

**The 4th International Conference on Advanced High  
Strength Steel and Press Hardening (ICHSU 2018)**

**High-performance metal sheet hot stamping materials,  
processes and equipment**

**第四届高强度钢暨热冲压成形国际学术会议 ( ICHSU 2018 )**

**高性能金属板料热冲压成形材料、工艺及装备**

**ICHSU 2018 Conference Guide**

**会议指南**

**20-22, Aug., 2018, Hefei, China**

**2018 年 8 月 20-22 日, 中国 合肥**



# ICHSU 2018 Conference Guide

## Hefei Fengda International Hotel

Mingzhu Square, Economic Development Zone, Hefei, China,  
the intersection of Jinzhai South Road and Fanhua Avenue 10555.  
Tel: 0086-0551-62236666

## 合肥丰大国际大酒店

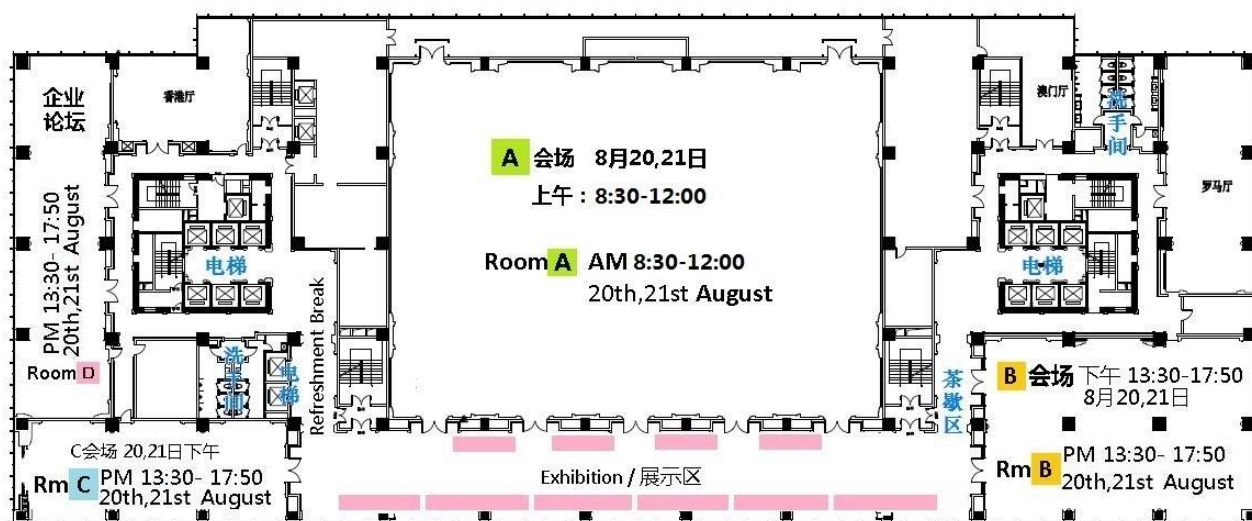
中国合肥市经济开发区明珠广场，金寨南路与繁华大道交叉口 10555 号。  
电话：0086-0551-62236666



The venues of the ICHSU2018 conference are located on the 3rd floor of the Fengda International Hotel. There are three venues A, B and C for oral Academic reports and one venue D for Enterprise reports. The plenary keynote sessions are held at venue A in the morning of August 20th-21st. The general sessions are held at venues B and C in the afternoon of August 20th-21st. The Enterprise Forum is held at venue D in the afternoon of August 20th-21st.

ICHSU2018 会议的会场设在丰大国际酒店第三层，共有 A、B 和 C 三个学术会场和一个企业论坛 D 会场。8 月 20-21 日上午举行的大会报告，在 A 会场举行。8 月 20-21 日下午的分会场报告在 B 和 C 会场同时举行。企业论坛在 8 月 20-21 日下午 D 会场进行。

## Floor of the conference hall / 会场平面图



Venues on the 3rd floor / 三楼会场分布图

## Organized by:

- Imperial College London
- State Key Laboratory of Materials Processing and Die & Mould Technology, Huazhong University of Science and Technology
- State Key Laboratory of Vehicle NVH and Safety Technology, China Automotive Engineering Research Institute Co., Ltd.
- National Engineering Laboratory of Clean Energy Vehicle & Power Train Systems, Tongji University
- Key Laboratory of Hubei Province for Modern Vehicle Component, Wuhan University of Technology

## Co-organized by:

Ma'anshan Iron and Steel Company  
Anhui Jianghuai Automobile Co., Ltd.

