Programme of AJP 2025

Author underlined → presenting author

* Plenary lecture

Thursday 16 October 2025			
8:40	**AJP 2025 Opening (Room Julieta)**		
	Room Julieta		
9:00*	Versatile joining by forming - from vision to reality **(AJP25_39)** G Meschut (Paderborn University, Germany), M Merklein, A Brosius, M Bobbert		
	Session 1A – Joining by forming I (Chair: PAF Martins and MM Kasaei)	**Session 1B – Laser welding I (Chair: K Dilger and U Reisgen)**	**Session 1C – 6th In-situ workshop I (Chair: T Kannengießer and A Kromm)**
	Room Julieta	**Room Copelia**	**Room Gisele**
9:40	Enhancing the performance of double-flush riveted joints through hybridization with adhesive bonding **(AJP25_19)** JMB Alpendre, PMS Rosado, RFV Sampaio, JPM Pragana, IMF Bragança, CMA Silva, PAF Martins (Universidade de Lisboa, Portugal)	Fundamentals of spatter formation in laser keyhole welding of high-alloy steel **(AJP25_30)** C Diegel (Technische Universität Ilmenau, Germany), L Schmidt, K Schricker, M Seibold, H Friedmann, P Hellwig, F Fröhlich, F Nagel, P Kallage, A Rack, H Requardt, Y Chen, JP Bergmann	Characteristics of intra-granular microstructure in steel weld metals formed by CO2-shielded high-current buried-arc welding **(AJP25_21)** H Terasaki (Kumamoto University, Japan), M Tsushida, T Era, H Baba, Y Umemoto, T Takeshima, T Tonan, T Yamaguchi

10:00	Numerical investigation of an orbital forming process to join dissimilar materials with local material accumulation **(AJP25_22)** A Harms (Friedrich-Alexander-Universität Erlangen-Nürnberg, Germany), D Römisch, H Theiss, M Lechner, M Merklein	In situ synchrotron investigations: vapor capillary dynamics and molten pool ejections during laser beam welding of cast aluminum **(AJP25_55)** P Meyer (Fraunhofer Institute for Laser Technology ILT, Germany), N Wollf, Y Sun, J Brüggenjürgen, C Spurk, M Hummel, A Olowinsky, F Beckmann, J Moosmann, A Häusler, A Gillner	Impact of inadequate repair welding of cast duplex stainless steel on corrosion performance in seawater desalination plants **(AJP25_23)** KM Hafez (Central Metallurgical Research & Development Institute (CMRDI), Egypt), E El-Shenawy, H Refaie
10:20	Numerical study of the joint strength criteria of metal-polymer joints with combined force- and form-fit **(AJP25_89)** F Weinert (TU Dortmund University, Germany), F Weber, H Dardaei Joghan, Y P Korkolis, AE Tekkaya	Effect of laser beam oscillation on weld segregation suppression in laser welding of Al-Si coated HPF steel sheets **(AJP25_63)** CY Lee (Hyundai Steel, South Korea), SH Park, JS Kim, KJ Sohn	Microstructural development of laser-welded Al-Cu overlap joints depending on beam parameters and joint geometry **(AJP25_28)** H Letsch, RJ Hofmann, K Hoefer, J Hensel (Chemnitz University of Technology, Germany)
10:40-11:00	**COFFEE BREAK**		
	Session 2A – Advanced joining processes I (Chair: A Astarita and A Brosius)	**Session 2B – Adhesive bonding I (Chair: H Fricke and C Sato)**	**Session 2C – 6th In-situ workshop II (Chair: H Terasaki and A Kromm)**
	Room Julieta	**Room Copelia**	**Room Gisele**
11:00	Weld solidification cracking susceptibility of dissimilar austenitic weld metals and the influential factors **(AJP25_33)** K Kadoi (Osaka university, Japan), H Fendong, H Yuyang, S Aoki, S Okano	Advancing adhesive bonding technology through digitalization and industry 4.0 integration **(AJP25_40)** H Fricke (Fraunhofer IFAM, Germany)	AI-based monitoring system for real-time defect detection in Wire Arc Additive Manufacturing **(AJP25_34)** JE Tapia-Cabrera (Technical University of Munich, Germany), F Groschupp, MF Zaeh
11:20	Automated crack detection in welds based on induction excited thermography **(AJP25_48)** M Mund (TU Braunschweig, German), T Krüger, S Hartwig, MW Kandula, K Dilger	Rheological characterization and cyclic creep behaviour of acrylic pressure-sensitive adhesives for advanced joining in automotive applications **(AJP25_4)**	Reduction of residual stress by narrowing the repair groove: Optimizing repair welding with modern welding processes for high-strength offshore steels **(AJP25_50)**

