

List of video presentations submitted to Metal Forming 2020 E-conference Video Platform (updated on 14 Sept 16:00)

Authors are asked to be logged into the video platform and reply to comments below their videos in the following core time slots (or any time during this week).

	Monday, September 14th		Tuesday, September 15th		Wednesday, September 16th		
10:00	Keynotes 10:00 - 11:30	Materials 10:00 - 11:30	Manufacturing Methods 10:00 - 11:30	Processes 10:00 - 11:30	Session in Honour of Prof. Reiner Kopp 80th Birthday 10:00 - 11:30	Process and systems modeling 10:00 - 11:30	Deformation Mechanics 10:00 - 11:30
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16:00	Session in Honour of Prof. Reiner Kopp 80th Birthday 16:00 - 17:30	Process and systems modeling 16:00 - 17:30	Deformation Mechanics 16:00 - 17:30	Keynotes 16:00 - 17:30	Materials 16:00 - 17:30	Manufacturing Methods 16:00 - 17:30	Processes 16:00 - 17:30
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Keynote presentations - Core time slots for discussions: Monday 10:00-11:30; Tuesday 16:00-17:30 CEST (GMT+2)

Presentation title	Authors	Presenter
New challenges and advances in rolling mill rolls design and applications	Konstantin Redkin, Christopher Hrizo, Frank Goyanes	Konstantin Redkin
The exploitation of field-assisted sintering technology (FAST) for next generation titanium alloy components	Martin Jackson	Martin Jackson
The impact of grain size on failure during the forming of magnesium	Matthew Barnett	Matthew Barnett
Theory, technology and equipment of ring rolling for high-performance rings	Lin Hua, Dongsheng Qian, Jian Lan, Jiadong Deng	Lin Hua

Special session in Honour of Prof. Reiner Kopp's 80th Birthday		
Core time slots for discussions: Monday 16:00-17:30; Wednesday 10:00-11:30 CEST (GMT+2)		
Presentation title	Authors	Presenter
Characterization and computational analysis of ductile fracture on metal components obtained by Direct Energy Deposition	Jose Cesar de Sa, Erfan Azinpour, Roya Darabi, Abel D. Santos, Josef Hodeč, Jan Dzugan	Jose Cesar de Sa
Direct thin strip casting – from early trials to future prospects	Gerhard Hirt, Max Müller	Gerhard Hirt
Dynamic recrystallization control in hot rolling	Evgueni Poliak	Evgueni Poliak
Hot isothermal forging of aluminum alloys: prediction of the defects and the rheological data for the simulation	Pavel Petrov	Pavel Petrov
Metal Forming driven control of microstructure inhomogeneity	Krzysztof Muszka, Janusz Majta, Paulina Lisiecka-Graca, Marcin Kwiecień, Remigiusz Błoniarz	Krzysztof Muszka
New approaches towards universal microstructure based flow curve modeling for steels and aluminum	Grzegorz Korpała, Ulrich Prah	Grzegorz Korpała
Reducing computational cost when modeling cyclic incremental forming: the example of cold pilgering	Pierre Montmitonnet, Jean-Luc Doudoux, Florian Lyonnet, Alexis Gaillac	Pierre Montmitonnet
Reduction of the computing costs of the multiscale modelling by an application of the Statistically Similar Representative Volume Element – application to multiphase steels	Łukasz Rauch, Yuling Chang, Krzysztof Bzowski, Danuta Szeliga, Wolfgang Bleck, Maciej Pietrzyk	Łukasz Rauch
Roll forming of circular Tailor Rolled Blanks	Marion Merklein, Manfred Vogel	Marion Merklein
The behaviour of titanium alloys under thermomechanical treatments	Cecilia Poletti, Ricardo Buzolin, Franz Miller, Branco Ferraz, Fernando Warchomicka, Peng Wang, Katharina Hogrefe, Christian Doppler	Cecilia Poletti
Tool life in hot forging	Zbigniew Gronostajski	Zbigniew Gronostajski
Towards virtual hot strip rolling	Joonas Ilmola, Oskari Seppälä, Aarne Pohjonen, Joni Paananen, Olli Leinonen, Antti Kaijalainen, Jari Larkiola	Jari Larkiola
Using deep learning for modeling path-dependent plasticity	Mojtaba Mozaffar, Jian Cao	Jian Cao

