

## Bibliography

### Monographs – monograph chapters

1. D. Zorica, S. M. Cvetičanin, **Transmission line modeling by fractional and topological generalization of the telegrapher's equation**, in A. G. Radwan, F. A. Khanday, L. A. Said (Editors), **Fractional-Order Modeling of Dynamic Systems with Applications in Optimization, Signal Processing, and Control**, Elsevier – Academic Press, 2021, London.
2. T. M. Atanacković, B. Stanković, S. Pilipović, D. Zorica, **Fractional Calculus with Applications in Mechanics: Vibrations and Diffusion Processes**, ISTE - Wiley, 2014, London.
3. T. M. Atanacković, B. Stanković, S. Pilipović, D. Zorica, **Fractional Calculus with Applications in Mechanics: Wave Propagation, Impact and Variational Principles**, ISTE - Wiley, 2014, London.

### Refereed journal papers

#### Wave propagation and viscoelastic materials modelling

1. S. Jelić, D. Zorica, **Wave propagation in three-dimensional fractional viscoelastic infinite solid body**, *Physica D: Nonlinear Phenomena*, 464 (2024) 134185–1–30.
2. S. Jelić, D. Zorica, **Stress and power as a response to harmonic excitation of a fractional anti-Zener and Zener type viscoelastic body**, *Zeitschrift für Angewandte Mathematik und Mechanik*, 104 (2024) e202300968–1–33.
3. S. Jelić, D. Zorica, **Energy balance for fractional anti-Zener and Zener models in terms of relaxation modulus and creep compliance**, *Applied Mathematical Modelling*, 123 (2023) 688–728.
4. S. Jelić, D. Zorica, **Fractionalization of anti-Zener and Zener models via rheological analogy**, *Acta Mechanica*, 234 (2023) 313–354.
5. S. Jelić, D. Zorica, **Fractional Burgers wave equation on a finite domain**, *Chaos, Solitons and Fractals*, 154 (2022) 111632–1–26.
6. D. Zorica, Lj. Oparnica, **Energy dissipation for hereditary and energy conservation for non-local fractional wave equations**, *Philosophical Transactions of the Royal Society A*, 378 (2020) 20190295–1–24.
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8. D. Zorica, **Hereditariness and non-locality in wave propagation modelling**, *Theoretical and Applied Mechanics*, 47 (2020) 19–31.
9. Lj. Oparnica, D. Zorica, A. Okuka, **Fractional Burgers wave equation**, *Acta Mechanica*, 230 (2019) 4321–4340.
10. S. Konjik, Lj. Oparnica, D. Zorica, **Distributed order fractional constitutive stress-strain relation in wave propagation modeling**, *Zeitschrift für Angewandte Mathematik und Physik*, 70 (2019) 51–1–21.
11. G. Hörmann, Lj. Oparnica, D. Zorica, **Solvability and microlocal analysis of the fractional Eringen wave equation**, *Mathematics and Mechanics of Solids*, 23 (2018) 1420–1430.
12. A. Okuka, D. Zorica, **Formulation of thermodynamically consistent fractional Burgers models**, *Acta Mechanica*, 229 (2018) 3557–3570.
13. Y. Bouras, D. Zorica, T. M. Atanacković, Z. Vrcelj, **A non-linear thermo-viscoelastic rheological model based on fractional derivatives for high temperature creep in concrete**, *Applied Mathematical Modelling* 55 (2018) 551–568.
14. D. Zorica, M. Žigić, N. Grahovac, **Viscoelastic body colliding against a rigid wall with and without dry friction effects**, *Applied Mathematical Modelling*, 45 (2017) 365–382.
15. G. Hörmann, Lj. Oparnica, D. Zorica, **Microlocal analysis of fractional wave equations**, *Zeitschrift für Angewandte Mathematik und Mechanik*, 97 (2017) 217–225.
16. T. M. Atanacković, S. Konjik, S. Pilipović, D. Zorica, **Complex order fractional derivatives in viscoelasticity**, *Mechanics of Time-Dependent Materials*, 20 (2016) 175–195.
17. T. M. Atanacković, M. Janev, Lj. Oparnica, S. Pilipović, D. Zorica, **Space-time fractional Zener wave equation**, *Proceedings of the Royal Society A*, 471 (2015) 201406141–1–25.
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20. T. M. Atanacković, S. Pilipović, D. Zorica, **Forced oscillations of a body attached to a viscoelastic rod of fractional derivative type**, *International Journal of Engineering Science*, 64 (2013) 54–65.

