OIE 2019, The 13th Japan-Finland Joint Symposium on Optics in Engineering
Scientific Program (version 10.6.2019)

Day 1 Monday 26.8.2019 (Otaniemi, Design Factory)			
17:00	-	**18:00**	**Registration opens**
18:00	-	**21:00**	**Welcome reception with light dinner and drinks**

Day 2 Tuesday 27.8.2019 (Otaniemi, Maarintie 8)				
8:00	**-**	**8:50**	**Registration opens**	
8:50	-	**9:00**	**Welcome words: Erkki Ikonen**	
9:00	-	**10:20**	**Session 1: Holography & Nanostructures**	
9:00	-	9:20	ICEMET – a sensor for in-cloud icing condition monitoring	Ville A. Kaikkonen, Eero O. Molkoselkä and Anssi J. Mäkynen
9:20	-	9:40	Hyperbranched polymer nanocomposite gratings for volume holographic optical elements	Yasuo Tomita, Toshi Aoi, Shuma Hasegawa, Kento Kaseda, Juro Oshima and Keisuke Odoi
9:40	-	10:00	Enhanced photocatalytic activity of TiO2 inverse opal structures with gold-silver nanoparticles	Filipp Temerov and Jarkko J. Saarinen
10:00	-	10:20	Polarization state of the object wave analyzed by using FMCW-digital holography	Masayuki Yokota, Tatsuya Ishikawa and Yoshinobu Aoki
10:20	-	**10:50**	**Coffee break**	
10:50	-	**12:30**	**Session 2: Imaging science & Optical computing**	
10:50	-	11:10	Single-pixel imaging with hole-array coding masks	Yoshio Hayasaki, Ryo Sato and Yujiro Ito
11:10	-	11:30	High throughput spectral imaging with snapshot sensing	Nathan Hagen
11:30	-	11:50	A Quantum Dot Reservoir Based on Förster Resonance Energy Transfer for Optical Reservoir Computing	Jun Tanida, Suguru Shimomura, Takahiro Nishimura, Yuki Miyata, Naoya Tate and Yusuke Ogura
11:50	-	12:10	Visualizing AC magnetic fields by using atomic magnetometer and micro-mirror device	Shuji Taue
12:10	-	12:30	Video-rate imaging for Stokes parameters by polarization cameras	Yukitoshi Otani, Shuhei Shibata, Masayuki Suzuki and Nathan Hagen
12:30	-	**14:30**	**Lunch and Session 3: Posters (for presentations, see below)**	
14:30	-	**16:40**	**Session 4: Biomedical optics & nonlinear optics**	
14:30	-	14:50	Super-resolution imaging by scanning subdiffraction-limit optical pattern	Yusuke Ogura, Daiki Shinkawa, Takahiro Nishimura, Yosuke Tamada and Jun Tanida
14:50	-	15:10	The beneficial effects of the sauna exposures measured by PPG	Matti Huotari, Kari Määttä and Juha Röning
15:10	-	15:30	Creation and observation of a longitudinally-polarized optical needle	Léo Turquet, Xiaorun Zang, Joona-Pekko Kakko, Harri Lipsanen, Godofredo Bautista and Martti Kauranen
15:30	-	15:50	Measurement facility for high accuracy multiphoton absorption spectra	Meelis-Mait Sildoja, Charles W. Stark, Jüri Pahapill, Matt Rammo, Katrin Petritsenko and Aleksander Rebane
15:50	-	16:10	Quantitative CARS spectral imaging in studying protein droplets	Yelena Kan, Sapun Parekh, Erik M. Vartiainen and Lasse Lensu
16:10	-	**16:40**	**Coffee break**	
16:40	-	**18:00**	**Session 5: Interferometry 1**	
16:40	-	17:00	Synthetic aperture phase-shifting measurement for high numerical-aperture spherical surfaces	Kenichi Hibino, Toshiki Kumagai and Yasunari Nagaike
17:00	-	17:20	3D measurements of freeform samples using multi sensor optical profilometer	Ville Heikkinen, Johan Nysten, Ville Byman, Björn Hemming and Antti Lassila
17:20	-	17:40	Thickness distribution measurement with a full-field pulsed SD-OCT	Takamasa Suzuki, Bin Liu, Samuel Choi and Osami Sasaki
17:40	-	18:00	Low-coherence interferometer with 10MHz repetition rate	Katsuhiro Ishii, Masaharu Hoshikawa, Takeshi Makino, Takahiro Hashimoto, Hideaki Furukawa and Naoya Wada