Session: Deformation Mechanics - Core time slots for discussions: Monday 16:00-17:30; Wednesday 10:00-11:30 CEST (GMT+2)		
Presentation title	Authors	Presenter
An investigation of damage healing in high temperature compressive forming process	Wenbin Zhou, Shireen Afshan, Jianguo Lin	Shireen Afshan
Analysis of deformation mechanism in corrugated rolling of composite plate	Wenli Liu, Yuanming Liu, Tao Wang, Zhenhua Wang, Hongzhuo Shen, Pingju Hao	Wenli Liu
Analyzing the properties promoting shear bands and damage initiation in 3-point bending of ultra-high strength steel	Robert Dowding, Christophe Pinna, Hassan Ghadbeigi, Didier Farrugia	Robert Dowding
Biaxial tensile tests for characterising mechanical properties of materials	Ruiqiang Zhang, Zhutao Shao, Zhusheng Shi, Jianguo Lin	Ruiqiang Zhang
Characterization of plasticity and fracture of an QP1180 steel sheet	Chong Zhang, Yue Wang, Zhe Chen, Ning Yang, Yanshan Lou, Till Clausmeyer, A. Erman Tekkaya, Qi Zhang	Chong Zhang
Determination of the flow curve based on the torsion of conical specimen	Pavel Petrov, Dmitry Shishkin, Yuliy Kalpin, Igor Burlakov, Svetlana Vydumkina, Denis Kapitanenko	Pavel Petrov
Effect of deformation routes on microstructure of AA6063 during equal channel angular pressing	Tingting Yao, Tao He	Tingting Yao
Effect of multi-pass hot deformation on flow stress and microstructure of Ti-6Al-4V titanium alloy prepared by hot isostatic pressing	Haijun Liu, Yong Xue, Zhimin Zhang, Luying Ren, Yaojin Wu, Jian Xu, Jiangpeng Yan	Haijun Liu
Evaluation of the effect of ram speed for extrusion of Al6063 base on ALE-based finite element analysis of L-shaped sample	Namsu Park, Yeonghwan Song, Gihyun Bae, Seon-Ho Jung, Junghan Song, Jongsup Lee, Seogou Choi, Heejong Lee, Hyunmin Sung	Seon-Ho Jung
FEM simulation of fabrication of Al-Steel layered composites with mechanical bonding through the interfacial concavo-convex lock effect	Alexander Pesin, Denis Pustovoitov, Olesya Biryukova, Natalia Ilyina	Denis Pustovoitov
Hot compression deformation behavior of extruded ZK61M magnesium alloy and establishment of constitutive equation	Xianglong Chen, Chunguo Xu, Hong Jin, Sixiao Qin	Xianglong Chen

