

WFO-TECHNICAL FORUM and 59TH IFC Portoroz 2019

TUESDAY, 17.09.2019

- 15.30-18.30 Registration of participants at the Conference reception desk
- 18.00 Welcome party

WEDNESDAY, 18.09.2019

- 8.00-17.00 Foundry Tours
- 15.00-19.30 Registration of participants at the Conference reception desk
- 17.30 Bus transfer from Hotel Slovenija to Piran
- 18.00 Reception at the Georgios Cultural Centre garden – at the St. George's Church with a Welcome address by Mayor of Municipality of Piran, Mr. Denio Zadković

THURSDAY, 19.09. 2019

- 9.00-9.30 Opening Ceremony with Cultural Programme and Opening address by MARK FENYES, President, The World Foundry Organization and MIRJAM JAN –BLAŽIĆ, President, Slovenian Foundrymen Society

PLENARY LECTURES, Hall: Cristoforo Columbo

- 9.30-10.00 P. MURRELL, *Cast Metals Federation, West Bromwich (UK)*: **Training and Professional Development for the Future Foundry industry. How can the WFO help?**
- 10.00-10.30 C. KUHLGATZ, *Hüttenes – Albertus Chemische Werke GmbH, Düsseldorf (D)*: **How suppliers and foundries can advance technology together!**
- 10.30-11.00 M. MANAPURAM, *North Eastern Regional Institute of Science and Technology, Nirjuli (IN)*: **A Forecast of Casting Casts Casters Castfuture**
- 11.00-11.45 Break
- 11.45-12.15 N. SOBCZAK^{1,2}, J. SOBCZAK^{3,4}, L. DRENCEV⁴, R. PURGERT⁵, ¹*Institute of Precision Mechanics, Warsaw (PL)*, ²*Foundry Research Institute, Krakow (PL)*, ³*AGH University of Science and Technology, Krakow (PL)*, ⁴*Institute of Metal Science, Equipment and Technologies with Hydro aerodynamic Centre, Sofia (BG)*, ⁵*Energy industries of Ohio, Birmingham (USA)*: **High Temperature Phenomena in Metalcasting**
- 12.15-12.45 P. SCHUMACHER^{1,2}, J.H. LI¹, A. CZIEGLER², ¹*Montanuniversität Leoben, Leoben (A)*, ²*Austrian Foundry Research Institute, Leoben (A)*: **Aspects of extreme grain refinement during light metal casting**
- 12.45-13.15 A. KRIŽMAN¹, P. MRVAR², M. JAN-BLAŽIĆ³, M. DEBELAK⁴, ¹*University of Maribor, Maribor (SI)*, ²*University of Ljubljana, Ljubljana (SI)*, ³*Slovenian Foundrymen Society, Ljubljana (SI)*, ⁴*Chamber of Commerce and Industry of Slovenia, Ljubljana (SI)*: **The orientation of Slovenian foundries: technically demanding - thermal, mechanical and surface treated castings, as integral and complex parts for direct use in final products.**

13.15 -14.45 Lunch break in Hotel Riviera Restaurant

Section 1 : Cast Steel and Iron, Hall: Vasco da Gama

- 14.45-15.15 J. CAMPBELL, *University of Birmingham, Birmingham (UK)*: **Failures of Steels from Casting Defects**
- 15.15-15.45 F. IDEN¹, B. DUDZIK², I. BACANU¹, ¹Hüttenes Albertus Chemische Werke GmbH, Düsseldorf (D), ²Brembo Poland Sp.Z.o.o., Dąbrowa Górnicza (PL): **The application of the Cordis® Process on Iron Casting**
- 15.45-16.15 X. JINGPEI¹, W. AIQIN¹, W. WENYAN¹, M. DOUQIN¹, Y. BIN¹, W. ZHENGHUI², ¹Henan University of Science and Technology, Luoyang (CN), ²Luoyang Luobei Heavy Industry Machinery Co., Ltd, Luoyang (CN): **The computer simulation of solidification and modification on the inclusions in large-scale rudder hornsteel casting**
- 16.15-16.30 Break
- 16.30–17.00 J. BAST, S. POLIAKOV, *Technische Universität Bergakademie Freiberg, Freiberg (D)*: **Developing of castable steel components by castdesigner-software**
- 17.00–17.30 Y. YIN, Y. ZHANG, J. ZHOU, X. JI, X. SHEN, *Huazhong University of Science and Technology (CN)*: **A shrinkage cavity model based on multi-force fields for cast steel gravity castings**
- 17.30–18.00 J. JEZIERSKI¹, J.J. SZAJNAR¹ R. DOJKA^{1,2}, ¹Silesian University of Technology, Departement of Foundry Engineering, Gliwice (PL), ²Odlewnia RAFAMET Sp. z.o.o., Kuźnia Raciborska (PL): **Another attempt to gating system optimization for heavy castings**

