

Oral Presentation

[LCT2]LC Flat Diffractive Optics

Special Topics of Interest on AR/VR and Hyper Reality

Chair: Toshiaki Nose (Akita Prefecture University)

Co-Chair: Hiroyuki Yoshida (Osaka University)

Wed. Nov 27, 2019 3:20 PM - 4:50 PM Room 107 (1F)

4:05 PM - 4:30 PM

[LCT2-3(Invited)]Emerging Near-eye Displays with Pancharatnam-Berry Optical Elements

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Keywords:near-eye displays, flat optics, liquid crystals, Pancharatnam-Berry phase

Near-eye displays with enhanced images quality are developed with planar optics employing Pancharatnam-Berry (PB) phase. Advanced broadband PB deflectors and lenses are fabricated to enhance the apparent pixel density and reduce the chromatic aberrations in immersive near-eye displays. Both simulation and experimental results are presented.