

Preliminary study of a heterodyne detection system for optical coherence tomography signals

Leslie J. Cusato, Eneas N. Morel, Jorge R. Torga

Laboratorio de Optoelectrónica y Metrología Aplicada

Universidad Tecnológica Nacional, Facultad Regional Delta Campana, Argentina

Email: leslie.cusato@gmail.com, nmorel@frd.utn.edu.ar, jtorga@frd.utn.edu.ar

A heterodyne detection system for optical coherence tomography signals is presented and characterized. The system allows to expand the range of measurement and overcome the limitations of conventional systems which typically uses a spectrometer as a detector.

Index Terms—Interferometry, optics tomography, dynamic range, heterodyne detection, FD-OCT