

# Room 1

## Session 2-1-1: OS20 Advanced surface processing I

OS20-01 Formation of Heterostructured Si Thick Films in Atmospheric Pressure Very High-Frequency Plasma Afif Hamzens, Shota Mochizuki, Hiromasa Ohmi and Hiroaki Kakiuchi

OS20-03 Porous Silicon Oxide Formation Using Atmospheric-Pressure Very High-Frequency Plasma for Single-Layer Anti-Reflection Coatings on Transparent Substrates Leapheng Uon, Naoto Mizusawa, Reo Yamauchi, Hiromasa Ohmi and Hiroaki Kakiuchi

OS20-04 Surface modification of Si-MEMS using electron beam induced silicon nanodots Abhiraj Singh, Shingo Kammachi, Nobutaka Goami, Muncyuki Naito, Ryosuke Matsumoto and Takahiro Namazu

OS20-05 Ultrasonic-assisted fabrication of water-dispersed photonic crystals for self-reporting surface pressure sensor application Daniel Saldivar-Ayala and Takahiro Namazu

## Session 2-1-2: OS20 Advanced surface processing II

OS20-07 Effect of substrate temperature on mechanical property of amorphous silicon carbon nitride films deposited by surface-wave plasma CVD Ippei Tanaka, Yuki Hattori, Yuki Hatae and Yasunori Harada

OS20-08 Effect of Containing Copper Particles on Mechanical Characteristics of Sintered Ag film for SiC Die Bonding Chessadakorn Chantawong, Michiko Shindo, Mitsuhiro Nishida and Takahiro Namazu

OS20-09 Evaluation of adhesion resistance of PVD films to hot dip galvanized and pure Zn Yusuke Ushiro, Ippei Tanaka, Yasunori Harada, Yuji Nanba and Takashi Ogisu

OS20-12 The effect of concentration modulation on friction properties of diamond films synthesized by microwave plasma CVD Ryota Ohnishi, Ippei Tanaka, Natsuki Kawaguchi and Yasunori Harada

## Session 2-1-3: OS20 Advanced surface processing III

OS20-13 Improvement of etching rate of gallium nitride substrates by atmospheric pressure plasma with H<sub>2</sub>/O<sub>2</sub>/He gas Motoki Nabata, Genta Nakaue, Daisetsu Toh, Jumpei Yamada, Kazuto Yamauchi and Yasuhisa Sano

OS20-14 Damage-free Processing of Extremely Narrow Spaces via High-precision Etching Using High-pressure Plasma That Exceeds Atmospheric Pressure, Masafumi Miyake, Shotaro Matsumura, Iori Ogasahara, Taito Osaka, Jumpei Yamada, Daisetsu Toh, Kazuto Yamauchi, Makina Yabashi and Yasuhisa Sano

OS20-15 Mechanical Reliability of Sintered Ag Die Attach Assemblies with Al/Ni Rapid Heat Treatment Hiroya Saegusa, Daisuke Yasugi and Takahiro Namazu

OS20-18 Strength prediction of metal-polymer joints using machine learning from metal surface images Zhongqi Cui, Shuohan Wang, Yuuka Ito, Eiji Yamaguchi, Fuminobu Kimura and Yusuke Kajihara

OS20-22 Surface texture creation mechanisms and surface properties of intermittent burnishing process Masato Okada, Hayato Nakagawa, Makoto Nikawa and Shunki Kitagawa

## Room 2

### Session 2-2-1: OS21

#### Micro fabrications for functional surfaces I

OS21-01 Creating Pore-Gradient Ti6Al4V Alloys through the Fusion of Particle Dynamics and Powder Metallurgy  
Yaole Cui, Asit Kumar Gain, Liangchi Zhang and Zhen Li

OS21-03 Mechanism of Surface Nanostructure Generation via Hot Water Treatment for Improving the Hybrid Joining of Galvanized Steel-Polymer  
Jianxing Ren, Weiyang Chen, Fuminobu Kimura and Yusuke Kajihara

OS21-04 Development of optical trapping substrates for the capturing of microparticles  
Masahiko Yoshino, Ryuji Yamasaki, Motoki Terano and Takashi Matsumura

