on, building the atomic bomb was simply an engineering project.

In 1944 Fermi went to the Trinity Project in Los Alamos, New Mexico and was present for the first detonation of an atomic bomb. After the war, he joined the faculty of the Institute for Nuclear Studies at the University of Chicago and in 1949 he, along with many other physicist argued unsuccessfully against the development of the hydrogen bomb. Fermi died of stomach cancer on Nov. 28, 1954.

The Nobel Prize winner Ernest Rutherford (see Canada Scott#534, Russia #3888, and others) established a nuclear model of the atom and is quoted as saying "All science is either physics or stamp collecting". With these two stamps we can now have do both.

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