

**A N E X A 4 . 1**

Nume Prenume: **Apostol Dragos-Alexandru**

Gradul didactic: **Şef de Lucrări**

Instituția unde este titular: Universitatea POLITEHNICA din București

Facultatea: Inginerie Industrială și Robotică

Departamentul: Rezistența Materialelor

## **LISTA lucrărilor științifice în domeniul disciplinelor din postul didactic**

### **A. Teza de doctorat**

Titlu: Cercetări privind comportarea și degradarea compozitelor cu spume rigide și semirigide

Conducător doctorat: Prof.dr.ing. CONSTANTINESCU Dan-Mihai

Instituția: Universitatea POLITEHNICA din București

Anul: 2011

### **B. Cărți și capitole în cărți publicate în ultimii 10 ani**

### **C. Lucrări indexate ISI/BDI publicate în ultimii 10 ani**

#### **ISI**

1. Marsavina L., Constantinescu D.M., Linul E., Stuparu F.A., Apostol D.A., Experimental and numerical crack paths in PUR foams, *Engineering Fracture Mechanics*, vol. 167, pp. 68-83, 2016, FI=2,024
2. Stuparu, F.A., Constantinescu, D.M., Apostol, D.A., Sandu, M., A Combined Cohesive Elements-XFEM Approach for Analyzing Crack Propagation in Bonded Joints, *Journal of Adhesion*, vol. 92, pp. 535-552, 2016, FI=1,409
3. Apostol D.A., Stuparu F.A., Constantinescu D.M., Marsavina L., Linul E., Crack Length Influence on Stress Intensity Factors for the Asymmetric Four-point Bending Testing of a Polyurethane Foam, *MaterialePlastice*, vol. 53, no. 2, 280-282, 2016, FI=0,903
4. Apostol D.A., Constantinescu D.M., Stuparu F.A., Characterization and Damage Assessment of Polyurethane Foams Subjected to Compression Testing, *Materiale Plastice*, vol. 53, no. 3, 454-457, 2016, FI=0,903
5. Apostol D.A., Stuparu F.A., Constantinescu D.M., Marsavina L., Linul E., Experimental and XFEM Analysis of Mode II Propagating Crack in a Polyurethane Foam, *Materiale Plastice*, vol. 53, no. 4, 685-688, 2016, FI=0,903
6. Marsavina L., Constantinescu D.M., Linul E., Voiconi T., Apostol D.A., Shear and mode II fracture of PUR foams, *Engineering Failure Analysis*, vol. 58, pp. 465-476, 2015, FI=1,028
7. Marsavina L., Constantinescu D.M., Linul E., Apostol D.A., Voiconi T., Sadowski, T., Refinements of fracture toughness of polyurethane foams, *Engineering Fracture Mechanics*, vol. 129, pp. 54-66 , 2014, FI=1,767
8. Sandu M., Sandu A., Constantinescu D.M., Apostol D.A., Single-strap adhesively bonded joints with square or tapered adherends in tensile test condition, *International Journal of Adhesion and Adhesives*, vol. 44, pp.105-114, 2013, FI=2,216