OS21-05 Study on Fabrication of Functional Electromagnetic Shielding Material Based on Flake Carbonyl Iron Powder and Reduced Graphene Oxide  
Wei-chi Chen, Hsiang-Yi Chung and Hung-Yin Tsai

### Session 2-2-2: OS21

#### Micro fabrications for functional surfaces II

OS21-06 Applicability of Projection Lithography Using a Gradient-Index Lens Array to Thick Resist Patterning  
Toshiyuki Horiuchi, Naoyuki Otsuka, Takeharu Fukuhara and Hiroshi Kobayashi

OS21-07 Lubrication Characteristics of Aluminum Alloy Surfaces Textured by Microvibration-assisted Cutting  
Jun Shimizu, Ryuta Koakutsu, Takeyuki Yamamoto, Kazuki Kaneko, Teppei Onuki and Hirotaka Ojima

OS21-08 Possibility of Self-Organized Bacterial Micro-structure as Functional Surface inspired by Two-dimensional Pattern of *S. epidermidis*  
Hayato Goto, Shuzo Masui, Masaki Michihata and Satoru Takahashi

OS21-09 Microfluidic Device of White Blood Cell Elimination for Capturing Circulating Tumor Cells - Prompting Cell Contact on Antibody Coated Surfaces -  
Masanori Hayase, Takuya Okamura and Shuhei Ogawa

### Session 2-2-3: OS21

#### Micro fabrications for functional surfaces III

OS21-10 Fabrication of Micro 3-D Structures using Electrical Discharge Deposition in Atmospheric Environment  
Senryu Hayashi, Jun Shimizu, Takeyuki Yamamoto, Kazuki Kaneko, Teppei Onuki and Hirotaka Ojima

OS21-11 Effects of surface morphology of inkjet-printed MoS<sub>2</sub> nanoparticles on gas sensor characteristics  
Takahiro Kono, Takumi Masuda, Soichiro Nao and Arata Kaneko

OS21-13 Tuning Cross-Linking Conditions of PDMS for Leak-Free Slip Action in SlipChip  
Inaam Rafia, Bolotrade Marcela, Shunya Okamoto, Takayuki Shibata and Moeto Nagai

OS21-14 Spatially patterned laser through pixelated intensity modulation for fabrication of sub-wavelength surface structures  
Lingyu Huang, Kang Xu and Shaolin Xu

OS21-15 Generation and Evaluation of Micro-Structured Surfaces for Hydrophilic Control  
Akira Kakuta and Robin Shindo

## Room 3

### Session 2-3-1: GS06 Laser machining I

GS06-02 Investigation on the diamond cutting of Inconel 718 using negative rake angle tools by FEM  
Yuhan Li, Wai Sze Yip and Suet To

GS06-05 Investigation of a laser focus detecting system for laser machining  
Chong Chen, Ziran Chen, Xiaokang Liu and Wei Gao

GS06-06 Micromachining of carbon fiber reinforced plastics by femtosecond pulsed laser  
Yuhei Konishi and Jiwang Yan

GS06-07 Fused silica cylindrical microlens array fabricated by multi-focus laser with CO2 laser polishing  
Zongyao Li, Peilin Huang, Kang Xu and Shaolin Xu

### Session 2-3-2: GS06/OS10 Laser machining II Energy beam processing I

GS06-08 Freeform 3D glass microstructures sculptured with dynamic multi-focus laser  
Li Yao and Shaolin Xu

GS06-09 All-glass nanohole metalens by Non-diffracting Direct Laser Writing  
Kang Xu, Mandong Zheng, Lingyu Huang and Shaolin Xu

OS10-04 Precision ultrashort pulsed laser processing of silica glass by modulating pulse energy  
Ryota Hasegawa, Junya Hattori, Tomohiro Fukui, Naohiko Sugita and Yusuke Ito

OS10-05 Avoiding intermetallic compound formation in Al/Cu laser welding via a nickel interlayer  
Liwei Chen, Ryo Okawara, Yoshiki Sakai and Keisuke Nagato

### Session 2-3-3: OS10 Energy beam processing I

OS10-07 Time-resolved nano-scale measurement of surface displacement of silica glass during ultrashort-pulse laser ablation  
Shogo Kitamura, Chaoran Wei, Junya Hattori, Naohiko Sugita and Yusuke Ito

