



Programme of AB 2025

Author underlined → presenting author

* Plenary lecture

Thursday 10 July 2025			
8:40	AB 2025 Opening (Room A101, also called ‘Auditorium’)		
	Room A101 (Auditorium)		
9:00*	Exploring dynamic chemistry for self-healing and reversible coatings and adhesives (AB25_39) <u>N Yan</u> (University of Toronto, Canada)		
	Session 1A – Modelling (Chair: P Weißgraeber and RA Sauer)	Session 1B – Adhesion and surface treatments I (Chair: M Brogly and J Holtmannspötter)	Session 1C – Dismantlable adhesives (Chair: LFM da Silva and N Yang)
	Room A101 (Auditorium)	Room B032	Room B035
9:40	Quantifying uncertainty in adhesive bond failure: A study on crack initiation and safety factors (AB25_73) <u>M Hach</u> , <u>J Hopfe</u> , <u>S Spitzer</u> , <u>P Weißgraeber</u> (University of Rostock, Germany)	Adhesive bonding: some basic rules ... with practical efficiency! (AB25_85) <u>M Brogly</u> (Université de Haute Alsace, France)	Debonding adhesive-bonded metal substrates with high-intensity ultrasound (AB25_3) <u>KL Tan</u> (Agency for Science, Technology and Research (A*STAR), Singapore), <u>KH Luei</u> , <u>ETY Siew</u>
10:00	Curing of flexible adherents – the interplay of chemical bonding and mechanical deformation (AB25_127) <u>RA Sauer</u> (Ruhr University Bochum, Germany)	Effect of surface roughness of the adherend on the stress field at the crack tip of the adhesive joint (AB25_68) <u>R Hirakawa</u> (Technical University of Braunschweig, Germany), <u>N Terasaki</u> , <u>Y Mizutani</u> , <u>S Hartwig</u>	Debonding methods for electric vehicles battery packs (AB25_10) <u>VCMB Rodrigues</u> (INEGI, Portugal), <u>EAS Marques</u> , <u>RJC Carbas</u> , <u>LFM da Silva</u>

10:20	From beams to plates: a new Macro-Element for the simplified analysis of bonded joints (AB25_117) <u>M Cali</u> (Institut Clément Ader, France), S Schwartz, E Paroissien, F Lachaud, S Teixeira de Freitas	Plasma pre-treatment of pressure-sensitive adhesives (AB25_71) <u>V Ginster</u> (RWTH Aachen University, Germany), MK Heym, CJA Beier, A Schiebahn, U Reisgen	Solvolytically debondable adhesive systems – Potentials and challenges for repair and recycling (AB25_46) <u>J Gilich</u> (Paderborn University, Germany), J Kroos, D Teutenberg, G Meschut
10:40-11:00	COFFEE BREAK (Room under the Auditorium)		
	Session 2A –Adhesives development I (Chair: LFM da Silva and N Carrère)	Session 2B – Adhesive application and joint fabrication (Chair: D Castagnetti and M Schiel)	Session 2C – Adhesion and surface treatments II (Chair: EAS Marques and S Kirchner)
	Room A101 (Auditorium)	Room B032	Room B035
11:00	Re-bondable bio-base hotmelt structural adhesive (AB25_109) <u>N Terasaki</u> (National Institute of Advanced Industrial Science and Technology (AIST), Japan), M Shibakami, T Himiyama	The effect of the pot life of epoxy adhesives on the strength of bonded joints (AB25_32) <u>A Rudawska</u> (Lublin University of Technology, Poland), LFM da Silva, MA Wahab	Microscopic testing of interfaces using Scanning Electron Microscope (SEM) with a built-in material testing machine (AB25_144) <u>J Holtmannspoetter</u> (Bundeswehr Research Institute for Materials, Fuels and Lubricants (WIWeB), Germany), G Diez, R Welker, P Höfer
11:20	Advancing sustainability: High-performance biobased epoxy adhesives (AB25_79) <u>F Bertani</u> (ELANTAS Europe, Italy)	Automated adhesive application on CFRP hydrogen tanks (AB25_8) <u>L Brieskorn</u> (Fraunhofer IFAM, Germany), T Kühn, B Hauschild, P Lüxmann	Influence of plasma treatment duration on the shear strength of transparent epoxy-bonded glass joints at elevated temperatures: A study using dielectric barrier discharge (AB25_21) <u>Y Boutar</u> (Czech Technical University in Prague, Czech Republic), M Eliášová, J Kelar, ZK Tučeková, P Šrámková, M Černák

