

Programme of AB2013

Author underlined → presenting author

Thursday 4 July 2013		
8:45	AB 2013 Opening (Room A101, also called ‘Auditorium’)	
	Session 1A – Modelling (Chair: RA Sauer and S de Barros)	Session 1B – Adhesion and surface treatments I (Chair: M Brogly and G Critchlow)
	Room A101 (Auditorium)	Room B032
9:00	Accurate, efficient and robust computational methods for adhesive contact (AB13_43) <u>RA Sauer</u> (RWTH Aachen University, Germany)	Strategies for optimised anti-adhesion (AB13_27) <u>GW Critchlow</u> (Loughborough University, UK), JOF West, SJ Shaw
9:20	Development of a web application for the design of adhesive joints (AB13_35) <u>MP da Costa</u> (University of Porto, Portugal), LFM da Silva, RDSG Campilho	Surface treatment of copper foil for electronic applications (AB13_14) C Rodríguez-Villanueva, V Villapun, Y Ballesteros, <u>JC del Real</u> (Universidad Pontificia Comillas, Spain)
9:40	Adhesively-bonded friction interfaces: macroscopic shear strength prediction by microscale finite element simulations (AB13_37) <u>D Castagnetti</u> (University of Modena and Reggio Emilia, Italy), E Dragoni	A ToF-SIMS and XPS study of the grafting ability of candidate adhesion promoters for water-based coatings on untreated substrates (AB13_10) <u>HL Brannon</u> (The University of Birmingham, UK), B Heinz, C Haaf, A Andersen, P Cox, RW Greenwood, JA Preece
10:00	Coupled stress and energy failure models for adhesively bonded single lap joints (AB13_29) <u>P Weißgraeber</u> (Technische Universität Darmstadt, Germany), W Becker	Water-based high performance sol-gel coatings for adhesion pre-treatment (AB13_41) <u>S Meyer</u> (Vienna University of Technology, Austria), U Schubert
10:20	Computational shape optimization of thin peeling films based on a nonlinear beam formulation (AB13_44) <u>JC Mergel</u> (RWTH Aachen University, Germany), RA Sauer	Ceramic filled epoxy coatings on plasma activated glass fibre reinforced polymer based composites (AB13_12) <u>N Encinas</u> (Universidad Carlos III de Madrid, Spain), J Abenojar, MA Martínez, F Velasco
10:40 - 11:00	COFFEE BREAK (Room under the Auditorium)	
	Session 2A – Joint design I (Chair: C Sato and E Dragoni)	Session 2B – Adhesion and surface treatments II (Chair: W(Voytek)S Gutowski and JC del Real)
	Room A101 (Auditorium)	Room B032
11:00	The effect of composite adherends and aluminium adherends of different thicknesses on the failure load of adhesively bonded single-lap joints (AB13_5)	A molecular level investigation of adhesion promoters adsorption at interfaces (AB13_30) <u>M Brogly</u> (Université de Haute Alsace – LPIM, France)

	S Akpınar, <u>HG Jahanpasand</u> (Gümüşhane University, Turkey), MD Aydın, B Yazıcı, A Özel, Ş Temiz	
11:20	Optimization of T-peel support properties (material and thickness) (AB13_19) <u>Wadea</u> (King Saud University, Saudi Arabia), AM Alsamhan; SM Darwish	Modified Brazilian disk test for interface fracture studies (AB13_46) <u>MK Budzik</u> (Aarhus University, Denmark), H Myhre Jensen
11:40	Evaluation of shear debonding between polymeric foams and aluminum sheets by using double lap joints of sandwich type (AB13_21) <u>DM Constantinescu</u> (University Politehnica of Bucharest, Romania), M Sandu, A Sandu, DA Apostol, F Stuparu	A method for measuring stickiness of bread dough (AB13_51) <u>CL Tock</u> (University of Birmingham, UK), FK Gates, CI Speirs, GS Tucker, PT Robbins, PW Cox
