

Appendix 4 - Full list of conference participations (2019-2023) and patent applications

1. Publications in conferences (full papers or extended abstract)

1.1. International

- [1] Lucas F M da Silva, E Marques, R Carbas, M Banea, S de Barros, A Q Barbosa, 'Graded adhesive joints', *8th International conference: "Design and Modelling of Mechanical Systems"*, Hammamet, Tunisia, 18-20 March 2019.
- [2] J A P da Silva, Lucas F M da Silva, A J M Ferreira, M L Ribeiro, V Tita, 'DCB test modelling via cohesive models considering effects of surface treatments in bonded composite joints', *MECSOL 2019 - Proceedings of the 7th International Symposium on Solid Mechanics*, ABCM, São Carlos, SP, Brazil, 15-17 April 2019.
- [3] R Maciel, T Bento, D F O Braga, Lucas F M da Silva, P M G P Moreira, V Infante, 'Fatigue Performance of Friction Stir Weld-Bonded Al-Mg joints', *International Conference on Structural Integrity ICSI 2019*, Funchal, Madeira, Portugal, 2-5 September 2019.
- [4] D F O Braga, A V L Gregorio, S Pourhassan, P A R Rosa, P M G P Moreira, Lucas F M da Silva, V Infante, 'High strain rate loading of friction stir weld-bonded joints', *International Conference on Structural Integrity ICSI 2019*, Funchal, Madeira, Portugal, 2-5 September 2019., 'Fatigue Performance of Friction Stir Weld-Bonded Al-Mg joints', *International Conference on Structural Integrity ICSI 2019*, Funchal, Madeira, Portugal, 2-5 September 2019.
- [5] A Q Barbosa, A Akhavan-Safar, Lucas F M da Silva, M R Ayatollahi, 'Effect of temperature and fatigue loading condition on shear lap strength of an epoxy adhesive reinforced with micro cork particles', *International Conference on Structural Integrity ICSI 2019*, Funchal, Madeira, Portugal, 2-5 September 2019.
- [6] A Q Barbosa, J B Marques, Lucas F M da Silva, J Abenojar, 'Characterization of the mechanical behaviour of an epoxy filled with micro particles of magnetized cork', *XX Congreso Adhesión y Adhesivos*, San Sebastián, Spain, 17-18 September 2019.
- [7] Zamani, A Jaamialahmadi, Lucas F M da Silva, S Hosseini, 'Effect of nano-particle dispersion methods on mechanical behavior of Al-GFRP bonded joints under bending moment', *The Biennial International Conference on Experimental Solid Mechanics (X-Mech 2020)*, Teeran, Iran, 18-19 February 2020.
- [8] Ranulfo Martins Carneiro Neto, Felipe Sales, Eduardo Martins Sampaio, Alireza Akhavan-Safar, Joaquim Teixeira Assis, Lucas Filipe Martins da Silva, 'Linear regressions to obtain the parameters of a model that describe the change on the shear fracture energy due to creep effect', *XXIV Encontro Nacional Modelagem Computacional (XXIV ENMC) and XII Encontro Ciência e Tecnologia Materiais (XII ECTM)*, 13-15 October 2021.

- [9] R Beygi, I Galvão, F Nematzadeh, C Leitão, R M Leal, Lucas F M da Silva, 'A novel procedure for friction stir welding aluminium to copper by using an aluminium run-on plate', *11th Asia Conference on Mechanical and Materials Engineering (ACMME 2023)*, 8-11 June 2023.
- [10] P Tsokanas, F Mujika, A Arrese, P S Valvo, Lucas F M da Silva, 'On decoupling the fracture modes of interlaminar fracture tests on bimaterial specimens', *The 5th International Conference on Structural Analysis of Advanced Materials*, Zakynthos, Greece, 10-14 September 2023.

2. Publications in conferences (abstract only)

2.1. International

- [1] P D P Nunes, E A S Marques, R J C Carbas, A Akhavan-Safar, Lucas F M da Silva, 'An apparatus for fracture envelope determination of adhesives under impact loads', *3rd Doctoral Congress in Engineering*, FEUP, Porto, Portugal, 6-7 June 2019.
- [2] J B Marques, A Q Barbosa, Lucas F M da Silva, 'An overview on manufacturing functionally graded adhesives – Challenges and prospects', *3rd Doctoral Congress in Engineering*, FEUP, Porto, Portugal, 6-7 June 2019.
- [3] N D D Silva, E A S Marques, J J M Machado, B Desai, Lucas F M da Silva, 'Experimental and numerical study of the impact behavior of a component scale adhesively bonded automotive structure', *5th International Conference on Structural Adhesive Bonding 2019*, Porto, Portugal, 11-12 July 2019.
- [4] J J M Machado, E A S Marques, A Q Barbosa, Lucas F M da Silva, 'Performance under fatigue loads of single lap joints using CFRP and aluminium substrates prior and after hygrothermal aging', *5th International Conference on Structural Adhesive Bonding 2019*, Porto, Portugal, 11-12 July 2019.
- [5] E A S Marques, J J M Machado, N D D Silva, R J C Carbas, Lucas F M da Silva, 'Research on the mechanical characterization and numerical modelling of the behaviour of structural adhesives under impact loads', *5th International Conference on Structural Adhesive Bonding 2019*, Porto, Portugal, 11-12 July 2019.
- [6] P D P Nunes, E A S Marques, R J C Carbas, A Akhavan-Safar, Lucas F M da Silva, 'An apparatus for mixed-mode fracture characterization of adhesives under impact loads', *5th International Conference on Structural Adhesive Bonding 2019*, Porto, Portugal, 11-12 July 2019.
- [7] R J C Carbas, M A M S Pereira, E A S Marques, Lucas F M da Silva, 'Strength of hybrid laminates aluminium carbon-fibre joints under impact loads', *5th International Conference on Structural Adhesive Bonding 2019*, Porto, Portugal, 11-12 July 2019.
- [8] J Monteiro, A Akhavan-Safar, E A S Marques, R Carbas, R Goyal, Lucas F M da Silva, 'Mode II modeling of adhesives degraded by fatigue loading using cohesive zone element', *5th International Conference on Structural Adhesive Bonding 2019*, Porto, Portugal, 11-12 July 2019.
- [9] J Monteiro, A Akhavan-Safar, E A S Marques, R Carbas, R Goyal, Lucas F M da Silva, 'Influence of mode mixity and loading conditions on fatigue crack growth

- behavior of an epoxy adhesive', *5th International Conference on Structural Adhesive Bonding 2019*, Porto, Portugal, 11-12 July 2019.
- [10] V S Monteiro, A Akhavan-Safar, E A S Marques, M Costa, Lucas F M da Silva, 'Software development for designing adhesive joints', *5th International Conference on Structural Adhesive Bonding 2019*, Porto, Portugal, 11-12 July 2019.
- [11] A Akhavan-Safar, E A S Marques, R Carbas, Lucas F M da Silva, 'Characterization of adhesive materials in terms of static, fatigue and impact strength for industrial applications', *5th International Conference on Structural Adhesive Bonding 2019*, Porto, Portugal, 11-12 July 2019.
- [12] C S P Borges, A Akhavan, Lucas F M da Silva, L Alfonso, 'Fracture envelope of an automotive adhesive under impact', *5th International Conference on Structural Adhesive Bonding 2019*, Porto, Portugal, 11-12 July 2019.
- [13] X Shang, E A S Marques, J J M Machado, R J C Carbas, A Q Barbosa, D Jiang, Lucas F M da Silva, 'Experimental and numerical study of fracture mechanism of adhesively bonded composite single lap joints under quasi-static tension', *5th International Conference on Structural Adhesive Bonding 2019*, Porto, Portugal, 11-12 July 2019.
- [14] A Q Barbosa, J B Marques, Lucas F M da Silva, J Abenojar, 'The effect of size and amount of micro particles of magnetized cork on the mechanical properties of an epoxy', *5th International Conference on Structural Adhesive Bonding 2019*, Porto, Portugal, 11-12 July 2019.
- [15] J B Marques, A Q Barbosa, Lucas F M da Silva, 'Development of an apparatus to manufacture graded joints using magnetized particles', *5th International Conference on Structural Adhesive Bonding 2019*, Porto, Portugal, 11-12 July 2019.
- [16] L A Silva, C Espinosa, Lucas F M da Silva, E Paroissien, F Lachaud, 'Numerical simulations of adhesive squeeze flow: a review', *5th International Conference on Structural Adhesive Bonding 2019*, Porto, Portugal, 11-12 July 2019.
- [17] M D Banea, Lucas F M da Silva, R Carbas, D K K Cavalcanti, L F G Souza, 'The effect of environment and fatigue loading on the mechanical behaviour of TEPs-modified adhesives', *5th International Conference on Structural Adhesive Bonding 2019*, Porto, Portugal, 11-12 July 2019.
- [18] J J G Oliveira, R D S G Campilho, F J G Silva, E A S Marques, J J M Machado, Lucas F M da Silva, 'Adhesive thickness effects on the mixed-mode fracture toughness of bonded joints', *5th International Conference on Structural Adhesive Bonding 2019*, Porto, Portugal, 11-12 July 2019.
- [19] J P A Valente, R D S G Campilho, E A S Marques, J J M Machado, Lucas F M da Silva, 'Geometrical optimization of adhesive joints under tensile impact loads using cohesive zone modelling', *5th International Conference on Structural Adhesive Bonding 2019*, Porto, Portugal, 11-12 July 2019.
- [20] J M L Reis, J F Satler, H S da Costa Mattos, E A S Marques, R J C Carbas, Lucas F M da Silva, 'Failure mechanism of similar and dissimilar bonded joints used in the oil industry', *5th International Conference on Structural Adhesive Bonding 2019*, Porto, Portugal, 11-12 July 2019.
- [21] R Goyal, M El-zein, N Tortorella, Lucas F M da Silva, S Mikheevskiy, G Glinka, 'Fracture mechanics based estimation of fatigue lives of adhesive joints', *5th*

- International Conference on Structural Adhesive Bonding 2019*, Porto, Portugal, 11-12 July 2019.
- [22] C I da Silva, J B Marques, A Q Barbosa, Lucas F M da Silva, 'Apparatus to distribute nonuniformly particles for obtaining a functionally graded adhesive joint', *5th International Conference on Structural Adhesive Bonding 2019*, Porto, Portugal, 11-12 July 2019.
- [23] A V M Rocha, A Akhavan-Safar, R Carbas, E Marques, Lucas F M da Silva, 'An investigation on different Paris law relations for different adhesive systems', *5th International Conference on Structural Adhesive Bonding 2019*, Porto, Portugal, 11-12 July 2019.
- [24] A V M Rocha, A Akhavan-Safar, R Carbas, E Marques, Lucas F M da Silva, 'Fatigue crack growth analysis of different adhesive systems: Effects of mode mixity and load level', *5th International Conference on Structural Adhesive Bonding 2019*, Porto, Portugal, 11-12 July 2019.
- [25] A S Lorraine, C Espinosa, Lucas F M da Silva, E Paroissien, F Lachaud, 'Simulation of adhesive squeeze flow using smoothed particle hydrodynamics', *CM4P - Ecomas Thematic Conference – Computational Methods in Multi-Scale, Multi-Uncertainty and Multi-Physics Problems*, Porto, Portugal, 15-17 July 2019.
- [26] D F O Braga, P A R Rosa, S Pourhassan, P M G P Moreira, Lucas F M da Silva, V Infante, 'High-strain-rate loading of friction stir weld-bonded joints', *International Conference on Structural Integrity ICSI 2019*, Funchal, Madeira, Portugal, 2-5 September 2019.
- [27] A Q Barbosa, A Akhavan-Safar, Lucas F M da Silva, M R Ayatollahi, 'Effect of temperature and fatigue loading condition on shear lap strength of an epoxy adhesive reinforced with micro cork particles', *International Conference on Structural Integrity ICSI 2019*, Funchal, Madeira, Portugal, 2-5 September 2019.
- [28] A Akhavan-Safar, A Ajdani, M R Ayatollahi, Lucas F M da Silva, 'Mixed mode fracture energy measurement of adhesives using SCB specimen', *1st International Conference on Advanced Joining Processes 2019*, Ponta Delgada, Açores, Portugal, 24-25 October 2019.
- [29] A Akhavan-Safar, E A S Marques, R Carbas, Lucas F M da Silva, M El-Zein, N Carrere, I Maus, Y Takahashi, J Sherwood, 'Characterization of industrial adhesives in terms of fatigue crack growth and impact strength', *1st International Conference on Advanced Joining Processes 2019*, Ponta Delgada, Açores, Portugal, 24-25 October 2019.
- [30] A Q Barbosa, J B Marques, R Carbas, C Silva, Lucas F M da Silva, 'Challenges on the manufacture of functionally graded joints', *1st International Conference on Advanced Joining Processes 2019*, Ponta Delgada, Açores, Portugal, 24-25 October 2019.
- [31] A Q Barbosa, J B Marques, Lucas F M da Silva, R Carbas, C Silva, J Abenojar, 'Mixed mode fracture energy measurement of adhesives using SCB specimen', *1st International Conference on Advanced Joining Processes 2019*, Ponta Delgada, Açores, Portugal, 24-25 October 2019.
- [32] E A S Marques, N D D Silva, J J M Machado, R J C Carbas, B Desai, Lucas F M da Silva, 'Impact testing and numerical simulation of a bonded structural automotive component', *1st International Conference on Advanced Joining Processes 2019*, Ponta Delgada, Açores, Portugal, 24-25 October 2019.

- [33] E A S Marques, C S P Borges, P D P Nunes, A Akhavan, R J C Carbas, Lucas F M da Silva, 'Mechanical characterization and numerical modelling of the high strain rate behaviour of structural adhesives under mixed mode loadings', *1st International Conference on Advanced Joining Processes 2019*, Ponta Delgada, Açores, Portugal, 24-25 October 2019.
- [34] R J C Carbas, M A M S Pereira, E A S Marques, Lucas F M da Silva, 'Strength of laminates aluminium carbon-fibre joints under impact loads', *1st International Conference on Advanced Joining Processes 2019*, Ponta Delgada, Açores, Portugal, 24-25 October 2019.
- [35] M Q dos Reis, R J C Carbas, E A S Marques, Lucas F M da Silva, 'Numerical modelling of multi-material functionally graded joints under shear loading', *1st International Conference on Advanced Joining Processes 2019*, Ponta Delgada, Açores, Portugal, 24-25 October 2019.
- [36] J Abenojar, A Q Barbosa, E Paz, M A Martinez, Lucas F M da Silva, 'Thermal, rheological and mechanical characterization of an epoxy resin to be used as matrix in modified adhesives', *1st International Conference on Advanced Joining Processes 2019*, Ponta Delgada, Açores, Portugal, 24-25 October 2019.
- [37] J Abenojar, S Lopez Armentia, P Gálvez, A Q Barbosa, Lucas F M da Silva, M A Martinez, 'Characterization of magnetic cork particles to manufacture composite materials or to modify adhesives', *1st International Conference on Advanced Joining Processes 2019*, Ponta Delgada, Açores, Portugal, 24-25 October 2019.
- [38] P D P Nunes, C S P Borges, E A S Marques, A Akhavan, R J C Carbas, Lucas F M da Silva, 'Mechanical characterization and numerical modelling of the high strain rate behaviour of structural adhesives under mixed mode loadings', *1st International Conference on Advanced Joining Processes 2019*, Ponta Delgada, Açores, Portugal, 24-25 October 2019.
- [39] D F O Braga, A V L Gregorio, S Pourhassan, P A R Rosa, P M G P Moreira, Lucas F M da Silva, V Infante, 'Friction stir weld-bonded joints under impact loading', *1st International Conference on Advanced Joining Processes 2019*, Ponta Delgada, Açores, Portugal, 24-25 October 2019.
- [40] A Akhavan-Safar, S Safaei, M Moazzami, M R Ayatollahi, Lucas F M da Silva, 'Effect of residual strains on static strength of dissimilar single lap adhesive joints: an industrial point of view', *1st International Conference on Industrial Applications of Adhesives 2020*, Funchal, Madeira, Portugal, 5-6 March 2020.
- [41] A Akhavan-Safar, E A S Marques, R Carbas, J Monteiro, Lucas F M da Silva, M El-Zein, N Carrere, I Maus, Y Takahashi, J Sherwood, 'Fatigue behaviour of different industrial adhesives', *1st International Conference on Industrial Applications of Adhesives 2020*, Funchal, Madeira, Portugal, 5-6 March 2020.
- [42] C S P Borges, P D P Nunes, A Akhavan-Safar, E A S Marques, R J C Carbas, L Alfonso, Lucas F M da Silva, 'Fracture envelope of automotive adhesives under impact', *1st International Conference on Industrial Applications of Adhesives 2020*, Funchal, Madeira, Portugal, 5-6 March 2020.
- [43] C S P Borges, A Akhavan-Safar, E A S Marques, R J C Carbas, P Weissgraeber, Lucas F M da Silva, 'Effect of ageing and contamination on the interfacial strength of adhesive joints: An overview', *1st International Conference on Industrial Applications of Adhesives 2020*, Funchal, Madeira, Portugal, 5-6 March 2020.