Session: Deformation Mechanics - Core time slots for discussions: Monday 16:00-17:30; Wednesday 10:00-11:30 CEST (GMT+2)		
Presentation title	Authors	Presenter
Hot deformation behavior of Ti-Al-Sn-Zr-Mo alloy	Oleksandr Lypchanskyi, Tomasz Śleboda, Krystian Zyguła, Marek Wojtaszek, Maciej Rumiński	Oleksandr Lypchanskyi
In situ detection and control of wrinkle formation during rotary draw bending	Linda Borchmann, Peter Frohn-Sörensen, Bernd Engel	Linda Borchmann
In situ observation of deformation behavior of Ti6Al4V subjected to electrically-assisted forming process	Xia'nan Li, Zhutian Xu, Linfa Peng	Xia'nan Li
Influence of microstructure on inhomogeneity of stress and strain in the deformation zone during asymmetric cold rolling of ferritic-pearlitic steels	Dmitrii Konstantinov, Denis Pustovoitov, Alexander Pesin	Dmitrii Konstantinov
Investigation of the dynamic plastic hardening of metal thin-walled tube under liquid impact forming	Guolin Hu, Chunrong Pan, Zheng Liu	Guolin Hu
Low speed impact properties of 5052 aluminum alloy plate	Zhichao Huang, Wei Wang, Yongchao Zhang, Jiamei Lai	Zhichao Huang
Mechanical behavior and microstructure evolution of TC4 alloy during high temperature plastic deformation	Hu Yujia, Huo Yuanming, He Tao, Yang Wanbo, Gao Jianye, Yao Tingting, Shen Menglan	Yujia Hu
Non-linear finite element investigation of formability limit by buckling in creep age forming of stiffened panels	Wenbin Zhou, Qi Rong, Zhusheng Shi	Wenbin Zhou
Preliminary modelling of forming forces in three directions for incremental sheet forming process based on the contact area	Fuyuan Liu, Yanle Li, Zinan Cheng, Zijian Wang, Fangyi Li, Jianfeng Li	Fuyuan Liu
Stretch-bending crack simulation for advanced high-strength thick steel sheets considering the contact pressure effect	Gihyun Bae, Namsu Park, Junghan Song, Jongsup Lee, Inje Jang, Keunyoung Park, Youngho Seo, Kyoungsuk Oh	Gihyun Bae
Study of the Dynamic Recrystallization of Inconel 625 Alloys through Cogging	Ludovic Freund, Laurent Langlois, Régis Bigot, Olivier Gyss	Ludovic Freund
Surface roughness improvement of the bent thin-walled copper tube by controlling the microstructure and texture components	Shi-hong Zhang, Song-wei Wang, Hong-wu Song, Yan Chen	Songwei Wang

Session: Manufacturing Methods - Core time slots for discussions: Tuesday 10:00-11:30; Wednesday 16:00-17:30 CEST (GMT+2)		
Presentation title	Authors	Presenter
2D thermal finite element analysis of laser cladding of 316L+Tungsten carbides composite coatings	Seifallah Fetni, Tommaso Maurizi Enrici, Tobia Niccolini, Son Hoang Tran, ... Anne Marie Habraken	Seifallah Fetni
A study on the hot roll bonding of aluminum alloys	Tan Zinong, Zhao Bing, Jiang Jun, Li Zhiqiang, Lin Jianguo	Tan Zinong
An experiment study on a novel constructive hot ring rolling process	Deng Jiadong, Liu Jikang, Cheng Zhe, Qian Dongsheng, Mao Huajie, Fei Yin	Deng Jiadong
Deformation behaviour in shearing of ultra-high strength steel sheets under insufficient blankholding force	Ryo Yagita, Yohei Abe, Yuma Munesada, Ken-ichiro Mori	Ryo Yagita
Development of novel differential velocity sideway extrusion techniques to fabricate lightweight curved structural components	Junquan Yu, Jianguo Lin, Trevor A. Dean	Junquan Yu
Development of an expert system dedicated for closed die forging industry	Mateusz Sitko, Krzysztof Regulski, Adam Legwand, Konrad Perzynski, Marcin Rychlik, Artur Barelkowski, Lukasz Madej, Maciej Pietrzyk	Mateusz Sitko
Effects of different deformation routes on AA6063 mechanical properties through equal channel angular pressing	Jianye Gao, Tao He, Yuanming Huo, Tingting Yao, Haoyang Hong	Jianye Gao
Flexible 3D stretch bending of aluminium alloy profiles	Torgeir Welo, Jun Ma, Jørgen Blindheim, Taekwang Ha, Geir Ringen	Jun Ma
Friction Stir Welding of Ti6Al4V complex geometries for aeronautical applications: a feasibility study	Davide Campanella, Gianluca Buffa, Antonio Barcellona, Livan Fratini	Davide Campanella
Hot deformation behavior and processing maps for β titanium alloys obtained from the mixture of elemental powders	Krystian Zyguła, Marek Wojtaszek, Oleksandr Lypchanskyi, Grzegorz Korpała	Krystian Zyguła
Influence of heating mode on orange peel patterns in warm incremental forming of magnesium alloy	Juan Liao, Jianhua Liu, Lixia Zhang, Xin Xue	Juan Liao
Investigation of material properties of tailored press hardening parts using numerical and physical simulation	Maria Emanuela Palmieri, Vincenzo Domenico Lorusso, Luigi Tricarico	Maria Emanuela Palmieri
Investigation on the hole evolution and forming dimensions during cross wedge rolling hollow shaft with mandrel	Shen Jinxia, Wang Baoyu, Lin Longfei, Li Junling, Zhu Chuanbao	Shen Jinxia

