PERSONAL INFORMATION

Name and surname	Miljan Milošević
Date and place of birth	1984, Kragujevac
Scientific title	Senior Research Associate
E-mail	miljan.m@kg.ac.rs
Educational-scientific / educational-artistic field	Technical-technological sciences
University, Faculty, Organizational unit	University of Kragujevac, Intitute for Information Technologies, Department for technical-technological sciences
Research field and areas	Mechanical engineering; Applied informatics and computational engineering

EDUCATION

BACHELOR

Year	
Place	
Institution	

MASTER STUDIES

Year	2008
Place	Kragujevac
Institution	Faculty of Engineering, University of Kragujevac

DOCTORAL DISSERTATION

Year	2012
Place	Kragujevac
Institution	Faculty of Engineering, University of Kragujevac
Title of doctoral dissertation	Numerical modeling of diffusion in composite media
Scientific title	PhD – mechanical engineering

Research area	Technical-technological sciences; Informatics in engineering

PROFESSIONAL BIOGRAPHY – ELECTION IN RESEARCH OR SCIENTIFIC TITLE

Date	Institution	Scientific title
2010.	Faculty of Engineering, University of Kragujevac	Research Assistant
2015.	Metropolitan University Belgrade	Research Associate
2020.	Faculty of Engineering, University of Kragujevac	Senior Research Associate

PROFESSIONAL BIOGRAPHY - TRAINING

Year	Institution	Duration
2011	Northwestern University, Institute of Technology, Evanston, Illinois, USA	6 months
2015	Institute for Applied Informatics, Technical University of Braunschweig, Germany	45 days

ENGAGEMENT IN THE FORMATION OF SCIENTIFIC PERSONNEL

Engaged as a teacher at PhD study program Bioengineering (Faculty of Engineering, University of Kragujevac) and MSc study program Video Game Development at University of Kragujevac. Marko is on the list of mentors for doctoral study program Bioengineering the Faculty of Engineering, University of Kragujevac. As a member of the commission, he participated in the realization and defense of two master's theses and two doctoral dissertations. He is currently a comentor to one student at PhD study program Mechanical engineering at the Faculty of Engineering, University of Kragujevac.

PARTICIPATION IN NATIONAL PROJECTS FINANCED BY MINISTRY OF EDUCATION/MINISTRY OF SCIENCE AND TECHNOLOGICAL DEVELOPMENT/SCIENCE FUND OF THE REPUBLIC OF SERBIA:

TP 12007 - "Development of software and hardware in the field of bioengineering with application in clinical practice", Project of the Ministry of Science and Technological Development of the Republic of Serbia for the period 2008 - 2010. The project manager is prof. Dr. Nenad Filipović. The bearer of the research is BIIORC doo Kragujevac.

Integration of data regularity detection and complex computer modeling of coronary artery disease, Serbia-Slovenia Bilateral Project. 2010-2012, Head Dr. Nenad Filipović, Assoc. prof. The bearer of the research is the Faculty of Mechanical Engineering, Kragujevac.

Multi-scale modeling methods with applications in biomedicine (ON 174028) 2011-2020, Project manager is dr. Miloš Kojić. The bearer of the research is BIIORC doo Kragujevac.

PARTICIPATION IN INTERNATIONAL PROJECTS

SEE-GRID2: South-Eastern European Grid-enabled eInfrastructure Development 2, Contract number 031775. Head Dr. Nenad Filipović, Assoc. prof. (2007-2009).

BSEC project: New cardiovascular planning and diagnostic tool for coronary arteries in BSEC countries using computational simulation, 2009-2010. Head Dr. Nenad Filipović, Assoc. prof. The bearer of the research is the Faculty of Mechanical Engineering, Kragujevac.

FP7- ICT IP-224297-ARTreat: Multi-level patient-specific artery and atherogenesis model for outcome prediction, decision support treatment, and virtual hands-on training (09/01/08-08/31/12) FP7 project. Coordinator for Serbia and scientific coordinator, Dr. Nenad Filipović, full professor. The bearer of the research is the University of Kragujevac.

