

Nume Prenume: SPÎNU Sergiu-Gabriel
Gradul didactic: Conferențiar doctor inginer
Instituția unde este titular: Universitatea Ștefan cel Mare din Suceava
Facultatea: Inginerie Mecanică, Autovehicule și Robotică
Departamentul: Mecanică și Tehnologii

L I S T A

lucrărilor științifice în domeniul disciplinelor din postul didactic

A. Teza de doctorat

Contribuții privind rezolvarea problemei contactului normal în domeniul elasto-plastic

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

1. Sergiu Spinu, Delia Cerlinca, 2017, Modelarea și simularea contactului mecanic în domeniul elasto-plastic, Editura MatrixROM București, ISBN 978-606-25-0345-1, 146 pag.
2. Sergiu Spinu, Delia Cerlinca, 2017, Modelarea și simularea contactului mecanic în domeniul elastic, Editura MatrixROM București, ISBN 978-606-25-0327-7, 210 pag.
3. Delia Cerlinca, Sergiu Spinu, 2017, Influența defectelor de suprafață asupra durabilității la oboseala de contact, Editura MatrixROM București, ISBN 978-606-25-0310-9, 280 pag.

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

1. Spinu, S., 2025, INFLUENCE OF THE HARDENING BEHAVIOUR IN THE ELASTIC-PLASTIC CONTACT, International Journal of Modern Manufacturing Technologies, 2025, 17(1), pp. 148–155
2. Spinu, S., 2024, NUMERICAL SIMULATIONS OF ELASTIC-PLASTIC CONTACT CONSIDERING FRICTION, International Journal of Modern Manufacturing Technologies, Volume 16, Issue 1, Pages 141 - 148, indexat Scopus
3. Spinu, S., 2024, RESIDUAL DISPLACEMENT DUE TO ARBITRARY PLASTIC STRAINS, International Journal of Modern Manufacturing Technologies, 16(3), pp. 166–173, indexat Scopus
4. Cerlinca, D., Spinu, S., 2024, AN ENGINEERING MODEL FOR PRESSURE ASSESSMENT IN ROUGH CONTACTS, International Journal of Modern Manufacturing Technologies, 2024, 16(3), pp. 32–39, indexat Scopus
5. Cerlinca, D., Spinu, S., Glovnea, 2023, M., THE ELASTIC CONTACT PROBLEM INVOLVING A BILATERALLY LOADED THIN STRIP, International Journal of Modern Manufacturing Technologies, Volume 15, Issue 1, Pages 44 - 50, indexat Scopus
6. Spinu, S., 2023, FFT-ASSISTED SOLUTION FOR THE EIGENSTRESS PROBLEM IN AN INFINITE ELASTIC MEDIUM, International Journal of Modern Manufacturing Technologies, Volume 15, Issue 1, Pages 141 - 147, indexat Scopus
7. Spinu, S., 2023, FFT-ASSISTED SOLUTION FOR THE EIGENSTRESS PROBLEM IN AN ELASTIC HALF-SPACE, International Journal of Modern Manufacturing Technologies, Volume 15, Issue 3, Pages 173 - 179, indexat Scopus
8. Cerlinca, D., Spinu, S., 2023, SYMMETRICALLY DISTRIBUTED EIGENSTRAINS IN A THIN SHEET OF MATERIAL, International Journal of Modern Manufacturing Technologies, Volume 15, Issue 3 Special Issue, Pages 28 - 35, indexat Scopus
9. Spinu, S., 2022, A NUMERICAL SOLUTION FOR THE ELASTIC SLIDING CONTACT WITH FRICTIONAL HEATING, International Journal of Modern Manufacturing Technologies, Volume 14, Issue 2, Pages 302 - 308, indexat Scopus
10. Spinu, S., 2022, THERMOELASTIC DISPLACEMENT AND TEMPERATURE RISE IN A HALF-SPACE DUE TO A STEADY-STATE HEAT FLUX, International Journal of Modern Manufacturing Technologies, Volume 14, Issue 3, Pages 326 - 332, indexat Scopus
11. Cerlinca, D., Spinu, S., 2022, NUMERICAL SIMULATION OF ELASTIC-PLASTIC CONTACT WITH ISOTROPIC HARDENING, International Journal of Modern Manufacturing Technologies, Volume 14, Issue 2, Pages 294 - 301, indexat Scopus
12. Cerlinca, D., Spinu, S., 2022, THERMOELASTIC DISPLACEMENT DUE TO TRANSIENT SURFACE HEATING, International Journal of Modern Manufacturing Technologies, Volume 14, Issue 3, Pages 319 - 325, indexat Scopus
13. Spinu, S., Numerical simulation of tri-layered materials under contact load, International Journal of Modern Manufacturing Technologies, 2021, 13(3 Special Issue), pp. 164–170, indexat Scopus
14. Spinu, S., FFT-assisted algorithms for 3D line-contact problems, International Journal of Modern Manufacturing Technologies, 2021, 13(2), pp. 124–129, indexat Scopus
15. Cerlinca, D., Spinu, S., A numerical approach to the contact of nominally flat surfaces, International Journal of Modern Manufacturing Technologies, 2021, 13(3 Special issue), pp. 22–28, indexat Scopus
16. Cerlinca, D., Spinu, S., A comparative study of FFT algorithms for convolution calculation in non-periodic elastic contacts, International Journal of Modern Manufacturing Technologies, 2021, 13(2), pp. 7–13, indexat Scopus

