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Efficient residual error reduction in complex spectral optical coherence tomography with arbitrary or unknown phase

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Keywords

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Abstract

Complex spectral optical coherence tomography (CSOCT) produces images free of parasitic mirror components. This effectively doubles the measurement range. Complete removal of mirror components from CSOCT tomograms requires exact knowledge of the phase shifts introduced, which is usually difficult to achieve. The method presented effectively removes the mirror image, even without precise knowledge of the phases and is applicable to any variation of CSOCT. "Mirror-image-free" tomograms of a human anterior chamber *in vivo* obtained with the aid of this approach are presented.



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