

Andre-Mari Ampere



By Podstavkin Maksim

Field of science

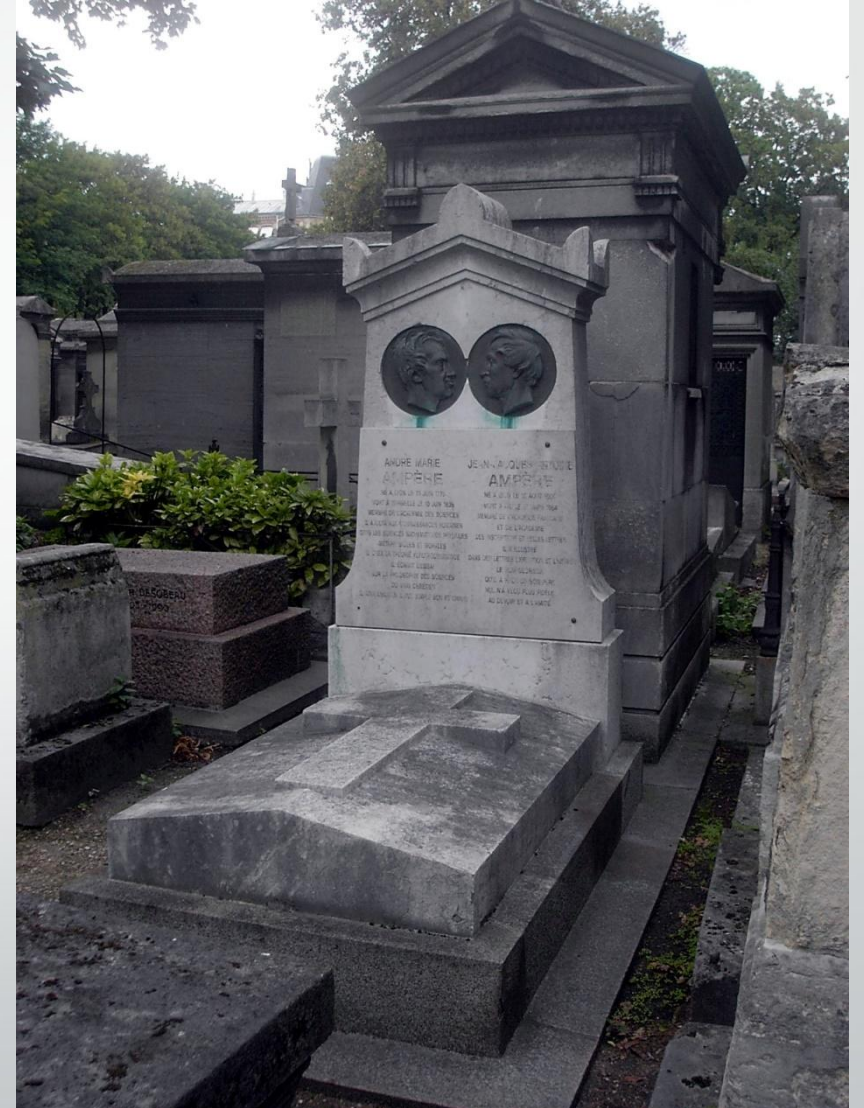
- ***Andre-Mari Ampere***(1775-1836) — the well-known French physicist, the mathematician and the scientist, the member of the Parisian Academy of Sciences (1814). He created the first theory which expressed communication of the electric and magnetic phenomena.



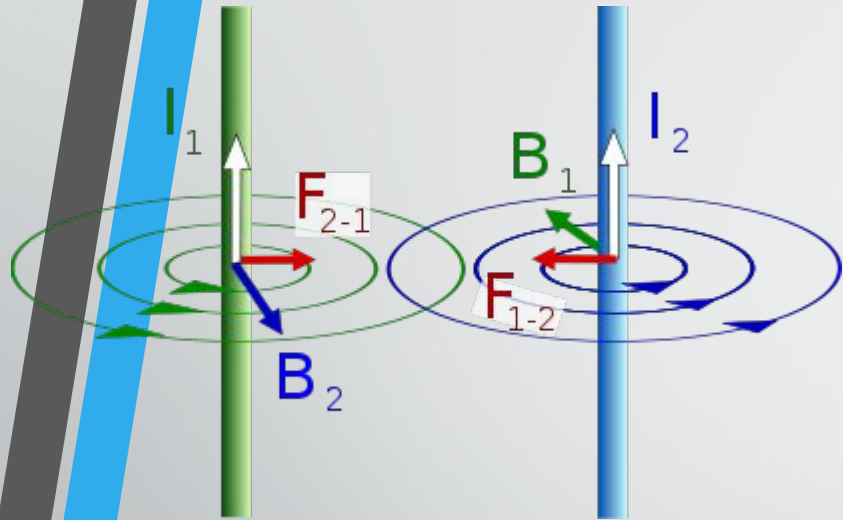
Brief biography

- Ampère was born in Lyon, was educated at home. After the death of his father, Ampere was the first teacher in the Polytechnic school in Paris, then occupied the chair of physics in Burco, and in 1805 — the Department of mathematics of the Ecole Polytechnique of Paris, where he distinguished himself in the literary field.

In 1814 he was elected a member of the Academy of Sciences, and from 1824 he held the position of Professor of experimental physics at the Collège de France. Ampère died in 1836, in Marseille.

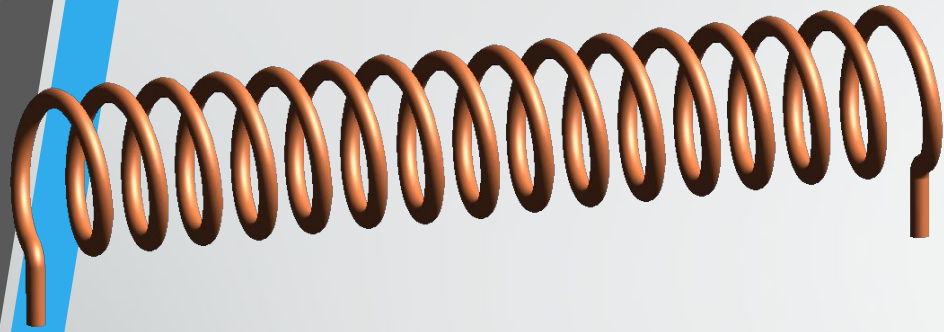


Accomplishments



Ampere's law

- In 1820 he established a rule for determining the direction of a magnetic field on the magnetic needle, now known as the rule Ampere; conducted numerous experiments on the interaction between the magnet and the electric current; found that the **Earth's magnetic field** affects a moving conductor. In the same year opened the interaction between electric currents, formulated the law of this phenomenon (**Ampere's law**), developed the theory of magnetism, suggested the use of electromagnetic processes for signal transmission.



A solenoid with a single-layer winding.

- In 1822 Ampere opened the magnetic effect of the solenoid (coil current), which followed the idea of the equivalence of the permanent magnet solenoid. In 1826 they had proved a theorem on the circulation of the magnetic field. In 1829 Ampere invented such devices as a switch and an electromagnetic Telegraph. In honor of the scientist unit of electric current is called the "ampere", and appropriate measuring devices — the "ammeter".