

## Symposium program

### 2 October (Sunday), 2016

15:00	Pre-registration (Courtyard Stockholm Kungsholmen hotel)
17:30	
18.30	Welcome reception (hosted by the Stockholm City Hall)
21:00	

### 3 October (Monday), 2016

8.00	Registration (Courtyard Stockholm Kungsholmen hotel)	
8.45	<b>Opening Ceremony</b> (Kungsholmen2 hall)	
	Chairman: Peter Krajnik	
	Opening addresses	Amir Rashid      ISAAT2016 Symposium Chairman Hideki Aoyama      ICAT Chairman Akinori Yui      JSAT Vice chair
9.00	<b>Keynote speech 1</b> <i>What is Global Industrial Development and how it is Influencing Scania´s Production?</i> Lars-Henrik Jörnving Vice President of Scania CV AB, Sweden • Head of Global Industrial Development	
9.30	<b>Keynote speech 2</b> <i>Finishing Process Design for Production of Critical Components</i> Fukuo Hashimoto President and Chief Scientist, Advanced Finishing Technology Ltd., U.S.A.	
10.00	Coffee Break/Official Photo of ISAAT2016	
10.30	<b>Keynote speech 3</b> <i>New Developments in Grinding Technology – Tools, Processes and Machines</i> Taghi Tawakoli Director of Steinbeis Transferzentrum "Advanced Engineering Technology", Germany	
11.00	<b>General Session</b> (Kungsholmen2 hall) Chairman: Hideki Aoyama	
	<i>High-performance industrial grinding: recent advances and case studies from the automotive engine production</i> P. Krajnik, R. Drazumeric, J. Badger	
11.20	<i>A new look into the loose particle impact process for ductile materials</i> J. Wang, W. Li	
11.40	<i>Cryogenic machining and cooling capabilities when applying liquefied nitrogen to the machining zone</i> F. Pusavec, J. Kopac, P. Krajnik	
12.00	Lunch	

	Kungsholmen2 hall	Courtyard 2&3 hall	Courtyard 6&7 hall	Courtyard 8&9 hall
	Abrasive Machining (1) Chairman: Fukuo Hashimoto	Finishing, Lapping, & Polishing (1) Chairman: Jun Wang	EDM, Ultrasonic Machining & Laser Machining Chairman: Bahman Azarhoushang	Advanced Cutting Technology (1) Chairman: Franci Pusavec
13.00	<i>Grinding of Cermets with Cup-Wheels</i>  J. Badger, R. Drazumeric, P. Krajnik	<i>New Evaluation Method of Polishing Pad Property for Estimating Edge Roll-Off of Silicon Wafer</i>  Y. Obayashi, U. Satake, T. Enomoto	<i>Characterisation of the Femtosecond Laser Micro-Grooving Process for Germanium Substrates</i>  L. Li, J. Wang, H. Li	<i>Cutting Performance of PCD Tools Improved by Ultraviolet-Ray Irradiation Polishing</i>  K. Goto, Y. Izumi, T. Sakamoto, A. Kubota, M. Touge
13.20	<i>Fabrication of Nanotwinned surface on a Nickel Alloy using a Developed Diamond Panel with Tips Array</i>  B. Wang, Z. Zhang, N. Duan, J. Lyu, G. Chen, Z. You, Z. Shi, S. Huang	<i>Optimization of the Removal Function of Dual-Rotation Magnetorheological Finishing</i>  Y. Zhang, Z. Feng	<i>Experimental Investigation and Optimization in Rotary Ultrasonic Drilling of C/C Composites</i>  Y. Songmei, W. Qi	<i>Simulation and Application of Deburring Servo Valve Core with the Online Method</i>  G. Liu, M. Chen, D. Dong, G. Guo, L. Jing
13.40	<i>A Mechanical Model of Diamond Wire Sawing of Steel Structures</i>  B. Denkena, T. Grove, L. Tatzig	<i>Experimental Research of Cluster Magnetorheological Finishing on Anodic Oxide Film of Aluminum</i>  R. Chen, J. Lu, Q. Yan, X. Xiao, D. Li	<i>Fundamental Investigation of Ultrasonic Assisted Pulsed Electrochemical Grinding of Ti-6Al-4V</i>  S. Li, Y. Wu, M. Nomura	<i>Machining Performance of (Ti,Si)N Coated and (Ti,Si,Al)N Coated PCBN Inserts in Hard Turning of SKD11 Die Steel</i>  M. Hu, Q. An, G. Guo, W. Ming, M. Chen, L. Jing
14.00	<i>Cylindrical Grinding by Structured Wheels</i>  A. Daneshi, B. Azarhoushang	<i>Experimental Research on the Allowance Margin of Combustor Casing Welding with Abrasive Belt Grinding</i>  G. Xiao, Y. Huang, L. Zou, G. Chen, X. Liu	<i>Machinability Improvement on High Speed Ultrasonic Turning - The Effect of Tool Oscillating Direction and Tool Chip Shape</i>  K. Hara, R. Sasaki, H. Isobe	<i>Experimental Investigation of Heat Partition Ratio for the Cutting Tool at a Cutting Speed Ranging from 38 to 6500 m/min</i>  J. Shinozuka, D. Kidoura
14.20	<i>Centrifugal Internal Grinding by Assembled Wheel with Radially Mobile Segments</i>  D. Blurtsyan	<i>Effect of Media Degradation on Finishing Characteristics in Abrasive Flow Machining</i>  T. Sato, E. Soh, Y. Nakayama, M. Shinagawa, Y. Fukuchi	<i>Pulse Laser Irradiation Control Method for Blind Via-Hole Drilling of Printed Wiring Boards Based on High-Speed Camera Process Monitoring</i>  K. Kanki, M. Iozumi, T. Hirogaki, E. Aoyama, K. Ogawa	<i>An Advanced Support Method of Aircraft Skin Mirror Milling - Fluid Lubricating Support</i>  Z. Li, Y. Bao, R. Kang, Z. Dong, P. Zhou, Z. Jin
14.40	<i>Experimental Investigation of Wear Mechanisms with Electroplated CBN Wheel</i>  B. Yastikci, H. Jamshidi, E. Budak	<i>Surface Finishing on Arc-Shaped Inner Surface by Ultraviolet Assisted Polishing</i>  H. Miwa, T. Katagi, M. Ota, K. Yamaguchi, K. Egashira, T. Nanbu	<i>Effect of Grinding Fluid Excited by Ultrasonic Vibration</i>  H. N. Trung, J. Ishimatsu, H. Isobe	<i>Study on the Difference of Machinability between Iron-Based Sintered Materials and Steel Materials</i>  T. Ueno, K. Yamada
15.00	Coffee Break			

