

Informații suplimentare

Principalele publicații

Articole în jurnale cotate ISI

D. A. Șerban, L. Marșavina, and V. V. Silberschmidt, "Behaviour of semi-crystalline thermoplastic polymers: Experimental studies and simulations" *Computational Material Science*, vol. 52, pp. 139–146, 2012. (Impact factor: 1.897)

D. A. Șerban, L. Marșavina, and V. Silberschmidt, "Response of semi-crystalline thermoplastic polymers to dynamic loading: A finite element study" *Computational Material Science*, vol. 64, pp. 116–121, 2012. (Impact factor: 1.897)

D. A. Șerban, G. Weber, L. Marșavina, V. V. Silberschmidt, and W. Hufenbach, "Tensile properties of semi-crystalline thermoplastic polymers: Effects of temperature and strain rates," *Polymer Testing*, no. 32, pp. 413–425, 2013. (Impact factor: 1.816)

D.A. Șerban, E. Linul, T. Voiconi, L. Marșavina, N. Modler, "Numerical evaluation of two-dimensional micromechanical structures of anisotropic cellular materials: case study for polyurethane rigid foams", *Iranian Polymer Journal*, no. 24, pp. 515–529, 2015 (Impact factor: 1.806)

D.A. Șerban, L. Marșavina, N. Modler, "Low-cycle fatigue behaviour of polyamides". *Fatigue and Fracture of Engineering Materials*, Published online, no. 38, pp 1383-1394, 2015 (Impact factor: 1.561).

D.A. Șerban, O. Weissenborn, S. Geller, L. Marșavina, M. Gude, "Evaluation of the mechanical and morphological properties of long fibre reinforced polyurethane rigid foams", *Polymer Testing* 49, 121–127, 2016 (Impact factor: 2.35).

R. Negru, **D.A. Șerban**, L. Marșavina, A. Magda, "Lifetime prediction in medium-cycle fatigue regime of notched specimens", *Theoretical and Applied Fracture Mechanics* 84, p. 140–148, 2016, (Factor de impact: 2.025), DOI:10.1016/j.tafmec.2016.03.006.

E. Linul, **D.A. Șerban**, L. Marsavina, J. Kovacic,, " Low-cycle fatigue behaviour of ductile closed-cell aluminium alloy foams", *Fatigue and Fracture of Engineering Materials and Structures*, no. 40, pp. 597-604, 2017 (Impact factor: 2.335), doi: 10.1111/ffe.12535

E. Linul, **D.A. Șerban**, L. Marsavina, T. Sadowski, "Assessment of collapse diagrams of rigid polyurethane foams under dynamic loading conditions", *Archives of Civil and Mechanical Engineering* no. 17, pp. 457 – 466, 2017, 10.1016/j.acme.2016.12.009

L. Marșavina, F. Berto, R. Negru, **D.A. Șerban**, E. Linul, "An engineering approach to predict mixed mode fracture of PUR foams based on ASED and micromechanical modelling", *Theoretical and Applied Fracture Mechanics*, no. 91, pp. 148-154, 2017, (Impact factor: 2.659), DOI: 10.1016/j.tafmec.2017.06.008

R. Negru, **D.A. Șerban**, C. Pop, L. Marșavina, "Notch effect assessment in a PUR material using a ring shaped specimen", *Theoretical and Applied Fracture Mechanics*, no 97, pp 500-506, 2018 (Impact factor: 2.215), DOI:10.1016/j.tafmec.2018.01.016

E. Linul, **D.A. Șerban**, L. Marșavina, "Influence of Cell Topology on Mode I Fracture Toughness of Cellular Structures", *Physical Mesomechanics*, PHYSICAL MESOMECHANICS, no. 21, pp. 178-186, 2018, (Impact factor: 2.38), DOI: 10.1134/S1029959918020121

D.A. Șerban, L. Marșavina, L. Rusu, R. Negru, "Numerical study of the behavior of magnesium alloy AM50 in tensile and torsional loadings", *Archive of Applied Mechanics*, DOI: <https://doi.org/10.1007/s00419-018-1492-5>

D.A. Șerban, R. Negru, S. Sărăndan, G. Belgiu, L. Marșavina, "Numerical and experimental investigations on the mechanical properties of cellular structures with open Kelvin cells", *Mechanics of Advanced Materials and Structures* (Impact factor: 2.873), DOI: 10.1080/15376494.2019.1669093

D. Buncianu, N. Tessier-Doyen, J. Absi, R. Negru, **D.A. Șerban**, Liviu Marșavina, "Multi-Scale Mechanical Behaviour of a Highly Porous Alumina Based Foam", *Metals and Materials International* (Impact factor: 1.647), DOI: 10.1007/s12540-019-00413-0

