

# Bibliography

## Prof. MARKO ČANAĐIJA, Ph. D.

### October 2024

#### 1. Doctoral Thesis

Čanađija, M.: Numerical analysis of nonlinear isothermal and nonisothermal processes of plastic deformation of metals, Faculty of Engineering, University of Rijeka, Sep. 2002.

#### 2. Master's Thesis

Čanađija, M.: Numerical analysis of the cold rolling process of thin plate workpieces, Faculty of Engineering, University of Rijeka, Sep. 1997.

#### 3. Books

##### 3.1. Monographs

1. Čanađija, M.: [Thermomechanics of Solids and Structures: Physical Mechanisms, Continuum Mechanics, and Applications](#), Elsevier, ISBN 9780128204481, 2023.
2. Brnić, J., Čanađija, M.: Analiza deformabilnih tijela metodom konačnih elemenata (Finite Element Analysis of Solids), Fintrade & Tours, ISBN 978-953-6326-61-7, Rijeka 2009.
3. Čanađija, M., Brnić, J.: Finite strain thermoplasticity: constitutive theory and numerical implementation, PAMM-Centre, ISBN 963 420 866 5, Budapest, Hungary, 2006.

##### 3.2. Book Editor

1. Čanađija, M., Travaš, V., Vukelić, G., Pranjić, I.: Book of Abstracts - My First Conference 2019, ISBN 978-953-6953-50-9, Rijeka, 2019.
2. Jardas, M., Glujić, D., Vukelić, G., Čanađija, M., Travaš, V.: Book of Abstracts - My First Conference 2018, ISBN 9 78-953-165-128-8, Rijeka, 2018.
3. Kvaternik, S., Torbarina, F., Vitali, N., Čanađija, M., Travaš, V., Vukelić, G.: Book of Extended Abstracts - My First Conference 2017, ISBN 978-953-6326-92-1, Rijeka, 2017.
4. Kožar, I., Bičanić, N., Jelenić, G., Čanađija, M.: Proceedings of the 8<sup>th</sup> International Congress of Croatian Society of Mechanics, ISBN 978-953-7539-21-4, Opatija, 2015.
5. Kožar, I., Bičanić, N., Jelenić, G., Čanađija, M.: Book of Abstracts – 8<sup>th</sup> International Congress of Croatian Society of Mechanics, ISBN 978-953-7539-20-7, Opatija, 2015.
6. Čanađija, M.: Zbornik radova Prvoga susreta Hrvatskog društva za mehaniku (*Proceedings of the First Meeting of Croatian Society of Mechanics*), Croatian Society of Mechanics, ISBN 978-953-6236-52-3, Rijeka, 2007.

#### 4. Chapter in Books

1. Čanađija, M.: Thermo-mechanics of Beam-Like Nanostructures, in: Marotti de Sciarra, F., Russo, P. (Eds.), *Experimental Characterization, Predictive Mechanical and Thermal Modeling of Nanostructures and their Polymer Composites*, Elsevier, ISBN 978-0323480611, pp. 179-232, 2018.
2. Čanađija, M., Munjas, N.: A Multiscale Framework for Thermoplasticity, in: Sorić, J., Wriggers, P., Allix, O. (Eds.), *Multiscale Modeling of Heterogeneous Structures*, Springer-Verlag, ISBN 978-3-319-65462-1, pp. 329-345, 2018.
3. Čanađija, M.: Temperature-Dependent Thermoplasticity at Finite Strains, in Hetnarski, R. B. (Ed.), *Encyclopedia of Thermal Stresses*, Springer-Verlag, ISBN: 978-94-007-2738-0, pp. 4813-4826, 2014.
4. Čanađija, M.: Creep Analysis, in Hetnarski, R. B. (Ed.), *Encyclopedia of Thermal Stresses*, Springer-Verlag, ISBN: 978-94-007-2738-0, pp.805-814, 2014.
5. Čanađija, M., Brnić, J.: A contribution to optimization in thermomechanics. Shape and layout problems, in Katalinić, B. (ed.), *DAAAM International Scientific Book 2003*, DAAAM International Vienna, ISBN 3-901509-30-5, Wien, 2003.
6. Brnić, J., Čanađija, M., Turkalj, G.: Finite elastoplasticity in plane strain cold rolling problem, Elso Kuljanić (Ed.), *AMST '02 – Advanced Manufacturing Systems and Technology*, CISM Courses and Lectures No.