		BD Simões (INEGI, Portugal), HC Sousa, EAS Marques, RJC Carbas, S Maul, P Stihler, P Weißgraeber, LFM da Silva	L Reichel (Bundesanstalt fuer Materialforschung und -pruefung (BAM), Germany), A Kromm, D Schroepfer, T Kannengiesser
11:40	On the interpretation of microstructure and mechanical response in butt-welded aluminium 6082 joints under varying cooling conditions **(AJP25_56)** H Rohani Raftar (LUT University, Finland), A Khodabakhshi, A Ahola, T Skriko	Fatigue of adhesive joints: a well-studied yet persistently challenging phenomenon **(AJP25_6)** A Akhavan-Safar (INEGI, Portugal), RJC Carbas, EAS Marque, LFM da Silva	Improvement of fatigue resistance through the application of a low-transformation-temperature welding consumable **(AJP25_59)** M Hübner (Bundesanstalt für Materialforschung und -prüfung (BAM), Germany), F Dittmann, A Kromm, I Varfolomeev, T Kannengiesser
12:00	Concept for sensor-based self-tuning gas metal arc welding process control **(AJP25_137)** A Biber (RWTH Aachen University, Germany), R Sharma	Influence of manufacturing and testing processes on residual stress distribution in EMC–Silicon bi-materials found in wafer assemblies **(AJP25_8)** P Maleki (INEGI, Portugal), PFC Videira, A Akhavan-Safar, RJC Carbas, EAS Marques, B Karunamurthy, LFM da Silva	Wire arc additive manufacturing process using CO_2 as the shielding gas and a high-tensile steel wire **(AJP25_61)** H Imamura (Kumamoto University, Japan), S Mishiro, K Hara, Y Ohshima, M Ohata, S Maeda, K Ikushima, M Shibahara, H Terasaki
12:20	Model for predicting arc deflection during stud welding **(AJP25_69)** M Rohe (Technische Universität Ilmenau, Germany), J Hildebrand, JP Bergmann	Mechanical behavior of composite-steel adhesive joints in car floors at various loading rates **(AJP25_10)** B Hasumi (Asahi Kasei Corporation, Japan), A Akhavan-Safar, RJC Carbas, EAS Marques, LFM da Silva	Motion-induced blur in in situ CT: X-ray image-based evaluation of stress relaxation effects in thermoplastic composite joints **(AJP25_68)** A Dargel (TUD Dresden University of Technology, Germany), J Troschitz, M Gude, R Kupfer
12:40	Study on the effect of electrically assisted rapid heat treatment on electrically assisted solid-state spot joining of cast aluminum A365-T6 alloy **(AJP25_72)** VC Phan (University of Ulsan, Republic of Korea), SH Choo, TT Do, TA Bui-Thi, CJ Lee, KS Nam, S-T Hong	Influence of application patterns on adhesive flow in manufacturing bonded joints **(AJP25_12)** D Garcia (INEGI, Portugal), A Akhavan-Safar, PMS Almeida, RJC Carbas, EAS Marques, J Hrachova, H Leenders, LFM da Silva	Brazing of Sn78Cu22 on aluminum substrates observed via in situ-experiments in a large-chamber SEM **(AJP25_79)** S Khatmi (RWTH Aachen University, Germany), J Mayer, A Aretz

13:00-14:00	**LUNCH BREAK**		
	Room Julieta		
14:00*	From the field to the lab and back: Evaluating the integrity of welded components using scaled experiments **(AJP25_42)** A Kromm (Bundesanstalt für Materialforschung und -prüfung (BAM), Germany)		
	Session 3A – Friction stir welding I (Chair: G Meschut and R Beygi)	**Session 3B – Additive manufacturing I (Chair: JPM Pragana and EAS Marques)**	**Session 3C – 6th In-situ workshop III (Chair: T Kannengießer and D Schroepfer)**
	Room Julieta	**Room Copelia**	**Room Gisele**
14:40	Friction weldability of 3D printed 316L stainless steel bars **(AJP25_138)** TM Chmielewski (Warsaw University of Technology, Poland), Ł Morawiński	Microstructural parameters and dislocation density evolution in 316LSi stainless steel fabricated by wire arc additive manufacturing **(AJP25_1)** B Mehdi (University of Science and Technology Houari Boumediene USTHB, Algeria), S Aberkane, R Badji	In-situ study of phase transformation and precipitate kinetics in Al alloys during solid state materials processing **(AJP25_110)** CYC Chan (Helmholtz-Zentrum Hereon, Germany), E Mathew, L Rath, H Rana, J Escobar, E Maawad, U Suhuddin, P Staron, JF dos Santos, B Klusemann
15:00	Solid solutioning hindering effect on intermetallic growth: Aluminum-matrix composite reinforced with mechanical-alloyed Ni-Cu powder by friction stir processing **(AJP25_46)** MB Hesari, R Beygi (Arak University, Arak, Iran), A Bayrami, MZ Mehrizi, EAS Marques, LFM da Silva	Hybrid manufacturing of metallic structures through integration of wire-arc directed energy deposition and resistance welding **(AJP25_31)** MRF Barros, PMS Rosado, RFV Sampaio, JPM Pragana (University of Lisbon, Portugal), IMF Bragança, CMA Silva, PAF Martins	Influence of ultrasonic-assisted milling on surface integrity of additively manufactured components using MSG processes **(AJP25_85)** L Engelking, A Eissel, M Madia, D Schroepfer (Bundesanstalt fuer Materialforschung und -pruefung (BAM), Germany), K Treutler, J Kruse, T Kannengiesser, V Wesling
15:20	Effect of tool geometry and material flow characteristics on FSW tool wear **(AJP25_47)** M Hasieber (Technische Universität Ilmenau, Germany), M Sennewald, M Weigl, JP Bergmann	Post process heat treatment of additively manufactured SS308L using Microwave Hybrid Heating (MWHH) **(AJP25_111)** JK Jain (Malaviya National Institute of Technology, India), MK Jindal, RK Goyal, Y Koli	The impact of ultrasonic-assisted milling and alloying elements on the surface integrity of additively manufactured iron aluminides **(AJP25_87)** J Witte, S Dorrani, K Treutler (Bundesanstalt für Materialforschung und -prüfung (BAM),

