



Louis-Victor De Broglie

1892 - 1987

Awarded the Nobel Prize for Physics in 1929

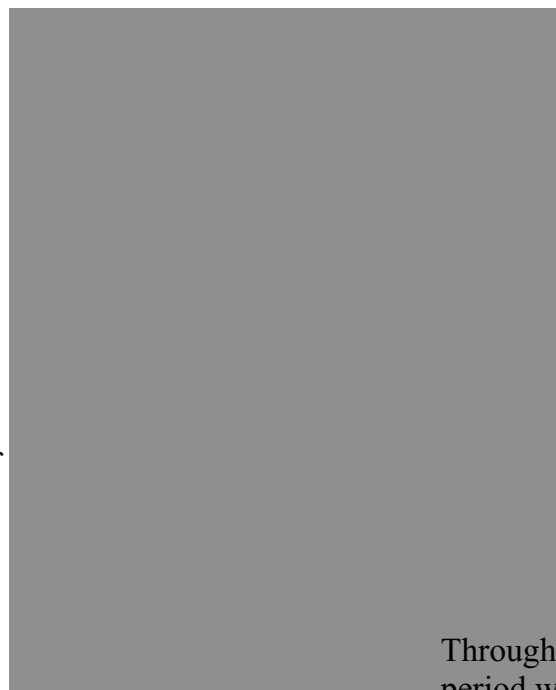
Prince Louis-Victor Pierre Raymond de Broglie, the famous French physicist, is best known as the 'father' of wave mechanics.

At the start of the 20th century physicists explained phenomena in terms of particles (such as electrons and protons) and electromagnetic radiation (light, ultraviolet radiation, etc.). Particles formed atoms and molecules or matter in general. Electromagnetic radiation was a wave motion, involving oscillation of electric and magnetic fields. According to de Broglie's theory, particles can in fact themselves have wave-like properties.

Louis de Broglie was born on August 15th, 1892 in Dieppe, France, as the son of Duc Victor and Pauline d'Armaille Broglie. **His father's family was of noble origin, having served French monarchs for centuries**, and the head of the family had been rewarded in 1740 with the title of 'Duc' by King Louis XIV. Later, de Broglie's ancestor received the title 'Prinz' for his service to the Austrians during the Seven Years War of 1756-1763.

De Broglie was the youngest of five children in the family. His early education was obtained at home, as usual in a great French family of the time. After the death of his father, when de Broglie was fourteen, his eldest brother Maurice arranged his education and sent him to the Lycée Janson de Sailly in Paris. Louis obtained a degree in history from the Sorbonne in 1909, and a Licence in Science in 1913 from the University of Paris.

He worked at the wireless station on the Eiffel Tower



His famous theory was described in his Doctoral thesis



Throughout World War I, de Broglie served in the French Engineers, spending much of this period working at the wireless station on the Eiffel Tower.

His brother Maurice, who was also a physicist, kept a well-equipped laboratory in the family mansion in Paris and, it is claimed, this is where Louis began his investigation into the nature of matter.

In 1924 de Broglie presented his doctoral thesis at the Sorbonne. In it he postulated that all matter, including electrons, behaves like particles and waves.

De Broglie's wave-matter theory was proved by the diffraction and interference experiments which demonstrated the wave-like properties of electrons.

In 1929, at the age of 37, de Broglie was awarded the Nobel Prize for Physics in recognition of his contribution to wave mechanics.

De Broglie devoted the rest of his career to teaching and developing his theory. He published numerous research papers on gamma rays, optics, atomic particles, and the history of physics. He was awarded the first Prize for excellence in science writing by the Kalinga Foundation in 1952. He was a member of the Academie des Sciences and a foreign member of the Academies of many other countries.

He died of natural causes on March 18th, 1987, at the age of ninety five.