OS10-09 Picosecond Observation of Laser-induced Disturbances on the Water Jet in Water Jet Guided Laser Processing  
Shoichi Ui, Shuzo Masui, Shotaro Kadoya, Masaki Michihata and Satoru Takahashi

OS10-01 Shape control of the silver precipitation layer by laser irradiation inside borosilicate glass  
Miyuka Kono, Souta Matsusaka, Sho Itho and Hirofumi Hidai

OS10-11 Fundamental Study on Calcination of Limestone Particles by Near-infrared Wavelength Laser with Vibration Stirring  
Naoki Kotake, Yasuhiro Okamoto, Masakazu Oka, Shuji Fujiki, Shunjiro Shizuka and Akira Okada

OS10-10 Investigation of intense stress wave generated by double femtosecond laser pulses in fused silica  
Huijie Sun, Junya Hattori, Tao Sun, Tomohiro Fukui, Horiki Matsumoto, Naohiko Sugita and Yusuke Ito

## Room 4

### Session 2-4-1: GS15

#### Artificial intelligence and machine learning in precision engineering I

GS15-01 Data-Driven Feature Selection for Bearing Vibration Signal Using Correlation-Based Graph and Social Network Analysis, SeyedHesam Hosseinizadeh Mazloumi, Madhurjya Dev Choudhury, Yuqian Lu and Jaspreet Singh Dhupia

GS15-03 Investigation of energy consumption prediction for ultra-precision machine tools in machining small samples  
Baolong Zhang, Zhicheng Xu, Wai Sze Yip and Suet To

GS15-04 Dynamic and Precise Localization of Near- Surface Defects in Composite Materials Using Shearography and Spatiotemporal Object Detection  
GuanLin Li, Yao Hu and Qun Hao

GS15-05 The application of CNNs for angle measurement based on second harmonic generation  
Zhiyang Zhang, Jiahui Lin, Ryo Sato, Hiraku Matsukuma and Wei Gao

### Session 2-4-2: GS15

#### Artificial intelligence and machine learning in precision engineering II

GS15-06 Research on Misjudgments Caused by Indistinguishable Speckle Patterns in Bolt Looseness Detection  
Lin Deng and Zhan Gao

GS15-10 Enhancing Optical Lateral Resolution through Deep Learning-Based Estimation of Zernike Coefficients from System Transfer Functions  
Ming-Jie Liu, Y. Cheng, Y. Huang and L. Chen

GS15-11 Physical model-driven single-shot end-to-end absolute phase acquisition strategy  
Yiming Li, M. Chen, C. Zhang, H. Wang, Z. Li, W. chen, F. Feng, X. Wang, W. Gui, X. Liang and X. Li

GS15-14 Development of crystalline lattice scale using scanning tunneling microscope (STM)  
Daichi Yoshikawa, Kazushi Iio and Masato Aketagawa

### Session 2-4-3: OS18

#### Advanced image processings and applications

OS18-01 Object detection and recognition method of inland ships based on improved YOLOv8  
Jigang Wu and Liuyang Zhou

OS18-03 Research on dynamic correction system for eye's aberrations based on image processing technology  
Zhigang Jia, Weijiang Yan and Zhongxiang Zhang

OS18-04 Multiple moving object detection for stereo vision on single-board computer  
Yoshito Yabuta

OS18-08 New vision-based evidence of the nature of vibro-impacts in an impact-damped boring bar  
Janhavi Bhoge, Madhav Kumar, Hari Charan, Arjun Patel and Mohit Law

## Room 5

### Session 2-5-1: OS15 Nano-scale measurements and calibrations I

OS15-02 An Optical Angle Measurement Based on Dual Comb Spectroscopy  
Sota Iguchi, Hiraku Matsukuma, Kakeru Ikeda, Ryo Sato and Wei Gao

OS15-03 Calibration Method for Optical Angle Measurements using Diffraction Gratings  
Hiraku Matsukuma, Sota Iguchi, Kakeru Ikeda, Ryo Sato and Wei Gao

OS15-07 Understanding the Interplay between Hardness and Yield Stress in Fused Silica  
Asit Kumar Gain, Liangchi Zhang and Zhen Li

OS15-08 A non-orthogonal Lloyd's mirror interferometer with a spatial light modulator for arbitrary pattern fabrication  
Nozomu Takahiro and Yuki Shimizu