H2020-EU.3.1.5 SC1-PM- 777119 InSilc: In-silico trials for drugeluting BVS design, development and evaluation, Nov 2017 – Apr 2021. https://insilc.eu/

SILICOFCM, "In Silico trials for drug tracing the effects of sarcomeric

protein mutations leading to familial cardiomyopathy", FP7-ICT-2011-9-600933, 2018 -2022, Project Coordinator - Prof. Dr. Nenad Filipović, Institution - Faculty of Engineering Sciences in Kragujevac, Republic of Serbia. https://silicofcm.eu/

DECODE, "Drug-coated balloon simulation and optimization system for the improved treatment of peripheral artery disease", 2021- , Marie Skłodowska-Curie grant agreement No 956470, Coordinator for Serbia, Prof. Dr. Nenad Filipović, Institution - Faculty of Engineering Sciences in Kragujevac, Republic of Serbia, https://www.decodeitn.eu/

MEMBERSHIP IN SCIENTIFIC AND PROFESSIONAL ASSOCIATIONS

Member of the Serbian Society for Computational Mechanics (SSCM)

Member of the Serbian Society of Mechanics (SCM)

Member of the Society of Engineers and Technicians of the City of Kragujevac

Member of the European Association for Computational Mechanics and Applied Sciences - ECCOMAS

ORGANIZATION OF NATIONAL/INTERNATIONAL SCIENTIFIC MEETINGS (CONFERENCES, CONGRESSES...)

LIST OF SCIENTIFIC PAPERS:

Monographs, Monographic studies, Thematic anthologies	**Sum 3**

1. Milos Kojic, Miljan Milosevic, Arturas Ziemys, Computational Models in Biomedical Engineering - Finite Element Models Based on Smeared Physical Fields: Theory, Solutions, and Software, 1st Edition, Elsevier, September 11, 2022, ISBN: 9780323884723. **M11**.
2. Milos Kojic, **Miljan Milosevic**, Nikola Kojic, Velibor Isailovic, Dejan Petrovic, Nenad Filipovic, Mauro Ferrari, Arturas Ziemys, Transport

phenomena: Computational models for convective and diffusive transport in capillaries and tissue, chapter in book: Multiscale Modeling in Biomechanics and Mechanobiology, Editors: Suvranu De, Wonmuk Hwang, Ellen Kuhl, Springer, 2015, ISBN 978-1-4471-6598-9. https://doi.org/10.1007/978-1-4471-6599-6_7. **M13.**

3. Arturas Ziemys, Milos Kojic, Miljan Milosevic, Bernhard Schrefler, Mauro Ferrari, Chapter 7 - Multiscale models for transport and biodistribution of therapeutics in cancer, QSP book project of the CACE series (Volume 42, 2018, Pages 209-237), 2018, https://doi.org/10.1016/B978-0-444-63964-6.00007-6 . **M13.**

Papers published in scientific journals of international scientific importance	**Sum** 29

1. Fine D, Grattoni A, Hosali S, Ziemys A, De Rosa E, Gill J, Medema R, Hudson L, Kojic M, **Milosevic M,** Brousseau Iii L, Goodall R, Ferrari M, Liu X. A robust nanofluidic membrane with tunable zero-order release for implantable dose specific drug delivery, *Lab on a Chip*, 2010,10, 3074-3083. ISSN: 1473-0189. doi: 10.1039/c0lc00013b. **M21a**.
2. A.Ziemys, M. Kojic, **M.Milosevic**, N. Kojic, F.Hussain, M.Ferrari, A. Grattoni, Hierarchical modeling of diffusive transport through nanochannels by coupling molecular dynamics with finite element method, Journal of Computational Physics, 230(2011) 5722-5731. ISSN: 0021-9991. https://doi.org/10.1016/j.jcp.2011.03.054. **M21a**.
3. A. Ziemys, M. Kojic, **M. Milosevic**, M. Ferrari, Interfacial effects on nanoconfined diffusive mass transport regimes, *Physical Review Letters*, 2012, Volume 108, Issue 23, 236102, doi: 10.1103/PhysRevLett.108.236102. **M21a**.
4. M. Kojic, **M. Milosevic**, N. Kojic, K. Kim, M. Ferrari, A. Ziemys. A multiscale MD–FE model of diffusion in composite media with internal surface interaction based on numerical homogenization procedure, Computer Methods in Applied Mechanics and Engineering. 01/2014; 269:123–138. https://doi.org/10.1016/j.cma.2013.11.010. **M21a**.
5. Guillermo U. Ruiz-Esparza, Suhong Wu, Victor Segura-Ibarra, Francisca E. Cara, Kurt W. Evans, **Miljan Milosevic**, Arturas