	Abrasive Machining (2) Chairman: Jeffrey Badger	Finishing, Lapping, & Polishing (2) Chairman: Bin Shen	Surface Integrity & Materials Characterization (1) Chairman: Iwai Manabu	Advanced Cutting Technology (2) Chairman: Amir Rashid
15.20	<i>Grinding of Riblets on curved Paths</i>  B. Denkena, T. Grove, J. Harmes	<i>Mirror-Like Surface Finishing of PCD by Fixed Abrasive Polishing</i>  K. Yamaguchi, M. Ota, K. Egashira, H. Miwa, Y. Onchi, K. Tanada	<i>Relaxation of Thermal Residual Stress in Laser Irradiated Fused Silica by Annealing Process</i>  R. Li, P. Yao, W. Wang, J. Wang, C. Huang, Z. Yang, Y. Liu	<i>Proposed Stable Machining Condition Search Method Based on Machined Surface Information after End Milling</i>  K. Aotani, R. Shiota, T. Hirogaki, E. Aoyama
15.40	<i>A Novel Method for Grinding Wheel Setting Based on Acoustic Emissions</i>  X. Zhu, Z. Jiao, R. Kang, Z. Wang, H. Xu	<i>Estimation of Unsteady and Steady Polishing Force in Magnetic Abrasive Finishing Using a Permanent Magnet End-Mill Tool</i>  L. Ma, T. Furuki, W. Wu, T. Hirogaki, E. Aoyama	<i>Multi-Scale Topography Analysis of Multi-Axis Machined Surfaces Based on Dual-Tree Complex Wavelet Transform</i>  W. Qin, J. Zhao, W. Huang, D. Wang	<i>Experimental Research on Small-Diameter Deep-Hole Drilling of Austenite Stainless Steel</i>  H. Kodama, K. Okuda, T. Yamaguchi
16.00	<i>Effects of Electricity Parameters on Surface Quality of Reaction Bonded Silicon Carbide Ceramic with Electrical Discharge Diamond Grinding</i>  X. Rao, F. Zhang, C. Li	<i>Experimental Research on Dressing Parameters of the Plate in Planetary Double-Sided Grinding Process</i>  D. Song, X. Zhu, R. Kang, Z. Jin, S. Shi, B. Zhang	<i>Oxide Film Generation during Titanium Alloy Turning in Oxygen-Enriched Atmosphere</i>  Y. Wan, Z. Liu, R. Zhang, Z. Wang	<i>Identification of Aluminum Alloy Flow Stress to Determine FEM Analysis Constitutive Equation for Machining Material</i>  T. Nakamura, H. Sasahara, S. Kusunose, I. Nishizaki
16.20	<i>Approaches to Identify and to Reduce Thermal Load during Grinding</i>  S. Jermolajev, B. Kolkwitz, J. Eckebrecht, C. Heinzl, E. Brinksmeier	<i>Feasibility of Magnetocaloric Application in the Machining Processes</i>  Y. Huang, L. Yan, F. Jiang, H. Guo	<i>Nanotwinned Surface on a Ternary Titanium Alloy with Increased Hardness Induced under Nanoindentations</i>  H. Zhou, M. Li, N. Duan, B. Wang, Z. Shi, J. Lyu, G. Chen	<i>Investigation of cBN Electroplated End-Mill Shape for CFRP Machining</i>  T. Furuki, T. Hirogaki, E. Aoyama, K. Ogawa, K. Inaba, K. Fujiwara
16.40	<i>Heat flux distribution model from an inverse heat transfer analysis by using a foil/workpiece thermocouple in grinding</i>  B. Lavisse, A. Lefebvre, O. Sinot, E. Henrion, B. Weiss, A. Tidu	<i>A Newly Developed Woven Metal Wire Tool with Electrodeposited Diamond Grains and its Application in CFRP Core Drilling</i>  R. Koyasu, K. Suzuki, Y. Ito, Y. Fukuhara, Y. Takeda, M. Matsubara, H. Sasahara, Y. Yao, K. Nomura	<i>Analysis of Element Diffusion between Alloy Cast Iron and WC/Co Cemented Carbides</i>  T. Liu, S. Zhang and J. F. Li	<i>Study on High Speed Milling of Steam Turbine Blade Materials - Differences in cutting characteristics of titanium alloy and stainless steel-</i>  T. Kimura, T. Kamijo, T. Sawa
17.00				