Section 2 : Non ferrous alloys, Hall: Roald Amundsen

- 14.45-15.15 S. SAIKAWA, *University of Toyama, Toyama (JP)*: **Development of high strength aluminium alloy for gravity casting**
- 15.15-15.45 F. ZUPANIČ, T. BONČINA, *University of Maribor, Maribor (SI)*: **Development of heat resistant aluminium alloys**
- 15.45-16.15 Z.Z. BRODARAC, F. KOZINA, T. RUPČIČ, D. MAŠINOVIĆ, *University of Zagreb, Zagreb (CRO)*: **Influence of the AlSi12 alloy inoculation on the microstructure and mechanical properties development**
- 16.15-16.30 Break
- 16.30–17.00 B. KALKUNTE¹, L. VALENTE², C. VISCARDI², V. KOLDA³, ¹Calcom ESI SA, Saint-Sulpice (CH), ²Ecotre Valente SRL, Brescia (IT) ³Mecas ESI SRO, Plzeň (CZ): **Virtual dimensional control to predict and measure the final shape of the casting part**
- 17.00–17.30 S. MÜLLER, T. SCHUCHARDT, S. VODDE, K. DILGER, *Technische Universität Braunschweig, Braunschweig (D)*: **In depth characterization of the local mechanical properties for the die casting alloy AlSi9Mn considering solidification rates**
- 17.30–18.00 J. PRISTAVEC¹, J. MEDVED², M. VONČINA², S. FALTER-NEVES³, ¹EXOTERM IT d.o.o., Kranj (SI), ²University of Ljubljana, Ljubljana (SI), ³MAGMA GmbH, Aachen (D): **Optimisation of Boundary Conditions for Solidification Simulations of AlSi10Mg Alloy**

Section 3 : Technologies for foundry industry, Hall: Robert Scott

- 14.45-15.15 M. LEWIS, C. WILDING, *Omega Sinto Foundry Machinery Ltd, Peterborough (UK)*: **Evolution through Innovation at Fonderia FAIL**
- 15.15-15.45 F. HÖHN, *Heinrich Wagner Sinto Maschinenfabrik GmbH, Bad Laasphe (D)*: **Seitsu process for complex moulds production with core sand reduction**
- 15.45-16.15 M. GOŠNJAK, N.R. BOBEK, *Weiler Abrasives d.o.o., Maribor (SI)*: **Improved productivity of grinding in foundries with a new generation of superabrasive tools**
- 16.15-16.30 **Break**
- 16.30-17.00 W. SOKOŁOWSKI, *Oskar Frech GmbH+Co.KG, Schorndorf (D)*: **High Speed Casting Cell**
- 17.00-17.30 P.L. LARSEN, J. TROJAN, *DISA Industries A/S (DK)*: **Modern Green sand moulding for everyone**
- 17.30-18.00 M. PETRIČ, R.C. KOROŠEC, M. VONČINA, P. MRVAR, S. KASTELIC, *University of Ljubljana, Ljubljana (SI)*: **Applications of 3D printed polymer patterns in casting technologies**