12:00	Influence of the engagement ratio on the joint strength of press fitted and adhesively bonded specimens (AB13_22) D Crocco, M De Agostinis, P Mauri, <u>G Olmi</u> (University of Bologna, Italy)	Effect of mechanical surface pre-treatment on interlocking phenomenon of AA2024-T3 / CF-PPS friction spot joints (AB13_62) <u>SM Goushegir</u> (Helmholtz-Zentrum Geesthacht, Germany), JF dos Santos, ST Amancio-Filho
12:20	Functionally graded adhesives for increased strength of adhesively bonded composite joints (AB13_33) <u>SE Stapleton</u> (RWTH Aachen University, Germany), T Gries, AM Waas	Adhesion properties in adhesively bonded composite-to-aluminium joints (AB13_64) <u>S Teixeira de Freitas</u> (Delft University of Technology, Netherlands), J Sinke, J Vlijm
12:40	Regularization of torsional stresses in tubular lap bonded joints by means of functionally graded adhesives (AB13_50) <u>A Spaggiari</u> (University of Modena and Reggio Emilia, Italy), E Dragoni	The adhesive and interference contribution on a press fitted/adhesive bonded hybrid joint (AB13_65) <u>G Gallio</u> (Politecnico di Torino, Italy), G Marcuccio, E Bonisoli, S Tornincasa, M Lombardi, D Rovarino, P. Fino, L Montanaro
13:00 - 14:00	LUNCH BREAK (Room under the Auditorium)	
	Session 3A – Joint design II (Chair: A Pironi and I Ashcroft)	Session 3B – Adhesion and surface treatments III (Chair: A Lutz and K Dilger)
	Room A101 (Auditorium)	Room B032
14:00	Simulation of chemically and thermally induced distortions in adhesive bonds (AB13_86) <u>K Priesnitz</u> (M2i, Netherlands), J Sinke, R Benedictus	Surface modification of aeronautic composite materials by atmospheric pressure plasma (APP) for composite bonding (AB13_77) <u>Z Martín</u> (EADS, Spain), MA Torrijos
14:20	A new hybrid bonding technique: Adhesive-soft soldered joints (AB13_11) <u>N Kavak</u> (Bulent Ecevit University, Turkey), E Altan	Perturbed crack front (AB13_47) <u>MK Budzik</u> (Aarhus University, Denmark), H Myhre Jensen
14:40	Mechanical behavior of interlocking multi-stepped double scarf adhesive joints including void and disbond effects	Study of correlation between steel roughness, surface energy and adhesion properties (AB13_15)

	(AB13_53) E Sancaktar (University of Akron, USA), U Karmarkar	C Rodríguez-Villanueva (Universidad Carlos III de Madrid, Spain), J Abenojar, M. Martínez
15:00	Adhesively bonded functionally graded joints by induction heating (AB13_96) RJC Carbas (IDMEC, Portugal), LFM da Silva, G Critchlow	Adhesion improvement of elastomeric silicone adhesives by molecular brushes (AB13_117) W(Voytek)S Gutowski (CSIRO Materials Science and Engineering, Australia), S Li, A Cerra
15:20	Strength estimation and damage analysis of double scarf adhesive joints subjected to combination loadings of tension and bending (AB13_42) L Liao (Chinese Academy of Sciences, China), T Sawa, C Huang	Towards evaluating variable adhesion on single lap shear joints using high-frequency ultrasonic analysis (AB13_132) A Baudot (Safran Aircelle, France), C Payan, J Moysan, N Ylla, J Galy, B Verneret, A Baillard
15:40	Three-dimensional fatigue debonding simulation: comparison of a cohesive zone- and a virtual crack closure-based techniques (AB13_124) G Giuliese, A Pirondi (Università di Parma, Italy), F Moroni, A Bernasconi, A Jamil	Surface patterning of metals substrates through low power laser ablation for enhanced adhesive bonding (AB13_125) M Alfano, S Pini, G Chiodo (Università di Parma, Italy), M Barberio, A Pirondi, F Furgiuele