D.A. Șerban, R. Negru, H. Filipescu, L. Marșavina, "Investigations on the influence of the triaxial state of stress on the failure of polyurethane rigid foams", *Continuum Mechanics and Thermodynamics* (Impact factor: 2.139. Q2), DOI: 10.1007/s00161-020-00924-x

D.A. Șerban, G. Furtos, L. Marșavina, C. Șoșdean, R. Negru, "Numerical modelling of the mechanical behaviour of wood fibre-reinforced geopolymers", *Continuum Mechanics and Thermodynamics* (Impact factor: 2.139. Q2), DOI: 10.1007/s00161-020-00934-9

Articole ISI Proceedings

D. A. Șerban, H. Hanson, L. Marșavina, and V. Silberschmidt, "Viscoelastic properties of semi-crystalline thermoplastic polymers: dynamic analysis and creep," *Solid State Phenomena*, Vol. 188, no. *Advanced Materials and Structures IV*, pp. 211-218, 2011.

D. A. Șerban, T. Voiconi, L. Marșavina, V. Silberschmidt, „Flexural properties of polyamides: influence of strain rate, friction and moulding-induced anisotropy”, *Key Engineering Materials* Vol. 601, *Proceedings of the 14th Symposium on Experimental Stress Analysis and Material Testing*, pp. 29-32, 2014

E. Linul, **D.A. Șerban**, T. Voiconi, L. Marșavina, T. Sadowski, „Energy – absorption and efficiency diagrams of rigid PUR foams”, *Key Engineering Materials* Vol. 601, *Proceedings of the 14th Symposium on Experimental Stress Analysis and Material Testing*, pp. 246-249, 2014

D.A. Șerban, L. Marșavina, N. Modler, "Finite element modelling of the progressive damage and failure of thermoplastic polymers in puncture impact", *Procedia Engineering*, Volume 109, *Proceedings of the XXIII Italian Group of Fracture Meeting, IGFXXIII 2015*, Pages 97–104.

D.A. Șerban, E. Linul, S. Sărăndan, L. Marșavina, "Development of parametric Kelvin structures with closed cells", *Solid State Phenomena* 254, pp 49-54, *6th International Conference on Advanced Materials and Structures*, 2016.

G. Belgiu, C. Cărăușu, **D.A. Șerban**, C. G. Turc, "Product management of making large pieces through Rapid Prototyping PolyJet® technology", *IOP Conference Series: Materials Science and Engineering* 227, *5th International Conference on Modern Technologies in Industrial Engineering*, 2017.

L. Marșavina, **D.A. Șerban**, C. Pop, R. Negru, "Experimental investigation of failure modes for sandwich beams", *Key Engineering Materials* 754 KEM, *16th International Conference on Fracture and Damage Mechanics* pp 115-118, 2017.

D.A. Șerban, S. Sărăndan, R. Negru, G. Belgiu, L. Marșavina, "A Parametric Study of the Mechanical Properties of Open-Cell Kelvin Structures", *IOP Conference Series: Materials Science and Engineering* 416, *7th International Conference on Advanced Materials and Structures* 2018

D.A. Șerban, N. Tessier-Doyen, J. Absi, L. Marșavina, R. Negru, "Evaluation of the Elastic Properties of Highly Porous Alumina Foams using Finite Element Analysis", *IOP Conference Series: Materials Science and Engineering* 416, *7th International Conference on Advanced Materials and Structures* 2018

E. Linul, K. Korniejenko, **D.A. Șerban**, R. Negru, L. Marșavina, M. Lach, J. Mikula, "Quasi-Static Mechanical Characterization of Lightweight Fly Ash-Based Geopolymer Foams", *IOP Conference Series: Materials Science and Engineering* 416, *7th International Conference on Advanced Materials and Structures* 2018

