

JAMES CLERK MAXWELL

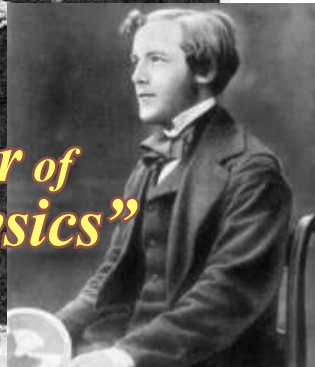
1831 - 1879

**Physics • Electrodynamics • Optics
Statistical Thermodynamics**

- **MAXWELL'S EQUATIONS*** of electromagnetism
 - Elegant & comprehensive
 - Still widely used today
 - Consistent with relativity
- **Unified light, electricity and magnetism**
- **Ushered in the age of radar, radio and TV**
- **Designed Cavendish Laboratory**
 - **Theory of Saturn's rings**
Confirmed by Voyager, 1981
 - **First color photograph**
 - **Cambridge scholar**
 - **Exemplary Christian**
Volunteer teacher for poor workers
 - **Philosopher and poet**
against evolutionism



"The Father of modern physics"



gamma ray X-ray ultraviolet infrared microwave radio
Electromagnetic Spectrum



"From a long view of the history of mankind – seen from, say, ten thousand years from now – there can be little doubt that the most significant event of the 19th century will be judged as Maxwell's discovery of the laws of electrodynamics."

– Dr. Richard Feynman, Nobel Laureate in modern physics



***And God said:**

$$\nabla \cdot D = \rho$$

$$\nabla \cdot B = 0$$

$$\nabla \times E = -\frac{\partial B}{\partial t}$$

$$\nabla \times H = i + \frac{\partial D}{\partial t}$$

And there was light.



"Teach us to study the works of Thy hands that we may subdue the earth to our use and strengthen our reason for Thy service; and so to receive Thy blessed Word, that we may believe on Him whom Thou hast sent to give us the knowledge of salvation and the remission of our sins."

– James Clerk Maxwell