ISOM'24

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

ISOM'24 COMMITTEES

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Local Steering Committee

Hiura, S. (Univ. of Hyogo)

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		**Mo-A** Opening Remarks & Keynote	**Tu-A** Digital Holography II	**We-A** [Special Session] AI and Deep Learning	9:00
		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
12:00			ISOM'25 Announcement & Photo		12:00
		Lunch	Lunch	Lunch	
13:00					13:00
14:00		**Mo-D** Holographic Memory I	**Tu-C** Special Invited	**We-C** Holographic Memory II	14:00
		Short Break	Short Break	Short Break	
15:00		**Mo-E** Digital Holography I	**Tu-D** Sensing System	**We-PD** Post Deadline	15:00
				Short Break	
16:00		Break	Break	Award & Closing	16:00
17:00		**Mo-F** Computational Imaging I	**Tu-E** Poster Session		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)

Oct. 21, 2024 (Monday)

Mo-A: Opening Remarks & Keynote

Mo-B: Three-dimensional Sensing

Mo-C: Quantum Sensing, Nanosensing, Nanophotonics

Mo-D: Holographic Memory I

Presider: Ryushi Fujimura (Utsunomiya University, Japan)

Mo-E: Digital Holography I

Presider: Shuhei Yoshida (Kindai University, Japan)

Mo-F: Computational Imaging I

Presiders: Hiroshi Ohno (Toshiba Corporation, Japan)
Ryota Kawamata (Hitachi, Ltd., Japan)

Oct. 22, 2024 (Tuesday)

Tu-A: Digital Holography II

Presiders: Masanori Takabayashi (Kyushu Institute of Technology, Japan)
Shuhei Yoshida (Kindai University, Japan)

10:10 - 10:30 Break

Tu-B: Display

Presider: Takanori Nomura (Wakayama University, Japan)

11:40 - 12:00 ISOM'25 Announcement & Photo

12:00 - 13:30 Lunch

Tu-C: Special Invited

Presider: Takayuki Shima (AIST, Japan)

14:00 - 14:05 Short Break

Tu-D: Sensing System

Presiders: Kimihiro Saito (Kindai University Technical College, Japan)
Satoru Higashino (Sony Storage Media Solutions, Japan)

15:30 - 15:40 Break

Tu-E: Poster Session

Presiders: Koichi Iiyama (Kanazawa University, Japan)
Tetsuhiko Muroi (NHK, Japan)
Takayuki Shima (AIST, Japan)

15:40 - 17:40

Core time for the odd Tu-E numbers: 15:40-16:40

Core time for the even Tu-E numbers: 16:40-17:40

17:40 - 18:20 Break (Move to Banquet)

18:20 - 20:20 Banquet

Oct. 23, 2024 (Wednesday)

We-A: [Special Session] AI and Deep Learning

Presiders: Tetsuhiko Muroi (NHK, Japan)

Masanori Takabayashi (Kyushu Institute of Technology, Japan)

10:20 - 10:40 Break

We-B: Computational Imaging II

Presider: Shinsaku Hiura (University of Hyogo, Japan)

11:45 - 13:15 Lunch

We-C: Holographic Memory II

Presider: Satoru Higashino (Sony Storage Media Solutions, Japan)

We-C-01 Invited
13:15 Large capacity holographic data storage using deep learning 169

Jianying Hao[1], Xiao Lin[2], Ryushi Fujimura[3], Soki Hirayama[1], Tsutomu Shimura[1], Xiaodi Tan[2]
[1]The University of Tokyo (Japan), [2]Fujian Normal University (P.R.China), [3]Utsunomiya University (Japan)

We-C-02 Invited
13:40 The Practice of Holographic Data Storage.....171

Xiao Lin[1], Jianying Hao[2], Yongkun Lin[1], Hongjie Liu[1], Ruixian Chen[1], Rupeng Yang[1], Jing Xu[1], Dakui Lin[1], Xiaodi Tan[1]
[1]Fujian Normal University (P.R.China), [2]The University of Tokyo (Japan)

We-C-03 Invited
14:05 High-speed recording of holograms by synchronous movement of media and spherical reference wave.....173

Shuhei Yoshida[1], Atsushi Fukumoto[2], Manabu Yamamoto[2]
[1]Kindai University, [2]HoloStorage Inc. (Japan)

14:30 - 14:35 Short Break

We-PD: Post Deadline

Presider: Yuichi Nakamura (Toyohashi University of Technology, Japan)

We-PD-01
14:35 Optical Label-free Super-resolution Microscopy By Superoscillation Illumination 175

Yi Zhou, Wu Shikai, Xiang Jin, Shang Zhengguo, Liang Gaofeng, Zhang Zhihai, Wen Zhongquan, Chen Gang
Chongqing University (P.R.China)

We-PD-02
14:50 Multi-channel and Crosstalk-free Holographic Display by a Spin and Angle Co-multiplexed Metahologram.....177

Cheng Zhang
Huazhong University (P.R.China)

15:05 - 15:10 Short Break

15:10 - 15:25 Award & Closing