

CĂTĂLIN GALEȘ ' S LIST OF SCIENTIFIC PUBLICATIONS

A. Top 10 relevant papers published after obtaining the PhD degree

1. C. Galeș, A mixture theory for micropolar thermoelastic solids, **Mathematical Problems in Engineering**, Vol. 2007 (2007), Article ID 90672, 21 pages.
2. C. Galeș and S. Chiriță, On spatial behavior in linear viscoelasticity, **Quarterly of Applied Mathematics**, **67** (2009), 707-723.
3. C. Galeș, Some results in micromorphic piezoelectricity, **European Journal of Mechanics-A/Solids**, **31** (2012), 37-46.
4. C. Galeș, Spatial behavior in the electromagnetic theory of microstretch elasticity, **International Journal of Solids and Structures**, **48** (2011), 2755-2763.
5. C. Galeș, Spatial behavior and continuous dependence results in the linear dynamic theory of magnetoelastoelectricity, **Journal of Elasticity**, **108** (2012), 208-223.
6. C. Galeș, A cartographic study of the phase space of the restricted three body problem. Application to the Sun-Jupiter-Asteroid system, **Communications in Nonlinear Science and Numerical Simulation**, **17** (2012), 4721-4730.
7. A. Celletti and C. Galeș, On the dynamics of space debris: 1:1 and 2:1 resonances, **Journal of Nonlinear Science** **24** (2014), 1231-1262.
8. A. Celletti, C. Galeș and G. Pucacco, Bifurcation of lunisolar secular resonances for space debris orbits, **SIAM Journal on Applied Dynamical Systems**, **15** (2016), 1352-1383.
9. A. Celletti, C. Galeș, G. Pucacco and A. Rosengren, Analytical development of the lunisolar disturbing function and the critical inclination secular resonance, **Celestial Mechanics and Dynamical Astronomy**, **127** (2017), 259-283.
10. A. Celletti and C. Galeș, Dynamics of resonances and equilibria of Low Earth Objects, **SIAM Journal on Applied Dynamical Systems**, **17** (2018), 203-235.

B. PhD Thesis

Initial boundary value problems in continuum mechanics. Supervisor: Stan Chiriță. Examiners: Sanda Cleja-Țigoiu (University of Bucarest), Dorin Ieșan (Al.I. Cuza University of Iași), Valeriu Sava (Gh. Asachi Technical University of Iași). Thesis defense: December 19, 2003, at Al.I. Cuza University of Iași.

C. Papers published after December 2003

11. C. Galeș, Waves and vibrations in the theory of swelling porous elastic soils, **European Journal of Mechanics A/Solids**, **23** (2004), 345-357.
12. C. Galeș, Potential method in the linear theory of swelling porous elastic soils, **European Journal of Mechanics A/Solids**, **23** (2004), 957-973.
13. C. Galeș, On the quasi-static boundary value problems in the theory of swelling porous elastic soils, **Multidiscipline Modeling in Materials and Structures**, **2** (2006), 227-246.
14. C. Galeș, On the spatial behavior in the theory of viscoelastic mixtures, **Journal of Thermal Stresses**, **30** (2007), 1-24.
15. S. Chiriță, C. Galeș and I. D. Ghiba, On spatial behavior of the harmonic vibrations in Kelvin-Voigt materials, **Journal of Elasticity**, **93** (2008), 81-92.
16. C. Galeș, Some results in the dynamics of viscoelastic mixtures, **Mathematics and Mechanics of Solids**, **13** (2008), 124-147.
17. C. Galeș, On the asymptotic spatial behaviour in the theory of mixtures of thermoelastic solids, **International Journal of Solids and Structures**, **45** (2008), 2117-2127.
18. S. Chiriță and C. Galeș, A mixture theory for microstretch thermoviscoelastic solids, **Journal of Thermal Stresses**, **31** (2008), 1099-1124.
19. C. Galeș and C. Chiruță, Investigation of asteroid dynamics via numerical methods, **Romanian Astronomical Journal**, **18**, Supplement (2008), 161-175.
20. C. Galeș, On spatial behavior of the harmonic vibrations in thermoviscoelastic mixtures, **Journal of Thermal Stresses**, **32** (2009), 512 – 529.

