Michelson measures the wind (poster)

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Michelson measures the wind

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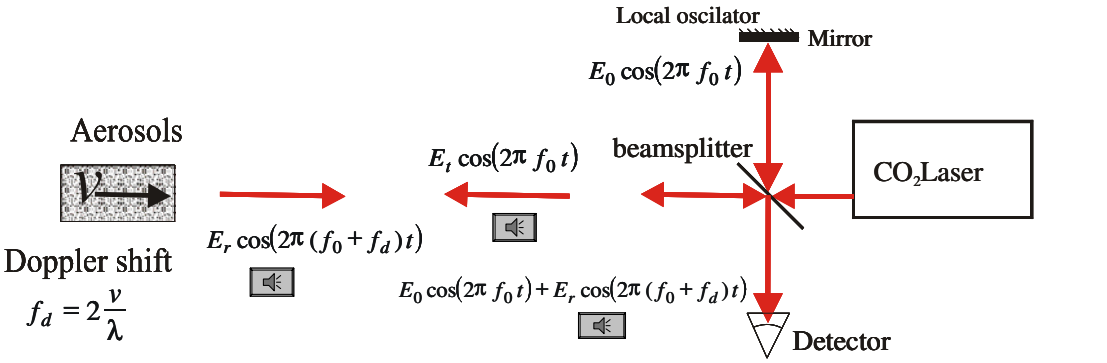
Abstract

A demonstration system for a laser Doppler anemometer has been developed. The basic principle of the set-up is a Michelson interferometer where the airborne aerosols constitute one of the back-reflecting mirrors. The wind speed along the laser beam is determined from the time varying interference between the back-scattered light and the reference beam from the second arm in the Michelson interferometer. The frequency of the changes of the interference pattern to be detected is determined by the Doppler shift of the back-scattered light.

Heterodyne detection



Note: Parametric amplification