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From ocular biometry to high-speed and multifunctional OCT - 30 years of coherence ranging and imaging in the human eye

Abstract: In the mid 1980s, first applications of low coherence interferometry to tissue metrology and analysis were reported. Starting from one-dimensional ocular biometry, the technology has evolved into a high-speed, 3-dimensional imaging technology, optical coherence tomography (OCT), with a multitude of functional extensions. On occasion of the recent 30th anniversary of LCI ocular biometry and the 25th anniversary of OCT, this talk builds the bridge from the first axial eye length measurements by LCI to modern high-speed, high-resolution, and multifunctional OCT that has revolutionized ocular diagnostics.