### Session 2-5-2: OS15 Nano-scale measurements and calibrations II

OS15-09 Sensitivity improvement of an optical head for measurement of the pitch deviation of a diffraction grating based on angles of diffraction of diffracted laser beams  
Tomoki Kitazume, Yuya Yamazaki and Yuki Shimizu

OS15-10 Development of a modified optical head for measurement of the pitch deviation of a diffraction grating having a pitch narrower than laser wavelength  
Yuya Yamazaki, Tomoki Kitazume and Yuki Shimizu

OS15-11 Expansion of measuring range of optical angle sensor with light source having multiple longitudinal modes  
Keita Nakaoka and Yuki Shimizu

OS15-13 Roundness Metrology of Small Cylinders with a Developed Non-contact Precision Two-dimensional Coordinate Measuring Device, Qiaolin Li, Chuang Zeng, Borong Wu, Xiaohao Wang and Xinghui Li

### Session 2-5-3: OS15 Nano-scale measurements and calibrations III

OS15-14 Sub-micrometer scale pulsed laser ablation in water and nanofluids medium using position controlled photonic nanojet  
Reza Aulia Rahman, Tsutomu Uenohara, Yasuhiro Mizutani and Yasuhiro Takaya

OS15-28 Ultra-precision and Highly Uniform One-Dimensional Nano-grating Standard By 50 nm Pitch For Nanoscale Calibration  
Yaxin Zhang, S. Wang, F. Han, Y. Zhao, K. Zheng, C. Wang, W. Jing, N. Peng and Z. Jiang

OS15-16 Absolute Grating Encoder with Nano-level Precision on Meter-level Measurement Range  
Shengtong Wang, Feifan Cao, Linbin Luo, Yifeng Wang and Xinghui Li

OS15-17 Form deviation measurement of probe tip ball for CMM using a rotatable ring gauge  
Tatsuki Tsuda, So Ito, Kimihisa Matsumoto and Kazuhide Kamiya

OS15-18 Stitching interferometry method for self-calibration of large-scale variable-line-spacing gratings by using a Fizeau interferometer  
Chenguang Yin, Xin Xiong, Ryo Sato, Hiraku Matsukuma and Wei Gao

## Room 6

### Session 2-6-1: OS12 Micro / Nano systems I

OS12-01 Miniaturized peristaltic pipe travelling robot capable of moving in the 30mm diameter pipe

Yujie Shi, Masato Mizukami, Naohiko Hanajima and Yoshinori Fujihira

OS12-02 Molding of dissolving microneedle arrays

Yuusei Takaki, Harunori Takei, Natsumi Amano, Takahiro Ito, Sunao Murakami, Tomohiro Hikima, Hirotsada Tsubaki, Masaaki Matsuo, Masaya Hara, Yasunori Tashiro and Takahiro Oniki

OS12-03 Impulse-Driven Traveling Capsule Endoscope - Wireless Power Supply Position Control -

Kenji Miyauchi, Kohei Fujita, Takahiro Ito, Sunao Murakami and Toshihiro Kimura

OS12-04 Mechanical behavior of nanoclay/polyester composite coatings for pre-coated metal sheets

Weikang Lin, Grant Edwards, Shuning Song, Michael Heitzmann, Darren Martin, Mingyuan Lu, Lisbeth Grøndahl and Han Huang

### Session 2-6-2: OS12 Micro / Nano systems II

OS12-05 Impedance Matching Between a Waveguide and a Transmission Line Using a Flexible Conductive Membrane Micro-actuator for Beyond 5G/6G Communication

Chao Qi, Sangyeop Lee and Tadahiko Shinshi

OS12-09 An Ultra-Thin Variable Aperture Mechanism Using a Micro Flat Motor with a Multi-Pole Ring Magnet

Keita Nagai, Riku Fukazawa, Yu Okawara, Haruhiro Komura and Tadahiko Shinshi

OS12-06 High Thermal Stability Design Method for a Dual-axis Photoelectric Level

Yong-Jun Wang, Rui-Jun Li, Wan Fang and Peng-Hao Hu

OS12-08 Development of a two-dimensional large-stroke nanopositioning table

Jie Li, Rui-Jun Li, Yi Hu and Jun-Rui Li

### Session 2-6-3: OS04 CAD/CAM technologies

OS04-01 Tool path generation considering workpiece deformation due to vice clamping