Ziemys, Milos Kojic, Funda Meric-Bernstam, Mauro Ferrari and Elvin Blanco, Polymer nanoparticles enhanced in a cyclodextrin complex shell for potential site- and sequence-specific drug release, Advanced Functional Materials, Volume 24, Issue 30, pages 4753–4761, August 13, 2014. https://doi.org/10.1002/adfm.201400011. **M21a**.

6. K. Yokoi, M. Kojic, **M. Milosevic**, T. Tanei, M. Ferrari, A. Ziemys. Capillary-wall collagen as a biophysical marker of nanotherapeutic permeability into the tumor microenvironment. Cancer Research (2014). 2014 Aug 15;74(16):4239-46. doi: 10.1158/0008-5472.CAN-13-3494. **M21a**.
7. M. Kojic, **M. Milosevic**, N. Kojic, Z. Starosolski, K. Ghaghada, R. Serda, A. Annapragada, M. Ferrari, A. Ziemys, A multi-scale FE model for convective-diffusive drug transport within tumor and large vascular networks, Computer Methods in Applied Mechanics and Engineering, 2015, 294:100–122. https://doi.org/10.1016/j.cma.2015.06.002. **M21a**.
8. Kenji Yokoi, Diana Chan, Milos Kojic, **Miljan Milosevic**, David Engler, Rise Matsunami, Tomonori Tanei, Yuki Saito, Mauro Ferrari, Arturas Ziemys, Liposomal doxorubicin extravasation controlled by phenotype-specific transport properties of tumor microenvironment and vascular barrier, Journal of Controlled Release, 2015 Sep 25;217:293-299. doi: 10.1016/j.jconrel.2015.09.044. **M21a**.
9. Kiseliovas V, **Milosevic M**, Kojic M, Mazutis L, Kai M, Liu YT, Yokoi K, Ferrari M, Ziemys A, Tumor progression effects on drug vector access to tumor-associated capillary bed, Journal of Controlled Release, 2017 Sep 10;261:216-222. doi: 10.1016/j.jconrel.2017.05.031. **M21a**.
10. M. Kojic, **M. Milosevic**, V. Simic, E.J. Koay, J.B. Fleming, S. Nizzero, N. Kojic, A. Ziemys , M. Ferrari, A composite smeared finite element for mass transport in capillary systems and biological tissue, Computer Methods in Applied Mechanics and Engineering, 29 June 2017, https://doi.org/10.1016/j.cma.2017.06.019. **M21a**.
11. Milosevic M, Simic V, Milicevic B, Koay E.J, Ferrari M, , Ziemys A, Kojic M, Correction function for accuracy improvement of the Composite Smeared Finite Element for diffusive transport in biological tissue systems. Comput. Methods Appl. Mech. Engrg, Vol

338, August 2018, pp 97-116, doi.org/10.1016/j.cma.2018.04.012 , ISSN : 0045- 7825. M21a.

