

Day 3

Thursday, September 04, 2008
2:09 PM

What did you learn from the videos?

Universal gravitation Newton
Light Spectrum - Chemical Composition of Stars
Doppler shift
String Theory?

Who were the important people?

Fraunhofer
Einstein

Newton
Galileo
Copernicus
Ptolemy
Ross

From <http://www-groups.dcs.st-and.ac.uk/~history/BiogIndex.html>



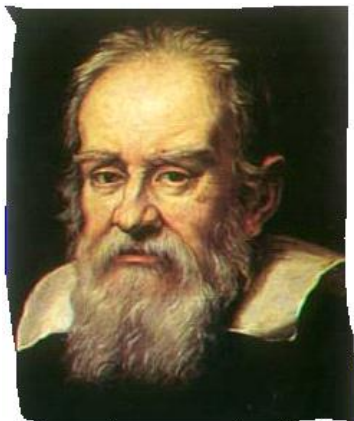
Ptolemy



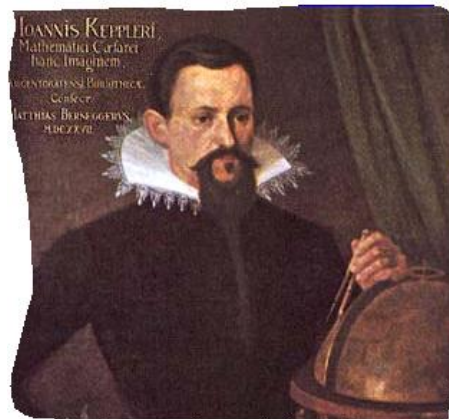
Copernicus



Brahe



Galileo
acceleration



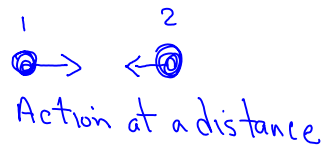
Kepler

acceleration
velocity
free fall



Sir Isaac Newton

Principia
3 Laws of Motion
Net forces & motion
Law of Gravity



Electricity and Magnetism

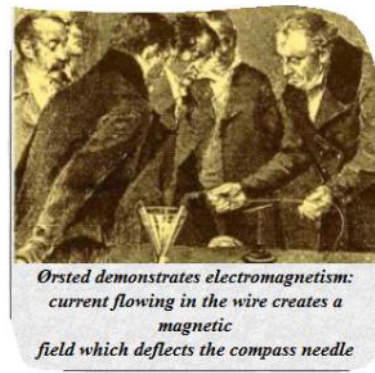
Benjamin Franklin



Ohm



Oersted



Ampere



im pere



Michael Faraday



Let there be light!

1860 James Clerk Maxwell
Electricity & Magnetism

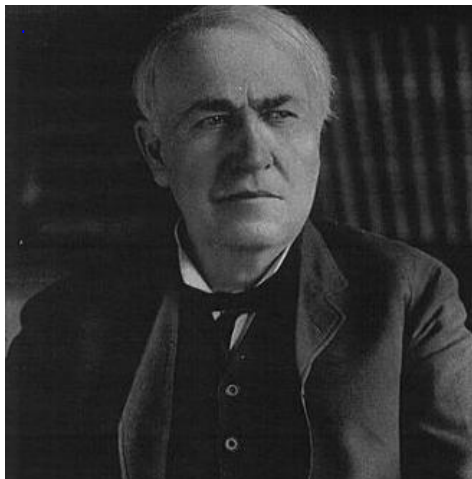
⇒ electromagnetic
waves

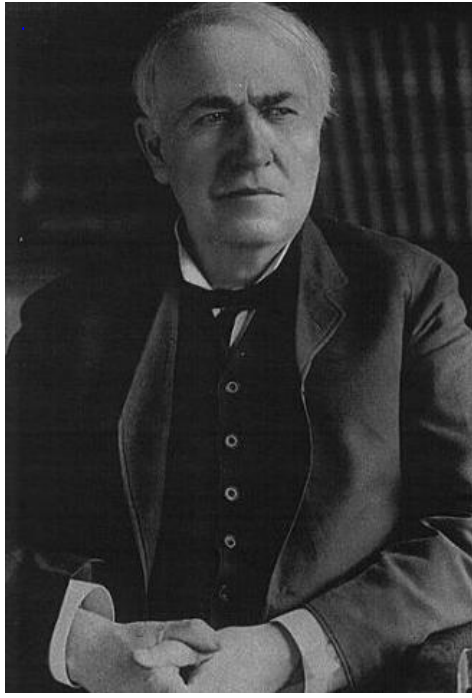
wave speed = 3×10^8 m/s

= 300 million m/s
Same as speed of light

1887 - Hertz
Marconi
radio waves

Edison

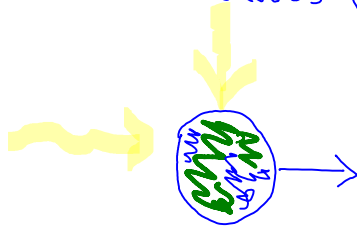




Classical Physics

EM Waves — what is the medium?

luminiferous (sp) aether



Aether could not be detected.

1905 - Albert Einstein

Space - time

Special Theory of Relativity

[Postulates \Rightarrow Consequences]