Section 4 : Development trends, Hall: Cristoforo Colombo

- 14.45-15.15 R. DEIKE, *Universität Duisburg-Essen, Duisburg (D)*: **Circular Economy-What the EU wants for the Future, the Foundry Industry is doing it today**
- 15.15-15.45 N. TALIJAN¹, V. ČOSOVIĆ², ¹*Academy of Engineering Sciences of Serbia, Belgrade*, ²*Institute of Chemistry, Technology and Metallurgy, University of Belgrade, Belgrade (RS)*: **The quality of silver based electrical contacts in light of conventional and novel alternative processing methods**
- 15.45-16.15 R. RUDOLF¹, T. RAVLAN², G. LOJEN¹, I. ANŽEL¹, P. MAJERIČ¹, J. MELE³, E. HUDRAP², ¹*University of Maribor*, ²*SIJ RavneSystems d.o.o. (SI)*, ³*CPPE d.o.o. (SI)*: **Development of an advanced steel tool for the most demanding applications in the industry**
- 16.15-16.30 **Break**
- 16.30-17.00 J. J. SOBCZAK¹, C. A. GARCIA GONZALES², ¹*AGH University of Science and Technology, Krakow (PL)*, ²*Universidad de Santiago de Compostella, Santiago de Compostella (ES)*: **Advanced Engineering and Research of AeroGels for Environment and Life Sciences – a new European scientific research initiative**
- 17.00-17.30 P. GROENING, *Hüttenes Albertus, Chemische Werke GmbH, Düsseldorf (D)*: **Sustainable Cold –Box Systems**
- 17.30-18.00 S. KUSSEROW, *Saveway GmbH & CO.KG, Ilmenau (D)*: **Measuring Technologies for Melting and Holding Systems**

THURSDAY EVENING, 19.09.2019

- 19.30 **Foundrymen's night in Grand Hotel Bernardin (Obala 2)**

Section 1 : Cast Steel and Iron, Hall: Vasco da Gama

- 9.00-9.30** I. RIPOSAN, S. STAN, M. CISAMERA, A. M. COJACARU, L. NEJASCU, E. STEFAN, I. STAN, *Politechnica University of Bucharest, Bucharest (RO)*: **Connection of the shrinkage sensitiveness of iron castings with solidification expansion/contraction and cooling curves data**
- 9.30-10.00** M. GRANT, *DataProphet, Cape Town (SA)*: **Dimensionality study of casting parameters using state-of-the-art machine learning**
- 10.00-10.30** J. KOVAČIČ¹, M. PETRIČ², M. TERČELJ², P. MRVAR², ¹*Livar d.d., Ivančna Gorica (SI)*, ²*University of Ljubljana, Ljubljana (SI)*: **Production and characterization of alloyed spheroidal graphite cast iron which have thermal fatigue resistance**
- 10.30-11.00** **Break**
- 11.00-11.30** D. FRANZEN, P. MARTIN, B. PUSTAL, A. BÜHRIG-POLACZEK, *Foundry Institute RWTH Aachen, Aachen (D)*: **Evaluation of static and dynamic mechanical properties under the influence of alloy design in ductile cast iron**
- 11.30-12.00** A. NOFAL¹, M. SOLIMAN², H. PALKOWSKI², ¹*Central metallurgical R&D Institute, Helwan (EG)*, ²*Clausthal University of Technology, Clausthal-Zellerfeld (D)*: **Dual-Matrix ADI by Thermomechanical Treatment of Ductile Iron**
- 12.00-12.30** B. BAUER, I. M. POKOPEC, M. ŠABAN, *University of Zagreb, Zagreb (CRO)*: **Influence of cooling rate on the properties of ductile cast iron with higher silicon content**
- 12.30-14.00** **Lunch break in Hotel Riviera Restaurant**
- 14.00-14.30** R. DOJKA^{1,2}, J. JEZIERSKI², M. SZUCKI³, B. SIODMOK⁴, ¹*Odlewnia RAFAMET Sp. z o.o. (PL)*, *Kuźnia Raciborska*, ²*Silesian University of Technology, Gliwice (PL)*, ³*AGH University of Science and Technology Kraków (PL)*, ⁴*Vesuvius Poland Sp. z o. o., Gliwice (PL)*: **The sprue shape influence on the gating system efficiency and the defects of the castings**
- 14.30-15.00** R. LUMLEY, *AWbell Pty. Ltd, Dandenong (AU)*: **An evaluation of mechanical properties and part quality in investment cast ductile irons**
- 15.00-15.30** M. VARGAS, *Hüttenes-Albertus France S.A.R.L, Point-Saint-Maxence (FR)*: **PENTEX-Improving Performances**
- 15.30-16.00** **Break**
- 16.00-16.30** C. BLEICHER, *Frauenhofer Institute for structural durability and system reliability LBF, Darmstadt (D)*: **Evaluating the cyclic material behaviour of material imperfections in thick - walled nodular cast iron with the help of non-destructive testing**
- 16.30-17.00** I. ANDREWS, *Capital Refractories Ltd., Derbyshire (UK)*: **MetCon G-A unique and new concept of concept filter for the cost effective and consistent flow modification and filtration of steel and heavy iron castings**
- 17.00-17.30** M. DROBNE, U. KLANČNIK A. STERGAR, S. NOVAK, B. KOŠEC, *Valji d.o.o., Štore (SI)*: **Ultrasonic investigation of metallurgical bonding in complex castings**