			Germany), D Schroepfer, T Kannengiesser, V Wesling
15:40	Improving the prediction accuracy of tool damage in friction stir welding by applying experimentally determined S-N curves **(AJP25_134)** M Sennewald (Technische Universität Ilmenau, Germany), R Eisbrenner, M Hasieber, JP Bergmann	Influence of the wire diameter and metal transfer mode on the bead formation phenomena in wire-arc DED process **(AJP25_44)** Y Ogino (The University of Osaka, Japan), I Hirota, T Sano	In-situ studies of precipitation kinetics during friction stir welding of AA7075 **(AJP25_98)** S Henninger (Helmholtz-Zentrum Hereon, Germany), JD Escobar, L Bergmann, JF dos Santos, B Klusemann, P Staron
16:00-16:20	**COFFEE BREAK**		
	Session 4A – Joining by forming II (Chair: M Merklein and PAF Martins)	**Session 4B – Fatigue of joints (Chair: H Remes and A Akhavan-Safar)**	**Session 4C – Friction stir welding II (Chair: R Beygi and R Sharma)**
	Room Julieta	**Room Copelia**	**Room Gisele**
16:20	Failure behavior of clinched joints in array arrangements in the shear tensile test **(AJP25_29)** E Wolf (Dresden University of Technology, Germany), A Brosius	Comparison of the fatigue strength of butt-welded aluminum joints prepared with different welding techniques **(AJP25_108)** J Havia, A Ahola (LUT University, Finland), T Skrik	A study on the mechanical joining characteristics of hot press forming steel and aluminum using friction element welding technology **(AJP25_64)** JH Park (Hyundai Steel, South Korea), WR Lee, KJ Shon
16:40	Assessment of contact parameter influence on fatigue-induced wear in clinched joints **(AJP25_37)** MC Schlichter (Paderborn University, Germany), J-P Ludwig, M Bobbert, G Meschut	Multiaxial fatigue strength of dissimilar arc-welded pin-to-flange joints made of ductile iron and structural steel **(AJP25_20)** G Meneghetti, A Campagnolo (University of Padova, Italy), A Visentin, S Bolner	Investigation of solid-state layer deposition via friction surfacing with focus on potential applications **(AJP25_99)** A Roos (Helmholtz-Zentrum Hereon, Germany), Z Kallien, B Klusemann
17:00	Influence of the shank geometry on the joint formation of the versatile self-piercing riveting of ultra-high-strength steel-aluminium and aluminium-aluminium assemblies **(AJP25_41)**	Effect of burrs on the fatigue strength of metallic structures: experimental study on open hole Ti-6Al-4V specimens with burrs **(AJP25_66)**	Energy consumption and tool wear in Friction Stir Welding of aluminum alloys **(AJP25_112)** A Astarita (University of Naples "Federico II", Italy), E Cozzolino, ATS Silvestri, A Squillace

