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ОСНОВНИ ПОДАЦИ

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Место, држава и датум рођења	Крагујевац, Реп, Србија, 23. 2. 1970.
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Област и ужа специјалност	Машинско инжењерство, биомедицинско инжењерство

ОБРАЗОВАЊЕ

ОСНОВНЕ СТУДИЈЕ	
Година	1994.
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Наслов дипломског рада	Аутоматско генерисање мрежа за методу коначних елемената
Област	Компјутерски прорачуни
ДОКТОРСКЕ СТУДИЈЕ	
Година	1999.
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Институција	Машински факултет, Реп. Србија
Наслов докторске дисертације	Нумеричко решавање спрегнутих проблема деформабилног тела солида и струјања флуида
Област	Компјутерски прорачуни

НАПРЕДОВАЊЕ У ЗВАЊИМА

Година	Звање
1994.	Истраживач сарадник, Машински факултет, Реп. Србија
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I БИБЛИОГРАФИЈА

Списак резултата М11

Истакнута монографија међународног значаја

1. **N Filipovic**, Computational modeling in bioengineering and bioinformatics, Academic Press, no.of pages: 442, ISBN: 978-0-128-19583-3, 2019 (бр. цитата: 1)
2. Rakocevic G., Djukic T., **Filipovic N.**, Milutinovic V.,(Editors) Computational Medicine in Data Mining and Modeling, Springer, br. Str. 376, ISBN 978-1-4614-8784-5, 2013
3. Kojic M, **Filipovic N**, Stojanovic B, Kojic N, Computer Modeling in Bioengineering: Theoretical Background, Examples and Software., John Wiley and Sons, no.of pages: 446, ISBN 978-0-470-75175-6., Chichester, England., 2008 (бр. цитата: 101)

Списак резултата М13

Монографска студија/поглавље у књизи М11 или рад у тематском зборнику водећег међународног значаја

1. Tijana Sustersic, Aleksandra Vulovic, Nemanja Trifunovic, Ivan Milankovic, **Nenad Filipovic**, Face Recognition Using Maxeler DataFlow, Exploring the DataFlow Supercomputing Paradigm, In: Milutinovic V., Kotlar M. (eds) Exploring the DataFlow Supercomputing Paradigm. Computer Communications and Networks. Springer, Cham, pp 171-196, ISBN: 978-3-030-13802-8, 2019
2. Peulic A.S., Milankovic I., Mijailovic N.V., **Filipovic N**, Biomedical Images Processing Using Maxeler DataFlow Engines. In: Milutinovic V., Kotlar M. (eds) Exploring the DataFlow Supercomputing Paradigm. Computer Communications and Networks. Springer, Cham, pp 197-227, ISBN: 978-3-030-13802-8, 2019
3. **Nenad Filipovic**, Computational modeling of atherosclerosis. In: Computational Modeling in Bioengineering and Bioinformatics, Academic Press pp 1-39,ISBN: 978-0-128-19583-3, 2019
4. Dalibor D. Nikolic, **Nenad Filipovic**, Topological and parametric optimization of stent design - numerical methods. In: Computational Modeling in Bioengineering and Bioinformatics, Academic Press pp 69-103,ISBN: 978-0-128-19583-3, 2019
5. Milica Nikolic, **Nenad Filipovic**, Lab-on-a-chip and epithelial lung cells modeling. In: Computational Modeling in Bioengineering and Bioinformatics, Academic Press pp 105-135, ISBN: 978-0-128-19583-3, 2019
6. Igor B. Saveljic, **Nenad Filipovic**, Aortic Dissection: Numerical Modeling, Virtual Surgery. In: Computational Modeling in Bioengineering and Bioinformatics, Academic Press pp 137-178, ISBN: 978-0-128-19583-3, 2019
7. Aleksandra Vulović, **Nenad Filipovic**, The biomechanics of lower human extremities. In: Computational Modeling in Bioengineering and Bioinformatics, Academic Press pp 179-210, ISBN: 978-0-128-19583-3, 2019
8. Tijana Šušteršič, **Nenad Filipovic**, Computational modelling of dry powder inhalers for pulmonary drug delivery. In: Computational Modeling in Bioengineering and Bioinformatics, Academic Press pp 257-288, ISBN: 978-0-128-19583-3
9. Velibor Isailovic, **Nenad Filipovic**, Computer modeling of cochlea mechanics. In: Computational Modeling in Bioengineering and Bioinformatics, Academic Press pp 289-319, ISBN: 978-0-128-19583-3, 2019
10. Tijana Đukić, **Nenad Filipovic**, Numerical modeling of cell separation in microfluidic chips. In: Computational Modeling in Bioengineering and Bioinformatics, Academic Press pp 321-352, ISBN: 978-0-128-19583-3, 2019
11. Smiljana Djorovic, **Nenad Filipovic**, Computational analysis of abdominal aortic aneurysm before and after endovascular aneurysm repair. In: Computational Modeling in Bioengineering and Bioinformatics, Academic Press pp 353-386, ISBN: 978-0-128-19583-3, 2019
12. Radivoje Radakovic, **Nenad Filipovic**, Sports biomechanics. In: Computational Modeling in Bioengineering and Bioinformatics, Academic Press pp 387-418, ISBN: 978-0-128-19583-3, 2019
13. **N. Filipovic**, Modeling the behavior of smart composite materials, Smart Composite Coatings and Membranes, Editor Montemor M. F., Transport, Structural, Enviromental and Energy Applications, pp 61-81, ISBN 978-1-78242-283-9, 2016 (бр. цитата: 1)

Списак резултата М14

Монографска студија/поглавље у књизи М12 или рад у тематском зборнику међународног значаја

1. **Filipovic N.**, Kojic M., Tsuda A., Multiscale Modeling of Thrombosis by Finite Element (FE) and Dissipative Particle Dynamics (DPD) in the Large Arteries, *Advanced Topics in Scattering and Biomedical Engineering*, Editors: Charalambopoulos A., Fotiadis D. I., Polyzos D., World Scientific 2008, pp 269-281, ISBN -13- 978-981-281-484-5, doi [10.1142/9789812814852_0030](https://doi.org/10.1142/9789812814852_0030)

Списак резултата М21а Рад у међународном часопису изузетних вредности и М21 Рад у врхунском међународном часопису

1. Aleksandar Nikolić, Marko Topalović, Vladimir Simić, **Nenad Filipović**. Turbulent finite element model applied for blood flow calculation in arterial bifurcation, *Computer Methods and Programs in Biomedicine*, Volume 209, 106328, ISSN 0169-2607, <https://doi.org/10.1016/j.cmpb.2021.106328>, 2021
2. Danko Z. Milasinovic, Dragan B. Sekulic, Dalibor D. Nikolic, Arso M. Vukicevic, Aleksandar P. Tomic, Uros M. Miladinovic, Dragana S. Paunovic, **Nenad D. Filipovic**. Virtual ABI: A computationally derived ABI index for noninvasive assessment of femoro-popliteal bypass surgery outcome, *Computer Methods and Programs in Biomedicine*, Volume 208, 106242, ISSN 0169-2607, <https://doi.org/10.1016/j.cmpb.2021.106242>, 2021
3. Tim Smole, Bojan Žunkovič, Matej Pičulin, Enja Kokalj, Marko Robnik-Šikonja, Matjaž Kukar, Dimitrios I. Fotiadis, Vasileios C. Pezoulas, Nikolaos S. Tachos, Fausto Barlocco, Francesco Mazzarotto, Dejana Popović, Lars Maier, Lazar Velicki, Guy A. MacGowan, Iacopo Olivotto, **Nenad Filipović**, Djordje G. Jakovljević, Zoran Bosnić. A machine learning-based risk stratification model for ventricular tachycardia and heart failure in hypertrophic cardiomyopathy, *Computers in Biology and Medicine*, Volume 135, 104648, ISSN 0010-4825, <https://doi.org/10.1016/j.combiomed.2021.104648>, 2021 (број цитата: 1)
4. Velibor Isailovic, **Nenad Filipovic**. An algorithm for finding and adding boundary conditions with the aim of solving the contact problem in computational mechanics, *Simulation Modelling Practice and Theory*, Volume 108, 102247, ISSN 1569-190X, <https://doi.org/10.1016/j.simpat.2020.102247>, 2021
5. Tijana Djukic, Igor Saveljic, Gualtiero Pelosi, Oberdan Parodi, **Nenad Filipovic**. A study on the accuracy and efficiency of the improved numerical model for stent implantation using clinical data. *Computer Methods and Programs in Biomedicine*, Volume 207, 106196, ISSN 0169-2607, <https://doi.org/10.1016/j.cmpb.2021.106196>, 2021
6. Vukicevic, A.M., Zelic, K., Milasinovic, D., Sarrami-Foroushani, A., Jovicic, G., Milovanovic, P., Djuric, M., **Filipovic, N.** and Frangi, A.F. OpenMandible: An open-source framework for highly realistic numerical modelling of lower mandible physiology. *Dental Materials*, Volume 37, Issue 4, Pages 612-624, ISSN 0109-5641, <https://doi.org/10.1016/j.dental.2021.01.009>, 2021 (бр. цитата: 1)
7. Arso M. Vukicevic, Milos Radovic, Alen Zabotti, Vera Milic, Alojzija Hocevar, Sara Zandonella Callegher, Orazio De Lucia, Salvatore De Vita, **Nenad Filipovic**. Deep learning segmentation of Primary Sjögren's syndrome affected salivary glands from ultrasonography images. *Computers in Biology and Medicine*, Volume 129, 104154, ISSN 0010-4825, <https://doi.org/10.1016/j.combiomed.2020.104154>, 2021 (број цитата: 1)
8. Edina H. Avdović, Isidora P. Petrović, Milena J. Stevanović, Luciano Saso, Jasmina M. Dimitrić Marković, **Nenad D. Filipović**, Miroslav Ž. Živić, Tijana N. Cvetić Antić, Milan V. Žižić, Nataša V. Todorović, Milena Vukić, Srećko R. Trifunović, and Zoran S. Marković. Synthesis and Biological Screening of New 4-Hydroxycoumarin Derivatives and Their Palladium(II) Complexes. *Oxidative Medicine and Cellular Longevity*, Volume 2021, 8849568, <https://doi.org/10.1155/2021/8849568>, 2021 (бр. цитата: 1)
9. Anđelić, N., Baressi Šegota, S., Lorencin, I., Jurilj, Z., Šušteršič, T., Blagojević, A., Protić, A., Čabov, T., **Filipović, N.** & Car, Z. Estimation of covid-19 epidemiology curve of the united states using genetic programming algorithm. *International Journal of Environmental Research and Public Health*, 18(3), 959, <https://doi.org/10.3390/ijerph18030959>, 2021 (број цитата: 5)
10. Musulin, J., Baressi Šegota, S., Štifanić, D., Lorencin, I., Anđelić, N., Šušteršič, T., Blagojević, A., **Filipović, N.**, Čabov, T. & Markova-Car, E. Application of Artificial Intelligence-Based Regression Methods in the Problem of COVID-19 Spread Prediction: A Systematic Review. *International Journal of Environmental Research and Public Health*, 18(8), 4287, <https://doi.org/10.3390/ijerph18084287>, 2021 (број цитата: 3)

11. Lorencin, I., Baressi Šegota, S., Anđelić, N., Blagojević, A., Šušteršić, T., Protić, A., Arsenijević, M., Čabov, T., **Filipović, N.** & Car, Z. Automatic Evaluation of the Lung Condition of COVID-19 Patients Using X-ray Images and Convolutional Neural Networks. *Journal of Personalized Medicine*, 11(1), 28, <https://doi.org/10.3390/jpm11010028>, 2021 (број цитата: 4)
12. Andreas S Panayides, Amir Amini, **Nenad D Filipovic**, Ashish Sharma, Sotirios A Tsaftaris, Alistair Young, David Foran, Nhan Do, Spyretta Golemati, Tahsin Kurc, Kun Huang, Konstantina S Nikita, Ben P Veasey, Michalis Zervakis, Joel H Saltz, Constantinos S Pattichis, *AI in Medical Imaging Informatics: Current Challenges and Future Directions*, *IEEE Journal of Biomedical and Health Informatics*, Vol.24, No.7, pp 1837 - 1857, ISSN 2168-2194, Doi 10.1109/JBHI.2020.2991043, 2020 (број цитата: 13)
13. DZ Milasinovic, AM Vukicevic, **ND Filipovic**, dfemtoolz: An open-source C++ framework for efficient imposition of material and boundary conditions in finite element biomedical simulations, *Computer Physics Communications*, Vol.249, No.-, pp-, ISSN 0010-4655, Doi 10.1016/j.cpc.2019.106996, 2020 (број цитата: 2)
14. S Karthik, T Djukic, JD Kim, B Zuber, A Makanya, A Odriozola, **N Filipovic**, Publisher Correction: Synergistic interaction of sprouting and intussusceptive angiogenesis during zebrafish caudal vein plexus development *Scientific Reports*, Vol.9, No.-, p.p. 1-1, ISSN 2045-2322, Doi 10.1038/s41598-018-36663-y, 2019 (бр. цитата: 1)
15. M Madzarevic, D Medarevic, A Vulovic, T Sustersic, J Djuris, **N Filipovic** Optimization and Prediction of Ibuprofen Release from 3D DLP Printlets Using Artificial Neural Networks, *Pharmaceutics*, Vol.11, No.10, p.p. 544, ISSN 1999-4923 , Doi 10.3390/pharmaceutics11100544, 2019 (бр. цитата: 17)
16. T Djukic, I Saveljic, **N Filipovic**, Numerical modeling of the motion of otoconia particles in the patient-specific semicircular canal, *Computational Particle Mechanics*, Vol.6, No.4, p.p. 767-780, ISSN 0010-4825, Doi 10.1007/s40571-019-00260-1, 2019 (бр. цитата: 1)
17. AM Vukicevic, V Milic, A Zabotti, A Hocevar, O Di Lucia, G Filippou, **N Filipovic** Radiomics-based assessment of Primary Sjogren's Syndrome from salivary gland ultrasonography images, *IEEE journal of biomedical and health informatics*, Vol.24, No.3, p.p. 835-843, ISSN 2168-2194, Doi 10.1109/JBHI.2019.2923773, 2019 (бр. цитата: 4)
18. B Jeremić, G Ozyigit, P Dubinsky, **N Filipović** Importance of Hpv Positivity in Squamous Cell Head and Neck Cancer. *Turkish Journal of Oncology/Türk Onkoloji Dergisi*, Vol.34, No.3, p.p.-, ISSN 1300-7467, Doi 10.5505/tjo.2019.2079, 2019 (бр. цитата: 2)
19. B Jeremic, Pavol Dubinsky, **N Filipovic**, G Ozyigit, Optimal Administration Frequency of Cisplatin Concurrently With Radical Radiotherapy in the Definitive Treatment of Locally Advanced, Inoperable Squamous Cell Cancer of the Head and Neck. Still Obscured by Clouds? *Turkish Journal of Oncology/Türk Onkoloji Dergisi*, Vol.34, No.2, p.p.133-6, ISSN 1300-7467, Doi 10.5505/tjo.2019.2015, 2019 (бр. цитата: 3)
20. M Kojic, M Milosevic, V Simic, V Geroski, A Ziemys, **N Filipovic**, M Ferrari Smearred multiscale finite element model for electrophysiology and ionic transport in biological tissue, *Computers in biology and medicine*, Vol.108, No.-, p.p.288-304, ISSN 0010-4825, Doi 10.1016/j.compbiomed.2019.03.023, 2019 (бр. цитата: 4)
21. R Miković, B Arsić, Đ Gligorijević, M Gačić, D Petrović, **N Filipović**, The Influence of Social Capital on Knowledge Management Maturity of Nonprofit Organizations—Predictive Modelling Based on a Multilevel Analysis, *IEEE Access*, Vol. 7, No.-, pp 47929-47943, ISSN 2169-3536, Doi: 10.1109/ACCESS.2019.2909812, 2019 (бр. цитата: 6)
22. T Djukic, I Saveljic, G Pelosi, O Parodi, **N Filipovic**, Numerical simulation of stent deployment within patient-specific artery and its validation against clinical data, *Computer methods and programs in biomedicine*, Vol. 175, No.-, pp 121-127, ISSN 0169-2607, Doi: 10.1016/j.cmpb.2019.04.005, 2019 (бр. цитата: 9)
23. Devauchelle-Pensec, A Zabotti, G Carvajal-Alegria, **N Filipovic** Salivary gland ultrasonography in primary Sjögren's syndrome: opportunities and challenges, *Rheumatology*, Doi: doi.org/10.1093/rheumatology/kez079, 2019 (бр. цитата: 1)
24. M Kojic, M Milosevic, V Simic, B Milicevic, V Geroski, S Nizzero, A Ziemys, **N Filipovic**, M Ferrari, Smearred multiscale finite element models for mass transport and electrophysiology coupled to muscle mechanics, *Frontiers in bioengineering and biotechnology*, Vol.7, No.-, pp 381, ISSN 2296-4185, Doi 10.3389/fbioe.2019.00381, 2019
25. R Vulović, M Nikolić, **N Filipović**, Smart platform for the analysis of cupula deformation caused by otoconia presence within SCCs, *Computer methods in biomechanics and biomedical engineering*, Vol.22, No.2, pp 130-