Materials Institution, Chinese Mechanical Engineering Society  
Materials Committee of SAE-China  
Shanghai Society of Automotive Engineers

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Han Dong, Shanghai University  
Yisheng Zhang, Huazhong University of Science and Technology  
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Lin Hua, Wuhan University of Technology  
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# The 4th International Conference on Advanced High Strength Steel and Press Hardening (ICHSU 2018)

High-performance metal sheet hot stamping materials, processes and equipment

## 第四届高强钢暨热冲压成形国际学术会议 ( ICHSU 2018 )

高性能金属板料热冲压成形材料、工艺及装备

### Preface

The Fourth International Academic Conference on Advanced High Strength Steel and Hot Stamping (ICHSU 2018) received more than 100 academic papers. After a serious review by the current scientific committee, 88 of them were included in the collection of this conference. It involves the research and development of high strength steel, high strength aluminum alloy materials, hot stamping process, application of hot forming parts, testing of hot forming parts, hot stamping die and mold material, friction, coating and lubrication, and the papers of hot stamping equipment, which have more extensive authors and enterprises to participate in than the last session. Because of the popularity and improvement of China's hot stamping technology and the rapid growth of the application of products, more and more Chinese enterprise engineers and technicians have participated in the conference. The content of the papers indicates that the progress and research on the application of high-performance metal sheet hot stamping in Europe is still at the forefront of the field.

The conference will be held on 20-22 August 2018 in Hefei, China. The conference will read 15 keynote reports and 48 sub session reports. The conference will conduct reports and discussions and provide opportunities for participants to fully communicate with engineers, business managers and technicians.

The conference also includes the exhibition of "Hot Stamping Enterprise Forum" and the exhibition platform of enterprise technology products, and arranges the technical visits of the related enterprises. It is hoped that the participants can fully understand the status and development of materials, parts design, manufacturing technology and equipment of high performance metal sheet hot stamping technology.

ICHSU 2018 Scientific Committee

### 前言

第4届先进高强钢及热冲压国际学术会议 ( ICHSU 2018 ) 共收到学术论文 110 余篇, 经过本届科学委员会认真评审, 确定其中 90 篇论文收录到本次会议的论文集。其中涉及高强钢、高强铝合金材料研发, 热冲压工艺, 热成形零件的应用, 热成形零件的测试, 热冲压模具及模具材料, 摩擦、涂层及润滑, 以及热成形装备的论文, 比上一届会议具有更广泛的作者和企业参与。由于中国的热成形技术的普及与提高, 产品应用的快速增长, 因此有更多的中国企业工程技术人员投稿并参加这次会议。论文的内容表明, 欧洲关于高性能金属板料热冲压成形的研究和技术应用, 所取得的进展仍处在该领域的前沿。

会议将在于 2018 年 8 月 20-22 日在中国合肥市举行。会议将宣读 15 个大会报告和 48 个分会场报告。会议将进行报告和讨论, 并为参会的工程技术人员、企业管理人员与技术研发人员提供充分交流的机会。

会议还附设有“热成形企业论坛”和企业技术产品展台展示, 并安排了相关企业的技术参观, 希望参会者可以全面的了解高性能金属板料热冲压技术的材料、零件设计, 制造工艺和装备的现状和发展。



ICHSU 2018 科学委员会

# ICHSU 2018 Conference Program

Monday, 20th August, 2018 ( Day 1, AM 8:30-12:15 )

\* Speaker, Chairman of Session, may be part of the change


A

Time	Title	Speaker	Chairman
	Conference Room A: Opening Session & Keynotes ( Max. 500 persons )		
8:30	Opening Session	Mingtu Ma	 Dr. Xinping Mao
8:40	517001 Development of press hardening steel and application technology in Ma steel 马钢热冲压钢的开发和应用技术	Yonggang Liu, Hua Zhan, Hairong Gu, Lei Cui, Wu Zhang and Jiachun Jin ( <i>Technology Center of Ma'anshan Iron and Steel Company, CHN</i> )	
9:05	710001 Ultrahigh strength steels and stamping technologies for automobile parts 用于汽车零部件的超高强度钢及其冲压技术	Han Dong, Cunyu Wang and Jianwen Fan ( <i>Central Iron &amp; Steel Research Institute, CHN; Shanghai University, CHN</i> )	
9:30	424002 Innovative die technology – A paradigm shift for an efficient solution 创新性模具技术—获得高效解决方案的模式转变	Mohammad M. Gharbi ( <i>Schuler Pressen GmbH, DEU</i> )	
9:55	516001 Overview on coatings developed on press hardened steels for automotive applications 汽车热冲压钢涂层发展概述	P. Drillet ( <i>ArcelorMittal Global R&amp;D, FRA</i> )	
10:20	Group Photo , Refreshment Break		
11:00	510001 The revolution of lightweight design by hot stamping 热冲压轻量化设计的变革	Jianping Lin ( <i>Tongji University, CHN</i> )	 Prof. Han Dong
11:25	624001 Effects of AI on microstructure and mechanical proeptries of Ultrahigh Carbon Steel (UHCS) AI 对超高碳钢(UHCS)的显微组织和力学性能的影响	Wangli Zhang, Hui Wang, Haifeng Xu, Cunyu Wang and Wenquan Cao ( <i>Special steel department of Central Iron and Steel Research Institute, CHN</i> )	
11:50	524001 Research progress on plastic forming of aluminum alloy sheet 铝合金板材塑性成形研究进展	Lin Hua, Yanli Song, Jue Lu, Ping Geng and Dingguo Dai ( <i>Wuhan University of Technology, CHN</i> )	
12:15	Lunch		

Monday, 20th August, 2018 ( Day 1, PM 13:30-17:50 )