16:00 - 16:20	COFFEE BREAK (Room under the Auditorium)	
	Session 4A – Joint design III (Chair: Weidong Li and E Sancaktar)	Session 4B – Adhesives development I (Chair: A Sastre and L Goglio)
	Room A101 (Auditorium)	Room B032
16:20	Experimental and numerical studies of the non-linear structural behaviour of bonded steel-glass-façade elements subjected to multi-axial loading (AB13_59) M Feldmann, B Abeln, C Richter (RWTH Aachen University, Germany)	Cu-MWNT composite nanopaste for low-temperature direct bonding (AB13_128) K-S Kim (Sungkyunkwan University, Republic of Korea), K-H Jung, MY Jeong, S-B Jung
16:40	Stress analysis in double-strap adhesive joints with an embedded patch and having an intermediate part under axial loading (AB13_16) Ş Citil (Kafkas University, Turkey), Y Ayaz, Ş Temiz	Effect of fabrication method on thermo-mechanical properties of epoxy composite (AB13_7) M Dehghan (Swinburne University of Technology, Australia), R Al-Mahaidi, E Gad, I Sbarski
17:00	Stress distribution in adhesive layers of lap joints loaded within the range of plastic strain of adherends (AB13_20) J Godzimirski, M Rośkiewicz (Military University of Technology, Poland), Marlena Rożek	Carbon black nanoparticle alignment using magnetic particles creating local percolation-spots for electrical conductivity in structural adhesives (AB13_104) C Mette (Technische Universität Braunschweig, Germany), F Fischer, K Dilger
17:20	Effect of elevated temperature on the bond behavior of CFRP-concrete interfaces (AB13_131)	Predictive modeling for rate-dependent toughened-adhesive behavior during impact (AB13_52)

	JP Firmo, D Pitta, <u>JR Correia</u> (IST, Portugal), M Arruda, T Vallée, H Cruz	<u>E Sancaktar</u> (University of Akron, USA), G Baş, I-T Chang, <u>BJ Meaige</u> (Honda R&D Americas, USA), R Augustine
17:40	The influence of specimen thickness on the simulations of adhesion tests (AB13_75) <u>S de Barros</u> (CEFET/RJ, Brazil), G Alfano, L Champaney, N Valoroso, AR Rozado, JF Silva Neto	Antimicrobial properties of waterborne polyurethane adhesives based on AgNPs@silica nanocomposites (AB13_76) <u>MA Pérez-Limiñana</u> (INESCOP, Spain), C Orgilés-Barceló, F Arán-Ais
18:00	Validation methodology of adhesive joints in vehicle industry: from coupon level to industrial case studies (AB13_58) <u>P Campestrini</u> (Flanders' DRIVE, Belgium), D Van Hemelrijck, W Van Paepegem	Cashew nutshell liquid derivatives for the elaboration of structural bio-adhesives (AB13_92) <u>P Verge</u> (CRP Henri Tudor, Luxembourg), JAS Bomfim, V Toniazzo, D Ruch
19:00	Poster session and RECEPTION (Room under the Auditorium)	
Adhesion and surface treatments		
Poster 1	Self-cleaning dry adhesives (AB13_99)	JM Krahn, AG Pattantyus-Abraham, <u>C Menon</u> (Simon Fraser University, Canada)
Adhesive properties		
Poster 2	Highly compliant electro-dry-adhesives (AB13_100)	JM Krahn, AG Pattantyus-Abraham, <u>C Menon</u> (Simon Fraser University, Canada)
Poster 3	Characterization of composite materials (metal-polymeric matrix reinforced with SiC) using acoustic emission (AB13_18)	<u>M Pantoja</u> (Universidad Carlos III de Madrid, Spain), J Abenojar, Y Ballesteros, L Molisani, N Ponso, PG Varela
Poster 4	Separation properties of joints bonded with electrically dismantlable adhesive (AB13_39)	<u>C Sato</u> (Tokyo Institute of Technology, Japan), H Shiote, M Ohe