26. P Koullapis, Stavros C Kassinos, J Muela, C Perez-Segarra, J Rigola, Oriol Lehmkuhl, Y Cui, M Sommerfeld, J Elcner, M Jicha, I Saveljic, **N Filipovic**, F Lizal, L Nicolaou, Regional aerosol deposition in the human airways: The SimInhale benchmark case and a critical assessment of in silico methods, *European Journal of Pharmaceutical Sciences*, Vol.113, No.-, pp 77-94, ISSN 0928-0987, Doi 10.1016/j.ejps.2017.09.003, 2018 (бр. цитата: 40)
27. Tijana Djukic, Jun-Dae Kim, Benoît Zuber, Andrew Makanya, Adolfo Odriozola, Ruslan Hlushchuk, **Nenad Filipovic**, Suk Won Jin, Valentin Djonov, Synergistic interaction of sprouting and intussusceptive angiogenesis during zebrafish caudal vein plexus development, *Scientific reports*, Vol.8, No.1, pp 1-15, ISSN 2045-2322, Doi 10.1038/s41598-018-27791-6, 2018 (бр. цитата: 25)
28. Vulović A, Šušteršič T, Cvijić S, Ibrić S, **Filipović N**. Coupled in silico platform: Computational fluid dynamics (CFD) and physiologically-based pharmacokinetic (PBPK) modelling. *Eur J Pharm Sci*. Feb 15;113:171-184. doi: 10.1016/j.ejps.2017.10.022. Epub 2017 Oct 17. PMID: 29054499, 2018 (бр. цитата: 9)
29. Marko Robnik-Šikonja, Miloš Radović, Smiljana Đorović, Bojana Anđelković-Ćirković, **Nenad Filipović**, Modeling ischemia with finite elements and automated machine learning, *Journal of Computational Science*, Vol.29, No.-, pp 99-106, ISSN 1877-7503, Doi 10.1016/j.jocs.2018.09.017, 2018 (бр. цитата: 1)
30. Arso M Vukicevic, Serkan Çimen, Nikola Jagic, Gordana Jovicic, Alejandro F Frangi, **Nenad Filipovic**, Three-dimensional reconstruction and NURBS-based structured meshing of coronary arteries from the conventional X-ray angiography projection images, *Scientific reports*, Vol.8, No.1, pp 1-20, ISSN 2045-2322, Doi 10.1038/s41598-018-19440-9, 2018 (бр. цитата: 10)
31. Milica Nikolic, Tijana Sustersic, **Nenad Filipovic**, In vitro models and on-chip systems: Biomaterial interaction studies with tissues generated using lung epithelial and liver metabolic cell lines, *Frontiers in bioengineering and biotechnology*, Vol.6, No.-, pp 120, ISSN 2296-4185, Doi 10.3389/fbioe.2018.00120, 2018 (бр. цитата: 12)
32. Danijela M Cvetković, Marko N Živanović, Milena G Milutinović, Tijana R Djukić, Miloš D Radović, Aleksandar M Cvetković, **Nenad D Filipović**, Nebojša D Zdravković, Real-time monitoring of cytotoxic effects of electroporation on breast and colon cancer cell lines, *Bioelectrochemistry*, Vol.113, No.-, pp 85-94, ISSN 1567-5394, Doi 10.1016/j.bioelechem.2016.10.005, 2017 (бр. цитата: 8)
33. **Nenad Filipovic**, Igor Saveljic, Vladislav Rac, Olalde Graellsd Beatriz, Goran Bijelic, Computational and experimental model of transdermal iontophoretic drug delivery system, *International Journal of Pharmaceutics*, vol. 533, str. 383-388, doi.org/10.1016/j.ijpharm.2017.05.066, 2017 (бр. цитата: 2)
34. M Radovic, M Ghalwash, **N Filipovic**, Z Obradovic, Minimum redundancy maximum relevance feature selection approach for temporal gene expression data, *BMC bioinformatics*, 18 (9), 1-14, ISSN 1471-2105, Doi 10.1186/s12859-016-1423-9, 2017 (бр. цитата: 106)
35. T. Djukic, **N. Filipovic**, Numerical modeling of the cupular displacement and motion of otoconia particles in a semicircular canal, *Biomechanics and Modeling in Mechanobiology*, vol. 16, issue 5, pp. 1669–1680, (doi: 10.1007/s10237-017-0912-8), 2017 (бр. цитата: 11)
36. Srbslav S Pajic, Svetlana Antic, Arso M Vukicevic, Nenad Djordjevic, Gordana Jovicic, Zivorad Savic, Igor Saveljic, Aleksa Janović, Zoran Pesic, Marija Djuric, **Nenad Filipovic**, Trauma of the frontal region is influenced by the volume of frontal sinuses. A finite element study, *Frontiers in physiology* Vol. 8, pp 493, ISSN 1664-042X, Doi 10.3389/fphys.2017.00493, 2017 (бр. цитата: 8)
37. Branislav Jeremic, Antonio Gomez-Caamano, Pavol Dubinsky, Nikola Cihoric, Frances Casas, **Nenad Filipovic**, Radiation Therapy in Extensive Stage Small Cell Lung Cancer, *Frontiers in oncology*, Vol.7, pp 169, ISSN 2234-943X, Doi 10.3389/fonc.2017.00169, 2017 (бр. цитата: 8)
38. Brönnimann D, Djukic T, Triet R, Dellenbach C, Saveljic I, Rieger M, Rohr S, **Filipovic N**, Djonov V, Pharmacological Modulation of Hemodynamics in Adult Zebrafish In Vivo, *PLoS ONE*, Vol.11, No.3, pp -, ISSN 1932-6203, Doi 10.1371/journal.pone.0150948, 2016 (бр. цитата: 3)
39. Cihoric Nikola Tsikkinis Alexandros **Filipovic Nenad** Jeremic Branislav, Treatment options for isolated locoregional recurrences of nonsmall cell lung cancer after surgery: yes, radiation therapy too!, *European Respiratory Journal*, Vol.48, No.1, pp 276-278, ISSN 0903-1936, Doi 10.1183/13993003.00388-2016, 2016
40. Djukic TR, Karthik S, Saveljic I, Djonov V and **Filipovic N**, Modeling the Behavior of Red Blood Cells within the Caudal Vein Plexus of Zebrafish, *Frontiers in Physiology*, Vol.7, No.455, pp -, ISSN 1664-042, Doi 10.3389/fphys.2016.00455, 2016 (бр. цитата: 4)
41. **Nenad Filipovic**, Kedar Ghimire, Igor Saveljic, Zarko Milosevic, Curzio Ruegg, Computational modeling of shear forces and experimental validation of endothelial cell responses in an orbital well shaker system, *Computer Methods in Biomechanics and Biomedical Engineering*, Vol.19, No.6, pp 581-590, ISSN 1025-5842,

Doi 10.1080/10255842.2015.1051973, 2016 (бр. цитата: 12)

42. Antic Svetlana, Vukicevic Arso M, Milasinovic Marko, Saveljic Igor, Jovicic Gordana R, **Filipovic Nenad D**, Rakocevic Zoran B, Djuric Marija P, Impact of the lower third molar presence and position on the fragility of mandibular angle and condyle: A Three-dimensional finite element study, *Journal of Cranio-Maxillofacial Surgery*, Vol.43, No.6, pp 870-878, ISSN 1010-5182, Doi 10.1016/j.jcms.2015.03.025, 2015 (бр. цитата:23)
43. Cihoric N, **Filipovic N**, Jeremic B, A call for careful interpretation of outcome of nonsurgical approach in clinical stage IIIa non-small cell lung cancer in the National Cancer Database, *The Annals of Thoracic Surgery*, Vol.99, No.3, pp 1111–1112, ISSN 0003-4975, Doi 10.1016/j.athoracsur.2014.11.026, 2015
44. Djukic Tijana R, Topalovic Marko D, **Filipovic Nenad D**, Numerical simulation of isolation of cancer cells in a microfluidic chip, *Journal of Micromechanics and Microengineering*, Vol.25, No.8, pp -, ISSN 0960-1317, Doi 10.1088/0960-1317/25/8/084012, 2015 (бр. цитата: 9)
45. Hetterich Holger, Jaber Ahmad, Gehring Moritz, Curta Adrian, Bamberg Fabian, **Filipovic Nenad D**, Rieber Johannes, Coronary Computed Tomography Angiography Based Assessment of Endothelial Shear Stress and Its Association with Atherosclerotic Plaque Distribution In-Vivo, *Plos One*, Vol.10, No.1, pp -, ISSN 1932-6203, Doi 10.1371/journal.pone.0115408, 2015 (бр. цитата: 23)
46. Jeremic B, **Filipovic N**, Milicic B, Milisavljevic S., Radiation therapy (RT) and chemotherapy (CHT) in stage II non-small cell lung cancer (NSCLC): Clinical entity neglected by radiation oncologists?, *Lung Cancer*, Vol.90, No.3, pp 622–623, ISSN 0169-5002, Doi 10.1016/j.lungcan.2015.09.015, 2015
47. Vukicevic Arso M, Velicki Lazar U, Jovicic Gordana R, Jovicic Nebojsa M, Stojadinovic Miroslav M, **Filipovic Nenad D**, Finite element analysis of uncommonly large renal arteriovenous malformation-Adjacent renal cyst complex, *Computers in Biology and Medicine*, Vol.59, No.-, pp 35–41, ISSN 0010-4825, Doi 10.1016/j.combiomed.2015.01.016, 2015 (бр. цитата: 1)
48. Vukicevic Arso M, Zelic Ksenija, Jovicic Gordana R, Djuric Marija P, **Filipovic Nenad D**, Influence of dental restorations and mastication loadings on dentine fatigue behaviour: Image-based modelling approach, *Journal of Dentistry*, Vol.43, No.5, pp 556-567, ISSN 0300-5712, Doi 10.1016/j.jdent.2015.02.011, 2015 (бр. цитата: 18)
49. Zelic Ksenija, Vukicevic Arso M, Jovicic Gordana R, Aleksandrovic Srbislav M, **Filipovic Nenad D**, Djuric Marija P, Mechanical weakening of devitalized teeth: three-dimensional Finite Element Analysis and prediction of tooth fracture, *International Endodontic Journal*, Vol.48, No.9, pp 850-863, ISSN 1365-2591, Doi 10.1111/iej.12381, 2015 (бр. цитата: 56)
50. AM Cvetkovic, DZ Milasinovic, AS Peulic, NV Mijailovic, **ND Filipovic**, Numerical and experimental analysis of factors leading to suture dehiscence after Billroth II gastric resection, *Computer methods and programs in biomedicine*, Vol.117, No.2, pp 71-79, ISSN 0169-2607, Doi 10.1016/j.cmpb.2014.08.005, 2014 (бр. цитата: 4)
51. Arso M Vukicevic, Gordana R Jovicic, Miroslav M Stojadinovic, Rade I Prelevic, **Nenad D Filipovic**, Evolutionary assembled neural networks for making medical decisions with minimal regret: Application for predicting advanced bladder cancer outcome, *Expert Systems With Applications*, Vol.41, No.18, pp 8092-8100, ISSN 0957-4174, Doi 10.1016/j.eswa.2014.07.006, 2014 (бр. цитата: 10)
52. D Nikolić, M Radović, S Aleksandrić, M Tomašević, **N Filipović**, Prediction of coronary plaque location on arteries having myocardial bridge, using finite element models, *Computer methods and programs in biomedicine*, Vol.117, No.2, pp 137-144, ISSN 0169-2607, Doi 10.1016/j.cmpb.2014.07.012, 2014 (бр. цитата: 9)
53. **Filipovic Nenad D**, Zivic Miroslav, Obradovic Milica, Djukic Tijana, Markovic Zoran S, Rosic Marko, Numerical and experimental LDL transport through arterial wall, *Microfluidics and nanofluidics*, Vol.16, No.3, pp 455-464, ISSN 1613-4982, 2014 (бр. цитата: 10)
54. G Pelosi, D Panetta, F Vozzi, F Viglione, **N Filipovic**, I Saveljic, T Exharcos, P471Site-specific shear stress-plaque severity relations by high axial resolution coronary profiling in an animal model of atherogenesis, *Cardiovascular research*, Vol.103, No.1, pp -, ISSN 0008-6363, 2014
55. Janovic Aleksa, Milovanovic Petar, Saveljic Igor, Nikolic Dalibor, Hahn Michael, Rakocevic Zoran B, **Filipovic Nenad D**, Amling Michael, Busse Bjoern, Djuric Marija P, Microstructural properties of the mid-facial bones in relation to the distribution of occlusal loading, *Bone*, Vol.68, No.1, pp 108-114, ISSN 8756-3282, Doi 10.1016/j.bone.2014.07.032, 2014 (бр. цитата: 10)
56. **N. Filipovic**, T. Djukic, I. Saveljic, P. Milenkovic, G. Jovicic, Marija Djuric, Modeling of liver metastatic disease with applied drug therapy, *Computer Methods and Programs in Biomedicine*, Vol.115, No.3, pp. 162-170, ISSN 0169-2607, Doi 10.1016/j.cmpb.2014.04.013, 2014 (бр. цитата: 6)
57. Vukicevic Arso M, Stepanovic Nemanja M, Jovicic Gordana R, Apostolovic Svetlana R, **Filipovic Nenad D**,

Computer methods for follow-up study of hemodynamic and disease progression in the stented coronary artery by fusing IVUS and X-ray angiography, *MEDICAL & BIOLOGICAL ENGINEERING & COMPUTING*, Vol.52, No.6, pp 539-556, ISSN 0140-0118, Doi 10.1007/s11517-014-1155-9, 2014 (бр. цитата: 15)