17. Spinu, S., 2020, Numerical study on the influence of the coating in the fretting contact, *Tribology in Industry*, 42(1):131-145, DOI: 10.24874/ti.2020.42.01.13
18. Spinu, S., Cerlinca, D., 2020, The Fretting Contact of Coated Bodies. Part I-Contact Parameters, *IOP Conference Series: Materials Science and Engineering*, 724:012026, DOI: 10.1088/1757-899X/724/1/012026
19. Spinu, S., Cerlinca, D., 2020, The Fretting Contact of Coated Bodies. Part II-The Stress State, *IOP Conference Series: Materials Science and Engineering*, 724:012027, DOI: 10.1088/1757-899X/724/1/012027
20. Spinu, S., 2020, NUMERICAL SIMULATION OF THE CONTACT BETWEEN ROUGH AND COATED SURFACES, *Journal of the Balkan Tribological Association*, Vol. 26, No 2, 204–215
21. Spinu, S., 2020, The two-dimensional fretting contact with a bulk stress. Part I – Similar elastic materials, *IOP Conf. Ser.: Mater. Sci. Eng.* 916:012108, <https://doi.org/10.1088/1757-899X/916/1/012108>
22. Spinu, S., 2020, The two-dimensional fretting contact with a bulk stress. Part II – Loading history and dissimilar elastic materials, *IOP Conf. Ser.: Mater. Sci. Eng.* 916:012109, <https://doi.org/10.1088/1757-899X/916/1/012109>
23. D Cerlinca and S Spinu, 2020, Acceleration of numerical solution of elastic contact problems by a dual-grid approach, *IOP Conf. Ser.: Mater. Sci. Eng.* 916:012017, <https://doi.org/10.1088/1757-899X/916/1/012017>
24. D Cerlinca and S Spinu, 2020, The torsional contact of coated bodies, *IOP Conf. Ser.: Mater. Sci. Eng.* 916:012018, <https://doi.org/10.1088/1757-899X/916/1/012018>
25. Spinu, S., 2019, Maximum von mises stress in the sliding contact of coated bodies, *Tribology in Industry*, Vol. 41, No. 2, pp. 242-253, DOI: 10.24874/ti.2019.41.02.10, indexat Scopus
26. Spinu, S.; Cerlinca, D., Musca, I., 2019, The frictional contact of coated bodies. Part I – The sliding contact, *IOP Conference Series: Materials Science and Engineering*, Vol. 591, ID 012069
27. Spinu, S.; Cerlinca, D., Musca, I., 2019, The frictional contact of coated bodies. Part II – The slip-stick contact, *IOP Conference Series: Materials Science and Engineering*, Vol. 591, ID 012070, indexat Scopus
28. Sergiu Spinu, Delia Cerlinca, and Ilie Musca, 2019, FRETGING STRESSES IN THE CONTACT OF COATED BODIES, *Tehnomus Journal* Vol. 26, pp. 37-43
29. Spinu, S., 2018, Numerical Analysis of Elastic Contact between Coated Bodies, *Advances in Tribology*, Volume 2018, Article ID 6498503, 13 pages, <https://doi.org/10.1155/2018/6498503>
30. Spinu, S., 2018, Viscoelastic Contact Simulation under Harmonic Cyclic Load, *Advances in Tribology*, Volume 2018, Article ID 9432894, 16 pages, <https://doi.org/10.1155/2018/9432894>
31. Spinu, S., Cerlinca, D., 2018, Numerical simulation of elastic bilayered contact. Part I – Contact parameters, *IOP Conference Series: Materials Science and Engineering*, Vol. 400, Article ID 042054, <http://iopscience.iop.org/article/10.1088/1757-899X/400/4/042054>
32. Spinu, S., Cerlinca, D., 2018, Numerical Simulation of Elastic Bilayered Contact. Part II – Stress State Analysis, *IOP Conference Series: Materials Science and Engineering*, Vol. 400, Article ID 042055, <http://iopscience.iop.org/article/10.1088/1757-899X/400/4/042055>