B

Time	Title	Speaker	Chairman
<b>Conference Room B: ( Max. 300 persons )</b>			
13:30	522002 Microstructural and mechanical properties development during hot stamping process in a new environmental friendly steel 一种新型环保钢在热冲压过程中的显微组织和力学性能的变化	<b>Kuanhui Hu</b> , Xinping Mao, Rui Ge, S. Z. Wang, Y. Yang, Z. F. Wang and T. Gong ( <i>Wuhan Branch of Baosteel Central Research Institute, CHN</i> )	 Prof. Jianping Lin
13:50	425001 Warm rolling and warm stamping performance of the novel Nb-Mo microalloyed medium Mn steels 新型 Nb-Mo 微合金中锰钢的温轧和温冲性能	<b>Haijun Pan</b> , Hua Ding, Yifu Jiang and Minghui Cai ( <i>Northeastern University, CHN</i> ); Yisheng Zhang ( <i>Huazhong University of Science and Technology, CHN</i> )	
14:10	506001 Microstructures and properties of a press hardening steel subjected to twice partitioning treatment 一种经过两次配分处理的热冲压钢的显微组织和性能	<b>Lijun Wang</b> and C. M. Liu ( <i>Northeastern University, CHN</i> )	
14:30	509001 Springback analysis of 7075 aluminum alloy V-shape parts after hot stamping 7075 铝合金 V 型件的热冲压回弹分析	<b>Xiaoming Yang</b> and Baoyu Wang ( <i>University of Science and Technology Beijing, CHN</i> )	
14:50	425002 Study on microstructure evolution and mechanical properties of aluminum alloy 7075 in stamping process 7075 铝合金冲压过程的组织演变及力学性能研究	<b>Yifu Jiang</b> , Hua Ding, Haijun Pan and Minghui Cai ( <i>Northeastern University, CHN</i> ); Yong Liu and Yisheng Zhang ( <i>Huazhong University of Science and Technology, CHN</i> )	
15:10	528001 An investigation on the dynamic property of aluminum alloy sheets	<b>Junping Zhang</b> , Gang Fang and Mingtu Ma ( <i>China Automotive Engineering Research Institute CO., LTD., CHN</i> )	

	铝合金板材动态性能的研究			
15:30	Refreshment Break			
15:50	531001 Applications of the digital image correlation (DIC) technique for high-temperature strain measurement: a review 数字图像相关 (DIC) 方法在高温应变测量中的应用综述	R. Zhang, <b>Zhutao Shao</b> and Jianguo Lin ( <i>Imperial College London, UK</i> )	 A/Prof. Bernarde	
16:10	525013 Comparative study of corrosion resistance of different types of press-hardened steels 不同类型热冲压钢的耐蚀性对比研究	<b>Hao Peng</b> , Xinpeng Mao, Xianqiu Huang, Hui Wang, Jianhong Song, Tao Pang, Ying Ma, Zhou Peng and Kuanhui Hu ( <i>Wuhan Branch of Baosteel Central Research Institute, CHN</i> )		
16:30	404208 High temperature oxidation behavior and morphology evolution of galvannealed coating in hot stamping 热冲压过程中 GA 镀层的高温氧化和形貌演变	<b>Kai Wang</b> , Zhoujie Zhu, Bin Zhu and Yisheng Zhang ( <i>Huazhong University of Science and Technology, CHN</i> ); Huiquan Li and Tao Wu ( <i>Vision Hot Stamping Technology Co. Ltd., CHN</i> ); Jiachun Jin and Lei Cui ( <i>Technology Center of Ma'anshan Iron and Steel Company, CHN</i> )		
16:50	504002 Corrosion resistance of zinc-based coating for hot forming and its comparison with aluminum-silicon coating 热成形镀锌镀层与 Al-Si 镀层的耐蚀性能比较	<b>Zitao Li</b> , Jiachun Jin, Chenyang Sun and Wu Zhang ( <i>Technology Center of Ma'anshan Iron and Steel Company, CHN</i> ); Kai Wang and Zijian Wang ( <i>Huazhong University of Science and Technology, CHN</i> )		
17:10	601002 Dual phase steel development at TANGSTEEL and its application 唐钢双相钢开发及其应用	<b>Mingsheng Xia</b> , Chunyu Liu, Lixue Liu, Guilan Li, Guang Zhao, Binquan Ai and Xiaohua Wang ( <i>HESTEEL TANGSTEEL R&amp;D Center, CHN</i> )		
17:30	720002 The effect of dew point temperatures at heating section on the inhibition layer morphology of galvanized high strength steel 露点温度对镀锌高强度抑制层形貌的影响	<b>Erqing Ma</b> , Lei Cui, Hua Zhan and Le Chen ( <i>Technology Center of Ma'anshan Iron and Steel Company, CHN</i> )		
17:50	End of Day 1			
18:30	Banquet			

Monday, 20th August, 2018 ( Day 1, PM 13:30-17:50 )