12. A. Ziemys, K. Yokoi, M. Kai, Y.T. Liu, M. Kojic, V. Simic, M. Milosevic, A. Holder, M. Ferrari, Progression- dependent transport heterogeneity of breast cancer liver metastases as a factor in therapeutic resistance, Journal of Controlled Release, Vol 291, December 2018, DOI : https://doi.org/10.1016/j.jconrel.2018.10.014 , pp 99-105. **M21a**.
13. T. S. Mahadevan, **M. Milosevic**, M. Kojic, F. Hussain, N. Kojic, R. Serda, M. Ferrari, A. Ziemys, Diffusion transport of nanoparticles at nanochannel boundaries, Journal of Nanoparticle Research, February 2013, doi: 10.1007/s11051-013-1477-9, ISSN: 1388-0764. **M21.**
14. Milos Kojic, **Miljan Milosevic**, Suhong Wu, Elvin Blanco, Mauro Ferrari, Arturas Ziemys, Mass partitioning effects in diffusion transport. Physical Chemistry Chemical Physics, 2015, vol. 17 br. 32, str. 20630-20635. doi: 10.1039/C5CP02720A. **M21.**
15. M. Milosevic, D. Stojanovic, V. Simic, B. Milicevic, A. Radisavljevic, P. Uskokovic, M. Kojic, A Computational Model for Drug Release from PLGA Implant, Materials, Vol. 11, November 2018, https://doi.org/10.3390/ma11122416 , pp 1-17. **M21.**
16. Milos Kojic, Miljan Milosevic, Vladimir Simic, Bogdan Milicevic, Vladimir Geroski, Sara Nizzero, Arturas Ziemys, Nenad Filipovic, Mauro Ferrari, Smeared Multiscale Finite Element Models for Mass Transport and Electrophysiology Coupled to Muscle Mechanics, Frontiers in Bioengineering and Biotechnology, ISSN 2296-4185, Vol. 7, No. 381, pp. 1-16, doi.org/10.3389/fbioe.2019.00381, 2019. **M21.**
17. Miljan Milosevic, Dusica B. Stojanovic, Vladimir Simic, Mirjana Grkovic, Milos Bjelovic, Petar S. Uskokovic and Milos Kojic, Preparation and modeling of three-layered PCL/PLGA/PCL fibrous scaffolds for prolonged drug release, https://doi.org/10.1038/s41598-020-68117-9, Scientific Reports, vol 10, Article number: 11126 (2020). **M21**.
18. Ziemys, A., Simic, V., Milosevic, M., Kojic, M., Liu, Y.T., Yokoi, K. Attenuated Microcirculation in Small Metastatic Tumors in Murine Liver. Pharmaceutics 2021, Vol 13, 703, doi.org/10.3390/pharmaceutics13050703. **M21.**

19. Filipovic N, Sustersic T, Milosevic M, Milicevic B, Simic V, Prodanovic M, Mijailovic S and Kojic M, SILICOFCM platform, multiscale modeling of left ventricle from echocardiographic images and drug influence for cardiomyopathy disease, Computer Methods and Programs in Biomedicine 2022, Vol 227, ISSN 0169-2607, doi.org/10.1016/j.cmpb.2022.107194. **M21**.
20. Bogdan Milićević, Miloš Ivanović, Boban Stojanović, Miljan Milošević, Miloš Kojić, Nenad Filipović, Huxley muscle model surrogates for high-speed multi-scale simulations of cardiac contraction, Computers in Biology and Medicine, Volume 149, October 2022, 105963, https://doi.org/10.1016/j.compbiomed.2022.105963. **M21.**
21. Kojic M, Milosevic M., Simic V.,Koay E.J., Kojic N., Ziemys A., Ferrari M., "*Multiscale smeared finite element model for mass transport in biological tissue : From blood vessels to cells and cellular organelles*", Computers in Biology and Medicine, Vol 99, August 2018, DOI : 10.1016/j.compbiomed.2018.05.022, pp 7-23.**M22.**
22. M. Kojic, M. Milosevic, V. Simic, A. Ziemys, N. Filipovic, M. Ferrari, Smeared multiscale finite element model for electrophysiology and ionic transport in biological tissue, Computers in Biology and Medicine, Volume 108, May 2019, Pages 288-304. https://doi.org/10.1016/j.compbiomed.2019.03.023. **M22.**
23. Santagiuliana R, Milosevic M, Milicevic B, Sciumè G, Simic V, Ziemys A, Kojic M, Schrefler BA. Coupling tumor growth and bio distribution models, Biomed Microdevices (2019) 21: 33. https://doi.org/10.1007/s10544-019-0368-y. **M22.**
24. Filipovic N, Nikolic D, Isailovic V, Milosevic M, Geroski V, Karanasiou G, Fawdry M, Flanagan A, Fotiadis D, Kojic M. In vitro and in silico testing of partially and fully bioresorbable vascular scaffold. J Biomech. 2021 Jan 22;115:110158. doi: 10.1016/j.jbiomech.2020.110158. Epub 2020 Dec 2. PMID: 33360181. **M22.**
25. Miljan Milosevic, Milos Anic, Dalibor Nikolic, Bogdan Milicevic, Milos Kojic, Nenad Filipovic, "InSilc Computational Tool for In Silico Optimization of Drug-Eluting Bioresorbable Vascular Scaffolds", Computational and Mathematical Methods in Medicine, vol. 2022, Article ID 5311208, 14 pages, 2022.

