

## **The possibility of measuring absorption and mechanical properties of the retina by OCT - possible implication for ophthalmological and neurological diseases**

Gereon Hüttmann Institute of Biomedical Optics, University Lübeck

Optical coherence tomography (OCT) has been established as the main diagnostic tool for imaging retinal structures. Additionally, Doppler and polarization sensitive OCT was demonstrated clinically to give information on blood flow and pigmentation of the retina. We will review attempts to measure tissue absorption and mechanical tissue parameters directly by OCT. Absorption measurements were demonstrated so far only for non-ophthalmologic applications, but could give valuable information on retinal pigmentation. OCT elastography measures spatially resolved the elastic properties of tissues. A transfer of this technology to the retina should be feasible by using recent advances in OCT technology and would provide additional diagnostic information. Possible applications in retinal imaging are discussed.