

Lecture prepared by  
DR. NARESH KUMAR  
BRB, COLLEGE, SAMASTIPUR  
(Affiliated by L.H.M.U. DAR-  
BHANGA)

## \* Michelson-Morley Experiment and its outcome. \*

The Michelson-Morley experiment was an attempt to detect the existence of the luminiferous aether, a supposed medium permeating space that was thought to be the carrier of light waves. The experiment was performed by Albert A. Michelson-Morley. It compared the speed of light in perpendicular directions, in an attempt to detect the relative motion of matter through the stationary luminiferous aether (aether wind). The result was negative, in that Michelson and Morley found no significant difference between the speed of light in the direction of movement ~~and~~.



through the presumed aether,  
and the speed at right angles.  
This result is generally considered  
to be the first strong evidence  
against the then prevalent aether  
theory and initiated a line  
of research that eventually  
led to special theory, which  
rules out a stationary aether  
of the experiment.

Outcome: → Michelson-Morley  
experiment had not brought  
us into serious embarrassment,  
no one would have regarded  
the relativity theory as a  
redemption.

← The End →