https://doi.org/10.1155/2022/5311208. **M22**.

26. A.Ziemys, S.Klemm, **M.Milosevic**, K.Yokoi, M.Ferrari, M.Kojic, Computational analysis of drug transport in tumor microenvironment as a critical compartment for nanotherapeutic pharmacokinetics, Drug Delivery (2015), 2015 Jun 8:1-8. doi: 10.3109/10717544.2015.1022837.**M23.**
27. N. Kojic, **M. Milosevic**, D. Petrovic, V. Isailovic, A. F. Sarioglu, D. Haber, M. Kojic, M. Toner, A computational study of circulating large tumor cells traversing microvessels, Computers in Biology and Medicine, 2015 Aug;63:187-95. doi: 10.1016/j.compbiomed.2015.05.024. **M23**
28. M. Kojic, **M. Milosevic**, N. Kojic, E.J. Koay, J.B. Fleming, M. Ferrari and A. Ziemys, Mass release curves as the constitutive curves for modeling diffusive transport within biological tissue, Computers in Biology and Medicine, 2016, http://dx.doi.org/10.1016/j.compbiomed.2016.06.026 **M23**
29. Filipovic, N., Saveljic, I., Sustersic, T., Milosevic, M., Milicevic, B., Simic, V., Ivanovic, M., Kojic, M. In Silico Clinical Trials for Cardiovascular Disease. J. Vis. Exp. (183), e63573, doi:10.3791/63573, 2022. **M23**
30. Simic V, Milosevic M, Milicevic V, Filipovic N, Kojic M. A novel composite smeared finite element for mechanics (CSFEM): Some applications. Technol Health Care. 2022 Oct 14. doi: 10.3233/THC-220414. Epub ahead of print. PMID: 36314177. **M23**

Proceedings of international scientific conferences	**Sum** 44

1. M.Kojić, N.Kojić, M.Milosevic, A.Grattoni, E.De Rosa, M.Ferrari, Finite element modeling of diffusion in NDS (nanochannel delivery system), 2nd International Congress of Serbian Society of Mechanics (IConSSM 2009), Palić (Subotica), Serbia, 1-5 June 2009. ISBN 978-86-7892-173-5.**M33**.
2. M.Milosevic, A.Ziemys, M.Ferrari, M.Kojić, Modeling of diffusion within nanochannels with the surface effects, 3nd International Congress of Serbian Society of Mechanics (IConSSM 2011), Vlasina Lake, Serbia, 5-8 July 2011. ISBN 978-86-7892-173-5 **M33**
3. M.Kojic, M.Milosevic, N.Kojic, M.Ferrari, A.Ziemys, *Numeric*

modeling of diffusion in complex media with surface interaction effects, Fifth International Scientific Conference "CONTEMPORARY MATERIALS", Banja Luka, July 5 to 7, 2012. **M33**