Session: Manufacturing Methods - Core time slots for discussions: Tuesday 10:00-11:30; Wednesday 16:00-17:30 CEST (GMT+2)		
Presentation title	Authors	Presenter
Ironing limit of aluminium alloy cups with lubricants containing nanoparticles and tool steel die	Yohei Abe, Kai Sugiura, Ken-ichiro Mori	Yohei Abe
Numerical and experimental evaluation of an alternative mechanism for wall thickness variations of hollow profiles applying a porthole die	Maik Negendank, Vidal Sanabria, Walter Reimers, Soeren Mueller	Maik Negendank
Predicting the eccentricity of tubes by developing a multiple regression model in tube drawing process with tilted die	Fariba Heidarian, Heinz Palkowski	Fariba Heidarian
Process of manufacturing a tailpipe shape by forming in automotive industry	Paweł Bałon, Jacek Cieślak, Łukasz Halama, Bartłomiej Kiełbasa, Tomasz Lach, Marcin Lesiński, Dominik Łajczak, Edward Rejman	Paweł Bałon
Pseudo linear joining for dissimilar materials utilizing punching and friction stir forming	Takahiro Ohashi, Taiki Ohno, Hamed Mofidi Tabatabaei, Tadashi Nishihara	Takahiro Ohashi
Roll-drawing of cup with thick wall	Bao-hong Zhang, Chunyu Wei, Bin Hu, Xi Zhao	Bao-hong Zhang
The high speed drawing process of zinc-coated steel wires	Maciej Suliga, Radosław Wartacz	Maciej Suliga
The numerical analysis of the magnetorheological elastomer bulging for sheet metal	Rui Zhang, Chao Yin, Xiao Luo, Zhong-jin Wang	Zhong-jin Wang

Session: Materials - Core times for discussions: Monday 10:00-11:30; Tuesday 16:00-17:30 CEST (GMT+2)		
Presentation title	Authors	Presenter
A study on grain growth using a novel grain size calculation tool	Sami Koskenniska, Oskari Seppälä, Jukka Kömi	Sami Koskenniska
Assessment of utilization of ab-initio and Calphad calculations for a design of high-entropy alloy for metal forming	Konrad Chrzan, Kamil Cichocki, Piotr Adamczyk, Paweł Drożdż, Tomasz Kozieł, Piotr Bała, Krzysztof Muszka	Konrad Chrzan
Characterization of kinematic hardening with a hydraulic bulge test	Matthias Lenzen, Harald Schmid, Marion Merklein	Matthias Lenzen
Characterization, modeling and microstructure of composite aluminium alloy specimens after ECAP	Carlo Bruni, Daniele Ciccarelli	Carlo Bruni
Development and performance of heat insulation coatings for hot rolling of titanium alloy and superalloy rings	Chi Feng, Su-jie Duan	Chi Feng
Development, structure and properties of Cu/Mg and Al/Mg composite wires	Azambek Kalonov, Andrey Glukhov, Aleksey Volkov	Azambek Kalonov
Dynamic recrystallization and texture evolution of Mg-6.8Y-2.5Zn-0.3Zr alloy during hot rolling	Madlen Ullmann, Kristina Kittner, Thorsten Henseler, Christina Krbetschek, David Rafaja, Rudolf Kawalla, Ulrich Prahll	Kristina Kittner
Effect of direct quenching on the mechanical properties of cold formed S500 rectangular hollow section	Antti Kaijalainen, Juho Mourujärvi, Juha Tulonen, Petteri Steen, Jukka Kömi	Antti Kaijalainen
Effect of processing conditions on mechanical performance of biodegradable Zn alloy	Maria Wątroba, Wiktor Bednarczyk, Jakub Kawałko, Piotr Bała	Maria Wątroba
Experimental investigations on the interactions between the process parameters of hot forming and the resulting residual stresses in the component	B.-A.Behrens, H.Wester, K.Brunotte, C.Kock	Christoph Kock
Fracture modelling of magnesium sheet alloy AZ31 for deep drawing processes at elevated temperatures	B.-A.Behrens, H.Wester, M.Dykiert	Matthäus Dykiert
Gradient microstructure in the bonding zone of explosively welded sheets	Henryk Paul, Robert Chulist, Izabela Mania	Henryk Paul
Hot workability of 420 J1 martensitic stainless steel	Maha El-Meligy	Maha El-Meligy
Investigation of microstructure-mechanical property correlation of complex-phase steels by electron microscopy and nanoindentation	Yuling Chang, Ude Hangen, Danuta Szeliga, Maciej Pietrzyk, Wolfgang Bleck	Yuling Chang

