

## Room 4

### Session 3-4-1: OS05 Advanced cutting technologies I

OS05-10 Influence of cutting speed on wear pattern of diamond-coated carbide end mills in high-speed milling of WC-Co cemented carbide, Kazuki Murooka, T. Akechi, T. Koyano, A. Hosokawa, T. Furumoto and H. Mikado

OS05-12 3D microstructure imaging of dual-phase steels with different carbon contents and thermal histories using a 3D internal structure microscope, Yuuki Aida, N. Yamashita, S. Morita, T. Shiraiwa, M. Enoki, N. Kiyokane, K. Yamazaki, S. Kaneko and H. Yokota

OS05-13 An Experimental Study on the Machining Performance of Cubic Boron Nitride Tools in Ultra-Precision Machining of Ti-6Al-4V with Magnetic Field Assistance, Louis Luo Fan, Ho Wan Leung, Wai Sze Yip and Suet To

OS05-14 Optimization of end milling conditions in multi dimensional action space using deep reinforcement learning, Yusuke Morishita, H. Ojima, L. Zhou, K. Kaneko and T. Onuki

OS05-15 Mechanical modelling of cutting force in thin sectioning of pathology specimens, Takehiro Sasaki, H. Satoh, M. Yoshino, H. Nanjo, R. Nakamura, T. Kuzumi and Y. Akagami

### Session 3-4-2: OS05 Advanced cutting technologies II

OS05-16 Evaluation of PCD tool edge sharpening technique by tribochemical polishing Mitsuru Murai, K. Kawamura, M. Touge and A. Kubota

OS05-17 Real-time tool life monitoring using thermal imaging technology and image classification technology  
Xiaoqi Song, Shoto Yano and Kenji Suzuki

OS05-18 Chatter Vibration Detection in Turn Milling Through Analysis of Sound and Acceleration Signals  
Ahmed MA Abdalla, Masahiko Sato and Akihiro Kubotsu

OS05-19 Visualization of Contact Phenomena on Surface Textures Generated by Ultrasonic Vibration Cutting Based on Photoelastic Method, Kota Takashima, N. Tsuji, H. Taura, K. Yanagisawa, A. Sakurada, D. Kono, K. Hara, H. Kawamura and H. Isobe

OS05-20 Development of Simulation Technique for Milling Process Superimposing Oscillation on the Feed Motion  
Yutaro Kawana, Kazuki Takahei, Burak Sencer and Norikazu Suzuki

### Session 3-4-3: OS05 Advanced cutting technologies III

OS05-21 Brittle Fracture in Subsurface of Cemented Carbide Finished in Milling Iman Farhana Binti Juanih, Shoichi Tamura and Takashi Matsumura

OS05-22 Cutting Process of Cemented Carbide in Peripheral Milling  
Kazuya Hatakeyama, Shoichi Tamura and Takashi Matsumura

OS05-23 Analysis of Cutting Process in Tapping  
Shun Nakahara, Shoichi Tamura, Takashi Matsumura, Ryosuke Sasaki, Ayaka Hirukawa and Maho Kumanotani

OS05-24 Analysis of Machining Process with Feed Rate Control in Drilling  
Tomoaki Sakamoto, S. Tamura, T. Matsumura, K. Kono and R. Sakamoto

OS05-26 High-speed X-ray imaging of grooving of steel workpieces using carbide end mills, S. Egawa, H. Motoyama, G. Yamaguchi, J. Guo, H. Yumoto, T. Koyama, H. Takano, Y. Hayashi, H. Ohashi, M. Yabashi and H. Mimura

### Session 3-4-4: OS05 Advanced cutting technologies IV

OS05-27 Hybrid cutting-forming tool for generating strengthened features  
Pratap Ashwani and Beaucamp Anthony

OS05-28 Cutting force in countersinking of rolled Titanium alloy  
Tomohiro Kikuchi, Shoichi Tamura, Katsufumi Inazawa and Takashi Matsumura

OS05-29 Effect of Minimum Quantity Lubrication on Cutting Force in Shoulder Milling of Titanium Alloy  
Hiroyasu Kondo, Shoichi Tamura and Takashi Matsumura

OS05-30 Real-Time Material Removal Rate Expert System Based on Support Vector Regression  
Yi-De Jang, Ke-Er Tang and Chun-Wei Liu

OS05-33 Effect of disturbance and tool condition on cutting temperature measurement by utilizing tool-work thermocouple method  
Takumi Minowa, Masatoshi Usui and Hiroyuki Sasahara