

### 3<sup>rd</sup> CIRP International Conference on High Performance Cutting - Provisional Programme (28-05-2008)

	<b>WEDNESDAY June 11th</b>			
<b>16:00-19:00</b>	<b>Registration desk open in W.J. Clinton Auditorium, set-up of posters</b>			
	<b>THURSDAY June 12th</b>			
<b>7:30-</b>	<b>Registration desk open in W.J. Clinton Auditorium</b>			
8:30-8:35	Opening by Professor Gerry Byrne / Dr. Garret O'Donnell			
8:35-8:45	Welcome by Dr. Hugh Brady – President of University College Dublin			
8:45-9:05	Opening presentation from Mr. Feargal O Móráin, Director Innovation & Commercialisation - Enterprise Ireland			
9:05-9:30	Increased surface functionality through micro machining - Breaking through excellence in technologies for production - Professor Fritz Klocke - CIRP President			
9:30-09:50	Perspectives from the Aerospace Industry – Mr. Peter Hill, Rolls Royce			
09:50-10:10	High Performance Cutting in the Automotive Industry – Dr. Rolf Zeller, Robert Bosch GmbH			
<b>10:10-10:50</b>	<b>Coffee in Industrial Exhibit area and Poster Presentations</b>			
10:50-11.10	Mechatronic Issues in Machine Tools for High Performance Cutting - Professor Hendrik Van Brussel - EUSPEN President			
11:10-11:30	Development of High-Speed, High-Precision 5-Axis Integrated Machine Tools -Dr. Masahiko Mori, Mori Seiki			
11:30-11:50	Advanced Materials enabling high performance cutting – Mr. Mike Fish, Element Six			
11:50-12:10	Micro Machining using High Speed Air Bearing Spindles – Mr. Chris Gerrard, Westwind Air Bearings			
12:10-12:40	Plenary Panel Discussion chaired by Professor Gerry Byrne			
<b>12:40-14:00</b>	<b>Lunch in W.J. Clinton Auditorium</b> <b>Coffee in Industrial Exhibit area and Poster Presentations [13.20-14.00]</b>			
14:00-15:20	<b>Cutting Technology CT1</b> Chair: Prof. F. Klocke Room 326 Engineering Bld.	<b>Microcutting Technology MC1</b> Chair: Prof. D. Dornfeld W.J. Clinton Auditorium	<b>Condition Monitoring CM1</b> Chair: Prof. Y. Altintas Room 121 Engineering Bld.	
	<b>Session Keynote: Burr Formation</b> HPC-P-114 Prof. J. Aurich	<b>Session Keynote: Micromilling</b> Machine Tool Design-Kern, HPC-P-125, J. Wittgrebe	HPC-P-018	
	HPC-P- 060	HPC-P-005	HPC-P-113	
	HPC-P-052	HPC-P-063	HPC-P-104	
	HPC-P-071	HPC-P-003	HPC-P-118	
<b>15:20-15:50</b>	<b>Coffee in Industrial Exhibit area and Poster Presentations</b>			
15:50-17:10	<b>Cutting Technology CT2</b> Chair: Dr. J. Barry Room 326 Engineering Bld.	<b>Microcutting Technology MC2</b> Chair: Prof. E. Brinksmeier W.J. Clinton Auditorium	<b>Non Conventional Cutting</b> <b>Processes NCCP</b> Chair: Prof. D. Allen Room 121 Engineering Bld.	<b>Condition Monitoring CM2</b> Chair: Prof. K. Jemielniak Room 216 Engineering Bld.
	HPC-P-020	HPC-P-092	<b>Session Keynote: High Performance</b> <b>Laser cutting- HPC-P-126</b> Dr. A.Gillner	<b>Session Keynote: Process</b> <b>Monitoring-Artis GmbH-</b> <b>HPC-P-127, Dr. Lange</b>
	HPC-P-029	HPC-P-065	HPC-P-011	HPC-P-124
	HPC-P-035	HPC-P-116	HPC-P-081	HPC-P-111
	HPC-P-015	HPC-P-069	HPC-P-061	HPC-P-049
<b>19:00-23:00</b>	<p>Bus transfers from UCD to Stillorgan Park and Radison Hotel at 17.20</p> <p><b>Conference Banquet Dinner in Trinity College Dublin in Dublin City Centre</b></p> <p><b>Pre dinner drinks reception in Trinity College Dublin Dining Hall starting at 19.15</b></p> <p>Busses departing from UCD Engineering building from 19.00, busses collecting from Radison, and Stillorgan Park hotel from 19.00 All busses departing Trinity College Dublin and returning to UCD campus accomodation, Radisson and Stillorgan Park hotel at 23:00</p>			

