



Научно-стручно веће за природно-математичке науке

**Предмет:** Образац о испуњавању услова за избор у звање наставника

**Област:** Остале области

**Звање:** Редовни професор

Име и презиме

**Марија Милошевић**

Датум рођења

**27.10.1982.**

Назив и седиште установе/организације у којој је кандидат запослен

**Природно-математички факултет у Нишу, Универзитет у Нишу**

Радно место

**Ванредни професор**

Датум расписивања конкурса

**11.11.2020.**

Начин (место) објављивања

**Лист „Послови“ Националне службе за запошљавање, број 907 од 11.11.2020.**

Звање за које је расписан конкурс

**Ванредни професор или редовни професор за ужу научну област Математика**

Звање за које кандидат конкурише (заокружити одговарајућу опцију):

1. Доцент
2. Доцент или ванредни професор
3. Ванредни професор
- 4. Ванредни професор или редовни професор**
5. Редовни професор

Ужа научна област

**Математика**

1. Испуњени услови за избор у звање ванредни професор

(навести датум и број Одлуке о избору у звање наставника, као и назив органа који је донео)

**04.04.2016, НСВ број 8/17-01-003/16-006, Научно-стручно веће за природно-математичке науке Универзитета у Нишу**

2. позитивна оцена педагошког рада која се утврђује у складу са чланом 13. Правилника о поступку стицања звања и заснивања радног односа наставника Универзитета у Нишу („Гласник Универзитета у Нишу“ број 5/16)

(навести број и датум утврђене оцене)

**Биће достављена са извештајем комисије**

3. Остварене активности бар у четири елемента доприноса широј академској заједници из члана 4. Ближих критеријума за избор у звања наставника

- учешће у промотивним активностима Департамента за математику 2018. и 2019. године са наставницима и студентима („Наук није баук“ 2018. и 2019. и „Ноћ истраживача“ 2018.)
- учешће на манифестацији „Мај месец математике“ са одржаним предавањем 2018. године на Природно-математичком факултету у Нишу
- од 2019. године чланство у уређивачком одбору часописа FILOMAT, који издаје Природно-математички факултет у Нишу
- чланство у комисијама за спровођење пријемних испита на Департаману за математику
- учешће у реализацији припремне наставе за пријемни испит за упис ОАС Математике на Природно-математичком факултету у Нишу
- чланство у комисијама за писање извештаја за изборе у наставна и истраживачка звања
- чланство у комисији за одбрану докторске дисертације др Горице Павловић-Рајковић, 2014.
- од школске 2008/2009. до 2017/2018. извођење наставе из предмета „Вероватноћа и математичка статистика“ у Специјализованом математичком одељењу гимназије „Светозар Марковић“ у Нишу
- учешће у реализацији припремне наставе за пријемни испит за упис у прву годину Специјализованог математичког одељења гимназије „Светозар Марковић“ у Нишу
- рецензирање универзитетског уџбеника:  
Марија Крстић, Миљана Јовановић, *Вероватноћа и статистика у биологији, уџбеник са задацима*, Универзитет у Нишу, Природно-математички факултет Ниш, 2018.
- рецензирање радова у бројним часописима, као што су: Applied Mathematics and Computation, Journal of Computational and Applied Mathematics, FILOMAT, Abstract and Applied Analysis, Journal of Applied Mathematics, Stochastic Analysis and Applications, SCIENCE CHINA Mathematics, Journal of Difference Equations and Applications, Numerical Algorithms, Asian Journal of Control, Applied Numerical Mathematics
- излагања на семинарима:  
[1] „Нумеричке и аналитичке апроксимације решења стохастичких диференцијалних једначина“, Математички институт САНУ, Београд, Србија, 2011.  
[2] „Поређење неких аналитичких и нумеричких метода апроксимације решења стохастичких диференцијалних једначина“, Математички институт САНУ, Београд, Србија, 2014.  
[3] "Backward Euler-ова и forward-backward Euler-ова метода за пантографске стохастичке диференцијалне једначине под условима нелинеарног раста", Свеучилиште Josipa Juraja Strossmayera, Осиек, Хрватска, 2019. (у оквиру билатералне сарадње Републике Србије и Републике Хрватске под руководством др Јасмине Ђорђевић, ванредног професора Природно-математичког факултета у Нишу и др Ненада Шувака, ванредног професора Свеучилишта Josipa Juraja Strossmayera у Осиеку)  
[4] "Дивергенција backward Euler-ове методе за обичне стохастичке диференцијалне једначине", Семинар за стохастичку, Природно-математички факултет у Нишу, 2020.
- похађање међународних курсева:  
[1] "Financial Mathematics" (DAAD), Пловдив, Бугарска, 2004.  
[2] "Stochastic Processes and Modelling of System Reliability" (DAAD), Битољ, Македонија, 2006.  
[3] "Chaos, expansions and Ito calculus" (DAAD), Нови Сад, Србија, 2010.  
[4] "International Summer Academy 2012 on Advanced Stochastic Methods to Model Risk" (DAAD), Улм, Немачка, 2012.  
[5] "Mathematical models in economics and their computer implementation School", Перм, Русија, 2013.
- од ступања у радни однос 2007. године извођење наставе (вежби или предавања) на свим нивоима студија на Департаману за математику, као и на основним академским студијама Департамента за хемију, биологију и географију Природно-математичког факултета у Нишу

