



Fermi and his research group (the Via Panisperna boys) in the courtyard of Rome University's Physics Institute in Via Panisperna, around 1934. From left to right: Oscar D'Agostino, Emilio Segrè, Edoardo Amaldi, Franco Rasetti and Fermi





Fermi's ID photo from Los Alamos National Laboratory

Laura and Enrico Fermi at the Institute for Nuclear Studies, Los Alamos, 1954



Enrico Fermi is best known for his experimental work. While a professor at the University of Rome, Fermi was the first to recognize that bombarding atoms with "slow" (low energy) neutrons would be effective at inducing nuclear reactions. He then obtained samples of every element he could and bombarded them with slow neutrons to see what would be produced. Believing that the bombardment of uranium, which has the highest atomic number of any naturally occurring element, might produce a new class of elements (i.e., "transuranics"), Fermi did so and produced several types of new radioactive material.

As a result of this work, Fermi received the **1938 Nobel Prize in physics. Unbeknownst** to Fermi and the Nobel Prize committee, these "new elements" were actually fission products.



Illustration of Chicago Pile-1, the first nuclear reactor to achieve a self-sustaining chain reaction. Designed by Fermi, it consisted of uranium and uranium oxide in a cubic lattice embedded in graphite.

## Enrico EERRO (1901 - 1954)

Fermi moved to the United States where he supervised the construction of Chicago Pile-1 (CP-1) on a squash court under the stands of Stagg Field at the University of Chicago. In December of 1942, CP-1 achieved the first controlled self-sustaining nuclear chain reaction. Fermi, thus, became the first person to control nuclear fission—the very process that had earlier led him and the Nobel Prize committee to the false conclusion that he had detected transuranic elements!

Element 100, fermium (Fm), was named in honor of **Enrico Fermi.** 