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<b>FRIDAY June 13<sup>th</sup></b>				
<b>07:45-</b>	<b>Registration desk open in W.J. Clinton Auditorium</b>			
8:30-10:10	<b>Cutting Technology CT3</b> Chair: Prof. B. Denkena Room 326 Engineering Bld.	<b>Eco Energy Efficient Cutting Processes EEC1</b> Chair: Prof. D. Biermann W.J. Clinton Auditorium	<b>CAD/CAM 1</b> Chair: Prof. M. Zaeh Room 121 Engineering Bld.	<b>Machine Dynamics MD1</b> Chair: Prof. C. Brecher Room 216 Engineering Bld.
	<b>Session Keynote: Cutting edge sharpness HPC-P-033,</b> Prof. T. Childs	<b>Session Keynote: Energy Efficiency in HPC-P-128</b> Prof. G. Byrne	<b>Session Keynote: Integrated CAD/CAM Chains, HPC-P-031</b> Prof. M. Zaeh	<b>Session Keynote: Adaptive Control of Direct Drives HPC-P-086,</b> Prof. Y. Altintas
	HPC-P-036	HPC-P-016	HPC-P-050	HPC-P-066
	HPC-P-012	HPC-P-047	HPC-P-085	HPC-P-040
	HPC-P-094	HPC-P-034	HPC-P-041	HPC-P-073
	HPC-P-103	HPC-P-090	HPC-P-025	HPC-P-102
<b>10:10-10:40</b>	<b>Coffee in Industrial Exhibit area and Poster Presentations</b>			
10:40-12:20	<b>Cutting Technology CT4</b> Chair: Prof. B. Karpuschewski Room 326 Engineering Bld.	<b>Microcutting Technology MC3</b> Chair: Prof. J. Aurich W.J. Clinton Auditorium	<b>Grinding and Polishing GP1</b> Chair: Prof. A. Torrance Room 121 Engineering Bld.	<b>Modelling and Simulation MS1</b> Chair: Prof. P.J. Arrazola Room 216 Engineering Bld.
	HPC-P-006	HPC-P-068	<b>Session Keynote: Developments in CMP, HPC-P-129, Prof. D. Dornfeld</b> HPC-P-097	<b>Session Keynote: Finite Element Modelling-Deform HPC-P-108, Dr. C. Fisher</b>
	HPC-P-072	HPC-P-056	HPC-P-112	HPC-P-023
	HPC-P-091	HPC-P-009	HPC-P-062	HPC-P-067
	HPC-P-017	HPC-P-039	HPC-P-007	HPC-P-058
	HPC-P-030	HPC-P-001	HPC-P-044	HPC-P-117
<b>12:20-14:00</b>	<b>Lunch in W.J. Clinton Auditorium</b> <b>Coffee in Industrial Exhibit area and Poster Presentations</b>			
14:00-15:40	<b>Cutting Technology CT5</b> Chair: Dr. R. M'Saoubi Room 326 Engineering Bld.	<b>Microcutting Technology MC4</b> Chair: Dr. E. Ahearne W.J. Clinton Auditorium	<b>Grinding and Polishing GP2</b> Chair: Dr. B. Mullany Room 121 Engineering Bld.	
	HPC-P-013	HPC-P-101	HPC-P-021	
	HPC-P-014	HPC-P-045	HPC-P-123	
	HPC-P-106	HPC-P-008	HPC-P-110	
	HPC-P-059	HPC-P-057	HPC-P-122	
	HPC-P-084	HPC-P-119	HPC-P-070	
<b>15:40-15:50</b>	<b>Coffee – Relocate to Room 326 Engineering Bld. for closing plenary discussion</b>			
<b>15:50-16:20</b>	<b>Plenary closing discussion</b>			

