

Thursday, November 10

8:30 Registration

Room A

8:30-10:00 High-speed Image Sensing and Processing I

Chair: Shingo Kagami (Tohoku University) and Naoki Yokoyama (Tokai University)

8:30	4A-A01	Takashi Komuro	Saitama University	High-speed vision and its applications (Invited)
9:00	4A-A02	T. Masunari, K. Yamagami, M. Mizuno, S. Une, M. Uotani, T. Kanematsu, K. Demachi, Y. Nakamura and S. Suzuki	Toyohashi University of Technology	Shuttlecock Detection System for Fully-Autonomous Badminton Robot with Two High-Speed Video Camera
9:20	4A-A03	S. Huang, N. Bergström, Y. Yamakawa, T. Senoo, M. Ishikawa	University of Tokyo	High-Speed Visual Feedback for Realizing High-Performance Robotic Manipulation
9:40	4A-A04	Toshiki Sonoda, Hajime Nagahara, Kenta Endo, Yukinobu Sugiyama, Rin-ichiro Taniguchi	Kyushu University	High-Speed Imaging using CMOS Image Sensor with Quasi Pixel-Wise Exposure

10:00-10:15 Coffee Break

10:15-11:35 High-speed Image Sensing and Processing II

Chair: Takashi Komuro (Saitama University) and Shouren Huang (The University of Tokyo)

10:15	4A-A05	Shingo Kagami	Tohoku University	Image and Graphics Processing for Fast Projection Mapping onto a Moving Surface
10:35	4A-A06	Yoshihiro Watanabe	The University of Tokyo	High-speed 3D vision and its applications for real-world interaction
10:55	4A-A07	Naoki Yokoyama	Tokai University	GPU accelerated Motion Analysis Program for High Speed Imaging
11:15	4A-A08	Yukimi Tateno	Gumma University	High resolution imaging of a subsonic projectile using automated mirrors with large aperture

11:40-12:00 **Closing**

12:00-13:00 Lunch (Izumi)

Room B

8:45-10:05 High-speed Imaging Tools I

Chair: Boleslaw Stasicki (DLR, German Aerospace Center) and Graham W. Smith (AWE, UK)

8:45	4B-A01	K. Kinoshita, Y. Ishihara, T. Ai, S. Hino, Y. Inagaki, K. Mori, M. Goto, F. Niikura, A. Takahashi, K. Uchiyama, S. Abe	Hamamatsu Photonics K.K.	Development of the single-shot streak tube with 100 fs time resolution
9:05	4B-A02	J Howorth, J S Milnes, Y Fisher, A. Jadwin, R Boni & P A Jaanimagi	Photek Ltd	The Development of a Streak Tube with Improved Time Resolution and Range
9:25	4B-A03	R. T. Paton, R. E. Hall, B. W. Skews	University of the Witwatersrand	A New Continuous Light Source for High-Speed Imaging

Thursday, Nov. 10

9:45	4B-A04	M. Kanzyuba, A. B. Berlizov, V. B. Lebedev, G. G. Feldman, and V. N. Krutikov	All-Russian Research Institute for Optical and Physical Measurements (VNIIOFI)	Development of the Standard for Laser Pulse Duration in the Picosecond Range
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10:05-10:30 *Coffee Break*

10:30-11:30 **High-speed Imaging Tools II**

Chair: Kinko Tsuji (Shimadzu Europa GmbH) and Alexander Rack (ESRF)

10:30	4B-A05	P. Mercier, P.A. Frugier, P. Chavel, M. Boustie, E. Lescoute, R. Ecault	CEA-DAM-DIF (Commissariat à l'Energie Atomique)	Quantitative imaging approaches dedicated to shock-physics experiments
10:50	4B-A06	Kenji Ishikawa, Kohei Yatabe, Yusuke Ikeda, Yasuhiro Oikawa, Takashi Onuma, Hayato Niwa, Minoru Yoshii	Waseda University	Interferometric imaging of acoustical phenomena using high-speed polarization camera and 4-step parallel phase-shifting technique
11:10	4B-A07	Shouxian Liu, Li Yu, Li Zeren, Chen Guanghua, Peng Qixian, Lei Jiangbo, Liu Jun, Yuan Shuyun	Institute of Fluid Physics, China Academy of Engineering Physics	All-Optical Framing Photography Based on Hyperspectral Imaging Method