**4 October (Tuesday), 2016**

	Machine Tools and Systems, Tooling Processing Chairman: Xun Chen	Finishing, Lapping, & Polishing (3) Chairman: Xipeng Xu	Surface Integrity & Materials Characterization (2) Chairman: Peng Yao	Brittle Material Machining Chairman: Takazo Yamada
9.00	<i>Design of Ultraprecision Grinding Machine - Introduction of Force-Operated Linear Actuator</i>  M. Miyashita, F. Hashimoto	<i>A Novel TEM Sample Preparation by Using Micro Magnetorheological Finishing</i>  H. Luo, S. Yin, F. Chen	<i>Experimental Study on the Surface Quality of Silicon Nitride Grinding</i>  W. Liu, Z. Deng, Y. Shang, L. Wan	<i>Experimental Research on High Speed Grinding of Silicon Nitride Ceramic Spindle</i>  K. Zhang, J. Sun, H. Wang, Y. Wu

9.20	<i>Spin Turning of Hardened Steel Using a Rod Tool Made of Cemented Carbide and On-Machine Forming of Rod Tool</i>  F. Koga, S. Ninomiya, K. Suzuki	<i>Effect of axial vibration on peripheral finishing of CFRP using woven metal wire tool with electrodeposited diamond grains</i>  K. Nomura, N. Takeuchi, Y. Ito, Y. Takeda, H. Sasahara	<i>Effect of shot peening conditions on the transfer of carbon-black from the hybridized shot particles</i>  Y. Kameyama, K. Fujioka, T. Mawatari, H. Sato, R. Shimpo	<i>Basic Study on Ductile-Mode Grinding of Optical Glass Lenses with Rubber Bonded Diamond Wheels</i>  Y. Kawana, R. Sekiguchi, Y. Mizumoto, Y. Kakinuma, K. Tanaka, M. Fukuta
9.40	<i>Basic System for Process Planning and NC Program Generation to Use Turning-Milling Machine Tool with Multi-Turrets</i>  R. Kiyooka, K. Dwijayanti, H. Aoyama	<i>Stochastic Simulation of Tape Grinding for Wafer-Like Workpiece</i>  K. Shimada, A. Watanabe, Y. Takasu, M. Mizutani, T. Kuriyagawa	<i>An Investigation on the Residual Stresses Distribution in Brazed Polycrystalline CBN Abrasive Grains</i>  Y. Zhu, W. Ding, H. Xin, J. Xu	<i>Ultrasonic-Vibration-Assisted Micromachining of Sapphire</i>  H. Wakabayashi, R. Koike, Y. Kakinuma, T. Aoyama, H. Shimada, S. Hamada
10.00	Coffee Break			
10.20	<b>Grinding Wheel &amp; Abrasive Grain Technologies (1)</b> Chairman: Nobuhito Yoshihara	<b>Micro/Nano-Machining &amp; Abrasive Jet Machining</b> Chairman: Zhongde Shi	<b>Mixed Session (1)</b> Chairman: Sun Fanghong	<b>CMP and Semiconductor Wafer Processing</b> Chairman: Katsutoshi Tanaka