**Paper session Thursday 12<sup>th</sup> June**

***Cutting Technology CT1 [Room 326, Engineering Building]***

***Chair: Professor F. Klocke***

- HPC-P-114      **Session keynote:** Approaches on burr control when drilling  
14.00-14.20      J.C. Aurich, L. Leitz, V. Franke, T. Hielscher
- HPC-P-060      Tool life and surface integrity in hard milling of hot work tool steels  
14.20-14.40      R. M'Saoubi, H. Chandrasekaran, B. Coulon, M.J. Marques, J.C. Outeiro
- HPC-P-052      Tool performance evaluation on the hard turning of 35NCD16 steel  
14.40-15.00      O. Gonzalo, H. Jauregui, I. Bengoetxea, C. Sanz, O. Bolibar
- HPC-P-071      Investigation of Friction Behaviour in Metal Cutting Operations  
15.00-15.20      E. Ozlu, E. Budak

***Microcutting Technology MC1 [W.J. Clinton Auditorium]***

***Chair: Professor D. Dornfeld***

- HPC-P-125      **Session keynote:** Kern Microtechnic- How to achieve Nano Precision  
14.00-14.20      on the workpiece  
                         J. Wittgrebe
- HPC-P-005      Crystallographic Orientation Effect on Burr Formation in Micromilling  
14.20-14.40      of OFHC Copper  
                         D.-E. Lee, S. Min, H. Sangermann, D.A. Dornfeld
- HPC-P-063      Manufacturing of Micro Molds for Replication Processes  
14.40-15.00      E. Brinksmeier, O. Riemer, S. Twardy
- HPC-P-003      Experimental validation of micro endmill design for hard milling  
15.00-15.20      application  
                         P. Li, A.M. Hoogstrate, J.A.J. Oosterling, H.H. Langen

3<sup>rd</sup> CIRP International Conference on High Performance Cutting  
Dublin, June 12<sup>th</sup> & 13<sup>th</sup> 2008

***Condition Monitoring CM1 [Room 121, Engineering Building]***

***Chair: Professor Y. Altintas***

- HPC-P-018      Application of AE and cutting force signals in tool condition monitoring  
14.00-14.20      in micro-milling  
                         K. Jemielniak, P.J. Arrazola
- HPC-P-113      New Generation 4 Component High-Speed Cutting Force Dynamometer  
14.20-14.40      for High Performance Machining Operations  
                         A. Kirchheim, J. Stirnimann, R. Thiel, D. Veselovac, Th. Auerbach
- HPC-P-104      Field Programmable Gate Array (FPGA) technology advancement bring  
14.40-15.00      new capabilities for machine condition monitoring and protection to  
                         OEMs  
                         P. Johnson
- HPC-P-118      Geometry and Wear Measurement of Cutting Tools  
15.00-15.20      R. Danzl, F. Helml

***Cutting Technology CT2 [Room 326, Engineering Building]***

***Chair: Dr. J. Barry***

- HPC-P-020      Helical Milling of CFRP-Titanium Layer Compounds  
15.50-16.10      B. Denkena, D. Boehnke, J.H. Dege
- HPC-P-029      Influence of special milling strategies on accuracy and surface quality of  
16.10-16.30      microstructured forms and prototypes  
                         J. Schneider, U. Eckert
- HPC-P-035      An investigation about the high speed milling of the nickel base alloy  
16.30-16.50      Inconel 625 with ceramic cutting tools  
                         M.A. Rodrigues, A. Hassui
- HPC-P-015      Wear development on diamond and cemented carbide tools in  
16.50-17.10      machining of Compacted Graphite Iron  
                         M. Ibrahim Sadik