- [44] C I da Silva, A Q Barbosa, J B Marques, R J C Carbas, E A S Marques, J Abenojar, Lucas F M da Silva, 'Mechanical characterization of graded single lap joints using magnetised cork microparticles', *1st International Conference on Industrial Applications of Adhesives 2020*, Funchal, Madeira, Portugal, 5-6 March 2020.
- [45] R J C Carbas, M A M S Pereira, E A S Marques, Lucas F M da Silva, 'Joint strength improvement using toughened transverse composite adherends', *1st International Conference on Industrial Applications of Adhesives 2020*, Funchal, Madeira, Portugal, 5-6 March 2020.
- [46] R J C Carbas, E A S Marques, Lucas F M da Silva, 'Shear characterization of structural adhesives under different torsional load rates', *1st International Conference on Industrial Applications of Adhesives 2020*, Funchal, Madeira, Portugal, 5-6 March 2020.
- [47] E A S Marques, P D P Nunes, A Akhavan, R J C Carbas, Lucas F M da Silva, 'Determination of the mode I and mode II fracture toughness of structural adhesives loaded at constant strain rates', *1st International Conference on Industrial Applications of Adhesives 2020*, Funchal, Madeira, Portugal, 5-6 March 2020.
- [48] E A S Marques, P D P Nunes, A Akhavan, C S P Borges, R J C Carbas, Lucas F M da Silva, 'Techniques for the mechanical characterization and numerical modelling of the bonded automotive structures under impact loads', *1st International Conference on Industrial Applications of Adhesives 2020*, Funchal, Madeira, Portugal, 5-6 March 2020.
- [49] G Viana, R J C Carbas, M Costa, M D Banea, Lucas F M da Silva, 'A new cohesive element to model environmental degradation of adhesive joints in the rail industry', *1st International Conference on Industrial Applications of Adhesives 2020*, Funchal, Madeira, Portugal, 5-6 March 2020.
- [50] C I da Silva, A Q Barbosa, J B Marques, R J C Carbas, E A S Marques, A Akhavan-Safar, Lucas F M da Silva, 'Study of the influence of microparticles of cork on the fracture type in single lap joints', *1st International Conference on Industrial Applications of Adhesives 2020*, Funchal, Madeira, Portugal, 5-6 March 2020.
- [51] A Akhavan-Safar, J Monteiro, R Carbas, E Marques, R Goyal, M El-zein, Lucas F M da Silva, 'Tensile fatigue life prediction of adhesively bonded structures based on CZM technique combined with a modified degradation approach', *1st International Conference on Industrial Applications of Adhesives 2020*, Funchal, Madeira, Portugal, 5-6 March 2020.
- [52] J M L Reis, J F Satler, E A S Marques, R J C Carbas, Lucas F M da Silva, H da Costa Mattos, 'Alternatives to standardized composite repair qualification for the oil industry', *1st International Conference on Industrial Applications of Adhesives 2020*, Funchal, Madeira, Portugal, 5-6 March 2020.
- [53] M Q dos Reis, R J C Carbas, E A S Marques, Lucas F M da Silva, 'Functionally graded adhesive joints under impact loads', *1st International Conference on Industrial Applications of Adhesives 2020*, Funchal, Madeira, Portugal, 5-6 March 2020.
- [54] M Q dos Reis, R J C Carbas, E A S Marques, Lucas F M da Silva, 'Numerical modelling of functionally graded adherends', *1st International Conference on*

- Industrial Applications of Adhesives 2020*, Funchal, Madeira, Portugal, 5-6 March 2020.
- [55] A Q Barbosa, A Loureiro, Lucas F M da Silva, A Almeida, T Rosado, A Casero, E Meiß, H Balaska, M Uran, R Almeida, 'AdTech project - European harmonized training system focus on adhesive bonding technologies', *1st International Conference on Science and Technology Education STE 2020*, Porto, Portugal, 15-16 October 2020.
- [56] A Q Barbosa, Lucas F M da Silva, A Loureiro, E A S Marques, R Carbas, S de Barros, 'European Adhesive Bonder - A targeted training for Portuguese professionals harmonized with European directives', *1st International Conference on Science and Technology Education STE 2020*, Porto, Portugal, 15-16 October 2020.
- [57] A Akhavan-Safar, M Moazzami, M R Ayatollahi, Lucas F M da Silva, 'Effect of cyclic aging on mechanical properties of CFRP composite laminates', *3rd International Conference on Materials Design and Applications MDA 2020*, Porto, Portugal, 5-6 November 2020.
- [58] A Akhavan-Safar, E A S Marques, R Carbas, Lucas F M da Silva, R Goyal, N Cuvillier, I Maus, Y Takahashi, J Sherwoo, 'Characterization of different adhesive materials in terms of fatigue loadings and environmental effects', *3rd International Conference on Materials Design and Applications MDA 2020*, Porto, Portugal, 5-6 November 2020.
- [59] J B Marques, A Q Barbosa, C I da Silva, R J C Carbas, Lucas F M da Silva, 'Challenges and prospects on manufacturing functionally graded adhesives', *3rd International Conference on Materials Design and Applications MDA 2020*, Porto, Portugal, 5-6 November 2020.
- [60] M Salamat-talab, M Safari, H Bahrami-Manesh, A Akhavan-Safar, Lucas F M da Silva, 'Effect of acid-thermal aging on mode II interlaminar fracture toughness of unidirectional laminated composites', *3rd International Conference on Materials Design and Applications MDA 2020*, Porto, Portugal, 5-6 November 2020.
- [61] F Castro Sousa, A Akhavan-Safar, R Goyal, Lucas F M da Silva, 'Fatigue life evaluation of adhesive materials at different mode mixities', *3rd International Conference on Materials Design and Applications MDA 2020*, Porto, Portugal, 5-6 November 2020.
- [62] J A da Costa, A Akhavan-Safar, E Marques, R Carbas, Lucas F M da Silva, 'Hygrothermal aging of adhesives subjected to cyclic humidity conditions', *3rd International Conference on Materials Design and Applications MDA 2020*, Porto, Portugal, 5-6 November 2020.
- [63] J B Marques, A Q Barbosa, C I da Silva, Lucas F M da Silva, 'Method and apparatus to distribute nonuniformly particles for obtaining a functionally graded adhesive joint', *3rd International Conference on Materials Design and Applications MDA 2020*, Porto, Portugal, 5-6 November 2020.
- [64] R J C Carbas, E A S Marques, Lucas F M da Silva, 'Joint strength of toughened transverse composites under different loading rates', *3rd International Conference on Materials Design and Applications MDA 2020*, Porto, Portugal, 5-6 November 2020.

- [65] R J C Carbas, Lucas F M da Silva, 'Effect of adhesive thickness on butt adhesive joints under torsional loads', *3rd International Conference on Materials Design and Applications MDA 2020*, Porto, Portugal, 5-6 November 2020.
- [66] R J C Carbas, E A S Marques, Lucas F M da Silva, 'Effect of toughened transverse composite adherends in adhesive joint performance', *5th Brazilian Conference on Composite Materials (BCCM 5)*, São Carlos, Brazil, 21-24 July 2020.
- [67] G Viana, R J C Carbas, M Costa, M D Banea, Lucas F M da Silva, 'Environmental degradation of adhesive joints used in rail industry', *5th Brazilian Conference on Composite Materials (BCCM 5)*, São Carlos, Brazil, 21-24 July 2020.
- [68] C S P Borges, A Akhavan-Safar, E A S Marques, R J C Carbas, C Ueffing, P Weissgraeber, Lucas F M da Silva, 'Effect of moisture ageing on the interfacial strength of adhesive joints: An overview', *3rd International Conference on Materials Design and Applications MDA 2020*, Porto, Portugal, 5-6 November 2020.
- [69] C S P Borges, A Akhavan-Safar, E A S Marques, R J C Carbas, C Ueffing, P Weissgraeber, Lucas F M da Silva, 'Experimental and numerical study of the water ingress of polybutylene terephthalate reinforced with glass fiber', *3rd International Conference on Materials Design and Applications MDA 2020*, Porto, Portugal, 5-6 November 2020.
- [70] P-L Corre, C I da Silva, A Q Barbosa, R J C Carbas, E A S Marques, Lucas F M da Silva, 'Evaluation of the mechanical properties of a functional graded joint using magnetic microparticles', *3rd International Conference on Materials Design and Applications MDA 2020*, Porto, Portugal, 5-6 November 2020.
- [71] P-L Corre, C I da Silva, A Q Barbosa, R J C Carbas, E A S Marques, Lucas F M da Silva, 'Evaluation of the mechanical properties of an adhesive single lap joint using rubber microparticles', *3rd International Conference on Materials Design and Applications MDA 2020*, Porto, Portugal, 5-6 November 2020.
- [72] C I da Silva, A Q Barbosa, R J C Carbas, E A S Marques, Lucas F M da Silva, 'Study of the influence of microparticles of cork on the fracture type in single lap joints', *3rd International Conference on Materials Design and Applications MDA 2020*, Porto, Portugal, 5-6 November 2020.
- [73] X Shang, E A S Marques, J J M Machado, R J C Carbas, A Q Barbosa, D Jiang, Lucas F M da Silva, 'Fracture mechanism of adhesive single-lap joints with composite adherends under quasi-static tension', *3rd International Conference on Materials Design and Applications MDA 2020*, Porto, Portugal, 5-6 November 2020.
- [74] E A S Marques, C S P Borges, P D P Nunes, R J C Carbas, Lucas F M da Silva, 'An overview of techniques for characterization and modelling of the strain rate dependency of structural adhesives', *3rd International Conference on Materials Design and Applications MDA 2020*, Porto, Portugal, 5-6 November 2020.
- [75] L R R Silva, E A S Marques, Lucas F M da Silva, 'Polymer joining techniques state of the art review', *3rd International Conference on Materials Design and Applications MDA 2020*, Porto, Portugal, 5-6 November 2020.
- [76] P D P Nunes, E A S Marques, A Akhavan, R J C Carbas, Lucas F M da Silva, 'Testing procedure to load DCB specimens at constant strain rates', *3rd*

- International Conference on Materials Design and Applications MDA 2020*, Porto, Portugal, 5-6 November 2020.
- [77] P D P Nunes, E A S Marques, A Akhavan, R J C Carbas, Lucas F M da Silva, 'Quasi-static validation of SHPB specimens for the determination of mode I, mode II and mixed-mode fracture toughness of structural adhesives', *3rd International Conference on Materials Design and Applications MDA 2020*, Porto, 5-6 November 2020.
- [78] M Q dos Reis, J Galante, G M F Ramalho, M Frascio, R J C Carbas, E A S Marques, Lucas F M da Silva, 'Mechanical characterization of multi-material 3D printed specimens', *3rd International Conference on Materials Design and Applications MDA 2020*, Porto, Portugal, 5-6 November 2020.
- [79] M Q dos Reis, J Galante, G M F Ramalho, M Frascio, R J C Carbas, E A S Marques, Lucas F M da Silva, 'Functionally graded adherends by additive manufacturing', *3rd International Conference on Materials Design and Applications MDA 2020*, Porto, Portugal, 5-6 November 2020.
- [80] M Q dos Reis, R J C Carbas, E A S Marques, Lucas F M da Silva, 'Functionally graded adhesive joints under impact loads', *3rd International Conference on Materials Design and Applications MDA 2020*, Porto, Portugal, 5-6 November 2020.
- [81] Y Boutar, S Naïmi, S Mezlini, R J C Carbas, Lucas F M da Silva, M Ben Sik Ali, 'Cyclic fatigue testing: Assessment of polyurethane adhesive joints' durability for bus structures' aluminium assembly', *3rd International Conference on Materials Design and Applications MDA 2020*, Porto, Portugal, 5-6 November 2020.
- [82] J Abenojar, A Q Barbosa, J C del Real, Lucas F M da Silva, M A Martinez, 'Influence of magnetic cork particles on the thermal properties of an epoxy resin', *Euradh 2020*, Antibes, France, 14-17 September 2020.
- [83] M Q dos Reis, R J C Carbas, E A S Marques, Lucas F M da Silva, 'Experimental study of the impact behaviour of functionally graded adhesive joints', *Euradh 2020*, Antibes, France, 14-17 September 2020.
- [84] M Q dos Reis, J Galante, G M F Ramalho, M Frascio, R J C Carbas, E A S Marques, Lucas F M da Silva, 'Additive manufacturing of functionally graded adherends', *Euradh 2020*, Antibes, France, 14-17 September 2020.
- [85] E A S Marques, R J C Carbas, Lucas F M da Silva, 'Advanced Joining Processes Unit: Research oriented on objectives', *1st International Conference on Science and Technology Education STE 2020*, Porto, Portugal, 15-16 October 2020.
- [86] P D P Nunes, E A S Marques, A Akhavan, R J C Carbas, Lucas F M da Silva, 'Double Cantilever Beam specimens loaded at constant strain rates', *Euradh 2020*, Antibes, France, 14-17 September 2020.
- [87] Lucas F M da Silva, A M Lopes, J Seabra, 'Reformulation of the Integrated Master in Mechanical Engineering (MIEM) at FEUP in two cycles of study (Bachelor and Master)', *1st International Conference on Science and Technology Education STE 2020*, Porto, Portugal, 15-16 October 2020.
- [88] J Soares, J M Paiva, M Cruz, T Rocha, Lucas F M da Silva, 'Impact of COVID-19 on the Integrated Master in Mechanical Engineering of FEUP', *1st International Conference on Science and Technology Education STE 2020*, Porto, Portugal, 15-16 October 2020.