4. Mahadevan, TS, Kojic, M, Milosevic, M, Isailovic, V, Filipovic, N, Ferrari, M & Ziemys, A 2012, 'Nanoparticle transport models in confined fluids'. in *Technical Proceedings of the 2012 NSTI Nanotechnology Conference and Expo, NSTI-Nanotech 2012*. pp. 412-415, Nanotechnology 2012: Electronics, Devices, Fabrication, MEMS, Fluidics and Computational - 2012 NSTI Nanotechnology Conference and Expo, NSTI-Nanotech 2012, Santa Clara, CA, 18-21 June. **M33**
5. Kojic M, Milosevic M, Simic V, Ziemys A, Ferrari M, Coupling fluid and solid domains in modeling drug transport within tumor, Apr 1 2015 COUPLED PROBLEMS 2015 - Proceedings of the 6th International Conference on Coupled Problems in Science and Engineering. International Center for Numerical Methods in Engineering, p. 583-592 10p. **M33**
6. Milos Kojic, Miljan Milosevic, Velibor Isailovic, Vladimir Simic, Mauro Ferrari and Arturas Ziemys, Computational Models for Convective and Diffusive Drug Transport in Capillaries and Tissue, The IEEE International Conference on Bioinformatics & Bioengineering BIBE 2015, Nov 02-04,. 2015. Belgrade. **M33**
7. Miljan Milosevic, Vladimir Simic, Velibor Isailovic, Milos Kojic, Numerical modeling of drug delivery in organs: from CT scans to FE model, FABULOUS - 2nd EAI International Conference on Future Access Enablers of Ubiquitous and Intelligent Infrastructures, Belgrade, Serbia, October 24-25, 2016. **M33**
8. Velibor Isailovic, Miljan Milosevic, Nenad Filipovic, Milica Nikolic, Thanos Bibas, Antonis Sakellarios, Nikolaos Tachos, Numerical simulation of human hearing system, FABULOUS - 2nd EAI International Conference on Future Access Enablers of Ubiquitous and Intelligent Infrastructures, Belgrade, Serbia, October 24-25, 2016. **M33**
9. Vladimir Simic, Jessica Domitrovic, Miljan Milosevic, Bogdan Milicevic, Ashley Holder, Milos Kojic, Computational model for heat transfer coupled with fluid flow within peritoneal cavity, 1st International Conference on Chemo and Bioinformatics, Kragujevac, Serbia, 26-27th October, 2021, University of Kragujevac, Faculty of Engineering, ISBN 978-86-82172-00-0, pp. 271-274,

