

ICHSF2025 Conference Program

Monday, August 25			
3:30 PM	5:30 PM	Plenary Meeting I ² FG (Members only)	
6:00 PM	8:00 PM	Welcome Reception (Exp.-Hall IUL)	
Tuesday, August 26			
8:00 AM	9:00 AM	Start - Registration & coffee	
9:00 AM	9:20 AM	Welcoming speech by Prof. Korkolis	
9:20 AM	10:00 AM	Keynote	Prof. Werner Homberg <i>High-Speed-Forming more than just hype?</i>
10:00 AM	10:20 AM	1. Session: Impulse forming Chairman: Prof. A. Erman Tekkaya	<i>Strain rates in electrohydraulic forming of thin stainless-steel sheet metals</i> L. Langstädtler, C. Schenck
10:20 AM	10:40 AM		<i>Production of individual sheet parts using vaporizing foil actuator forming and a flexible liquid-solid tool</i> J. Bechler, L. Dombrowski, H. Dardaei Joghnan, M. Hahn, Y.P. Korkolis, A.E. Tekkaya
10:40 AM	11:00 AM		<i>An Experimental Study: Improved Electrohydraulic Forming Efficiency Through Wire-Free Discharge</i> Y. H. Jang, J. Kim
11:00 AM	11:20 AM		<i>Impact of high strain rate and high pressure on mechanical properties and microstructure of copper single-turn coils generating megagauss field (oral only)</i> S. Tardieu, N. Ferreira, O. Drachenko, T. Schiavo, F. Teyssier, O. Portugall, F. Lecouturier-Dupouy
11:20 AM	11:40 AM	Coffee break	
11:40 AM	12:00 PM	2. Session: Electromagnetic (EM) Welding Chairman: Prof. W. Homberg	<i>Investigation of Electromagnetic Pulse Welding for the Automated Production of Resource-Efficient Multi-Material Joints</i> S. O. Kraus, M. Graß, J. Bruder, C. Pabst, J. Holz, J. Wiedemann, S. Frodl, M. Heckmann, P. Frint, S. Böhm, P. Groche
12:00 PM	12:20 PM		<i>Investigation and Improvement of dissimilar Aluminum-Copper Joining using Magnetic Pulse Welding combined with local Inert Gas Application</i> M. Graß, J. Jüngst, S. Böhm
12:20 PM	12:40 PM		<i>A novel coil structure for metal sheet magnetic pulse welding</i> X. Jiang, H. Yu, H. Li, J. Deng
12:40 PM	1:00 PM		<i>Recent Evolutions of Electromagnetic Pulse Processes in the Industrial Mass Production</i> C. Pabst, P. Pasquale
1:00 PM	2:00 PM	Lunch (Exp.-Hall IUL; 3 min walk)	

ICHSF2025 Conference Program

Tuesday, August 26			
2:00 PM	2:30 PM	Impulse book	Introduction Impulse forming book
2:30 PM	2:50 PM	3. Session: Welding other than EM Chairman: Dr. J.-P. Cuq-Lelandais	<i>Combined use of High-Speed Videography and PDV Profilometry for Measuring High Speeds Flyers and Impact Shock Dynamics</i> B. Thurston, M. Abdelmaola, J. Seidt, A. Gilat, A. Vivek, G. S. Daehn
2:50 PM	3:10 PM		<i>Feasibility and Mechanistic Analysis of 3-Stack Aluminium-Steel Spot Joints Using Vaporizing Foil Actuator Welding with Partial Pre-Forming</i> D. Kumar, J. Choi, H. Lim, H. Kwon, J. Jeong, T. Lee
3:10 PM	3:30 PM		<i>Development of Fill Impact Welding Technique for Metal Additive Manufacturing</i> Y. Mao, M. Abdelmaola, D. Buorgeois, G. S. Daehn, A. Vivek
3:30 PM	3:50 PM		<i>Enhancement of Laser Impact Welding for Joining Thicker Aluminium Sheet</i> M. Abdelmaola, B. Thurston, B. Panton, A. Vivek, G. S. Daehn
3:50 PM	4:10 PM	Coffee break	
4:10 PM	4:30 PM	4. Session: Electromagnetic Joining by forming Chairman: Prof. M .Hermes	<i>Electromagnetic incremental assembly for large thin-walled ring shells and microscopic mechanisms of dynamic deformation overlap regions</i> X. Cheng, H. P. Yu, J. P. Guo, H. Wang, T. S. Yu
4:30 PM	4:50 PM		<i>Numerical and Experimental Studies on Electromagnetic Pulse Crimping of Joining D9 Steel Tube on SS316L (N) Plug</i> A. R. Dhiware, S. D. Kore, M. R. Kulkarni
4:50 PM	5:10 PM		<i>Magnetic Pulse Crimping of Power Cables: Process Simulation & Performance Characterization</i> J.-P. Cuq-Lelandais, N. Innocenti, W. Gage, C. Huteau, G. Daulhac, N. Mrozowski
5:10 PM	5:30 PM		<i>Feasibility Study on Joining Aluminum Tube with Alumina Ceramic Rod Using Magnetic Pulse Crimping Process</i> U. Singh, A. Rajak
5:30 PM		End of talks	
5:45 PM		Bus departs for conf. Dinner	
6:30 PM		Gala dinner reception (Kokerei Hansa)	
7:30 PM		Gala dinner (Kokerei Hansa)	