Section 2 : Non ferrous alloys, Hall: Roald Amundsen

- 9.00-9.30** R. BÄHR, C. MICHAELIS, *Otto von Guericke University Magdeburg, Magdeburg (D)*: **Aluminium casting: Process, Application, Quality**
- 9.30-10.00** J. MEDVED¹, M. GODEC², I. PAULIN², S. KORES³, M. VONČINA¹, ¹*University of Ljubljana, Ljubljana (SI)* ²*Institut of Metals and Technology, Ljubljana (SI)*, ³*Talum d. d., Kidričevo (SI)*: **Chemical, mechanical and heat wear of tools in casting aluminium alloys**
- 10.00-10.30** L. HAFNER, G. VIDIC, B. TOLAR, *LTH Castings d.o.o., Škofja Loka (SI)*: **Process optimization by introduction of virtual engineering methodology**
- 10.30-11.00** **Break**
- 11.00-11.30** F. FEIKUS¹, B. STAUDER², ¹*Nemak Europe GmbH, Frankfurt (D)*, ²*Nemak Linz GmbH, Linz (A)*: **Development trends, challenges and chances with casting of electric mobility and structural components**
- 11.30-12.00** J. BOBST, *Fondarex SA, Saint-Légier-La Chiésaz (CH)*: **Integration of vacuum systems in HPDC processes**
- 12.00-12.30** M. PURG, *Talum d.d., Kidričevo (SI)*: **An effective business model for innovative development and sustainable growth of aluminium castings production at Talum d.d.**
- 12.30-14.00** **Lunch break in Hotel Riviera Restaurant**
- 14.00-14.30** D. MOLNAR, M. BUBENKO, I. BUDAVARI, *University of Miskolc, Miskolc (HU)*: **Development of an Aluminium tilt casting pouring method**
- 14.30-15.00** V. KOLDA, *Mecas ESI, Pilsen (CZ)*: **Benefits of big Data analysis for die casting technology**
- 15.00-15.30** P. MILANESE, *IDRA S.r.l., Travagliato (IT)*: **IDRA thinks big: Growth and new strategies**
- 15.30-16.00** **Break**
- 16.00-16.30** J. LI, *University of Leoben, Leoben (A)*: **Determining casting defects in semi-solid Al and Mg casting parts by computed tomography**
- 16.30-17.00** J. TRČEK, T. HOHNJEC, *Hidria d.o.o., Ljubljana (SI)*: **First phase optimization of high pressure die casting**
- 17.00-17.30** A. GUSEL¹, J. PRISTAVEC², *Mariborska livarna Maribor d.d., Maribor (SI)*, ²*Exoterm -IT d.o.o., Kranj (SI)*: **Prediction and preventive correction of distortions of high-pressure die-cast aluminium parts for automotive industry**

Section 3 : Technologies for foundry industry, Hall: Robert Scott

- 9.00-9.30** M. BODENBURG, J.C. STURM, *Magma Gießereitechnologie GmbH, Aachen (D)*: **Improving competitiveness by integrating virtual optimization into casting component development**
- 9.30-10.00** P. BUNDSCHUH, S. MICHELIC, R. PIERER, *qoncept dx GmbH, Leoben (A)*: **Digital Transformation in Foundries: Challenges and solutions**