doi:10.46793/ICCBI21.271S. **M33**

10. Miljan Milosevic, Nicola Di Trani, Vladimir Simic, Alessandro Grattoni, Milos Kojic, COMPUTATIONAL MODELING OF INTRAOCULAR DRUG TRANSPORT, 1st International Conference on Chemo and Bioinformatics, Kragujevac, Serbia, 26-27th October, 2021, University of Kragujevac, Faculty of Engineering, ISBN 978-86-82172-00-0, pp 68-71, doi:10.46793/ICCBI21.068M. **M33**
11. Bogdan Milicevic, Vladimir Simic, Miljan Milosevic, Milos Ivanovic, Boban Stojanovic, Milos Kojic and Nenad Filipovic, "Integration of Surrogate Huxley Muscle Model into Finite Element Solver for Simulation of the Cardiac Cycle," 2022 44th Annual International Conference of the IEEE Engineering in Medicine & Biology Society (EMBC), 2022, pp. 3943-3946, doi: 10.1109/EMBC48229.2022.9870995. M33.
12. T.Mahadevan, **M.Milosevic**, M.Kojic, F.Hussain, M.Ferrari, A.Ziemys, N.Kojic, *Nanoparticle transport through boundaries of nanoporous structures*, *Abstract* ASME IMECE, November 9-15, 2012, Houston, Texas. IMECE2012-85775, *Extended Abstract*. M34.
12. A.Ziemys, **M.Milosevic**, M.Ferrari, M.Kojic, *Interfacial Effects on Diffusive Mass Transport Regimes Through Nanofluidic Structures*, ASME IMECE, November 9-15, 2012, Houston, Texas. IMECE2012-85780, *Presentation*. M34.
13. A.Ziemys, M.Kojic**, M.Milosevic**, N.Kojic, F.Hussain, M.Ferrari, A. Grattoni, *Hierarchical Modeling Of Diffusion-Based Transport Through Nanochannels By Coupling Molecular Dynamics With Finite Element Method*, ASME IMECE, November 9-15, 2012, Houston, Texas. IMECE2012-85870, *Presentation*. M34.
14. M.Kojic**, M.Milosevic**, N.Kojic, M.Ferrari, A.Ziemys, Modeling of diffusion in composite media by using a numerical homogenization procedure, ASME IMECE, November 9-15, 2012, Houston, Texas. IMECE2012-86060, *Presentation*. M34.
15. M. Kojic, **M. Milosevic**, N. Kojic, M. Ferrari and A. Ziemys, Our multiscale model for diffusion in tissue, Advances in Computational Mechanics (ACM 2013) — February 24-27, 2013, San Diego, California. *Presentation*. M34.
16. Arturas Ziemys, **Miljan Milosevic**, Milos Kojic Transport model for

drug release from delivery vectors accounting for chemical and microstructure properties. 3rd International Conference and Exhibition on Pharmaceutics & Novel Drug Delivery Systems, April 08-10, 2013 Hilton Chicago/Northbrook, USA, Presentation, **M34**.

17. **M. Milosevic**, M. Kojic, N. Kojic, A. Ziemys, M. Ferrari, Hierarchical model for diffusion within biological media, Fourth Serbian (29th Yu) Congress on Theoretical and Applied Mechanics, Vrnjačka Banja, Serbia, 4-7 June 2013. M34.
18. **M. Milosevic**, M. Kojic, N. Kojic, M. Ferrari and A. Ziemys, Multiscale modeling of molecular diffusion in tissue, SEECCM III - 3rd South-East European Conference on Computational Mechanics - *an ECCOMAS and IACM Special Interest Conference* M. Papadrakakis, M. Kojic, I. Tuncer (eds.), Kos Island, Greece, 12–14 June 2013. M34.
19. 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* M. Papadrakakis, M. Kojic, I. Tuncer (eds.), Kos Island, Greece, 12–14 June 2013. M34.
20. **M. Milosevic**, M. Kojic, N. Kojic, M. Ferrari and A. Ziemys, Numerical modeling of therapeutical particle diffusion in tissue, 19th Congress of the European Society of Biomechanics (ESB 2013) Patras, Greece, 25–28 August 2013. M34.
21. Milos Kojic, **Miljan Milosevic**, Dejan Petrovic, Velibor Isailovic, Nikola Kojic, Nenad Filipovic, Mauro Ferrari, MODELING OF LARGE DEFORMATION OF INCOMPRESSIBLE SOLIDS AND IMPLEMENTATION TO TRANSPORT OF CELLS AND PARTICLES IN SMALL BLOOD VESSELS, WCCM XI -ECCM V - ECFD VI, July 20 - 25, 2014, Spain. *Presentation*. M34.
22. **Miljan Milosevic**, Milos Kojic, Dejan Petrovic, Nikola Kojic, Mauro Ferrari and Arturas Ziemys, APPLICATION OF OUR MULTISCALE DIFFUSION MODEL TO DETERMINATION OF DRUG DISTRIBUTION WITHIN TUMOR, WCCM XI -ECCM V - ECFD VI, July 20 - 25, 2014, Barcelona, Spain. *Presentation*. **M34**.
23. Milos Kojic, **Miljan Milosevic**, Vladimir Simic, Arturas Ziemys,

Mauro Ferrari, A computational model for drug transport in tumor, 5th International Congress of Serbian Society of Mechanics, Arandjelovac, Serbia, June 15-17, 2015. Extended abstract. M34.