437, Springer Verlag, ISBN 3-211-83869-6, Wien, Udine, Italy, pp. 425-437., 2002.

#### 5. Invited Lectures

1. Čanađija, M.: „Introduction to Science“, Università degli Studi di Napoli Federico II, Dipartimento di Strutture per l'Ingegneria e l'Architettura, Naples, Italy, October 23-25, 2024.
2. Čanađija, M.: „Konveksne neuronske mreže i mehanika ugljikovih nanocijevi ili kako do novih metamaterijala“, Prvi simpozij o primjeni umjetne inteligencije u računalnoj mehanici, Croatian Society of Mechanics and Kroatischer Humboldtianer-Klub, October 18, 2024.
3. Čanađija, M.: „Modeliranje mehaničkog ponašanja ugljikovih nanocijevi pomoću integrabilnih konveksnih neuronskih mreža i primjene na nanorešetkaste strukture“, Novi Sad, Serbia, July 19, 2024.
4. Čanađija, M.: „nonNano - završni rezultati“, May 28, 2024.
5. Čanađija, M.: „nonNano - Nelokalni mehanički modeli nanogreda Prijava i provedba – iskustva“, HRZZ Info dan (nonNano – Nonlocal mechanical models of nanobeams. Application and implementation – experiences, Croatian Science Foundation - Info day University of Rijeka, July 6, 2022.
6. Čanađija, M.: „Design errors and finite element analysis – how to find them?“, Civil and Environmental Forensic Engineering – Winter School, Montegrotto Terme (PD), Italy, February 19-23, 2018.
7. Čanađija, M.: „Singlescale and Multiscale Thermoplasticity“, Faculty of Civil Engineering, University of Rijeka, Rijeka, Croatia, December 1, 2017.
8. Čanađija, M.: „Thermomechanics of Solids: Experimental Observations and Numerical Calculations“, Henan Polytechnics University, Jiaozuo, Henan, China, November 11, 2016.
9. Čanađija, M.: „A Multiscale Approach to Thermoplasticity“, Multiscale modelling of heterogenous structures, MUMO 2016, Allix. O., Sorić, J., Wriggers, P. (Eds.), Dubrovnik, September 21-23, 2016.
10. Čanađija, M., Brčić, M.: „Estimation of Mechanical Properties of Carbon Nanotube Nanocomposites by Multiscale Methods“, Computational Multiscale Mechanics School, Bičanić, N., (Ed.), Rijeka, Croatia, September 28, 2015.
11. Čanađija, M.: „Coupling Effects in Thermomechanics“, GKSS Forschungszentrum in der Helmholtz Gemeinschaft, Geesthacht, Germany, April 2009.
12. Čanađija, M., Brnić, J., Brčić, M.: „Application of a contact model in thermoplastic problems“, Pannonian Applied Mathematical Meetings PAMM, Balatonalmadi, Fazekas, F. (Ed.), Hungary, June 1-4. 2006.
13. Čanađija, M.: „Numeričko modeliranje velikih neizotermnih plastičnih deformacija metala“, Faculty of Mechanical Engineering, Slavonski Brod, March 31, 2005.

