

Author: Assoc. Prof. Dr. STANCIU Mariana Domnica

Habilitation thesis title: The mechanical behavior of complex lignocellulosic structures of the Helmholtz type

Domain: Mechanical Engineering

PUBLICATIONS LIST

RELEVANT PAPERS

- Stanciu M.D.**, Şova D., Savin A., Iliş N., Gorbacheva Galina, Physical and Mechanical Properties of Ammonia-Treated Black Locust Wood, *Polymers* 2020, 12, 377; (FI= 3.426; SRI=1.9) doi:10.3390/polym12020377, <https://www.mdpi.com/2073-4360/12/2/377>
2. **Stanciu M.D.**, Cosereanu C., Dinulica F., Bucur V., Effect of wood species on vibration modes of violins plates. *Eur. J. Wood Prod.* (2020) vol 78, pp. 785-799. (FI: 1.901/ SRI: 2.524) <https://doi.org/10.1007/s00107-020-01538-5> <https://link.springer.com/article/10.1007/s00107-020-01538-5>
3. **Stanciu M.D.**, Bucur V., Munteanu M.V., Georgescu S.V., Năstac S.M. Moisture induced deformation in the neck of a classical guitar, in *Holzforschung*, 2019, Vol 73(4):371-379 (FI=2.079, SRI=1.448); <https://www.degruyter.com/document/doi/10.1515/hf-2018-0021/html>
4. **Stanciu M.D.**, Bucur V., Valcea C. S., Savin A., Sturm R., (2018) Oak particles size effects on viscous-elastic properties of wood polyester resin composite submitted to ultraviolet radiation, *Wood Sci Technol* 52 (2): 365-382 (2018) (FI=1,706; SRI=2,454) <https://link.springer.com/article/10.1007/s00226-017-0971-0>
5. **Stanciu, M.D.**; Mihălcică, M.; Dinulică, F.; Nauncef, A.M.; Purdoiu, R.; Lăcătuş, R.; Gliga, G.V. X-ray Imaging and Computed Tomography for the Identification of Geometry and Construction Elements in the Structure of Old Violins. *Materials* 2021, 14, 5926. <https://www.mdpi.com/1996-1944/14/20/5926> (FI=3.623/2020)
6. **Stanciu M.D.**, Teodorescu Draghicescu H., Vlase S, Degradation of Mechanical Properties of Pine Wood Under Symmetric Axial Cyclic Loading Parallel to Grain, *Polymers*, 2020, 12(10), 2176 (FI= 3.426; SRI=1.9) DOI10.3390/polym12102176, WOS:000586968800001, <https://www.mdpi.com/2073-4360/12/10/2176>
7. **Stanciu M.D.**, Teodorescu Draghicescu H., Rosca I.C., Mechanical Properties of GFRPs Exposed to Tensile, Compression and Tensile-Tensile Cyclic Tests, *Polymers*, 2021 13(6), 898 (FI=4.329, SRI=2.037) doi 10.3390/polym13060898, WOS:000651942300001, <https://www.mdpi.com/2073-4360/13/6/898>
8. Dinulica F., **Stanciu M.D.**, Savin A. Correlation between Anatomical Grading and Acoustic-Elastic Properties of Resonant Spruce Wood Used for Musical Instruments, *Forests*, 2021, 12(8), 1122 (FI=2.634, SRI=1.314) doi 10.3390/f12081122, WOS:000689061500001, <https://www.mdpi.com/1999-4907/12/8/1122>
9. Mihalcică M., **Stanciu M.D.**, Năstac S.M., Dinulica F., Nauncef A.M., Roşca I.C., Savin A., Signature Modes of Old and New Violins with Symmetric Anatomical Wood Structure, *Appl. Sci.* 2021, 11(23), 11297 (FI=2.679/2020); <https://doi.org/10.3390/app112311297>
10. Plescan C, **Stanciu M.D.**, Szasz M. The Effect of Internal Pressure on Radial Strain of Steel Pipe Subjected to Monotonic and Cyclic Loading, *Materials* 2019, 12, 2849 (FI=2.972; SRI=1.405), <https://www.mdpi.com/1996-1944/12/18/2849>

PHD THESIS

Title: Research on optimizing the shape and structure of lignocellulosic composite plates subjected to cyclic stress, with applications to musical instruments

Domain: Mechanical Engineering

Scientific Coordinator: Prof. univ. dr. ing. Curtu Ioan

Date and place of public presentation: 18.07.2009, Transilvania University of Brasov, Romania, Faculty of Mechanical Engineering