Poster 5	Mechanical and adhesion properties of polydimethylsiloxane (PDMS) used in biomedical microdevices (AB13_60)	<u>N Moreira</u> (Instituto Politécnico de Bragança, Portugal), R Lima, LFM da Silva
Poster 6	Effect of the thickness in the strength of elastic adhesives (AB13_93)	<u>MA Martínez</u> (Universidad Carlos III de Madrid, Spain), N Encinas, F Velasco, A Chiminelli, R Breto
Poster 7	Polymerization kinetics of boron carbide/epoxy resin composite (AB13_8)	<u>J Abenojar</u> (Universidad Carlos III de Madrid, Spain), N Encinas, JC del Real and MA Martínez
Poster 8	Studying the bitumen emulsion/aged binder interface by wettability and adhesion tests and spectroscopic considerations (AB13_110)	<u>L Ziyani</u> (LUNAM Université Ifsttar, France), V Gaudefroy, V Ferber, F Hammoum
Poster 9	Extending William-Landel-Ferry approach to structural bonding: Joint geometry influence on engineering properties of silicone adhesives (AB13_118)	<u>W(Voytek)S Gutowski</u> (CSIRO Materials Science and Engineering, Australia), P Christodoulou, L Russell
Poster 10	Fracture characterization of a structural polyurethane adhesive as a function of adhesive thickness (AB13_122)	<u>MD Banea</u> (IDMEC, Portugal), LFM da Silva, A Soares, R Assunção, RDSG Campilho

Poster 11	Biodegradable polyurethane adhesives based on polyols derived from renewable resources (AB13_133)	E Orgilés-Calpena, F Arán-Aís, AM Torró-Palau, C Orgilés-Barceló, MA Pérez-Limiñana (INESCOP, Spain)
Poster 12	Structural changes in the crosslinking process of a protein bioadhesive (AB13_134)	N Cuesta-Garrote, MJ Escoto-Palacios, F Arán-Aís, C Orgilés-Barceló, MA Pérez-Limiñana (INESCOP, Spain)
Poster 13	Structural adhesive technology for composite bonding (AB13_136)	BA Haag (Dow Europe GmbH, Switzerland)
Modelling		
Poster 14	Modeling adhesion of fibrillar dry-adhesives on rough surfaces (AB13_114)	S Ahmadi, C Menon (Simon Fraser University, Canada)
Joint design		
Poster 15	Functionally graded adhesive patch repairs in civil applications (AB13_54)	GMSO Viana, RJC Carbas (IDMEC, Portugal), LFM da Silva, G Critchlow
Poster 16	Precision of adhesively-bonded joint strength predictions with Cohesive Zone Models by considering different types of approximation laws (AB13_56)	RDSG Campilho (Instituto Politécnico do Porto, Portugal), MD Banea
Poster 17	Experimental and numerical investigations on timber joints with glued-in FRP rods (AB13_70)	T Tannert (The University of British Columbia, Canada), P Faghani, A Garekani, T Vallée
Poster 18	Strength improvement of adhesively-bonded scarf repairs in aluminium structures with external reinforcements (AB13_113)	RDF Moreira (ISEP, Portugal), AMG Pinto, RDSG Campilho
Poster 19	Innovative friction stir weldbonding of aluminum joints (AB13_123)	DFO Braga (INEGI, Portugal), ACF Silva, LFM da Silva, PMGP Moreira
Poster 20	Effect of post-cure on adhesively bonded functionally graded joints by induction heating (AB13_130)	RJC Carbas (IDMEC, Portugal), LFM Silva, G Critchlow
NDT		
Poster 21	Global fault detection in adhesive joints using multivariate statistical analysis (AB13_68)	Y Ballesteros (Universidad Pontificia Comillas, Spain), R Caro, JR Montes, JC del Real, A.Zapico
Durability		
Poster 22	Effect of moisture in adhesives reinforced with micro particles of cork (AB13_6)	AQ Barbosa (IDMEC, Portugal), LFM da Silva, J Abenojar, JC del Real