C

Time	Title	Speaker	Chairman
	Conference Room C: ( Max. 300 persons )		
13:30	404205 Effect of load histories on the quenching and partition process 载荷历程对淬火和配分过程的影响	Zijian Wang, Huicheng Geng, Shiqi Li, Yisheng Zhang, Bin Zhu and Yilin Wang (Huazhong University of Science and Technology, CHN); Huiquan Li and Tao Wu (Vision Hot Stamping Technology Co., Ltd., CHN)	 Dr. Gerhard Jesner
13:50	604002 Theoretical study of the carbon content of retained austenite after quenching-partitioning 淬火配分后残余奥氏体内碳含量的理论研究	Cainian Jing, Zhaohao Xing, Yingming Tu, Xiaoyun Ding and Fu Guo (Shandong Jianzhu University, CHN)	
14:10	426001 FE simulation of aluminium galling induced forming tool failures under multi-cycle loading conditions: a feasibility study 多循环加载条件下铝合金拉毛诱发模具失效的有限元模拟的可行性研究	Y. Hu, Y. Zheng, X. Yang, D. J. Politis, L. Wang and J. Cui (Imperial College London, UK); M. M. Gharbi (Schuler Pressen GmbH, DEU)	
14:30	523001 Damage behavior of boron steels with various hardness using the GTN and the Johnson-Cook model 基于 GTN 及 Johnson-Cook 模型对不同硬度硼钢损伤行为的研究	Qingfeng Wang, Fangxing Wu and Bingtao Tang (Qilu University of Technology, CHN); C. C. Li (Shandong Jianzhu University, CHN)	
14:50	522004 Effects of Nb-bearing steel on the crashworthiness of hot-stamping B-pillar 含 Nb 热成形钢对热冲压 B 柱防撞性能的影响	Ye Lin, Jianping Lin, Yongji Li and Junying Min (Tongji University, CHN); Hongzhou Lu (CITIC METAL Co., Ltd., CHN)	
15:10	524003 Investigation for a hot-stamped B-pillar of a SUV based on Dynaform 基于 Dynaform 的 SUV 热冲压 B 柱的研究	Xiang Li, Zezhong Chen and H. Liu (University of Shanghai for Science and Technology, CHN)	
15:30	Refreshment Break		
15:50	410001 Study on technology of Hot Stamping based on Automotive Light-weight Engineering 基于汽车轻量化工程的热冲压技术研究	Meiyun Zhu, Lichun Cui, JialingLi (Technical Center, Anhui Jiang Huai Automobile Group Corp.,Ltd., CHN)	 Prof. Fuh-Kuo Chen
16:10	629002 Numerical simulation of hot stamped 7075 aluminium alloy 热冲压 7075 铝合金的数值模拟	Baoqin An, Yinzhong Geng, Yanbo Li, Zhenyu Han, Yaping Sun and Xianglei Yu (LingYun Industrial Corporation Ltd., CHN)	
16:30	515001 Modelling of materials properties for metal forming simulation 用于金属成形模拟的材料性能建模	Zhanli Guo and J. P. Schillé (Sente Software Ltd., UK); P. Lasne (Transvalor S.A., Parc de Haute Technologie, FRA)	
16:50	404211 Simulation on direct contact heating of aluminum alloys 铝合金直接接触加热模拟	Huicheng Geng, Zijian Wang, Kai Wang, Yilin Wang and Yisheng Zhang (Huazhong University of Science and Technology, CHN)	



17:10	Developing new steels for hot stamping via partial austenization 局部奥氏体化热冲压新钢板的开发	<b>B.F Rolfe</b> , H. Beladi(Deakin University,AUS);H. Kong (UNSW,Sydney,AUS;E.J. Pavlina(AK Steel Research & Innovation Center,USA);M.H. Cai (Northeastern University,CHN)	
17:30	517002 Efficient modelling of cooling channel flow conditions in forming tools for PHS 热冲压模具冷却水道内流动情况的高效建模	<b>Michael Düring</b> (AutoForm Engineering B.V., NLD); C. Wang (AutoForm China, Melchers Industrial (Shanghai) Ltd., CHN)	
17:50	<b>End of Day 1</b>		
18:30	<b>Banquet</b>		

## Enterprise Forum: Hot Stamping Technology & Equipment

### 企业论坛：热冲压工艺与装备技术

Conference Room D: ( Max. 350 persons )



Conference Room D: (max. 500 persons)