Poster topics and authors, Day 2 Tuesday 27.8.2019 (Otaniemi, Maarintie 8)				
12:30	-	**14:30**	**Session 3: Posters (Tuesday 27.8.2019 12:30 - 14:30)**	
12:30	-	14:30	Deep Learning Enhanced Multiphoton Microscopy for Investigating the Dermoepidermal Junction in Human Skin	Mikko J. Huttunen, Radu Hristu, Adrian Dumitru, Mariana Costache and Stefan C. Stanciu
12:30	-	14:30	Full arch dental imaging using an extraoral camera system	Katri Kukkola, Anssi Mäkynen, Ville Kaikkonen, Gleb Bulygin, Eero Molkoselkä, Niklas Pikkarainen, Nanni Nielikäinen, Aleksi Rantanen, Antti Kämppi, Tarja Tanner and Vuokko Anttonen
12:30	-	14:30	Live Cell imaging with integrated STED-AFM	Elnaz Fazeli, Takahiro Deguchi, Sami Koho, Juha Peltonen, Tuomas Näreoja and Pekka Hänninen
12:30	-	14:30	Monte Carlo based investigation of spectral reflectance and point spread function in skin tissue model	Kaustav Das, Yuta Kobori, Tomonori Yuasa, Hideki Funamizu and Yoshihisa Aizu
12:30	-	14:30	On optical sensing of microplastics in water	Benjamin O. Asamoah, James Amoani, Matthieu Roussey and Kai-E. Peiponen
12:30	-	14:30	Development of self-adjusting photodiode arrangement for accurate laser optical power measurements	A. Pokatilov, G. Porrovecchio and T. Kübarsepp
12:30	-	14:30	Polarimeter analysis of the birefringence of thermally modified Scots pine wood	Ilpo Niskanen1, Hiroshi Hasegawa, Jukka Räty, Hariyadi Soetedjo, Kenichi Hibino, Hiroshi Oohashi, Rauno Heikkilä, Kiyofumi Matsuda and Yukitoshi Otani
12:30	-	14:30	How to control polarization color and its applications	Kenji Harada, Sho Sakurai and Yutaro Shibata
12:30	-	14:30	Predicting the refractive index of porous powder samples during compaction using terahertz time-domain spectroscopy	Prince Bawuah, Mohammed Al-Sharabi, Cathy Ridgway, Anssi-Pekka Karttunen, Ossi Korhonen, Patrick Gane, Jarkko Ketolainen, Kai-Erik Peiponen, J. Axel Zeitler and Daniel Markl
12:30	-	14:30	Ambient air spectroscopy and thermometry for accurate distance measurement	Jeremias Seppä and Tuomas Helojärvi
12:30	-	14:30	Label-free and vibration-free imaging using low-coherent quantitative phase microscope	Natsuki Suzuki and Katsuhiro Ishii
12:30	-	14:30	Setup for characterising the spectral responsivity of Fabry-Perot-interferometer-based hyperspectral cameras	Oskari Pekkala, Tomi Pulli, Alexander Kokka and Erkki Ikonen
12:30	-	14:30	Comparison of experimental and the Mie scattering coefficients of bulk suspensions of ideal and deformed cylindrical particles	Harri J. Juttula, Matti Törmänen and Anssi J. Mäkynen
12:30	-	14:30	Development of metrological atomic force microscope	Virpi Korpelainen, Johan Nysten, Jeremias Seppä and Antti Lassila
12:30	-	14:30	3D printed lens project for bachelor's education	Eero O. Molkoselkä, Gleb A. Bulygin, Justus F. Kleine and Anssi J. Mäkynen
12:30	-	14:30	Three-dimensional flow measurements around micro-pillars in water by micro-digital holographic particle tracking velocimetry	Yasuhiro Matsuda, Hiroshi Kigami, Noriyuki Unno, Jun Taniguchi and Shin-ichi Satake

12:30	-	14:30	Evaluation of yield stress from velocity fluctuations of microfibrillated cellulose suspension flow by optical coherence tomography	Janne Lauri, Antti Koponen, Sanna Haavisto and Tapio Fabritius
12:30	-	14:30	Measurement setup for differential spectral responsivity of solar cells	Petri Kärhä, Hans Baumgartner, Kasperi Kylmänen, Benjamin Oksanen and Erkki Ikonen
12:30	-	14:30	VTT's versatile 3 µm silicon photonics platform	Päivi Heimala, Mikko Harjanne, Ari Hokkanen, Matteo Cherchi, Tapani Vehmas, Srivathsa Bhat and Timo Aalto
12:30	-	14:30	Effect of nanometrically thin nickel catalyst on the properties of CVD synthesized graphitic films	M. Baah, T. Kaplas and Y. Svirko
12:30	-	14:30	Qualitative analysis for presence of Sudan IV in edible palm oil	Sampson S. Andoh, Kenneth Nyave, Boniphace Kanyathare, Benjamin Asamoah, Tarmo Nuutinen, Cheetham Mingle, Kai-E. Peiponen and Matthieu Roussey
12:30	-	14:30	OPtical Imager for Comets (OPIC) for proposed F mission Comet Interceptor	Andris Slavinskis, Antti Nasila, Mihkel Pajusalu, Jaan Praks, Anu Reinart, Iaroslav Iakubivskyi, Tomas Kohout, Colin Snodgrass and Geraint Jones
12:30	-	14:30	Direct 3D-printing of optical components at the University of Eastern Finland	Markku Pekkarinen, Petri Karvinen and Jyrki Saarinen