10.40	<i>Theoretical analysis on effects of grain size variation</i>  L. Zhou, Y. Ebina, K. Wu, J. Shimizu, T. Onuki, H. Ojima	<i>Drilling of Rod End Faces Using Micro-Cutting Tools</i>  K. Egashira, K. Kuriyama, K. Yamaguchi, M. Ota	<i>Laser-Profiling of Metal-Bonded Diamond Grinding Wheels</i>  A. Zahedi, B. Azarhoushang	<i>Processing Single Crystal SiC with Semi-Consolidated Polishing Film</i>  J. Lu, G. Hu, H. Guo, X. Xu
10.40	<i>Wear of Monolayer Brazed Diamond Beads in Wire Sawing of Granite</i>  H. Guoqin, H. Hui, G. Hua, X. Xipeng	<i>Research on Fracture Mechanism of ZTA Ceramics by Ultrasonic Induction Based on Nonlocal Theory</i>  Z. Bo, T. Jinglin, G. Guofu	<i>Quantitative Analysis of the Micro Friction of Single Crystal Silicon</i>  R. Tian, H. Zhu, C. Huang, J. Wang, A. Liu, M. Ge, P. Yao, H. Liu, B. Zou	<i>Effects of Relative Velocity on Grinding Performances under Si Wafer Rotary Grinding</i>  J. Kusuyama, T. Kitajima, A. Yui
11.00	<i>Research Status of the Pendulum High-Speed Single Grain Test</i>  Y. Shi, F. Jiang, L. Yan	<i>Modeling of Kerf Profile Generated in Multi-Layered Laminate Composites with Abrasive Waterjet</i>  N.P. Singh, D.S. Srinivasu, N. Ramesh Babu	<i>Study on Tribological Property of Nano-TiO<sub>2</sub> Additive Oil-in-Water Lubricant during Hot Rolling</i>  W. Xia, J. Zhao, H. Wu, S. Jiao, Z. Jiang	<i>The Influence of Wetting Characteristics of Slurries for the Abrasive Sawing of Silicon Wafers</i>  C. Look, M. Schumann, M. Fuchs, T. Kaden, H.J. Möller
11.20	<i>Calculation of Static Contact Stiffness of Grinding Wheel by Means of Support Stiffness of Single Abrasive Grain</i>  T. Yamada, H. Lee, K. Miura	<i>An Experimental Study of the Radial-Mode Abrasive Waterjet Turning of Alumina Ceramics</i>  S.A. Adam, J. Wang, H. Li	<i>Monitoring Method of Process Temperature and Vibration of Rotating Machining Tool with a Wireless Communication Holder System</i>  R. Matsuda, M. Shindou, T. Furuki, T. Hirogaki, E. Aoyama	<i>Environment-Friendly Chemical Mechanical Polishing Slurry for SiC Wafer</i>  Z. Yuan, Y. He, Q. Wen, H. Du
11.40	<i>A Methodology for the Evaluation of CBN Abrasive Grits</i>  N. Macerol, L. Franca, W. Leahy, P. White, P. Krajnik	<i>An Analytical Model for Fluid Jet Polishing Process of Brittle Surfaces</i>  V. Nath, N. Arunachalam, D.S. Srinivasu	<i>High Speed Measuring of a Grinding Tool Surface Topography by a Voronoi Diagram</i>  A. Sakaguchi, T. Kawashita, T. Kawaguchi, S. Matsui, J. Maeda, S. Matsuo	<i>Chemical Mechanical Polishing on Extremely Low Expansion Glass Ceramic Wafers</i>  Z. Shi, Z. Zhang, S. Huang, B. Yuan, X. Guo, P. Zhou, Z. Jin