时间/ Time	题目 / Title	演讲 / Speaker	主持人/ Chairman
13:30	The Automotive Application and evaluation of the Hot-formed steel 热成形钢汽车应用与性能评价	<b>Zhiyong Han</b> ,Qoros Auto 韩志勇, 观致汽车有限公司	  马鸣图博士/ Dr. Mingtu Ma
13:50	The Press Hardening technology from Schuler 舒勒热成形技术	<b>Justin Yang &amp; Christian Palm</b> ,Schuler (China) Co.,Ltd., 杨鹤俊,舒勒(中国)锻压技术有限公司	
14:20	Heat Xpress: An Alternative Furnace Solution for Press Hardening 爱协林步进链热压炉: 用于模压淬火的可替代炉型解决方案	<b>Changjian Zhou</b> , Aichelin Holding Gmbh 周长剑, Aichelin Holding Gmbh	
14:50	Laser welding and 3D laser cutting of high strength steel plate) 高强度钢板的激光拼焊和三维切割	<b>Kai Xing</b> ,Wuhan Huagong Laser Engineering Co.,Ltd. 邢凯,华工法利莱切焊系统工程有限公司	
15:20	<b>Refreshment Break/茶歇</b>		
16:00	ROLLING BEAM FURNACE FOR PRESS HARDENING	<b>J. D. Berasategui</b> , GHI Smart Furnaces GHI 智能加热炉有限公司	
16:30	KDAHP1 tool steels for hot stamping mold dies 热冲压成型专用模具钢[KDAHP1]	<b>TONOMURA TSUYOSHI</b> ,NIPPON KOSHUHA STEEL CO., LTD. 日本高周波钢铁株式会社	
17:00	ENHANCE RELIABILITY OF PRESS HARDENING OPERATIONS 提高热成形生产的安全可靠性	<b>Ronald Knecht</b> ,Quaker Chemical (China) Co. Ltd. 罗纳德, 奎克化学(中国)有限公司	
17:30	Cutting workstation with high speed robot replace the five-axis laser machine 替代五轴激光机床的高速机械手切割工作站	<b>GMKY TECHNOLOGY WUXI CO.,LTD.</b> 高铭科源科技无锡有限公司	
18:00	<b>End of Day 1</b>		
18:30	<b>Banquet /晚宴</b>		





# ICHSU 2018 Conference Program

Tuesday, 21st August, 2018 ( Day 2, AM 8:30-12:00 ).

\* Speaker, Chairman of Session, may be part of the change

A

Time	Title	Speaker	Chairman
	Conference Room A: Opening Session & Keynotes ( Max. 500 persons )		
08:30	Experimental and modeling techniques for hot stamping 热冲压实验与建模方法	Jianguo Lin (Imperial College London, UK)	 Prof. Xuejun Jin
08:55	522001 Advanced cleanliness control in the 2nd generation of press hardened steels produced by ArcelorMittal 安赛乐米塔尔第二代热冲压钢的先进洁净度控制	C. Philippot, M. Beauvais, S. Sarkar, S. Cobo, E. Lucas and P. Drillet (ArcelorMittal Global R&D, FRA); B. Thillou (ArcelorMittal Atlantique – Lorraine, FRA)	
09:10	422003 High performance tool steels for the direct hot stamping process of 22MnB5 用于直接热冲压工艺的高性能模具钢	Marc Geile (voestalpine High Performance Metals Deutschland GmbH, DEU); Gerhard Jesner and Christoph Oberroither (voestalpine Böhler Edelstahl GmbH & Co KG, AUS)	
09:35	405101 Alloying design and process strategy for high performance 1800 MPa press hardening steel 1800 MPa 高性能热冲压钢的合金化设计与工艺策略	Jian Bian (Niobium Tech Asia, SGP); Hongzhou Lu, Wenjun Wang and Aiming Guo (CITIC Metal, CHN)	
10:00	Refreshment Break		
10:20	514001 Study of springback for high strength aluminium alloys under hot stamping 高强度铝合金热冲压回弹研究	Zhaoheng Cai, Paul Batthyány, Saksham Dhawan, Qunli Zhang, Yuhao Sun, Xi Luan and Liliang Wang (Imperial College London, UK); Mohammad M. Gharbi (Schuler Pressen GmbH, DEU)	 Prof. Jianguo Lin
10:45	710002 Investigation on hot forming -quenching integrated process of high strength AA7075 aluminium sheets AA7075 高强铝合金板热成形-淬火一体化工艺研究	Kui Huang, Yuelu Ren, Zebing Xu, Gang Xiao and Yulin Zheng (Guangxi Alnan Aluminium Fabrication Co., Ltd., CHN)	
11:10	404203 High performance sheet metal hot forming technology and service system 高性能金属板材热成形技术及服务系统	Liang Wang and Yisheng Zhang (Huazhong University of Science and Technology, CHN); Xingyun An (Wuhan Zhongyu Dingli Intelligent Co., Ltd., CHN)	
11:35	526002 The 4th generation hydraulic press for hot stamping 第四代热冲压用液压机	Jianwen Yan, Guishan Li and Kunmin Zhao (Hefei University of Technology, CHN; Metalforming Intelligent Manufacturing Co., Ltd., CHN)	
12:00	Lunch		

Tuesday, 21st August, 2018 ( Day 2, PM 13:30-17:50 ).

