

Interferometry: Theory and Applications

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Interferometry is an important experimental technique exploiting the wave phenomenon called “interference”, frequently used for high-precision measurements. Applications of interferometry include astronomy, metrology, spectroscopy, plasma physics, sensing, et cetera.

In this lecture I will present the basic principles of wave interference and I will give a brief overview of interferometry and interferometers. The Michelson interferometer will be presented and explained in detail. Both theoretical aspects and applications of interferometry will be examined.