- [89] R J C Carbas, E A S Marques, Lucas F M da Silva, 'Advanced Joining Processes Unit: A fully independent research group', *1st International Conference on Science and Technology Education STE 2020*, Porto, Portugal, 15-16 October 2020.
- [90] A M Lopes, Lucas F M da Silva, J Seabra, 'Assessing the impact of laboratorial activities on core curricular units of the Integrated Master in Mechanical Engineering (MIEM) at FEUP', *1st International Conference on Science and Technology Education STE 2020*, Porto, Portugal, 15-16 October 2020.
- [91] M Q dos Reis, T M G P Duarte, Lucas F M da Silva, 'Increasing of Brazilian students at FEUP: causes and educational challenges', *1st International Conference on Science and Technology Education STE 2020*, Porto, Portugal, 15-16 October 2020.
- [92] T M G P Duarte, A M Lopes, Lucas F M da Silva, 'Correlating entrance data and first year academic performance of students enrolled in the Integrated Master in Mechanical Engineering (MIEM) at FEUP', *1st International Conference on Science and Technology Education STE 2020*, Porto, Portugal, 15-16 October 2020.
- [93] M Frascio, F Moroni, M Avalle, M Reis, E Marques, R Carbas, Lucas F M da Silva, 'Feasibility study of hybrid joints using additive manufacturing with conductive thermoplastic filament', *3rd International Conference on Materials Design and Applications MDA 2020*, Porto, Portugal, 5-6 November 2020.
- [94] A Akhavan-Safar, R Beigy, F Delzendehrooy, Lucas F M da Silva, 'Is GIC an adhesive material property? (An artificial neural network analysis)', *3rd International Conference on Materials Design and Applications MDA 2020*, Porto, Portugal, 5-6 November 2020.
- [95] F Delzendehrooy, R Beigy, A Akhavan-Safar, Lucas F M da Silva, 'Is GIIC an adhesive material property? (An artificial neural network analysis)', *3rd International Conference on Materials Design and Applications MDA 2020*, Porto, Portugal, 5-6 November 2020.
- [96] C S P Borges, P D P Nunes, A Akhavan-Safar, E A S Marques, R J C Carbas, L Alfonso, Lucas F M da Silva, 'Fracture envelope of automotive adhesives at high loading rates', *3rd International Conference on Materials Design and Applications MDA 2020*, Porto, Portugal, 5-6 November 2020.
- [97] A Akhavan-Safar, A Ajdani, M R Ayatollahi, Lucas F M da Silva, 'Effect of joint geometry on mixed-mode fracture energy of adhesives', *6th International Conference on Structural Adhesive Bonding 2021*, Porto, Portugal, 8-9 July 2021.
- [98] J Antelo, A Akhavan-Safar, R J C Carbas, E A S Marques, Lucas F M da Silva, R Goyal, N Carrere, I Maus, Y Takahashi, J Sherwood, 'Fatigue life evaluation of adhesive joints in a real structural component', *6th International Conference on Structural Adhesive Bonding 2021*, Porto, Portugal, 8-9 July 2021.
- [99] J Antelo, A Akhavan-Safar, R J C Carbas, E A S Marques, Lucas F M da Silva, R Goyal, N Carrere, I Maus, Y Takahashi, J Sherwood, 'Comparison of static performance between welding and adhesive joints in a real structural component', *6th International Conference on Structural Adhesive Bonding 2021*, Porto, Portugal, 8-9 July 2021.
- [100] A Akhavan-Safar, M Moazzami, M R Ayatollahi, S T Freitas, Lucas F M da Silva, 'Mode-mixity analysis of dissimilar metal/composite DCB adhesive joints

- subjected to cyclic ageing conditions', *6th International Conference on Structural Adhesive Bonding 2021*, Porto, Portugal, 8-9 July 2021.
- [101] O M R Beugre, A Akhavan-Safar, Lucas F M da Silva, 'Multiaxial fatigue life assessment of adhesive materials based on critical plane approaches: Strain-based multiaxial fatigue analysis', *6th International Conference on Structural Adhesive Bonding 2021*, Porto, Portugal, 8-9 July 2021.
- [102] O M R Beugre, A Akhavan-Safar, Lucas F M da Silva, 'Multiaxial fatigue life assessment of adhesive materials based on critical plane approaches: Strain-based multiaxial fatigue analysis', *6th International Conference on Structural Adhesive Bonding 2021*, Porto, Portugal, 8-9 July 2021.
- [103] O M R Beugre, A Akhavan-Safar, Lucas F M da Silva, 'Multiaxial fatigue life assessment of adhesive materials based on critical plane approaches: Stress-based multiaxial fatigue analysis', *6th International Conference on Structural Adhesive Bonding 2021*, Porto, Portugal, 8-9 July 2021.
- [104] J A da Costa, A Akhavan-Safar, R J C Carbas, E A S Marques, Lucas F M da Silva, 'Effects of the ageing level on mode I fatigue life of adhesives', *6th International Conference on Structural Adhesive Bonding 2021*, Porto, Portugal, 8-9 July 2021.
- [105] J A da Costa, A Akhavan-Safar, R J C Carbas, E A S Marques, Lucas F M da Silva, 'Effects of cyclic ageing on the tensile performance of adhesive joints', *6th International Conference on Structural Adhesive Bonding 2021*, Porto, Portugal, 8-9 July 2021.
- [106] R M Carneiro Neto, A Akhavan-Safar, E M Sampaio, J T Assis, Lucas F M da Silva, 'Influence of creep on mode II fracture energy of adhesives', *6th International Conference on Structural Adhesive Bonding 2021*, Porto, Portugal, 8-9 July 2021.
- [107] R M Carneiro Neto, A Akhavan-Safar, E M Sampaio, J T Assis, Lucas F M da Silva, 'Mode II creep fracture energy assessment of adhesive materials', *2nd International Conference on Advanced Joining Processes 2021*, Sintra, Portugal, 21-22 October 2021.
- [108] F C Sousa, A Akhavan-Safar, Lucas F M da Silva, 'The effect of overload on the mode I fatigue crack growth of a ductile adhesive', *6th International Conference on Structural Adhesive Bonding 2021*, Porto, Portugal, 8-9 July 2021.
- [109] F C Sousa, A Akhavan-Safar, Lucas F M da Silva, 'Fatigue life estimation of similar and dissimilar single lap adhesive joints using a critical distance approach', *6th International Conference on Structural Adhesive Bonding 2021*, Porto, Portugal, 8-9 July 2021.
- [110] F C Sousa, A Akhavan-Safar, Lucas F M da Silva, 'The effect of overload on the mode I fatigue crack growth of a ductile adhesive', *1st Ibero-American Conference on Composite Materials 2021*, Porto, Portugal, 29-30 July 2021.
- [111] F C Sousa, A Akhavan-Safar, Lucas F M da Silva, 'Fatigue life estimation of similar and dissimilar single lap adhesive joints using a critical distance approach', *1st Ibero-American Conference on Composite Materials 2021*, Porto, Portugal, 29-30 July 2021.
- [112] C S P Borges, A Akhavan-Safar, E A S Marques, R J C Carbas, C Ueffing, P Weissgraeber, Lucas F M da Silva, 'Effect of water ingress on the properties of adhesive joints with polybutylene terephthalate reinforced with glass fiber

- substrates and silicone adhesive', *1st Ibero-American Conference on Composite Materials 2021*, Porto, Portugal, 29-30 July 2021.
- [113] C S P Borges, A Akhavan-Safar, E A S Marques, R J C Carbas, C Ueffing, P Weissgraeber, Lucas F M da Silva, 'Effect of water ingress on the mechanical and chemical properties of polybutylene terephthalate reinforced with glass fibers', *1st Ibero-American Conference on Composite Materials 2021*, Porto, Portugal, 29-30 July 2021.
- [114] F Ramezani, A Akhavan-Safar, F Delzendehrooy, M R Ayatollahi, Lucas F M da Silva, 'A comprehensive review on bi-adhesive joints', *1st Ibero-American Conference on Composite Materials 2021*, Porto, Portugal, 29-30 July 2021.
- [115] F Ramezani, A Akhavan-Safar, Lucas F M da Silva, 'Mechanical characterization and fracture energy assessment of polymers using micro indentation technique: A review', *1st Ibero-American Conference on Composite Materials 2021*, Porto, Portugal, 29-30 July 2021.
- [116] F Delzendehrooy, A Akhavan-Safar, A Queiros, R Carbas, E Marques, Lucas F M da Silva, 'A review on the application of adhesive joints in marine structures', *1st Ibero-American Conference on Composite Materials 2021*, Porto, Portugal, 29-30 July 2021.
- [117] F Delzendehrooy, A Akhavan-Safar, A Queiros, R Carbas, E Marques, Lucas F M da Silva, 'A review on the application of adhesive joints in marine structures', *6th International Conference on Structural Adhesive Bonding 2021*, Porto, Portugal, 8-9 July 2021.
- [118] A Akhavan-Safar, M Moazzami, M R Ayatollahi, S Teixeira Freitas, Lucas F M da Silva, 'Tensile and flexural responses of CFRP composite laminates subjected to cyclic ageing conditions', *1st Ibero-American Conference on Composite Materials 2021*, Porto, Portugal, 29-30 July 2021.
- [119] A Akhavan-Safar, M Salamt-Talab, F Delzendehrooy, Lucas F M da Silva, 'Effects of natural date palm tree fibers on mode II fracture energy of E-glass/epoxy plain-woven laminated composites', *1st Ibero-American Conference on Composite Materials 2021*, Porto, Portugal, 29-30 July 2021.
- [120] F J Simón, E A S Marques, M Sanchez, O Cuadrado, Lucas F M da Silva, 'Mechanical characterization and comparison of hyperelastic adhesives - Modelling and experimental validation', *6th International Conference on Structural Adhesive Bonding 2021*, Porto, Portugal, 8-9 July 2021.
- [121] E A S Marques, R J C Carbas, Lucas F M da Silva, 'Advanced Joining Processes Unit: Research oriented on objectives', *6th Annual International Conference on Engineering Education & Teaching 2021*, Athens, Greece, 31 May - 3 June 2021.
- [122] A F G Tenreiro, A M Lopes, Lucas F M da Silva, 'A review of structural health monitoring of bonded structures using electromechanical impedance spectroscopy', *6th International Conference on Structural Adhesive Bonding 2021*, Porto, Portugal, 8-9 July 2021.
- [123] A F G Tenreiro, A M Lopes, Lucas F M da Silva, 'Effect of mechanical properties and geometric dimensions on electromechanical impedance signatures for adhesive joint integrity monitoring', *6th International Conference on Structural Adhesive Bonding 2021*, Porto, Portugal, 8-9 July 2021.
- [124] P D P Nunes, E A S Marques, A Akhavan, R J C Carbas, Lucas F M da Silva, 'Testing procedure to load DCB specimens at constant strain rates', *6th*

- International Conference on Structural Adhesive Bonding 2021*, Porto, Portugal, 8-9 July 2021.
- [125] P D P Nunes, E A S Marques, A Akhavan, R J C Carbas, Lucas F M da Silva, 'Quasi-static and intermediate test speed validation of SHPB specimens for the determination of mode I, mode II fracture toughness of structural adhesives', *6th International Conference on Structural Adhesive Bonding 2021*, Porto, Portugal, 8-9 July 2021.
- [126] E A S Marques, C S P Borges, P D P Nunes, A.Akhavan-Safar, R J C Carbas, Lucas F M da Silva, 'A complete methodology for the characterization and modelling of the impact behaviour of structural adhesive joints', *6th International Conference on Structural Adhesive Bonding 2021*, Porto, Portugal, 8-9 July 2021.
- [127] M Frascio, E A S Marques, R J C Carbas, M Monti, M Avale, Lucas F M da Silva, 'Maximizing bonded joint performance with the use of additively manufactured adherends and adhesives', *6th International Conference on Structural Adhesive Bonding 2021*, Porto, Portugal, 8-9 July 2021.
- [128] C S P Borges, A Akhavan-Safar, E A S Marques, R J C Carbas, C Ueffing, P Weissgraeber, Lucas F M da Silva, 'Effect of water ingress on the properties of adhesive joints with polybutylene terephthalate reinforced with glass fiber substrates and silicone adhesive', *6th International Conference on Structural Adhesive Bonding 2021*, Porto, Portugal, 8-9 July 2021.
- [129] R J C Carbas, E A S Marques, Lucas F M da Silva, 'The strength of hybrid SLJs reinforced with different thicknesses of polymeric laminates', *6th International Conference on Structural Adhesive Bonding 2021*, Porto, Portugal, 8-9 July 2021.
- [130] R J C Carbas, E A S Marques, Lucas F M da Silva, 'The effect of different metallic laminates on the strength of CFRP SLJs using metal laminate adherends', *6th International Conference on Structural Adhesive Bonding 2021*, Porto, Portugal, 8-9 July 2021.
- [131] O Cuadrado, F J Simón, C Ruzafa, E Orgiles, F Arán, Lucas F M da Silva, M Sánchez, 'Effect of different alternative surface treatments on the adhesion of hyperelastic adhesives on different substrates', *6th International Conference on Structural Adhesive Bonding 2021*, Porto, Portugal, 8-9 July 2021.
- [132] C S P Borges, R R Brandão, A Akhavan-Safar, E A S Marques, R J C Carbas, C Ueffing, P Weissgraeber, Lucas F M da Silva, 'Effect of contamination on the mechanical properties of aluminum-silicone adhesive joints', *6th International Conference on Structural Adhesive Bonding 2021*, Porto, Portugal, 8-9 July 2021.
- [133] M Q dos Reis, R J C Carbas, E A S Marques, Lucas F M da Silva, 'Functionally graded adhesive joints under impact loads', *6th International Conference on Structural Adhesive Bonding 2021*, Porto, Portugal, 8-9 July 2021.
- [134] M Q dos Reis, R J C Carbas, E A S Marques, P D P Nunes, Lucas F M da Silva, 'A novel functionally graded impact attenuator using bonded construction', *6th International Conference on Structural Adhesive Bonding 2021*, Porto, Portugal, 8-9 July 2021.
- [135] D S Correia, R J C Carbas, E A S Marques, P J C das Neves, Lucas F M da Silva, 'Experimental study on aluminium to WC/PCD adhesive bonding for milling tools', *6th International Conference on Structural Adhesive Bonding 2021*, Porto, Portugal, 8-9 July 2021.

- [136] L M C Peres, M F T D Arnaud, A F M V Silva, R D S G Campilho, J J M Machado, E A S Marques, M Q dos Reis, Lucas F M da Silva, 'Geometry and adhesive optimization of single-lap adhesive joints under impact', *6th International Conference on Structural Adhesive Bonding 2021*, Porto, Portugal, 8-9 July 2021.
- [137] R Silva, A Q Barbosa, R J C Carbas, Lucas F M da Silva, J Abenojar, 'Effect of the amount of magnetized cork particles on the strength and glass transition temperature of a structural adhesive', *6th International Conference on Structural Adhesive Bonding 2021*, Porto, Portugal, 8-9 July 2021.
- [138] A Akhavan-Safar, A J Najafabadi, S Borhanizad, A Q Barbosa, Lucas F M da Silva, 'The motivation of international mobility of Iranian students in Portugal: Challenges and limitations in academia', *2nd International Conference on Science and Technology Education STE 2021*, Porto, Portugal, 7-8 October 2021.
- [139] A J Najafabadi, S Borhanizad, A Akhavan-Safar, A Q Barbosa, Lucas F M da Silva, 'Psychological well-being of Iranian immigrants in Portugal enrolled in educational system', *2nd International Conference on Science and Technology Education STE 2021*, Porto, Portugal, 7-8 October 2021.
- [140] A Q Barbosa, E A S Marques, Lucas F M da Silva, 'Teaching adhesive bonding in mechanical engineering courses', *2nd International Conference on Science and Technology Education STE 2021*, Porto, Portugal, 7-8 October 2021.
- [141] F Castro Sousa, C S P Borges, T P Duarte, R J C Carbas, Lucas F M da Silva, 'Virtual platform to support teaching and understanding of materials science and engineering', *2nd International Conference on Science and Technology Education STE 2021*, Porto, Portugal, 7-8 October 2021.
- [142] C S P Borges, A Q Barbosa, T P Duarte, H S Lopes, A J Najafabadi, Lucas F M da Silva, 'Women in Mechanical Engineering: A case study of the Faculty of Engineering of the University of Porto in the last 20 years', *2nd International Conference on Science and Technology Education STE 2021*, Porto, Portugal, 7-8 October 2021.
- [143] A M Lopes, Lucas F M da Silva, 'Assessing the research and teaching performance of the mechanical engineering teaching staff at FEUP', *2nd International Conference on Science and Technology Education STE 2021*, Porto, Portugal, 7-8 October 2021.
- [144] T P Duarte, A M Lopes, Lucas F M da Silva, H Lopes, 'Selecting the future: On the motivations of young students to choose mechanical engineering at FEUP', *2nd International Conference on Science and Technology Education STE 2021*, Porto, Portugal, 7-8 October 2021.
- [145] E A S Marques, R J C Carbas, Lucas F M da Silva, 'JointDesigner, a tool for learning and doing', *2nd International Conference on Science and Technology Education STE 2021*, Porto, Portugal, 7-8 October 2021.
- [146] R J C Carbas, E A S Marques, Lucas F M da Silva, 'The importance of laboratorial classes dedicated to advanced joining processes in undergraduate engineering education', *2nd International Conference on Science and Technology Education STE 2021*, Porto, Portugal, 7-8 October 2021.
- [147] A J Najafabadi, R Beygi, H Imani, A M Lopes, Lucas F M da Silva, 'Learning style and beliefs on intelligence as predictors of university students' academic