Session: Materials - Core times for discussions: Monday 10:00-11:30; Tuesday 16:00-17:30 CEST (GMT+2)		
Presentation title	Authors	Presenter
Investigation on superplastic deformation behavior and microstructure evolution of TNW700 titanium alloy	Lixia Ma, Min Wan, Weidong Li, Jie Shao, Xuepiao Bai	Lixia Ma
Material selection in hot shaping molds of titanium alloys	Aysegul Akdogan Eker, Ali Avci, Hakan Aydin, Cahit Sertac Aydogan, Emre Erol	Cahit Sertac Aydogan
New technological possibilities of producing die inserts for hot work	Jan Senatorski, Jan Tacikowski, Paweł Mączyński	Jan Senatorski
Novel approach to decrease sheet thinning during sheet metal forming by using embossing technique	Stefan Walzer	Stefan Walzer
Production of zinc wire for use as a high strength biodegradable surgical threads	Andrij Milenin, Piotr Kustra, Dorota Byrska-Wójcik, Mirosław Wróbel, Marek Packo, Joanna Sulej-Chojnacka, Sława Matuszyńska	Andrij Milenin
Quantitative evaluation of experimental wear behaviour for CrN-coated tool steels in sheet metal forming process of TRIP 1180	Junho Bang, Junghan Song, Gihyun Bae, Namsu Park, Myounggyu Lee, Honggee Kim	Jun-ho Bang
Rapid alloy prototyping for a range of strip related advanced steel grades	Didier Farrugia, Stephen Brown, Nicholas P. Lavery, Cameron Pleydell-Pearce, Claire Davis	Didier Farrugia
Study of the stretch-flangeability improvement of dual phase steel	Libo Pan, Zhijiang Zuo, Wen Tan	Libo Pan
The effect of heat treatment on α/β phases evolution of TC4 titanium alloy fabricated by spark plasma sintering	Kaihua Xu, Yong Xue	Kaihua Xu