21. T. M. Atanacković, S. Konjik, Lj. Oparnica, D. Zorica, **Thermodynamical restrictions and wave propagation for a class of fractional order viscoelastic rods**, *Abstract and Applied Analysis*, 2011 (2011) 975694–1–32.
22. T. M. Atanackovic, S. Pilipovic, D. Zorica, **Distributed-order fractional wave equation on a finite domain. Creep and forced oscillations of a rod**, *Continuum Mechanics and Thermodynamics*, 23 (2011) 305–318.
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#### Heat conduction and diffusion-wave phenomena modelling

26. D. Zorica, S. M. Cvetičanin, **Fractional telegrapher's equation as a consequence of Cattaneo's heat conduction law generalization**, *Theoretical and Applied Mechanics*, 45 (2018) 35–51.
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#### Electrodynamics, transmission lines and electrical circuits modelling

1. D. Zorica, S. Cvetičanin, **Dissipative and generative fractional RLC circuits in the transient regime**, *Applied Mathematics and Computation*, 459 (2023) 128227–1–31.
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3. K. Haška, D. Zorica, S. M. Cvetičanin, **Frequency characteristics of dissipative and generative fractional RLC circuits**, *Circuits, Systems, and Signal Processing*, 41 (2022) 4717–4754.
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6. S. Cvetičanin, D. Zorica, M. Rapačić, **Non-local telegrapher's equation as a transmission line model**, *Applied Mathematics and Computation*, 390 (2021) 125602–1–18.
7. S. Cvetičanin, D. Zorica, M. Rapačić, **Frequency characteristics of two topologies representing fractional order transmission line model**, *Circuits, Systems, and Signal Processing*, 39 (2020) 456–473.
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#### Static and dynamic stability of viscoelastic and non-local rods

9. T. M. Atanacković, Lj. Oparnica, D. Zorica, **Bifurcation analysis of the rotating axially compressed nano-rod with imperfections**, *Zeitschrift für Angewandte Mathematik und Mechanik*, 99 (2019) e201800284–1–20.
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#### **Fractional-order variational principles**

15. T. M. Atanackovic, M. Janev, S. Pilipovic, D. Zorica, **Euler-Lagrange equations for Lagrangians containing complex order fractional derivatives**, *Journal of Optimization Theory and Applications*, 174 (2017) 256–275.
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#### **Application of fractional calculus in medicine**

18. M. (Premović) Cvjetičanin, D. Zorica, V. Krstonosić, M. Hadnadjev, I. Stojanac, B. Ramić, M. Drobac, Lj. Petrović, T. Atanacković, **The influence of temperature on rheological properties of three root canal sealers**, *Materiale Plactice*, 59 (2022) 174–182.
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#### **Miscellaneous topics in fractional calculus**

22. T. M. Atanacković, S. Pilipović, D. Zorica, **Properties of the Caputo-Fabrizio fractional derivative and its distributional settings**, *Fractional Calculus and Applied Analysis*, 21 (2018) 29–44.
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#### *Conference papers and abstracts*

##### **Conference papers**

1. S. Jelić, D. Zorica, **Vibrations of a Viscoelastic Rod Modeled by fractional Burgers constitutive equations**, 9<sup>th</sup> International Congress of the Serbian Society of Mechanics (ICSSM 2023), 5 – 7. VI 2023, Vrnjačka Banja, Serbia.
2. D. Zorica, S. M. Cvetičanin, M. R. Rapaić, **Fractional calculus in modelling hereditariness and nonlocality in transmission lines**, 11<sup>th</sup> International Conference of the Balkan Physical Union (BPU11), 28. VIII – 1. IX 2022, Belgrade, Serbia, DOI: 10.22323/1.427.0169.
3. K. Haška, D. Zorica, S. M. Cvetičanin, **Transient regime of fractional RLC circuit**, in A. Dzielinski, D. Sierociuk, P. Ostalczyk (Editors), *Proceedings of the International Conference on Fractional Differentiation and its Applications (ICFDA'21)*, Lecture Notes in Networks and Systems, Volume 452, Springer Nature, Cham, 2022.
4. D. Zorica, **Hereditariness and non-locality in wave propagation modelling**, 7<sup>th</sup> Congress of the Serbian Society of Mechanics, 24 – 26. VI 2019, Sremski Karlovci, Serbia.
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7. T. Atanackovic, S. Pilipovic, D. Zorica, **Stress relaxation in a viscoelastic rod described by a constitutive equation of distributed-order type**, 4<sup>th</sup> IFAC Workshop "Fractional Differentiation and its Applications" (FDA10), 18 – 20. X 2010, Badajoz, Spain.
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10. D. Zorica, **Forced oscillations of a rod made of viscoelastic material of fractional derivative type**, 2<sup>nd</sup> International Congress of Serbian Society of Mechanics (IConSSM-2009), 1 – 5. VI 2009, Palic, Serbia.
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13. T. Atanackovic, S. Pilipovic, D. Zorica, **Diffusion-Wave Equation With Two Fractional Derivatives**, 1<sup>st</sup> International Congress of Serbian Society of Mechanics (1<sup>st</sup> ICSSM-2007), 10 – 13. IV 2007, Kopaonik, Serbia.

#### Conference abstracts

1. S. Jelić, D. Zorica, **Compressive and shear wave propagation in three-dimensional fractional viscoelastic infinite solid media**, 2<sup>nd</sup> International Conference on Mathematical Modelling in Mechanics and Engineering (ICME 2024), 12 – 14. IX 2024, Mathematical Institute SANU, Belgrade, Serbia.
2. S. Jelić, D. Zorica, **Stored energy and dissipated power for one-dimensional viscoelastic body**, 2<sup>nd</sup> International Conference on Mathematical Modelling in Mechanics and Engineering (ICME 2024), 12 – 14. IX 2024, Mathematical Institute SANU, Belgrade, Serbia.
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