- performance', *2nd International Conference on Science and Technology Education STE 2021*, Porto, Portugal, 7-8 October 2021.
- [148] A J Najafabadi, H Imani, R Beygi, A M Lopes, Lucas F M da Silva, 'Learning Style and beliefs on intelligence as predictors of university students' academic performance', *2nd International Conference on Science and Technology Education STE 2021*, Porto, Portugal, 7-8 October 2021.
- [149] R J C Carbas, E A S Marques, A M Lopes, C M da Silva, Lucas F M da Silva, 'A new torsion machine for adhesive joints', *1st International Conference on Machine Design MD2021*, Porto, Portugal, 9-10 September 2021.
- [150] E A S Marques, R J C Carbas, R D Adams, A M Lopes, Lucas F M da Silva, 'A novel testing equipment for measuring the glass transition temperature based on a dynamic mechanical analysis', *1st International Conference on Machine Design MD2021*, Porto, Portugal, 9-10 September 2021.
- [151] G M F Ramalho, M R Barbosa, A M Lopes, Lucas F M da Silva, 'Damage detection and classification methodology utilizing Lamb waves and artificial neural networks', *1st International Conference on Machine Design MD2021*, Porto, Portugal, 9-10 September 2021.
- [152] A F G Tenreiro, C M Silva, A M Lopes, P D P Nunes, R J C Carbas, Lucas F M da Silva, 'Design of a new pneumatic impact actuator of a split Hopkinson pressure bar setup for tensile and compression testing of structural adhesives', *1st International Conference on Machine Design MD2021*, Porto, Portugal, 9-10 September 2021.
- [153] A F G Tenreiro, A M Lopes, M R Barbosa, Lucas F M da Silva, 'Performance comparison of different Artificial Neural Networks for void detection in adhesive joints', *1st International Conference on Machine Design MD2021*, Porto, Portugal, 9-10 September 2021.
- [154] P D P Nunes, E A S Marques, A Akhavan, R J C Carbas, Lucas F M da Silva, 'AJPU: An overview of tools and machines to characterize adhesives at impact conditions', *1st International Conference on Machine Design MD2021*, Porto, Portugal, 9-10 September 2021.
- [155] G M F Ramalho, V F F Loreiro, A M Lopes, Lucas F M da Silva, 'Feature extraction for defect detection utilizing Lamb waves and supervised machine learning algorithms', *1st International Conference on Machine Design MD2021*, Porto, Portugal, 9-10 September 2021.
- [156] R Beygi, A Akhavan-Safar, R Carbas, A Queiros, E A S Marques, Lucas F M da Silva, 'Utilizing a ductile damage criterion for fracture analysis of a dissimilar aluminum/steel joint made by FSW', *2nd International Conference on Advanced Joining Processes AJP2021*, Sintra, Portugal, 21-22 October 2021.
- [157] M B Hesari, R Beygi, Lucas F M da Silva, 'Role of SiC powder in reducing the porosity and increasing the carbon content in wire arc additive manufacturing of carbon steel', *2nd International Conference on Advanced Joining Processes AJP2021*, Sintra, Portugal, 21-22 October 2021.
- [158] A Akhavan-Safar, M Moazzami, M R Ayatollah, S T Freitas, J A Poulis, Lucas F M da Silva, 'Mode I fracture energy assessment of adhesives using dissimilar metal/composite DCB joints subjected to cyclic ageing conditions', *2nd International Conference on Advanced Joining Processes AJP2021*, Sintra, Portugal, 21-22 October 2021.

- [159] A Ajdani, A Akhavan-Safar, M R Ayatollahi, Lucas F M da Silva, 'Mixed mode cohesive laws of adhesives using a direct approach and SCB specimens', *2nd International Conference on Advanced Joining Processes AJP2021*, Sintra, Portugal, 21-22 October 2021.
- [160] A Akhavan-Safar, S Safaei, M Jalalvand, Lucas F M da Silva, 'Shear fracture energy measurement of adhesives using the cut central plies technique', *2nd International Conference on Advanced Joining Processes AJP2021*, Sintra, Portugal, 21-22 October 2021.
- [161] A Akhavan-Safar, Sh Jalali, G Eisaabadi, R Beygi, Lucas F M da Silva, 'Effects of strain rate on the mechanical response of bi-adhesive single lap joints', *2nd International Conference on Advanced Joining Processes AJP2021*, Sintra, Portugal, 21-22 October 2021.
- [162] A Akhavan-Safar, Sh Jalali, M R Ayatollahi, Lucas F M da Silva, 'The influence of cyclic impacts on mode II fracture energy of adhesives', *2nd International Conference on Advanced Joining Processes AJP2021*, Sintra, Portugal, 21-22 October 2021.
- [163] J A da Costa, A Akhavan-Safar, R J C Carbas, E A S Marques, Lucas F M da Silva, 'Effects of cyclic ageing on mode I fatigue response of adhesive joints', *2nd International Conference on Advanced Joining Processes AJP2021*, Sintra, Portugal, 21-22 October 2021.
- [164] J A da Costa, A Akhavan-Safar, R J C Carbas, E A S Marques, Lucas F M da Silva, 'Effects of cyclic ageing on the tensile performance of adhesive joints', *2nd International Conference on Advanced Joining Processes AJP2021*, Sintra, Portugal, 21-22 October 2021.
- [165] P Teixeira, A Akhavan-Safar, R Carbas, Lucas F M da Silva, 'Curing state effects on the tensile cohesive response of an epoxy based adhesive', *2nd International Conference on Advanced Joining Processes AJP2021*, Sintra, Portugal, 21-22 October 2021.
- [166] F Delzendehrooy, A Akhavan-Safar, A Q Barbosa, R J C Carbas, E A S Marques, Lucas F M da Silva, 'Mechanical performance of hybrid bolted-bonded joints subjected to ageing conditions: Effects of leakage, ageing level, and overlap length', *2nd International Conference on Advanced Joining Processes AJP2021*, Sintra, Portugal, 21-22 October 2021.
- [167] J Antelo, A Akhavan-Safar, R J C Carbas, E A S Marques, Lucas F M da Silva, R Goyal, N Cuvillier, I Maus, Y Takahashi, J Sherwood, 'Replacing welding with adhesive bonding in a real structural component: Static strength and fatigue life evaluation', *2nd International Conference on Advanced Joining Processes AJP2021*, Sintra, Portugal, 21-22 October 2021.
- [168] P Teixeira, A Akhavan-Safar, R Carbas, Lucas F M da Silva, 'The influence of curing state on mechanical properties of an epoxy-based adhesive: Experimental characterization and numerical simulation', *2nd International Conference on Advanced Joining Processes AJP2021*, Sintra, Portugal, 21-22 October 2021.
- [169] E A S Marques, C S P Borges, P D P Nunes, A Akhavan-Safar, R J C Carbas, Lucas F M da Silva, 'The design of bonded joints for impact applications – a practical methodology', *2nd International Conference on Advanced Joining Processes AJP2021*, Sintra, Portugal, 21-22 October 2021.

- [170] L R R Silva, E A S Marques, R J C Carbas, A Gillner, Lucas F M da Silva, 'Study of the mechanical characteristics and process parameters of a laser welded fibre reinforced polymer', *2nd International Conference on Advanced Joining Processes AJP2021*, Sintra, Portugal, 21-22 October 2021.
- [171] C S P Borges, R R Brandão, A Akhavan-Safar, E A S Marques, R J C Carbas, C Ueffing, P Weissgraeber, Lucas F M da Silva, 'The influence of water and contamination on the mechanical properties of silicone adhesive applied before and after curing', *2nd International Conference on Advanced Joining Processes AJP2021*, Sintra, Portugal, 21-22 October 2021.
- [172] C S P Borges, R R Brandão, A Akhavan-Safar, E A S Marques, R J C Carbas, C Ueffing, P Weissgraeber, Lucas F M da Silva, 'Mechanical properties of aluminum-silicone adhesive joints under the effect of tenside contamination', *2nd International Conference on Advanced Joining Processes AJP2021*, Sintra, Portugal, 21-22 October 2021.
- [173] R J C Carbas, F Malbizar, E A S Marques, Lucas F M da Silva, 'The influence of polymeric laminate amount in the strength and failure mode of hybrid joints', *2nd International Conference on Advanced Joining Processes AJP2021*, Sintra, Portugal, 21-22 October 2021.
- [174] F Malbizar, R J C Carbas, E A S Marques, Lucas F M da Silva, 'The performance of hybrid composite joints reinforced with different metallic laminates adherends', *2nd International Conference on Advanced Joining Processes AJP2021*, Sintra, Portugal, 21-22 October 2021.
- [175] F C Sousa, A Akhavan-Safar, Lucas F M da Silva, 'Tensile fatigue crack growth of a ductile adhesive subjected to single and periodic overloads', *2nd International Conference on Advanced Joining Processes AJP2021*, Sintra, Portugal, 21-22 October 2021.
- [176] P D P Nunes, E A S Marques, A Akhavan, R J C Carbas, Lucas F M da Silva, 'Fracture envelopes as function of strain rate', *2nd International Conference on Advanced Joining Processes AJP2021*, Sintra, Portugal, 21-22 October 2021.
- [177] P D P Nunes, E A S Marques, A Akhavan, R J C Carbas, Lucas F M da Silva, 'Numerical assessment of strain rate in an adhesive layer throughout DCB and ENF tests', *2nd International Conference on Advanced Joining Processes AJP2021*, Sintra, Portugal, 21-22 October 2021.
- [178] F C Sousa, A Akhavan-Safar, Lucas F M da Silva, 'Critical distance based approach for the total fatigue life prediction of similar and dissimilar single lap adhesive joints', *2nd International Conference on Advanced Joining Processes AJP2021*, Sintra, Portugal, 21-22 October 2021.
- [179] D S Correia, E A S Marques, R J C Carbas, P J C das Neves, Lucas F M da Silva, 'Practical implementation and validation of a novel process for manufacturing milling tools using adhesive bonding', *2nd International Conference on Advanced Joining Processes AJP2021*, Sintra, Portugal, 21-22 October 2021.
- [180] D S Correia, E A S Marques, R J C Carbas, P J C das Neves, Lucas F M da Silva, 'Numerical optimization of bonded joints for the manufacture of edge milling tools', *2nd International Conference on Advanced Joining Processes AJP2021*, Sintra, Portugal, 21-22 October 2021.

- [181] L R R Silva, E A S Marques, R J C Carbas, A Gillner, Lucas F M da Silva, 'Experimental study on optimization of laser welding parameters in PBT GF30 joined by fillet joint', *2nd International Conference on Advanced Joining Processes AJP2021*, Sintra, Portugal, 21-22 October 2021.
- [182] M Frascio, F Moroni, M Reis, M A Valle, E A S Marques, R J C Carbas, Lucas F M da Silva, 'Development of welded-bonded hybrid joints via additive manufacturing with conductive thermoplastic filaments', *2nd International Conference on Advanced Joining Processes AJP2021*, Sintra, Portugal, 21-22 October 2021.
- [183] M M Kasaei, Lucas F M da Silva, 'Joining sheets made from dissimilar materials by hole hemming', *2nd International Conference on Advanced Joining Processes AJP2021*, Sintra, Portugal, 21-22 October 2021.
- [184] M M Kasaei, Lucas F M da Silva, 'Damage analysis in hemming of advanced high strength steel sheets', *2nd International Conference on Advanced Joining Processes AJP2021*, Sintra, Portugal, 21-22 October 2021.
- [185] E A S Marques, P D P Nunes, A Akhavan-Safar, C S P Borges, R J C Carbas, Lucas F M da Silva, 'Adhesive characterization, joint testing and numerical modelling of impact resistant bonded joint for automotive applications', *2nd International Conference on Industrial Applications of Adhesives 2022*, Carvoeiro, Portugal, 3-4 March 2022.
- [186] C S P Borges, R Brandão, A Akhavan-Safar, E A S Marques, R J C Carbas, C Ueffing, P Weissgraeber, Lucas F M da Silva, 'Influence of surfactant contamination on the mechanical properties of a silicone adhesive and an adhesive joint with aluminum substrates', *2nd International Conference on Industrial Applications of Adhesives 2022*, Carvoeiro, Portugal, 3-4 March 2022.
- [187] R J C Carbas, F Malbizar, E A S Marques, Lucas F M da Silva, 'The joint strength of SLJs reinforced with hybrid composite adherends', *2nd International Conference on Industrial Applications of Adhesives 2022*, Carvoeiro, Portugal, 3-4 March 2022.
- [188] F C Sousa, A Akhavan-Safar, Lucas F M da Silva, 'Towards the development of a unified fatigue life prediction methodology: the influence of substrate material', *2nd International Conference on Industrial Applications of Adhesives 2022*, Carvoeiro, Portugal, 3-4 March 2022.
- [189] A Akhavan-Safar, J Antelo, R J C Carbas, E A S Marques, Lucas F M da Silva, R Goyal, N Cuvillier, I Maus, Y Takahashi, J Sherwood, 'Replacing welding with adhesive bonding: An industrial case study', *2nd International Conference on Industrial Applications of Adhesives 2022*, Carvoeiro, Portugal, 3-4 March 2022.
- [190] J A da Costa, A Akhavan-Safar, R J C Carbas, E A S Marques, Lucas F M da Silva, 'Tensile fatigue life assessment of bonded joints subjected to cyclic ageing: Effects of ageing frequency and fatigue stress level', *2nd International Conference on Industrial Applications of Adhesives 2022*, Carvoeiro, Portugal, 3-4 March 2022.
- [191] P N Gomes, D S Correia, E A S Marques, R J C Carbas, P J C das Neves, Lucas F M da Silva, 'Optimisation of an induction cure process for the manufacturing of adhesively bonded milling tools', *2nd International Conference on Industrial Applications of Adhesives 2022*, Carvoeiro, Portugal, 3-4 March 2022.

- [192] F Delzendehrooy, A Akhavan-Safar, A Q Barbosa, R J C Carbas, E A S Marques, Lucas F M da Silva, 'Optimisation of an induction cure process for the manufacturing of adhesively bonded milling tools', *2nd International Conference on Industrial Applications of Adhesives 2022*, Carvoeiro, Portugal, 3-4 March 2022.
- [193] P D P Nunes, E A S Marques, A Akhavan, R J C Carbas, Lucas F M da Silva, 'Determination of the fracture envelopes of structural adhesives as a function of strain rate', *2nd International Conference on Industrial Applications of Adhesives 2022*, Carvoeiro, Portugal, 3-4 March 2022.
- [194] D S Correia, E A S Marques, R J C Carbas, Lucas F M da Silva, 'Preliminary design of an experimental tool for direct generation of cohesive zone law data of structural adhesives', *2nd International Conference on Industrial Applications of Adhesives 2022*, Carvoeiro, Portugal, 3-4 March 2022.
- [195] A F G Tenreiro, A M Lopes, M R Barbosa, Lucas F M da Silva, 'Performance comparison of different Artificial Neural Networks for void detection in adhesive joints', *2nd International Conference on Industrial Applications of Adhesives 2022*, Carvoeiro, Portugal, 3-4 March 2022.
- [196] F Ramezani, R J C Carbas, E A S Marques, Lucas F M da Silva, 'Toughened single lap joints with CFRP adherends using thin-ply laminate', *2nd International Conference on Industrial Applications of Adhesives 2022*, Carvoeiro, Portugal, 3-4 March 2022.
- [197] F Delzendehrooy, A Akhavan-Safar, R J C Carbas, P P Camanho, M Salamat-Talab, E A S Marques, Lucas F M da Silva, 'Fracture toughness of a bio-based resin enhanced with natural date palm tree fibers: Effects of mode mixity and type and density of fibers', *20th edition of the European Conference on Composite Materials EECM20*, Lausanne, Switzerland, 26-30 June 2022.
- [198] R J C Carbas, F Malbizar, E A S Marques, Lucas F M da Silva, 'Techniques to reduce the delamination of composite adhesive joints', *1st International Conference on Engineering Manufacture EM2022*, Porto, Portugal, 5-6 May 2022.
- [199] M M Kasaei, E A S Marques, R J C Carbas, Lucas F M da Silva, 'Joining of polymer and metal sheets by hole clinching', *1st International Conference on Engineering Manufacture EM2022*, Porto, Portugal, 5-6 May 2022.
- [200] M M Kasaei, H Moslemi Naeini, B Abbaszadeh, SJ Hashemi, Lucas F M da Silva, 'Improvement of material flow in tube hydroforming by advanced sealing methods', *1st International Conference on Engineering Manufacture EM2022*, Porto, Portugal, 5-6 May 2022.
- [201] E A S Marques, C S P Borges, L R R Silva, R J C Carbas, Lucas F M da Silva, 'Development of joining processes for the assembly of short fibre reinforced polymeric components', *1st International Conference on Engineering Manufacture EM2022*, Porto, Portugal, 5-6 May 2022.
- [202] E A S Marques, M Frascio, R J C Carbas, Lucas F M da Silva, 'Integration of self-joining capabilities on additively manufactured components', *1st International Conference on Engineering Manufacture EM2022*, Porto, Portugal, 5-6 May 2022.
- [203] A Akhavan-Safar, J Antelo, R J C Carbas, E A S Marques, Lucas F M da Silva, R Goyal, N Cuvillie, I Maus, Y Takahashi, J Sherwood, 'Strength and fatigue life