	PK Kaimann (Paderborn University, Germany), N Ritter, M Bobbert, G Meschut	S Frutos-Taravillo (Airbus Operations SAS, France), E Paroissien, Y Landon, S Schwartz, M Fressinet, C Chirol	
17:20	Classification of defect types in flow drill fastening using a machine learning approach **(AJP25_52)** A Brinkmann (Paderborn University, Germany), R Beck, G Meschut	Fatigue strength assessment of thin arc-welded steel joints using the Peak Stress Method **(AJP25_101)** F Coppola (University of Padova, Italy), G Meneghetti	Interaction between friction stir welding and mild steel backing plates: wear mechanisms, material adhesion and resulting weld defects **(AJP25_49)** A Geldmacher (RWTH Aachen University, Germany), P Rabe, A Schiebahn, U Reisgen
17:40	Transient dynamic analysis: Combination of experimental and numerical approaches to evaluate clinched joints **(AJP25_53)** G Reschke (TUD Dresden University of Technology, Germany), A Brosius	Quantifying the severity of local undercut on fatigue **(AJP25_109)** A Niraula (Aalto University, Finland), H Remes	Next-generation aircraft structures enabled by tailored friction stir welding **(AJP25_60)** M Wagner (Fraunhofer IWS, Germany), A Grimm, A Jahn, D Dittrich, P Mohlau
18:00	Single-stage setting of blind rivet nuts without pre-drilling **(AJP25_54)** Y Böhm (Paderborn University, Germany), G Meschut	Experimental determination of kinking angles with out-of-phase mixed-mode loading by means of a novel specimen geometry **(AJP25_117)** S Krome (University Paderborn, Germany), G Kullmer, D Weiß, T Duffe, R Ostwald	Friction stir welding and bobbin tool friction stir welding of AA2219 for aerospace structures **(AJP25_133)** M Bernardi (Helmholtz-Zentrum Hereon, Germany), L Bergmann, B Klusemann
19:00	**Poster session and RECEPTION**		
Laser welding			
Poster 1	Experimental optimization and numerical modelling of laser welding parameters for PBT GF30 joints **(AJP25_132)**	LRR Silva, EAS Marques (University of Porto, Portugal), RJC Carbas, LFM da Silva	
Poster 2	Investigation of laser welding of built-up thin-walled cold-formed steel elements **(AJP25_143)**	I Hulka, V Ungureanu (Politehnica University Timișoara, Romania), A Pascu	
Poster 3	Comparison of different wavelengths for the laser bonding of conductive tracks on textiles for smart textile applications **(AJP25_145)**	F Brackmann (Fraunhofer-Institut für Lasertechnik ILT, Germany), L Peters, M Brosda, A Olowinsky	

Friction stir welding		
Poster 4	Enhancing high-temperature durability of aluminum/steel joints: The role of Ni and Cr in substitutional diffusion within intermetallic compounds **(AJP25_45)**	MB Hesari (Arak University, Iran), R Beygi, TOG Teixeira, EAS Marques, RJC Carbas, LFM da Silva
Poster 5	Fatigue performance of steel-to-aluminium solid state joints **(AJP25_36)**	EAS Marques (University of Porto, Portugal), J Domingos, RJC Carbas, LFM da Silva
Poster 6	Friction stir spot welded joints for high voltage battery application **(AJP25_35)**	EAS Marques (University of Porto, Portugal), F Moreira, L Peixoto, R Beygi, RJC Carbas, LFM da Silva
Poster 7	Optimization of rotational speed during friction stir welding of primary and recycled AA6082 for tailor-welded blank applications **(AJP25_114)**	Y Raajha MS (Norwegian University of Science and Technology, Norway), G Ringen
Poster 8	FSW of high-strength dual phase steel to aluminum AA6061-T6: Enhancing strength and cost-efficiency through buttering **(AJP25_141)**	R Beygi (Arak University, Iran), MB Hesari, S Ahmadi, EAS Marques, LFM da Silva
Joining by forming		
Poster 9	Disassemblable busbar-to-prismatic cell interconnections for electric vehicles **(AJP25_25)**	MM Kasaei (INEGI, Portugal), VB Gomes, RJC Carbas, EAS Marques, LFM da Silva
Poster 10	Load path identification for targeted adaption of multiple joint design **(AJP25_149)**	A Brosius (Technische Universität Dresden, Germany), E Wolf
Poster 11	Forming of asymmetric rivet joints through a versatile self-piercing riveting process with tumbling kinematics **(AJP25_151)**	J Sarris (Friedrich-Alexander-Universität Erlangen-Nürnberg, Germany), M Lechner
Additive manufacturing		
Poster 12	Selective laser sintering of PA-HA powder mixture: A study on non-standard material behavior **(AJP25_73)**	E Bednarczyk (Warsaw University of Technology, Poland), M Fabijański, Ł Pajchel, J Kolmas, R Grygoruk
Poster 13	Comparison of three controlled short arc variants for WAAM of mild steel parts **(AJP25_80)**	M Mierzwa (RWTH Aachen University, Germany), PJ Kellerwessel, P Dewald, K Mäde, R Sharma
Poster 14	Numerical and experimental optimization of welded stainless steel liners for lightweight road tank **(AJP25_136)**	H Aberbache, A Mathieu (Université Bourgogne Europe, France), R Bolot, L Bleurvacq, A Corolleur, F Laurent
Poster 15	Small packet microstructure for forming 3D high strength steel build **(AJP25_27)**	H Terasaki (Kumamoto University, Japan), K Hayashi