12.00	Lunch			
13.00	<b>Poster session</b>			
14.40	Coffee Break			
	<b>Kungsholmen2 hall</b>	<b>Courtyard 2&amp;3 hall</b>	<b>Courtyard 6&amp;7 hall</b>	<b>Courtyard 8&amp;9</b>
15.00	Abrasive Machining (3) Chairman: Sivasrinivasu Devadula	Advanced Cutting Technology (3) Chairman: Libo Zhou	Grinding Wheel & Abrasive Grain Technologies (3) Chairman: Akinori Yui	Mixed Session (2) Chairman: Kai Egashira
15.00	<i>Adaptive Grinding Strategy Development</i>  X. Chen	<i>Development of the Axial Splitting Process for Small Diameter Brass Tubes</i>  E. Nakanishi, K. Sugiura, M. Tezuka, Y. Koda, I. Yoshino, S. Hachikawa	<i>Effect of Li<sub>2</sub>O, K<sub>2</sub>O and ZnO on Vitrified Bond Composites for CBN Grinding Wheels</i>  Z. Wang, T. Yu, J.Zhao, X. Wang, X. Sun, S. Liu	<i>Experimental Research on Sawn Sapphire Surface of Multi-Wire Rocking Sawing with Reciprocating Motion of Diamond Wire</i>  S. Zheng, H. Huang, X. Xu
15.20	<i>An Experimental Study on Grinding of Carbide Coatings Using Electroplated Diamond Wheels</i>  Z. Shi, A. Elfizy, G.Ouellet, H. Attia	<i>Study on Drilling Quality of Drilling Carbon Fiber Reinforced Plastic with Double Point Angle Drill</i>  L. Pengnan, T. Lingyan, L. Yang, Q. Xinyi, N. Qinlin, M. Jiying	<i>Grinding Efficiency of Solgel Alumina based Grinding Wheels Sintered at Two Different temperatures</i>  D. Selvakumaran, L. Vijayaraghavan, N. Arunachalam, A. Xavier Kennedy	<i>Stability of the Work Material Adhering to the Cutting Edge in Interrupted Turning of an Austenitic Stainless Steel</i>  K. Sekiya, S. Watanabe, K. Yamada
15.40	<i>Study on the Processing of Ceramic Bearing Outer Rings</i>  S. Li, W. Mi, K. Zhang, Y. Wu	<i>Tapping Performance by Use of Strong Alkali Ion Water</i>  M. Iwai, M. Yamada, K. Suzuki	<i>Performance Evaluation of Plate Dressing for Monolayer Brazed Diamond Wheels</i>  H. Su, J. Dai, K.. Zhang	<i>Study on Influential Factors of Ground Surface Residual Stress for Controlling Workpiece Surface Integrity</i>  X. Zhang, S. Xiu, L. Liu, X. Shi
16.00	<i>A Closed-Circuit Hydrostatic Mechanism —Basic Study and Suggestion for Application —</i>  A. Tada, T. Arai , M. Sagara, T. Miyamoto	<i>Effects of Cutting Atmosphere on High Speed End Milling Process of Titanium Alloy Ti6Al4V</i>  E. Kondo, D. Goto, Y. Nishimura, M. Nakao	<i>Control of Setting Abrasive Grains on Single-layered Metal Bond Diamond Forming Wheel Using Electrostatic Field</i>  S. Watanabe, K. Ohashi , Y.Kakuda, S. Tsukamoto	<i>Evaluation Parameters of Mirror Surface on Graphite</i>  Y. Kondou, Y. Ihara
16.20	<i>Development of a PCD Burnishing Tool and its Burnishing Performance</i>  M. Iwai, M. Yamada, P. Chen, B. Lin, K. Suzuki	<i>Study on the influence of normal load on the tribological behavior of graphene/diamond bilayered coating</i>  S. Chen, B. Shen, F. Sun	<i>Characterization of Single-Layer CBN Wheel Wear During Grinding C1023 NGV</i>  G. Vidal, N. Ortega, H. Bravo, M. Dubar	<i>Quadrant Protrusion Measurement of Ultra-precision Machine Tool by Real-time Position Capturing Method</i>  H. Duan, T. Hosobata, M. Takeda, S. Morita, Y. Yamagata
16.40	<i>An experiment of the Dielectrophoresis (DEP) Effect of Abrasive</i>  T. Zhao, Q. Deng , J. Yuan, B. Lyu, T. Sun	<i>An investigation on Abrasive Waterjet Machining of high a precision gear</i>  J. Muciño, B. Gotia, A. Rashid		<i>Improvement in the Shape Error of the Long Workpiece in Cylindrical Traverse Grinding</i>  T. Takashima, T. Onishi, M. Sakakura, K. Ohashi, S. Tsukamoto
17.00				