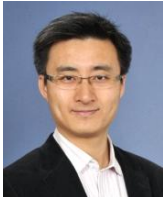

B

Time	Title	Speaker	Chairman
	<b>Conference Room B: ( Max. 300 persons )</b>		
13:30	404201 Design, application and challenges in structural ceramics for press quenching 用于热压淬火的加热炉陶瓷结构的设计、应用及挑战	<b>Tianlong Chen</b> (Cencera Corporation, CHN); Rongxia Chai (Xi'an University of Science and Technology, CHN)	 Dr. Jeff Wang
13:50	615001 Advanced design for continuous roller furnace for hot forming line 热冲压连续辊底式加热炉的先进设计	<b>Borek Dvorak</b> (BENTELER Mechanical Engineering GmbH, CZE); Jad John Tawk (BENTELER Maschinenbau GmbH, DEU); Tomáš Vít (Technical University of Liberec, CZE)	
14:10	525009 Rolling beam furnace for press hardening 用于热冲压的滚动梁式加热炉	<b>D. Angulo</b> , J. Berasategui and A. Sanz (GHI Smart Furnaces, ESP)	
14:30	613001 Application of mechanical servo press in hot stamping production line 机械伺服压力机在热冲压生产线的应用	<b>Xin Fang</b> , Zunmang Ke and Lei Dou (Jiangsu Xuzhou Metalforming Machine Group Co., Ltd., CHN); Xingyun An and Liang Wang (Huazhong University of Science and Technology, CHN)	
14:50	626002 The application and research of lightweight design of high-speed manipulator in thermoforming lines 用于热成形生产线的高速机械手的轻量化设计及其应用	<b>Zhitong Su</b> , Meisen Yu and Xibing Tao (Qingdao Kingerobot Co., Ltd., CHN)	

15:10	515002 Enhance reliability of press hardening operations 热冲压过程的可靠性提升	D. R. Knecht (Quaker Chemical Cooperation, USA)	
15:30	Refreshment Break		
15:50	404101 Superior tool steels for hot stamping of AHSS 用于先进高强度热冲压的优质模具钢	J. J. Wilzer and Ch. Escher (Dörrenberg Edelstahl GmbH, DEU)	 Dr. Yanan Wang
16:10	604001 Premium tool steels solutions for efficient hot-stamping applications 实现高效热冲压的优质模具钢解决方案	David Wang (Kind Special Alloys (Beijing) Trading Ltd., CHN); Ingolf Schruff (Kind & Co., Edelstahlwerk, GmbH & Co., KG, DEU)	
16:30	708001 A tooling heating design for tailored die quenching in the hot stamping process 实现热冲压工艺定制化淬火的模具加热设计	T. H. Hung, I. W. Chiu and F. K. Chen (Taiwan University, Taiwan); S. W. Wang (China Steel Corporation, Taiwan); C. H. Hung (National Chiao Tung University, Taiwan)	
16:50	504003 The forming process analysis, experimental verification and quality optimization of the variable section frame longeron with QSTE650 high strength steel QST650 高强度变截面纵梁的成形工艺分析、试验验证及质量优化	Y. Q. Xu, L. C. Cui, L. W. Zhao, M. Tang and D. X. Liu (Anhui Jianghuai Automobile Group Corp., Ltd., CHN)	
17:10	712001 Laser 3D cutting of hot formed parts and high strength steel welding applications 热成形件的激光三维切割和高强度钢焊接应用	Wendi Wu and Chenglin Liu (HG-FARLEY Welding System Engineering Co., Ltd., CHN)	
17:30	713001 Laser softening of press hardend steel for novel automotive parts 新型汽车零件用热冲压钢的激光软化	Thomas Harrer and Marcel Schäfer (TRUMPF Laser- und Systemtechnik GmbH, DEU)	
17:50	End of Day 2		
18:30	Banquet		