PATENTS

- 1) CBI A/00560/23.07.2014 (BI RO130753A0): Sound-absorbing and thermal insulation boards obtained from recycled ABS waste in proportion of 90% -100% and process of obtaining, COȘEREANU Camelia, Lica Dumitru, Brenci Lumini a - Maria, Fotin Adriana Curtu Ioan, Stanciu M.D. <http://pub.osim.ro/publication-server/pdf-document?PN=RO130753%20RO%20130753&iDocId=7765&iepoch=.pdf>
- 2) CBI A/00729/27.09.2018 (RO133205A0) Stand and method for rheological testing of guitar structures, Stanciu M.D., Coșereanu C., Cerbu C., Munteanu V., Georgescu S., Vlase S. <http://pub.osim.ro/publication-server/pdf-document?PN=RO133205%20RO%20133205&iDocId=11694&iepoch=.pdf>

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2. **Stanciu M.D.**, Terciu O.M., Curtu I., (2014) Compozite Lignocelulozice – Aplicatii in Industria Automobilelor, Ed. Universitatii Transilvania din Brasov, ISBN 978-606-19-0518-8, DOI: 10.13140/2.1.2368.0323, p. 238
3. Curtu I., **Stanciu M.D.**, Ilias N.T. Epopeea lemnului in cultura si civilizatie – capitol carte, Planeta Pământ – Planeta Vie vol II, Ed. AGIR, Bucuresti, Romania, 2015, ISBN 978-973-720-582-7, 26 pagini (p. 310 – 333) (capitol carte)
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5. **Stanciu M.D.**, Curtu I., (2015) Reologia Lemnului – suport de curs Partea a II-a, Editura Universitatii Transilvania din Brasov, 218p, ISBN: 978-606-19-0351-1 (gen), 978-606-19-0633-8 (Partea a II-a)
6. **Stanciu M.D.**, Curtu I., (2015) Reologia Materialelor de construcții – suport de curs Partea a III-a, Editura Universității Transilvania din Brașov, 200p, ISBN: 978-606-19-0351-1 (gen), 978-606-19-0634-5 (Partea a III-a)
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5. **Stanciu M.D.**, Şova D., Savin A., Iliuş N., Gorbacheva Galina, Physical and Mechanical Properties of Ammonia- Treated Black Locust Wood, *Polymers* 2020, 12, 377; (FI= 3.426; SRI=1.9) doi:10.3390/polym12020377, <https://www.mdpi.com/2073-4360/12/2/377>
6. **Stanciu M.D.**, Teodorescu D. H., Tămaş F., Terciu O.M. Mechanical and Rheological Behaviour of Composites Reinforced with Natural Fibres, *Polymers* 2020, 12 (6), 1402; (FI= 3.164; SRI=1.9) doi:10.3390/polym12061402 <https://www.mdpi.com/2073-4360/12/6/1402>
7. **Stanciu M.D.**, Cosereanu C., Dinulica F., Bucur V., Effect of wood species on vibration modes of violins plates. *Eur. J. Wood Prod.* (2020) vol 78, pp. 785-799. (FI: 1.901/ SRI: 2.524) <https://doi.org/10.1007/s00107-020-01538-5>, <https://link.springer.com/article/10.1007/s00107-020-01538-5>
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9. **Stanciu M.D**, Bucur V., Valcea C. S., Savin A., Sturm R., (2018) *Oak particles size effects on viscous-elastic properties of wood polyester resin composite submitted to ultraviolet radiation*, *Wood Sci Technol* 52 (2): 365-382 (2018) (FI=1,706; SRI=2,454) <https://link.springer.com/article/10.1007/s00226-017-0971-0>
10. **Stanciu, M.D.**; Mihălică, M.; Dinulică, F.; Nauncef, A.M.; Purdoiu, R.; Lăcătuş, R.; Gliga, G.V. X-ray Imaging and Computed Tomography for the Identification of Geometry and Construction Elements in the Structure of Old Violins. *Materials* 2021, 14, 5926. <https://www.mdpi.com/1996-1944/14/20/5926> (FI=3.623/2020)
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19. Gliga V. Gh. **Stanciu MD** Nastac S.M, Campean M., Modal Analysis of Violin Bodies with Back Plates Made of Different Wood Species, *BioResources*, 2020, vol 15(4), pp. 7687 – 7713. https://ojs.cnr.ncsu.edu/index.php/BioRes/article/view/BioRes_15_4_7687_Gliga_Modal_Analysis_Violin_Plates/7967
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PAPERS IN INTERNATIONAL CONFERENCES (selection)

