

Coherent Optical Science Seminar on Information Optics

Date: Thursday, 2 August 2018

Time: 16:30–17:30

Place: Room #429, East 6 Building, UEC

Speaker: Pavel Pavlicek, Joint Laboratory of Optics of Palacky University and Institute of Physics of Academy of Sciences of the Czech Republic, Olomouc

Title: Accurate optical 3D sensors with active optical elements

Abstract:

White-light interferometry is an established and proven method for the measurement of shape of objects. It can measure objects with various surfaces. However this method suffers with a major disadvantage. The measurement object must be moved during the measurement.

Our proposed 3D sensor overcomes this disadvantage. The output of a fiber-optical interferometer is used as a light source for the measuring interferometer. A fiber stretcher inserted into one arm of the fiber-optical interferometer changes the optical path difference. The change of the optical path difference replaces the mechanical motion of the measured object.

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