58. Dimkic M., Rankovic V., **Filipovic N.**, Stojanovic B., Isailovic V., Pusic M., Modeling of radial well lateral screens using 1D finite elements, *Journal of Hydroinformatics*, Vol.15, No.2, pp 405-415, ISSN 1464-7141, Doi 10.2166/hydro.2012.008, 2013 (бр. цитата: 3)
59. **Filipovic N.**, Teng Z., Radovic M., Saveljic I., Fotiadis D., Parodi O., Computer simulation of three dimensional plaque formation and progression in the carotid artery, *Medical & Biological Engineering & Computing*, Vol.51, No.6, pp 607-616, ISSN -, Doi 10.1007/s11517-012-1031-4, 2013
60. **Filipovic Nenad D**, Gibney Barry C, Kojic Milos R, Nikolic Dalibor, Isailovic Velibor, Ysasi Alexandra, Konerding Moritz A, Mentzer Steven J, Tsuda Akira, Mapping cyclic stretch in the postpneumectomy murine lung, *Journal of Applied Physiology*, Vol.115, No.9, pp 1370-1378, ISSN -, Doi 10.1152/jappphysiol.00635.2013, 2013 (бр. цитата: 7)
61. **N Filipović**, M Stevanović, A Radulović, V Pavlović, D Uskoković, Facile synthesis of poly (ϵ -caprolactone) micro and nanospheres using different types of polyelectrolytes as stabilizers under ambient and elevated temperature, *Composites Part B: Engineering*, Vol.45, No.1, pp 1471-1479, ISSN 1359-8368, 2013
62. **Nenad Filipovic**, Dalibor Nikolic, Igor Saveljic, Zarko Milosevic, Themis Exarchos, Gualtiero Pelosi and Oberdan Parodi, Computer simulation of three-dimensional plaque formation and progression in the coronary artery, *Computers and Fluids*, Vol.88, No.-, pp 826-833, ISSN 0045-7930, Doi 10.1016/j.compfluid.2013.07.006, 2013 (бр. цитата: 9)
63. Sofla Aarash, Cirkovic Bojana, Hsieh Anne, Miklas Jason W, **Filipovic Nenad D**, Radisic Milica, Enrichment of live unlabelled cardiomyocytes from heterogeneous cell populations using manipulation of cell settling velocity by magnetic field, *Biomicrofluidics*, Vol.7, No.1, pp -, ISSN 1932-1058, Doi 10.1063/1.4791649, 2013 (бр. цитата: 16)
64. **Filipovic N.**, Isailovic V., Djukic T., Ferrari M., Kojic M., Multiscale Modeling of Circular and Elliptical Particles in Laminar Shear Flow, *IEEE transactions on biomedical engineering*, Vol.59, No.1, pp 50-53, ISSN 0, Doi 10.1109/TBME.2011.2166264, 2012 (бр. цитата: 15)
65. **N. Filipovic**, M. Rosic, I. Tanaskovic, Z. Milosevic, D. Nikolic, N. Zdravkovic, A. Peulic, D. Fotiadis, O. Parodi, Three-dimensional Numerical Simulation of Plaque Formation and Development in the Arteries, *Information Technology in Biomedicine*, Vol.16, No.2, pp 272-278, ISSN -, 2012 - u 2011 (бр. цитата: 2)
66. O. Parodi, T. Exarchos, P. Marraccini, F. Vozzi, Z. Milosevic, D. Nikolic, A. Sakellarios, P. Siogkas, D. Fotiadis, **N. Filipovic**, Patient-specific prediction of coronary plaque growth from CTA angiography: a multiscale model for plaque formation and progression, *Information Technology in Biomedicine*, Vol.16, No.5, pp 952-956, ISSN -, 2012 (бр. цитата: 25)
67. **Nenad Filipovic**, Member, IEEE, Mirko Rosic, Irena Tanaskovic, Zarko Milosevic, Dalibor Nikolic, Nebojsa Zdravkovic, Aleksandar Peulic, Milos Kojic, Dimitris Fotiadis, Oberdan Parodi, ARTreat project: Three-dimensional Numerical Simulation of Plaque Formation and Development in the Arteries, *IEEE Transactions on Information Technology in BioMedicine*, Vol.16, No.2, pp. 272 - 278, ISSN 1089-7771, Doi 10.1109, 2012 (бр. цитата: 32)
68. Z. Bosnić, P. Vračar, M. Radović, G. Devedžić, **N. Filipović**, and Igor Kononenko, Mining Data from Hemodynamic Simulations for Generating Prediction and Explanation Models, *Transactions on Information Technology in Biomedicine*, Vol.16, No.2, pp 248-254, ISSN 1089-7771, Doi 10.1109/TITB.2011.2164546, 2012 (бр. цитата: 12)
69. Dimitric-Markovic M, Markovic Z, Brdaric T, **Filipovic N**, Comparative spectroscopic and mechanistic study of chelation properties of fisetin with iron in aqueous buffered solutions. Implications on in vitro antioxidant activity, *DALTON TRANSACTIONS*, Vol.40, No.17, pp 4560-4571, ISSN 1477-9226, 2011 (бр. цитата: 18)
70. Dimkic M, Pusic M, Vidovic D, Isailovic V, Majkic B **Filipovic N**, Numerical Model Assessment of Radial-Well Aging, *Journal of Computing in Civil Engineering*, Vol.25, No.1, pp 43-49, ISSN 0887-3801, 2011 (бр. цитата: 9)
71. **Filipovic N**, Isailovic V, Djukic T, Ferrari M, Kojic M, Multi-scale modeling of circular and elliptical particles in laminar shear flow, *IEEE Trans Biomed Eng.*, Vol.59, No.1, pp 50-53 DOI 10.1109/TBME.2011.2166264, PMID: 21878403, ISSN 0018-9294, 2011
72. **Filipovic N.** and H. Schima, Numerical simulation of the flow field within the aortic arch during cardiac assist, *Artificial Organs*, Vol.35, No.4, pp 73-83, ISSN 1525-1594, 2011
73. **Filipovic N.**, M. Ivanovic, D. Krstajic and M. Kojic, Hemodynamic Flow Modeling through an Abdominal Aorta

Aneurysm Using Data Mining Tools, Transactions on Information Technology in Biomedicine, Vol.15, No.2, pp 189-194, ISSN 1089-7771, 2011 (бр. цитата: 18)

74. Lee G, **Filipovic N**, Lin M, Gibney B Simpson D, Konerding M, Tsuda A, Mentzer S, Intravascular Pillars and Pruning in the Extraembryonic Vessels of Chick Embryos, DEVELOPMENTAL DYNAMICS, Vol.240, No.6, pp 1335-1343, ISSN 1058-8388, 2011
75. Markovic Zoran S, Dimitric-Markovic Jasmina M, Milenkovic Dejan, **Filipovic N**, Mechanistic study of the structure-activity relationship for the free radical scavenging activity of baicalein, JOURNAL OF MOLECULAR MODELING, Vol.17, No.10, pp 2575-2584, ISSN 0948-5023, 2011
76. **Filipovic, N.**, M. Kojic, M. Ferrari, Dissipative Particle Dynamics Simulation of Circular and Elliptical Particles Motion in 2D Laminar Shear Flow, Microfluidics and Nanofluidics, Vol.10, No.5, pp 1127-1134, ISSN 1613-4982, 2010 (бр. цитата: 11)
77. Kojic N., A. Huang, E. Chung, M.Ivanovic, **N.Filipovic**, M. Kojic, and D. Tschumperlin, A 3-D model of ligand transport in a deforming extracellular space, Biophysical Journal, Vol.99, No.11, pp 3517-3525, ISSN 0006-3495, 2010 (бр. цитата: 11)
78. Lee G, **Filipovic, N.**, Blood flow shapes intravascular pillar Geometry Optimization of Nitinol Stent Design based on FEA Topology Optimisation in the chick chorioallantoic membrane, Journal of Angiogenesis Research, Vol.11, No.2, pp 1-9, ISSN 2040-2384, 2010 (бр. цитата: 25)
79. **Filipovic, N.**, A. Cvetkovic, V. Isailovic, Z. Matovic, M. Rosic and M. Kojic., Computer simulation of flow and mixing at the duodenal stump after gastric resection, World Journal of Gastroenterology, Vol.15, No.16, pp 1990-1998, ISSN 1007-9327, 2009 (бр. цитата: 6)
80. **Filipovic, N.**, AkiraTsuda, Grace S. Lee, Lino F. Miele, Miao Lin, Moritz A., Konerding, and Steven J. Mentzer, Computational Flow Dynamics in a Geometric Model of Intussusceptive Angiogenesis, Microvascular Research, Vol.78, No.3, pp 286-293, ISSN 0026-2862, 2009 (бр. цитата: 35)
81. **Filipovic, N.**, Vulovic, R., Peulic, A., Radakovic, R., Kosanic, Dj. and Ristic., B., Noninvasive determination of knee cartilage deformation during jumping, Journal of Sports Science and Medicine, Vol.8, No.1, pp 584-590, ISSN 1303-2968, 2009 (бр. цитата: 6)
82. **Filipovic, N.**, Haber, S., Kojic, M., Tsuda, A., Dissipative particle dynamics simulation of flow generated by two rotating concentric cylinders: II. Lateral dissipative and random forces, J. Phys. D: Appl. Phys., Vol.41, No.3, pp 6, ISSN 0022-3727, Doi 10.1088/0022-3727/41/3/035504, 2008 (бр. цитата: 24)
83. **Filipovic, N.**, Kojic, M., Tsuda, A., Modeling thrombosis using dissipative particle dynamics method, Philosophical Transactions of the Royal Society. A, Vol.366, No.1879, pp 3265-3279, ISSN 1364-503, 2008
84. **Filipovic, N.**, M. Ivanovic, M. Kojic, A comparative numerical study between dissipative particle dynamics (DPD) and smooth particle hydrodynamics (SPH) when applied to simple unsteady flows in microfluidics. Microfluidics and Nanofluidics, Vol.7, No.2, pp 227-235, ISSN 1613-4982, 2009 doi 10.1007/s10404-008-0379-0 (бр. цитата: 10)
85. **Filipovic, N.**, Ravnic, D.J. Kojic, M., Mentzer, S.J., Haber, S. Tsuda, A., Interactions of Blood Cell Constituents: Experimental investigation and Computational Modeling by Discrete Particle Dynamics Algorithm, Microvascular Research, Vol.75, No.2, pp 279-284, ISSN 0026-2862, 2008 (бр. цитата: 21)
86. Kojic, M., **Filipovic, N.**, Tsuda, A., A mesoscopic bridging scale method for fluids and coupling dissipative particle dynamics with continuum finite element method, Computer Methods in Applied Mechanics and Engineering, Vol.197, No.6-8, pp 821-833, ISSN 0045-7825, 2008 (бр. цитата: 26)
87. Tsuda, A., **Filipovic, N.**, Haberthür, D., Dickie, R., Matsui, Y., Stampanoni, M. and Schittny, J.C., Finite element 3D reconstruction of the pulmonary acinus imaged by synchrotron X-ray tomography, Journal of Applied Physiology, Vol.105, No.1, pp 964-976, ISSN 8750-7587, 2008 (бр. цитата: 74)
88. Haber S., **Filipovic N.**, Kojic M. and Tsuda A., Dissipative Particle Dynamics Simulation of flow generated by two rotating concentric cylinders. Part I: Boundary conditions, Phys. Rev. E., Vol.74, No.-, pp 1-8, ISSN -, 2006 10.1103/PhysRevE.74.046701. (бр. цитата: 8)
89. Kojic M., **Filipovic N.**, Mijailovic S., A Large Strain Finite Element Analysis of Cartilage Deformation with Electrokinetic Coupling, Comput. Methods Appl. Mech. Engrg., Vol.190, No.18-19, pp 2447-2464, ISSN 0045-7825, 2001 (бр. цитата: 11)
90. **Filipovic N.**, Mijailovic S., Tsuda A. and Kojic M., An Implicit Algorithm Within The Arbitrary Lagrangian-Eulerian Formulation for Solving Incompressible Fluid Flow With Large Boundary Motions, Comp. Meth. Appl. Mech. Eng., Vol.195, No.44-47, pp 6347-6361, ISSN 0045-7825, 2006 (бр. цитата: 81)
91. Kojic M., **Filipovic N.**, Vulovic S., Mijailovic S., A Finite Element Procedure for Porous Medium with Fluid

Списак резултата M22

Рад у истакнутом међународном часопису

1. Kostas M Tsiouris, Dimitrios Gatsios, Vassilios Tsakanikas, Athanasios A Pardalis, Ioannis Kouris, Thelma Androutsou, Marilena Tarousi, Natasa Vujnovic Sedlar, Iason Somarakis, Fariba Mostajeran, **Nenad Filipovic**, Harm Op den Akker, Dimitrios D Koutsouris, Dimitrios I Fotiadis, Designing interoperable telehealth platforms: bridging IoT devices with cloud infrastructures, Enterprise Information Systems, Vol.14, No.8, pp 1194-1218, ISSN 1751-7575, Doi 10.1080/17517575.2020.1759146, 2020 (бр. цитата: 5)
2. Antonis Sakellarios, Joao Correia, Savvas Kyriakidis, Elena Georga, Nikolaos Tachos, Panagiotis Siogkas, Francisco Sans, Paolo Stofella, Valiani Massimiliano, Alberto Clemente, Silvia Rocchiccioli, Gualtiero Pelosi, **Nenad Filipovic**, Dimitrios I Fotiadis, A cloud-based platform for the non-invasive management of coronary artery disease, Enterprise Information Systems, Vol.14, No.8, pp 1102-1123, ISSN 1751-7575, Doi 10.1080/17517575.2020.1746975, 2020 (бр. цитата: 5)
3. Baldini C, Zabotti A, **Filipovic N**, Vukicevic A, Luciano N, Ferro F, Lorenzon M, De Vita S, Imaging in primary Sjögren's syndrome: the 'obsolete and the new', Clinical and Experimental Rheumatology - journal of rheumatology, 36 Suppl 112(3), str. 215-221, 2018 (бр. цитата: 27)
4. **Filipovic Nenad D** Zivanovic Marko N Savic Andrej M Bijelic Goran, Numerical simulation of iontophoresis in the drug delivery system, Computer Methods in Biomechanics and Biomedical Engineering, Vol.19, No.11, pp 1154-1159, ISSN 1025-5842, Doi 10.1080/10255842.2015.1115021, 2016 (бр. цитата: 2)
5. Vukicevic Arso M Stojadinovic Miroslav M Radovic Milos D Djordjevic Milena Andjelkovic-Cirkovic Bojana Pejovic Tomislav Jovicic Gordana R, **Filipovic Nenad D**, Automated development of artificial neural networks for clinical purposes: Application for predicting the outcome of choledocholithiasis surgery, Computers in Biology and Medicine, Vol.75, No.-, pp 80-89, ISSN 0010-4825, Doi 10.1016/j.compbiomed.2016.05.016, 2016 (бр. цитата: 7)
6. Janovic Aleksa, Saveljic Igor, Vukicevic Arso M, Nikolic Dalibor, Rakocevic Zoran B, Jovicic Gordana R, **Filipovic Nenad D**, Djuric Marija P, Occlusal load distribution through the cortical and trabecular bone of the human mid-facial skeleton in natural dentition: A three-dimensional finite element study, Annals of Anatomy-Anatomischer Anzeiger, Vol.197, pp 16-23, ISSN 0940-9602, Doi 10.1016/j.aanat.2014.09.002, 2015 (бр. цитата: 20)
7. D Krsmanovic, **N Filipovic**, I Koncar, D Petrovic, D Milasinovic, L Davidovic, Computer modelling of maximal displacement forces in endoluminal thoracic aortic stent graft, Computer methods in biomechanics and biomedical engineering, Vol.17, No.9, pp 1012-1020, ISSN 1025-5842, Doi doi.org/10.1080/10255842.2012.735661, 2014 (бр. цитата: 8)
8. **N Filipovic**, BC Gibney, D Nikolic, MA Konerding, SJ Mentzer, A Tsuda, Computational analysis of lung deformation after murine pneumonectomy, Computer methods in biomechanics and biomedical engineering, Vol.17, No.8, pp 838-844, ISSN 1025-5842, Doi 10.1080/10255842.2012.719606, 2014 (бр. цитата: 6)
9. S. Antic, I. Saveljic, D. Nikolic, G. Jovicic, Z. Radakovic, **N. Filipovic**, M. Djuric, Does the presence of an unerupted lower third molar influence the risk of mandibular angle and condylar fractures?, International Journal of Oral and Maxillofacial Surgery, Vol.45, No.5, pp 588-592, ISSN 0901-5027, Doi 10.1016/j.ijom.2014.09.018, 2016 (бр. цитата: 13)
10. **Filipovic N**, Nikolic D, Saveljic I, Tanaskovic I, Zdravkovic N, Zivanovic A, Arsenijevic P, Jeremic B and Arsenijevic S, Computer simulation of cervix tissue response to a hydraulic dilator device, Theoretical Biology and Medical Modelling, Vol.10, No.64, pp -, ISSN -, Doi 10.1186/1742-4682-10-64, 2013
11. **N. Filipovic**, D. Nikolic, I.Saveljic, T. Djukic, O. Adjic, P.Kovacevic, N. Cemerlic-Adjic, L. Velicki, Computer simulation of thromboexclusion of the complete aorta in the treatment of chronic type B aneurysm, Computer Aided Surgery, Vol.18, No.1-2, pp 1-9, ISSN 1092-9088, Doi 10.3109/10929088.2012.741145, 2013 (бр. цитата: 5)
12. A.Tsuda, F.S.Henry, S.Haber, D.Haberthür, **N.Filipovic**, D.Milasinovic, J.Schittny, The simultaneous role of an alveolus as flow mixer and flow feeder for the deposition of inhaled submicron particles, ASME J Biomech Eng. 134(12): 121001 (11 pages) ISSN -, Doi 10.1115/1.4007949, 2012 (бр. цитата: 18)
13. **Filipovic N**, Milasinovic D, Zdravkovic N, Böckler D, von Tengg-Kobligh H, Impact of aortic repair based on

