



Arcrea HIMEJI, Himeji, Hyogo, Japan

Oct. 20 - 23, 2024

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WELCOME STATEMENT FROM THE ORGANIZING COMMITTEE CHAIRPERSON

The 34th ISOM (ISOM'24) will be held from Oct. 20 to Oct. 23, 2024 at the Arcrea HIMEJI in Himeji, Hyogo, Japan.

On behalf of the ISOM organizing committee, I am delighted to welcome all of you to the ISOM'24.

The last ISOM meeting, held in Takamatsu City, Kagawa Prefecture, attracted the largest number of participants and presenters in the past 10 years. Last year's meeting was also a face-to-face meeting, which led to lively discussions and a deepening of friendships among the participants.

We believe that ISOM's activities have been very fruitful and have produced significant results. Since the first ISOM in 1987, many papers have been presented and discussed in depth at the conference, which has led to new developments and new applications in the field of optical memory. It has not only produced innovations in optical memory technology, but has also led to the economic development of optical memory-related industries.

In 2017, ISOM extended the conference scope to broader optical fields and applications, and changed the conference name as "International Symposium on Imaging, Sensing, and Optical Memory." The new ISOM includes the fields of image sensing, medical and bio-optics, nano photonics, information system, holographic technologies, as well as optical memory. We believe that the change of ISOM produces technological innovations and new applications in whole field related to this conference.

I sincerely ask all of ISOM'24 participants to discuss on new technologies of the next generation optical memory and new applications of optical memory technologies in coming ISOM'24.



志村 努

Tsutomu Shimura
ISOM'24 Organizing Committee, Chairperson

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ISOM'24 SYMPOSIUM SCHEDULE

	Oct. 20, Sun	Oct. 21, Mon	Oct. 22, Tue	Oct. 23, Wed		
	Registration 15:00 – 17:20	Registration 8:30 – 13:00	Registration 8:30 – 13:00	Registration 8:30 – 12:00		
8:50					8:50	
9:00					9:00	
		Mo-A Opening Remarks & Keynote	Tu-A Digital Holography II	We-A [Special Session] AI and Deep Learning		
		Short Break				
10:00		Mo-B Three-dimensional Sensing			10:00	
		Break	Break	Break		
11:00		Mo-C Quantum Sensing, Nanosensing, Nanophotonics	Tu-B Display	We-B Computational Imaging II	11:00	
			ISOM'25 Announcement & Photo	Lunch	12:00	
12:00		Lunch				
13:00						13:00
		Mo-D Holographic Memory I	Tu-C Special Invited	We-C Holographic Memory II		
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		Short Break	Tu-D Sensing System	Short Break		
15:00		Mo-E Digital Holography I		We-PD Post Deadline	15:00	
		Short Break	Break	Short Break		
				Award & Closing		
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		Mo-F Computational Imaging I	Tu-E Poster Session			17:00
17:00						
18:00	Get Together (17:00 ~ 19:00)	Move to Banquet		18:00		
19:00		Banquet (18:20 ~ 20:20)		19:00		
20:00						20:00
20:20						20:20

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Oct. 20, 2024 (Sunday)

17:00 - 19:00 Get Together

Oct. 21, 2024 (Monday)

Mo-A: Opening Remarks & Keynote

Presider: Takayuki Shima (AIST, Japan)

8:50 Opening Remarks

Tsutomu Shimura (The University of Tokyo, Japan)

Yuichi Nakamura (Toyohashi University of Technology, Japan)

Mo-A-01 Keynote

9:05 Invention of phase shifting mask and super-resolution technology, seen from imaging theory1

Masato Shibuya

Tokyo Polytechnic University (Japan)

9:40 - 9:45 Short Break

Mo-B: Three-dimensional Sensing

Presider: Koichi Iiyama (Kanazawa University, Japan)

Mo-B-01

9:45 Tunable abrupt autofocusing meta-devices.....3

Rong Lin, Mu Ku Chen, Din Ping Tsai

City University of Hong Kong (Hong Kong)

Mo-B-02

10:05 Surface normal vector field estimation algorithm using time-of-flight camera.....5

Hiroshi Ohno

Toshiba Corporation (Japan)

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Mo-C: Quantum Sensing, Nanosensing, Nanophotonics