11:40	Flame retardant adhesive tapes (AB25_82) C Fröhling, N Ehrmann, <u>V Leon</u> (Lohmann GmbH & Co. KG, Germany)	Effects of surface treatment and substrate material on the adhesive flow in manufacturing adhesive joints (AB25_44) <u>PMS Almeida</u> (INEGI, Portugal), A Akhavan-Safar, D Garcia, RJC Carbas, EAS Marques, J Hrachova, H Leenders, LFM da Silva	Overcoming challenges in pulsed UV laser surface preparation process before bonding of carbon fibre reinforced polymers (AB25_84) <u>S Kirchner</u> (IRT Saint Exupéry, France), J Lecomte, L Ferres, T Balutch, S Ünaldi, C Debras, M Péron, N Cuvillier
12:00	Optimizing green strength in polyurethane adhesives via TPU incorporation and controlled cooling of the adhesive joint (AB25_106) MP Carbonell-Blasco, A Moyano-Vallejo, C Hernández-Fernández, <u>MD Romero-Sánchez</u> (INESCOP Footwear Technology Centre, Spain), E Orgilés-Calpena	Influence of application patterns and substrate closing speed on adhesive flow in manufacturing bonded joints (AB25_45) <u>D Garcia</u> (INEGI, Portugal), A Akhavan-Safar, PMS Almeida, RJC Carbas, EAS Marques, J Hrachova, H Leenders, LFM da Silva	Investigation of adhesive joints by controlled modification of micro-topography and surface energy (AB25_49) <u>B Körömi</u> (John von Neumann University, Hungary), M Berczeli, Z Weltsch
12:20	Development of electrically conductive bonded joints (AB25_130) <u>F Tajti</u> (John von Neumann University, Hungary), M Berczeli, Z Weltsch	Impact of the adhesive's rheology on squeeze flow (AB25_90) <u>F Hagemann</u> (Henkel AG & Co. KGaA, Germany), M Schiel	Method development for the mechanical characterization of cathodic electrodeposition coatings for numerical simulation of bonded joints (AB25_51) <u>J Hofmann</u> (Paderborn University, Germany), G Meschut, D Teutenberg
12:40	Stilbene-based structural adhesive formulations – From synthesis to mechanical characterization (AB25_125) <u>F Cavodeau</u> (LPIM, France), M Neveu, M Brogly	Assessment of simulation methods for the prediction of joining forces in adhesive bonding operations (AB25_91) <u>M Schiel</u> (Henkel AG & Co. KGaA, Germany), F Hagemann	A numerical homogenization-based methodology to replicate the behavior of patterned adhesive bonded joints (AB25_94) <u>F Musiari</u> (Università di Parma, Italy), M Gulino, F Moroni
13:00-14:00	LUNCH BREAK (Room under the Auditorium)		
	Room A101 (Auditorium)		
14:00*	Before the bond: Exploring adhesive flow mechanics (AB25_41) <u>T Vallée</u> (Fraunhofer IFAM, Germany), H Fricke, M Voß, Mi Müller		

	Session 3A – Adhesive properties I (Chair: RD Adams and G Stamoulis)	Session 3B – Joint design I (Chair: C Sato and RJC Carbas)	Session 3C – Adhesion and surface treatments III (Chair: MK Budzik and E Dragoni)
	Room A101 (Auditorium)	Room B032	Room B035
14:40	How best to measure the shear properties of structural adhesives, and what to avoid (AB25_33) <u>RD Adams</u> (Universities of Bristol and Oxford, UK)	Thermal stress in adhesive layer caused by thermal mismatch of adherends (AB25_57) <u>C Sato</u> (Institute of Science Tokyo, Japan), K Saiki	Wetting and fracture of patterned interfaces (AB25_89) <u>MK Budzik</u> (Aarhus University, Denmark)
15:00	Mode I characterization of co-bonded CFRP onto patterned LPBF metal adherends (AB25_80) <u>A Corrado</u> (University of Trento, Italy), RAA Lima, C van Innis, M Perini, S Teixeira de Freitas, M Benedetti	Bio-inspired composite substrates for enhanced adhesive joint efficiency (AB25_12) <u>H Malekinejad</u> (INEGI, Portugal), RCJ Carbas, EAS Marques, LFM da Silva	Improvement of polyurethane and silicone bonding technology for cold plasma surface treated painted and unpainted aluminium (AB25_95) B Körömi, P Pécsi-Kovács, F Tajti, Z Weltsch, <u>M Berczeli</u> (John von Neumann University, Hungary)
15:20	Towards energy balance methods to study the fracture properties of structural adhesives (AB25_2) <u>G Stamoulis</u> (UBO – IUT de Brest, France), N Carrere	Experimental and numerical analysis of curved joint behavior in carbon fiber composites (AB25_19) <u>RCJ Carbas</u> (INEGI, Portugal), EAS Marques, LFM da Silva	Effect of thermal oxidation temperature and duration on adhesive bonding strength of Ti-6Al-4V alloy (AB25_96) <u>Y Gaqi</u> (National Institute for Materials Science, Japan), SQ Guo, M Kusano, K Naito, M Watanabe
15:40	Development of a unified specimen for direct generation of cohesive zone law data of adhesives – Fracture components (AB25_4) <u>DS Correia</u> (INEGI, Portugal), EAS Marques, RJC Carbas, LFM da Silva	Structural adhesive bonding between layers in additive manufacturing composites (AB25_152) <u>M Mieloszyk</u> (Polish Academy of Sciences, Poland), M Rimasauskas, S Bhandra, MA Khan	Enhanced mode II fracture toughness of adhesive-bonded Ti6Al4V alloy via laser-induced interlocking topography (AB25_98) <u>R Shi</u> (Tongji University, China), C Li, F Sun, J Min
16:00-16:20	COFFEE BREAK (Room under the Auditorium)		