Session: Process and system modelling - Core time slots for discussions: Monday 16:00-17:30; Wednesday 10:00-11:30 CEST (GMT+2)		
Presentation title	Authors	Presenter
The influence of the parameters of hot drawing of MgCa alloys wires on the mechanical properties that determine the applicability of the material as a high strength biodegradable surgical thread	Andrij Milenin, Piotr Kustra, Dorota Byrska-Wójcik, Mirosław Wróbel, Marek Packo, Joanna Sulej-Chojnacka	Dorota Byrska-Wójcik
2D thermal finite element analysis of sticker breakout in continuous casting	Hoang-Son Tran, Etienne Castiaux, Anne-Marie Habraken	Hoang-Son Tran
A novel residual stress reduction process for extra-large AA7050 component manufacture	Jing-Hua Zheng, Ran Pan, Catrin M Davies, Jianguo Lin, Jun Jiang	Jing-Hua Zheng
Application of hybrid tool wear model for hot forging processes	Marek Wilkus, Danuta Szeliga, Łukasz Rauch, Maciej Pietrzyk	Marek Wilkus
Calibration of thermal contact conductance for precision forming	Yakun Xu, Fengchun Yang, Xincun Zhuang, Zhen Zhao	Yakun Xu
Determination of effective heat transfer coefficient for water spray cooling of steel	Sampo Uusikallio, Sami Koskenniska, Joonas Ilmola, Jussi Paavola, Aarne Pohjonen, Jari Larkiola, Jukka Kömi	Sampo Uusikallio
Determination of transformation plasticity coefficient of steel by horizontal quenching of shaft	Keisuke Watanabe, Mayu Yamada, Morihiko Nakasaki, Ryo Matsumoto, Hiroshi Utsunomiya	Keisuke Watanabe
Numerical simulation and experimental investigation of peel test specimen using bi-injection molding process	Thierry Barrière, Mohamed Sahli, Xavier Roizard	Thierry Barrière
Implementation of a universal interface based on ESB bus providing communication of multiple numerical models in a distributed architecture	Grzegorz Smyk, Danuta Szeliga	Grzegorz Smyk
Innovative aluminium extrusion: increased productivity through simulation	Alexander Medvedev, Alessandro Bevacqua, Andrey Molotnikov, Richard Axe, Rimma Lapovok	Rimma Lapovok
Investigating the coefficient of friction in deep-drawing of aluminum sheets at room temperature	Josef Domitner, Zahra Silvayeh, Arash Shafiee Sabet, Kerem Ilyas Öksüz, Leonardo Pelcastre, Jens Hardell	Josef Domitner

Session: Process and system modelling - Core time slots for discussions: Monday 16:00-17:30; Wednesday 10:00-11:30 CEST (GMT+2)

Presentation title	Authors	Presenter
Knowledge-based design method of forging dies based on the stereotypes of die structures and the functions of forming surfaces	Kazuya Matsunaga, Masanobu Umeda, Yuji Mure, Keiichi Katamine	Kazuya Matsunaga
Material flow characteristics and deformation law during dual directional hot forging of the steel-aluminium spur gear	Wei Feng, Xiangyang Jia, Biao Liu, Ming Gao	Wei Feng
Model framework for the simulation of microstructure and yield stress during aging of industrial Al-Mg-Si aluminum alloys	Fabrice Wagner, Christian Bollmann, Thiemo Brüggemann, Stephan Hojda, Marco Teller, Gerhard Hirt	Fabrice Wagner
Modelling and numerical simulation of steel sheet fine blanking process	Mohamed Sahli, Xavier Roizard, Guillaume Colas, Mohamed Assoul, Luc Carpentier, Pierre-Henri Cornuault, S.Giampiccolo, J.P.Barbe	Mohamed Sahli
Modelling the forming zone of force fitted bending processes	Peter Frohn-Sörensen, Linda Borchmann, Bernd Engel	Peter Frohn-Sörensen
Numerical modelling of Ti/Cu interface formation during an explosive welding based on a mesh-free approach	Mateusz Mojzeszko, Konrad Perzynski, Maciej Sionkowski, Henryk Paul, Lukasz Madej	Mateusz Mojzeszko
Numerical simulation and process optimization for hot stretch bending of Ti-6.5Al-2Zr-1Mo-1V large-section extrusion	Chen Zhang, Dongsheng Li, Xiaoqiang Li, Qin Xia	Chen Zhang
Preparation of chemically etched surface texture and its friction characteristics in sheet forming	Qi Zhang, Tangjie Mei, Dongliang Zhang, Miao Cao, Bin Han	Tangjie Mei
Quality prediction of longitudinal seam welds in aluminium profile extrusion based on simulation	Ivan Kniazkin, Andrey Vlasov	Ivan Kniazkin
Reinforcement learning in free-form stamping of sheet-metals	Shiming Liu, Zhusheng Shi, Jianguo Lin, Zhiqiang Li	Shiming Liu
Simulation of two hollow sinking passes in one tool	Peter Bella, Michal Kan, Martin Ridzon, Milan Mojzis	Peter Bella

Session: Process and system modelling - Core time slots for discussions: Monday 16:00-17:30; Wednesday 10:00-11:30 CEST (GMT+2)