18.00  
22.00

Tour of the Vasa Museum and symposium dinner  
(venue: The Vasa Museum, <http://www.vasamuseet.se/en>)

8.30  
13.30

**5 October (Wednesday), 2016**

Scania technical visit (group 1, 2)

10.45  
15.00

Scania technical visit (group 3, 4)

## Poster Presentations

Time: 13.00-15.00, 4<sup>th</sup> (Tuesday) October, 2016

Place:

- P01 *Development and Application of a Reciprocating Feed System with Oval Cam drive*  
Shun-Tong Chen, Yung-Hung Tung
- P02 *Critical Cutting Depth of LN Crystal and Its Effect on Lapping*  
Zhu Yong-wei, Zhu Nan-nan, Li Jun, Zheng Fang-zhi
- P03 *Effect of Grinding Speed on Grinding Forces and Surface Characteristics During Grinding 9Cr18 Stainless Steel*  
Shaowu Gao, Jihua Xu, Changyong Yang, Yucan Fu, Wenfeng Ding
- P04 *An Improved Water Film Bonding Technique - Quicker Thinning and Higher Thickness Uniformity of Water Films –*  
Kenichiro Yoshitomi, Atsunobu Une, Masaaki Mochida, Tsubasa Bando, Eiichi Yamamoto
- P05 *Experimental Study on Surface Roughness in Micro Milling of Single Crystal Aluminum*  
Gao Qi, Gong Yadong, Zhou Yunguang, Wang Fei, Zhu Zongxiao
- P06 *Experiments on the Effects of Acoustic Properties in Acoustic Assisted Shear Thickening Polishing*  
Weitao Dai, Binghai Lyu, Haizhou Weng, Chenchen Dong, Qianfa Deng, Julong Yuan, Kan Yan
- P07 *Optimization Experiment for Precision Balls with Variable-radius Groove*  
Bin Zheng, Julong Yuan, Ping Zhao, Binghai Lyu, Jianbin Chen`
- P08 *Development of a Freezing Pin Chuck System to Prevent a Thin Substrate from Deformation*  
K. Yoshitomi, K. Tada, A. Une, M. Mochida
- P09 *Numerical Simulation and Analysis of Ground Surface during High Efficiency Deep Grinding*  
Sohail Anwar Qaisrani, Yucan Fu, Chenwei Dai
- P10 *Numerical Investigation on the spiral Rotating Abrasive Flow in Polishing of the Internal Surface of 6061 Aluminium Alloy Cylinder*  
Qiaoling Yuan, Huan Qi, Donghui Wen, Zhenzhen Chen, Yangyu Wang
- P11 *Nano-micro Scratch Machining by Atomic Force Microscope (AFM) to Investigate the Fundamental Characteristics of the Polishing*  
Shinsuke Matsui, Mao Shiseki
- P12 *Experimental Study on Nickel-based Single Crystal Superalloy in Micro grinding*  
Zhou Yunguang, Gong Yadong, Cai Ming, Wen Xuelong, Zhu Zongxiao
- P13 *Study on Effect of Cutting Depths in Machining Single-Crystal Nickel via MD Simulation*  
Zhu ZongXiao, Gong YaDong, Zhang YanXiang, Zhou YunGuang, Yin GuoQiang
- P14 *Performance Enhancement and Optimization of the Centerless Through-Feed Grinding by Use of Simulation in Series Production*  
Mohsen Hassanzadeh Otaghvar, Klaus Kimmig, Harald Werner, Dirk Bähre
- P15 *Influence of Wheel Position Parameters on Flute Profile of Micro-drill*  
Zhang Suyan, Liang Zhiqiang, Wnag Xibin, Zhou Tianfeng, Jiao Li and Yan Pei
- P16 *Estimation of Machining Error Caused by Deflection of Tool using Cutting Force in Ball End Milling of Inclined Surface*  
Kenji Shimana, Eiji Kondo, Shinichi Yosimitsu, Yuya Kobaru, Shunichi Yamashita
- P17 *Surface Roughness and Topography Analysis in Precision Milling of 3J33 Maraging Steel*  
Yang Yao, Hongtao Zhu, Chuanzhen Huang, Diancong Zhang, Jun Wang, Pu Zhang, Peng Yao
- P18 *Deformation Twinning of Molecular Dynamics Simulation in a Ternary Titanium Alloy under Nanoindentation*  
Siling Huang, Zhenyu Zhang, Junfeng Cui, Song Yang, Xiaoguang Guo
- P19 *Simulation Research for the Effect of KDP Crystal Defect and Initial Internal Stress on Sawing Stress*  
Peiqi Ge, Wenbo Bi, Mengran Ge, Yang Jiao,, Changhou Lu
- P20 *Mechanical property and characterization on diamond films deposited on WC-Co substrates*  
Hongxi Zhou, Minglei Li, Boya Yuan,
- P21 *Development of a new truing device based on electro-contact discharge machining for metal bond grinding wheels*  
Masahiro Mizuno, Akira Karibe, Nobuhito Yoshihara, Naohiro Nishikawa, Toshirou Iyama
- P22 *Development of Automatic Servo Tuning Function in Rotary Axis with DDM for Machine Tools and its Performance for Stable Machining*  
Takakazu Ikegami, Toshiki Hirogaki, Eiichi Aoyama
- P23 *Grinding characteristics of Waspaloy with High-speed reciprocation grinding*