	Session 4A – Adhesion and surface treatments IV (Chair: A Akhavan-Safar and M Berczeli)	Session 4B – Adhesive properties II (Chair: K Naito and A Pironi)	Session 4C – Repair and recycling (Chair: A Chiminelli and JG Broughton)
	Room A101 (Auditorium)	Room B032	Room B035
16:20	Effect of surface activation atmosphere on wettability and adhesive bonding (AB25_104) <u>P Pécsi-Kovács</u> (John von Neumann University, Hungary), M Berczeli, Z Weltsch	Thick adhesive bond line behaviour in various mixed mode ratios (AB25_13) <u>JHA Schipperen</u> (TNO, Delft, Netherlands), MW Skarka, TJ Slangen, NPM Werter	Microstructure and interfacial transition zone in recycled concrete aggregate: A review of old concrete waste utilization (AB25_18) <u>S Malazdrewicz</u> (Wroclaw University of Science and Technology, Poland)
16:40	Laser surface modification on titanium bipolar plate to enhance thermal and acidic corrosion resistance of bonding interface (AB25_111) <u>XY Zhang</u> (Tongji University, China), HL Wa, JY Min	The effect of fine-tuning phase structure on the strength of SGA adhesive joints (AB25_38) <u>K Kamiyama</u> (Mitsubishi Electric Corporation, Japan), S Matsuda, H Kishi	Calibration of cohesive parameters for adhesively bonded composite patch repair on steel structures based on non-standard specimen using toughness tests (AB25_52) <u>M Deydier</u> (Bureau Veritas Marine & Offshore, France), S Paboef, S Chataigner, E Leprêtre, Q Sourisseau
17:00	Femtosecond-pulsed laser pre-treatment of nickel Foil I: Process design and optimization for adhesive bonding (AB25_113) <u>CJA Beier</u> (RWTH Aachen University, Germany), MK Heym, V Ginster, A Schiebahn, U Reisgen	Testing methods for hyper-elastic adhesive joints under crash-like loading (AB25_48) <u>F Beule</u> (Paderborn University, Germany), D Teutenberg, G Meschut	Reversible adhesion in elastomeric vitrimers based on β -aminoester networks (AB25_134) <u>M Surós</u> (Eurecat, Technology Centre of Catalonia, Spain), D Santiago, S De la Flor
17:20	Femtosecond-pulsed laser pre-treatment of nickel II: What's actually happening on the surface to improve adhesion? (AB25_114) <u>CJA Beier</u> (RWTH Aachen University, Germany), MK Heym, V Ginster, A Schiebahn, U Reisgen	Examination of film and paste adhesive behavior under cryogenic conditions using a thick adherend shear test measured by a capacitive extensometer (AB25_83) <u>T Gesell</u> (German Aerospace Center (DLR, Germany), D Holzhüter, J Kosmann, M Schollerer, P Makiela, C Hühne	Bio-inspired 3D-printed microstructure for crack arresting in bio-based epoxy matrix (AB25_54) <u>Z Xu</u> (Delft University of Technology, Delft, The Netherlands), R Tao, S Teixeira de Freitas

17:40	Pre-treatment of thermoplastic GFRP tapes for the tape winding process for use in electrolyzers (AB25_118) <u>MK Heym</u> (RWTH Aachen University, Germany), A Schiebahn, U Reisinger	The effect of alumina/graphene hybrid nanoreinforcement on the mechanical properties of epoxy adhesives: A quantitative analysis using Pearson correlation matrix and heatmap interpretation (AB25_126) <u>NZ Khalil</u> (Malaysia-Japan International Institute of Technology (MJIT), Malaysia), H Fricke	Durability of adhesively bonded patch repairs under various environmental conditions (AB25_59) <u>Y Kokner</u> (The City College of New York, USA), F Delale
18:00	Correlation between gases used and bond strength in laser and plasma surface treatments (AB25_141) <u>E Kókai</u> (Széchenyi István University, Hungary)	Innovative reinforcement of wooden substrates using bio-adhesives for single lap joints (AB25_6) <u>Sh Jalali</u> (INEGI, Portugal), RJC Carbas, EAS Marques, LFM da Silva	Mechanical properties of bonded joints based on benzoxazine vitrimer film (AB25_142) <u>PHE Fernandes</u> (Fraunhofer IFAM, Germany), A Wolf, K Arnaut, C Nagel
18:30	Visit Advanced Joining Processes laboratory of INEGI (meeting at registration desk at 18:20, limited to 40 people)		
19:30	Poster session and RECEPTION (Room under the Auditorium)		
Dismantlable adhesives			
Poster 1	Experimental investigation of vitrimers in adhesive bonded and rebonded joints (AB25_40)	<u>S Jalali</u> (INEGI, Portugal), R Soares, RJC Carbas, EAS Marques, D Paiva, F Magalhães, LFM da Silva	
Poster 2	Epoxy resins and vitrimers from macro algae (AB25_155)	<u>A Winkel</u> (University of Kassel, Germany), M Kahlmeyer, S Böhm, MH Burk, T Fuhrmann-Lieker, J Lüttke	
Adhesion and surface treatments			
Poster 3	The effect of chemical treatment: chemical etching in acid solutions on contact angle and surface roughness parameter (AB25_31)	A Rudawska, I Miturska-Barańska, <u>J Szabelski</u> (Lublin University of Technology, Lublin, Poland), P Podulka, E Olewnik-Kruszkowska, LFM da Silva, MA Wahab	
Poster 4	The effect of laser heating of coatings on adhesion to cutting blades (AB25_42)	<u>MJ Kupczyk</u> (Poznan University of Technology, Poland)	
Poster 5	Considerations on the criterion of superhardness of tool materials in the aspect of coating adhesion to cutting blades (AB25_43)	<u>MJ Kupczyk</u> (Poznan University of Technology, Poland)	
Poster 6	Effect of laser pretreatment of CFRTP for adhesive strength and fracture toughness (AB25_110)	<u>N Terasaki</u> (National Institute of Advanced Industrial Science and Technology (AIST), Japan), R Hirakawa, K Houjo, K Shimamoto, H Akiyama, S Horiuchi	