flow field computer simulation within the thoracic aorta, *Computer Methods and Programs in Biomedicine*, Vol.101, No.3, pp 243-252, ISSN 0169-2607, 2011 (бр. цитата: 19)

14. **Filipovic N.**, D. Milasinovic, N. Jagic, V. Miloradovic H. Hetterich, J.Rieber, Numerical simulation of the flow field and mass transport pattern within the coronary artery, *Computer Methods in Biomechanics and Biomedical Engineering*, Vol.14, No.4, pp 379-388, ISSN 1025-5842, 2011 (бр. цитата: 4)
15. Markovic Z, Dimitric-Markovic J, Milenkovic D, **Filipovic N**, Structural and electronic features of baicalein and its radicals, *MONATSHEFTE FUR CHEMIE*, Vol.142, No.2, pp 145-152, ISSN 0026-9247, 2011 (бр. цитата: 13)
16. Rosic, M., Pantovic, S. Rankovic, V. Obradovic, Z. **Filipovic, N.** Kojic, M., Evaluation of dynamic response and biomechanical properties of isolated blood vessels, *J. Biochem. Biophys. Methods*, Vol.70, No.6, pp 966, ISSN - 0165-022X, 2008 doi 70. 966-72. 10.1016/j.jprot.2007.12.012 (бр. цитата: 8)
17. **Filipovic N**, Kojic M, Tsuda A. Modelling thrombosis using dissipative particle dynamics method. *Philos Trans A Math Phys Eng Sci*;366(1879):3265-3279. doi:10.1098/rsta.2008.0097, 2008 (бр. цитата: 68)

Списак резултата M23

Рад у међународном часопису

1. Arso M Vukicevic, Gordana R Jovicic, Milos N Jovicic, Vladimir L Milicevic, **Nenad D Filipovic**, Assessment of cortical bone fracture resistance curves by fusing artificial neural networks and linear regression, *Computer methods in biomechanics and biomedical engineering*, Vol.21, No.2, pp 169-176, ISSN 1025-5842, Doi 10.1080/10255842.2018.1431220, 2018 (бр. цитата: 3)
2. Tijana Šušteršič, Liliana Liverani, Aldo R Boccaccini, Slobodan Savić, Aco Janićijević, **Nenad Filipović**, Numerical simulation of electrospinning process in commercial and in-house software PAK, *Materials Research Express*, Vol.6, No.2, pp-, ISSN 1025-5842, Doi doi.org/10.1088/2053-1591/aaeb08, 2018 (бр. цитата: 2)
3. Ivan L Milankovic, Nikola V Mijailovic, **Nenad D Filipovic**, Aleksandar S Peulic, Acceleration of image segmentation algorithm for (Breast) mammogram images using high-performance reconfigurable dataflow computers, *Computational and Mathematical Methods in Medicine*, Vol.2017, 11 pages, Article ID 7909282 ISSN 1748-670X, Doi 10.1155/2017/7909282, 2017 (бр. цитата: 1)
4. Igor B Koncar, Dalibor Nikolic, Zarko Milosevic, Nikola Ilic, Marko Dragas, Milos Sladojevic, Miroslav Markovic, **Nenad Filipovic**, Lazar Davidovic, Morphological and Biomechanical Features in Abdominal Aortic Aneurysm with Long and Short Neck—Case-Control Study in 64 Abdominal Aortic Aneurysms, *Annals of vascular surgery*, Vol.45, No.-, pp 223-230, ISSN 0890-5096, Doi 10.1016/j.avsg.2017.06.054, 2017
5. Jeremic Branislav Cihoric Nikola Dubinsky Pavol **Filipovic Nenad D**, Adjuvant immunotherapy in resected early non-small cell lung cancer-battle lost, hopefully not the war!, *Journal of Thoracic Disease*, Vol.8, No.8, pp 1886-1890, ISSN 2072-1439, Doi 10.21037/jtd.2016.07.11, 2016 (бр. цитата: 1)
6. **Nenad Filipovic**, Igor Saveljic, Nemanja Jovicic, Irena Tanaskovic, Nebojsa Zdravkovic, Computational and experimental model of electroporation for human aorta, *Acta of bioengineering and biomechanics*, vol. 18, str. 15-20, DOI: 10.5277/ABB-00444-2015- 02, 2016 (бр. цитата: 1)
7. Arsenijevic Petar S, Milosevic Marko D, Zivanovic Aleksandar S, Milicic Biljana R, Jeremic Branislav M, **Filipovic Nenad D**, Protrka Zoran M, Todorovic Petar M, Arsenijevic Slobodan N, Analysis of cervical resistance during continuous controllable balloon dilatation: controlled clinical and experimental study, *Trials*, Vol.16, No.1, pp -, ISSN 1745-6215, Doi 10.1186/s13063-015-1003-8, 2015 (бр. цитата: 1)
8. Mijailovic Nikola V, Vulovic Radun, Milankovic Ivan L, Radakovic Radivoje, **Filipovic Nenad D**, Peulic Aleksandar S, Assessment of Knee Cartilage Stress Distribution and Deformation Using Motion Capture System and Wearable Sensors for Force Ratio Detection, *Computational and Mathematical Methods in Medicine*, Vol.-, No.-, pp -, ISSN -, Doi 10.1155/2015/963746, 2015 (бр. цитата: 4)
9. Panetta Daniele, Pelosi Gualtiero, Viglione Federica, Kusmic Claudia, Terreni Marianna, Belcarì Nicola, Del Guerra Alberto, Athanasiou Lambros, Exarchos Themistoklis, Fotiadis Dimitrios I, **Filipovic Nenad D**, Trivella Maria Giovanna, Salvadori Piero A, Parodi Oberdan, Quantitative micro-CT based coronary artery profiling using interactive local thresholding and cylindrical coordinates, *Technology and Health Care*, Vol.23, No.5, pp 557-570, ISSN 0928-7329, Doi 10.3233/THC-151010, 2015 (бр. цитата: 4)
10. Radovic Milos D Milosevic Marina Ninkovic Srdjan M **Filipovic Nenad D** Peulic Aleksandar S, Parameter

optimization of a computer-aided diagnosis system for detection of masses on digitized mammograms, *Technology and Health Care*, Vol.23, No.6, pp 757-774, ISSN 0928-7329, Doi 10.3233/THC-151034, 2015 (бр. цитата: 10)

11. Belle Janeil, Ysasi Alexandra, Bennett Robert D, **Filipovic Nenad D**, Nejad Mohammad Imani, Trumper David L, Ackermann Maximilian, Wagner Willi, Tsuda Akira, Konerding Moritz A, Mentzer Steven J, Stretch-induced intussusceptive and sprouting angiogenesis in the chick chorioallantoic membrane, *Microvascular Research*, Vol.95, No.1, pp 60-67, ISSN 0026-2862, Doi 10.1016/j.mvr.2014.06.009, 2014 (бр. цитата: 16)
12. **Filipovic Nenad D**, Djukic Tijana R, Radovic Milos D, Cvetkovic Danijela M, Curcic Milena G, Markovic Snezana D, Peulic Aleksandar S, Jeremic Branislav, Electromagnetic field investigation on different cancer cell lines, *Cancer Cell International*, Vol.14, No.-, pp 1-4, ISSN 1475-2867, doi 10.1186/s12935-014-0084-x, 2014 (бр. цитата: 21)
13. G Jovicic, A Vukicevic, **N Filipovic**, Computational Assessment of Stent Durability Using Fatigue to Fracture Approach, *Journal of Medical Devices*, Vol.8, No.4, 8 pages -, ISSN 1932-6181, Doi 10.1115/1.4027687, 2014 (бр. цитата: 9)
14. Jeremic Svetlana R, **Filipovic Nenad D**, Peulic Aleksandar S, Markovic Zoran S, Thermodynamical aspect of radical scavenging activity of alizarin and alizarin red S. Theoretical comparative study, *Computational and Theoretical Chemistry*, Vol.1047, No.-, pp 15-21, ISSN -, Doi 10.1016/j.comptc.2014.08.007, 2014 (бр. цитата: 21)
15. Mrdaković, V., Ilić, D., Vulović, R., Matić, M., Janković, N., **Filipović, N**, Leg stiffness adjustment during hopping at different intensities and frequencies, *Acta of bioengineering and biomechanics*, Vol.16, No.3, pp -, ISSN 1509-409, Doi 10.5277/abb140308, 2014 (бр. цитата: 6)
16. Djukic Tijana R, Mandic Vesna M, **Filipovic Nenad D**, Virtual reality aided visualization of fluid flow simulations with application in medical education and diagnostics, *Computers in Biology and Medicine*, Vol.43, No.12, pp 2046-2052, ISSN 0010-4825, Doi 10.1016/j.combiomed.2013.10.004, 2013 (бр. цитата: 12)
17. **Filipovic Nenad D**, Isailovic Velibor M, Nikolic Dalibor, Peulic Aleksandar S, Mijailovic Nikola V, Petrovic Suzana, Cukovic Sasa, Vulovic Radun, Matic Aleksandar, Zdravkovic Nebojsa D, Devedzic Goran B, Ristic Branko M, Biomechanical Modeling of Knee for Specific Patients with Chronic Anterior Cruciate Ligament Injury, *Computer Science and Information Systems*, Vol.10, No.1, pp 525-545, ISSN 1820-0214, Doi 10.2298/CSIS120531014F, 2013 (бр. цитата: 5)
18. Jeremic B, Aguerri AR, Filipovic N. Radiosensitization by gold nanoparticles. *Clin Transl Oncol*. 2013 Aug;15(8):593-601. doi: 10.1007/s12094-013-1003-7. Epub, PMID: 23359187, 2013 (бр. цитата: 61)
19. Peulic Aleksandar S, Milojevic Natasa, Jovanov Emil S, Radovic Milos D, Saveljic Igor, Zdravkovic Nebojsa D, **Filipovic Nenad D**, Modeling of Arterial Stiffness using Variations of Pulse Transit Time, *Computer Science and Information Systems*, Vol.10, No.1, pp 547-565, ISSN 1820-0214, Doi 10.2298/CSIS120531015P, 2013 (бр. цитата: 1)
20. D. Veljkovic, **N. Filipovic**, M. Kojic, The effect of asymmetry and axial prestraining on the amplitude of mechanical stresses in abdominal aortic aneurism, *Journal of Mechanics in Medicine and Biology*, Vol.12, No.5, pp -, ISSN (print): 0219-5194, (online): 1793-6810, Doi 10.1142/S0219519412500893, 2012
21. **N. Filipovic**, A. Jovanovic, D. Petrovic, M. Obradovic, S. Jovanovic, D. Balos, M. Kojic, Modelling of self-healing materials using discrete and continuum methods, *Surface Coatings International*, Vol.95, No.2, pp 74-79, ISSN -, 2012
22. **Filipovic N**, Peulic A, Zdrakovic N, Grbovic-Markovic V and Jurisic-Skevin A, Transient Finite Element Modeling of Functional Electrical Stimulation, *General Physiology and Biophysics*, Vol.30, No.1, pp 59-65, ISSN 0231-5882, 2011 (бр. цитата: 11)
23. **Filipovic N.**, Kojic M. and Dimitrijevic V., Three-Dimensional Numerical Analysis of the Lumbar Motion Segments, *Acta of Bioengineering and Biomechanics*, Vol.4, No.1, pp 76, ISSN 1509409, 2002

Списак резултата M24

Рад у националном часопису међународног

значаја

1. S Djorovic, I Saveljic, **N Filipovic**, Computational simulation of carotid artery: from patient-specific images to finite element analysis, *J. Serb. Soc. Comput. Mech*, Vol.13, No.1, pp 120-129, ISSN 1820-6530, Doi 10.24874/jsscm.2019.13.01.08, 2019 (бр. цитата: 1)

2. Ivan L. Milanković Nikola V. Mijailović Aleksandar S. Peulić Dalibor Nikolić Igor Končar Themis Exarchos Oberdan Parodi, **Nenad D. Filipović**, Software and Hardware Systems for Abdominal Aortic Aneurysm Mechanical Properties Investigation, FME Transactions, Vol.43, No.2, pp 161-167, ISSN 1451-2092, Doi 10.5937/fmet1502161M, 2015
3. Milanković Ivan, Mijailović Nikola, Končar Igor, Nikolić Dalibor, **Filipović Nenad**, Peulić Aleksandar, Development of the system for abdominal aortic aneurysm mechanical properties research using “Bubble Inflated” method, Serbian Journal of Electrical Engineering, Vol.10, No.3, pp 415-423, ISSN 2217-7183, Doi 10.2298/SJEE131007013M, 2013
4. Nikola Mijailović, Aleksandar Peulić, **Nenad Filipović**, Emil Jovanov, Implementation of Wireless Sensor System in Rehabilitation After Back Spine Surgery, Serbian Journal of Electrical Engineering, Vol.9, No.1, pp 63-70, ISSN 1451-4869, Doi 10.2298/SJEE1201063M, 2012
5. Jovanovic, A. and **Filipovic, N.**, Innovative modelling methods in damage assessment: application of dissipative particle dynamics to simulation of damage and self-healing of polymer coated surfaces, J. Theoretical and Applied Mechanics, Vol.44, No.-, pp 637-648, ISSN -, 2006