Presentation title	Authors	Presenter
Simulative basic investigation for a new forming process punch-hole-rolling	Maximilian Knoll, Fabian Mühl, Peter Groche, Volker Schulze	Maximilian Knoll
The effect of internal contact pressure on thermal contact conductance during coil cooling	Joonas Ilmola, Aarne Pohjonen, Oskari Seppälä, Jari Larkiola	Joonas Ilmola
Verification of identified system circuit parameters in electromagnetic pulse system	Hyeonil Park, Jinwoo Lee, Youngseon Lee, Daeyong Kim	Hyeonil Park

Session: Processes - Core time slots for discussions: Tuesday 10:00-11:30; Wednesday 16:00-17:30 CEST (GMT+2)

Presentation title	Authors	Presenter
Analysis of the deep drawing process of three-layered explosive welded composite	Kwiecień Marcin, Lisiecki Łukasz, Lisiecka-Graca Paulina, Muszka Krzysztof, Majta Janusz	Marcin Kwiecień
Analysis of the stress state in non-axially symmetrical cold forging dies	Martin Killmann, Marion Merklein	Martin Killmann
Automatic re-lubrication by pulsating motion with punch having dimple bottom in backward extrusion of cylindrical cup	Tomoyoshi Maeno, Hiroki Homma, Ryohei Ikeda, Ken-ichiro Mori	Ryohei Ikeda
Cold upsetting with rocking motion using multiple linear actuators	Kenji Hirota, Yuto Yoshida, Shota Yoshimi	Kenji Hirota
Controlling material flow in incremental sheet-bulk metal forming by thermal grading	Sebastian Wernicke, Ulrich Thier, Marlon Hahn, Erman Tekkaya	Sebastian Wernicke
Deformation Behaviour of Metal Micro Tube during Hydroforming Process	Zicheng Zhang, Yajun Kang, Tsuyoshi Furushima, Ken-ichi Manabe, Cong Wang, Bin Li	Zicheng Zhang
Drawing of magnesium fine wire and medical application of drawn wire	Natthiwan Dodyim, Kazunari Yoshida, Tomoaki Murata, Yusuke Kobayashi	Natthiwan Dodyim
Effect of ball milling speed and sintering temperature on microstructure and properties of TiAl alloy prepared by powder metallurgy	Gong Siheng, Dong Xianjuan, Xiao Xuan, Xu Yong	Siheng Gong
Effect of transverse ribs on axial displacement of rebars in bending	Satoshi Higaki, Hibiki Nishida, Yuta Koike, Masahiro Sasada, Tatsuya Tanaka	Hibiki Nishida
Effects of rocking direction on load and forged geometry in cylinder upsetting	Kenji Hirota, Shota Yoshimi, Yuto Yoshida	Shota Yoshimi
Experimental and theoretical analysis of multi-layer Al-AZ31-Al material rolling process	Sebastian Mroz, Andrzej Stefanik, Piotr Szota, Tomasz Garstka, Henryk Paul, Izabela Mania, Zygmunt Szulc, Aleksander Galka	Andrzej Stefanik

Session: Processes - Core time slots for discussions: Tuesday 10:00-11:30; Wednesday 16:00-17:30 CEST (GMT+2)		
Presentation title	Authors	Presenter
Experimental investigation on electro-hydraulic forming with flexible die	Ferfei Zhang, Yanan Wei, Kai He, Zhiqiang Hang	Ferfei Zhang
Feasibility study on thinning and thickening of thin-walled pipe fittings in three-roll skew rolling	Yingxiang Xia, Xuedao Shu, Song Zhang, Zixuan Li, Zbigniew Pater, Jaroslaw Bartnicki	Yingxiang Xia
Forming of pin on thick plate by open extrusion	Kazuhito Asai, Kazuhiko Kitamura	Kazuhito Asai
Generation of locally adjusted tailored properties by contact heating during a press hardening process	Andreas Bondar, Haneen Daoud, Uwe Glatzel	Andreas Bondar
Hole-flanging of AA7075-O sheets: conventional process versus SPIF	Marcos Borrego, Domingo Morales-Palma, José Andrés López-Fernández, Andrés J. Martínez-Donaire, Gabriel Centeno, Carpóforo Vallellano	Marcos Borrego
Hot stamping of non-rectangular steel sheets using resistance heating by local preheating	Yuki Nakagawa, Ken-ichiro Mori, Michiya Nishikata	Yuki Nakagawa