Poster 7	Femtosecond-pulsed laser pre-treatment of nickel foil III: Influence of atmosphere and ambient pressure on adhesion (AB25_115)	<u>CJA Beier</u> (RWTH Aachen University, Germany), MK Heym, V Ginster, A Schiebahn, U Reisgen
Poster 8	Optimising adhesion process on EVA polymers through AI-guided atmospheric plasma treatment (AB25_143)	C Ruzafa-Silvestre, VM Serrano-Martínez, JM Carot-Sierra, <u>MD Romero-Sánchez</u> (INESCOP, Spain), E Orgilés-Calpena
Poster 9	Adhesion effects of surface treatment methods on adhesively bonded joints with galvanized steel substrates (AB25_149)	<u>A Rocha</u> (University of Minho, Portugal), JB Aguiar, IB Valente
Poster 10	The impact of power, speed, and fibre orientation on laser surface treatment of CFRP bonded joints (AB25_153)	LF Soares, M Grasso, RBD Pereira, P Camanho, F Scarpa, <u>TH Panzera</u> (Federal University of São João del Rei-UFSJ, Brazil)
Poster 11	Influence of PDMS-contamination on the bondability of laser-nanostructured titanium (AB25_154)	<u>M Kahlmeyer</u> (University of Kassel, Germany), M Veltrup, U Specht, A Winkel, S Böhm
Adhesive application and joint fabrication		
Poster 12	Effects of surface treatment on the curing quality of adhesively bonded metal and polymer joints (AB25_36)	V Gutiérrez-Posada, <u>A Akhavan-Safar</u> (INEGI, Portugal), RJC Carbas, EAS Marques, J Hrachova, H Leenders, LFM da Silva
Adhesive properties		
Poster 13	Development of a unified specimen for direct generation of cohesive zone law data of adhesives – Strength components (AB25_5)	<u>DS Correia</u> (INEGI, Portugal), EAS Marques, RJC Carbas, LFM da Silva
Poster 14	Extreme temperature effects on the dynamic response of highly flexible adhesive joints (AB25_15)	<u>B Hasumi</u> (INEGI, Portugal), A Akhavan-Safar, RJC Carbas, EAS Marques, S Wenig, LFM da Silva
Poster 15	Mechanical characterization of a newly developed cycloolefin-based adhesive (AB25_24)	<u>ATF Venâncio</u> (INEGI, Portugal), VCMB Rodrigues, EAS Marques, RJC Carbas, K Ejiri, A Klein, B Nelson, LFM da Silva
Poster 16	Dynamic joint behaviour and numerical model of a new cyclic olefin-based hot-melt adhesive (AB25_25)	<u>ATF Venâncio</u> (INEGI, Portugal), VCMB Rodrigues, EAS Marques, RJC Carbas, K Ejiri, A Klein, B Nelson, LFM da Silva
Poster 17	Determination of the traction separation law for cohesive zone modelling of epoxy adhesive (AB25_56)	<u>S Bansal</u> (Indian Institute of Technology, Punjab, India), PK Agnihotri
Poster 18	Use of metallic oxides (TiO ₂ , Al ₂ O ₃) as fillers in UV-curable adhesives: analysis of selected physicochemical properties (AB25_61)	<u>I Miturska-Barańska</u> (Lublin University of Technology, Poland), A Rudawska, M Müller