Poster 23	Strength and fracture energy of adhesives for the automotive industry (AB13_112)	C Canto (IDMEC, Portugal), LFM da Silva, MD Banea, F Chaves, RDSG Campilho, AA Fernandes
Applications		
Poster 24	Adhesion strength between die attach film and PCB substrate for multi-chip packages (AB13_88)	J-O Bang (Sungkyunkwan University, Republic of Korea), K-S Kim, Y-M Lee, S-B Jung
Poster 25	Effect of S. mutans culture on the microtensile bond strength of fluoride/MDPB-containing	FG Carvalho (Federal University of Campina Grande,

	adhesive system to primary artificial caries-affected dentin (AB13_115)	Brazil), HL Carlo, S de Barros, RL Santos, RM Puppini-Rontani
Poster 26	Importance of the surface treatment in the peeling strength of joints for the shoe industry (AB13_121)	<u>RMM Paiva</u> (CIPADE, Portugal), LFM da Silva, MAP Vaz

Friday 5 July 2013		
	Session 5A – Joint design IV (Chair: D Castagnetti and N Carrere)	Session 5B – Adhesive properties I (Chair: R Créac’hacdec and S de Barros)
	Room A101 (Auditorium)	Room B032
9:00	Numerical simulation and mechanical testing of mixed-adhesive joints for high temperature aerospace applications (AB13_95) <u>EAS Marques</u> (IDMEC, Portugal), LFM da Silva	A tension / compression - torsion test suited to analyze the mechanical behaviour of adhesives under non-proportional loads (AB13_34) <u>N Arnaud</u> (ENSTA Bretagne), R Créac’hacdec, J.Y. Cognard, P Davies
9:20	Development of Eurocode-based design rules for structural adhesive bonded joints in steel structures (AB13_97) <u>H Pasternak</u> , <u>Y Ciupack</u> (Brandenburg University of Technology, Germany), K Dilger, E Ince	Mechanical characterization of a structural polyurethane adhesive modified with thermal expandable particles (AB13_119) <u>MD Banea</u> (IDMEC, Portugal), LFM da Silva, CH Santos, A Jatai, RJC Carbas
9:40	Influence of the FRP adherend lamination in the mechanical adhesion of single lap joints (AB13_98) <u>J Moller</u> , <u>R Hunter</u> (Universidad de La Frontera, Chile), N Ibacache, B Pavez, J Molina	Influence of the adhesives in high strain rate tested joints (AB13_28) <u>GW Critchlow</u> (Loughborough University, UK), A Mitchell, GM Swallowe, SJ Shaw, IA Ashcroft
10:00	Numerical validation of a crack equivalent method for mixed-mode I+II fracture characterization of bonded joints (AB13_120) <u>FJP Chaves</u> (IDMEC, Portugal), MFSF de Moura, LFM da Silva, DA Dillard	Glycerol-based polymers as green adhesives for wood (AB13_111) <u>MS Azeredo</u> , <u>MBS Nunes</u> , <u>GHD Tonoli</u> , <u>JE Oliveira</u> , <u>S de Barros</u> (CEFET/RJ, Brazil), ES Medeiros
10:20	Strain measurements within adhesives using in-situ computertomography (AB13_103) <u>HF Kunz</u> (Technische Universität Braunschweig, Germany), F Fischer, K Dilger	Assessing wettability and adhesion of bitumen emulsions on mineral substrates to improve pavement durability (AB13_109) <u>L Ziyani</u> (LUNAM Université Ifsttar, France), V Gaudefroy, V Ferber, F Hammoum
10:40 - 11:00	COFFEE BREAK (Room under the Auditorium)	
	Session 6A – Durability I (Chair: M Banea and T Vallée)	Session 6B – Adhesive properties II (Chair: A Spaggiari and E Sancaktar)
	Room A101 (Auditorium)	Room B032
11:00	Adhesive joints with defects – do they matter? (AB13_25) <u>RD Adams</u> (University of Oxford, UK), E Karachalios, LFM da Silva	Fracture toughness of adhesively bonded joints between fiber reinforced thermoplastics (AB13_38) <u>S Mahaphasukwat</u> , <u>K Shimamoto</u> , <u>S Hayashida</u> , <u>C Sato</u> (Tokyo Institute of Technology, Japan)