Koki Kuroda, Hidenori Nakatsuji and Isamu Nishida

OS04-02 Tool Path Generation for Five-Axis Controlled Swarf Machining Considering Machining Error Caused by Tool Axis Change

Tatsuki Ono and Koichi Morishige

OS04-03 Detection of sphere contact shape for automotive safety verification

Linxuan He and Masatomo Inui

OS04-04 Concurrent process and feedrate scheduling with analytical Gaussian-based process basis function

Shuntaro Yamato, Takashi Yanagitani, Burak Sencer and Anthony Beaucamp

# Room 7

## Session 2-7-1: OS06 Advanced grinding technologies I

OS06-01 Crystallographic Analyzations of Subsurface Damaged Layers in Wide-bandgap Semiconductor Wafers Using High-Resolution Micro-Raman Tomographic Imaging  
Teppei Onuki, Kyo-ichiro Shiba, Yusuke Mogaki, Libo Zhou, Hirotaka Ojima and Jun Shimizu

OS06-02 Physics informed generative neural network of multireflection interference fringes for optical thickness gauge  
Teppei Onuki, Takeshi Mochizuki, Yuta Toshima, Hirotaka Ojima, Jun Shimizu and Libo Zhou

OS06-03 Wear State Identification of Ordered Grinding Wheel for C/SiC Composites Based on DBO-ELM  
Bing Chen and Ye Guo

OS06-05 Creep Feed Grinding Characteristics of Maraging Steel Using Porous Vitrified cBN Wheel  
Masakazu Fujimoto and Haruya Tanaka

## Session 2-7-2: OS06 Advanced grinding technologies II

OS06-06 Investigation of the Wheel Vibration and Surface Integrity by In-situ Magnetic Field Assisted Parallel Ultra-Precision Grinding of Inconel 718  
Te Zhao, Tengfei Yin, Yi Tan, Denghui Li and Suet To

OS06-07 Experimental investigation of the impact of machining conditions on AE signal in grinding process  
Zongwei Ren and Hayato Yoshioka

OS06-09 Exploration of grinding heat diffusion pattern within Ti-6Al-4V workpieces  
Yujun Wu and Weimin Lin

OS06-10 Study of surface integrity on high-speed grinding of iron metal  
Juan Chen, Bi Zhang and Suet To

## Session 2-7-3: OS06 Advanced grinding technologies III

OS06-14 Development of abrasive grain detection system by machine learning  
Kunon Hayashi, Atsuhiko Sawada, Hirotaka Ojima, Libo Zhou and Teppei Onuki

OS06-13 Possibilities of Reduction in Sliding Friction by Addition of Ultra Fine Bubbles to Coolant  
Koju Hiraki, Ryuta Isizumi, Renma Sumiyoshi, Takeshi Watanabe, Yuki Hara, Nobuyuki Izuhara, shigeru Taniguchi, Shoko Yamada and Ryoichi Yagami

OS06-16 Evaluation on fine cutting edges of PCD grinding tool and mirror finishing surface on SiC substrates  
Haruto Konishi, Takashi Fujita, Ryota Fukunaga, Yuki Izutani, Yasuo Izumi and Junji Watanabe

OS06-12 Deformation and Material Removal Mechanisms in Nano-Scratching of Single-Crystal Aluminum Nitride  
Haoxiang Wang, xiaoguang Guo, Zhigang Dong, Renke Kang and Shang Gao

OS06-21 Fretting wear mechanism of DZ125 surface created by WEDM  
Haohan Zhang, Jing Ni and Zhen Zhang

## Room 8

### Session 2-8-1: OS02 Life cycle and smart engineering

OS02-01 Real-time intelligent chatter detection for precision milling using CNN model  
Tong Zhu, Carman K. M. Lee, Denghui Li, Suet To and Wai Sze Yip

OS02-02 Influence of mist generation by machining process on visibility to control motor drive in built-in mist collector for machine tools  
Kosuke Yamamoto, Yuta Noro, Toshiki Hirogaki, Masao Nakagawa and Eiichi Aoyama

