

Tuesday, Sept 18, 2018

14:00-20:00	Registration	<i>Foyer Radisson Blu Hotel Bremen</i>
14:45	Technical tour: Mercedes-Benz Meeting point: 14:45 h at main entrance of Radisson Blu Hotel >> Shuttle bus "Wolters" - by preregistration only	
16:30	Guided walk 1 - Historical Bremen Meeting point: 16:30 h at main entrance of Radisson Blu Hotel	
18:30	Guided walk 2 - Historical Bremen Meeting point: 18:30 h at main entrance of Radisson Blu Hotel	

Wednesday, Sept 19, 2018

08:00	Registration	<i>Foyer Radisson Blu Hotel Bremen</i>	
<i>Room Weser 1- 4 Ground floor</i>			
09:00	Welcome		
Keynote session			
09:15	From Dieless Forming to Smart Tooling Jian Cao Northwestern University, Illinois	Chair: Vollertsen	
09:45	A Review of Progressive and Compound Forming of Bulk Microparts by Using Sheet Metals Ming Wang FU The Hong Kong Polytechnic University		
10:15	Applications of the Gurson's model in sheet metal forming Dorel Banabic Technical University of Cluj-Napoca		
10:45	Coffee break		
<i>Room Weser 1- 4 Ground floor</i>			
Hydroforming			
11:15	New Device and Technology for High Speed Hydroforming Matthias Hermes FH Südwestfalen, Meschede	Chair: Tekkaya	
11:35	Springback prediction of CP2 titanium sheets in hydroformingprocess with finite element method Cahit S. Aydogan Tusas Aerospace Industries (TAI)		
11:55	Electrohydraulic sheet metal forming with flexible tools Holger Pegel bime, University of Bremen		
<i>Room Modersohn 1st floor</i>			
Bulk forming			
		Chair: Kuhfuß	
Electrohydraulic incremental bulk metal forming Lasse Langstädtler bime, University of Bremen			
Bulk Metal Forming of Additively Manufactured Elements Thomas Papke FAU Erlangen			
Material flow control in plunge micro rotary swaging Eric Mouri bime, University of Bremen			
<i>Room Weser 1- 4 Ground floor</i>			
12:15	Oral introduction to poster session I		
12:30	Lunch		
13:30	Poster session I	<i>Room Private L.O.B.B.Y Ground floor</i>	
<i>Room Weser 1- 4 Ground floor</i>			
14:15	Special keynote session "Processes and Materials" in honor of Prof. Vollertsen's 60th birthday	Chair: Merklein	
14:30	An integrated precise engineering for micro forming Ming Yang Tokyo Metropolitan University		
15:00	Metal Forming: The Paradise of Innovations Erman Tekkaya University of Dortmund		
15:30	Coffee break		
16:00	Surface Functionalization by Laser Remelting Frank Pfefferkorn University of Wisconsin-Madison		
16:30	Enhancing the laser beam welding process by a superimposed beam oscillation Michael Schmidt FAU Erlangen		
17:00	Laser Beam Welding vs. Conventional Welding – Technical Progress by Competition Uwe Reisgen RWTH Aachen		
18:30	Guided walk to shipping Pier Martini. Meeting point: Main entrance of Radisson Blu Hotel		
18:45	Riverboat cruise with dinner (Ship Oceana, Boarding at Pier Martini at 18:45)		

Thursday, Sept 20, 2018

08:30 Bus transfer: Hotel Radisson Blu → University of Bremen (Shuttle busses start in front of the Radisson Blu hotel, main entrance Wachtstrasse)

09:00 Visit of laboratories: University of Bremen and research institutes

11:00 Bus transfer: University of Bremen → Hotel Radisson Blu

11:30 Lunch

	Room Weser 1+2 Ground floor	Room Weser 3+4 Ground floor	Room Modersohn 1. Floor
	Advanced manufacturing processes Chair: Pfefferkorn	Sheet metal forming (hot) Chair: Bambach	Micro cold forming, <u>Special session SFB 747</u> Chair: Vollertsen
12:30	Simulation of thermal behaviours and powder flow for direct laser metal deposition process Quanren Zeng University Strathclyde, Glasgow	Numerical modelling approach for the temperature dependent forming behaviour of Ti-6Al-4V Thomas Papke FAU Erlangen	Collaborative Research Center "Micro Cold Forming" (SFB 747): Overview Frank Vollertsen BIAS Bremen
12:50	Laser edge forming to increase the bending radius in hemming Peer Woizeschke BIAS Bremen	Stress-Level-dependent microstructure evolution and deformation behaviors during creep age forming of Al-Cu alloy Chunhui Liu, Lihua Zhan Central South University, Changsha	Tensile properties and drawability of thin bimetallic aluminum-scandium-zirconium / stainless steel foils and monometallic Al-Sc-Zr fabricated by magnetron sputtering Julien Kovac Leibniz-IWT Bremen
13:10	Deburring and rounding of sheet metals and functionally relevant edges of parts using laser radiation Judith Kumstel Fraunhofer ILT Aachen	Effect of initial temper on mechanical properties of creepaged Al-Cu-Li alloy AA2050 Yong Li Imperial College London	High productivity micro rotary swaging Eric Mouri bime, University of Bremen
13:30	Incremental electromagnetic pulse welding of dissimilar sheet metal Verena Psyk Fraunhofer IWU Chemnitz	Experimental Investigation on Creep Forming of a New Al-Li-Cu-Mg Alloy Plate Bai Xuepiao Beijing Aeronautical Manufacturing Technology Institute	Eccentric rotary swaging variants Svetlana Ortmann-Ishkina bime, University of Bremen