10.00-10.30	D. HOLLAND, <i>Calderys Deutschland GmbH, Büro Austria, Wiener Neudorf (A)</i> : Boron free SILICA MIX Solutions for high powered Coreless Induction Furnaces – more than just environmentally friendly
10.30-11.00	Break
11.00-11.30	K. WEIß, <i>RWP GmbH, Roetgen (D)</i> : Integrated function realized by modified casting technology
11.30-12.00	S. RAMRATTAN ¹ , H. MAKINO ² , ¹ <i>Western Michigan University, Kalamazoo (USA)</i> , ² <i>Sintokogio, Ltd., Nagoya (JP)</i> : Non-standard dynamic testing for green sand control
12.00-12.30	A. KLIMM, <i>Simpson Technologies (Deutschland) GmbH, Euskirchen (D)</i> : New developments in high efficiency continuous mixing in green sand systems
12.30-14.00	Lunch break in Hotel Riviera Restaurant
14.00-14.30	P. MAGALDI, <u>A. PIRRO</u> , <i>Magaldi Power S.p.A., Salerno (IT)</i> : A customized snake-shape efficient and environmentally friendly Magaldi casting cooler-MCC at Kovis plant Štore
14.30-15.00	D. TESIĆ, Z. TESIĆ, <i>TCT Tesic GmbH (D)</i> : Investing in second hand foundry plants: how can you earn and save money with used foundry plants
15.00-15.30	P. WAN, J. ZHOU, Y. LI, Y. YIN, X. PENG, X. JI, X. SHEN, <i>Huazong University of Science and Technology, Wuhan City (CN)</i> : Study on thermal decomposition process of resin adhesives in foundry industry based on TG-DTA
15.30-16.00	Break
16.00-16.30	J. TITZE, <i>Krämer + Grebe, Biedenkopf (D)</i> : With sensors and actuators to autonomous foundry tools
16.30-17.00	C. GAWERT, <u>E. RIEDEL</u> , R. BÄHR, S. SCHARF, <i>Otto von Guericke University Magdeburg, Magdeburg (D)</i> : Potentials of numerical supported ultrasonic treatment for the production of aluminium matrix composites
17.00-17.30	B. ČEH, <i>FEAL-INŽENIRING d.o.o., Ptuj (SI)</i> : HERA™ – Release agent with High Efficiency Release Agent, micro spray technology

Section 4 : Development trends, Hall: Cristoforo Colombo

9.00-9.30	S. DUWE ¹ , B. TONN ¹ , <u>M. LIEPE</u> ² , R. BÄHR ² , M. SCHRUMPF ³ , ¹ <i>Clausthal University of Technology, Clausthal (D)</i> , ² <i>Otto von Guericke University Magdeburg, Magdeburg (D)</i> , ³ <i>Walzengießerei und Hartgußwerk Quedlinburg GmbH, Quedlinburg (D)</i> : Development of wear-resistance ductile iron by simulation based process characterisation and methods of material testing
9.30-10.00	T. MARUYAMA, <i>Kansai University, Osaka (JP)</i> : Potential of ductile High-entropie alloys as casting materials
10.00-10.30	E. POTATURINA, K. SEEGER, <i>Hüttenes – Albertus Chemische Werke GmbH, Düsseldorf (D)</i> : Coatings for additive manufactured moulds
10.30-11.00	Break
11.00-11.30	M. HOGG, <i>Mike Hogg Ltd., Cheshire (UK)</i> : The future of energy & how to survive it -& thrive