Poster 16	Analytical modeling of temperature fields in directed energy deposition **(AJP25_146)**	E Wasilewski (Brandenburg University of Technology Cottbus-Senftenberg, Germany), N Doynov, R Ossenbrink, K Schricker
Poster 17	Process characteristics of wire assisted three-arc tungsten inert gas welding without transferred arc for cladding and additive manufacturing **(AJP25_148)**	M Smiljanic (Clausthal University of Technology, Germany), K Treutler, V Wesling, R Zierdt, F Schreiber
Poster 18	Wire Arc Additive Manufacturing as a process to build complex-shape capsules for the HIP sintering of powders **(AJP25_153)**	R Bolot (Université de Bourgogne Europe, France), A Mathieu, H Aberbache, MA Karoui, F Bernard
Adhesive bonding		
Poster 19	Adhesive bonding in veterinary medicine: A review of the latest advancements **(AJP25_3)**	CMC Ferreira (INEGI, Portugal), BD Simões, EAS Marques, RJC Carbas, LFM da Silva
Poster 20	Mitigating humidity aging in adhesive joints through strategic loading angle design **(AJP25_7)**	A Akhavan-Safar (INEGI, Portugal), RJC Carbas, EAS Marques, LFM da Silva
Poster 21	Performance of adhesive single lap joints with curved aluminum adherends **(AJP25_16)**	RCJ Carbas (University of Porto, Portugal), VDC Pires, EAS Marques, LFM da Silva
Poster 22	Delamination behavior of composite materials repaired with structural adhesives **(AJP25_127)**	P Vigón, A Argüelles (University of Oviedo, Spain), JA Viña, M Lozano, R García
Poster 23	Development and delamination behavior of adhesive joints in composite structures under extreme environmental conditions **(AJP25_128)**	P Vigón, JA Viña (University of Oviedo, Spain), R García, A Argüelles, M Lozano
Poster 24	Delamination behavior of adhesive joints in epoxy composites reinforced with glass and carbon fibers: Influence of adhesive type and substrate preparation process **(AJP25_129)**	P Vigón, R García (University of Oviedo, Spain), A Argüelles, JA Viña, M Lozano
Poster 25	Impact of extreme temperatures on the performance of highly ductile adhesive joints **(AJP25_11)**	B Hasumi (INEGI, Portugal), A Akhavan-Safar, RJC Carbas, EAS Marques, S Wenig, LFM da Silva
Poster 26	Evaluating peel testing behaviour of acrylic pressure-sensitive adhesives: implications for advanced joining and long-term durability **(AJP25_5)**	BD Simões (INEGI, Portugal), HC Sousa, EAS Marques, RJC Carbas, S Maul, P Stihler, P Weißgraeber, LFM da Silva
Poster 27	Debonding methods for electric vehicles battery packs **(AJP25_17)**	VCMB Rodrigues (INEGI, Portugal), EAS Marques, RJC Carbas, LFM da Silva

Poster 28	Effect of substrate closing speed on adhesive flow in manufacturing bonded joints **(AJP25_13)**	D Garcia (INEGI, Portugal), A Akhavan-Safar, PMS Almeida, RJC Carbas, EAS Marques, J Hrachova, H Leenders, LFM da Silva
Advanced joining processes		
Poster 29	Spot joining of dissimilar automotive structural materials by electrically assisted pressure spot joining **(AJP25_71)**	S-H Choo (University of Ulsan, Republic of Korea), VC Phan, C Lee, KS Nam, S-T Hong
Poster 30	Methods to ensure the technical cleanliness of an ultrasonic metal welding process **(AJP25_81)**	J Heine (RWTH Aachen University, Germany), E Helfers, A Schiebahn, U Reisgen
Poster 31	Effect of a post-heat treatment on the microstructure and mechanical properties of GMAW joints of third generation automotive steel **(AJP25_152)**	JL Hernández Rivera (Universidad Autónoma de San Luis Potosí, México), CG Garay-Reyes, MO Ramos Azpeitia
Hybrid joining		
Poster 32	Comprehensive evaluation of hole-hemmed joints for hybrid busbar interconnections in electric vehicles **(AJP25_26)**	MM Kasaei (INEGI, Portugal), RJC Carbas, EAS Marques, LFM da Silva
Residual stresses		
Poster 33	Residual stress evaluation using the contour method of an additive manufactured high-strength steel solid cuboid **(AJP25_131)**	K Wandtke, GA Shabdali, D Schroepfer (Bundesanstalt fuer Materialforschung und -pruefung (BAM), Germany), R Scharf-Wildenhain, A Haelsig, T Kannengiesser, J Hensel