ICHSF2025 Conference Program

Wednesday, August 27			
8:00 AM	8:50 AM	Start - Registration & coffee	
8:50 AM	9:00 AM	Opening and Remarks	
9:00 AM	9:40 AM	Keynote	Prof. Dirk Mohr <i>Recent advances in material characterization at high-strain rate</i>
9:40 AM	10:00 AM	1. Session: Impulse forming Chairman: Prof. G. Daehn	<i>Determination of the High Strain Rate Behaviour of a CuCrZr Alloy Using an Electromagnetic Forming Bench Test</i> N. Mrozowski, S. Ferreira, A. Fau, J. P. Cuq-Lelandais, G. Mazars, C. Jeanson, R. Pecquois, G. Daulhac, X. Robin
10:00 AM	10:20 AM		<i>Calibration of Aluminum Sheets by High-Speed Hydroforming</i> M. Hermes, N. Weiß-Borkowski, T. Wieseler, V. Holstein, E. Köster
10:20 AM	10:40 AM		<i>Automatic Mesh Adaptation for Magnetic Pulse Forming Simulations</i> J.O. Garcia, J. R. Alves Z., U. Ripert, J. Barlier, F. Bay
10:40 AM	11:00 AM		<i>Finite element modelling and simulation of the multiscale crystalline structure of aluminium deposit produced by helium cold spray additive manufacturing</i> J. Qi, R. N. Raoelison, J. Li, M. Rachik
11:00 AM	11:20 AM		<i>Numerical Investigation of Integrating Electromagnetic Forming with Supercritical Fluid-Assisted Polymer Injection Molding</i> M. Pirani, M. Hahn, H. Dardaei Joghani, Y. P. Korkolis, A. E. Tekkaya, S. Farahani
11:20 AM	11:40 AM	Coffee break (including ICHSF group photo)	
11:40 AM	12:00 PM	2. Session: EM Welding Chairman: Dr. C. Pabst	<i>Design criteria for a High Power Pulsed generator for the delamination of laminate structures</i> B. Lagain, T. Heuzé, G. Racineux, M. Arrigoni
12:00 PM	12:20 PM		<i>Magnetic pulse welding of dissimilar aluminum-copper joints: Impact of downscaling on weldability</i> J. Jüngst, M. Graß, S. Böhm
12:20 PM	12:40 PM		<i>Determination of Weld Interface Properties and their Effect on the Strength of Multi-Material Aluminium-Steel Joints</i> S. O. Kraus, J. Bruder, P. Groche
12:40 PM	1:00 PM		<i>Grain boundary motion in magnetic-pulse-welded Al-Fe bimetal systems: An atomistic simulation study</i> Z. Fan, X. Wang, M. Xie, H. Ning, J. Deng
1:00 PM	2:45 PM	Lunch (Optional Guided Tour of the Lab; Exp.-Hall IUL; 3 min walk)	

ICHSF2025 Conference Program

Wednesday, August 27			
2:45 PM	3:05 PM	3. Session: Mini-Symposium Adiabatic blanking Chairman: Prof. T. Lampke	<i>Shear Cutting of Aluminum, Zinc, and Tin at Increased Speeds</i> K. Holzer, W. Volk
3:05 PM	3:25 PM		<i>Investigations on the temperature-deformation behaviour of advanced high-strength steel sheets (AHSS) under shear loading from nearly isothermal to the adiabatic state</i> S. Klitschke, M. Liewald
3:25 PM	3:45 PM		<i>Micro-Scratch Tests as a Method For Determining the Wear Resistance of High-Speed Blanked Surfaces</i> L. Winter, R. Drehmann, T. Lampke
3:45 PM	4:05 PM	Coffee break	
4:05 PM	4:25 PM	4. Session: Mini-Symposium Adiabatic blanking Chairman: Prof. Y. Korkolis	<i>Characterization of thermo-mechanical behavior and adiabatic shear band formation in a press-hardened 22MnB5 steel at different strain rates</i> L. Schottstedt, M. Scholze, M. F.-X. Wagner
4:25 PM	4:45 PM		<i>Determination of GISSMO Damage Parameters for High-Speed Blanking of 22MnB5 and EN AW 5754</i> E. Galiev, M. Linnemann, S. Winter, V. Psyk, M. Dix
4:45 PM	5:05 PM		<i>Analysis of shear localization in high-speed blanking of press-hardened 22MnB5 steel</i> O. Schrage, H. Dardaei Joghann, M. Hahn, Y. Korkolis, A. E. Tekkaya
5:05 PM	5:15 PM	Closing Session	