- assessment of different joining techniques in a real structure: A comparative study of welding and adhesive bonding', *1st International Conference on Engineering Manufacture EM2022*, Porto, Portugal, 5-6 May 2022.
- [204] H Badparva, H Moslemi Naeini, M M Kasaei, Y Dadgar Asl, B Abbaszadeh, Lucas F M da Silva, 'Investigation of deformation length in flexible roll forming', *1st International Conference on Engineering Manufacture EM2022*, Porto, Portugal, 5-6 May 2022.
- [205] M Karimi Firouzjaei, H Moslemi Naeini, M M Kasaei, M J Mirnia, Lucas F M da Silva, 'Ductile fracture prediction of SS304 foil in micro-roll forming', *1st International Conference on Engineering Manufacture EM2022*, Porto, Portugal, 5-6 May 2022.
- [206] C S P Borges, A Akhavan-Safar, E A S Marques, R J C Carbas, C Ueffing, P Weissgraeber, Lucas F M da Silva, 'Water absorption in adhesive joints: effect of the interface in joints with metallic and composite substrates', *1st International Conference on Engineering Manufacture EM2022*, Porto, Portugal, 5-6 May 2022.
- [207] P N Gomes, D S Correia, E A S Marques, R J C Carbas, P J C das Neves, Lucas F M da Silva, 'Optimisation of an induction cure process for the manufacturing of adhesively bonded milling tools', *1st International Conference on Engineering Manufacture EM2022*, Porto, Portugal, 5-6 May 2022.
- [208] R Beygi, R J C Carbas, A Queiros, E A S Marques, Lucas F M da Silva, 'Buttering of steel before friction stir welding for improving the joint strength of aluminium-steel joints: Fracture behaviour and interface characterization', *1st International Conference on Engineering Manufacture EM2022*, Porto, Portugal, 5-6 May 2022.
- [209] R Beygi, A Sonboli, A Nouri, Lucas F M da Silva, 'Analysis of joints between thin dissimilar sheets produced by FSW and subsequent rolling', *1st International Conference on Engineering Manufacture EM2022*, Porto, Portugal, 5-6 May 2022.
- [210] F Delzendehrooy, E A S Marques, R J C Carbas, L R R da Silva, Lucas F M da Silva, 'Laser welding process of polymeric materials: State of the art', *1st International Conference on Engineering Manufacture EM2022*, Porto, Portugal, 5-6 May 2022.
- [211] L R R Silva, E A S Marques, R J C Carbas, Lucas F M da Silva, 'Numerical and experimental study of laser welding procedure for joining fibre reinforced polymers', *1st International Conference on Engineering Manufacture EM2022*, Porto, Portugal, 5-6 May 2022.
- [212] F Gilbert, Lucas F M da Silva, J P J R Santos, E A S Marques, R J C Carbas, 'How does the glass beads impact the behavior of the failure pattern in bonded joints?', *3rd Advanced Materials Science World Congress*, London, United Kingdom, 21-22 March 2022.
- [213] L A Silva, C Espinosa, E Paroissien, F Lachaud, Lucas F M da Silva, 'A new experimental setup to study the effect of adhesive properties on spreading and resultant forces during the approach process', *Advances in Functional Materials (AFM 2022)*, Kyushu, Japan, 25 – 28 July 2022.
- [214] G M F Ramalho, V F F Loreiro, A M Lopes, Lucas F M da Silva, 'Feature extraction for defect detection utilizing Lamb waves and supervised machine

- learning algorithms', *2nd International Conference on Industrial Applications of Adhesives 2022*, Carvoeiro, Portugal, 3-4 March 2022.
- [215] E A S Marques, L M R M Corte-Real, R Eghbalpoor, R J C Carbas, Lucas F M da Silva, 'Development and characterization of novel densified wood-cork composites', *4th International Conference on Materials Design and Applications MDA 2022*, Porto, Portugal, 7-8 July 2022.
- [216] D S Correia, I D Costa, E A S Marques, R J C Carbas, A Akhavan-Safar, Lucas F M da Silva, 'Design of an experimental tool for direct generation of cohesive zone law data of adhesives', *4th International Conference on Materials Design and Applications MDA 2022*, Porto, Portugal, 7-8 July 2022.
- [217] R J C Carbas, F Malbizar, E A S Marques, Lucas F M da Silva, 'Development of hybrid laminate composite adhesive joints with high performance', *4th International Conference on Materials Design and Applications MDA 2022*, Porto, Portugal, 7-8 July 2022.
- [218] R Safdarian, M M Kasaei, Lucas F M da Silva, 'The effect of lubrication on the formability of AA6061-T6 at elevated temperatures', *4th International Conference on Materials Design and Applications MDA 2022*, Porto, Portugal, 7-8 July 2022.
- [219] H Talebi-Ghadikolaee, M Elyasi, S Shahgaldi, M M Kasaei, Lucas F M da Silva, 'The effect of rubber hardness on the channel depth of the metallic bipolar plates fabricated by rubber pad forming', *4th International Conference on Materials Design and Applications MDA 2022*, Porto, Portugal, 7-8 July 2022.
- [220] N Naat, Y Boutar, S Naïmi, S Mezlini, Lucas F M da Silva, 'Effect of bio-inspired surface texture on the resistance of polycarbonate's bonded joints with 3D-printed specimens', *4th International Conference on Materials Design and Applications MDA 2022*, Porto, Portugal, 7-8 July 2022.
- [221] F Delzendehrooy, R L L Pereira, R J C Carbas, A Akhavan-Safar, A Q Barbosa, E A S Marques, Lucas F M da Silva, 'Comparative mechanical assessment of the common structural joining techniques implemented in the marine industry', *4th International Conference on Materials Design and Applications MDA 2022*, Porto, Portugal, 7-8 July 2022.
- [222] F V B C Lopes, A Akhavan-Safar, R J C Carbas, E A S Marques, R Goyal, Lucas F M da Silva, 'The interaction of mode mixity and temperature on the S-N response of an epoxy adhesive', *4th International Conference on Materials Design and Applications MDA 2022*, Porto, Portugal, 7-8 July 2022.
- [223] F V B C Lopes, A Akhavan-Safar, R J C Carbas, E A S Marques, R Goyal, Lucas F M da Silva, 'The interaction of mode mixity and humidity on the S-N response of an epoxy adhesive', *4th International Conference on Materials Design and Applications MDA 2022*, Porto, Portugal, 7-8 July 2022.
- [224] D Santos, A Akhavan-Safar, E A S Marques, R J C Carbas, Lucas F M da Silva, 'Mode I fatigue threshold energy assessment of different adhesives: Effects of temperature', *4th International Conference on Materials Design and Applications MDA 2022*, Porto, Portugal, 7-8 July 2022.
- [225] D Santos, A Akhavan-Safar, E A S Marques, R J C Carbas, Lucas F M da Silva, 'Effects of temperature on mode II fatigue threshold energy of different adhesive systems', *4th International Conference on Materials Design and Applications MDA 2022*, Porto, Portugal, 7-8 July 2022.

- [226] F Delzendehrooy, R L L Pereira, A Q Barbosa, R J C Carbas, Lucas F M da Silva, 'Parametric optimization of ultrasonic welding on thermoplastic fiber-reinforced composites by the implementation of statistical analysis of variance method (ANOVA)', *4th International Conference on Materials Design and Applications MDA 2022*, Porto, Portugal, 7-8 July 2022.
- [227] F Ramezani, R J C Carbas, E A S Marques, Lucas F M da Silva, 'Reinforced hybrid CFRP laminates using thin-ply', *4th International Conference on Materials Design and Applications MDA 2022*, Porto, Portugal, 7-8 July 2022.
- [228] B D Simões, P D P Nunes, E A S Marques, R J C Carbas, Lucas F M da Silva, 'Determination of mode I cohesive law of structural adhesives using the direct method', *4th International Conference on Materials Design and Applications MDA 2022*, Porto, Portugal, 7-8 July 2022.
- [229] S Jalali, R J C Carbas, A Akhavan-Safar, E A S Marques, Lucas F M da Silva, 'Development of toughened composite materials subjected to static and impact loads', *4th International Conference on Materials Design and Applications MDA 2022*, Porto, Portugal, 7-8 July 2022.
- [230] A G C Conceição, M M Kasaei, E A S Marques, R J C Carbas, Lucas F M da Silva, 'A flexible tool for joining dissimilar materials by the novel hole hemming process', *4th International Conference on Materials Design and Applications MDA 2022*, Porto, Portugal, 7-8 July 2022.
- [231] C S P Borges, R R Brandão, A Akhavan-Safar, E A S Marques, R J C Carbas, C Ueffing, P Weissgraeber, Lucas F M da Silva, 'Effect of water and surfactant contamination on the mechanical properties of a silicone adhesive, before and after curing', *4th International Conference on Materials Design and Applications MDA 2022*, Porto, Portugal, 7-8 July 2022.
- [232] R Beygi, R J C Carbas, A Q Barbosa, E A S Marques, Lucas F M da Silva, 'Mechanical properties and ductile damage of magnesium alloy processed by friction stir processing', *4th International Conference on Materials Design and Applications MDA 2022*, Porto, Portugal, 7-8 July 2022.
- [233] R Beygi, S Mohammadi, Lucas F M da Silva, 'Effect of tool design on the joint strength of Al2024-Al7075 welds made by FSW: A response surface analysis', *4th International Conference on Materials Design and Applications MDA 2022*, Porto, Portugal, 7-8 July 2022.
- [234] J A C Pereira, M M Kasaei, R J C Carbas, E A S Marques, Lucas F M da Silva, 'Joining magnesium and aluminum alloy sheets by the novel hole hemming process', *4th International Conference on Materials Design and Applications MDA 2022*, Porto, Portugal, 7-8 July 2022.
- [235] M M Kasaei, E A S Marques, R J C Carbas, Lucas F M da Silva, 'Phenomenological modeling of the ductile fracture of polycarbonate', *4th International Conference on Materials Design and Applications MDA 2022*, Porto, Portugal, 7-8 July 2022.
- [236] D S Correia, I D Costa, E A S Marques, R J C Carbas, Lucas F M da Silva, 'Direct generation of cohesive zone laws of adhesives', *1st International Conference on Mechanics of Solids MS 2022*, Porto, Portugal, 3-4 November 2022.
- [237] R J C Carbas, S Jalali, E A S Marques, Lucas F M da Silva, 'The use of tough layers in composite adherend to improve the joint strength performance', *1st*

- International Conference on Mechanics of Solids MS 2022*, Porto, Portugal, 3-4 November 2022.
- [238] F Ramezani, R J C Carbas, E A S Marques, Lucas F M da Silva, 'Reinforced hybrid CFRP laminates using thin-ply', *1st International Conference on Mechanics of Solids MS 2022*, Porto, Portugal, 3-4 November 2022.
- [239] F C Sousa, A Akhavan-Safar, Lucas F M da Silva, 'The effect of overloading on a ductile adhesive's mode I fatigue behaviour', *1st International Conference on Mechanics of Solids MS 2022*, Porto, Portugal, 3-4 November 2022.
- [240] J Bidadi, A Akhavan-Safar, H Saeidi Googarchin, Lucas F M da Silva, 'Fracture prediction of ductile epoxy resins using a modified normal stress criterion: Effects of mode mixity and strain rate', *1st International Conference on Mechanics of Solids MS 2022*, Porto, Portugal, 3-4 November 2022.
- [241] H Taghibeigi, A Zeinedini, A Akhavan-Safar, Lucas F M da Silva, 'Effect of fiber type on the translaminar fracture toughness of epoxy-based laminated composites', *1st International Conference on Mechanics of Solids MS 2022*, Porto, Portugal, 3-4 November 2022.
- [242] M Miri, A Akhavan-Safar, M R Ayatollahi, Lucas F M da Silva, 'The effect of natural date palm tree fibers on the impact fatigue strength of adhesives', *1st International Conference on Mechanics of Solids MS 2022*, Porto, Portugal, 3-4 November 2022.
- [243] F V B Castro Lopes, A Akhavan-Safar, R J C Carbas, E A S Marques, R Goyal, J Jennings, Lucas F M da Silva, 'The interaction of mode mixity and humidity on the S-N response of an epoxy adhesive', *1st International Conference on Mechanics of Solids MS 2022*, Porto, Portugal, 3-4 November 2022.
- [244] D Santos, A Akhavan-Safar, E A S Marques, R J C Carbas, Lucas F M da Silva, 'Mode I fatigue threshold energy assessment of different adhesives: Effects of temperature', *1st International Conference on Mechanics of Solids MS 2022*, Porto, Portugal, 3-4 November 2022.
- [245] B D Simões, R J C Carbas, E A S Marques, Lucas F M da Silva, 'Numerical and experimental study of thermal residual stresses on multimaterial adherends in single-lap joints', *1st International Conference on Mechanics of Solids MS 2022*, Porto, Portugal, 3-4 November 2022.
- [246] E A S Marques, R J C Carbas, Lucas F M da Silva, 'Interactive lab on advanced joining processes', *3rd International Conference on Science and Technology Education STE 2022*, Porto, Portugal, 6-7 October 2022.
- [247] R J C Carbas, E A S Marques, J A S Almacinha, J J M Machado, Lucas F M da Silva, 'Virtual tool to support the teaching of technical drawing', *3rd International Conference on Science and Technology Education STE 2022*, Porto, Portugal, 6-7 October 2022.
- [248] E A S Marques, R J C Carbas, P P Camanho, Lucas F M da Silva, 'The class as a theatrical play', *3rd International Conference on Science and Technology Education STE 2022*, Porto, Portugal, 6-7 October 2022.
- [249] C S P Borges, F Castro Sousa, T P Duarte, R J C Carbas, Lucas F M da Silva, 'Virtual platform to improve teaching and studying of materials science and engineering', *3rd International Conference on Science and Technology Education STE 2022*, Porto, Portugal, 6-7 October 2022.