33. Spinu, S., 2018, Viscoelastic Contact Modelling: Application to the Finite Length Line Contact, *Tribology in Industry*, accepted paper, published online, DOI: 10.24874/ti.2018.40.04.03, <http://www.tribology.rs/journals/aips/3.pdf>
34. Spinu, S., Cerlinca, D., 2018, The Viscoelastic Contact Between High-Order Polynomial Surfaces, *Tehnomus Journal*, Vol. 25, pp. 15-20, http://www.fim.usv.ro/conf_1/tehnomusjournal/pagini/journal2018/files/02.pdf
35. Spinu, S., Cerlinca, D., 2018, The Normal Contact of Finite Length Coated Cylinders, *Tehnomus Journal*, Vol. 25, pp. 21-26, http://www.fim.usv.ro/conf_1/tehnomusjournal/pagini/journal2018/files/03.pdf
36. Spinu, S., Cerlinca, D., 2017, Numerical simulations of rough contacts between viscoelastic materials, *IOP Conference Series: Materials Science and Engineering*, Vol.227, 012120, 8 pp.
37. Spinu, S., Cerlinca, D., 2017, Prediction of static friction coefficient in rough contacts based on the junction growth theory, *IOP Conference Series: Materials Science and Engineering*, Vol.227, 012119, 8pp.
38. Spinu, S., Cerlinca, D., 2017, Modelling of Rough Contact between Linear Viscoelastic Materials, *Modelling and Simulation in Engineering*, Volume 2017 (2017), Article ID 2521903, 11 pages
39. Spinu, S., Cerlinca, D., 2017, THE SURFACE CONTACT OF VISCOELASTIC MATERIALS. PART I – ALGORITHM OVERVIEW, *Tehnomus Journal*, Vol. 24, p. 258-265, indexed by Ebsco.
40. Spinu, S., Cerlinca, D., 2017, THE SURFACE CONTACT OF VISCOELASTIC MATERIALS. PART II – RESULTS AND DISCUSSIONS, *Tehnomus Journal*, Vol. 24, p. 266-272, indexed by Ebsco.
41. Spinu, S., Cerlinca, D., 2016, A robust algorithm for the contact of viscoelastic materials, *IOP Conference Series: Materials Science and Engineering*, Vol. 145, 042034, 8 pp.
42. Spinu, S., Cerlinca, D., 2016, A numerical solution to the Cattaneo-Mindlin problem for viscoelastic materials, *IOP Conference Series: Materials Science and Engineering*, Vol. 145, 042033, 8 pp.
43. Spinu, S., 2016, Numerical simulation of viscoelastic contacts. Part 2. Viscoelastic indentation analysis, *Journal of the Balkan Tribological Association*, Vol. 22, No. 3A-II, indexed by Scopus.
44. Spinu, S., 2015, NUMERICAL SIMULATION OF VISCOELASTIC CONTACTS. PART 1. ALGORITHM OVERVIEW, *JOURNAL OF THE BALKAN TRIBOLOGICAL ASSOCIATION*, Vol. 21, Issue 2, Pages: 269-280, ISSN 1310-4772.
45. Spinu, S., Gradinaru, D., 2015, An engineering model for yield inception in slip-stick elastic contacts, *IOP Conference Series: Materials Science and Engineering*, Vol. 95, 012038.

46. Spinu, S., Gradinaru, D., 2015, Semi-analytical computation of displacement in linear viscoelastic materials, IOP Conference Series: Materials Science and Engineering, Vol. 95, 012111.

47. Spinu, S., Frunza, G., 2015, The Hysteretic Behaviour of Partial Slip Elastic Contacts Undergoing a Fretting Loop, Journal of Physics: Conference Series, Vol 585, 012007

48. Spinu, S., 2015, Numerical simulation of viscoelastic contacts. Part 1. Algorithm overview, Journal of the Balkan Tribological Association, Vol. 21, Issue 2, Pages: 269-280, ISSN 1310-4772.

Data:

24.09.2025

Semnătura:


Conf.dr.ing. Sergiu SPÎNU