Poster 19	Can J-Integral and CBBM accurately measure fracture energy in adhesives? (AB25_35)	A Akhavan-Safar (INEGI, Portugal), BGA Reketa, B Hasumi, M Ferreira, M Ribas, BD Simões, RJC Carbas, EAS Marques, LFM da Silva
Joint design		
Poster 20	Static strength analysis of flexible and rigid epoxy adhesive lap joints: Effects of temperature, curing process and component ratios (AB25_14)	J Szabelski (Lublin University of Technology, Poland), I Miturska, A Rudawska
Poster 21	Curved aluminum adherends for enhanced mechanical performance in bonded single lap joints (AB25_20)	RCJ Carbas (INEGI, Portugal), VDC Pires, EAS Marques, LFM da Silva
Poster 22	Advanced CFRP laminate modification techniques using thin-ply (AB25_11)	H Malekinejad (INEGI, Portugal), RCJ Carbas, EAS Marques, LFM da Silva
Hybrid joints		
Poster 23	Assessing and modelling the mechanical performance of hybrid weld-bonded joints (AB25_27)	EAS Marques (University of Porto, Portugal), RJC Carbas, R Beygi, A Akhavan-Safar, LFM da Silva
Repair and recycling		
Poster 24	Recycled coarse aggregate from demolition of prefabricated building in concrete – Microstructure and interfacial transition zone (AB25_17)	S Malazdrewicz (Wroclaw University of Science and Technology, Poland), A Chowaniec-Michalak, A Žak, Ł Sadowski
Wood bonding		
Poster 25	Relationship between activation energy and reaction enthalpy: A study on the curing reaction of formaldehyde-based wood adhesives (AB25_150)	L Nasser (BOKU University, Austria), A Kandelbauer, J Konnerth, HWG van Herwijnen
Durability		
Poster 26	Insights into structural adhesive corrosion resistance using machine learning (AB25_55)	M Hsiao, R McCall, NB Huff (Sunstar Engineering, USA)
Poster 27	Creep behavior of two-component silicone adhesives (AB25_72)	V Ginster (RWTH Aachen University, Germany), R Brand, S Bögershausen, A Schiebahn, T Brepols, M Feldmann, U Reisgen
Poster 28	Investigation and evaluation on the mechanical and chemical behaviour of adhesives in strong alkaline environment (AB25_119)	MK Heym (RWTH Aachen University, Germany), CJA Beier, VJ Ginster, A Schiebahn, U Reisgen
Poster 29	Influence of atmospheric plasma treatment on mechanical properties of acrylate adhesive joints exposed to water immersion (AB25_122)	KV Machalická (Czech Technical University in Prague, Czech Republic), M Vokáč, A Milerová, J Kelar

Poster 30	Influence of tin-side of glass on the strength of structural adhesive joints in glass-aluminium joints (AB25_123)	KV Machalická, <u>M Vokáč</u> (Czech Technical University in Prague, Czech Republic)
Poster 31	Investigation of impact fatigue resistance and residual strength of adhesive joints using hybrid wood configurations (AB25_7)	<u>Sh Jalali</u> (INEGI, Portugal), RJC Carbas, EAS Marques, LFM da Silva
Poster 32	Creep behaviour and fracture analysis of acrylic PSAs: assessing durability and performance (AB25_30)	<u>BD Simões</u> (INEGI, Portugal), EAS Marques, RJC Carbas, S Maul, P Stihler, P Weißgraeber, LFM da Silva
Applications		
Poster 33	Adhesive bonding technology in automotive battery pack manufacturing and dismantling (AB25_9)	<u>VCMB Rodrigues</u> (INEGI, Portugal), MM Kasaei, EAS Marques, RJC Carbas, LFM da Silva
Poster 34	Adhesives in veterinary medicine: a review (AB25_23)	<u>CMC Ferreira</u> (INEGI, Portugal), BD Simões, EAS Marques, RJC Carbas, LFM da Silva