Sauna evening, Day 2 Tuesday 27.8.2019 (Otaniemi, Maarintie 8)				
18:00	-	**21:00**	**Sauna evening with light dinner and drinks**	

Day 3 Wednesday 28.8.2019 (Ferry to Tallinn)				
9:30	**-**	**12:30**	**Ferry to Tallinn**	
10:15	**-**	**11:45**	**Session 6: Interferometry 2**	
10:15	-	10:45	Plenary talk: Analyzing and applying light with randomness; from speckles to spectra	Jun Uozumi
10:45	-	11:05	Wavelength-tunable common-path interferometer with a diode source	Yukihiro Ishii, Shunpei Yukita, Kosuke Kiyohara, Jun Chen and Eiji Tokunaga
11:05	-	11:25	Speckle Shearing Interferometric Vibrometer for Heartbeat Monitoring	Ryohei Hanayama and Katsuhiro Ishii
11:25	-	11:45	Multimode interferometers on strip-loaded waveguide for sensing	M. Roussey, R. Rao and S. Pélisset

Day 3 Wednesday 28.8.2019 (Tallinn, Kultuurikatel)				
14:30	**-**	**16:10**	**Session 7: Detectors, lasers, and integrated & printed optics**	
14:30	-	14:50	Designing random structures for random laser media	Takashi Okamoto and Keigo Imamura
14:50	-	15:10	Broadband Electromagnetic Radiation Detector Based on Photoacoustic Effect	Jussi Rossi, Juho Uotila, Toni Laurila, Erkki Ikonen and Markku Vainio
15:10	-	15:30	Opto-fluidic biosensors by roll-to-roll fabrication	Jussi Hiltunen, Sanna Uusitalo, Sanna Aikio, Marianne Hiltunen, Olli-Heikki Huttunen, Johanna Hiitola-Keinänen, Christina Liedert and Pentti Karioja
15:30	-	15:50	Printed electronics in pilot scale processing and production of organic photovoltaics, CIGS solar cells and OLEDs	Marja Vilkman, Kaisa-Leena Väisänen, Marja Välimäki, Mari Ylikunnari and Thomas Kraft
15:50	-	16:10	Predictable Quantum Efficient Detector (PQED) based on n-type silicon induced junction photodiodes	Timo Dönsberg, Santeri Porrasmaa, Farshid Manoocheri and Erkki Ikonen
16:10	-	**16:40**	**Coffee break**	
16:40	-	**18:00**	**Session 8: Optical spectroscopy, spectral imaging and lidars**	
16:40	-	17:00	Tapered fiber amplifier for coherent lidar	Kim Patokoski, Joona Rissanen, Teppo Noronen, Regina Gumenyuk, Yuri Chamrovskii and Valery Filippov and Juha Toivonen
17:00	-	17:20	Fourier Transform Photoacoustic Spectroscopy with Supercontinuum Light Source	Tommi Mikkonen, Caroline Amiot, Antti Aalto, Kim Patokoski, Goëry Genty and Juha Toivonen
17:20	-	17:40	Novel hyperspectral imager based on angle-tuned multi pass band filter, Leds and RGB image sensor	Heikki Saari, Harri Ojanen and Ingmar Stuns
17:40	-	18:00	Miniaturized spectral imaging technologies at VTT	Antti Näsilä, Heikki Saari, Kai Viherkanto, Christer Holmlund, Rami Mannila, Roberts Trops, Endija Briede, Akseli Miranto, Altti Akujärvi, Harri Ojanen, Ismo Näkki, Ingmar Stuns, Hans Toivanen, Tahvo Havia, Martti Blomberg, Sari Elomaa and Tapani Antila

Day 3 Wednesday 28.8.2019 (Tallinn, Restaurant Wabadus)			
19:00	**-**	**23:00**	**Conference dinner**

Day 4 Thursday 29.8.2019 (Tallinn)			
10:00	**-**	**12:30**	**Morning Excursion**
12:30	**-**	**15:00**	**Luch / Ferry to Helsinki**
15:00	-	**23:00**	**Evening excursion**

Day 5 Friday 30.8.2019 (Tallinn)			
10:00	**-**	**12:30**	**Ferry to Helsinki**