Списак резултата М31

Предавање по позиву са међународног скупа штампано у целини

1. **Nenad Filipovic**, Exarchos Themis, Nicolas Meunier, Dimitris Fotiadis and Oberdan Parodi, Computer simulation of three-dimensional plaque formation and progression in arteries, MICCAI Workshop on Computing and Visualization for Intravascular Imaging (CVII), Toronto, Sept 18-22, 2011
2. **Nenad Filipovic**, Mirko Rosic, Irena Tanaskovic, Nicolas Meunier, Oberdan Parodi and Dimitris Fotiadis, Computer Simulation and Experimental Analysis of LDL transport in the Arteries, EMBC11, Boston, 30 aug - 3 sept, 2011 *Annual International Conference of the IEEE Engineering in Medicine and Biology Society*, Boston, MA, 2011, pp. 195-198, doi: 10.1109/IEMBS.2011.6090031.
3. **Nenad Filipovic**, Nicolas Meunier, Dimitris Fotiadis, Oberdan Parodi, Computer modeling of plaque formation and development in the arteries, ISABEL2011, Barcelona, Oct 26-29, 2011
4. S. Jovanovic, **N. Filipovic**, The Roadmapping of the EU Materials Research (EuMaT) and an Alternative Modeling Concepts and Dissipative Particle Dynamics Method for Simulation of Particle Adsorption onto a Polymer-coated Surface, SEECCM06, pp 57-63, Kragujevac, 2006

Списак резултата М32

Предавање по позиву са међународног скупа штампано у изводу

1. T Sustersic, V Rankovic, **N Filipovic**, Development of a user-Friendly Application for DICOM Image Segmentation and 3D Visualization of a Brain Tumor, 2019 IEEE 19th International Conference on Bioinformatics and Bioengineering (BIBE), pp 507-510, Doi 10.1109/BIBE.2019.00098, Athens, Greece, 28-30 October, 2019
2. Tijana Djukic, Igor Saveljic, Gualtiero Pelosi, Oberdan Parodi, **Nenad Filipovic**, Simulation of Deployment of Multiple Stents Within Deformable Artery, 2019 IEEE 19th International Conference on Bioinformatics and Bioengineering (BIBE), pp 454-457, Doi 10.1109/BIBE.2019.00088, Athens, Greece, 28-30 October, 2019
3. Saša Cukovic, Vanja Lukovic, William R Taylor, Wolfgang Birkfellner, Radu Emanuil Petrus, **Nenad Filipovic**, Correlation of vertebral absolute axial rotations in cad 3d models of adolescent idiopathic scoliosis non-invasively diagnosed, 2019 IEEE 19th International Conference on Bioinformatics and Bioengineering (BIBE), pp 316-320, Doi 10.1109/BIBE.2019.00063, Athens, Greece, 28-30 October, 2019
4. Branko Arsic, Mihailo Obrenovic, Miloš Anic, Akira Tsuda, **Nenad Filipovic**, Image Segmentation of the Pulmonary Acinus Imaged by Synchrotron X-Ray Tomography, 2019 IEEE 19th International Conference on Bioinformatics and Bioengineering (BIBE), pp 525-531, Doi 10.1109/BIBE.2019.00101, Athens, Greece, 28-30 October, 2019
5. Milos Kojic, Miljan Milosevic, Vladimir Simic, Bogdan Milicevic, Vladimir Geroski, Nenad Filipovic, Smearred

Finite Element Model of Heart Wall: Electrophysiology Coupled with Muscle Mechanics, 2019 IEEE 19th International Conference on Bioinformatics and Bioengineering (BIBE), pp 458-461, Doi 10.1109/BIBE.2019.00089, Athens, Greece, 28-30 October, 2019

6. T SustersiĆ, A VuloviĆ, **N FilipoviĆ**, S CvijiĆ, S Ibrić, Effect of Circulation Chamber Dimensions on Aerosol Delivery Efficiency of a Commercial Dry Powder Inhaler Aerolizer (R), 2017 IEEE 17th International Conference on Bioinformatics and Bioengineering (BIBE), pp 555-558, Doi 10.1109/BIBE.2017.00011, Washington, DC, USA, 23-25 October, 2017 (бр. цитата: 1)
7. **N. FilipoviĆ**, D. Nikolić, I. Saveljić, T. Exarchos, O. Parodi, Experimental testing and numerical modeling of stents in the coronary arteries, IX International scientific conference contemporary materials, Banja Luka, sept. 4-5, 2016
8. Ž. Milošević, D. Nikolić, I. Saveljić, V. Isailović, T. Bibas, **N. FilipoviĆ**, Three-dimensional biomechanical and visualisation model of vertigo disease in the semi-circular canal, IX International scientific conference contemporary materials, Banja Luka, sept. 4-5, 2016
9. Arso M. Vukicevic, Gordana Jovicic, Nebojsa Jovicic, Zarko Milosevic, **Nenad Filipovic**, Assessment of bone stress intensity factor using artificial neural networks, 2015 IEEE 15th International Conference on Bioinformatics and Bioengineering (BIBE), pp 1-4, doi:10.1109/BIBE.2015.7367680, Belgrade, 2-4 November 2015
10. Bojana Cirkovic, Velibor Isailovic, Zarko Milosevic, Aarash Sofla, Milica Radisic, **Nenad Filipovic**, Computer Simulation of Motion of Magnetic Particles in External Magnetic Field, 4th International Congress of Serbian Society of Mechanics, Vrnjacka Banja, Serbia, 4-7th June, 2013
11. D. Nikolic, S. Aleksandric, M. Tomasevic, M. Radovic, V. Rankovic, **N. Filipovic**, Prediction of coronary plaque position on arteries with myocardial bridge, 4th International Congress of Serbian Society of Mechanics, Vrnjacka Banja, Serbia, 4-7th June, 2013
12. I. Saveljic, A. Janovic, D. Nikolic, Z. Rakocevic, M. Đuric, **N. Filipovic**, Finite element analysis of the facial skeleton on simulated occlusal loading, 4th International Congress of Serbian Society of Mechanics, Vrnjacka Banja, Serbia, 4-7th June, 2013
13. L. Velicki, N. Cemerlic-Adic, R. Jung, N. Tomic, O. Adic, D. Nikolic, I. Saveljic, D. Milašinovic, **N. Filipovic**, Evaluation of borderline coronary lesions using noninvasive computed fractional flow reserve, 4th International Congress of Serbian Society of Mechanics, Vrnjacka Banja, Serbia, 4-7th June, 2013
14. M. Radovic, M. Djokovic, A. Peulic, **N. Filipovic**, Application of Data Mining Techniques for Mammogram Classification, 4th International Congress of Serbian Society of Mechanics, Vrnjacka Banja, Serbia, 4-7th June, 2013
15. M. Radovic, Z. Milosevic, D. Nikolic, I. Saveljic, M. Obradovic, D. Petrovic, N. Zdravkovic, Z. Teng, J. Bird, **N. Filipovic**, Modeling and Correlation of Plaque Size with Histological and Blood Analysis Data for Animal Rabbit Experiments, The 3rd South-East European Conference on Computational Mechanics, Kos Island, Greece, 12–14 June, 2013
16. Milica Obradovic, **Nenad Filipovic**, Modeling of axonal elongation by stem cells using finite element method, 4th International Congress of Serbian Society of Mechanics, Vrnjacka Banja, Serbia, 4-7th June, 2013
17. Tijana Djukic, Slobodan Savic, **Nenad Filipovic**, Computer simulation of motion of solid particles in laminar flow using strong solid-fluid coupling computational scheme, 4th International Congress of Serbian Society of Mechanics, Vrnjacka Banja, Serbia, 4-7th June, 2013
18. V. Isailovic, M. Milosevic, I. Vlastelica, N. Kojic, **N. Filipovic**, M. Kojic, M. Ferrari, Computational Modeling of Transport of Cells and Particles in Small Blood Vessels, SEECCM III, 3rd South-East European Conference on Computational Mechanics- an ECCOMAS and IACM Special Interest Conference, Kos Island, Greece, 12–14 June, 2013
19. Z. Milošević, D. Nikolic, I. Saveljic, M. Radovic, T. Exarchos, O. Parodi, **N. Filipovic**, Three-dimensional computer modeling of plaque formation and ldl transport within artery and through the vessel wall, 4th International Congress of Serbian Society of Mechanics, Vrnjacka Banja, Serbia, 4-7th June, 2013
20. Z. Milosevic, M. Radovic, D. Nikolic, I. Saveljic., V. Isailovic, M. Obradovic, D. Petrovic, E. Themis, D. Fotiadis, W. Pelosi, O. Parodi, M. Kojic and **N. Filipovic**, Plaque Formation Modeling – from Animal to Human Studies, SEECCM III, 3rd South-East European Conference on Computational Mechanics- an ECCOMAS and IACM Special Interest Conference, Kos Island, Greece, 12–14 June. 2013
21. **Filipovic N**, Teng Z, Milosevic Z, Nikolic D, Radovic M, Saveljic I, Exarchos T, Fotiadis DI, Gillard J, Parodi O, Computer simulation of three-dimensional plaque formation and progression in the carotid artery, The 80th

European Atherosclerosis Society Congress, Milan, Italy, 2012

22. A. Peulic, E. Jovanov, M. Radovic, I. Saveljic, N. Zdravkovic, **N.Filipovic**, Stiffness modeling using variations of Pulse Transit Time, 10th IEEE International Workshop on Biomedical Engineering, Kos-Greece, Oct 05-07, 2011
23. D. Milasinovic, A. Cvetkovic, **N. Filipovic** and M. Kojic, Simulation of the conditions leading to duodenal stump disruption after Billroth II gastric resection, Congress on Theoretical and Applied Mechanics, Vlasina Lake, 5-8 July, 2011
24. krtDanko Z. Milasinovic, Aleksandar M. Cvetkovic, Srđan M. Ninković, **Nenad D. Filipovic**, Milos R. Kojic, Afferent loop syndrome CFD simulation after Billroth II gastric resection, 10th IEEE International Workshop on Biomedical Engineering, Kos-Greece, Oct 05-07, 2011
25. Dejan Krsmanovic, Igor Koncar, Dejan Petrovic, Danko Milasinovic, Lazar Davidovic, **Nenad Filipovic**, Computer Modeling of Drag Forces in Endoluminal Stent-Graft, 10th IEEE International Workshop on Biomedical Engineering, Kos-Greece, Oct 05-07, 2011
26. M. Radovic, D. Petrovic, and **N. Filipovic**, Data mining application in the wall shear stress distribution prediction for aneurysm and carotid bifurcation models, Congress on Theoretical and Applied Mechanics, Vlasina Lake, 5-8 July, 2011
27. Milica Obradovic, **Nenad Filipovic**, Modeling Ablation on the Endocardium and Temperature Distribution during RF Ablation, 10th IEEE International Workshop on Biomedical Engineering, Kos-Greece, Oct 05-07, 2011
28. V. Isailovic, T. Djukic, M. Ferrari, **N. Filipovic** and M. Kojic, Motion of circular and elliptical particles in laminar flows, Congress on Theoretical and Applied Mechanics, Vlasina Lake, 5-8 July, 2011
29. Z. Milosevic, B. Stojanovic, V. Isailovic, D. Nikolic, D. Milasinovic, M. Radovic, T. Exarchos, K. Stefanou, P. Siogkas, A. Sakelarios, D. Fotiadis, O. Parodi, N. Zdravkovic, M. Kojic and **N. Filipovic**, Artool: a platform for the development of multi-level patient-specific artery and atherogenesis models, Congress on Theoretical and Applied Mechanics, Vlasina Lake, 5-8 July, 2011
30. **Filipović Nenad**, Miloš Kojić, Akira Tsuda, MODELING OF THROMBOSIS BY DISSIPATIVE PARTICLE DYNAMICS, First Serbian (26th YU) Congress on Theoretical and Applied Mechanics, Kopaonik, Serbia, April 10-13, 2007
31. **Filipović Nenad**, Radivoje Radaković, Đorđe Kosanić, MODELING OF CARTILAGE DEFORMATION DURING A SPORTSMAN TRAINING, First Serbian (26th YU) Congress on Theoretical and Applied Mechanics, Kopaonik, Serbia, April 10-13, 2007
32. Isailović Velibor, **Nenad Filipović**, Miloš Kojić, FINITE ELEMENT ANALYSIS OF THE LUMBAR INTERVERTEBRAL DISC: PATIENT-SPECIFIC SPINE MODEL, First Serbian (26th YU) Congress on Theoretical and Applied Mechanics, Kopaonik, Serbia, April 10-13, 2007
33. Ivanović Miloš, **Nenad Filipović**, Miloš Kojić, Akira Tsuda, NUMERICAL MODELING OF PARTICLE DEPOSITION IN HUMAN LUNG, First Serbian (26th YU) Congress on Theoretical and Applied Mechanics, Kopaonik, Serbia, April 10-13, 2007
34. Krstić Miroljub, Miloš Ivanović, Lazar Otašević, **Nenad Filipović**, APPLICATION OF GRID INFRASTRUCTURE IN BIOMEDICINE SIMULATIONS, First Serbian (26th YU) Congress on Theoretical and Applied Mechanics, Kopaonik, Serbia, April 10-13, 2007
35. Miljković Olga, Mileta Nedeljković, **Nenad Filipović**, APPLICATION OF NEURAL NETWORK FOR DETERMINATION OF HEMODYNAMICS FACTORS IN THE ARTERIAL BLOOD FLOW, First Serbian (26th YU) Congress on Theoretical and Applied Mechanics, Kopaonik, Serbia, April 10-13, 2007
36. Nedeljković Mileta, **Nenad Filipović**, Juergen Koelndorfer, Martin Steiner, Aleksandar Vujanić, ELECTRICAL STIMULATION ON LOWER ARM FEM MODELING, First Serbian (26th YU) Congress on Theoretical and Applied Mechanics, Kopaonik, Serbia, April 10-13, 2007
37. Peulić Aleksandar, Mileta Nedeljković, **Nenad Filipović**, MODELING OF ELECTROMAGNETIC FIELDS (EMF) IN WIRELESS SENSOR NETWORKS AND EFFECTS ON HUMAN HEALTH, First Serbian (26th YU) Congress on Theoretical and Applied Mechanics, Kopaonik, Serbia, April 10-13, 2007
38. Rosić Mirko, Suzana Pantović, Zdravko Obradović, Vladimir Ranković, **Nenad Filipović**, Miloš Kojić, TRANSPORT OF L-ARGININE AND ITS EFFECTS ON DYNAMIC RESPONSE AND BIOMECHANICAL PROPERTIES OF ISOLATED BLOOD VESSELS, First Serbian (26th YU) Congress on Theoretical and Applied Mechanics, Kopaonik, Serbia, April 10-13, 2007
39. L. Otasevic, **N. Filipovic**, M. Ivanovic, Sparse Matrices Using Balanced Binary Trees and Parallel Computing,