- [250] R Beygi, A Akhavan-Safar, E A S Marques, Lucas F M da Silva, 'Research and education systems of European universities concerned with laser welding and friction stir welding', *3rd International Conference on Science and Technology Education STE 2022*, Porto, Portugal, 6-7 October 2022.
- [251] A Q Barbosa, A Duarte, C Leite, D Barbieri, L Barts, C S P Borges, Lucas F M da Silva, 'Bonder - A didactic tool for consolidating knowledge on adhesive bonding technology', *3rd International Conference on Science and Technology Education STE 2022*, Porto, Portugal, 6-7 October 2022.
- [252] T M G P Duarte, A M Lopes, Lucas F M da Silva, 'Some factors influencing students' academic performance in the Integrated Master in Mechanical Engineering (MIEM) at FEUP', *3rd International Conference on Science and Technology Education STE 2022*, Porto, Portugal, 6-7 October 2022.
- [253] B D Simões, P D P Nunes, R J C Carbas, E A S Marques, Lucas F M da Silva, 'Determination of mode I cohesive law of structural adhesives using the direct method', *1st International Conference on Mechanics of Solids MS 2022*, Porto, Portugal, 3-4 November 2022.
- [254] A F G Tenreiro, A M Lopes, Lucas F M da Silva, 'Void detection in adhesive joints through electromechanical impedance signatures', *1st International Conference on Mechanics of Solids MS 2022*, Porto, Portugal, 3-4 November 2022.
- [255] G M F Ramalho, A M Lopes, Lucas F M da Silva, 'Lamb waves propagation in SLJs with multiple levels of weak adhesion', *1st International Conference on Mechanics of Solids MS 2022*, Porto, Portugal, 3-4 November 2022.
- [256] P Tsokanas, A Akhavan-Safar, P S Valvo, T Loutas, Lucas F M da Silva, 'Decoupling fracture modes in non-standard test specimens: state of the art', *1st International Conference on Mechanics of Solids MS 2022*, Porto, Portugal, 3-4 November 2022.
- [257] I D Costa, D S Correia, E A S Marques, R J C Carbas, A Akhavan-Safar, Lucas F M da Silva, 'Numerical optimization of a unified specimen for adhesive characterisation', *4th International Conference on Materials Design and Applications MDA 2022*, Porto, Portugal, 7-8 July 2022.
- [258] E A S Marques, R J C Carbas, A Akhavan-Safar, Lucas F M da Silva, 'Development of novel design and validation procedures for high performance structural bonded joints', *AVT-361 Research Workshop on Certification of Bonded Repair on Composite Aircraft Structures*, Amsterdam, Netherlands, 18-20 October 2022.
- [259] E A S Marques, R J C Carbas, A Akhavan-Safar, Lucas F M da Silva, 'Development of novel design and validation procedures for high performance structural bonded joints', *2022 China International Bonding Technology Congress*, Beijing, China, 3-5 November 2022.
- [260] C S P Borges, A Akhavan-Safar, E A S Marques, R J C Carbas, C Ueffing, P Weissgraeber, Lucas F M da Silva, 'Effect of the interphase on joints with metallic and composite substrates and silicone adhesive', *Conferência Luso-Brasileira Adesão e Adesivos CLBA 2022*, São Paulo, Brazil, 12-13 December, 2022.
- [261] C S P Borges, A Akhavan-Safar, E A S Marques, R J C Carbas, C Ueffing, P Weissgraeber, Lucas F M da Silva, 'Mechanical properties of adhesive joints with polybutylene terephthalate reinforced with glass fiber substrates and silicone

- adhesive after water aging', *1st International Conference on Mechanics of Solids MS 2022*, Porto, Portugal, 3-4 November 2022.
- [262] B D Simões, R J C Carbas, E A S Marques, P D P Nunes, Lucas F M da Silva, 'Study of thermal residual stresses on composite adhesive joints using metal-CFRP adherends', *Conferência Luso-Brasileira Adesão e Adesivos CLBA 2022*, São Paulo, Brazil, 12-13 December, 2022.
- [263] F C Sousa, A Akhavan-Safar, Lucas F M da Silva, 'Mode I fatigue crack growth behaviour of a ductile adhesive subjected to overloading', *Conferência Luso-Brasileira Adesão e Adesivos CLBA 2022*, São Paulo, Brazil, 12-13 December, 2022.
- [264] F C Sousa, A Akhavan-Safar, Lucas F M da Silva, 'Fatigue crack growth behaviour of behaviour of a ductile adhesive subjected to tensile overloading', *Conferência Luso-Brasileira Adesão e Adesivos CLBA 2022*, São Paulo, Brazil, 12-13 December, 2022.
- [265] N Naat, Y Boutar, S Naïmi, S Mezlini, Lucas F M da Silva, 'Influence of plasma treatment on the shear strength of 3D-printed Polycarbonate bonded joints', *8èmes Journées Scientifiques et Techniques en Mécanique et Matériaux (JSTMM22)*, Monastir, Tunisia, 20-21 December 2022.
- [266] P Tsokanas, P Fisicaro, P S Valvo, Lucas F M da Silva, 'Mode decoupling versus mode partitioning for determining pure-mode fracture in unconventional specimens', *NewFrac & TC16 - JOINT WORKSHOP – Politecnico di Torino*, Turin, Italy, 17-20 January 2023.
- [267] F V B de Castro Lopes, A Akhavan-Safar, R J C Carbas, E A S Marques, R Goyal, J Jennings, Lucas F M da Silva, 'Fatigue durability of bonded structures: Effects of humidity, temperature, and loading mode', *1st International Conference on Durability, Repair and Maintenance of Structures DRMS 2023*, Porto, Portugal, 16-17 March 2023.
- [268] D Santos, A Akhavan-Safar, E A S Marques, R J C Carbas, Lucas F M da Silva, 'Fatigue threshold assessment of a polyurethan adhesive subjected to different temperatures: Load control vs. displacement control strategy', *1st International Conference on Durability, Repair and Maintenance of Structures DRMS 2023*, Porto, Portugal, 16-17 March 2023.
- [269] M Moazzami, A Akhavan-Safar, M R Ayatollahi, J A Poulis, Lucas F M da Silva, S T De Freitas, 'The impact of ageing frequency on the mechanical behaviour of adhesively bonded structures subjected to cyclic ageing environments', *1st International Conference on Durability, Repair and Maintenance of Structures DRMS 2023*, Porto, Portugal, 16-17 March 2023.
- [270] .M Ortega-Iguña, A Akhavan-Safar, R J C Carbas, J M Sánchez-Amaya, M Chludzinski, Lucas F M da Silva, 'The effect of seawater on the static strength and fatigue life of adhesive joints with coated steel adherends', *1st International Conference on Durability, Repair and Maintenance of Structures DRMS 2023*, Porto, Portugal, 16-17 March 2023.
- [271] R J C Carbas, E A S Marques, Lucas F M da Silva, 'The performance of composite adhesive joints with different hybrid laminates adherends', *1st International Conference on Durability, Repair and Maintenance of Structures DRMS 2023*, Porto, Portugal, 16-17 March 2023.

- [272] S Jalali, C S P Borges, E A S Marques, R J C Carbas, Lucas F M da Silva, 'Long term durability of high performance adhesively bonded structures with densified wood', *1st International Conference on Durability, Repair and Maintenance of Structures DRMS 2023*, Porto, Portugal, 16-17 March 2023.
- [273] C S P Borges, A Akhavan-Safar, E A S Marques, R J C Carbas, C Ueffing, P Weissgraeber, Lucas F M da Silva, 'Water uptake behavior of PBT-GF30/silicone adhesive joints at different temperatures and its effect on the mechanical properties of the joint', *1st International Conference on Durability, Repair and Maintenance of Structures DRMS 2023*, Porto, Portugal, 16-17 March 2023.
- [274] F C Sousa, A Akhavan-Safar, Lucas F M da Silva, 'Fatigue behaviour of adhesively bonded single lap joints subjected to different environmental conditions', *1st International Conference on Durability, Repair and Maintenance of Structures DRMS 2023*, Porto, Portugal, 16-17 March 2023.
- [275] A F G Tenreiro, A M Lopes, Lucas F M da Silva, 'Void detection in adhesive single lap joints through electromechanical impedance spectrum', *1st International Conference on Durability, Repair and Maintenance of Structures DRMS 2023*, Porto, Portugal, 16-17 March 2023.
- [276] B D Simões, E A S Marques, R J C Carbas, Lucas F M da Silva, 'Characterization of the behavior of PSA joints under creep loading', *1st International Conference on Durability, Repair and Maintenance of Structures DRMS 2023*, Porto, Portugal, 16-17 March 2023.
- [277] D S Correia, P Novo, P J C Neves, E A S Marques, R J C Carbas, Lucas F M da Silva, 'Design and testing of adhesively bonded woodworking tools for long term durability', *1st International Conference on Durability, Repair and Maintenance of Structures DRMS 2023*, Porto, Portugal, 16-17 March 2023.
- [278] G Ramalho, C Silva, A M Lopes, Lucas F M da Silva, 'Damage detection on adhesive joints using Lamb waves data and supervised machine learning algorithms', *1st International Conference on Durability, Repair and Maintenance of Structures DRMS 2023*, Porto, Portugal, 16-17 March 2023.
- [279] C S P Borges, A Akhavan-Safar, E A S Marques, R J C Carbas, C Ueffing, P Weissgraeber, Lucas F M da Silva, 'Effect of composite/silicone and metal/silicone interphases on the water uptake of joints and their influence on the failure of the joint', *1st International Conference on Durability, Repair and Maintenance of Structures DRMS 2023*, Porto, Portugal, 16-17 March 2023.
- [280] J A C Pereira, M M Kasaei, R J C Carbas, E A S Marques, Lucas F M da Silva, 'Damage analysis in a novel hole hemming process for joining magnesium and aluminum alloy sheets', *1st International Conference on Durability, Repair and Maintenance of Structures DRMS 2023*, Porto, Portugal, 16-17 March 2023.
- [281] P Tsokanas, Lucas F M da Silva, 'Thirty-five years of research on fracture mode partitioning', *1st International Conference on Durability, Repair and Maintenance of Structures DRMS 2023*, Porto, Portugal, 16-17 March 2023.
- [282] F Santandrea, G G Momm, P Tsokanas, T Kruse-Strack, V Rajcic, D Skejic, D Rajnovic, Lucas F M da Silva, 'Certification of adhesively bonded structures in various industries: a review', *1st International Conference on Durability, Repair and Maintenance of Structures DRMS 2023*, Porto, Portugal, 16-17 March 2023.
- [283] G Ramalho, C Silva, A M Lopes, Lucas F M da Silva, 'Lamb waves propagation in SLJs with multiple levels of weak adhesion', *1st International Conference on*

- Durability, Repair and Maintenance of Structures DRMS 2023*, Porto, Portugal, 16-17 March 2023.
- [284] A F G Tenreiro, A M Lopes, Lucas F M da Silva, 'Damage metrics for void detection in adhesive joints using electromechanical impedance measurements', *1st International Conference on Durability, Repair and Maintenance of Structures DRMS 2023*, Porto, Portugal, 16-17 March 2023.
- [285] F Ramezani, R J C Carbas, EAS Marques, AM Ferreira, Lucas F M da Silva, 'The fracture behaviour of hybrid CFRP laminates reinforced by thin-ply', *1st International Conference on Durability, Repair and Maintenance of Structures DRMS 2023*, Porto, Portugal, 16-17 March 2023.
- [286] B D Simões, P D P Nunes, F Ramezani, R J C Carbas, E A S Marques, Lucas F M da Silva, 'Experimental and numerical study of thermal residual stresses on multimaterial adherends in single-lap joints', *1st International Conference on Durability, Repair and Maintenance of Structures DRMS 2023*, Porto, Portugal, 16-17 March 2023.
- [287] R J C Carbas, G M S O Viana, Lucas F M da Silva, 'Functionally graded adhesive patch repairs of wood beams in civil applications', *1st International Conference on Durability, Repair and Maintenance of Structures DRMS 2023*, Porto, Portugal, 16-17 March 2023.
- [288] A T Marques, C A V Costa, F J L Alves, Lucas F M da Silva, 'Materials and Sustainability', *Materiais 2023 – XXI Congresso da Sociedade Portuguesa de Materiais and XII International Symposium on Materials*, Guimarães, Portugal, 3-6 April 2023.
- [289] F Delzendehrooy, R J C Carbas, E A S Marques, Lucas F M da Silva, 'Study of composite joints with toughened adherends reinforced by thin-ply', *2nd Ibero-American Conference on Composite Materials 2023*, São Paulo, Brazil, 20-21 July 2023.
- [290] V D C Pires, R J C Carbas, E A S Marques, Lucas F M da Silva, 'The study of residual thermal stresses on the performance of hybrid composite single lap joints', *2nd Ibero-American Conference on Composite Materials 2023*, São Paulo, Brazil, 20-21 July 2023.
- [291] Sh Jalali, C S P Borges, E A S Marques, R J C Carbas, Lucas F M da Silva, 'Development and characterization of novel densified pine wood substrates', *2nd Ibero-American Conference on Composite Materials 2023*, São Paulo, Brazil, 20-21 July 2023.
- [292] A F G Tenreiro, A M Lopes, Lucas F M da Silva, 'Electromechanical impedance damage metrics for void detection in adhesive joints', *7th International Conference on Structural Adhesive Bonding 2023*, Porto, Portugal, 13-14 July 2023.
- [293] A F G Tenreiro, A M Lopes, Lucas F M da Silva, R J C Carbas, 'The influence of voids on electromechanical impedance spectra of adhesive single lap joints', *7th International Conference on Structural Adhesive Bonding 2023*, Porto, Portugal, 13-14 July 2023.
- [294] A Haran-Nogueira, M M Kasaei, A Akhavan-Safar, R J C Carbas, E A S Marques, Lucas F M da Silva, 'A new hybrid bonded-hole hemming process for joining dissimilar materials', *7th International Conference on Structural Adhesive Bonding 2023*, Porto, Portugal, 13-14 July 2023.

- [295] A Haran-Nogueira, M M Kasaei, A Akhavan-Safar, R J C Carbas, E A S Marques, Lucas F M da Silva, 'Failure behavior of novel hybrid bonded-hole hemmed joints in lightweight materials', *7th International Conference on Structural Adhesive Bonding 2023*, Porto, Portugal, 13-14 July 2023.
- [296] A Q Barbosa, E Meiß, A Almeida, T Avelino, F Mañas, M Uran, M Tonnhofer, E A S Marques, R J C Carbas, Lucas F M da Silva, 'European adhesive bonder - Boosting knowledge of adhesive bonding personnel', *7th International Conference on Structural Adhesive Bonding 2023*, Porto, Portugal, 13-14 July 2023.
- [297] R J C Carbas, F Ramezani, E A S Marques, Lucas F M da Silva, 'The performance of hybrid laminate joints under different strain rates', *7th International Conference on Structural Adhesive Bonding 2023*, Porto, Portugal, 13-14 July 2023.
- [298] V D C Pires, R J C Carbas, E A S Marques, Lucas F M da Silva, 'Influence of bent adherends in single-lap joint performance', *7th International Conference on Structural Adhesive Bonding 2023*, Porto, Portugal, 13-14 July 2023.
- [299] V C Rodrigues, E A S Marques, R J C Carbas, M Youngberg, A Dussaud, Lucas F M da Silva, 'Mechanical characterization of a novel silane based polyurethane hybrid flexible adhesive', *7th International Conference on Structural Adhesive Bonding 2023*, Porto, Portugal, 13-14 July 2023.
- [300] V C Rodrigues, E A S Marques, R J C Carbas, M Youngberg, A Dussaud, Lucas F M da Silva, 'Experimental testing and numerical simulation of joints bonded with a novel silane based polyurethane hybrid flexible adhesive', *7th International Conference on Structural Adhesive Bonding 2023*, Porto, Portugal, 13-14 July 2023.
- [301] C S P Borges, R Brandão, A Akhavan-Safar, E A S Marques, R J C Carbas, C Ueffing, P Weissgraeber, Lucas F M da Silva, 'Surfactant contamination on the surface of aluminum substrates and its effect on the adhesive and adhesive joint', *7th International Conference on Structural Adhesive Bonding 2023*, Porto, Portugal, 13-14 July 2023.
- [302] C S P Borges, R Brandão, A Akhavan-Safar, E A S Marques, R J C Carbas, C Ueffing, P Weissgraeber, Lucas F M da Silva, 'PBT-GF30/silicone and aluminum/silicone resistance against water uptake and influence on the failure of the joint', *7th International Conference on Structural Adhesive Bonding 2023*, Porto, Portugal, 13-14 July 2023.
- [303] F Castro Sousa, P Zamani, A Akhavan-Safar, Lucas F M da Silva, 'S-N behavior of adhesive joints: A review', *7th International Conference on Structural Adhesive Bonding 2023*, Porto, Portugal, 13-14 July 2023.
- [304] A Akhavan-Safar, E A S Marques, R J C Carbas, Lucas F M da Silva, 'Fatigue crack growth in adhesive joints: The role of test strategy, loading mode, and temperature', *7th International Conference on Structural Adhesive Bonding 2023*, Porto, Portugal, 13-14 July 2023.
- [305] M Ribas, A Akhavan-Safar, E A S Marques, R J C Carbas, S Wenig, Lucas F M da Silva, 'Mixed mode fatigue crack growth in polyurethane adhesives', *7th International Conference on Structural Adhesive Bonding 2023*, Porto, Portugal, 13-14 July 2023.