Complete list of publications of Dr. Dan-Andrei Şerban

A) Publications with peer review process

1) Publications in ISI Journals

1. **D.A. Şerban**, L. Marşavina, and V. V. Silberschmidt, "Behaviour of semi-crystalline thermoplastic polymers: Experimental studies and simulations" **Computational Material Science**, vol. 52, pp. 139–146, 2012. (Impact factor: 1.878 Q2), DOI: 10.1016/j.commatsci.2011.02.042;
2. **D.A. Şerban**, L. Marşavina, and V. Silberschmidt, "Response of semi-crystalline thermoplastic polymers to dynamic loading: A finite element study" **Computational Material Science**, vol. 64, pp. 116–121, 2012. (Impact factor: 1.878 Q2); DOI: 10.1016/j.commatsci.2012.05.072
3. **D.A. Şerban**, G. Weber, L. Marşavina, V. V. Silberschmidt, and W. Hufenbach, "Tensile properties of semi-crystalline thermoplastic polymers: Effects of temperature and strain rates," **Polymer Testing**, no. 32, pp. 413–425, 2013. (Impact factor: 1.816 Q1); DOI: 10.1016/j.polymertesting.2012.12.002
4. **D.A. Şerban**, E. Linul, T. Voiconi, L. Marşavina, N. Modler, "Numerical evaluation of two-dimensional micromechanical structures of anisotropic cellular materials: case study for polyurethane rigid foams", **Iranian Polymer Journal**, no. 24, pp. 515–529, 2015 (Impact factor: 1.806 Q3); DOI: 10.1007/s13726-015-0342-3
5. **D.A. Şerban**, L. Marşavina, N. Modler, "Low-cycle fatigue behaviour of polyamides", **Fatigue and Fracture of Engineering Materials**, no. 38, Issue 11, pp. 1383–1394, 2015 (Impact factor: 1.561 Q2); DOI: 10.1111/ffe.12333
6. **D.A. Şerban**, T. Voiconi, E. Linul, L. Marşavina, N. Modler, "Viscoelastic Properties of PUR Foams: Impact excitation and dynamic mechanical analysis", **Materiale Plastice**, no. 52, Issue 4, pp. 537–541, 2015 (Impact factor: 0.903);
7. **D.A. Şerban**, O. Weissenborn, S. Geller, L. Marşavina, M. Gude, "Evaluation of the mechanical and morphological properties of long fibre reinforced polyurethane rigid foams", **Polymer Testing**, no. 49, pp. 121–127, 2016. (Impact factor: 2.464 Q1). DOI: 10.1016/j.polymertesting.2015.11.007.
8. R. Negru, **D.A. Şerban**, L. Marşavina, A. Magda, "Lifetime prediction in medium-cycle fatigue regime of notched specimens", **Theoretical and Applied Fracture Mechanics**, no. 84, PP. 140-148, 2016, (Impact factor: 2.659 Q1), DOI:10.1016/j.tafmec.2016.03.006.
9. E. Linul, **D.A. Şerban**, L. Marsavina, J. Kovacic, "Low-cycle fatigue behaviour of ductile closed-cell aluminium alloy foams", **Fatigue and Fracture of Engineering Materials and Structures**, no. 40, pp. 597-604, 2017 (Impact factor: 2.335 Q1), DOI: 10.1111/ffe.12535
10. E. Linul, **D.A. Şerban**, L. Marsavina, T. Sadowski, "Assessment of collapse diagrams of rigid polyurethane foams under dynamic loading conditions", **Archives of Civil and Mechanical Engineering** no. 17, pp. 457 – 466, 2017 (Impact factor: 2.216 Q1), DOI: 10.1016/j.acme.2016.12.009

11. L. Marşavina, F. Berto, R. Negru, **D.A. Şerban**, E. Linul, "An engineering approach to predict mixed mode fracture of PUR foams based on ASED and micromechanical modelling", **Theoretical and Applied Fracture Mechanics**, no. 91, pp. 148-154, 2017 (Impact factor: 2.659 Q2), DOI: 10.1016/j.tafmec.2017.06.008
12. R. Negru, **D.A. Şerban**, C. Pop, L. Marşavina, "Notch effect assessment in a PUR material using a ring shaped specimen", **Theoretical and Applied Fracture Mechanics**, no 97, pp 500-506, 2018 (Impact factor: 2.215 Q2), DOI:10.1016/j.tafmec.2018.01.016
13. E. Linul, **D.A. Şerban**, L. Marşavina, "Influence of Cell Topology on Mode I Fracture Toughness of Cellular Structures", **Physical Mesomechanics**, PHYSICAL MESOMECHANICS, no. 21, pp. 178-186, 2018 (Impact factor: 2.38 Q1), DOI: 10.1134/S1029959918020121
14. **D.A. Şerban**, L. Marşavina, L. Rusu, R. Negru, "Numerical study of the behavior of magnesium alloy AM50 in tensile and torsional loadings", *Archive of Applied Mechanics*, no 89, pp 911-917, 2019, DOI: 10.1007/s00419-018-1492-5
15. **D.A. Şerban**, R. Negru, S. Sărăndan, G. Belgiu, L. Marşavina, "Numerical and experimental investigations on the mechanical properties of cellular structures with open Kelvin cells", **Mechanics of Advanced Materials and Structures** (Impact factor: 2.873 Q1), DOI: 10.1080/15376494.2019.1669093, accepted for publishing on 14.09.2019
16. D. Buncianu, N. Tessier-Doyen, J. Absi, R. Negru, **D.A. Şerban**, Liviu Marşavina, "Multi-Scale Mechanical Behaviour of a Highly Porous Alumina Based Foam", *Metals and Materials International* (Impact factor: 1.647), DOI: 10.1007/s12540-019-00413-0
17. **D.A. Şerban**, R. Negru, H. Filipescu, L. Marşavina, "Investigations on the influence of the triaxial state of stress on the failure of polyurethane rigid foams", **Continuum Mechanics and Thermodynamics** (Impact factor: 2.139. Q2), DOI: 10.1007/s00161-020-00924-x
18. **D.A. Şerban**, G. Furtos, L. Marşavina, C. Şoşdean, R. Negru, "Numerical modelling of the mechanical behaviour of wood fibre-reinforced geopolymers", **Continuum Mechanics and Thermodynamics** (Impact factor: 2.139. Q2), DOI: 10.1007/s00161-020-00934-9