***Microcutting Technology MC2 [W.J. Clinton Auditorium]***

***Chair: Prof. E. Brinksmeier***

- HPC-P-092      New solutions for improving reliability and reducing uncertainty in  
15.50-16.10      micro-milling  
                    K. Popov, S. Dimov, D.T. Pham, A. Ivanov
- HPC-P-065      Influence of a Downscaling of the Tool Diameter on the Dynamic  
16.10-16.30      Behaviour of Micromilling Processes  
                    D. Biermann, P. Kahnis
- HPC-P-116      Tool wear modes in micro/mesoscale milling of hardened die steel  
16.30-16.50      A. Aramcharoen, P.T. Mativenga
- HPC-P-069      A new approach for using micro-end mills at high rotational speed and  
16.50-17.10      ultra low run-out  
                    J.C. Aurich, R. Haberland, G.M. Schueler, J. Engmann, K.H. Schmidt

***Non Conventional Cutting Technology NCCT [Room 121, Engineering Building]***

***Chair: Prof. D. Allen***

- HPC-P-126      **Session keynote:** High quality laser machining for tool and part  
15.50-16.10      manufacturing using innovative machining systems and laser beam  
                    sources  
                    A. Gillner, A. Dohrn, C. Hartmann
- HPC-P-011      Non Conventional Machining Processes in the Mass Production of  
16.10-16.30      Shaving Heads  
                    H.S.J. Altena
- HPC-P-081      Production of complex blade mounting slots in turbine disks using novel  
16.30-16.50      machining techniques  
                    D.T. Curtis, S.L. Soo, D.K. Aspinwall, C. Huber, J. Fuhlendorf, A.  
                    Grimm
- HPC-P-061      Investigations on reduction of tool electrode wear in Micro-EDM using  
16.50-17.10      novel electrode materials  
                    E. Uhlmann, M. Roehner

3<sup>rd</sup> CIRP International Conference on High Performance Cutting  
Dublin, June 12<sup>th</sup> & 13<sup>th</sup> 2008

***Condition Monitoring CM2 [Room 216, Engineering Building]  
Chair: Prof. K. Jemielniak***

- |                          |   |
|--------------------------|---|
| HPC-P-127<br>15.50-16.10 | Session keynote: Process and Machine Condition Monitoring, Trends and Systems<br>D. Lange           |
| HPC-P-124<br>16.10-16.30 | Sensor Monitoring Based Optimisation during Turning of Titanium Alloys<br>R.Teti, R.Neugebauer      |
| HPC-P-111<br>16.30-16.50 | Position-oriented process monitoring in freeform milling<br>F. Klocke, S. Kratz, D. Veselovac       |
| HPC-P-049<br>16.50-17.10 | Process monitoring for high performance cutting- challenges and future directions<br>G.E. O'Donnell |

**Paper session Friday 13<sup>th</sup> June**

***Cutting Technology CT3 [Room 326, Engineering Building]***

***Chair: Professor B. Denkena***

- HPC-P-033      **Session keynote:** The Influence of Cutting Edge Sharpness on Surface  
08.30-08.50      Finish in Facing with Round Nosed Cutting Tools  
T.H.C. Childs, D. Dornfeld, S. Min, K. Sekiya, R. Tezuka, Y. Yamane
- HPC-P-036      Investigation of Friction-Related Phenomena on Coated PCBN Cutting  
08.50-09.10      Tools  
J. Barry, A. O'Neill
- HPC-P-012      Characterization of AlTiSiN coated hardmetal tools used in Ti-6Al-4V  
09.10-09.30      end milling operations  
C.M. Moreno, L.C. Ardila, J.M. Sánchez, M. Arizmendi, J. Fernandez
- HPC-P-094      An Investigation of Crater Wear Progression on PCBN Tools in a  
09.30-09.50      Continuous Hard Turning Operation  
C. Lahiff, P. Phelan, S. Gordon
- HPC-P-103      Flexible tool concept based on circle shanks for high performance  
09.50-10.10      cutting  
B. Karpuschewski, T. Emmer, K. Schmidt, D.T. Nguyen