11:20	Effect of hostile environment on adhesive single lap joints under constant loading	Specimen geometry influence on the tensile fracture toughness of a structural

	(AB13_1) <u>X Han</u> (Dalian University of Technology, China), AD Crocombe, P Hu, WD Li	polyurethane adhesive (AB13_55) <u>RDSG Campilho</u> (Instituto Politécnico do Porto, Portugal), DC Moura, MD Banea, LFM da Silva
11:40	Fatigue analysis of structural adhesive bonds under variable amplitude loading (AB13_40) <u>H Schmidt</u> (Fraunhofer LBF, Germany), J Eufinger	Use of kinetic analysis for the determination of cure-dependent mechanical proper-ties of adhesives (AB13_66) <u>M Schiel</u> (Technische Universität Braunschweig, Germany), F Fischer, K Dilger
12:00	Degradation of ethylene vinyl acetate (EVA) sealant in photovoltaic modules (AB13_48) <u>IA Ashcroft</u> (University of Nottingham, UK), A Badiee, V Hiwarker, S Rashtchi, PD Ruiz, R Wildman	Determination of the failure envelop on an adhesive using a modified Arcan tests device – role of the plasticity and of the residual stresses (AB13_90) <u>N Carrere</u> (ENSTA Bretagne, France), C Badulescu, J-Y Cognard
12:20	Development of a method for a cyclic design of structural foams (AB13_102) <u>E Ince</u> (Technische Universität, Braunschweig, Germany), M Schiel, F Fischer, K Dilger, T Welters	Experimental method for the determination of material parameters of plasticity models for toughened adhesives (AB13_94) <u>A Chiminelli</u> (Aragon Institute of Technology, Spain), M Lizaranzu, MA Jiménez, R Breto, F Velasco, J Abenojar
12:40	A strategy for fatigue life prediction of adhesively bonded structures under cyclic loading conditions (AB13_108) <u>P Bidaud</u> (ENSTA Bretagne, France), R Créac'hcadec, D Thevenet, JY Cognard, P Jousset	
13:00 - 14:00	LUNCH BREAK (Room under the Auditorium)	
	Session 7A – Applications I (Chair: G Critchlow and H Carlo)	Session 7B – Durability II (Chair: I Ashcroft and T Tannert)
	Room A101 (Auditorium)	Room B032
14:00	Fatigue behaviour of adhesively bonded beech-joints: Preliminary experimental evidence using a short-term procedure (AB13_135) <u>S Myslicki</u> (Technische Universität Dortmund, Germany), M Klein, F Walther, T Vallée	Experimental and numerical analysis on fatigue durability of single-lap joints under vibration loads (AB13_2) <u>W Li</u> (Dalian University of Technology, China), S Zhou, X Wang, M Ma, P Hu
14:20	DOW automotive systems 2K polyurethane technology: From semi-structural add-on bonding towards structural composite assembly (AB13_126) <u>S Schmatloch</u> (DOW, Switzerland)	Mechanical characterization of steel-polyurethane and steel-silicone structural joints by means of fatigue tests (AB13_67) C Trujillo, B Enciso, <u>E Paz</u> (Universidad Pontificia Comillas, Spain), J Abenojar, MA Martínez
14:40	Influence of hydrogen peroxide bleaching	Long-term performance of adhesively

	agent on the bond strength of dental adhesives systems (AB13_116) <u>HL Carlo</u> (Federal University of Paraiba, Brazil), <u>JT Leite</u> , <u>RV Montenegro</u> , <u>FG Carvalho</u> , <u>M Giannini</u> , <u>S de Barros</u>	bonded timber-concrete-composites (AB13_69) <u>T Tannert</u> (The University of British Columbia, Canada), <u>B Endacott</u> , <u>T Vallée</u> , <u>M Brunner</u>