OS02-03 Modeling Object-Concepts in Engineers' Thinking under Digital Triplet Framework  
Yiming Hou, Shinsuke Kondoh, Yasushi Umeda, Masahiro Nishio and Koji Makino

OS02-05 Extraction of Knowledge for Plant Inspection based on Behavior Comparison between Experts and Novices  
Hiroto Kitamori, Y. Umeda, J. Ota, H. Asama, S. Kasahara, N. Yamato, H. Ito, T. Daito, S. Tamura, T. Kato, M. Korenaga, A. Sasamura and F. Nonaka

### Session 2-8-2: GS07 Additive Manufacturing I

GS07-06 Direct observation of bubbles inside the molten pool in laser welding of alumina  
Daijiro Tokunaga, Yuko Aono and Atsushi Hirata

GS07-07 Bead shape stabilization method under laser scanning speed changing condition by controlling deposition conditions for powder DED process  
Yusuke Yamamoto and Ryuta Sato

GS07-13 Additive manufacturing of fine capillary wick with hybrid porous structure using a toolpath-based design  
Shujie Tan, Pengfei Zhang, Xu Meng, Liping Ding and Yicha Zhang

GS07-14 Rotary TIG WAAM Particle Simulation  
Andrea Bimbi, Masahiro Kawabata, Togen Tsunekawa and Hiroyuki Sasahara

### Session 2-8-3: GS07/OS09 Additive Manufacturing II Non-traditional machining and additive manufacturing I

GS07-01 Height Control of Microstructures Directly Extruded by Fused Deposition Modeling Processes  
Yunlong Han, J. Sun, Y. Zhang, Q. Xiao, H. Jing, Z. Li, Y. Guo, Q. Wang, M. Lv, W. Wang, Y. Wang, Z. Li and L. Zhang

GS07-03 Design, Fabrication, and Evaluation of Properties Of Novel Hybrid Lattice Structures  
Şeymanur Sirtli, Cem Batur, Elmas Salamci, Hamed Tanabi and Metin Uymaz Salamci

OS09-25 Highly Efficient Surface Smoothing of AMed Metal Products by Long-pulse Electron Beam Irradiation  
Xuze Zhao, Togo Shinonaga and Akira Okada

OS09-24 Femtosecond laser studies on ablation efficiency and surface quality of alumina  
Taiga Tanaka, Ryo Koike, Yasuhiro Kakinum, Hideki Aoyama, Yusuke Ogiso and Tomoki Nagae

GS05-04 Transient Simulation of arc plasma in Electrical Discharge Machining  
Chen Liu and Xiaodong Yang



## Room 9

### Session 2-9-1: OS05 Advanced cutting technologies I

OS05-01 Discrete analysis of the ultrasonic vibration superimposed turning process by orthogonal cutting experiments Liboriu Hendrik, Werner Jonas Maximilian, Nestler Andreas, Drossel Welf-Guntram and Schubert Andreas

OS05-02 Research on measuring point selection for strain-based on-machine estimation of workholding states  
Yu Yan, Koji Teramoto, Naruki Shoji and Hiroki Matsumoto

OS05-03 Physical model of a hybrid tool consisting of SAG and face milling  
Yuichi Kurane, Ashwani Pratap, Burak Sencer and Anthony Beaucamp

OS05-04 Experimental Elucidation of Cutting-edge Temperature Behavior in Terms of Ultrasonic Vibration-assisted Drilling  
Naofumi Tsuji, K. Takashima, H. Kawamura, K. Hara, R. Tanaka, A. Sakurada, K. Miyawaki and H. Isobe

### Session 2-9-2: OS05 Advanced cutting technologies II

OS05-05 A Comparative Analysis of the Cutting Separation Criteria in Finite Element Simulations of Orthogonal Metal Cutting  
Yaoyu Wang, Liangchi Zhang, Zhen Li and Jipeng Cui

OS05-06 Transition of cutting forces during deceleration of feed in interrupted cutting - Novel evaluation method for frictional characteristics between cutting tool and workpiece material, Isai Espinoza-Torres, T. Ryutaro, I. Martinez-Ramirez, K. Sekiya and K. Yamada

OS05-07 Research on effect of ultra-high pressure coolant supplied from flank face in end milling of aerospace alloys supported by CFD simulations, Jingtian Mao, Kensuke Tsuchiya, Chikara Morigo and Shinji Yukinari