SEECCM06, pp 120-125, Kragujevac, 2006

40. M. Kojic, **N. Filipovic**, A. Tsuda, A Multiscale Method for Bridging Dissipative Particle Dynamics and Navier-Stokes Finite Element Equations for Incompressible Fluid, SEECCM06, pp 345-350, Kragujevac, 2006,
41. M. Krstić, M. Kojić, **N. Filipović**, B. Stojanović, V. Ranković, L. Otašević, M. Ivanović, M. Nedeljković, M. Dimkić, M. Tričković, M. Pušić, Đ. Boreli-Zdravković, D. Đurić, Finite Element Modeling of Underground Water Flow With Ranney Wells, SEECCM06, pp 510-516, Kragujevac, 2006
42. M. Nedeljkovic, **N. Filipovic**, Biomagnetic Flow in a Straight Tube Under the Influence of an Applied Magnetic Field, SEECCM06, pp 365-369, Kragujevac, 2006
43. M. Rosic, S. Pantovic, Z. Obradovic, **N. Filipovic**, M. Kojic, Experimental and Computational Methods in Cardiovascular Fluid Mechanics, SEECCM06, pp 429-435, Kragujevac, 2006
44. Peulić, A. Dostanić, **N. Filipović**, Experimental IEEE 802. 15. 4 Wireless Patient Parameters Monitoring System Coupled With a Simple Muscle Modeling, SEECCM06, pp 529-536, Kragujevac, 2006
45. S. M. Mijailovich, **N. Filipovic**, O. Kayser-Herold, and J. C. del Álamo, Molecular Origins of Airway Narrowing: Model Predictions of Hyperresponsiveness in Asthmatics, SEECCM06, pp 45-52 Kragujevac, 2006
46. V. Rankovic, N. Jagic , B. Stojanovic, P. Uskokovic, **N. Filipovic**, M. Kojic, Shape Memory Alloys in Medical Devices. Nitinol Stent Design and Blood Vessel Stresses, SEECCM06, pp 421-428, Kragujevac, 2006
47. **Filipovic N.** and Schima H., Numerical simulation of the residence times within the aortic arch during cardiac assist, The International Journal of Artificial Organs, pp 603-, 2003
48. Kojic M., **Filipovic N.**, Vlastelica I. and Zivkovic M., Modeling of blood flow in the human aorta with use of an orthotropic nonlinear material model for the walls, Second MIT Conference on Computational Fluid & Solid Mechanics, pp 1751 – 1754, Boston, USA, 17-20 June, 2003
49. **Filipovic N.** and Schima H., Numerical Simulation of Effects in the Aorta with Pulsatile Flow of the Artificial Heart Device, ACTA of BIOENGINEERING and BIOMECHANICS, pp 645 – 646, Wroclaw, Poland, 2002
50. **Filipovic N.**, Kojic M. and Dimitrijevic V., A Three-Dimensional Parameterized Finite Element Model of the Lumbar Spine Included Electrokinetic Coupling, ACTA of BIOENGINEERING and BIOMECHANICS, pp 141 – 142, Wroclaw, Poland, 2002

Списак резултата М33

Саопштење са међународног скупа штампано у целини

1. Aleksandra Vulović, Fernando Warchomicka, Claudia Ramskogler, Christof Sommitsch, **Nenad Filipović**, Simulation of the Interlocking Capacity of the Modified Hip Implant Surface, 8th International Conference on Information Society and Technology (ICIST 2018), Kopaonik, 2018, pp 202-205, ISBN 978-86-85525-22-3
2. Jasna Radulovic, Nikola Mijailovic, Vesna Rankovic, Miroslav Trajanovic, **Nenad Filipovic**, Modeling of radiation dose of human head during CT scanning using neural networks, 2015 IEEE 15th International Conference on Bioinformatics and Bioengineering (BIBE), Belgrade, 2015, 2-4. November., pp 1-4, ISBN 978-1-4673-7982-3
3. Nikola Mijailović, Jasna Radulović, Miroslav Trajanović, **Nenad Filipović**, Aleksandar Peulić, Multimodal Imaging for PET Attenuation Correction, 5th International Conference on Information Society and Technology (ICIST 2015), Kopaonik, 2015, pp 464-467, ISBN 978-86-85525-16-2
4. Nikola Mijailovic; Radivoje Radakovic; Aleksandar Peulic; Ivan Milankovic; **Nenad Filipovic**, Using force plate, computer simulation and image alignment in jumping analysis, 2015 IEEE 15th International Conference on Bioinformatics and Bioengineering (BIBE), Belgrade, 2015, 2-4. November., pp 1-4, ISBN 978-1-4673-7982-3 doi: 10.1109/BIBE.2015.7367672 (бр. цитата: 3)
5. R. Radakovic; M. Dopsaj; R. Vulovic; B. Leontijevic; N. Mijailovic; **N. Filipovic**, The reliability of motion analysis of elite soccer players during match measured by the Tracking Motion software system, 2015 IEEE 15th International Conference on Bioinformatics and Bioengineering (BIBE), Belgrade, 2015, 2-4. November., pp 1-6, ISBN 978-1-4673-7982-3 doi: 10.1109/BIBE.2015.7367676
6. B. R. A. Cirkovic, A. M. Cvetkovic, S. M. Ninkovic and **N. D. Filipovic**, "Prediction models for estimation of survival rate and relapse for breast cancer patients," 2015 IEEE 15th International Conference on Bioinformatics

and Bioengineering (BIBE), 2015, pp. 1-6, doi: 10.1109/BIBE.2015.7367658. (бр. цитата:11)

7. Tijana Šušteršič Nikola Mijailović Ivan Milanković **Nenad Filipović** Aleksandar Peulić, Segmentation and Three-Dimensional Visualization of Brain Tumor and Possibility of Mapping Such Algorithms on High Performance Reconfigurable Computers, 5th International Conference on Information Society and Technology (ICIST 2015), Kopaonik, 2015, pp 455-459, ISBN 978-86-85525-16-2
8. Ivan Milankovic, Nikola Mijailovic, Jasna Radulovic, Aleksandar Peulic, **Nenad Filipovic**, Development of a System for Analysing the Electromagnetic Radiation Caused By the CT Scanner, 8th International Quality Conference, Kragujevac, 2014, May 23th 2014, pp 893-898, ISBN 978-86-6335-004-5
9. Koncar Igor, Dalibor Nikolic, Suzana Pantovic, Mirko Rosic, Nikola Mijailovic, Nikola Ilic, Marko Dragas, Zivan Maksimovic, Lazar Davidovic, and **Nenad D. Filipovic**, Modeling of abdominal aortic aneurism rupture by using experimental bubble inflation test, In Bioinformatics and Bioengineering (BIBE), 2013 IEEE 13th International Conference, Chania, Greece, 2013, November 10-13, pp 1-4, ISBN 9781479931644
10. Radulović, J., Mijailović, N., Trajanović, M., **Filipović, N.**, Radulović, N, Estimation of exposure dose of human head during CT scanning procedure using Monte Carlo simulation, 11th International Scientific Conference MMA 2012 - Advanced Production Technologies, Novi Sad, 2012, 20-21. September, pp 513-516
11. **Filipovic N.**, Kojic M. and Tsuda A., Modeling of thrombosis by dissipative particle dynamics (DPD), Intl. J. Artif. Organs, -, pp 514, 2006
12. **Filipovic N.**, Kojic M., and Tsuda A., A Dissipative Particle Dynamics Analysis to Study the Kinetics of Platelets in Microscale, FASEB J., -, pp 701, 2006
13. **Filipovic N.**, Kojic M., Tsuda A., Modeling of Microcirculation and Thrombosis by Dissipative Particle Dynamics (DPD), Journal of Biomechanics, -, pp 624, 2006
14. Kojic M., **Filipovic N.**, Tsuda A., Multiscale modeling of blood flow: Coupling of Dissipative Particle Dynamics (DPD) method and Finite Element (FE) method, Journal of Biomechanics, -,pp 296, 2006
15. Filipovic N., Kojic M., and Tsuda A., Computer simulation of platelet deposition in experimental blood flow between parallel plates, Intl. J. Artif. Organs, -,pp 897, 2005
16. **Filipovic N.**, Kojic M. and Krstic M., Fluid structure interaction of blood flow through stented arteries, The International Journal of Artificial Organs, -,pp 539, 2004
17. **Filipovic, N** Kojic, M Miloradovic, M Rankovic, V Miloradovic V, Computer simulation of flow pattern in stented arteries, EUROPEAN HEART JOURNAL, -,pp 543-543, 2004
18. Mijailovich S. M., **Filipovic N.** and Kojic M., Molecular Origins of Abrupt Airway Closure: Model Predictions of Hyperresponsiveness in Asthmatics, ESB, Philadelphia, USA, 2004
19. **Filipovic N.**, Kojic M. and Rankovic V., Computer simulation of flow pattern in stented arteries, The International Journal of Artificial Organs, -, pp 602, 2004
20. Miloradovic, VM Kojic, MK **Filipovic**, NF Jovic, MJ Iric-Cupic, VIC Detection of coronary artery disease in essential hypertensive patients by dobutamine - atropine stress echocardiography, HYPERTENSION, -, pp 640-640, 2003
21. **Filipovic N.** and Schima H., Numerical Simulation of the Flow Field within the Aortic Arch During Cardiac Assist, The International Journal of Artificial Organs, -,pp 75, 2002 (бр. цитата: 6)
22. Ivan Milanković, Nikola Mijailović, Igor Končar, Dalibor Nikolić, **Nenad Filipović**, Aleksandar Peulić, Razvoj sistema za ispitivanje mehaničkih karakteristika tkiva abdominalne aorte zahvaćenog aneurizmom pomoću „Bubble Inflated“ metode, 57th ETRAN Conference, Zlatibor, 2013, 3 – 6. juna 2013., pp ME1.3.1-4, ISBN 978-86-80509-68-6
23. Ivan Milanković, Nikola Mijailović, Miodrag Peulić, Vojin Kovačević, **Nenad Filipović**, Aleksandar Peulić, Dijagnostika lumbalne diskus hernije primenom uređaja za određivanje površinske raspodele pritiska stopala na podlogu, 57th ETRAN Conference, Zlatibor, 2013, 3 – 6. juna, pp ME1.4.1-5, ISBN 978-86-80509-68-6
24. Nikola Mijailović, Suzana Petrović, Dalibor Nikolić, Aleksandar Peulić, Nebojša Zdravković, Branko Ristić, **Nenad Filipović**, NON-INVASIVELY ASSESSMENT OF KNEE CARTILAGE STRESS DISTRIBUTION USING MOTION CAPTURE SYSTEM AND FINITE ELEMENT METHOD, Fourth Serbian (29th Yu) Congress on Theoretical and Applied Mechanics, Vrnjačka Banja, Serbia, 2013, 4-7 June, pp 809-814, ISBN 978-86-909973-5-0
25. N.Mijailović, A.Peulić, **N. Filipović**, IMPLEMENTACIJA WAVELET TRANSFORMACIJE NA FPGA PLATFORMI ZA DETEKCIJU ZAMRZAVANJA KOD PACIJENATA SA PARKINSONOVOM BOLEŠĆU, Proc. 56st ETRAN Conference, Zlatibor, 2012, 11-14. Juna, ISBN 978-86-80509-67-9

26. N.Mijailović, A.Peulić, **N. Filipović**, E. Jovanov, IMPLEMENTACIJA BEŽIČNOG SENZORSKOG SISTEMA U PROCESU REHABILITACIJE NAKON OPERACIJE DISKUSA, 55st ETRAN Conference, Banja Vrućica, Teslić, 2011, June 6-9, ISBN 978-86-80509-66-2
27. М. Којић, **Н. Филиповић** и М. Живковић, Савремени поступци нумеричке симулације струјања крви и деформисања крвних судова, 3 поглавље монографије Васкуларна доплер ултрасонографија, Др Божидар Новаковић и др., Издавач Центар за научна истраживања САНУ и Универзитета у Крагујевцу, Призма-Крагујевац, Vol.-, No.-, pp 23-28, ISSN -, 1999
28. **Н. Филиповић**, М. Којић, Могућности нумеричког решавања проблема везаних за артеросклерозу, 4 поглавље монографије Васкуларна доплер ултрасонографија, Др Божидар Новаковић и др., Издавач Центар за научна истраживања САНУ и Универзитета у Крагујевцу, Призма- Крагујевац, Vol.-, No.-, pp 29-34, ISSN -, 1999

Списак резултата М51

Рад у врхунском часопису националног значаја

1. V Stojic, BA Cirkovic, N Zdravkovic, J Dimitrijevic, V Kocic, **N Filipovic** The Role of HMG COA Reductase Inhibitors on the Progression of Coronary Artery Disease: Focus on Prediction Model, Serbian Journal of Experimental and Clinical Research 1 (ahead-of-print) 2019.
2. Maja Milosevic, Nikola Mijailovic, Dalibor Nikolic, **Nenad Filipovic**, Aleksandar Peulic, Mirko Rosic, Suzana Pantovic. Manufacturing of Biodegradable Scaffolds to Engineer Artificial Blood Vessel, Serbian Journal of Experimental and Clinical Research, Vol.2017, No.2017, pp. 1-7, ISSN 2017, Doi 0.1515/sjecr-2017-0032, 2017
3. **N Filipovic**, M Radovic, V Isailovic, Z Milosevic, D Nikolic, I Saveljic, M Nikolic, T Djukic, B Andjelkovic-Cirkovic, T Exarchos, N Meunier, Z Teng, D Fotiadis, F Bohnke, O Parodi, A summary of results in modelling plaque formation and development, cochlea mechanics and vestibular disorder, Journal of the Serbian Society for Computational Mechanics, Vol. 10, No. 1, pp 20-33, ISSN 1820-6530, UDC: 616.13-004.6-073004.921, 2016.
4. Vukicevic, N. Stepanovic, D. Nikolic, Z. Milosevic, G. Jovicic, S. Savic, S Apostolovic, S Salinger-Martinovic, **N.Filipovic**, Software tools for Image-based modeling of fluid-solid interaction in coronary arteries fusing IVUS and angiography modalities, Journal of the Serbian Society for Computational Mechanics, Vol.6, No.2, pp 108-121, ISSN 1820-6530, 2012. (бр. цитата: 1)
5. Cirkovic, V. Isailovic, Z. Milosevic, J. Radulovic, A. Sofla, M. Radisic, M. Kojic and **N. Filipovic**, Analytical and numerical analysis of magnetic separation of cardiomyocytes, Journal of the Serbian Society for Computational Mechanics, Vol.6, No.2, pp 145-159, ISSN 1820-6530, 2012. (бр. цитата: 2)
6. Matic A., Ristic B., Devedzic G., **Filipovic N.**, Petrovic S., Mijailovic N., Cukovic S, Gait analysis in the patients with chronic anterior cruciate ligament injury, Serbian Journal of Experimental and Clinical Research, Vol.13, No.2, pp 49-54, ISSN 1820 – 8665, 2012.
7. **N. Filipovic**, M. Radovic, V. Isailovic, Z. Milosevic, D. Nikolic, I. Saveljic, M. Milosevic, D. Petrovic, M. Obradovic, D. Krsmanovic, E. Themis, A. Sakellarios, P. Siogkas, P. Marraccini, F. Vozzi, N. Meunier, Z. Teng, D. Fotiadis, O. Parodi, M. Kojic, Plaque formation and stent deployment with heating thermal effects in arteries, Journal of the Serbian Society for Computational Mechanics, Vol.6, No.1, pp 11-28, ISSN 1820-6530, 2012. (бр. цитата: 1)
8. Z. Milosevic, M. Radovic, Z. Teng, J. Bird, M. Obradovic, I. Saveljic, S. Savic, **N. Filipovic**, Plaque Progression Modeling by Using Hemodynamic Simulation and Histological Data, Journal of the Serbian Society for Computational Mechanics, Vol.6, No.2, pp 122-132, ISSN 1820-6530, 2012.
9. D. Milašinović, M. Ivanovic, H. Teng-Kobligk, D. Böckler, N. Filipović, Software Tools for Generating CFD Simulation Models of Blood Flow from CT Images, and for Postprocessing, Journal of the Serbian Society for Computational Mechanics, Vol.1, No.1, pp 51-58, ISSN 1820-6530, 2008.
10. O. Miljkovic, M. Ivanovic, **N. Filipovic**, M. Kojic, AI Models of the Hemodynamic Simulation, Journal of the Serbian Society for Computational Mechanics, Vol.2, No.2, pp 59-72, ISSN 1820-6530, 2008.
11. R.Radakovic, **N. Filipovic**, Dj. Kosanic, Computer simulation and modeling of cartilage deformation during a sportsman training, Serbian Journal of Sports Sciences, Vol.2, No.1, pp 29-39, ISSN 1820-6301, 2008.
12. Dimkic, M. Krstic, M., **Filipovic, N.**, Comparison of different configurations of Ranney wells using finite element modeling, Journal of the Serbian Society for Computational Mechanics, Vol.1, No.1, pp 144-153,

ISSN -, 2007.