11.30-12.00	S. DOLAMIČ, <i>EHSiS, industrial solutions d.o.o. (SI)</i> : Solutions in the field of lighting in heavy industry
12.00-12.30	G. MÄURER, <i>Yxlon International GmbH, Hamburg (D)</i> : Additive Manufacturing for the development of Formula 1 sports car components
12.30-14.00	Lunch break in Hotel Riviera Restaurant
14.00-14.30	K. ASANO, <i>Kindai University, Osaka (JP)</i> : Microstructure and properties of cast metal matrix composites
14.30-15.00	M. AIGNER, M. BRANDNER, L. ELIZONDO, A. PAAR, T. TRICKL, <i>ESW-Eisenwerk Sulzau Werfen R & E, Weinberger AG, Werfen (D)</i> : Set up of a model for heat treatment of rolls for hotstrip mills
15.00-15.30	A. NARDELO, R. ROANA, <i>F.lli Mazzon S.p.A, Schio (IT)</i> : Colour-changing coating
15.30-16.00	Break
16.00-16.30	G. FEGYVERNEKI, M. BUBENKO, D. MOLNAR, <i>University of Miskolc, Miskolc (HU)</i> : The effect of grain refinement on primary solidification
16.30-17.00	M. FASSINA, <i>Italpresse Gauss, Capriano del Colle (IT)</i> : Advantages of toggle free high pressure die casting machines in the modern industry
17.00-17.30	A. SLÁDEK, M. BRUNA, R. PASTIRČAK, <i>University of Žilina, Žilina (SK)</i> : New trends for technological preparation of investment casting production

Section 5 : Students and young researchers, Hall: Hall Mystica, Hotel Riviera

9.00-9.15	R. OZAH, <u>M. MANAPURAM</u> , <i>North Eastern Regional Institute of Science and Technology, Nirjuli (IN)</i> : Development of conceptual framework on industry 4.0 and its subsystems for automotive piston castings
9.15-9.30	A. REMIŠOVÁ, A. SLÁDEK, M. BRUNA, <i>University of Žilina (SK)</i> : The possibilities for reducing reoxydation in gating system
9.30-9.45	I. MIHALIC POKOPEC ¹ , M. PETRIČ ² , P. MRVAR ² , B. BAUER ¹ , ¹ University of Zagreb, Zagreb (CRO), ² University of Ljubljana, Ljubljana (SI): Microstructure and mechanical properties of heavy section ductile iron castings
9.45-10.00	T. OKUNO ¹ , K. SOMIYA ¹ , Y. TAKAGI ¹ , K. YANO ¹ , S. BABA ² , ¹ Mie University, Mie (JP), ² Flow Science Japan, Inc., Shizuoka (JP): Optimum design of branch pattern considering product shape for die-casting design
10.00-10.20	Break
10.20-10.35	J. ŠPORIN, P. MRVAR, Ž. VUKELIĆ, <i>University of Ljubljana, Ljubljana (SI)</i> : Roller cone wear mechanism
10.35-10.50	M. AHMED ¹ , A. NOFAL ² , R. BÄHR ¹ , A. VOLOCHKO ³ , ¹ Otto von University Magdeburg, Magdeburg (D) ² Central Metallurgical R&D Institute (CMRDI), Cairo (EG), ³ The Physico Technical Institute, Minsk (BY): New insights towards developing a new high strength high ductility austempered ductile iron
10.50-11.05	P. MARTIN, D. FRANZEN, B. PUSTAL, A. BÜHRIG-POLACZEK, <i>Foundry Institut RWTH Aachen, Aachen (D)</i> : Modification of mechanical properties of high silicon ductile iron by influencing silicon microsegregation via aluminium and nickel