Presiders: Ryuichi Katayama (Fukuoka Institute of Technology, Japan)

Yuichi Nakamura (Toyohashi University of Technology, Japan)

Mo-C-01 Invited

10:45 Quantum sensing using entangled photons7

Shigeki Takeuchi

Kyoto University (Japan)

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Andrzej Wyszomolek
University of Warsaw (Poland)

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Jingcheng Zhang, Din Ping Tsai
City University of Hong Kong (Hong Kong)

Mo-C-04**11:50 The simplest but efficiency design of color router13**

Chen-Yi Yu¹, Yo-Song Huang¹, Qiu-Chun Zeng¹, Yen-Chun Chen¹, Wei-Lun Hsu¹, Yu-Hsin Lin²,
Fong-Zhi Chen², Chih-Ming Wang¹
¹National Central University, ²Taiwan Instrument Research Institute (R.O.C.)

12:10 - 13:40 Lunch

Mo-D: Holographic Memory I

President: Ryushi Fujimura (Utsunomiya University, Japan)

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Yuta Eto, Rio Tomioka, Taichi Takatsu, Masanori Takabayashi
Kyushu Institute of Technology (Japan)

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Fujian Normal University (P.R.China)

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Toyohashi University of Technology (Japan)

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Mo-E: Digital Holography I

President: Shuhei Yoshida (Kindai University, Japan)

Mo-E-01 Invited**14:45 Modeling 3D surface diffraction in light-in-flight holography21**

David Blinder^{1,2,3} and Takashi Kakue³
¹Vrije Universiteit Brussel, ²IMEC (Belgium), ³Chiba University (Japan)

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Yohsuke Tanaka, Ryoka Hara, Dai Nakai, Keishi Yamaguchi
Kyoto Institute of Technology (Japan)

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Kyoto Institute of Technology (Japan)

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Ryota Kawamata (Hitachi, Ltd., Japan)

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Wakayama University (Japan)

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Shuhei Yoshida (Kindai University, Japan)

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Shion Arai¹, Teruyoshi Nobukawa², Yasunobu Akiyama¹, Tetsuhiko Muroi²
¹Tokai University, ²Japan Broadcasting Corporation (NHK) (Japan)

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Yusuke Kikuchi¹, Teruyoshi Nobukawa², Eriko Watanabe¹, Tetsuhiko Muroi²
¹The University of Electro-Communications, ²Japan Broadcasting Corporation (NHK) (Japan)

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¹Nagaoka University of Technology, ²CREST JST, ³University of Hyogo (Japan)

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Yusuke Sando¹, Kazuo Satoh¹, Makoto Kawamura¹, Yutaro Goto¹, Daisuke Barada², Toyohiko Yatagai²
¹Osaka Research Institute of Industrial Science and Technology, ²Utsunomiya University (Japan)

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12:00 - 13:30 Lunch

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¹Kobe University, ²ExCELLS, ³Tokyo University of Science (Japan)

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Tetsuhiko Muroi (NHK, Japan)

Takayuki Shima (AIST, Japan)

15:40 - 17:40

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Masanori Takabayashi (Kyushu Institute of Technology, Japan)

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¹Nagaoka University of Technology, ²Toyota Technological Institute, ³Aichi Institute of Technology (Japan)

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Atsushi Uchida
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Dai Nakai^{1,2}, Yohsuke Tanaka¹
¹Kyoto Institute of Technology, ²Japan Society for the Promotion of Science (Japan)

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¹National Central University (R.O.C.), ²Universiti Brunei Darussalam (Brunei)

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Eriko Watanabe¹, Shinjiro Kodama¹, Chihiro Sato¹, Ayaka Tabuchi¹, Katsunari Okamoto², Mitsuo Takeda³
¹The University of Electro-Communications, ²Okamoto Laboratory, ³Utsunomiya University (Japan)

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¹The University of Tokyo (Japan), ²Fujian Normal University (P.R.China), ³Utsunomiya University (Japan)

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¹Fujian Normal University (P.R.China), ²The University of Tokyo (Japan)

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Shuhei Yoshida¹, Atsushi Fukumoto², Manabu Yamamoto²

¹Kindai University, ²HoloStorage Inc. (Japan)

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