**Tuesday, 21st August, 2018 ( Day 2, PM 13:30 -17:50).**

**C**

Time	Title	Speaker	Chairman
	Conference Room C: ( Max. 300 persons )		
13:30	530001 Investigation on mechanical properties and hydrogen behavior of Nb and V bearing 22MnB5 B-pillars 含铌钒热冲压钢 B 柱的力学性能和氢特性研究	Wei Ding, <b>Yu Gong</b> , Wei Li, and Xuejun Jin ( <i>Shanghai Jiao Tong University, CHN</i> ); Bin Zhu and Yisheng Zhang ( <i>Huazhong University of Science and Technology, CHN</i> ); Yan Zhao and Mingtu Ma ( <i>China Automotive Engineering Research Institute Co. Ltd., CHN</i> )	 Dr. Liliang Wang
13:50	605001 Influence of surface element enrichment on corrosion resistance and phosphating performance of automotive sheets 表面元素富集对汽车板耐蚀性能和磷化性能的影响	<b>Jing Zhang</b> , Jianqun Qi, Fanyue Meng, Yanbing Du and Mingsheng Xia ( <i>HBIS TangSteel Technology Center, CHN</i> )	
14:10	630001 Hot-stamping application for lightweight torsion beam of passengers vehicle 热冲压在制造乘用车轻量化扭力梁中的应用	<b>Fei Xiong</b> and K. Yu ( <i>Qiantu Motors, CHN</i> )	
14:30	708002 Hot stamping of tailor welded blanks 拼焊板的热冲压	<b>Chienhsing Lee</b> and Chinghua Hung (National Chiao Tung University, Taiwan); Cheng-Kai ChiuHuang (China Steel Corporation, Taiwan); Fuh-Kuo Chen (Taiwan University, Taiwan)	
14:50	620001 A novel tailored hot stamping tooling concept to achieve multiple locally tailored zones 实现多个局部变强度区域的新型定制化热冲压模具理念	<b>Yanan Wang</b> , Michael Pereira and Bernard Rolfe ( <i>Deakin University, AUS</i> ); Yong Liu, Zhoujie Zhu, Jia Zhu, Zijian Wang and Yisheng Zhang ( <i>Huazhong University of Science and Technology, CHN</i> )	
15:10	519001 A novel warm stamping process for manufacturing disc springs 一种用于制造碟形弹簧的新型温冲压工艺	<b>Yuhao Sun</b> , Kehuan Wang, Denis J. Politis, Zhaoheng Cai and Liliang Wang ( <i>Imperial College London, UK</i> ); Li Wan and Yongming Wang ( <i>Capital Aerospace Machinery Company, CHN</i> )	
15:30	Refreshment Break		
15:50	705001 Current research and challenges in innovative technology of joining dissimilar materials for electric vehicles 电动汽车异种材料连接创新技术研究现状与面临的挑战	<b>Hong Li</b> and Xusheng Liu ( <i>Beijing University of Technology, CHN</i> ); Yisheng Zhang ( <i>Huazhong University of Science and Technology, CHN</i> ); Mingtu Ma ( <i>China Automotive Engineering Research Institute, CHN</i> ); Guangying Li ( <i>Central Iron &amp; Steel Research Institute, CHN</i> ); Jacek Senkara ( <i>Warsaw University of Technology, POL</i> )	 Dr. Fei Xiong
16:10	404213 Investigation on fast solution and aging of 6061 aluminum alloy sheet in hot stamping processes and its negative natural aging effect 6061 铝合金板材在热冲压工艺下的快速固溶时效及其自然时效的负面性研究	<b>Yong Liu</b> , Chunyan Wu, Liang Wang, Kai Wang, Zijian Wang, Bin Zhu, Yilin Wang and Yisheng Zhang ( <i>Huazhong University of Science and Technology, CHN</i> )	
16:30	504001 Effect of tempering treatment process on bendability of press hardening steel	<b>Jiachun Jin</b> , Lei Cui, Hairong Gu and Yangyang Xiao ( <i>Technology Center of Ma'anshan Iron and Steel Company, CHN</i> )	

	回火处理工艺对热冲压钢弯曲性能的影响		
16:50	530002 The influence of vanadium on the mechanical properties of ultra-high strength boron steel treated by quenching and partitioning process 钒对淬火-配分处理后的超高强度硼钢力学性能的影响	<b>Wei Ding</b> , Yu Gong , Xuejun Jin and Xifang Ding (Shanghai Jiaotong University, CHN); Jiayao Hong and Li Wang (Baosteel Research Institute, CHN)	
17:10	601001 Hot stamping process research on sill beam with 22MnB5 steel 22MnB5 钢底梁的热冲压工艺研究	<b>Yuan Sheng Wei</b> and Chao Feng (Great Wall Motor Co., Ltd., CHN)	
17:30	525005 Experimental investigation of hot stamping used Al-Si coated blank heating process Al-Si 镀层坯料的热冲压加热工艺的试验研究	<b>Huanyang Xie</b> , Zhijun Ma, Qingwei Mao and Yuanping Wei (Shanghai Superior Die Technology Co., Ltd, CHN)	
17:50	<b>End of Day 2</b>		
18:30	<b>Banquet</b>		

## Enterprise Forum : Hot Stamping Technology & Equipment

### 企业论坛：热冲压工艺与装备技术

Conference Room D: ( Max. 350 persons )



时间/ Time	题目 / Title	演讲 / Speaker	主持人/ Chairman
13:30	Advance in the research of Masteel auto sheet 马钢汽车板的技术进展	Zhan Hua, Maanshan Iron & Steel Co., Ltd. 詹华, 马鞍山钢铁股份有限公司	<div></div> <div>Yuancong Liang Secretary general 梁元聪 秘书长</div>
13:50	Newest developments in heat treatment for press hardening incl. in-situ creating tailored properties 热冲压成型中热处理技术的最新发展，如何创建局部软区	Harald Lehmann, Calvin Wang, schwartz Heating system Asia (Kunshan) Co., Ltd. 王晓凯, 施瓦茨机械设备（昆山）有限公司	
14:20	Three-dimensional five-axis laser cutting technology and equipment for hot formed parts 热成形件三维五轴激光切割技术及装备	Xufei Liu, Han's Laser Smart Equipment Group 刘旭飞, 大族激光智能装备集团有限公司	
14:50	Premium Tool Steel Solutions for Efficient Hot-stamping Applications 用于高效热成形应用的高级模具钢解决方案	Xujun Wang, Kind & Co 王旭军, 凯德特钢（北京）贸易有限公司	
15:20	Refreshment Break /茶歇		
16:00	JENOPTIK-VOTAN® BIM - High performance cutting of lightweight automotive parts by robot based solutions 基于机器人技术的高性能解决方案用于汽车轻量化零件切割	Torsten Reichl, JENOPTIK (Shanghai) Precision Instrument and Equipment Co., Ltd. 业纳（上海）精密仪器设备有限公司	
16:30	The topic is being confirmed	JAC MOTORS 江淮汽车	
17:00	展示区交流		
17:30	End of Day 2		
18:30	Banquet /晚宴		