Friday 17 October 2025			
	Room Julieta		
8:40*	Laser welding for the assembly of dissimilar alloys, and wire laser additive manufacturing **(AJP25_43)** R Bolot (University of Burgundy, France), A Mathieu1, I Tomashchuk1, N Haglon, S Lafaye		
	Session 5A – Laser welding II (Chair: R Bolot and P Jousset)	**Session 5B – Hybrid joining (Chair: EAS Marques and MM Kasaei)**	**Session 5C – Joining by forming III (Chair: A Brosius and CMA Silva)**
	Room Julieta	**Room Copelia**	**Room Gisele**
9:20	High precision laser micro welding with spot sizes ≤ 15 µm **(AJP25_95)** A Schürmann (Fraunhofer Institute for Laser Technology ILT, Germany), S Backes, A Häusler, A Olowinsky	Development and evaluation of laser-based cleaning strategies for the reuse of stainless steel in plastic-metal hybrid joints **(AJP25_77)** C Wortmann (Fraunhofer Institute for Laser Technology ILT, Germany), L Stille, M Brosda Flockenhaus, A Olowinsky	Numerical analysis of the robustness of self pierce riveting with pre-formed joining partners **(AJP25_58)** J-P Ludwig (Paderborn University, Germany), MC Schlichter, M Bobbert, G Meschut
9:40	New method based on experiments and optical simulation for fast and accurate optimized design of laser-welded plastic components **(AJP25_122)** J Vollenweider, A Franke, R Gronowski, K Hoffmann, B Sadeghian, D Csati, C Wenzlau, P Jousset (Eastern Switzerland University of Applied Sciences, Switzerland)	Improving the load-bearing capacity of clinched joints through cavity filling with structural epoxy adhesive **(AJP25_76)** DR Devulapally (Paderborn University, Germany), T Tröster	Particle-reinforced aluminium solid self-piercing rivets for joining aluminium alloy sheets **(AJP25_62)** S Koch (Paderborn University, Germany), J Weber, C Stadelmann, W Böhm, G Meschut, M Merklein
10:00	Investigation of influence of process emission from laser welding of bipolar plates with coatings **(AJP25_124)** Z Ye (Fraunhofer Institute for laser technology, Germany)	Evaluation of the pull-out performance of metal threaded inserts embedded in thermoplastic fused layer modeling (FLM) structures **(AJP25_139)** J Troschitz, P Wartschinski, C Vogel (Technische Universität Dresden, Germany), M Pohl, N Modler, M Gude, I Heuzeroth	Combining knowledge and data-driven approaches for an efficient clinch joint parameter design **(AJP25_67)** J-M Einwag (Friedrich-Alexander Universität Erlangen-Nürnberg, Germany), M Wiemer, S Goetz, S Wartzack
10:20	Reducing noise impact on strain accuracy measurement by optical flow	Thermal direct joining of metal to thermoplastic composites **(AJP25_144)**	Fundamental analysis of the effects of tool and process parameter variations in

	and DIC for laser welding applications **(AJP25_142)** V Savitsky, A Gumenyuk, L Schmies, AJ Gumenyuk (Bundesanstalt für Materialforschung und prüfung (BAM), Germany), M Rehtmeier	D Luong, M Hossein, B Foerster, P Goetze, A Klotzbach (KIST + ESCHERICH, Germany), M Langer	shear-clinching of multi-layer sheet metal joints **(AJP25_119)** J Neumann (Friedrich-Alexander-Universität Erlangen-Nürnberg, Germany), M Merklein
10:40-11:00	**COFFEE BREAK**		
	Session 6A – Advanced joining processes II (Chair: S Zhang and J Hensel)	**Session 6B –Adhesive bonding II (Chair: RCJ Carbas and H Fricke)**	**Session 6C – Residual stresses (Chair: JP Bergmann and TM Chmielewski)**
	Room Julieta	**Room Copelia**	**Room Gisele**
11:00	Influence of organic, film-like contaminants on ultrasonic metal welding of copper sheets and their in-situ detection **(AJP25_86)** E Helfers (RWTH Aachen University, Germany), O Stockemer, A Schiebahn, U Reisgen, B Corves	Some theoretical, numerical and experimental results on bonded joints **(AJP25_14)** C Bauzet, A Bechikh, K Idrissa, S Kikwani, F Lebon (Aix-Marseille University, France), A Maurel-Pantel, C Telloli, R Rizzoni	Effects of global tensile residual stresses on the fatigue strength of welded high-strength steel joints **(AJP25_107)** K Grönlund, J Riski, A Ahola (LUT University, Finland), T Skriko
11:20	Development of an X-ray camera for electron beam characterization **(AJP25_88)** T Evers (RWTH Aachen University, Germany), M Gamerdinger, S Olschok	Thermoplastic adhesives in CFRP joints: An assessment of performance **(AJP25_15)** RCJ Carbas (University of Porto, Portugal), EAS Marques, LFM da Silva	Residual stress and distortion control using low transformation temperature effect and welding heat field for high- and low-alloy steels using electron beam welding **(AJP25_83)** KR Krishna Murthy (RWTH Aachen University, Germany), M Gamerdinger, M Troise, S Olschok
11:40	Investigation on the microstructure and mechanical performance of Sn-Ni TLP joints prepared by microwave hybrid heating **(AJP25_93)** S Zhang (Harbin Institute of Technology, China), S Zhang, P He	Adhesive bonding technology in automotive battery pack manufacturing and dismantling **(AJP25_18)** VCMB Rodrigues (INEGI, Portugal), MM Kasaei, EAS Marques, RJC Carbas, LFM da Silva	Influence of double-sided and single-sided T-joints with full connection on welding distortion and its reduction by means of a low-transformation temperature effect in stainless steel **(AJP25_75)**