#### 6. Journal Papers

##### 6.1. Papers indexed in Web of Science Core Collection

1. Zlatić, M., Čanađija, M.: Recovering Mullins damage hyperelastic behaviour with physics augmented neural networks. *Journal of the Mechanics and Physics of Solids*, December 2024, 193, p.105839. ISSN: 0022-5096
2. Zlatić, M., Rocha, F., Stainier, L., Čanađija, M.: [Data-driven methods for computational mechanics: A fair comparison between neural networks based and model-free approaches](#). *Computer Methods in Applied Mechanics and Engineering*, 2024, 431, p.117289.
3. Čanađija, M., Ivić, S.: [Carbon nanotubes as a basis of metamaterials and nanostructures: Crafting via design optimization](#). *Mechanics of Materials* 197 (2024): 105105., ISSN 0167-6636
4. Čanađija, M., Košmerl, V., Zlatić, M., Vrtovšnik, D., Munjas, N.: [A computational framework for nanotrusses: Input convex neural networks approach](#), *European Journal of Mechanics - A/Solids* 103 (2024), 105195, ISSN 0997-7538, (2023: Q1, Rank 22/170, IF 4.4).
5. Nikolić, F., Čanađija, M.: [Machine learning of structure – property relationships: an application to heat generation during plastic deformation](#),

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6. Nikolić, F., Čanadija, M.: [Deep Learning of Temperature-Dependent Stress-Strain Hardening Curves](#), Comptes Rendus Mécanique 351 (2023) 151-170, ISSN 1631-0721, (2023: Q4, Rank 147/170, IF 1.0).
  7. Zlatić, M., Čanadija, M.: [Incompressible rubber thermoelasticity: a neural network approach](#), Computational Mechanics, 71 (2023) 895-916, ISSN: 0178-7675, (2023: Q1, Rank 13/135, IF 3.7).
  8. Barretta, R. \*, Čanadija, M., Luciano, R., Marotti de Sciarra, F. On the mechanics of nanobeams on nano-foundations, International Journal of Engineering Science, 180 (2022), 103747, ISSN 0020-7225 (2022: Q1, Rank 9/90, IF 6.6).
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  11. Nikolić, F., Štajduhar, I., Čanadija, M.: [Casting Defects Detection in Aluminum Alloys Using Deep Learning: a Classification Approach](#), International Journal of Metalcasting, 2022, ISSN 1939-5981, (2022: Q2, Rank 26/79, IF 2.6)
  12. Čanadija, M.: [Deep learning framework for carbon nanotubes: Mechanical properties and modeling strategies](#), Carbon, 2021, 184, 891-901, ISSN 0008-6223, (2021: Q1, Rank 40/345, IF 11.307)
  13. Nikolić, F., Štajduhar, I. \*, Čanadija, M.: [Casting microstructure inspection using computer vision: dendrite spacing in aluminum alloys](#), Metals, 2021, 11(5), 756, ISSN 2075-4701, (2021: Q2, Rank 25/79, IF 2.695)
  14. Barretta, R., Čanadija, M., Marotti de Sciarra, F., Skoblar, A. \*, Žigulić, R.: [Dynamic behavior of nanobeams under axial loads: Integral elasticity modeling and size-dependent eigenfrequencies assessment](#), Mathematical methods in the applied sciences, 2021, p. 1-18, ISSN:1099-1476 (2021: Q1, Rank 29/267, IF 3.007).
  15. Vaccaro, M. S., Pinnola, F. P., de Sciarra, F. M., Čanadija, M., Barretta, R. \* (2021). [Stress-driven two-phase integral elasticity for Timoshenko curved beams](#). Proceedings of the Institution of Mechanical Engineers, Part N: Journal of Nanomaterials, Nanoengineering and Nanosystems, 2021, 235(1-2), p. 52-64, ISSN: 2397-7914.
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  21. Barretta, R. \*, Čanadija, M., Marotti de Sciarra, F.: [Modified Nonlocal Strain Gradient Elasticity for Nano-Rods and Application to Carbon Nanotubes](#), Applied Sciences, 9 (2019) 514 (2019: Q2, Rank 62/154, IF 2.474)
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