



Henri Poincaré

1854 - 1912

In 1887 Oscar II of Sweden offered a prize of 2000 krona (quite a lot of money at that time) for a solution to the *three-body problem* which involves an analysis of the way in which three bodies, such as three planets, act on each other.

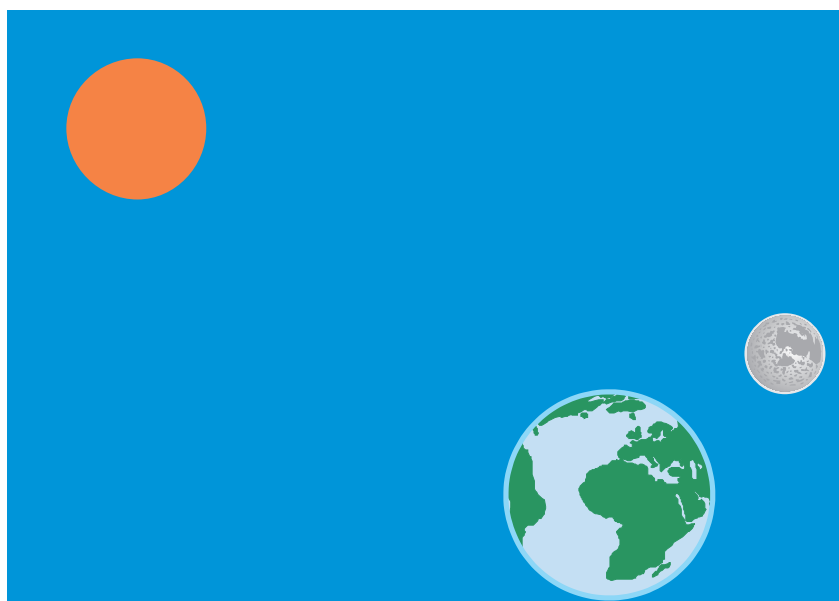
It was the great French mathematical physicist Poincaré who won this prize. Although he failed to find a general analytical solution, he was awarded the prize for making significant advances in the way of finding an approximate solution. (Present-day computers can give us an answer even for the numerous-body case with very high precision).

As a brilliant mathematician, Poincaré made contributions to number theory, the theory of functions, differential equations, the geometry of functions and astronomy as well. Maybe his main contribution to mathematical physics was his paper on the dynamics of the electron, published in 1906, in which he obtained many of the results of the theory of relativity, later credited to Albert Einstein. It seems that Poincaré was the first to propose the concept that nothing could travel faster than the speed of light.

During his not very long life (he died at the age of 58) Poincaré published 500 papers and more than 30 books. He also wrote popular essays about probability theory. Indeed, he was elected to membership of the literary section of the Academie Francaise in 1908 for the literary quality of these essays. Poincaré's contributions to science were also recognized by his election as a Foreign Member of The Royal Society in 1894.



He obtained many of the results of relativity theory before Einstein.



He solved the 'three-body problem'.

Poincaré was born in Nancy where his father was a physician and a professor of medicine at the University. His cousin Raymond Poincaré was the President of the Republic during World War I. The family was quite wealthy. As a child he was frail and he had poor coordination. When he was five years old his larynx was temporarily paralyzed as the result of a bout of diphtheria. He started his education at home under his mother. However, from a very early age Poincaré showed extraordinary ability in mathematics.

While at the lycée, he won the first prize in an open competition between students from the whole of France. After graduating in 1873 he entered the École Polytechnique in Paris. He then studied engineering at the École des Mines, but it was in mathematics that in 1879 he obtained his doctorate. Immediately afterwards, Poincaré was appointed to a teaching post at the University of Caen, and two years later he became Professor of Mathematics at Paris University.

Poincaré was married to Jeanne Louise Marie Poulain D'Andecy, by whom he had four children, one son and three daughters. Poincaré died in 1912, of complications which arose from prostate surgery.

He is considered to be a very innovative scientist.