# Chinese Optics Letters

Volume 12 Number 6 June 10, 2014 www.col.org.cn

## FOCUS ISSUE ON OPTICAL 3D DISPLAY AND IMAGING

## EDITORIAL

Editorial for Focus Issue on Optical 3D Dis-<br/>play and ImagingYunlong Sheng, Byoungho Lee,<br/>and Yongtian Wang060001

#### PAPERS

#### **3D** Holographic Display

Three-dimensional display technologies in wave and ray optics: a review (Invited)	Hao Zhang, Yan Zhao, Liangcai Cao, and Guofan Jin	060002	
Color holographic display based on azo-dye- doped liquid crystal (Invited)	Xiao Li, Chaoping Chen, Yan Li, Xinhong Jiang, Hongjing Li, Wei Hu, Gufeng He, Jiangang Lu, and Yikai Su	060003	
Real-time pupil tracking backlight system for holographic 3D display (Invited)	Hyon-Gon Choo, Minsik Park, Hyun-Eui Kim, Chanyeol Bae, Byung Gyu Chae, Hwi Kim, Kyungae Moon, Jinwoong Kim, and Joonku Hahn	060004	
Advances in the light field displays based on integral imaging and holographic techniques (Invited)	Nam Kim, Md. Ashraful Alam, Le Thanh Bang, Anh-Hoang Phan, Mei-Lan Piao, and Munkh-Uchral Erdenebat	060005	
Auto-stereography and Virtual Reality			
Large stereoscopic LED display by use of par- allax barrier of aperture grille type (Invited)	Hirotsugu Yamamoto, Hayato Nishimura, Tetsuya Abe, and Yoshio Hayasaki	060006	
A penetrable interactive 3D display based on motion recognition (Invited)	Chen Su, Xinxing Xia, Haifeng Li, Xu Liu,	060007	

Cuifang Kuang, Jun Xia, and Baoping Wang

Autostereoscopic three-dimensional display with high dense views and the narrow struc- ture pitch	Xunbo Yu, Xinzhu Sang, Duo Chen, Peng Wang, Xin Gao, Tianqi Zhao, Binbin Yan, Chongxiu Yu, Daxiong Xu, and Wenhua Dou	060008
Multi-projector-type immersive light field display	Qing Zhong, Beishi Chen, Haifeng Li, Xu Liu, Jun Xia, Baoping Wang, and Haisong Xu	060009
Light field head-mounted display with correct focus cue using micro structure array	Weitao Song, Yongtian Wang, Dewen Cheng, and Yue Liu	060010
Wearable optical see-through head-mounted display capable of adjusting virtual image depth <b>Digital Holography</b>	Chen Xu, Dewen Cheng, Haichao Peng, Weitao Song, and Yongtian Wang	060011
	America America de la Delanaria Terridi	060012
Digital holographic microscopy for automated 3D cell identification: an overview (Invited)	Arun Anand and Bahram Javidi	000012
Twin-image problem in digital holography $-a$ survey (Invited)	Elena Stoykova, Hoonjong Kang, and Jiyung Park	060013
3D diffractive lenses to overcome the 3D Abbe subwavelength diffraction limit	Igor Minin and Oleg Minin	060014
Control and image processing for streak tube imaging lidar (STIL) based on VB and MAT-LAB	Zhaoshuo Tian, Zihao Cui, Liting Zhang, Tianci Xu, Yanchao Zhang, and Shiyou Fu	060015
Computer-generated Hologram		
Acceleration method for computer generated spherical hologram calculation of real objects using graphics processing unit (Invited)	Gang Li, Keehoon Hong, Jiwoon Yeom, Ni Chen, Jae-Hyeung Park, Nam Kim, and Byoungho Lee	060016
Data-embedded-error-diffusion hologram (Invited)	P. W. M. Tsang and TC. Poon	060017
Computer generated hologram from full- parallax 3D image data captured by scanning vertical camera array (Invited)	Masahiro Yamaguchi, Koki Wakunami, and Mamoru Inaniwa	060018
Bounding box extraction from spherical holo- gram of elementary object to synthesize holo- gram of arbitrary three-dimensional scene with occlusion consideration (Invited)	Jae-Hyeung Park and Hong-Gi Lim	060019
One step hologram calculation for multi-plane objects based on nonuniform sampling (In- vited)	Chenliang Chang, Jun Xia, and Wei Lei	060020
Fast calculation of wave front amplitude prop- agation: a tool to analyze the 3D image on a hologram (Invited)	JS. Chen and D. P. Chu	060021
Theoretical bounds on Fresnel compressive holography performance (Invited)	Adrian Stern and Yair Rivenson	060022
Holographic display based on compressive sensing (Invited)	Mozhou Sha, Juan Liu, Xin Li, and Yongtian Wang	060023