1. **Stanciu M. D.**, Ardeleanu A.F. Teodorescu Draghicescu H, *Reverse engineering ... element analysis of the behaviour of lignocellulosic materials subjected to cyclic stresses*, in Procedia Manufacturing 22 (2018), pp 65-72, 11th International Conference Interdisciplinarity in Engineering, INTER-ENG 2017, 5-6 October 2017, Tirgu Mures, Romania <https://www.sciencedirect.com/science/article/pii/S2351978918303056>
2. **Stanciu MD**, Curtu I, Savin A. *A Finite Element Approach for Inter-Laminar Damage of the Carbon Fiber Reinforced Polymer due to Impact*, in Procedia Engineering 181C (2017) pp. 249-256, doi 10.1016/j.proeng.2017.02.386 <http://www.sciencedirect.com/science/article/pii/S1877705817309694>
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5. **Stanciu M.D.**, Bucur R.F., Teodorescu Draghicescu H., Savin A. *The influence of the rolling direction on the elastic characteristics of the bending samples*, IOP Conf. Series: Materials Science and Engineering 591 (2019) 012032, Modern Technologies in Industrial Engineering VII, (ModTech2019), <https://iopscience.iop.org/article/10.1088/1757-899X/591/1/012032/pdf>
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8. **Stanciu M.D.**, Barsanescu P., Goanta V., Savin A. *Experimental determination of stress and strain states of the guitar's wood structure*, MODTECH INTERNATIONAL CONFERENCE - MODERN TECHNOLOGIES IN INDUSTRIAL ENGINEERING VIII, IOP Conference Series-

- Materials Science and Engineering, 2020, 916, 012113, DOI10.1088/1757-899X/916/1/012113, WOS:000625330000113, <https://iopscience.iop.org/article/10.1088/1757-899X/916/1/012113>
9. **Stanciu M.D.**, Curtu I., Mihalache Daniel: Design of Experimental Test Bench for Determining the Stresses and Strains State of Guitar Neck, in Applied Mechanics and Materials Vol. 658 (2014) pp 219-224, doi:10.4028/ www.scientific.net/AMM.658.219
 10. Savin A, Iftimie N, Nastac S.M., **Stanciu M.D.** *Structural health monitoring of critical zones of small wind turbine blades for domestic users*, IManEE 2019 IOP Conf. Series: Materials Science and Engineering 564 (2019) 012067 IOP Publishing doi:10.1088/1757-899X/564/1/012067 (<https://iopscience.iop.org/article/10.1088/1757-899X/564/1/012067>)
 11. Faktorová D., Savin A, Steigmann R, **Stanciu M D**, Špániková G, *Numerical and experimental investigation of metamaterial structures used in non-destructive dielectric material testing*, IOP Conf. Series: Materials Science and Engineering 564 (2019) 012036 IOP Publishing doi:10.1088/1757-899X/564/1/012036 (<https://iopscience.iop.org/issue/1757-899X/564/1>)
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 13. Curtu I., **Stanciu M.D.**, Ciofoaia V., Timar J., Grimberg R., Itu C., *Dynamical Behaviour Of Woven Composite Materials Used To Attenuate The Noise Level*, In Proceedings Of The 16th International Conference The Knowledge Based Organization – Applied Technical Sciences And Advanced Military Technologies, 25-27 November 2010, Sibiu, Issn 1843-6722, Pp. 66 – 70, <https://www-webofscience-com.am.e-nformation.ro/wos/woscc/full-record/WOS:000297596200010>
 14. Munteanu V. M., **Stanciu M.D.**, Vlase S., (2020) Image correlation to predict the gait recovery of patients in the postsurgery period, 13th International Conference Interdisciplinarity in Engineering (INTER-ENG 2019), Procedia Manufacturing, Volume 46, Pages 499-508 (2020) <https://www.sciencedirect.com/science/article/pii/S2351978920309501>
 15. Curtu I., Stanciu M. D., Floroiu M., Coman M.: The wooden churches of Maramures – elements of timber civilization in Romania, in Proceedings of 1o Congresso Ibero-Latino Americano da Madeira na Construção, Coimbra, Portugalia 7 – 9 iunie 2011, ISBN 987-989-96461-2-4, p. 67-69 (Book of Abstract) si pe CD lucrarea in extenso, <https://www.dec.uc.pt/cimad11/en/>

OTHER PAPERS / RELEVANT ACHIEVEMENTS

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