			M Gamerdinger (RWTH Aachen University, Germany), KR Krishna Murthy, S Olschok
12:00	Interpretable weld quality prediction in ultrasonic metal welding using change point detection **(AJP25_94)** O Stockemer (RWTH Aachen University, Germany), E Helfers, E Pinto, A Schiebahn, U Reisgen, B Corves	Improving equine welfare: high performance adhesive films for fast horseshoe attachment **(AJP25_2)** CMC Ferreira (INEGI, Portugal), BD Simões, EAS Marques, RJC Carbas, LFM da Silva	An efficient thermal analysis method for predicting welding thermal history and distortion **(AJP25_106)** SC Park (Korea Shipbuilding & Offshore Engineering Co., South Korea), HJ Lee, BK Kang, DJ Lee
12:20	Influence analysis of joining speed on joint formation, binding mechanisms, and joint properties in clinching and self-piercing riveting **(AJP25_120)** S Lüder (TUD Dresden University of Technology, Germany), HC Schmale	Mechanical testing of battery electrodes by pull-off and peel tests: A comparative study **(AJP25_78)** H Gruhn (Technische Universität Braunschweig, Germany), A Rajic, M Mund, MW Kandula	Influence of substrate design on properties and residual stresses in hybrid additive manufacturing of high-strength steels using MSG processes **(AJP25_84)** L Engelking, R Scharf-Wildenhain, D Schroepfer (Bundesanstalt fuer Materialforschung und -pruefung (BAM), Germany), A Haelsig, T Kannengiesser, J Hensel
12:40	Advanced modeling of bolted joints in crash-simulations: Inverse Identification and experimental validation of a surrogate model with LS-DYNA **(AJP25_121)** S Civatti (Eastern Switzerland University of Applied Sciences, Switzerland), T Zink, F Burbulla, P Jousset	The effect of viscous fingering on the shear properties of structural adhesive joints **(AJP25_82)** T Gutsch (Technische Universität Braunschweig, Germany), M Griese, E Stammen, K Dilger, S Hartwig	Temperature-induced variations in fracture energy and failure modes of bi-material interfaces in microchip packaging **(AJP25_9)** P Maleki (INEGI, Portugal), PFC Videira, A Akhavan-Safar, RJC Carbas, EAS Marques, B Karunamurthy, LFM da Silva
13:00-14:00	**LUNCH BREAK**		
	Room Julieta		
14:00*	Mechanical integrity of interfaces and interconnects in advanced semiconductors **(AJP25_38)** A Akhavan-Safar (INEGI, Portugal), RJC Carbas, EAS Marques, LFM da Silva		

	Session 7A – Adhesive bonding III (Chair: K Dilger and L Goglio)	**Session 7B – Advanced joining processes III (Chair: TM Chmielewski and M Gude)**	**Session 7C – Additive manufacturing II (Chair: A Mathieu and R Bolot)**
	Room Julieta	**Room Copelia**	**Room Gisele**
14:40	Fiber-reinforced adhesives - Analysis, simulation and modification of their anisotropic properties **(AJP25_90)** J Philipp (Technische Universität Braunschweig, Germany), E Stammen, K Dilger	Comparison of ultrasonic and resistance welding of CF-PEEK for high temperature applications **(AJP25_96)** W Koshukow (Technische Universität Dresden, Germany), B Prakash, J Troschitz, A Danicek, M Gude	Effects of the re-usage of super-duplex stainless steel powder in DED-Laser process **(AJP25_65)** K Hoefer (Chemnitz University of Technology, Germany), R Rimpl, J Hensel
15:00	Modelling the mechanical performance of structural adhesive layers with process-induced viscous fingers using mesh-based and material-based approaches **(AJP25_91)** M Griese (Technische Universität Braunschweig, Braunschweig, Germany), E Stammen, K Dilger	Welding process parameter determination using parameter gradients **(AJP25_100)** MS Freidhofer (Technical University of Munich, Germany), F Riegger, MF Zaeh	Comparative study of microstructure, tensile strength and corrosion resistance of 316L stainless steel produced via novel RSAM and conventional WAAM processes **(AJP25_74)** IA Soomro (Mehran University of Engineering and Technology Jamshoro, Pakistan), F Abro, N Laghari
15:20	The battery breathing effect and its influence on adhesive layers in structural battery packs **(AJP25_92)** M Griese (Technische Universität Braunschweig, Braunschweig, Germany), E Stammen, K Dilger	High temperature mechanical characterization of dissimilar steel A-TIG weld joint **(AJP25_103)** G Sharma (KIET Group of Institutions, India), P Sharma, D K Dwivedi	Comparison of three controlled short arc variants for WAAM of mild steel parts **(AJP25_80)** M Mierzwa (RWTH Aachen University, Germany), PJ Kellerwessel, P Dewald, K Mäde, R Sharma
15:40	Preparation of specimens for measuring static and impact strength of adhesively bonded joints under combined stress conditions **(AJP25_115)** A Hayato (Institute of Science Tokyo, Japan), K Ikeda, Y Sekiguchi, C Sato	Detection of thermomechanical phases in ultrasonic welding of copper by acoustic emissions **(AJP25_112)** K Ehlich (Technische Universität Ilmenau, Germany), CE Ardic, S Kodera, PN Mayekar, M Hasieber, F Römer, JP Bergmann	Influence of surface morphology on joint properties of additively manufactured stainless steel and CF-PEEK **(AJP25_97)** F Lehmann (TUD Dresden, Germany), J Troschitz, P Grimm, JK Hufenbach, M Gude
16:00-16:20	**COFFEE BREAK**		

