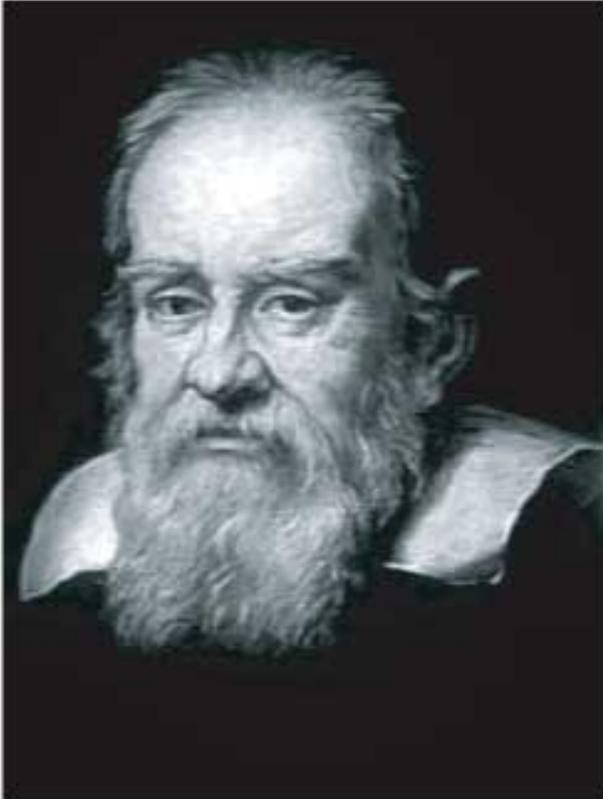


A brief history



Galileo Galilei
Portrait by
Justus Sustermans
painted in 1636

Galileo was born on the 15th February, 1564, in Pisa, Italy and died on January 8th 1642. Galileo was appointed Professor of Mathematics at the University of Padua in 1592 where he worked for eighteen years. He later described this as the happiest time of his life. At Padua his duties were mainly to teach Euclid's geometry and standard (Earth at Centre) astronomy to medical students, who would need to know some astronomy in order to make use of astrology in their medical practice. Later in his life Galileo would get into a lot of trouble for speaking out in public against the view that the Earth lies at the centre of the Solar System.

Galileo was deeply committed to using experiments to establish new ideas and tried to measure the speed of light with an assistant. At least he is reported having done so in one of his books: *Dialogue Concerning Two New Sciences*.

Both he and the assistant took shielded lanterns out into the hills in darkest central Italy, and positioned themselves about 5 miles apart. Galileo opened the shutter on his lantern, and started counting. Galileo came from a family of trained musicians and so was skilled in estimating short time intervals. This was just as well because accurate stop-watches did not exist at that time. His assistant was trained to open the shutter on his lantern as soon as he saw the light from Galileo's lantern. Galileo stopped counting when he saw the assistant's light shining back.

Using this method, Galileo's careful counting gave a time for light to travel from Galileo to the assistant and back again. But they did not do the experiment once. They practised their experiment, and the more they practised, the shorter was the measured time for the light to make the trip.