Friday 11 July 2025			
	Room A101 (Auditorium)		
8:40*	Durability analysis of adhesive joints: advancements, challenges, and the path to implementation (AB25_34) <u>A Akhavan-Safar</u> (INEGI, Portugal), EAS Marques, RJC Carbas, LFM da Silva		
	Session 5A – Durability I (Chair: X Han and A Bernasconi)	Session 5B – Non-destructive testing (Chair: L Goglio and S Teixeira Freitas)	Session 5C – Joint design II (Chair: N Terasaki and RDSG Campilho)
	Room A101 (Auditorium)	Room B032	Room B035
9:20	Multi-scale modelling and hygrothermal ageing of stepped adhesive repairs in CFRP structures (AB25_53) <u>TR Zhu</u> , <u>MT Hu</u> , <u>JH Zhang</u> , <u>X Han</u> (Dalian University of Technology, China)	Application of distributed fiber optic sensing for defect detection in adhesive bonds (AB25_47) <u>L Hermelingmeier</u> (Paderborn University, Germany), <u>G Meschut</u> , <u>D Teutenberg</u>	Investigation of the adhesive bond between the metallic skin and core materials of a hybrid laminar flow control (HLFC) sandwich suction panel (AB25_66) <u>MA Athar</u> (Technische Universität Braunschweig, Germany), <u>J Kube</u> , <u>M Overbeck</u> , <u>H Kammler</u> , <u>S Hartwig</u> , <u>K Dilger</u> , <u>S Heimbs</u> , <u>C Hühne</u>
9:40	Fracture behaviour of tailored adhesively bonded joints: how substrate bending stiffness influences crack deflection (AB25_26) <u>RAA Lima</u> (Instituto Superior Técnico, Portugal), <u>S Teixeira de Freitas</u>	Influence of low-velocity impact damage on the mechanical properties of adhesively bonded thermoplastic composites (AB25_58) <u>B Preisz</u> (Universität der Bundeswehr München, Germany), <u>E Arikian</u> , <u>J Holtmannspötter</u> , <u>P Höfer</u>	Mechanical properties of biobased composite with treated hemp fibers in the structural reinforcement (AB25_1) <u>I Ivanova</u> (Université de Reims Champagne-Ardenne, France), <u>J Assih</u> , <u>C Diagana</u> , <u>I Titeux-Peth</u>
10:00	Elucidation of adhesive degradation mechanism using principal component analysis (AB25_60) <u>D Yamaura</u> (National Institute of Advanced Industrial Science and Technology (AIST), Japan), <u>K Shimamoto</u> , <u>N Terasaki</u> , <u>H Akiyama</u>	Structural health monitoring and damage detection in composite adhesively bonded of single-lap joints (AB25_65) <u>M Abbasi</u> (Politecnico di Torino, Italy), <u>R Ciardiello</u> , <u>L Goglio</u>	An approach for ultimate tensile strength characterisation on bonded structures based on J-integral measures (AB25_128) <u>L Masson</u> (ENSTA Bretagne, France), <u>N Carrère</u> , <u>P Bidaud</u>

10:20	Understanding the long-term durability of acrylic foam PSAs: creep behaviour characterization and predictive modelling (AB25_29) <u>BD Simões</u> (INEGI, Portugal), EMD Fernades, EAS Marques, RJC Carbas, S Maul, P Stihler, P Weißgraeber, LFM da Silva	Defect-induced strength reduction in adhesive joints: Understanding kissing bond effects (AB25_145) <u>A Wagih</u> (King Abdullah University of Science and Technology (KAUST), Kingdom of Saudi Arabia), H Ejaz, X Li, R Hajri, A Bakhshwin, A Al-Jarro, G Lubineau	General solution of joints bonded with a functionally graded adhesive (AB25_147) <u>Y Kokner</u> (The City College of New York, USA), F Delale
10:40-11:00	COFFEE BREAK (Room under the Auditorium)		
	Session 6A – Adhesive properties III (Chair: O Klinkova and S Marzi)	Session 6B – Wood bonding (Chair: HWG van Herwijnen and LH de Carvalho)	Session 6C – Durability II (Chair: A Pirondi and S De Barros)
	Room A101 (Auditorium)	Room B032	Room B035
11:00	Novel test method for evaluating the performance of adhesive bonded joints (AB25_99) <u>J Laranjeira</u> , <u>A Pagliuca</u> , <u>JG Broughton</u> (Oxford Brookes University, UK)	Temperature and conversion dependencies of the polymerisation of furan resins (AB25_116) <u>E Billich</u> , <u>M Bacher</u> , <u>W Sailer-Kronlachner</u> , <u>A Potthast</u> , <u>HWG van Herwijnen</u> (Wood K plus, Austria)	Evaluation of strength of steel bonded joints undergoing multiaxial non-proportional fatigue loading (AB25_69) <u>F Moroni</u> , <u>F Musiari</u> , <u>A Pirondi</u> (University of Parma, Italy)
11:20	Thermal characterization of adhesives and studies of CTR between metal – adhesive (AB25_50) <u>S Kikwani</u> (Aix Marseille Université, France), <u>N Ehret</u> , <u>JL Gardarein</u> , <u>F Lebon</u>	Optimizing pressing time in CLT Production: Strength development and efficiency of 1C-PUR wood adhesives (AB25_108) <u>EM Hogger</u> (Wood K plus, Austria), <u>P Bliem</u> , <u>G Stapf</u> , <u>J Konnerth</u> , <u>HWG van Herwijnen</u>	Application of the C-SSF algorithm for modeling debonding in adhesively bonded joints under fatigue loading with different R-ratios (AB25_74) <u>S Safaei</u> (Politecnico di Milano, Italy), <u>L Martulli</u> , <u>M Carboni</u> , <u>A Bernasconi</u>
11:40	Numerical analysis of end-loaded split (ELS) test for mode II fracture characterization of structural adhesives (AB25_87) <u>JMA Fontes</u> , <u>RDSG Campilho</u> (Polytechnic of Porto, Portugal), <u>K Madani</u>	Influence of wood species on the bonding strength development of pMDI (AB25_136) <u>P Solt-Rindler</u> (Wood K plus, Austria), <u>J Konnerth</u> , <u>R Mitter</u> , <u>HWG van Herwijnen</u>	Strengthening steel plates with adhesively bonded hybrid carbon/flax patches: Effects of water immersion aging on flexural properties (AB25_75) <u>MA Tazi</u> (CESI Lineact, France), <u>M JEebli</u> , <u>S Teixeira de Freitas</u> , <u>P Casari</u> , <u>S de Barros</u>