	Session 8A – Adhesive bonding IV (Chair: LFM da Silva and P Jousset)	**Session 8B – Additive manufacturing III (Chair: JP Bergmann and R Bolot)**	**Session 8C – Polymer joining (Chair: B Cosson and C Garnier)**
	Room Julieta	**Room Copelia**	**Room Gisele**
16:20	Adhesive joint fatigue monitoring by zero strain point and optical fibres **(AJP25_150)** M Abbasi, R Ciardiello, L Goglio (Politecnico di Torino, Italy)	Influences of electrodes arrangement and current distribution in WAAM by arc-driven metal jet **(AJP25_51)** R Furukubo (The university of Osaka, Japan), Y Doi, K Hazama, Y Sato, T Sano and Y Ogino	Towards robust sequential ultrasonic welding of thermoplastic composites with integrated and loose energy director **(AJP25_24)** A Korycki (LGP-ENIT-UTTOP, France), C Garnier, F Chabert, F Carassus, T Djilali
16:40	Optimizing bond strength between cast metal crowns and metal post-and-core restorations **(AJP25_118)** W Świrszcz (Warsaw University of Technology, Poland), E Bednarczyk, C Senderowski	Post process heat treatment of additively manufactured Inconel 82 using Microwave Hybrid Heating (MWHH) **(AJP25_105)** Y Koli (Malaviya National Institute of Technology, India), P Sharma, S Kumar, S Aravindan	Toward reliable prediction of the mechanical strength of 3D printed parts using machine learning **(AJP25_32)** AC Akué Asséko (University of Lille, France), SL Ndiaye, A Leroy, B Cosson
17:00	Analyzing the response of the degradable adhesive layer between FRP and concrete **(AJP25_130)** T Zhelyazov (Bulgarian Academy of Sciences, Bulgaria), ER Thorhallsson, JT Snaebjornsson	Processing of copper-zinc alloys with wire and arc-based additive manufacturing technologies **(AJP25_116)** M Schop (Technische Universität Dresden, Germany), M Schäfer, T Ungethüm, HC Schmale	Preliminary studies of layers of selected metallic powders deposited using the Cold Spray method onto polyamide substrates (PA2201) **(AJP25_57)** E Bednarczyk (Warsaw University of Technology, Poland), R Grygoruk, M Bajkowski, F Kagankiewicz, T Chmielewski
17:20	Novel temperature resistant adhesives and numerical design methods for next generation sandwich structures in electric buses and railway vehicles **(AJP25_123)** K Hoffmann (Eastern Switzerland University of Applied Sciences, Switzerland), C Heusser, S von Manitius, L Marugg, S Civatti, M Karcher, M Hartwig, P Jousset	Wire arc additive manufacturing of CNT coated AISI316L stainless steel **(AJP25_104)** P Sharma (Indian Institute of Technology Delhi, India), S Aravindan, K Meena	Modelling metallic pin pressing process in fibre reinforced thermoplastics on meso scale **(AJP25_70)** B Gröger (TUD Dresden University of Technology, Germany), J Gerritzen, A Hornig, M Gude

17:40	Environmental degradation effects on mode I fatigue behavior of CFRP adhesive joints **(AJP25_126)** P Vigón (University of Oviedo, Spain), A Argüelles, R García, JA Viña	Linear support structures made of glass using additive manufacturing **(AJP25_125)** F Hesse, A Herrmann (Technische Universität Ilmenau, Germany), J Hildebrand, JP Bergmann	Experimental investigation of induction welding for hybrid joining of thermoplastic composites and DP600 steel **(AJP25_102)** K Boukhadra (ESTACA, France), Z Jendli, J-C Walrick, R Zouaghi, A Kouadri-Henni
18:00	Machine learning-driven prediction of failure load in anodized Al-PU adhesive joints via data fusion **(AJP25_147)** U Bakhbergen (Nazarbayev University, Kazakhstan), A Maged, M Moldabayeva, S Araby	Parametric study and experimental characterization of 316LSi stainless steel produced by WAAM-CMT process **(AJP25_135)** H Aberbache, A Mathieu (Université Bourgogne Europe, France), R Bolot, MA Karoui	Local in-situ functionalization of large-format additive manufacturing components using mobile injection molding technology **(AJP25_140)** J Troschitz, M Pohl (Technische Universität Dresden, Germany), C Vogel, E Mischorr, A Liebsch, N Modler, M Gude, M Stegelmann, M Krahl
20:00	**AJP 2025 BANQUET (Quinta das Lágrimas)**		