2) Articles in ISI Proceedings

1. **D.A. Şerban**, H. Hanson, L. Marşavina, and V. Silberschmidt, "Viscoelastic properties of semi-crystalline thermoplastic polymers: dynamic analysis and creep," *Solid State Phenomena*, Vol. 188, no. *Advanced Materials and Structures IV*, pp. 211-218, 2012;
2. **D.A. Şerban**, T. Voiconi, L. Marşavina, V. Silberschmidt, „Flexural properties of polyamides: influence of strain rate, friction and moulding-induced anisotropy”, *Key Engineering Materials Vol. 601, Proceedings of the 14th Symposium on Experimental Stress Analysis and Material Testing*, pp. 29-32, 2014;
3. E. Linul, **D.A. Şerban**, T. Voiconi, L. Marşavina, T. Sadowski, „Energy – absorption and efficiency diagrams of rigid PUR foams”, *Key Engineering Materials Vol. 601, Proceedings of the 14th Symposium on Experimental Stress Analysis and Material Testing*, pp. 246-249, 2014;

4. **D.A. Şerban**, L. Marşavina, N. Modler, "Finite Element Modelling of the Progressive Damage and Failure of Thermoplastic Polymers in Puncture Impact", *Procedia Engineering* Volume 109, Proceedings of the XXIII Conference of the Italian Group of Fracture Meeting, pp. 97–104, 2015.
5. **D.A. Şerban**, E. Linul, S. Sărăndan, L. Marşavina, "Development of parametric Kelvin structures with closed cells", *Solid State Phenomena* 254, pp 49-54, 6th International Conference on Advanced Materials and Structures, 2016.
6. G. Belgiu, C. Cărauşu, **D.A. Şerban**, C. G. Turc, "Product management of making large pieces through Rapid Prototyping PolyJet® technology", *IOP Conference Series: Materials Science and Engineering* 227, 5th International Conference on Modern Technologies in Industrial Engineering, 2017.
7. L. Marşavina, **D.A. Şerban**, C. Pop, R. Negru, "Experimental investigation of failure modes for sandwich beams", *Key Engineering Materials* 754 KEM, 16th International Conference on Fracture and Damage Mechanics pp 115-118, 2017.
8. **D.A. Şerban**, S. Sărăndan, R. Negru, G. Belgiu, L. Marşavina, "A Parametric Study of the Mechanical Properties of Open-Cell Kelvin Structures", *IOP Conference Series: Materials Science and Engineering* 416, 7th International Conference on Advanced Materials and Structures 2018
9. **D.A. Şerban**, N. Tessier-Doyen, J. Absi, L. Marşavina, R. Negru, "Evaluation of the Elastic Properties of Highly Porous Alumina Foams using Finite Element Analysis", *IOP Conference Series: Materials Science and Engineering* 416, 7th International Conference on Advanced Materials and Structures 2018
10. E. Linul, K. Korniejenko, **D.A. Şerban**, R. Negru, L. Marşavina, M. Lach, J. Mikula, "Quasi-Static Mechanical Characterization of Lightweight Fly Ash-Based Geopolymer Foams", *IOP Conference Series: Materials Science and Engineering* 416, 7th International Conference on Advanced Materials and Structures 2018

3) Articles in International Databases Journals

1. **D.A. Şerban**, L. Marşavina, L. Culea, and V. V. Silberschmidt, "Experimental determination of Mullins effect in semi-crystalline thermoplastic polymers," *Acta Technica Napocensis*, 53, 2010;
2. V. Putz, D. Ştef, **D.A. Şerban**, "Contributions regarding the optimization of the technological process procedure of draught bars through the development and usage of computational mathematical models that define the manufacturing simulation", *Volume XIX (IX)*, 2010/2.
3. **D.A. Şerban**, E. Linul, C. Neş, L. Marşavina, "Numerical Modelling of Damage and Failure of Ductile Materials in Finite Element Analysis", *Buletinul Universităţii Petrol - Gaze Ploieşti. Seria Tehnică*, Vol. LXVII, 11-20, 2016/2
4. **D.A. Şerban**, E. Linul, S. Sărăndan, L. Marşavina, "Development of Parametric Kelvin Structures with Closed Cells", *Solid State Phenomena* 245, Proceedings of the Advanced Materials and Structures IV, pp. 49–54, 2016