12:00-13:00 *Lunch (Izumi)*

Room C

8:45-9:55 **Experimental Mechanics I**

Chair: Shinichi Suzuki (Toyohashi University of Technology) and Motoharu Fujigaki (University of Fukui)

8:45	4C-A01	Alexander Rack, Margio Olbinado, Mario Scheel, Andreas N. Danilewsky	ESRF	Depicting ultra-fast processes in real-time by direct and diffraction hard X-ray imaging (Invited)
9:15	4C-A02	T. Okinaka, L. Wijerathne	Kindai University	Experimental and Numerical Study on the Unstable Crack Growth under Uniaxial Compression
9:35	4C-A03	Hisashi Ishida, Sota Oshima, Takayuki Kusaka, Tomo Takeda	Ritsumeikan University	Experimental Method for Determining Fracture Toughness

9:55-10:15 *Coffee Break*

10:15-11:35 **Experimental Mechanics II**

Chair: Takayuki Kusaka (Ritsumeikan University) and Tomoo Okinaka (Kindai University)

10:15	4C-A04	D. Yamamoto, S. Yoneyama, S. Suzuki	Toyohashi University of Technology	A Method to Measure Velocity Transition and Stress Intensity Factor of Propagating Cracks with High-speed Video Camera
10:35	4C-A05	M. Fujigaki, T. Yoshikawa, Y. Murata, T. Kondo	University of Fukui	Prototype of High-speed Measurement Camera for Fringe Pattern Analysis Method
10:55	4C-A06	Shuto Amahata, Kazuki Inagaki, Jun Koyanagi, Satoru Yoneyama	Aoyama Gakuin University	Evaluating Strain Rate Dependent Material Properties of Carbon Fiber Reinforced Polymer Using Split Hopkinson Pressure Bar
11:15	4C-A07	S. Aye and P. S. Heyns	University of Pretoria	Damage Detection and Failure Prediction using Proportional Hazard Methods

12:00-13:00 *Lunch (Izumi)*

Room D

8:45-10:05 High-speed Imaging of Nuclear Fusion Plasmas I

Chair: Hiroyuki Shiraga (Osaka University) and Terance Hilsabeck (General Atomics)

8:45	4D-A01	D. K. Bradley, G. N. Hall, S. R. Nagel, L. A. Pickworth, N. Izumi, O. L. Landen, H. Chen, N. E. Palmer, J. Porter, G. Rochau, T. Döppner, B. Bachmann, J. Moody, A. Moore, G. F. Swadling	Lawrence Livermore National Laboratory	Advances in X-ray Diagnostic Capabilities at the National Ignition Facility (Invited)
9:15	4D-A02	T. J. Hilsabeck, J. D. Hares, S. R. Nagel, J. D. Kilkenny, P. M. Bell, D. K. Bradley, A. K. L. Dymoke-Bradshaw, K. Piston	General Atomics	Picosecond imaging of inertial confinement fusion plasmas using electron pulse-dilation (Invited)
9:45	4D-A03	H. Shiraga	Osaka University	Review of Concepts and Applications of Image Sampling on High-Speed Streak Cameras

10:05-10:30 *Coffee Break*

10:30-11:30 High-speed Imaging of Nuclear Fusion Plasmas II

Chair: Hiroyuki Shiraga (Osaka University) and Terance Hilsabeck (General Atomics)

10:30	4D-A04	S. Ohdachi and T. F. Ming, LHD Experiment Group	National Institute for Fusion Science, National Institutes of Natural Sciences	Imaging diagnostics for magnetohydrodynamic instabilities in magnetically confined fusion plasmas
10:50	4D-A05	S. Kojima, Y. Arikawa, S. Sakata, S-H Lee, K.F.F.Law, K. Matsuo and S. Fujioka	Osaka University	Two dimensional interferometer to diagnose high-speed-expanding plasma
11:10	4D-A06	Zeng Xuanke, Ci Yi, Xu Shixiang, Jingzhen Li	Shenzhen University	A New Femtosecond Framing Imaging with High Spatial Resolution

12:00-13:00 *Lunch (Izumi)*