***Eco Energy Efficient CuttingEECI [W.J. Clinton Auditorium]***

***Chair: Professor D. Biermann***

- HPC-P-128      **Session keynote:** High Performance Cutting, an Environmental and  
08.30-08.50      Energy Perspective  
G. Byrne
- HPC-P-016      Enhancement of Eco-Friendly Machining Performance and Cleanliness  
08.50-09.10      of Machining Surroundings by Chip Suctioning  
F. Itoigawa, K.-I. Nakamura, T. Hasebe
- HPC-P-047      Modelling and experimental analysis of high velocity air jets used  
09.10-09.30      during metal cutting on a lathe  
A. Bareggi, G.E. O'Donnell, A. Torrance
- HPC-P-034      Influence of Oxygen Concentration on Cutting Performance in MQL  
09.30-09.50      Machining of Aluminum Alloy  
T. Wakabayashi, S. Suda, J. Shibata
- HPC-P-090      Predictive Performance Models and Optimization for Sustainable  
09.50-10.10      Machining of High Temperature Nickel Alloy  
F. Pusavec, A. Deshpande, R. Ghosh, R.M. Saoubi, J. Kopac, O.W.  
Dillion, I.S. Jawahir

***Computer Aided Design, Computer Aided Manufacture  
CAD/CAM 1 [Room 121, Engineering Building]***

***Chair: Professor M. Zaeh***

- HPC-P-031      **Session keynote:** Implementation of an Integrated CAD/CAM Chain to  
08.30-08.50      Optimise Metal Cutting Processes  
M.F. Zaeh, T. Foecherer, M. Lotz
- HPC-P-050      A test case for modelling PKMs with generic architectures in a 3D  
08.50-09.10      simulation environment  
F. Milella
- HPC-P-085      NC-simulation for the prediction of surface finish in 5-axis High Speed  
09.10-09.30      Machining  
S. Lavernhe, Y. Quinsat, C. Lartigue, R. Mayer
- HPC-P-041      NURBS Toolpath Interpolation with Continuous Feedrate Modulation  
09.30-09.50      M. Heng, K. Erkorkmaz
- HPC-P-025      Introducing minimum energy tool path in 5-axis flank milling  
09.50-10.10      P.-Y. Pechard, C. Tournier, C. Lartigue

***Machine Dynamics MD1 [Room 216, Engineering Building]***

***Chair: Professor C. Brecher***

- HPC-P-086      **Session keynote:** Effective control of direct drives using a disturbance  
08.30-08.50      adaptive discrete-timesliding mode controller  
Y. Altintas, Chinedum E. Okwdire
- HPC-P-066      Chatter Stability of 5-Axis Milling Using Multi-Frequency Solution  
08.50-09.10      E. Ozturk, E. Budak
- HPC-P-040      Robust Compensation of Elastic Deformations in Ball Screw Drives  
09.10-09.30      A. Kamalzadeh, K. Erkorkmaz
- HPC-P-073      Identification of transfer function of mechanical structure by inverse  
09.30-09.50      analysis of regenerative chatter vibration in end milling  
N. Suzuki, Y. Kurata, R. Hino, E. Shamoto
- HPC-P-102      Design of a virtual environment as a tool for diagnosis and monitoring  
09.50-10.10      D. Dumur, E. Pujadas, K. Aouchiche, A. Marty

3<sup>rd</sup> CIRP International Conference on High Performance Cutting  
Dublin, June 12<sup>th</sup> & 13<sup>th</sup> 2008

***Cutting Technology CT4 [Room 326, Engineering Building]***

***Chair: Professor B. Karpuschewski***

- HPC-P-006     Material and Tribological Behaviour of Diamond Coated Cutting Tools  
10.40-11.00     E. Uhlmann, J. Koenig
- HPC-P-072     The Performance of PCBN in Interrupted and Semi-Interrupted Hard  
11.00-11.20     Machining  
T. Halpin, J. Barry, G. Byrne
- HPC-P-091     Maximizing Tool-life in Powder Metal Valve Seat Machining through  
11.20-11.40     Performance-based Tool Geometry Optimization  
A. Deshpande, A. Venkatachalam, K. Joshi, S. Chen, B. Young, R.  
Alloo, I.S. Jawahir
- HPC-P-017     Cutting Edge Preparation to Improve Drilling Tools for HPC Processes  
11.40-12.00     D. Biermann, I. Terwey
- HPC-P-030     Dual plane balancing for diamond machining processes  
12.00-12.20     E. Brinksmeier, A. Krause