12:00	Obtaining traction-separation laws of adhesive joints using optical fiber strain measurements (AB25_100) <u>L Aydin</u> (TH Mittelhessen, Germany), S Marzi	Back to basics: comparison of the adhesion performance of different collagen glues (AB25_137) <u>S Oliveira</u> (Instituto Politécnico de Viseu, Portugal), S Monteiro, A Sousa, FD Magalhães, JM Martins, LH Carvalho	Fatigue testing of pressure-reinforced bonded interfaces (AB25_76) A Sorrentino, <u>D Castagnetti</u> (University of Modena and Reggio Emilia, Italy), E Dragoni
12:20	Fracture testing of structural adhesive joints in mixed mode II + III (AB25_102) <u>D Neufeld</u> (TH Mittelhessen, Germany), L Geisel, S Marzi	Impact of polyurethane adhesive type on shear strength and durability of cross-laminated timber structural panels (AB25_138) AKL Cavalcante, JM Martins, ML Almeida, C Del Menezzi, <u>LH Carvalho</u> (Instituto Politécnico de Viseu, Portugal)	Mode I fatigue crack growth behavior of epoxy adhesive with copper alloy adherends (AB25_77) <u>K Naito</u> (National Institute for Materials Science, Japan), S Kawasaki, Y Nakamura, H Oguma
12:40	A numerical investigation on the initial porosity in structural adhesives (AB25_124) <u>L Demoulin</u> (ISAE-Supméca, France), ML Raffa, T Da Silva Botelho, O Klinkova	Effect of different amino resins and different lignocellulosic raw material on bond strength and formaldehyde emissions of particleboards (AB25_139) <u>ML Almeida</u> (Instituto Politécnico de Viseu, Portugal), C Coelho, NT Paiva, JM Martins, FD Magalhães, RM Ramos, JM Martins, LH Carvalho	Characterization of adhesives and bonded joints in cryogenic environments (AB25_81) <u>R Seewald</u> (RWTH Aachen University, Germany), A Schiebahn, U Reisgen
13:00-14:00	LUNCH BREAK (Room under the Auditorium)		
	Room A101 (Auditorium)		
14:00*	Adhesive joints in the automotive industry: a vehicle dynamics perspective (AB25_37) <u>P Millan</u> (University of Lisbon, Portugal), J Ambrósio, MM Kasaei, RJC Carbas, EAS Marques, LFM da Silva		

	Session 7A – Adhesive properties IV II (Chair: A Rudawska and A Chiminelli)	Session 7B – Applications I (Chair: H Fricke and J Hrachova)	Session 7C – Hybrid joints (Chair: F Moroni and T Vallée)
	Room A101 (Auditorium)	Room B032	Room B035
14:40	Dual-actuator mixed-mode bending tests on structural adhesive joints (AB25_101) I Kididane, K Kozáková, N Ladwig, <u>S Marzi</u> (TH Mittelhessen, Germany)	Potential of sustainable materials in adhesively bonded fuel cells (AB25_135) D Weiser, <u>E Stammen</u> (TU Braunschweig, Germany), K Dilger, S Brokamp, M Grundler	Bolted and bonded: An in-depth look at hybrid joint performance (AB25_67) T Evers, <u>T Vallée</u> (Fraunhofer IFAM, Germany)
15:00	Mode I toughening of bio-based epoxy adhesive through 3D-printed biomimetic reinforcement (AB25_93) R Tao, Z Xu, <u>S Teixeira de Freitas</u> (Delft University of Technology, Netherlands)	Maximizing insights from adhesive bonding studies (AB25_120) <u>J Hrachova</u> (SABIC Technology Center, Netherlands), H Leenders, C Pereira	Mechanical response of dissimilar composite to steel adhesive joints used in car floors at different loading rates (AB25_16) <u>B Hasumi</u> (INEGI, Portugal), A Akhavan-Safar, RJC Carbas, EAS Marques, LFM da Silva
15:20	Investigation of the failure of bonded joints under cryogenic conditions: Influence of Von Mises and hydrostatic stresses (AB25_103) <u>M Baumert</u> (Fraunhofer IFAM, Germany), PHE Fernandes, VC Beber, C Nagel	Improving equine welfare: high performance adhesive films for fast and reusable horseshoe attachment (AB25_22) <u>CMC Ferreira</u> (INEGI, Portugal), BD Simões, EAS Marques, RJC Carbas, LFM da Silva	Enhancing strength in hybrid aluminum-SMC joints through surface laser pre-treatment (AB25_131) <u>F Moroni</u> (Università di Parma, Italy), U Tarasconi, L Raimondi, C Gotti
15:40	Fracture toughness characterization of a methyl-methacrylate structural adhesive (AB25_112) E Duvivier, C Valero, S Miguel, O Gracia, <u>A Chiminelli</u> (Instituto Tecnológico de Aragón (ITA), Spain)	Modeling of thermally conductive adhesives for automotive battery applications (AB25_92) <u>A Abedian</u> (Henkel AG & Co. KGaA, Germany), M Schiel	Experimental and numerical analysis of the properties of a spot adhesive joint for fastening a thin-walled Inconel 718 workpiece using the Blue Photon UV adhesive workholding system (AB25_151) <u>A Kubit</u> (Rzeszów University of Technology, Poland), J Nowiński
16:00-16:20	COFFEE BREAK (Room under the Auditorium)		