13:50 Coffee break

	Room Weser 1+2 Ground floor	Room Weser 3+4 Ground floor	Room Modersohn 1. Floor
	Tool design and tribology Chair: Cao	Hot forming Chair: Arbuz	Modeling and design, <u>Special session SFB 747</u> Chair: Tracht
14:20	Geometrical design of micro-textured DLC coatings toward lubricant-free metal forming Tetsuhide Shimizu Tokyo Metropolitan University	Investigation on precision and performance for hot gas forming of thin-walled components of Ti2AlNb-based alloy Xueyan Jiao HIT Harbin	Interactions between feed system and process in production of preforms as linked micro parts Philipp Wilhelmi bime, University of Bremen
14:40	Experimental studies of the efficient use of flexible tool in creep age forming Qi Rong Imperial College London	Influence of heat treatment on the microstructure and mechanical properties of TC17 Titanium Alloy Min Wang Northwestern Polytechnical University	Application of Cause-Effect-Networks for the process planning in laser rod end melting Daniel Rippel BIBA Bremen
15:00	Material flow control in sheet-bulk metal forming processes using blasted tool surfaces Johannes Henneberg FAU Erlangen	The effect of pre-strain at elevated temperature and subsequent ageing on the mechanical behavior of AA6061 Zhenhai Xu Nat. Key Lab. for Precision Hot Proc. of Metals, Harbin	Increased output in micro production by tolerance field widening and synchronisation Ann-Kathrin Onken bime, University of Bremen
15:20	Investigation of microstructure and hardness of a rib geometry produced by metal forming and wire-arc additive manufacturing Markus Bambach University Cottbus	In-situ measurement technologies for flow behaviour and contact status of fibre-reinforced thermoplastics during forming with a six degree of freedom press Birk Wonnemberg Technische Universität Braunschweig	Inverting Prediction Models in Micro Production for Process Design Phil Gralla ZeTeM, University of Bremen

15:40 Coffee break

	Room Weser 1+2 Ground floor	Room Weser 3+4 Ground floor	Room Modersohn 1. Floor
	Sheet metal forming / Deep Drawing Chair: Veenaas	Hot stamping Chair: Allwood	Tooling and quality, <u>Special session SFB 747</u> Chair: Brinksmeier
16:10	Improving the formability of magnesium by cushion-ram-pulsation Markus Baumann Technische Universität Chemnitz	Feasibility study of a novel hot stamping process for Ti6Al4V alloy Mateusz Kopec Imperial College London	Fast quality Inspection of Micro Cold Formed Parts using Telecentric Digital Holographic Microscopy Mostafa Agour BIAS Bremen
16:30	Influence of material damage during the forming process on the vibration fatigue behaviour of a clinched connection. Bernd Maier Robert Bosch GmbH, Reutlingen	Numerical study of the induction heating of aluminium sheets for hot stamping Yi Qin University Strathclyde, Glasgow	Inline tool wear measurement in lateral micro upsetting Joseph Seven BIAS Bremen
16:50	Effect on the mechanical properties of sheet metals after the use of drawbeads in deep drawing Harald Schmid FAU Erlangen	Research on the Compound Process of Hot Stamping and Heat Treatment for Duralumin Alloy Fairing with Large Aspect Ratio: Experiment and modeling Lihua Zhan Central South University, Changsha	Chances and Limitations in the Application of Laser Chemical Machining for the Manufacture of Micro Forming Dies Hamza Messaoudi BIAS Bremen
17:10	Investigation of a Modified Hydrodynamic Deep Drawing Assisted by Radial Pressure with Inward Flowing Liquid Process Maziar Khademi Advanced Material Forming Research Center, Babol	Investigation of diffusion behavior of carburized sheet metal in hot stamping Alexander Horn FAU Erlangen	Methodology for Reliable Tribological Investigations Applying a Micro Tribometer in Ball-on-Plate Configuration Florian Böhmermann Leibniz-IWT Bremen, LFM

17:30 to 20:30 **Poster session II and Networking evening with dinner** Rooms :The Private L.O.B.B.Y and L.O.B.B.Y | Ground floor