13. Kojic, M., Isailovic, V., Stojanovic, B., **Filipovic, N.**, Modeling of cell mechanical response by biphasic models with activation, Journal of the Serbian Society for Computational Mechanics, Vol.1, No.1, pp 135-143, ISSN -, 2007.
14. Dimkic, M. Krstic, M., **Filipovic, N.**, Comparison of different configurations of Ranney wells using finite element modeling, Journal of the Serbian Society for Computational Mechanics, Vol.1, No.1, pp 144-153, ISSN 1820-6530, 2007.
15. **Filipovic, N.**, Nedeljkovic, Peulic, A., Finite element modeling of a transient functional electrical stimulation, Journal of the Serbian Society for Computational Mechanics, Vol.1, No.1, pp 154-163, ISSN 1820-6530, 2007.
16. **Filipovic N.**, Kojic M., Computer simulations of blood flow with mass transport through the carotid artery bifurcation, Theoret. Appl. Mech. (Serbian), Vol.31, No.1, pp 1-33, ISSN -, 2004.
17. Divac D., Vuckovic D., **Filipovic N.**, Zdravkovic N. and Kojic M., Mathematical Modelling of Spatial Seepage Problems Using Finite Element Method Applied in Case Study of "Prvonek" Dam", Water Resources Management (Yugoslavian), Vol.177-182, No.-, pp 9-21, ISSN -, 1999.
18. Kojic M., **Filipovic N.**, Mijailovic S., A General Formulation for Finite Analysis of Flow Through a Porous Deformable Medium, Theoretical and Applied Mechanics (Yugoslavian), Vol.23, No.-, pp 67-81, ISSN -, 1997.
19. М. Којић, **Н. Филиповић**, Н. Здравковић, Б-З. Ђулија и Д. Дивац, Моделирање филтрације подземних вода методом коначних елемената, Монографија, Управљање водним ресурсима Србије, Институт за водопривреду "Јарослав Черни", Vol.-, No.-, pp 189-207, ISSN -, 1997.

Списак резултата М53

Национални часопис

1. S Djorovic, I Saveljic, **N Filipovic**, Computational simulation of carotid artery: from patient-specific images to finite element analysis, J. Serb. Soc. Comput. Mech, Vol.13, No.1, pp 120-129, ISSN 1820-6530, Doi 10.24874/jsscm.2019.13.01.08, 2019
2. **N Filipovic**, T Sustersic, A Vulovic, A Tsuda, Big Data and machine learning: new frontier in lung cancer care, Shangai Chest Journal, 2019
3. Aleksandra Vulovic, Tijana Sustersic, Aleksandar Peulic, **Nenad Filipovic**, Vesna Rankovic, Comparison of different neural network training algorithms with application to face recognition, EAI Endorsed Transactions on Industrial Networks and Intelligent Systems Vol.4, No.12, Doi 10.4108/eai.10-1-2018.153550, 2018
4. Smiljana Djorovic, Igor Koncar, Lazar Davidovic, Strahinja Starcevic, **N Filipović**, Computational Analysis of Blood Flow Characteristics in an Aortic System with Abdominal and Left Common Iliac Aneurysm Pre- and Post-Stent Grafting, EAI Endorsed Transactions on Pervasive Health and Technology, Doi 10.4108/eai.28-2-2018.154145, 2018 (бр. цитата: 1)
5. Strahinja Starcevic, Smiljana Djorovic, **N Filipović**, Fractional Flow Reserve: Comparison between Invasive and Non-invasive Methods for Calculation of FFR, EAI Endorsed Transactions on Pervasive Health and Technology, Doi 10.4108/eai.28-2-2018.154146, 2018
6. Zarko Milosevic, Igor Saveljic, Dalibor Nikolic, N Zdravković, **N Filipović**, Neda Vidanovic, Three-Dimensional Computer Model of Benign Paroxysmal Positional Vertigo in the Semi-Circular Canal, EAI Endorsed Transactions on Pervasive Health and Technology, Doi 10.4108/eai.28-2-2018.154142, 2018
7. Tijana Djukic, **N Filipović**, Parallelization of the numerical simulation of motion of deformable objects within fluid domain on a GPU device, EAI Endorsed Transactions on Pervasive Health and Technology, Vol.14, No.1, 2018
8. Velibor Isailovic, Milica Nikolic, A Bibas, Antonis Sakellarios, Nikolaos Tachos, Miljan Milosevic, **N Filipović**, Numerical simulation of human hearing system, EAI Endorsed Transactions on Pervasive Health and Technology, Doi 10.4108/eai.28-2-2018.154144, 2018
9. I Milanković, N Mijailović, A Peulić, **N Filipović**, Application of data flow engines in biomedical images processing, IPSI BgD Trans Adv Res (TAR), Vol.14, No.1, 2018

10. A Vulović, N **Filipović**, Computational analysis of hip implant surfaces, J. Serb. Soc. Comput. Mech, Vol.13, No.1, pp 109-119, ISSN 1820-6530, Doi 10.24874/jsscm.2019.13.01.07, 2018 (бр. цитата: 3)
11. Tijana Šušteršič, Aleksandra Vulović, **Nenad Filipović**, Aleksandar Peulić, FPGA implementation of face recognition algorithm, Pervasive Computing Paradigms for Mental Health, pp 93-99, Doi 10.1007/978-3-319-74935-8_13, 2016 (бр. цитата: 1)
12. Šušteršič T., Vulović A., Filipović N., Peulić A. (2018) FPGA Implementation of Face Recognition Algorithm. In: Oliver N., Serino S., Matic A., Cipresso P., Filipovic N., Gavrilovska L. (eds) Pervasive Computing Paradigms for Mental Health. FABULOUS 2016, MindCare 2016, IIOT 2015. Lecture Notes of the Institute for Computer Sciences, Social Informatics and Telecommunications Engineering, vol 207. Springer, Cham. https://doi.org/10.1007/978-3-319-74935-8_13

Списак резултата M81

Ново техничко решење примењено на међународном нивоу

1. Tijana Djukic and **Nenad Filipovic**, Numerical model and software for simulation of vertigo in the human vestibular system, 2019

Списак резултата M82

Ново техничко решење (метода) примењено на националном нивоу

1. T. Djukic, M. Jeremic, **N. Filipovic**, M. Ravlic, M. Matovic, System for interactive followup of radioactivity level of patient with cancer thyroid gland after high dosage of radioactive iodine, 2018.

Списак резултата M85

Ново техничко решење

1. **Filipovic**, N., Kojic, M., Stojanovic, B. & Rankovic, V., VEINS, Specialized CFD software for simulation of blood flow through the veins, Kragujevac, Serbia., 2006
2. **Filipovic**, N., Kojic, M., Ivanovic, M., Stojanovic, B., Otasevic. L. & Rankovic, V., MedCFD, Specialized CFD software for simulation of blood flow through arteries, Kragujevac, Serbia., 2006
3. Kojic, M., **Filipovic**, N., Živkovic, M., Slavkovic, R. & Grujovic, N., PAK-FS Finite ElementProgram for Fluid-Structure Interaction, Kragujevac, Serbia, 2001
4. **Filipovic**, N., Kojic, Milivojevic, N., Stojanovic, B., Zivkovic, M., Slavkovic, R. & Grujovic, N., CFDAL CFD software for alveolated flow, Kragujevac, Serbia, 2000
5. Kojic, M., **Filipovic**, N., Živkovic, M., Slavkovic, R. & Grujovic, N., PAK-F Finite Element Program for Laminar Flow of Incompressible Fluid and Heat Transfer, Kragujevac, Serbia, 1998

Адресе на интернету на којима је биографија и научни резултати: [Google Scholar](https://scholar.google.com/), SCOPUS: <https://www.scopus.com/authid/detail.uri?authorId=35749660900>, ORCID: <https://orcid.org/0000-0001-9964-5615>

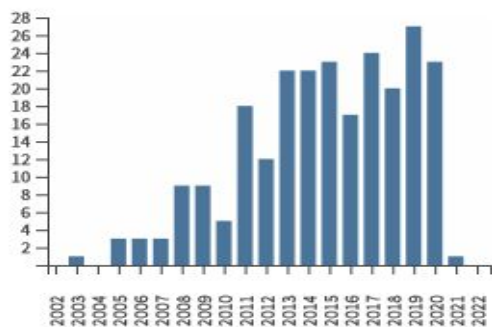
Број цитата, Хиршов индекс¹

Према бази података *Google Scholar*: број цитата (укупно) 4314 *h*-индекс = 31

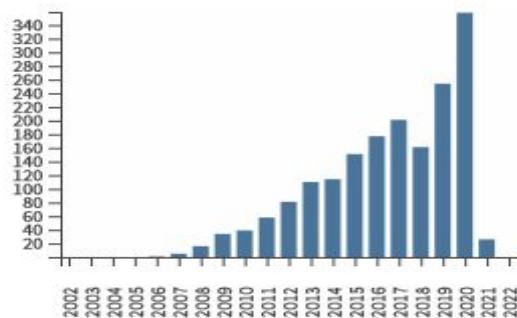
Према бази података *WoS*: број цитата (укупно) 1786 *h*-индекс = 22

Према бази података *Scopus*: број цитата (укупно) 1880 *h*-индекс = 21

¹ Претрага на дан 1. март 2021.



Слика 1. Број радова по години²



Слика 2. Број цитата по години²

II. ИНЖЕЊЕРСКЕ РЕАЛИЗАЦИЈЕ

2.1. Доприноси

Научне области у којима су главни доприноси кандидата:

- 1) Примењена механика и биомеханика
- 2) Примењена информатика и рачунарско инжењерство
- 3) Биоинжењерство

Најзначајнији резултати, како у генерисању нових идеја, тако и у њиховој реализацији, остварени су на пољу биомеханике и биоинжењеринга, као и у пројектовању и развоју уређаја за електроспининг и респиратора.

С обзиром на значај који има ова област, резултати који су остварени могу се сматрати изузетним, имајући у виду да су публиковани и у најпрестижнијим часописима у свету, као што су *Microfluidics and Nanofluidics*, *IEEE Journal of Biomedical and Health Informatics*, *Expert Systems With Applications*, а такође су објављене и 3 истакнуте монографије међународног значаја.

Значајни резултати:

1. На пољу унапређења нумеричких метода и њиховој примени на разне проблеме у медицини и биоинжењерингу, а посебно у анализи кардиоваскуларних болести (развој плака, анеуризме, примени стентова и сл.).
2. Аутор је већег броја софтверских целина на основу методе коначних елемената и дискретних метода. Један је од главних аутора софтверског пакета ПАК; у првом периоду у области механике флуида и солид-флуид интеракције, а касније у биоинжењерингу.
3. Пројектовање и реализација уређаја за механичко испитивање стентова по стандарду ISO 25539-2.
4. Пројектовање и реализација уређаја за електроспининг.
5. Пројектовање и реализација респиратора (30) за време пандемије COVID-19.

² Према бази података *WoS*.

2.2 Софтвери, техничка решења и патенти

Проф. др Ненад Филиповић је аутор и коаутор већег броја софтвера и техничких решења за моделирање методом коначних елемената, дискретним методама за области механике флуида и физичких поља, биомеханике.

III. ОСТАЛИ ПОКАЗАТЕЉИ УСПЕХА

3.1. Награде

- 2003. Награда за младе истраживаче, *Second MIT Conference on Computational Fluid & Solid Mechanics*, БОСТОН, САД.
- 2020. Захвалница Владе Србије за изузетан научни допринос Центра за биоинжењеринг Факултета инжењерских наука Универзитета у Крагујевцу у борби против болести COVID-19.
- 2020. Захвалница Центру за биоинжењеринг Факултета инжењерских наука Универзитета у Крагујевцу за допринос Клиничком центру Крагујевац у борби против болести COVID-19.
- 2020. Признање „Капетан Миша Анастасијевић” уручено је проф. др Ненаду Филиповићу, ректору Универзитета у Крагујевцу, за подстицање развоја научноистраживачке делатности у Републици Србији.

3.2. Уреднички рад у часописима

Члан уредништва међународних научних и стручних часописа:

1. International Journal of Monitoring and Surveillance Technologies Research (IJMSTR);
2. Journal of Biomedical and Health Informatics - IEEE EMBS.
3. Придružени уредник међународног часописа: IEEE, Journal of Biomedical and Health Informatics;

Главни уредник међународног часописа:

1. EAI Endorsed Transactions on Bioengineering and Bioinformatics (BEBI);

Изузетно заслужан за национални часопис где је организациони уредник:

2. Journal of the Serbian Society for Computational Mechanics (<http://www.sscm.kg.ac.rs/jsscm/>) категорије M24, коме успешно расте рејтинг и тренутно је часопис на WOS: Emerging Sources Citation Index

3.3. Рецензије радова

Чланство у редакцијама међународних и домаћих научних часописа:

1. Рецензент часописа Computer Methods in Applied Mechanics and Engineering
2. Рецензент часописа Microfluidics and Nanofluidics
3. Рецензент часописа Journal: Bull. Soc. Math. Banja Luka (ISSN 0354-5792)
4. Рецензент часописа Serbian Journal of Experimental and Clinical Research
5. Рецензент часописа Journal of Phlebology
6. Рецензент часописа Frontiers Physiology;
7. Рецензент часописа IEEE Journal of Biomedical and Health Informatics
8. Рецензент часописа Computers in Biology and Medicine

9. Рецензент часописа Computational Biology and Chemistry
10. Рецензент часописа Artificial Organs
11. Рецензент часописа Biomedical Engineering Online
12. Рецензент часописа Advances in Mechanical Engineering
13. Рецензент часописа Computer Aided Design
14. Рецензент часописа Part H: Journal of Engineering in Medicine
15. Рецензент часописа Biomedial Signal Processing and Control
16. Рецензент часописа Computer Methods and Programs in Biomedicine
17. Рецензент часописа Computational and Structural Biotechnology Journal
18. Рецензент часописа Biomechanics and Modeling in Mechanobiology
19. Рецензент часописа Journal of Biomechanics
20. Рецензент часописа Annals of Biomedical Engineering
21. Рецензент часописа Journal of the Mechanical Behavior of Biomedical Materials

И још:

- Рецензент монографије „Биоинжењеринг сколиозе“, аутора др Горана Девеџића ред. проф. и др Саше Ђуковића, научног сарадника, 2016;
- Рецензент за међународне европске пројекте FP6, FP7, Horizon2020, Agence Nationale de la Recherche, Russian Science Foundation.