- [306] M Ribas, A Akhavan-Safar, E A S Marques, R J C Carbas, S Wenig, Lucas F M da Silva, 'Effects of strain rate and temperature on mixed mode fracture behaviour of polyurethane adhesives', *7th International Conference on Structural Adhesive Bonding 2023*, Porto, Portugal, 13-14 July 2023.
- [307] D S Correia, I D Costa, E A S Marques, R J C Carbas, A Akhavan-Safar, Lucas F M da Silva, 'Development of a unified specimen for adhesive characterisation: Numerical study on the mode I (mDCB) and II (ELS) fracture components', *7th International Conference on Structural Adhesive Bonding 2023*, Porto, Portugal, 13-14 July 2023.
- [308] D S Correia, I D Costa, E A S Marques, R J C Carbas, A Akhavan-Safar, Lucas F M da Silva, 'Development of a unified specimen for adhesive characterisation: Experimental study on the mode I (mDCB) and II (ELS) fracture components', *7th International Conference on Structural Adhesive Bonding 2023*, Porto, Portugal, 13-14 July 2023.
- [309] R J F de Sousa, P N Gomes, D S Correia, E A S Marques, R J C Carbas, P J C das Neves, W P Afonso, Lucas F M da Silva, 'Analysis of the mechanical performance and durability of adhesively bonded joints used in the milling tool industry', *7th International Conference on Structural Adhesive Bonding 2023*, Porto, Portugal, 13-14 July 2023.
- [310] V D C Pires, R J C Carbas, E A S Marques, Lucas F M da Silva, 'Influence of strain-rate in single-lap joints bonding multimaterial adherends with thermal residual stresses', *7th International Conference on Structural Adhesive Bonding 2023*, Porto, Portugal, 13-14 July 2023.
- [311] V D C Pires, R J C Carbas, E A S Marques, Lucas F M da Silva, 'Optimization of dissimilar single-lap joints bonding multimaterial adherends in quasi-static conditions with thermal residual stresses', *7th International Conference on Structural Adhesive Bonding 2023*, Porto, Portugal, 13-14 July 2023.
- [312] F Ramezani, R J C Carbas, E A S Marques, A M Ferreira, Lucas F M da Silva, 'The fracture behavior of hybrid CFRP laminates reinforced by thin-ply', *7th International Conference on Structural Adhesive Bonding 2023*, Porto, Portugal, 13-14 July 2023.
- [313] F Ramezani, R J C Carbas, E A S Marques, Lucas F M da Silva, 'Study of composite joints with toughened adherend reinforced by thin-ply', *7th International Conference on Structural Adhesive Bonding 2023*, Porto, Portugal, 13-14 July 2023.
- [314] H Malekinejadbahabadi, F Ramezani, R J C Carbas, E A S Marques, Lucas F M da Silva, 'Design and analysis of graded FRP laminates plates varying fiber volume fraction through the thickness', *7th International Conference on Structural Adhesive Bonding 2023*, Porto, Portugal, 13-14 July 2023.
- [315] Sh Jalali, C S P Borges, E A S Marques, R J C Carbas, Lucas F M da Silva, 'Characterization of bio-based polyurethane adhesives in zero-thickness bonds', *7th International Conference on Structural Adhesive Bonding 2023*, Porto, Portugal, 13-14 July 2023.
- [316] Sh Jalali, LMRM Corte-Real, C S P Borges, E A S Marques, R J C Carbas, Lucas F M da Silva, 'Enhancing the mechanical properties of pine wood through a densification process for eco-friendly adhesively bonded joints', *7th International*

- Conference on Structural Adhesive Bonding 2023*, Porto, Portugal, 13-14 July 2023.
- [317] E A S Marques, L P Garrido, C S P Borges, S Jalali, R J C Carbas, Lucas F M da Silva, 'A path for increasing the sustainability of structural design supported by adhesive bonding', *7th International Conference on Structural Adhesive Bonding 2023*, Porto, Portugal, 13-14 July 2023
- [318] E A S Marques, C S P Borges, P D P Nunes, B D Simões, A Akhavan-Safar, R J C Carbas, Lucas F M da Silva, 'A design and validation process for structural bonded joints exposed to harsh service conditions', *7th International Conference on Structural Adhesive Bonding 2023*, Porto, Portugal, 13-14 July 2023.
- [319] L P F Garrido, M M Kasaei, E A S Marques, R J C Carbas, Lucas F M da Silva, 'Mechanical characterization of the behaviour of additively manufactured thermoplastics for use in multimaterial bonded structures', *7th International Conference on Structural Adhesive Bonding 2023*, Porto, Portugal, 13-14 July 2023.
- [320] L P F Garrido, M M Kasaei, E A S Marques, R J C Carbas, Lucas F M da Silva, 'Design and testing of multi-material additively bonded impact absorption bonded structures', *7th International Conference on Structural Adhesive Bonding 2023*, Porto, Portugal, 13-14 July 2023.
- [321] A M S Couto, C S P Borges, P Tsokanas, S Jalali, E A S Marques, R J C Carbas, Lucas F M da Silva, 'Experimental and numerical study on eco-friendly adhesive joints for the automotive industry', *7th International Conference on Structural Adhesive Bonding 2023*, Porto, Portugal, 13-14 July 2023.
- [322] A M S Couto, C S P Borges, P Tsokanas, S Jalali, E A S Marques, R J C Carbas, Lucas F M da Silva, 'A tool for designing eco-friendly adhesively bonded structures for vehicles', *7th International Conference on Structural Adhesive Bonding 2023*, Porto, Portugal, 13-14 July 2023.
- [323] B D Simões, E M D Fernandes, E A S Marques, R J C Carbas, S Maul, P Stihler, P Weißgraeber, Lucas F M da Silva, 'Determining and modeling the creep behavior of an acrylic pressure-sensitive adhesive: An exploratory study', *7th International Conference on Structural Adhesive Bonding 2023*, Porto, Portugal, 13-14 July 2023.
- [324] P Millan, A Tenreiro, J Amorim, R Beygi, M Kasaei, Lucas F M da Silva, 'Dynamic behaviour of structural joints: experimental and numerical analysis', *7th International Conference on Structural Adhesive Bonding 2023*, Porto, Portugal, 13-14 July 2023.
- [325] A Q Barbosa, P Tsokanas, F Delzendehrooy, R Pereira, R J C Carbas, E A S Marques, Lucas F M da Silva, 'Benchmarking mechanical assessment of adhesive bonding and hybrid structural joining techniques implemented in maritime industries', *7th International Conference on Structural Adhesive Bonding 2023*, Porto, Portugal, 13-14 July 2023.
- [326] F C Sousa, A Akhavan-Safar, Lucas F M da Silva, 'Mode I fatigue-fracture behaviour of adhesives subjected to single and periodic overloads', *7th International Conference on Structural Adhesive Bonding 2023*, Porto, Portugal, 13-14 July 2023.
- [327] F C Sousa, A Akhavan-Safar, R J C Carbas, E A S Marques, A Q Barbosa, Lucas F M da Silva, 'Influence of environmental conditions on the fatigue performance

- of single lap bonded joints', *7th International Conference on Structural Adhesive Bonding 2023*, Porto, Portugal, 13-14 July 2023.
- [328] F J Simón, O Cuadrado, E A S Marques, M Sánchez, Lucas F M da Silva, 'Experimental validation of the characterisation of highly flexible adhesive by DCB test tube', *7th International Conference on Structural Adhesive Bonding 2023*, Porto, Portugal, 13-14 July 2023.
- [329] P Tsokanas, F Mujika, A Arrese, Lucas F M da Silva, 'A new perspective for the mode decoupling of interlaminar fracture tests on bimaterial specimens', *7th International Conference on Structural Adhesive Bonding 2023*, Porto, Portugal, 13-14 July 2023.
- [330] P Tsokanas, S Jalali, C S P Borges, R J C Carbas, E A S Marques, Lucas F M da Silva, 'On the mechanical behavior of L- and T-shaped wooden bio-adhesive joints', *7th International Conference on Structural Adhesive Bonding 2023*, Porto, Portugal, 13-14 July 2023.
- [331] E M D Fernandes, B D Simões, E A S Marques, R J C Carbas, S Maul, P Stihler, P Weißgraeber, Lucas F M da Silva, 'Development of cyclic creep testing station', *7th International Conference on Structural Adhesive Bonding 2023*, Porto, Portugal, 13-14 July 2023.
- [332] E M D Fernandes, B D Simões, E A S Marques, R J C Carbas, S Maul, P Stihler, P Weißgraeber, Lucas F M da Silva, 'Analytical model for modelling creep behaviour of pressure-sensitive adhesives', *7th International Conference on Structural Adhesive Bonding 2023*, Porto, Portugal, 13-14 July 2023.
- [333] B D Simões, E M D Fernandes, E A S Marques, R J C Carbas, S Maul, P Stihler, P Weißgraeber, Lucas F M da Silva, 'Experimental determination of the mechanical and fracture properties of different acrylic PSAs', *7th International Conference on Structural Adhesive Bonding 2023*, Porto, Portugal, 13-14 July 2023.
- [334] P Morais, A Akhavan-Safar, E A S Marques, R J C Carbas, B Karunamurthy, Lucas F M da Silva, 'Static interface strength measurement in thin films: Mode I fracture delamination using double cantilever beam', *7th International Conference on Structural Adhesive Bonding 2023*, Porto, Portugal, 13-14 July 2023.
- [335] P Morais, A Akhavan-Safar, E A S Marques, R J C Carbas, B Karunamurthy, Lucas F M da Silva, 'Fatigue fracture characterization of semiconductor chip-package interfaces', *7th International Conference on Structural Adhesive Bonding 2023*, Porto, Portugal, 13-14 July 2023.
- [336] E A S Marques, R J C Carbas, A Akhavan-Safar, Lucas F M da Silva, 'Designing and validating high performance bonded joints for long term structural applications', *14th European Adhesion Conference (EURADH) & 7th World Congress on Adhesion and Related Phenomena (WCARP)*, Garmisch-Partenkirchen, Germany, 10–13 September 2023.
- [337] B D Simões, E M D Fernandes, E A S Marques, R J C Carbas, S Maul, P Stihler, P Weißgraeber, Lucas F M da Silva, 'Determining and Modeling the Creep Behavior of an Acrylic Pressure-Sensitive Adhesive: An Exploratory Study', *14th European Adhesion Conference (EURADH) & 7th World Congress on Adhesion and Related Phenomena (WCARP)*, Garmisch-Partenkirchen, Germany, 10–13 September 2023.

- [338] D S Correia, I D Costa, B D Simões, E A S Marques, R J C Carbas, Lucas F M da Silva, 'Development of a unified specimen for adhesive characterisation: Numerical and experimental study on the mode I (mDCB) fracture component', *2nd International Conference on Machine Design MD2023*, Porto, Portugal, 7-8 September 2023.
- [339] A F G Tenreiro, E A S Marques, R J C Carbas, C M da Silva, A M Lopes, Lucas F M da Silva, 'On the design of unconventional testing machines for adhesive characterization – the case study of Advanced Joining Processes Unit', *2nd International Conference on Machine Design MD2023*, Porto, Portugal, 7-8 September 2023.
- [340] B S Moreira, P D P.Nunes, C M da Silva, A F G Tenreiro, A M Lopes, R J C Carbas, E A S Marques, M P L. Parente, Lucas F M da Silva, 'Numerical design of a thread-optimized gripping setup for single lap joint testing in a split Hopkinson pressure bar', *2nd International Conference on Machine Design MD2023*, Porto, Portugal, 7-8 September 2023.
- [341] A F G Tenreiro, A M Lopes, R J C Carbas, E A S Marques, M P L Parente, Lucas F M da Silva, 'Void detection in bonded joints with computed damage metrics from Electromechanical impedance spectra', *2nd International Conference on Machine Design MD2023*, Porto, Portugal, 7-8 September 2023.
- [342] M M Kasaei, A Haran-Nogueira, A Akhavan-Safar, R J C Carbas, E A S Marques, Lucas F M da Silva, 'A novel hybrid bonded-hole hemming process for joining lightweight materials', *2nd International Conference on Machine Design MD2023*, Porto, Portugal, 7-8 September 2023.
- [343] M M Kasaei, R J C Carbas, E A S Marques, Lucas F M da Silva, 'Hole hemming for joining metal and polymer sheets', *2nd International Conference on Machine Design MD2023*, Porto, Portugal, 7-8 September 2023.
- [344] M M Kasaei, R J C Carbas, E A S Marques, Lucas F M da Silva, 'A new design for improving the joinability of magnesium and aluminum sheets in hole hemming', *2nd International Conference on Machine Design MD2023*, Porto, Portugal, 7-8 September 2023.
- [345] R J C Carbas, V D C Pires, B D Simões, E A S Marques, Lucas F M da Silva, 'The performance of adhesive joints with bent composite adherends', *2nd International Conference on Machine Design MD2023*, Porto, Portugal, 7-8 September 2023.
- [346] R J C Carbas, F Ramezani, E A S Marques, Lucas F M da Silva, 'The performance of composite adhesive joints reinforced with thin-ply', *2nd International Conference on Machine Design MD2023*, Porto, Portugal, 7-8 September 2023.
- [347] A Akhavan-Safar, M Ribas, R J C Carbas, E A S Marques, S Wenig, Lucas F M da Silva, 'Exploring mixed mode fatigue and fracture of polyurethane adhesives: Strain rate and temperature effects', *2nd International Conference on Machine Design MD2023*, Porto, Portugal, 7-8 September 2023.
- [348] A Akhavan-Safar, P Morais, R J C Carbas, E A S Marques, B Karunamurthy, Lucas F M da Silva, 'Investigating mode I fracture behavior and fatigue crack growth in bi-material interfaces to enhance the semiconductor reliability', *2nd International Conference on Machine Design MD2023*, Porto, Portugal, 7-8 de Setembro de 2023.

- [349] D S Correia, E A S Marques, R J C Carbas, Lucas F M da Silva, 'Development of a unified specimen for adhesive characterisation: Numerical and experimental study on the mode I and II fracture components', *3rd International Conference on Advanced Joining Processes AJP2023*, Braga, Portugal, 19-20 October 2023.
- [350] R J F de Sousa, P N Gomes, D S Correia, E A S Marques, R J C Carbas, P J C das Neves, W P Afonso, Lucas F M da Silva, 'A novel adhesive bonding process for the next generation of wood milling tools', *3rd International Conference on Advanced Joining Processes AJP2023*, Braga, Portugal, 19-20 October 2023.
- [351] R Beygi, A A Talkhabi, M Z Mehrizi, E A S Marques, R J C Carbas, Lucas F M da Silva, 'A novel lap-butt joint design for FSW of aluminum to steel in tee-configuration: Joining mechanism, intermetallic formation, and fracture behaviour', *3rd International Conference on Advanced Joining Processes AJP2023*, Braga, Portugal, 19-20 October 2023.
- [352] R Beygi, R J C Carbas, E A S Marques, A Q Barbosa, Lucas F M da Silva, 'Modification of Al-Fe intermetallic structure with Cr and Ni and a tremendous enhancement of the joint strength: A comprehensive characterization', *3rd International Conference on Advanced Joining Processes AJP2023*, Braga, Portugal, 19-20 October 2023.
- [353] C S P Borges, J D P Sousa, E A S Marques, R J C Carbas, D Chaleix, F Gilbert, J Pirat, F Laffineur, L Rachiele, Lucas F M da Silva, 'Effect of different interfaces on the water uptake of Zn coated high strength steel/epoxy adhesive joints', *3rd International Conference on Advanced Joining Processes AJP2023*, Braga, Portugal, 19-20 October 2023.
- [354] C S P Borges, E A S Marques, R J C Carbas, A Akhavan-Safar, C Ueffing, P Weissgraeber, Lucas F M da Silva, 'Testing method to determine the strength and fracture toughness of adhesives in a single continuous test' *3rd International Conference on Advanced Joining Processes AJP2023*, Braga, Portugal, 19-20 October 2023.
- [355] A Q Barbosa, E Meiß, A Almeida, T Avelino, F Mañas, A Toledo, M Uran, M Tonnhofer, E A S Marques, R J C Carbas, Lucas F M da Silva, 'Building up the knowledge of the adhesive bonding personnel - Knowbond project', *3rd International Conference on Advanced Joining Processes AJP2023*, Braga, Portugal, 19-20 October 2023.
- [356] E Meiß, A Almeida, A Q Barbosa, T Avelino, F Mañas, A Toledo, M Uran, M Tonnhofer, E A S Marques, R J C Carbas, Lucas F M da Silva, 'Update of the European Adhesive Bonder Curricula - Knowbond project', *3rd International Conference on Advanced Joining Processes AJP2023*, Braga, Portugal, 19-20 October 2023.
- [357] T Avelino, A Q Barbosa, A Almeida, E Meiß, F Mañas, A Toledo, M Uran, M Tonnhofer, E A S Marques, R J C Carbas, Lucas F M da Silva, 'Learning in updated European Adhesive Bonder curricula – Tools for flexible learning', *3rd International Conference on Advanced Joining Processes AJP2023*, Braga, Portugal, 19-20 October 2023.
- [358] M Azizi, A Jabbari, E Soury, S Dehghan, R Beygi, Lucas F M da Silva, 'The effect of preheating temperature on joint improvement in friction drilling of dissimilar sheet metals (AA6061/AISI304L)', *3rd International Conference on Advanced Joining Processes AJP2023*, Braga, Portugal, 19-20 October 2023.

