

Editorial

Biman Nath, Associate Editor

This month we feature a physicist's work that continues to bring surprises even after a century. Albert Michelson devised a way of combining two beams of light that are separated and sent along two perpendicular paths, and study if the light waves have stepped out of rhythm while travelling in two directions. This was used to dismantle the concept of 'ether', to prove the constancy of speed of light (and therefore confirm the most important assumption behind the theory of relativity). Michelson also implemented a different kind of interferometer to measure the sizes of stars, which was an ambitious experiment to undertake at that time. And now, a gigantic version of Michelson's interferometer forms the backbone of the gravitational wave detectors that record tiny distortions in space triggered by colliding black holes millions of light years away. Now that three such events have been detected by LIGO (*Resonance*, Vol.21, No.3, 2016.), ushering a new era in astrophysics, there could not be a better time to pay homage to the person behind the basic idea of the instrument.



Email: nath.biman@gmail.com

Two articles in this issue take us into the heart of this clever device. A Roy discusses the history and development of the interferometer. The story of the measurement of sizes of stars is an interesting one. The article by R Nityananda tells us how some of the crucial ideas introduced by Michelson for this experiment became useful for the development of imaging the sky in radio wavelengths by radio interferometers.

Continuing with our series of various fluid phenomena, this month's installment discusses the deformation of many familiar fluids, classified as non-Newtonian fluids. Some phenomena exhibited by these fluids are mind-boggling, to the say the least. The links provided with the article will show video clips of experiments performed by the authors, and there are a number of suggested experiments for the readers to do, enjoy, and learn.