IV. ДОПРИНОСИ РАЗВОЈУ УСЛОВА НАУЧНО-ИСТРАЖИВАЧКОГ РАДА

4.1. Формирање лабораторије

Формирана је Лабораторија на Факултету инжењерских наука Универзитета у Крагујевцу у оквиру Центра за биоинжењеринг, за механичко испитивање стентова која је акредитована од стране Акредитационог тела Србије по стандарду 17025.

4.2. Менторство

Био је ментор 10 докторских дисертација.

4.3. Педагошки рад

Уџбеници и помоћни уџбеници (збирка задатака, практикум за лабораторијске вежбе)

Филиповић Н, *Објектно-оријентисано програмирање*, скрипта, Технички факултет Чачак, 2001, Чачак.

Филиповић Н, *Програмски језик C*, Технички факултет Чачак, 2003, Чачак.

Филиповић Н, *Моделирање и симулације кардиоваскуларних система*, WUS Austria, ЦИМСИ, Универзитет у Крагујевцу, 2005.

Филиповић Н, *Основи биомеханике*, скрипта, Машински факултет Крагујевац, Србија, 2008.

Од избора у звање:

Филиповић Н, *Основи биоинжењеринга*, Факултет инжењерских наука, ISBN 978-86-86685-

66-7, Kragujevac, 2012.

4.4. Наставни предмети

Основне академске студије Машинско инжењерство

1. **Инжењерски алати**, Машинско инжењерство, 1. година, 1. семестар;
2. **Основи биоинжењеринга**, Модул Примењена механика и аутоматско управљање, 3. година, 5. Семестар;
3. **Софтверски инжењеринг**, Модул Информатика у инжењерству, 3 година, 6 семестар;
4. **Моделирање и симулација**, Модул Примењена механика и аутоматско управљање, 3. година, 5. Семестар;

Мајстер академске студије Машинско инжењерство

1. **Компјутерска графика**, Модул Примењена механика и аутоматско управљање, 2 година, 3 семестар;
2. **Биоинжењеринг и биоинформатика**, Модул Информатика у инжењерству, 1 година, 2 семестар;

Докторске академске студије Машинско инжењерство; Научна област Биоинжењеринг

1. **Компјутерска динамика флуида**, 2. семестар;
2. **Биоинжењеринг** 1, 3. семестар;

Основне академске студије Рачунарска техника и софтверско инжењерство

1. **Рачунарски алати**, 1. година, 1. семестар;
2. **Алгоритми и структуре података**, 1. година, 2. семестар;
3. **Софтверски инжењеринг**, 3. година, 6. семестар;
4. **Биоинжењеринг и биоинформатика**, 4. година, 8. семестар;
5. **Рачунарска графика**, 4. година, 8 семестар;

Увођење нових области, наставних предмета (модула, курсева):

Основне академске студије, предмети: Рачунарска техника и софтверско инжењерство: Рачунарски алати, Алгоритми и структуре података, Софтверски инжењеринг, Биоинжењеринг и биоинформатика, Рачунарска графика.

- Иницијатор 4 мастер програма на Универзитету у Крагујевцу: Биоинжењеринг, Информационе технологије, Развој компјутерских игара и Развој вештачке интелигенције.
- Иницијатор смера за Софтверско инжењерство на Факултету инжењерских наука.

V. ОРГАНИЗАЦИЈА НАУЧНОГ РАДА

5.1 Међународна сарадња

Руковођење међународним пројектима:

(координација међународног пројектног конзорцијума):

1. Computational modeling of blood flow in the tumor vasculature

- трајање: 2012-2015.
- финансирање: Швајцарска национална научна фондација, програм SCOPES

2. **Role of blood flow and sdf-1/cxcr4-induced recruitment of mononuclear cells in intussusceptive angiogenesis**
 - трајање: 2014-2016.
 - финансирање: Швајцарска национална научна фондација, програм SCOPES
3. **Use of Regressive Artificial Intelligence (AI) and Machine Learning (ML) Methods in Modelling of COVID-19 spread (COVIDAI)**
 - трајање: 6. јул 2020 - 31. децембар 2020.
 - финансирање: Програм Централно-европске иницијативе (CEI)
4. **Production of medical ventilators by using 3D printers and lasers, with lower production cost and in shorter production time compared to the standard industry approach, this solution enables the production of affordable medical ventilators in Serbia, for the fight against COVID-19 virus**
 - трајање: 5. август 2020 - 5. децембар 2020.
 - финансирање: Програм Уједињених нација за развој (UNDP)
5. **Increasing scientific, technological and innovation capacity of Serbia as a Widening country in the domain of multiscale modelling and medical informatics in biomedical engineering (SGABU)**
 - трајање: 2020-2023.
 - финансирање: ЕУ програм за истраживање, развој и иновације Хоризонт 2020

Учешће у значајнијим међународним пројектима:

1. **International European project for software development of clinical information system for orthopedic clinic in Bologna (MULTIMOD)**
 - трајање: 2003-2005.
 - финансирање: ЕУ програм за истраживање, развој и иновације FP6
2. **Particles in Developing Lung: Bioengineering Approach**, Harvard University and University of Крагујевац
 - трајање: 2004-2008.
 - финансирање: НИИ фонд, NHLBI истраживачки грант R01 HL070542-03, САД
3. **Multi-level patient-specific artery and atherogenesis model for outcome prediction, decision support treatment, and virtual hand-on training (ARTreat)**
 - трајање: 2008-2013.
 - финансирање: ЕУ програм за истраживање, развој и иновације FP7
4. **An Adriatic Network for Advancing Research Development and Innovation towards the Creation of new Policies for Sustainable Competiveness and Technological Capacity of SMEs (ADRIATinn)**
 - трајање: 2013-2016.
 - финансирање: IPA фонд – Јадрански програм прекограничне сарадње
5. **FLIRT: Fall in love with research tonight**
 - трајање: 2014-2015.
 - финансирање: ЕУ програм за истраживање, развој и иновације Хоризонт 2020 - Марија Кири програм, акција Ноћ истраживача

- 6. Simulation Modeling of coronary ARTery disease: a tool for clinical decision support (SMARTool)**
 - трајање: 2016-2019.
 - финансирање: ЕУ програм за истраживање, развој и иновације Хоризонт 2020
- 7. In-silico trials for drug-eluting BVS design, development and evaluation (InSilc)**
 - трајање: 2017-2021.
 - финансирање: ЕУ програм за истраживање, развој и иновације Хоризонт 2020
- 8. Drug-coated balloon simulation and optimization system for the improved treatment of peripheral artery disease (DECODE)**
 - трајање: 2020-2024.
 - финансирање: ЕУ програм за истраживање, развој и иновације Хоризонт 2020 - Марија Кири програм

COST пројекти:

- 1. COST Action MP1005, 2011-2015, NAMABIO: From nano to macro biomaterials (design, processing, characterization, modeling) and applications to stem cells regenerative orthopedic and dental medicine**
- 2. COST Action MP1301, 2013-2017, NEWGEN New Generation Biomimetic and Customized Implants for Bone Engineering**
- 3. COST Action MP1404, 2015-2019, SimInhale: Simulation and Pharmaceutical Technologies for Advanced Patient-Tailored Inhaled Medicines**
- 4. COST Action CA15120, 2016-2020, OpenMultiMed: Open Multiscale Systems Medicine**
- 5. COST Action CA16122, 2017-2021, BIONECA: Biomaterials and advanced physical techniques for regenerative cardiology and neurology**

Билатерални пројекти

(координатор тима из Србије проф. др Ненад Филиповић)

- 1. Development of an anatomical model for the simulation of excitation propagation and cardiac biomechanics, 2004-2006. (Србија - Грчка)**
- 2. Integration of data mining and high-performance computer modeling for coronary artery disease, Serbia-Slovenia, 2010-2011. (Србија - Словенија)**
- 3. Patient-specific computer model of the coronary arteries and prediction of the formation and growth of atherosclerotic plaque, 2010-2012. (Србија - Шпанија)**
- 4. Computer simulation for cardiovascular disease on high performance computing 2016-2017. (Србија - Хрватска)**
- 5. Modelling of innovative hearing implant devices using bone conduction sound, 2016-2017. (Србија - Аустрија)**
- 6. Simulation and modelling of metabolism in astrocytes, 2018-2019. (Србија - Словенија)**

7. Mathematical modeling and experimental procedures for tissue engineering of blood vessels by electrospinning, 2018-2019. (Србија - Кина)

Руковођење значајнијим националним пројектима:

1. **Развој софтвера и хардвера из области биоинжењеринга са применом у клиничкој пракси**, ТР-12007, финансиран од Министарства за науку и технолошки развој Републике Србије, 2008- 2010. Носилац истраживања је био Машински факултет у Крагујевцу.
2. **Примена биомедицинског инжењеринга у претклиничкој и клиничкој пракси**, ИИИ41007, финансиран од Министарства за науку и технолошки развој Републике Србије, 2011-2020. Носилац истраживања је био Машински факултет у Крагујевцу.
3. **Развој мобилне апликације за виртуелни FFR (Fraction Flow Reserve)**, финансиран од Фонда за иновациону делатност Републике Србије, 2020-2021. Носилац истраживања је био Факултет инжењерских наука у Крагујевцу.
4. **Иновирање лабораторијских вежби и експеримената на предметима мастер студијског програма Биоинжењеринг (БИОЛАБ)**, финансиран од стране Министарства просвете, науке и технолошког развоја Републике Србије, 2019-2020. Носилац истраживања је био Факултет инжењерских наука у Крагујевцу.

Учешће у националним пројектима:

1. **Развој метода и софтвера за нелинеарну анализу конструкција**, 1110, финансиран од Републичког министарства за науку и технологију, 1993-1995. Руководилац пројекта је био проф. др Милош Којић. Носилац истраживања је био Машински факултет у Крагујевцу.
2. **Развој нових инжењерских метода у машинству и бродоградњи**, 11М06, финансиран од Републичког министарства за науку и технологију, 1996-2000. Руководилац пројекта је био проф. др Милош Којић. Носилац истраживања је био Машински факултет у Крагујевцу.
3. **Развој метода и софтвера за нумеричка и експериментална истраживања из области биомедицинских наука**, финансиран од Републичког министарства за науку и технологију, 1997-2000. Руководилац пројекта је био проф. др Милош Којић. Носилац истраживања је био Центар за научна истраживања САНУ и Универзитета у Крагујевцу.
4. **Развој метода, софтвера и уређаја за област биомеханике и биоинжењеринга**, ТР233, финансиран од Републичког министарства за науку и технолошки развој, 2001-2004. Руководилац пројекта је био проф. др Милош Којић. Носилац истраживања је био Машински факултет у Крагујевцу.
5. **Транспорт биолошки активних молекула у физиолошким мембранама**: ОИ1246, финансиран од Републичког министарства за науку и технолошки развој, 2001-2005. Руководилац пројекта је био проф. др Мирко Росић. Носилац истраживања је био Медицински факултет у Крагујевцу.

6. **Развој компјутерских метода и софтвера у општем и биомедицинском инжењерингу**, ТП-6209А, финансиран од стране Министарства за науку и заштиту животне средине, 2005-2007. Руководилац пројекта је био проф. др Милош Којић. Носилац истраживања је био Машински факултет у Крагујевцу.
7. **Методe моделирања биомеханичких система са применом у медицини**, ОИ-144028, финансиран од стране Министарства за науку и заштиту животне средине, 2006-2010. Руководилац пројекта је био проф. др Милош Којић. Носилац истраживања је био Машински факултет у Крагујевцу.

5.2. Усавршавања у иностранству

2001. Универзитет у Бечу. Студијски боравак од месец дана и учествовање у пројекту за компјутерско моделирање и симулацију рада вештачког срца на главној Универзитетској АКН клиници;
- 2003-2008. Универзитет Харвард. Боравак по неколико месеци годишње уз усавршавање и учествовање на пројектима из области биоинжењерства.

5.3. Одржавање научних скупова

5.3.1. Председник програмског/организационог одбора

1. IEEE 15th International Conference on Bioinformatics and Bioengineering (BIBE), Belgrade, Serbia, 2-4. новембар 2015. год.
2. 2nd EAI International Conference on Future Access Enablers of Ubiquitous and Intelligent Infrastructures (FABULOUS), Belgrade, Serbia, 24-26. октобар 2016. год.
3. The Fourth South-East European Conference on Computational Mechanics - SEECM 2017, 3-5. 7. 2017. год.
4. 8th International Conference on Computational Bioengineering (ICCB2019), Belgrade, Serbia, 4-6. септембар 2019. године.
5. Organizing Committee of the 1-8th International Congress of Mechanics, Serbian Society of Mechanics; 2007-2021.

5.3.2. Члан програмског/организационог одбора

1. IEEE 13th International Conference on Bioinformatics and Bioengineering (BIBE), Creta, Greece, 10-13. новембар 2013. године.
2. IEEE 14th International Conference on Bioinformatics and Bioengineering (BIBE), Boca Raton, USA, 10-12. новембар 2014 године.
3. IEEE EMBS Biomedical and Health Informatics (BHI), Orlando, USA, 16-19. фебруар 2017. године.

5.3. Чланство и позиције у научним и стручним удружењима

1. Председник Српског друштва за механику (СДМ)
2. Секретар Српског друштва за рачунску механику (СДРМ);
3. Члан Српске академије нелинеарних наука;
4. Координирајући члан друштва European Society of Biomechanics;
5. Члан друштва European Society for Artificial Organs;
6. Члан форума Internet Electronic Biomechanics Discussion Forum – BIOMECH – L;
7. Члан друштва European Society for Biomechanics (ESB);

8. Члан друштва IEEE Engineering in Medicine and Biology Society;
9. Члан друштва European Community on Computational Methods in Applied Science (ECCOMAS);
10. Члан асоцијације International Association for Computational Mechanics (IACM) General Council.

5.4. Учешће у раду органа и тела факултета и Универзитета

1. Члан Савета факултета инжењерских наука 2012-2015. године;
Управник центра за биоинжењеринг на Факултету инжењерских наука у Крагујевцу; 2015-
2. Члан акредитационе комисије за увођење студијског програма Докторских студија – Биоинжењеринг;
3. Члан акредитационе комисије за увођење студијског програма основних академских студија Електротехника;

5.5. Вођење научних и професионалних (струковних) организација:

- 2001-2006. Заменик директора Суперкомпјутинг центра Универзитета у Крагујевцу,
2002. Један од оснивача постдипломских студија за Биомедицински инжењеринг у Центру за интердисциплинарне и мултидисциплинарне студије и истраживања.
2002. Један од оснивача Центра за суперкомпјутинг (ЦСК), заменик директора.
2004. Заменик руководиоца програма за Биоинжењеринг Центра за научна истраживања САНУ и Универзитета у Крагујевцу;
2006. Оснивач и руководиоца Центра за биоинжењеринг на Машинском факултету у Крагујевцу.
2008. Заменик директора Истраживачко-развојног центра за биоинжењеринг регистрованог од стране Министарства науке Републике Србије.
- 2013-2015. Проректор за међународну сарадњу Универзитета у Крагујевцу
2018. Вршилац дужности ректора Универзитета у Крагујевцу
- 2018- Ректор Универзитета у Крагујевцу

5.6 Учешће у раду одбора, законодавних тела, професионалних организација:

Члан матичног одбора за електронику, телекомуникације и информационе технологије Министарства за науку Републике Србије, 2016-