	Session 8A – Applications II (Chair: E Stammen and LFM da Silva)	Session 8B – Durability III (Chair: S Horiuchi and Ł Sadowski)	Session 8C – Joint design III (Chair: P Bidaud and F Lachaud)
	Room A101 (Auditorium)	Room B032	Room B035
16:20	Challenges of digitalization in adhesive bonding technology (AB25_78) <u>H Fricke</u> (Fraunhofer IFAM, Germany), F Mohr, T Evers, T Vallée	Durability of adhesive bonding constructed by laser surface treatment (AB25_121) <u>S Horiuchi</u> (National Institute of Advanced Industrial Science and Technology (AIST), Japan), M Nagai, K Shimamoto, N Terasaki	Bending strength of adhesively-bonded 3D-printed polymer structures (AB25_88) TFR Ribeiro, FAFS Magalhães, <u>RDSG Campilho</u> (Polytechnic of Porto, Portugal), RFR Pinto, RJB Rocha, K Madani
16:40	Objectivation of fracture surface analysis using the reflectance transformation imaging method: assessment of its robustness for an industrial production line (AB25_63) <u>M Derian</u> (ENSTA, France), C Cellard, M Nurit, G Le Goïc, R Créac'headec	Automating ageing tests for single lap joints (AB25_105) <u>K Shimamoto</u> (National Institute of Advanced Industrial Science and Technology (AIST), Japan), T Inoue, DN Futaba, H Akiyama, W Shin	Effect of nano g-C3N4 particulate on adhesive bond strength between jute fiber reinforced polymer composites and aluminium plates (AB25_107) H Athya, <u>SK Chokka</u> (Indian Institute of Information Technology, India)
17:00	Adhesive technology in shipbuilding – Opportunities and requirements (AB25_64) <u>L Fröck</u> (University of Rostock, Germany), P Kaeding, N Kayser	Fracture characterization of asymmetrical bonded composite/metal joints under high-strain rates (AB25_86) <u>T Sauvard</u> (ENSTA, France), D Thevenet, G Stamoulis, A El Malki Alaoui, J Masson, N Dagorn	Influence of micro-scale mechanical interlocking on the mode I and Mode II fracture toughness of metal-composite joints with LPBF and SMC substrates (AB25_132) <u>M Gulino</u> (University of Parma, Italy), F Moroni, A Pironi, L Raimondi, U Tarasconi
17:20	Short-fiber-reinforced structural silicone for facades: Potential & performance (AB25_70) <u>M Engelmann</u> (TUD Dresden University of Technology, Germany), J Giese-Hinz, S Tasche	Influence of montmorillonite on the structure and mechanical properties of epoxy coatings (AB25_61) <u>I Miturska-Barańska</u> (Lublin University of Technology, Poland), A Rudawska	An experimental investigation on the effective elastic properties of adhesives with initial microporosity (AB25_133) <u>N Carpentier</u> (ISAE-Supméca, France), L Demoulin, ML Raffa, T da Silva Botelho, O Klinkova

17:40	Industrial applications of adhesive bonding– Case studies and typical issues (AB25_28) <u>EAS Marques</u> (University of Porto, Portugal), <u>RJC Carbas</u> , <u>A Akhavan-Safar</u> , <u>LFM da Silva</u>	Durability of Composite Steel-Concrete Adhesively Bonded Structures (AB25_148) <u>A Rocha</u> (University of Minho, Portugal), <u>IB Valente</u> , <u>JB Aguiar</u>	A four-point bending test to study both failure initiation and crack propagation at the interface of an adhesive joint (AB25_129) <u>P Bidaud</u> (ENSTA Bretagne, France), <u>N Carrère</u> , <u>E Lolive</u> , <u>T Bonnemains</u>
18:00	Valeo towards more sustainable materials applied on sensors (AB25_97) <u>O Gueguen</u> (Valeo Powertrain Systems Driveline, France), <u>S-D Vasudeva</u> , <u>I Alix</u>	Laser surface treatment as an environmentally friendly alternative to conventional surface activators for improving the reliability of adhesive bonded joints (AB25_140) <u>Z Weltsch</u> (Széchenyi István University, Hungary)	Defect-induced strength reduction in adhesive joints: Understanding air pocket effects (AB25_146) <u>H Ejaz</u> (King Abdullah University of Science and Technology (KAUST), Kingdom of Saudi Arabia), <u>A Wagih</u> , <u>X Li</u> , <u>A Bakhshwin</u> , <u>R Hajri</u> , <u>A Al-Jarro</u> , <u>G Lubineau</u>
20:00	AB 2025 BANQUET (Cruise in Douro River)		