21. C. Galeş, On the nonlinear theory of micromorphic thermoelastic solids, **Mathematical Problems in Engineering**, Volume 2010 (2010), Article ID 415304, 16 pages.
22. C. Galeş and I.D. Ghiba, On uniqueness and continuous dependence of solutions in viscoelastic mixtures, **Meccanica**, **45** (2010), 901-909.
23. C. Galeş, A spatial decay estimate in thermoviscoelastic composite cylinders, **Analele Stiintifice Univ. Al. I. Cuza Iasi, Matematica**, **LVII** (2011), 111-129.
24. C. Galeş, On spatial behavior of harmonic vibrations in viscoelastic Reissner-Mindlin plates, **International Journal of Solids and Structures**, **48** (2011), 243-248.
25. C. Galeş, On uniqueness and continuous dependence in nonlinear thermoviscoelasticity, **Journal of Thermal Stresses**, **34** (2011), 366-377.
26. C. Galeş, I.D. Ghiba and I. Ignătescu, Asymptotic partition of energy in micromorphic thermopiezoelectricity, **Journal of Thermal Stresses**, **34** (2011), 1241-1249.
27. I.D. Ghiba and C. Galeş, A uniqueness result for the motion of micropolar solid-fluid mixtures in unbounded domain, **Annali dell'Universita di Ferrara**, **57** (2011) 275-286.
28. I.D. Ghiba and C. Galeş, On the fundamental solutions for micropolar fluid-fluid mixtures under steady state vibrations, **Applied Mathematics and Computation**, **219** (2012), 2749-2759.
29. C. Galeş, Structural stability and convergence in piezoelectricity, **SIAM Journal on Applied Mathematics**, **72** (2012), 1856-1868.
30. I.D. Ghiba and C. Galeş, Some qualitative results in the linear theory of micropolar solid-solid mixtures, **Journal of Thermal Stresses**, **36** (2013), 426-445.
31. C. Galeş and N. Baroiu, On the bending of plates in the electromagnetic theory of microstretch elasticity, **ZAMM**, **94** (2014), 55-71.
32. A. Celletti and C. Galeş, Dynamical investigation of minor resonances for space debris, **Celestial Mechanics and Dynamical Astronomy**, **123** (2015), 203-222.
33. A. Celletti and C. Galeş, A study of the main resonances outside the geostationary ring, **Advances in Space Research**, **56** (2015), 388-405.
34. C. Lhotka, A. Celletti and C. Galeş, Poynting-Robertson drag and solar wind in the space debris problem, **Monthly Notices of the Royal Astronomical Society**, **460** (2016), 802-815.
35. A. Celletti, C. Galeş, A study of the lunisolar secular resonance $2d\omega/dt + d\Omega/dt = 0$, **Frontier in Astronomy and Space Sciences - Fundamental Astronomy**, 31 March 2016 | <http://dx.doi.org/10.3389/fspas.2016.00011> (on-line paper)
36. A. Celletti, C. Efthymiopoulos, F. Gachet, C. Galeş and G. Pucacco, Dynamical models and the onset of chaos in space debris, **International Journal of Non-Linear Mechanics**, **90** (2017), 147-163.
37. C Lhotka, C Galeş, Charged dust close to outer mean-motion resonances in the heliosphere **Celestial Mechanics and Dynamical Astronomy**, 131 (2019), 49.

D. Conference Proceedings

38. C. Galeş, On spatial behaviour in viscoelastic mixtures, **Proceedings of the Asian Conference on Mechanics of Functional Materials and Structures**, ACMFMS2008 (2008), 317-320.

E. Preprints

39. H. Burgos-Garcia, A. Celletti, C. Gales, M. Gidea, L. Wai-Ting, Hill four-body problem with oblate tertiary: an application to the Sun-Jupiter-Hektor-Skamandrios system, Preprint 2018 (preprint on arXiv)
40. A. Celletti, C. Gales, C. Lhotka, Resonances in the Earth's space environment, Preprint 2019 (preprint on arXiv)

F. Papers published before December 2003

41. C. Galeş, On Saint-Venant's problem in micropolar viscoelasticity, **Analele Ştiintifice ale Universitatii "Al. I. Cuza" Iaşi**, **46** (2000), 131-148.
42. C. Galeş, Some uniqueness and continuous dependence results in the theory of swelling porous elastic soils, **International Journal of Engineering Science**, **40** (2002), 1211-1231.

43. C. Galeş, On the spatial behavior in the theory of swelling porous elastic soils, **International Journal of Solids and Structures**, **39** (2002), 4151-4165.
44. C. Galeş, On the asymptotic partition of energy in the theory of swelling porous elastic soils, **Archives of Mechanics**, **55** (2003), 91-107.
45. C. Galeş, Spatial decay estimates for solutions describing harmonic vibrations in the theory of swelling porous elastic soils, **Acta Mechanica**, **161** (2003), 151-164.
46. C. Galeş, Existence and uniqueness results in the theory of swelling porous elastic soils, **Analele Ştiinţifice ale Universitatii "Al. I. Cuza" Iaşi**, vol. **49** (2003), 161-174.

G. Book chapters and articles published in encyclopedias

1. C. Galeş, A cartographic study of the phase space of the elliptic restricted three body problem: Application to the Sun-Jupiter-Asteroid system, pp. 83-96, in **Nonlinear and Complex Dynamics. Applications in Physical, Biological and Financial Systems**, J. Machado & D. Baleanu & A. Luo (eds), Springer 2011.
2. C. Galeş, Continuous Dependence Results, vol. 2|C-D, pp. 714-721, In R. Hetnarski (ed.) **Encyclopedia of Thermal Stresses**, Springer, 2014.
3. C. Galeş, Hamilton-Kirchhoff Principle, vol. 5|H-K, pp. 2109-2114, In R. Hetnarski (ed.) **Encyclopedia of Thermal Stresses**, Springer, 2014.
4. C. Galeş, Nonlinear Thermoelastic Model, vol. 7|N-P, pp. 3377-3387, In R. Hetnarski (ed.) **Encyclopedia of Thermal Stresses**, Springer, 2014.
5. C. Galeş, Structural Stability in Linear Thermoelasticity, vol. 8|Q-S, pp. 4688-4694, In R. Hetnarski (ed.) **Encyclopedia of Thermal Stresses**, Springer, 2014.
6. C. Galeş, Uniqueness and Continuous Dependence Results in Nonlinear Thermoviscoelasticity , vol. 11|U-Z, pp. 6303-6311, In R. Hetnarski (ed.) **Encyclopedia of Thermal Stresses**, Springer, 2014.

H. Edited books:

7. Baù G., Celletti A., Galeş C., Gronchi G.F., eds., Satellite Dynamics and Space Missions, **Springer, INDAM Series**, n. 34 (2019).

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