9. Apostol, D.A., Constantinescu D.M., Temperature and speed of testing influence on the densification and recovery of polyurethane foams, Mechanics of Time-Dependent Materials, vol.17, pp. 111-136, 2013, FI=1,472
10. Constantinescu, D.M., Sandu, M.,Miron, M.C.,Apostol, D.A.,Volceanov, Enikö, Evaluation of the behavior of ceramic tiles under static loading, Proceedings of the Romanian Academy, Series A, Vol. 12, Number 1, pp. 47–54, 2011, FI=0,276
11. Marsavina, L., Linul E., Voiconi T., Constantinescu D.M., Apostol D.A., On the crack path under mixed mode loading on PUR foams, Frattura ed Integrità Strutturale, Number 34, pp387-396, ISSN 1971-8993, <https://doi.org/10.3221/IGF-ESIS.34.43>, 2015
12. Stuparu F.A., Apostol D.A., Constantinescu D.M., Picu C.R.,Sandu M., Sorohan S., Local evaluation of adhesive failure in similar and dissimilar single-lap joints, Engineering Fracture Mechanics, 183, pp 39-52, 2017
13. Constantinescu D.M., Apostol D.A., Picu C.R., Krawczyk K., Sieberer M., Hadar A., Feuchter M., Fabrication of nanocomposites with silica nanoparticles, DAS 2017, 34th Danubia Adria Symposium on Advances in Experimental Mechanics, 19-22 September 2017, Trieste, Italy, Materials Today: Proceedings, 5 , 26727–26732, 2018
14. Constantinescu D.M., Apostol D.A Performance and efficiency of polyurethane foams under the influence of temperature and strain rate variation, Journal of Materials Engineering and Performance,vol 29, pp 3016-3029, 2020
15. ABAZA Bogdan Felician, SPANU Paulina, JUGRAVU BOGDAN ALEXANDRU, APOSTOL Dragos Alexandru, Study on Compressive Properties of Recycling PETs and CANs for Designing a Smart Waste Management Compactor,MATERIALE PLASTICE, Volume: 58, Pages: 64-75, 2021
16. SAVA, R., APOSTOL D.A., CONSTANTINESCU, D.M., Evaluation of the mechanical behavior of 3D printed cellular metamaterials with special geometries, Proceedings of the Romanian Academy Series A - Mathematics Physics Technical Sciences Information Science, vol. 24(1), pp. 63–72, 2023, WOS: 000962391300009, IF=0.3

## ISI PROCEEDINGS

17. Stuparu F.A., Apostol D.A., Constantinescu D.M., Picu C.R., Sandu M., Sorohan Șt., Cohesive and XFEM evaluation of adhesive failure for dissimilar single-lap joints, 21st European Conference on Fracture, ECF21, 20-24 June 2016, Catania, Italy, Procedia Structural Integrity 2, pp. 316-325, 10.1016/j.prostr.2016.06.041, 2016
18. Cosmoiu, D.A. Apostol, R.C. Picu, D.M. Constantinescu, M. Sandu, St. Sorohan, Influence of filler dispersion on the mechanical properties of nanocomposites, Materials Today: Proceedings, 3, 953-958, 2016.
19. Marsavina L, Constantinescu D.M., Linul E., Voiconi T., Apostol D.A., Sadowski T., Evaluation of mixed mode fracture for PUR foams, Procedia Materials Science 3, pp. 1342-1352, 2014
20. Apostol D.A., Constantinescu D.M., Marsavina L., Linul E., Analysis of deformation bands in polyurethane foams, Proceedings of the 14th Symposium on Experimental Stress Analysis and Material Testing, Key Engineering Materials, vol. 601, pp. 250-253, 2014
21. Constantinescu D.M., Sandu M., Marsavina, L., Negru, R., Matei, M.C., Apostol, D.A., Evaluation of interlaminar damage and crack propagation through digital image correlation method, Key Engineering Materials, Trans Tech Publications, ISSN 1013-9826, Vol. 399, pp. 105-112, 2009
22. Constantinescu D.M., Apostol D.A., Picu C.R., Krawczyk K., Sieberer M., Mechanical properties of epoxy nanocomposites reinforced with functionalized silica nanoparticles, 2nd International Conference on Structural Integrity, ICSI 2017, 4-7 September 2017, Funchal, Madeira, Portugal, Procedia Structural Integrity, 5, pp 647-652, 2017