Session: Processes - Core time slots for discussions: Tuesday 10:00-11:30; Wednesday 16:00-17:30 CEST (GMT+2)		
Presentation title	Authors	Presenter
Improvement of burnished area in punching of stainless steel thick plate by means of pulsating motion	Tomoyoshi Maeno, Minoru Sugawara, Takumi Saito, Ayato Terada, Ken-ichiro Mori	Tomoyoshi Maeno
Influence of different heating methods on springback of mild steel plate during dieless bending process	Bo Wei, Yanan Wei, Feifei Zhang, Kai He, Xiaobing Dang, Ruxu Du	Bo Wei
Influences of key process parameters on orbital forging of thin-walled smartphone shell frame of aluminum alloy	Binting Gu, Wuhao Zhuang, Xinghui Han	Binting Gu
Investigation of anisotropic behaviour in creep age forming of Al-Cu-Li alloy AA2050	Chenpeng Tong, Yong Li, Zhusheng Shi	Zhusheng Shi
Investigation of compaction by ring rolling on thermal sprayed coatings	Bernd Kuhlenkötter, Thomas Glaser, Simon Fahle, Simon Husmann, Mohamed Abdulgader, Wolfgang Tillmann	Thomas Glaser
Investigation of material flow behaviour and microstructure during differential velocity sideway extrusion	Xiaochen Lu, Junquan Yu, Jianguo Lin, Zhusheng Shi	Xiaochen Lu
Investigation of thermal effects during ultrasonic-assisted upsetting	Manuel Jäckisch, Marion Merklein	Manuel Jäckisch
Manufacturing thin-walled 99.99% pure Zn tubes with ultrafine grained structures by flowforming	Magro Tommaso, Ghiotti Andrea, Bruschi Stefania	Tommaso Magro
Numerical modelling of the multi-stage production process of large-size rings rolling for the shipbuilding industry including analysis of internal discontinuities	Łukasz Lisiecki, Aneta Łukaszek-Sofek, Józef Kowalski, Janusz Majta, Szczepan Kajpust, Sławomir Misiowiec	Łukasz Lisiecki
Preform optimization of a brake drum part based on quasi-equipotential field and response surface methods	Hu Chen, Yanjin Guan, Mujuan Liu, Yi Li, Jiqiang Zhai, Jun Lin	Hu Chen
Process design for the forming of semi-tubular self-piercing rivets made of high nitrogen steel	Clara-Maria Kuball, Benedikt Uhe, Gerson Meschut, Marion Merklein	Clara-Maria Kuball
Production mechanism of residual stress in spinning of thin wall cone parts with variable section	Xuedao Shu, Ying Chang, Ying Zhu, Bohai Ye, Zixuan Li	Ying Chang
Progress on Rapid Hot Gas Forming: Mechanism, Modelling, Innovations and Applications	Gang Liu, Kexin Dang, Kehuan Wang, Jie Zhao	Gang Liu
Relation between microstructure and mechanical properties on intercritically deformed low carbon steels	U. Mayo, N. Isasti, J.M. Rodriguez-Ibabe, P. Uranga	Unai Mayo

Session: Processes - Core time slots for discussions: Tuesday 10:00-11:30; Wednesday 16:00-17:30 CEST (GMT+2)

Presentation title	Authors	Presenter
Roll Pass design, numerical model and processing procedure of a 3rd generation dual phase sheet steel	Maha El-Meligy, Taher El-Bitar, Mahmoud Khedr	Maha El-Meligy
Simulation and experiment of reduction of equal-diameter hollow shafts with three-roll skew rolling	Song Zhang, Xuedao Shu, Chang Xu, Jitai Wang, Yingxiang Xia	Song Zhang
Study of the effect of Accumulative Angular Drawing deformation route on grain refinement in 304L stainless steel	Maciej Szymula, Krzysztof Muszka, Janusz Majta, Marek Paćko, Jerzy Dybich	Maciej Szymula
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