15:00	FBGS for health monitoring of bonded composite patch repairs (AB13_49) <u>R de la Mano</u> , <u>R Losada</u> , <u>E Rodriguez-Senin</u> (AIMEN, Spain)	Modeling of double-lap composite adhesive joints: A generic approach (AB13_129) <u>S Kumar</u> (MIT, USA)
15:20	Finite element simulation of structural bonded joints for industrial applications (AB13_63) <u>P Jousset</u> (Sika, Switzerland)	Degradation of epoxy-steel single lap joints upon immersion in water (AB13_79) <u>L Goglio</u> (Politecnico di Torino, Italy), <u>M Rezaei</u>
15:40	Thermo-mechanical stresses in single-lap adhesive joints (AB13_127) <u>S Kumar</u> (MIT, USA)	Mixed-mode fatigue disbond of metal-to-metal interfaces: effect of the adhesive support (AB13_83) <u>D Bürger</u> (Delft University of Technology, Netherlands), <u>CD Rans</u> , <u>R Benedictus</u>
16:00 - 16:20	COFFEE BREAK (Room under the Auditorium)	
	Session 8A – Applications II (Chair: RD Adams and LFM da Silva)	Session 8B – Durability III (Chair: JC del Real and A Bernasconi)
	Room A101 (Auditorium)	Room B032
16:20	Optimization and automation of adhesive bonding repair processes for carbon fibre reinforced plastics (CFRP) (AB13_9) <u>J Holtmannspötter</u> (WIWeB, Germany), <u>F Feucht</u> , <u>M Wetzel</u> , <u>J v. Czarnecki</u>	A monitoring system for crack growth in bonded single-lap joints based on the strain field and visualization by augmented reality (AB13_78) <u>A Bernasconi</u> , <u>Md Kharshiduzzaman</u> (Politecnico di Milano, Italy), <u>GM Re</u> , <u>LF Anodio</u> , <u>M Bordegoni</u>
16:40	European harmonised system for training and qualification of adhesive bonding personnel (AB13_13) <u>L Quintino</u> (IST, Portugal), <u>I Fernandes</u> , <u>E Assunção</u>	Effect of vibration fatigue on modal properties of single lap adhesive joints (AB13_85) <u>Y Du</u> (Dalian University of Technology, China), <u>L Shi</u> , <u>KY Wu</u> , <u>WD Li</u>
17:00	Towards adhesively bonded multifunctional structures in civil engineering (AB13_80) <u>T Vallée</u> (Fraunhofer IFAM, Germany), <u>S Fecht</u> , <u>T Tannert</u> , <u>JR Correia</u>	Hygrothermal aging of epoxy resins (AB13_61) <u>F Piasecki</u> (CEA/DAM, France), <u>J-F Salas</u> , <u>J-F Gérard</u> , <u>E Papon</u>
17:20	Dimensioning axially loaded adhesively bonded tubular steel connections for civil engineering applications (AB13_71) <u>M Albiez</u> , <u>H Fricke</u> (Fraunhofer Institute, IFAM, Germany), <u>T Vallée</u> , <u>T Ummenhofer</u>	Assessment of the effect of cellulose fibers on wooden glued bond durability (AB13_89) <u>J Vanerek</u> (Brno University of Technology, Czech Republic), <u>Z Kersner</u> , <u>A Dufka</u> , <u>N Zizkova</u>
17:40	Environmental stress cracking and its influence on adhesive bonding - Industrial examples and testing methods (AB13_32)	Adhesively bonded hardwood joints under normal and elevated temperatures (AB13_82)

	<u>A Sastre</u> (SIKA, Spain)	S Fecht, T Vallée, <u>H Fricke</u> (Fraunhofer Institute, IFAM, Germany), T. Tannert
18:00	The strength analysis of adhesively bonded joints of composite risers in the deep sea environment (AB13_81) <u>Y Zhang</u> (University of China Petroleum, China), NA Noda, ML Duan	Temperature degradation of CFRP and steel bonded structures (AB13_3) W Li, Z Shi, <u>X Han</u> (Dalian University of Technology, China), X Wang, B Pang, P Hu
20:00	AB2013 BANQUET (Porto caves ‘Burmester’)	