**BDI**

23. Stuparu F.A., Constantinescu D.M., Apostol D.A., Sandu M., SorohanŞt., Combined XFEM-cohesive finite element analyses of single-lap joints, Romanian Journal of Technical Sciences - Applied Mechanics, Vol. 61, No. 1, pp. 41-55, ISSN: 0035-4074, 2016
24. Stuparu F.A., Apostol D.A., Constantinescu D.M., Sandu M., SorohanŞt., Failure analysis of dissimilar single-lap joints, FratturaedIntegritàStrutturale, Vol. 36, pp. 70-78; doi: 10.3221/IGF-ESIS.36.08, ISSN 1971-8993, 2016
25. Apostol D.A., Constantinescu D.M., Marsavina L., Linul E., Particularities of the asymmetric four-point bending testing of polyurethane foams, U.P.B. Sci. Bull., vol. 78, no. 2, pp. 107–119, 2016
26. I. Cosmoiu, D.A. Apostol, D.M. Constantinescu, C.R. Picu, M. Sandu, Advances on the Manufacturing Process of Nanocomposites with MWNT and Nanopowders, Applied Mechanics and Materials, vol. 760, pp. 281–286, 2015
27. D.A. Apostol, D.M. Constantinescu, L. Marşavina, E. Linul, Mixed-mode testing for an asymmetric four-point bending configuration of polyurethane foams, Applied Mechanics and Materials, Vol. 760, pp. 239-244, doi: 10.4028/www.scientific.net/AMM.760.239, 2015
28. D.A. Apostol, D.M. Constantinescu, M. Sandu, A. Sandu, F. Stuparu, Evaluation of shear debonding in double lap joints of sandwich type, Applied Mechanics and Materials, Vol. 760, pp 293-298,doi: 10.4028/www.scientific.net/AMM.760.293, 2015
29. I. Cosmoiu, D.A. Apostol, C.R. Picu, D.M. Constantinescu, M. Sandu, Manufacturing and testing of nanocomposites with carbon nanotubes and nanoparticles, U.P.B. Sci. Bull., vol. 77, no. 7, pp. 107–119, 2015
30. Constantinescu D.M., Picu C.R., Apostol D.A., Cosmoiu I., Sandu M., Investigations on the behaviour of MWNT epoxy nanocomposites: static and toughness testing, Buletinul Universitatii Petrol si Gaze Ploiesti, Seria Tehnica, vol. LXV, pp. 43-48, ISSN 1224-8495, 2013

**D. Lucrări publicate în ultimii 10 ani în reviste și volume de conferințe cu referenți (neindexate) – selecție max. 20 lucrări**

1. I. Cosmoiu, D.A. Apostol, C.R. Picu, D.M. constantinescu, M. Sandu, Influence of filler dispersion on the mechanical properties of nanocomposites, 32nd Danubia-Adria Symposium on Advances in Experimental Mechanics, 22-25 septembrie, Starý Smokovec, Slovakia, pp. 180-181, ISBN [978-80-554-1094-4](#), 2015
2. R.C. Picu, D.M. Constantinescu, D.A. Apostol, I. Cosmoiu, Toughness enhancement in particulate epoxy nanocomposites, 7th International Conference on Fracture of Polymers, Composites and Adhesives, Les Diablerets, Switzerland, 14-18 September, 2014
3. Sandu M., Sandu A., Vladulescu F., Constantinescu D.M., Apostol D.A., Mechanical behaviour of structural sandwich panels with a cellular grid core, 16th International Conference on Experimental Mechanics, July 7-11, 2014, University of Cambridge, UK, 2014
4. Sorohan S., Sandu M., Constantinescu D.M., Sandu A., Apostol D.A., Static response of an anti-tetrachiral sandwich panel, 30th Danubia-Adria Symposium on Advances in Experimental Mechanics, September 25-28, Primosten, Croatia, 2013
5. Picu C.R., Constantinescu D.M., Sandu M., Apostol D.A., Cosmoiu I., Toughness Enhancement in Nanocomposite Thermosets with Application to Carbon-Epoxy System, 13th International Conference on Fracture, June 16–21, 2013, Beijing, China. Keynote lecture.
6. Constantinescu D.M., Sandu M., Sandu A.G., Apostol D.A., Evaluation of Shear Debonding between Foam Cores and Adherends in Double Symmetric Lap Joints, 2nd International Conference on Adhesive Bonding, July 4-5, 2013, Porto, Portugal, 2013

7. Sorohan St., Sandu M., Constantinescu D.M., Sandu A., Apostol D.A., Static response of an anti-tetrachiral sandwich panel, Danubia-Adria Symposium on Advances in Experimental Mechanics, September 25-28, Primosten, Croatia, pp. 37-38, Keynote lecture, ISBN 978-953-7539-17-7, 2013

**E. Brevete obținute în întreaga activitate**

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**Data: 11.09.2024**

**Semnătura:**

A handwritten signature in black ink, appearing to read "Sorohan".