***Microcutting Technology MC3 [W.J. Clinton Auditorium]***

***Chair: Professor J. Aurich***

- HPC-P-068     Investigation into micromachining techniques applied for improvement  
10.40-11.00     of the geometry of microdrills  
L. Kudla
- HPC-P-056     A study on small hole drilling  
11.00-11.20     M. Nomura, T. Kawashima, Y. Murakami, O. Horiuchi, T. Shibata
- HPC-P-009     An Initial Study on the Diamond Planing Process to Produce Micro  
11.20-11.40     Grooves for a Microfluidic Device  
D. Zebiski, T. Jun, P. Shore, D.J. Stephenson, D.M. Allen
- HPC-P-039     Micro milling of single crystal Nickel-based superalloy René N5  
11.40-12.00     F. Klocke, F. Quito, K. Arntz, A.A. Souza, C. Ader
- HPC-P-001     Influence of process parameters on the specific reaction forces and  
12.00-12.20     surface characteristics in orthogonal micro-cutting  
M. Deuchert, M. Weber, H. Autenrieth, J. Fleischer, V. Schulz, D. Lohe

***Grinding and Polishing GP1 [Room 121]***

***Chair: Professor A. Torrance***

- HPC-P-129      **Session keynote:** Developments in Chemical Mechanical Planarisation  
10.40-11.00      (CMP)  
D. Dornfeld
- HPC-P-097      An Innovative Look at Precision Polishing Tools  
11.00-11.17      B. Mullany, E. Corcoran
- HPC-P-112      Practical Application of Aggressiveness and Chip Thickness in  
11.17-11.34      Grinding  
J.A. Badger
- HPC-P-062      Critical aspects to consider when evaluating and selecting the  
11.34-11.51      appropriate dressing parameters for creep feed grinding of Inconel 718  
K. Tuffy, S. Nailer, M. O'Sullivan
- HPC-P-007      Miniaturized Diamond Tools for the Dressing of Micro-Grinding  
11.51-12.08      Wheels  
H.-W. Hoffmeister, M. Hlavac
- HPC-P-044      Rotational Grinding Meso-Scale Engagement Mechanics  
12.08-12.25      E. Ahearne, G. Byrne

***Modelling and Simulation MS1 [Room 216 Engineering Building]***

***Chair: Professor P.-J. Arrazola***

- HPC-P-108      **Session keynote:** Finite Element Simulation of Surface Microstructure  
10.40-11.00      Effects in Metal Cutting  
C.E. Fischer, A.R. Bandar
- HPC-P-023      FEM Evaluation of Mechanistic Cutting Force Coefficients Using ALE  
11.00-11.20      Formulation  
M.B. Adetoro, P.H. Wen
- HPC-P-067      Improvement of the numerical modeling in orthogonal dry cutting of an  
11.20-11.40      AISI6L stainless steel by the introduction of a new friction model  
C. Bonnet, F. Valiorgue, J. Rech, H. Hamdi
- HPC-P-058      3D Temperature Fields in Machining  
11.40-12.00      I. Lazoglu, D. Ulutan, C. Dinc
- HPC-P-117      Study of the effects of Chip Formation Process on Chatter Vibration in  
12.00-12.20      Machining  
M. Mahnama, M.R. Movahhedy

***Cutting Technology CT5 [Room 326 Engineering Building]***

***Chair: Dr. R. M'Saoubi***

- HPC-P-013      Machinability of Titanium alloys: Ti6Al4V and Ti54M  
14.00-14.20      P.-J. Arrazola, A. Garay, M. Armendia, L.-M. Iriarte, F. Le Maitre
- HPC-P-014      Machining of functional graded workpieces  
14.20-14.40      D. Biermann, A. Zabel, S. Grumert, B. Sieben
- HPC-P-106      Characterisation of Chip Formation during Orthogonal Cutting of  
14.40-15.00      Titanium Alloy Ti-6Al-4V  
M. Cotterell, G. Byrne
- HPC-P-059      Performance Enhancement in Milling Titanium  
15.00-15.20      B. Denkena, L. de Leon, J. Kohler
- HPC-P-084      Development of HSC strategies and tool geometries for the efficient  
15.20-15.40      machining of TiAl6V4  
P. ten Haaf, K. Mielnik, B. Lauwers