OS05-09 Microtexture Processing on Three-Dimensional Curved Surfaces Using Ultrasonic Milling  
Keisuke hara, Atsuhiko Yoshida, Naofumi Tsuji, Kota Takashima, Hirofumi Kawamura and Hiromi Isobe

### Session 2-9-3: GS17 Semiconductor manufacturing and metrology

GS17-03 New DUV Wavelength - Scanning Scatterometry for Sub-Micron High-Aspect-Ratio OCD Metrology  
Fu-Sheng Yang, Min-Ru Wu, Yen-Hung Hung, Yuan-Ci Lin, Bo-Chen Kuo and Liang-Chia Chen

GS17-04 Optimizing Fourier Hyperspectral Scatterometry with Global Sensitivity Analysis for Semiconductor OCD Metrology  
Yen-Hung Hung, Min-Ru Wu, Fu-Sheng Yang, Bo-Chen Kuo, Yuan-Ci Lin, Surajit Das and Liang-Chia Chen

GS17-05 Basic study of plasma dicing for SiC wafer using high-pressure plasma  
Shunto Iden, Yuken Matsumura, Jumpei Yamada, Daisetsu Toh, Kazuto Yamauchi and Yasuhisa Sano

GS17-06 Dimension reduction of electromagnetic field on the top surface of 3D through silicon via array by using singular value decomposition  
Song-En Chen, Chih-Chung Wang and Jia-Han Li

GS12-09 A High-precision Displacement Measurement Method based on Ultrasonic Travelling Waves in Crystals  
Mingshu Wu, Bai Ji, Guancong Tao, Yuge Zhang and Fu Min

## Room 10

### Session 2-10-1: OS19 Advanced 3 dimensional digital processing I

OS19-01 A Study on Triangular Mesh Generation for TLS Point Clouds Using Implicit and Region-based Methods  
Daiki Koyama, Hiroaki Date and Satoshi Kanai

OS19-04 Generation of Training Data from CAD Models Suitable for Component Recognition from Point Clouds of Industrial Plants  
Kosei Otani, Takuma Nagumo and Hiroshi Masuda

OS19-03 Comparison of point cloud densification from multi-view stereo and 3D Gaussian splatting in industrial photogrammetry  
Mingda Harvey Yang, Mohammed A Isa, Adam Thompson, David T Branson III and Samanta Piano

OS19-06 Point cloud Classification for Components of Industrial Facilities Using Laplacian Features  
Takeshi Otsuka, Kosei Otani and Hiroshi Masuda

### Session 2-10-2: OS19 Advanced 3 dimensional digital processing II

OS19-08 Scale-aware Volume Filtering by Splitting Transformed Voxel-Domains  
Shin Yoshizawa and Hideo Yokota

OS19-05 Point Cloud Segmentation of Production Lines in Factories  
Kakeru Takeda and Hiroshi Masuda

OS19-12 Bas-relief shape modeling from RGB-D images using feature lines and vector fields  
Takumi Kimura and Yukie Nagai

OS19-02 Quality Improvement of CT Reconstruction for Multi-scanning of Large Scale Objects  
Chelhum Park and Yutaka Ohtake

### Session 2-10-3: OS19 Advanced 3 dimensional digital processing III

OS19-10 3D mode shape visualization of machining robots using motion magnification  
Madhav Kumar, Hari Charan and Mohit Law

OS19-11 Real-Time Assembly Inspection of Factory Pipes Using Skeleton Structure from Point-cloud  
Yusei Sakoguchi and Yutaka Ohtake

GS01-02 Circumferential localization of wall thinning on the inner surface of a pipe using microwaves  
Yijun Guo, Noritaka Yusa, Hidetoshi Hashizume, Ziran Chen and Xiaokang Liu

GS11-28 Quantum enhanced metrology for 3D manufacturing  
Jernej Frank, Tommaso Tufarelli, Samanta Piano, Alexander Lvovsky and Gerardo Adesso

GS11-29 An enhanced data-processing algorithm for spectrally-resolved interferometry using a femtosecond laser  
Tao Liu, Amane Suzuki, Ryo Sato, Hiraku Matsukuma and Wei Gao