Friday, Sept 21, 2018

Room Weser 1+2 Ground floor			Room Weser 3+4 Ground floor			Room Modersohn 1. Floor		
Rolling / Rollforming Chair: Hermes			Micro forming, cold Chair: Ming Wang FU			Dry metal forming, <u>Special session SPP 1676</u> Chair: Seefeld		
09:00	Internal Flow-Turning - extended manufacturing possibilities in tailored tube production with a constant external diameter Eugen Wiens University of Paderborn	Investigation into the micro deep drawing capabilities of a specially engineered refined aluminium alloy Abhijeet Dhal Indian Institute of Technology Madras	Observation of the a-C:H run-in behaviour for dry forming applications of aluminium Tim Abraham Fraunhofer IST Braunschweig					
09:20	The effect of radial-shear rolling on microstructure and mechanical properties of stainless austenitic steel AISI-321 Alexandr S. Arbutov Rudny Kazakhstan	Micro formed holographic security features in steel Christoph Hein Technische Universität Berlin	Adaption of tribological behaviour of a-C:H coatings for application in dry deep drawing Martin Vorndran FAU Erlangen					
09:40	Analysis of deformation characteristics and microstructure variation of thick plate during asymmetric shear rolling Tao Zhang Nanjing University	Generation of micro channels in AlMg4.5Mn0.7 sheets using a vibration-assisted micro forming process Benedikt Müller Technische Universität Chemnitz	Selective oxidation of tool steel surfaces under a protective gas atmosphere using inductive heat treatment Simon Schöler University Hannover					
10:00	Investigation of a plain ball burnishing process on differently machined Aluminium EN AWW 2007 surfaces Marco Posdich Technische Universität Chemnitz	Forming of micro gears by compressing a pure copper sheet through its thickness Amirreza Asghari Ganji University of Technology, Babol	The influence of process parameters on the temperature development in the forming zone Philipp Tröber TU München, Garching					
10:20 Coffee break								
Room Weser 1+2 Ground floor			Room Weser 3+4 Ground floor			Room Modersohn 1. Floor		
Cold forming Chair: Miura			Micro forming, hot Chair: Ming Yang			Dry metal forming, <u>Special session SPP 1676</u> Chair: Liewald		
10:50	Generation of residual stresses in rotary swaging process Dhia Chami Leibniz-IWT Bremen	Hot embossing of polypropylene micro-tubes into functional tubular components with controlled inner-pore sizes Jie Zhao University Strathclyde, Glasgow	Influence of alternating bending on springback behavior of parts in deep drawing process with macro structured tools Ali Mousavi TU Dresden					
11:10	The influence of microstructure deformation on the corrosion resistance of cold formed stainless steel Ingmar Bösing UFT, University of Bremen	Effect of annealing on microstructure and hardness of thinaluminium strips fabricated by micro flexible rolling Mingshuai Huo University of Wollongong	Tool surface with a supporting plateau out of hard particles for deep drawing of high alloy steel Hannes Freilse BIAS Bremen					
11:30	Axial and Radial Material Flow Analysis in Infeed Rotary Swaging of Tubes Yang Liu bime, University of Bremen	Fabrication of Miniature Components from ZrO2 Powder by Combining Electrical-field Activated Sintering Technique and Micro-forming Hasan Hijji University Strathclyde, Glasgow	Lubricant-free deep drawing using CO2 and N2 as volatile media injected through laser-drilled microholes Gerd Reichardt University of Stuttgart					
11:50	Influence of a modified drawing process on the resulting residual stress state of cold drawn wire Markus Baumann Technische Universität Chemnitz	Fabrication of WC-TiC-Co Cemented Carbide at Different Heating Rate by Micro-FAST process Gang Yang Sichuan University	Influence of the surface microstructure on the adhesion of a CVD-diamond coating on steel with a CrN interlayer Markus Prieske BIAS Bremen					
12:10 Lunch								
Room Weser 1-4 Ground floor			Room Modersohn 1. Floor					
Extrusion/hot forming Chair: Lihua Zhan			Dry metal forming, <u>Special session SPP 1676</u> Chair: Brosius					
13:10	Characterisation of the contact pressure dependent interfacial heat transfer coefficient for a hot stamping process following a data driven approach Xiaochuan Liu Imperial College London	Influence of surface integrity on the plastic flow in analogous testing of 42CrMo4 Rafael Hild RWTH Aachen						
13:30	Warm extrusion of ultrafine-grained Mg alloys fabricated by MDF Hiromi Miura Toyohashi University	Probing the potential of structured and surface functionalized tools for dry cold forging of aluminium Marco Teller RWTH Aachen						
13:50	Development of a novel high straining backward extrusion process Qiang Wang North University of China	Reducing Abrasive Particle Generation in Dry Rotary Swaging by Utilizing DLC Hard Coated Dies Florian Böhmermann LFM, University of Bremen						
14:15 Best paper award ceremony + Farewell coffee Chair: Vollertsen								
19:00 Farewell dinner on "Beck's Ship" - Historical sailing ship "Alexander von Humboldt" (prior registration required), location: Pier Martini								