## Inserting space preparation

Time	Title	Speaker	Chairman
	<b>Conference Room A, B &amp; C:</b>		
	717001 KDAH P1 tool steels for hot stamping mold dies	Tsuyoshi Tonomura (Nippon Koshuha Steel Co., Ltd, JPN); <b>Liu Ping</b> (Microfine Trading (Shanghai) Co., Ltd, CHN)	
	725001 Analyzing large tooling cooling using CFD 基于 CFD 的大型模具冷却分析	<b>B. F Rolfe</b> , W. M. Gao, M. Pereira and Y. Wang (Deakin University, AUS); L. Pan and G. Rui (Wuhan Branch of Baosteel Central Research Institute, CHN)	
	706001 Tool steel solutions for tailored property parts produced via hot stamping	C. Oberroither and <b>G. Jesner</b> (voestalpine BÖHLER Edelstahl GmbH & Co KG, AUS)	
	720001 Effect of overaging temperature on microstructure and mechanical properties of cold-rolled DP980 steels	<b>Yangyang Xiao</b> , Hua Zhan, Lei Cui and Jiachun Jin (Technology Center of Ma'anshan Iron and Steel Company, CHN)	
	525003 Study on low temperature brittleness and hydrogen embrittlement of automotive dual phase steel sheet	<b>G. Fang</b> , L. F. Song, Y. Feng, J. P. Zhang and M. T. Ma (China Automotive Engineering Research Institute Co., Ltd., CHN)	
	525014 Effect of micro alloying on hardenability and mechanical properties of the 22MnB5 hot stamped steel	<b>Anmin Liu</b> , Yi Feng, Leifeng Song, Yan Zhao, and Mingtu Ma (China Automotive Engineering Research Institute Co., Ltd., CHN); Jun Li (Chery Automobile Co., Ltd., CHN)	

	601003 The structure change and phase transformation of DP780 during galvanizing	<b>Zhiyu Geng</b> , Haiwu Song, Jian Guo and Huanjun Wei ( <i>Technology Center of TangSteel in Hebei Iron and Steel Group, CHN</i> )	
	626003 Researches on secondary work embrittlement properties of high strength IF steel	<b>Libo Pan</b> , Shizheng Zhou, Fangyi Sun, Xiangdong Liu and Zhaojun Deng ( <i>Wuhan Iron and Steel Company, Baosteel, CHN</i> )	
	404209 Investigation of the constitutive model and warm stamping of 7075-T6 aluminum alloy	<b>Zhoujie Zhu</b> , Bin Zhu, Kai Wang, Yilin Wang and Yisheng Zhang ( <i>Huazhong University of Science and Technology, CHN</i> )	
	404214 Research on the deformation temperature of zinc coated press hardened steel in hot stamping process	<b>Jia Zhu</b> , Kai Wang, Zhoujie Zhu, Bin Zhu and Yisheng Zhang ( <i>Huazhong University of Science and Technology, CHN</i> )	
	404215 Investigation on quench rate of 7075 aluminum alloy under hot stamping conditions	<b>Mengyuan Zhu</b> , Bin Zhu, Yong Liu and Yisheng Zhang ( <i>Huazhong University of Science and Technology, CHN</i> )	
	404210 Identification of hot stamping fully martensitic microstructure SEM photograph with support vector machine	<b>Fangkang Hu</b> , Zhoujie Zhu, Kai Wang, Bin Zhu and Yisheng Zhang ( <i>Huazhong University of Science and Technology, CHN</i> )	
	404206 Investigation on tribological behavior of 7075 aluminum alloy at elevated temperatures	<b>Yupeng Xu</b> , Yong Liu, Zijian Wang and Yilin Wang ( <i>Huazhong University of Science and Technology, CHN</i> ); Lingfeng Zhang and Long Li ( <i>Dongguan Vision Hot Stamping Technology Co., Ltd., CHN</i> )	
	719001 The thermodynamics calculation of Nb-V bearing press hardened steel during hot stamping process	<b>Qingjiang Zhao</b> , Yao Zhao, Mingtu Ma, Gang Fang, Tiquang Fan ( <i>China Automotive Engineering Research Institute Co., Ltd., CHN</i> )	
	802001_Final_Dynamic interaction mechanism between dislocations and precipitates in creep aging of 7050 aluminum alloy	<b>Heng Li</b> , T.J. Bian, C. Lei, G.W. Zheng ( <i>Northwestern Polytechnical University, CHN</i> )	
	521001 Prediction of die spotting compensation value of a large stamping die based on virtual clamping technique 基于虚拟夹合技术的大型冲压模具合模补偿值预测	Chengyong Wang, <b>Pengfei Ye</b> , Jinhong Chen, Zhiwei Xiang and Jin Wu ( <i>Hefei University of Technology, CHN</i> )	

## ICHSU 2018 Conference Program

Wednesday, 22nd August, 2018 (Day 3 ,AM 9:00 - 11:00).

Industrial Travel

MASTEEL (Hefei) Advanced Materials Technology Co., Ltd.

马钢(合肥)材料科技有限公司