11.05-11.20	S.K. SUBBARAYADU, <u>M. MANAPURAM</u> , <i>North Eastern Regional Institute of Science and Technology, Nirjuli (IN)</i> : Research issues and solutions in an automobile foundry: a study
11.20-11.40	Break
11.40-11.55	G. GYARMATI, G.T. MENDE, M. TOKAR, <i>University of Miskolc, Miskolc (HU)</i> : Liquid metal quality assessment with X-ray computed tomography
11.55-12.10	F. KOZINA ¹ , Z. ZOVKO BRODARAC ¹ , M. PETRIČ ² , A. PENKO ² , ¹ <i>University of Zagreb, Zagreb (CRO)</i> , ² <i>University of Ljubljana, Ljubljana (SI)</i> : The influence of solution hardening on microstructure and mechanical properties of Al Mg_{2,2} Li_{2,1} alloy
12.10-12.25	B. ZEKA, B. MARKOLI, B. LESKOVAR, M. PETRIČ, <i>University of Ljubljana, Ljubljana (SI)</i> : Development of Al-cast alloy with Li additions
12.40-14.00	Lunch break in Hotel Riviera Restaurant
14.00-14.15	R. MARKEŽIČ, N. MOLE, I. NAGLIČ, B. MARKOLI, R. ŠTURM, <i>University of Ljubljana, Ljubljana (SI)</i> : Tool hardness change prediction during high pressure die casting process
14.15-14.30	A. CZIEGLER, P. SCUMACHER, <i>Montanuniversität Leoben, Leoben (A)</i> : Aspects of grain refinement of copper alloys
14.30-14.45	A. JUG, I. ANŽEL, <i>University of Maribor, Maribor (SI)</i> : The influence of solidification conditions on the microstructure of Ag-La alloy
14.45-15.05	Break

CHANGE OF HALL: Last group of lectures in Hall Fernand de Magellan

15.05-15.20	M. KURIŠ, D. BOLIBRUCHOVA, M. MATEJKA, <i>University of Žilina, Žilina (SK)</i> : Effect of different additions of Zr on mechanical properties of aluminium alloy AlSi9Cu1Mg used for production of precision castings created by investment casting
15.20-15.35	B. WU, J. ZHOU, X. JI, Y. YIN, X. SHEN, <i>Huazhong University of Science and Technology, Hubei (CN)</i> : Automatic detection of casting defects in X-ray images with feature engineering and machine learning
15.35-15.50	J. ARBEITER ¹ , M. VONČINA ¹ , D. VOLŠAK ² , J. MEDVED ¹ , ¹ <i>University of Ljubljana, Ljubljana (SI)</i> , ² <i>Impol Aluminium Industry d. d., Slovenska Bistrica (SI)</i> : Microstructural Evolution of As-cast and homogenized Al-Mn-Fe-Si Aluminium Alloy

FRIDAY AFTERNOON, 20.09.2019, Hall: Cristoforo Colombo

18.00	Closing Ceremony
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Poster presentations

1. K. TANAKA, S. SAIKAWA, *University of Toyama, Toyama (JP)*: **Modification of castability in high strength Al Alloy castings**
2. Y. ZHAO, S. SAIKAWA, *University of Toyama, Toyama (JP)*: **The behaviour of solidification in Al-10%Si-Mg casting alloy**
3. A. OSUGI, S. SAIKAWA, *University of Toyama, Toyama (JP)*: **Influence of Sr content on hot tearing in Al-Mg-Si alloy**
4. M. IJIMA, S. SAIKAWA, *University of Toyama, Toyama (JP)*: **Effect of P content on age hardening behaviour of Al-10%Si-0.3%Mg alloy**
5. A. NIIDA, Y. MAEDA, *Daido University, Nagoya (JP)*: **Observation of Air Entrapment during Mold Filling of Die Casting Using Water Model Experiment**
6. S. TANIGUCHI, Y. MAEDA, *Daido University, Nagoya (JP)*: **Inlet Condition for Mold Filling Simulation in Gravity Casting of Aluminum Alloy**
7. M. VONČINA¹, P. CVAHTE², A. KRAČUN², T. BALAŠKO¹, J. MEDVED¹, ¹*University of Ljubljana, Ljubljana (SI)*, ²*Impol Group, Slovenska Bistrica (SI)*: **Analysis of chemical composition homogeneity through the intersection of the slice of the drug from group 6xxx**
8. M. DOJKA, A. STUDNICKI, *Silesian University of Technology, Gliwice (PL)*: **Surface-active inoculation – New potential for high chromium cast iron**
9. J. ANŽIČ, D. METLJAK, *PSM d.o.o., Ljubljana (SI)*: **Mechanical marking in casting**
10. U.A. ESER, M. RAGIP MUHAFFEL, *Ferro Döküm Sanayi ve Dış Ticaret A.Ş., Kocaeli (TR)*: **Grain Refinement of A356 Alloy with Boron**