***Microcutting Technology MC5 [W.J. Clinton Auditorium]***

***Chair: Dr. E. Ahearne***

- HPC-P-101      Characterization and optimization of the dynamic tool path of a highly  
14.00-14.20      dynamic micro milling machine  
C. Brecher, C. Wenzel, R. Klar
- HPC-P-045      Model-based Control of Surface Quality with regard to Micro Cutting  
14.20-14.40      Processes  
J. Fleischer, J. Kotschenreuther, M. Deuchert, G. Lanza, M. Schlipf, S.  
Smiljkovic
- HPC-P-008      A New Approach for Prediction of Micro Milling Forces  
14.40-15.00      T. Jin, D. Zdebski, D.M. Allen, D.J. Stephenson
- HPC-P-057      Development of a 5-Axis Micro-Test-Work Piece for Micro-Milling  
15.00-15.20      Machine Tools  
J. Fleischer, M. Deuchert, M. Chlipala
- HPC-P-119      Modeling Based Micro-Milling Processes Planning For Machining  
15.20-15.40      Mold Cavities  
T. Ozel, X. Liu

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***Grinding and Polishing GP2 [Room 121 Engineering Building]***  
***Chair: Dr. B. Mullany***

- HPC-P-021      Local-pressure control in belt finishing process: feasibility study and  
14.00-14.20      experimental validation  
                    E. Sura, M. El Mansori, T. Dal Negro
- HPC-P-123      Challenges in High Volume Manufacturing (HVM) Chemical  
14.20-14.40      Mechanical Polishing (CMP)  
                    S. Galligan
- HPC-P-110      Measuring the sharpness of grinding wheels by stereopsis  
14.40-15.00      D. De Pellegrin, A. Torrance
- HPC-P-122      Manufacturing of ophthalmic ceramic scalpels  
15.00-15.20      B. Linke, F. Klocke, H. Wegner, C. Zeppenfeld
- HPC-P-070      Influence of Machining Strategies and Tool Wear on the Material  
15.20-15.40      Removal Mechanisms in the Ultrasonic Assisted Grinding of Al<sub>2</sub>O<sub>3</sub>  
                    M. Vanparys, W. Liu, B. Lauwers

***Poster Presentations [Room 130 Engineering Building]***

*Thursday 10.10-10.50, 13.20-14.00, 15.20-15.50*

*Friday 10.10-10.40*

- HPC-P-109      Analysis of factors affecting the high-speed slot milling of TI 6AL-4V  
N.H. Elmagrabi, C.H. Che Haron, F.M. Shuaeib, Jaharah A. Ghani
- HPC-P-026      Innovative approach for 5-axis flank milling of non-developable ruled surfaces:  
development of half-barrel cutters  
J. Chaves-Jacob, G. Poulachon, E. Duc
- HPC-P-027      Stiffness evaluation of Parallel Kinematic Machine Tools  
T. Bonnemains, H. Chanal, C. Bouzgarrou, P. Ray
- HPC-P-028      Optimum Ball End Mill Tools for Finishing Free Form Surfaces Based on Local  
Forms of 3D Point Cloud Data  
M. Bey, M. Boutassouna
- HPC-P-037      Machining of Stainless Steels & Nickel based alloys  
M. Cullinane, M. Cotterell
- HPC-P-074      The prediction of profile deviations when VIPER grinding complex geometrical  
features by use of genetic programming  
J. Griffin, D. Axinte
- HPC-P-075      Temperature measurements, with three different techniques, during the drilling of  
Ti6Al4V with different drill geometries while using MQL  
M. Marinescu, F. Gaillard, A. Devillez, D. Dudzinski
- HPC-P-087      Precision Manufacturing of Imprint Rolls for the Roller Imprinting Process  
A. Vijayaraghavan, D. Dornfeld, C. J. Kim
- HPC-P-105      Dynamic stability of parallel kinematic machine tools  
A. Najafi, H. Zohoor, M. R. Movahhedy