24. Milos Kojic, **Miljan Milosevic**, Mass release curve as the constitutive curve for diffusion in complex media, 5th International Congress of Serbian Society of Mechanics, Arandjelovac, Serbia, June 15-17, 2015. Extended abstract. M34.
25. **Miljan Milosevic**, Vladimir Simic, Ananth Annapragada, Milos Kojic, Modeling of convective-diffusive transport within mouse brain, 5th International Congress of Serbian Society of Mechanics, Arandjelovac, Serbia, June 15-17, 2015. Extended abstract. M34.
26. Milos Kojic, **Miljan Milosevic**, Vladimir Simic, Mauro Ferrari, Eugene J. Koay, Arturas Ziemys, A MODEL FOR DRUG TRANSPORT IN TUMOR, ECCOMAS Congress 2016, VII European Congress on Computational Methods in Applied Sciences and Engineering, Crete Island, Greece, 5–10 June 2016. Abstract. M34.
27. **Miljan Milosevic**, Milos Kojic, Vladimir Simic, Dusica Stojanovic, Petar Uskokovic, NUMERICAL MODELING OF DIFFUSION IN POLY(LACTIC-CO-GLYCOLIC ACID) CONSISTED OF DRUG-LOADED EMULSION ELECTROSPUN NANOFIBERS, ECCOMAS Congress 2016, VII European Congress on Computational Methods in Applied Sciences and Engineering, Crete Island, Greece, 5–10 June 2016. Abstract. M34.
28. **Miljan Milosevic**, Milos Kojic, Vladimir Simic, FIELD OF CORRECTION FACTORS FOR SMEARED FINITE ELEMENT, 6th International Congress of Serbian Society of Mechanics, Mountain Tara, Serbia, June 19-21, 2017. Abstract. M34.
29. Milos Kojic, **Miljan Milosevic**, Vladimir Simic, CONVECTION–DIFFUSION TRANSPORT MODEL USING COMPOSITE SMEARED FINITE ELEMENT, 6th International Congress of Serbian Society of Mechanics, Mountain Tara, Serbia, June 19-21, 2017. Abstract. M34.
30. Milos Kojic, **Miljan Milosevic**, Vladimir Simic, Nikola Kojic, Arturas Ziemys, Mauro Ferrari, Convection–diffusion transport model using composite smeared finite element, 4th South-East European Conference on Computational Mechanics, 03-04 July, 2017, Kragujevac, Serbia. M34.
31. **Miljan Milosevic**, Milos Kojic, Vladimir Simic, Accuracy of smeared finite element model improved by a field of correction factors, 4th

South-East European Conference on Computational Mechanics, 03-04 July, 2017, Kragujevac, Serbia. M34.

32. Vladimir Simić, **Miljan Milošević**, Bogdan Milićević, Miloš Kojić, „Application of multi-scale smeared finite element model for modeling of mass transport in capillary systems and biological tissue“, Book of Abstracts, ISSN 2334-6590, Vol 40, No. 1, Belgrade BioInformatics Conference, Belgrade, Serbia, 18-22 June, 2018, page 93. M34.
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CITATION OF SCIENTIFIC PAPERS

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BRIEF DESCRIPTION OF RESEARCH IN THE PREVIOUS PERIOD

Application of the finite element method (FEM) in diffusion and convective transport, solid mechanics and fluid dynamics. Numerical modeling of diffusion in tumor and organs, application of distributed (smeared) methodology in modeling drug transport in tumor and organs and deformable environments. Application of the finite element method in solid mechanics and fluid dynamics

BRIEF DESCRIPTION OF PLANNED RESEARCH IN THE NEXT PERIOD

Development of new computer models and application of numerical simulations of MKE in order to model drug transport in tumors, organs and implants, drug transport from DCB balloons, stents. Application of FEM and numerical simulations to various problems in the field of biomedical engineering.