Nobuhito Yoshihara, Yuta Fukuda, Masatsugu Houman, Naohiro Nishikawa, Masahiso Mizuno

- P24 *Study on ultraprecision polishing of sapphire - Effects of crystal orientation on polishing characteristics –*  
Mutsumi Okada, Hirofumi Suzuki, Toshikazu Suzuki, Yasuo Higashi, Shinobu Aoyagi
- P25 *Experiment on Chemical Magnetorheological Finishing of SiC Single Crystal Wafer*  
Huazhuo Liang , Qiusheng Yan, Jiabin Lu, Weiqiang Gao
- P26 *Effect of Cutting Speed on Face Milling of CFRP using PCD Tool*  
Takayuki Kitajima, Takumi Horiuchi, Akinori Yui, Yosuke Ito
- P27 *Study on high speed milling of steam turbine blade materials - Difference in cutting characteristics  
by alloying elements of stainless steel -*  
Tomonori Kimura, Takekazu Sawa, Tatsuyuki Kamijyo
- P28 *Development of a novel shell shaping method with CFRTP: Forming experiment using Localized heating in processing  
point*  
Tatsuki Ikari, Hidetake Tanaka, Naoki Asakawa
- P29 *Nanopatterning on nano-polycrystalline diamond and cubic boron nitride using focused ion beam and heat treatment to  
fabricate textured cutting tools*  
Noritaka Kawasegi, Kazuma Ozaki, Noboru Morita, Kazuhito Nishimura, Makoto Yamaguchi, Noboru Takano
- P30 *Preparation and research on microwave plasma chemical vapor deposition diamond films on sic substrate*  
Wang He, Wu Yuhou, Zhang Ke
- P31 *Critical feed/tooth value providing finest machined roughness by peripheral cutting with micro endmills*  
Yasunori Kobayashi, Haruhisa Sakamoto, Akihito Ishii, Masayori Itoh
- P32 *Characteristic of tool wear in small end milling of Nickel-titanium alloy*  
Kazuya Hamaguchi, Hiroyuki Kodama, Koichi Okuda
- P33 *Preparation and Test of Conventional Composite Abrasives Using Recycled Alumina Grains*  
Alexandre Dutra Golanda, Sandro Galisteu Luiz, Katia C. Gandolpho Candioto, Carlos Yujiro Shigue
- P34 *Ultrasonic 3D Shape Milling for Acrylic Resin Optical Products*  
Shuntaro Inoue, Keisuke Hara
- P35 *Analysis of the temperature field of the Diamond Wheel Dressed using Laser Assisted Ultrasonic-Vibration Combined  
DressingMethod*  
Zhibo Yang, Zhen Zhang, Ruiyun Yang, Aiju Liu