- [359] M Fallahi, M Jabbari, R Beygi, Lucas F M da Silva, 'Study on formability of similar and dissimilar FSW joints of AA2024 and AA7075 aluminum sheets during biaxial tension', *3rd International Conference on Advanced Joining Processes AJP2023*, Braga, Portugal, 19-20 October 2023.
- [360] E A S Marques, C S P Borges, P D P Nunes, B D Simões, A Akhavan-Safar, R J C Carbas, Lucas F M da Silva, 'Structural adhesive joints for high performance applications - A design and testing approach', *3rd International Conference on Advanced Joining Processes AJP2023*, Braga, Portugal, 19-20 October 2023.
- [361] E A S Marques, L P F Garrido, C S P Borges, S Jalali, R J C Carbas, Lucas F M da Silva, 'The role of adhesive bonding in the sustainable design of vehicle structures', *3rd International Conference on Advanced Joining Processes AJP2023*, Braga, Portugal, 19-20 October 2023.
- [362] B D Simões, E A S Marques, R J C Carbas, S Maul, P Stihler, P Weißgraeber, Lucas F M da Silva, 'The mechanical and fracture properties of PSAs: An experimental study to understand different influencing parameters', *3rd International Conference on Advanced Joining Processes AJP2023*, Braga, Portugal, 19-20 October 2023.
- [363] E M D Fernandes, B D Simões, E A S Marques, R J C Carbas, S Maul, P Stihler, P Weißgraeber, Lucas F M da Silva, 'Designing a cyclic creep testing machine – An apparatus customized to pressure sensitive adhesives', *3rd International Conference on Advanced Joining Processes AJP2023*, Braga, Portugal, 19-20 October 2023.
- [364] J Bidadi, H H Miandowab, A Akhavan-Safar, H S Googarchin, Lucas F M da Silva, 'Experimental and numerical investigation of bending crashworthiness of double-hat sectioned Al-CFRP beam used in the automotive structures', *1st International Conference on Vehicle Body Engineering VBE2023*, Porto, Portugal, 2-3 November 2023.
- [365] A Akhavan-Safar, R J C Carbas, E A S Marques, Lucas F M da Silva, R Goyal, N Carrere, I Maus, Y Takahashi, J Sherwood, 'Assessing the potential of adhesive bonding as an alternative to welding in vehicle body structures: An industrial case study', *1st International Conference on Vehicle Body Engineering VBE2023*, Porto, Portugal, 2-3 November 2023.
- [366] F C Sousa, A Akhavan-Safar, R J C Carbas, E A S Marques, A Q Barbosa, Lucas F M da Silva, 'The influence of environmental conditions on the fatigue resistance of adhesively bonded structures', *1st International Conference on Vehicle Body Engineering VBE2023*, Porto, Portugal, 2-3 November 2023.
- [367] M M Kasaei, A Haran-Nogueira, A Akhavan-Safar, R J C Carbas, E A S Marques, Lucas F M da Silva, 'A novel hybrid joining technology for high-performance joints in vehicle structures', *1st International Conference on Vehicle Body Engineering VBE2023*, Porto, Portugal, 2-3 November 2023.
- [368] M M Kasaei, R J C Carbas, E A S Marques, Lucas F M da Silva, 'Failure analysis of novel hole-hemmed joints in hybrid metal-polymer structures', *1st International Conference on Vehicle Body Engineering VBE2023*, Porto, Portugal, 2-3 November 2023.
- [369] R J C Carbas, V D C Pires, E A S Marques, Lucas F M da Silva, 'The influence of bent adherends on adhesively joints strength performance', *1st International*

- Conference on Vehicle Body Engineering VBE2023*, Porto, Portugal, 2-3 November 2023.
- [370] R J C Carbas, V D C Pires, E A S Marques, Lucas F M da Silva, 'The effect of thermal residual stress on the strength of joints with multi-material laminate composite adherends', *1st International Conference on Vehicle Body Engineering VBE2023*, Porto, Portugal, 2-3 November 2023.
- [371] F Ramezani, R J C Carbas, E A S Marques, A M Ferreira, Lucas F M da Silva, 'The fracture behavior of hybrid CFRP laminates reinforced by thin-ply', *1st International Conference on Vehicle Body Engineering VBE2023*, Porto, Portugal, 2-3 November 2023.
- [372] F Ramezani, R J C Carbas, E A S Marques, Lucas F M da Silva, 'Study of hybrid composite joints with thin-ply reinforced adherends', *1st International Conference on Vehicle Body Engineering VBE2023*, Porto, Portugal, 2-3 November 2023.
- [373] M Ribas, A Akhavan-Safar, R J C Carbas, E A S Marques, S Wenig, Lucas F M da Silva, 'Fracture energy of a polyurethane adhesive in vehicle body applications: investigating the interaction of strain rate, loading mode, and temperature', *1st International Conference on Vehicle Body Engineering VBE2023*, Porto, Portugal, 2-3 November 2023.
- [374] M Ribas, A Akhavan-Safar, R J C Carbas, E A S Marques, S Wenig, Lucas F M da Silva, 'Mixed mode fatigue fracture of polyurethane adhesives at different temperatures', *1st International Conference on Vehicle Body Engineering VBE2023*, Porto, Portugal, 2-3 November 2023.
- [375] E A S Marques, C S P Borges, P D P Nunes, B D Simões, A Akhavan-Safar, R J C Carbas, Lucas F M da Silva, 'Development of advanced design and testing procedures for structural bonded joints for use in high performance vehicle structures', *1st International Conference on Vehicle Body Engineering VBE2023*, Porto, Portugal, 2-3 November 2023.
- [376] L P F Garrido, M Kasaei, E A S Marques, R J C Carbas, Lucas F M da Silva, 'Design and testing of additively manufactured thermoplastic structures for impact absorption applications', *1st International Conference on Vehicle Body Engineering VBE2023*, Porto, Portugal, 2-3 November 2023.
- [377] P Tsokanas, A M S Couto, S Jalali, C S P Borges, R J C Carbas, E A S Marques, Lucas F M da Silva, 'On the mechanical behavior of L- and T-shaped wooden adhesive joints', *1st International Conference on Vehicle Body Engineering VBE2023*, Porto, Portugal, 2-3 November 2023.
- [378] P Tsokanas, A Q Barbosa, R J C Carbas, E A S Marques, Lucas F M da Silva, 'Guidelines for designing modular connections for the maritime industry', *1st International Conference on Vehicle Body Engineering VBE2023*, Porto, Portugal, 2-3 November 2023.
- [379] A F G Tenreiro, A M Lopes, Lucas F M da Silva, 'Electromechanical impedance based damaged metrics for adhesive void detection in bonded joints', *1st International Conference on Vehicle Body Engineering VBE2023*, Porto, Portugal, 2-3 November 2023.
- [380] A F G Tenreiro, A M Lopes, Lucas F M da Silva, 'A survey of electromechanical impedance spectroscopy based structural monitoring of adhesively bonded structures', *1st International Conference on Vehicle Body Engineering VBE2023*, Porto, Portugal, 2-3 de Novembro de 2023.

- [381] G Ramalho, A M Lopes, Lucas F M da Silva, 'Detection of the level of weak adhesion in a single lap joint for structural components in aviation applications', *1st International Conference on Vehicle Body Engineering VBE2023*, Porto, Portugal, 2-3 November 2023.
- [382] G Ramalho, A M Lopes, Lucas F M da Silva, 'Detection of the location of weak adhesion in a single lap joint in aviation applications', *1st International Conference on Vehicle Body Engineering VBE2023*, Porto, Portugal, 2-3 November 2023.
- [383] P Millan, A F G Tenreiro, J Amorim, R Beygi, M Kasaei, Lucas F M da Silva, 'The effect of structural joints in the vibration and damping of joined plates', *1st International Conference on Vehicle Body Engineering VBE2023*, Porto, Portugal, 2-3 November 2023.
- [384] R Beygi, R J C Carbas, E A S Marques, A Q Barbosa, M M Kasaei, Lucas F M da Silva, 'Mechanism of toughness enhancement of brittle fracture by intermittent η -intermetallic in Al/Cu joints made by FSW', *1st International Conference on Vehicle Body Engineering VBE2023*, Porto, Portugal, 2-3 November 2023.
- [385] R Beygi, R J C Carbas, E A S Marques, Lucas F M da Silva, 'Trends on joining of aluminium-steel in various joint geometries', *1st International Conference on Vehicle Body Engineering VBE2023*, Porto, Portugal, 2-3 November 2023.
- [386] A Q Barbosa, E Meiß, A Almeida, T Avelino, F Mañas, M Uran, M Tonnhofer, E A S Marques, R J C Carbas, Lucas F M da Silva, 'Enhancing adhesive bonding personnel's expertise: European Adhesive Bonder', *XXII Congreso de Adhesión y Adhesivos*, Málaga, Spain, 15-17 November 2023.

2.2. National

- [1] J B Marques, A Q Barbosa, Lucas F M da Silva, 'Manufacturing functionally graded joints: An overview', *3º Congresso Doutoral Engenharia DCE 2019*, Porto, Portugal, 27-28 June 2019.
- [2] P Nunes, C Borges, E Marques, R Carbas, A Akhavan-Safar, Lucas F M da Silva, 'An apparatus for fracture envelope determination of adhesives under impact loads', *3º Congresso Doutoral Engenharia DCE 2019*, Porto, Portugal, 27-28 June 2019.
- [3] A F G Tenreiro, A M Lopes, Lucas F M da Silva, 'A review of structural health monitoring of bonded structures using electromechanical impedance spectroscopy', *4º Congresso Doutoral Engenharia DCE 2021*, Porto, Portugal, 28-29 June 2021.
- [4] C S P Borges, A Akhavan-Safar, E A S Marques, R J C Carbas, C Ueffing, P Weissgraeber, Lucas F M da Silva, 'Effect of water ingress on the mechanical and chemical properties of polybutylene terephthalate reinforced with glass fibers', *4º Congresso Doutoral Engenharia DCE 2021*, Porto, Portugal, 28-29 June 2021.
- [5] F C Sousa, A Akhavan-Safar, Lucas F M da Silva, 'Overloading effect on the tensile fatigue behaviour of a ductile adhesive', *4º Congresso Doutoral Engenharia DCE 2021*, Porto, Portugal, 28-29 June 2021.
- [6] C S P Borges, R Brandão, A Akhavan-Safar, E A S Marques, R J C Carbas, C Ueffing, P Weissgraeber, Lucas F M da Silva, 'Effect of surfactant contamination

- on a silicone adhesive and adhesive joints with aluminum substrates', *5th Meeting of the Young Researchers of LAETA*, Lisboa, Portugal, 5-6 May 2022.
- [7] V D C Pires, R J C Carbas, E A S Marques, Lucas F M da Silva, 'Optimization of dissimilar single-lap joints bonding multimaterial adherends with thermal residual stresses', *16º Encontro de Jovens Investigadores da U.Porto – IJUP23*, Porto, Portugal, 10-12 May 2023.
- [8] V C Rodrigues, E A S Marques, R J C Carbas, M Youngberg, A Dussaud, Lucas F M da Silva, 'Mechanical characterization of a novel silane based polyurethane hybrid flexible adhesive', *16º Encontro de Jovens Investigadores da U.Porto – IJUP23*, Porto, Portugal, 10-12 May 2023.
- [9] D S Correia, I D Costa, B D Simões, E A S Marques, R J C Carbas, Lucas F M da Silva, 'Development of a unified specimen for adhesive characterisation: Numerical and experimental study on the mode I (mDCB) fracture component', *5º Congresso Doutoral de Engenharia DCE 2023*, Porto, Portugal, 15-16 June 2023.
- [10] F Ramezani, R J C Carbas, E A S Marques, Lucas F M da Silva, 'Study of hybrid composite joints with thin-ply reinforced adherends', *5º Congresso Doutoral de Engenharia DCE 2023*, Porto, Portugal, 15-16 June 2023.

3. Patents

- [1] R J C Carbas, Lucas F M da Silva, 'Functionally graded cure by induction heating', Portuguese Patent Provisory Request nº 107189 C, Ref. UPIN PAT. 176/13.
- [2] F J P Chaves, Lucas F M da Silva, M F S F Moura, 'Apparatus and method for characterization of bonded joints mixed-mode I+II fracture', Portuguese Patent Provisory Request nº 107188 B, Ref. UPIN PAT. 180/13.
- [3] D Braga, P Moreira, Lucas F M da Silva, V Infante, 'Estrutura junta soldadura e respetivo método soldadura', Portuguese Patent Provisory Request nº 109561 W, Ref. PPP 54386_16 V.
- [4] A F C Guimarães, J A Gonçalves, R J C Carbas, A M Lopes, C M da Silva, Lucas F M da Silva, 'Torsion machine for adhesive joints', Portuguese Patent Provisory Request nº 109717, Ref. UPIN PAT. NPAT 268/16.
- [5] J Abenojar, A Barbosa, M Martinez, R Carbas, F Lopéz, Lucas F M da Silva, J C del Real, 'Magnetization of cork particles for manufacturing components or composite materials', Spanish Patent Provisory Request nº P201730993, Ref. UPIN PAT. NPAT 286/17.
- [6] Bicafe, Lucas F M da Silva, A Barata da Rocha, R Carbas, E Marques, 'Apparatus to test the adhesion force of product packaging capsules under pressure loads', Portuguese Patent Provisory Request nº 110219, Ref. UPIN PAT. NPAT 294/17.
- [7] A Louçano, A M Lopes, C M da Silva, R Carbas, E Marques, Lucas F M da Silva, 'High performance thermal chamber for material testing', Portuguese Patent Provisory Request nº 110237, Ref. UPIN PAT. NPAT 296/17.
- [8] Lucas F M da Silva, X Shang, E A S Marques, J J M Machado, R J C Carbas, D Jiang, 'Transverse reinforcement of composite materials with high toughness and ductility surface layers', Portuguese Patent Provisory Request nº 20181000046884, Ref. UPIN PAT. 328/18, 6 July 2018.

- [9] A Tenreiro, A M Lopes, C M da Silva, Lucas F M da Silva, 'Split Hopkinson pressure bar setup for tensile and compression testing with pneumatic impact actuator', Portuguese Patent Provisory Request nº 20181000061580, Ref. UPIN PAT. NPAT 334/2018.
- [10] A Q Barbosa, J B Marques, J Abenojar, M A Martinez, Lucas F M da Silva, C Silva, J C del Real, R Carbas, 'Methodology and apparatus to manufacture functionally graded joints using magnetized micro particles', Portuguese Patent Provisory Request nº 20191000036260, Ref. UPIN PAT. NPAT PAT354/2019.
- [11] J Abenojar, A Q Barbosa, M A Martinez, R Carbas, F J V Lopez, Lucas F M da Silva, J C del Real, Method for producing magnetic cork particles, U.S. or International Application No. 16/635,947, 2020.
- [12] C S P Borges, E A S Marques, C Ueffing, P Weißgraeber, L F M da Silva (2022) Test specimen, test device and method for the inspection of material connections and use of the test specimen (German Patent and Trade Mark Office Application No. 102022202551.2).
- [13] D S Correia, E A S Marques, R J C Carbas, A Akhavan-Safar, L F M da Silva, Single loading four-step testing Apparatus for mechanical characterisation of adhesives, Portuguese Patent Provisory Request No. 20221000001041.
- [14] B Simões, L F M da Silva, E A S Marques, E Fernandes, R J C Carbas, S. Maul, P Stihler, P Weißgraeber. Creep testing machine for pressure sensitive adhesives. German Patent and Trade Mark Office Application (Submitted).
- [15] L F M da Silva, E A S Marques, I L J Camacho, A M Lopes, C M da Silva, R J. C Carbas, A F G Tenreiro, J Schweizer, A F G van Herwijnen, J W K Schöttner, M D E Walet, P L Rosendahl, V. Adam, F. Rheinschmidt, P Weißgraeber, Device for testing snow specimens. Portuguese Patent Provisory Request (Submitted)