- менторства при изради једног дипломског рада, 18 мастер радова и једне докторске дисертације, одбрањене 2019. године, кандидаткиње др Маје С. Обрадовић, која је једна од добитника Годишње награде у области математике и механике за студенте докторских студија коју је у 2020. доделио МИ САНУ

#### 4. Менторство или коменторство бар једне докторске дисертације

Менторство при изради докторске дисертације др Маје С. Обрадовић под називом „*Нумеричке апроксимације решења неутралних стохастичких диференцијалних једначина са временски-зависним кашњењем*“, одбрањене 28.11.2019. године на Природно-математичком факултету у Нишу, Универзитета у Нишу

[https://www.pmf.ni.ac.rs/download/doktorati/dokumenta/disertacije/2019/Dis\\_UNI\\_Maja\\_S\\_Obradovic\\_2019.pdf](https://www.pmf.ni.ac.rs/download/doktorati/dokumenta/disertacije/2019/Dis_UNI_Maja_S_Obradovic_2019.pdf)

4. замена: Један научни рад у часопису категорије M21 или M22, или један уџбеник или једна монографија (рад, уџбеник и монографија се не рачунају у ставовима 6., 8. и 9. )

5. Остварени резултати у развоју научно-наставног подмлатка, и то у барем једном од следећих елемената: учешћем у комисијама за одбрану докторске дисертације, магистарске тезе или мастер рада, држањем наставе на докторским студијама, држањем припрема студената за студентска такмичења, учешћем у завршним радовима на специјалистичким и мастер студијама и слично

- ангажовање на Докторским академским студијама математике на Природно-математичком факултету у Нишу (предмети: Нумеричко решавање стохастичких диференцијалних једначина, Одабрана поглавља из теорије вероватноћа, Стохастички процеси); ангажовање на Докторској школи математике
- члан комисије за одбрану докторске дисертације др Горице А. Павловић-Рајковић под називом „*Општи тип стабилности стохастичких функционалних диференцијалних једначина*“, одржане 21.07.2014. на Природно-математичком факултету у Нишу, Универзитета у Нишу
- менторство при изради докторске дисертације др Маје С. Обрадовић, одбрањене 2019. године на Природно-математичком факултету у Нишу, Универзитета у Нишу
- менторство при изради дипломског рада (Маја Суровић, *Централна гранична теорема и неке њене примене*, 2019.)
- менторства при изради мастер радова:

[1] Ана Јањић, *Вишеструко осигурање*, 2013.

[2] Драгана Здравковић, *Процена ризика у неживотном осигурању помоћу функције корисности*, 2013.

[3] Горана Петковић, *Примена граничних теорема теорије вероватноћа у неживотном осигурању*, 2014.

[4] Александра Алексов, *Моделирање броја штета у неживотном осигурању*, 2014.

[5] Небојша Гроздановић, *Примена ланца Маркова у животном осигурању*, 2014.

[6] Јасмина Трифуновић, *Неки модели укупне штете у портфолију неживотног осигурања*, 2015.

[7] Бојана Јовановић, *Примена Poisson-ове случајне мере у теорији неживотног осигурања*, 2015.

[8] Стефани Стевановић, *Вероватноћа пропасти у Крамер-Лундберговом моделу*, 2016.

[9] Јелена Тошић, *Моделирање преосталог животног века осигураника*, 2016.

[10] Миљана Живковић, *Премије и резерве у портфолију неживотног осигурања*, 2017.

[11] Јелена Стаменковић, *Полија-Еплијев модел ризика у неживотном осигурању*, 2018.

[12] Јелена Милошевић, *Процеси обнављања и нека њихова уопштења*, 2018.

[13] Тамара Марковић, *Модел основних когнитивних функција*, 2019.

[14] Мирослав Цакић, *О неким моделима износа штета у портфолију неживотног осигурања*, 2019.

[15] Анастасија Јовановић, *Резерве и профит у портфолију животног осигурања*, 2019.

[16] Јелена Палуровић, *Неки контрапримери о граничним теоремама теорије вероватноће*, 2020.

[17] Невена Жујић, *Ризик у животном осигурању*, 2020.

[18] Миљана Стоилковић, *Примена стохастичке методе триангулације у неживотном осигурању*, 2020.

- учешће у комисијама за одбрану дипломских радова (Душанка Момчиловић 2012, Данка Антић 2013, Александар Јовановић 2016.)

- учешће у комисијама за одбрану мастер радова (Марија Миловановић 2013, Драгана Крстић 2013, Јована Ваљаревић 2013, Бојана Петковић 2014, Миљана Станковић 2014, Душан Ђорђевић 2015, Милена Стошић 2015, Мирко Јовић 2016, Снежана Коцева 2016, Александра Петровић 2017, Александар Димчић 2017, Милица Јанковић 2018, Андријана Стаменковић 2018, Александар Јеремић 2018, Марија Милосављевић 2019, Милош Живковић 2020, Катарина Рилак 2020.)

6. Објављен основни уџбеник за предмет из студијског програма факултета, односно универзитета или научна монографија (са ИСБН бројем) из уже научне области за коју се бира, у периоду од избора у претходно звање,

или

од избора у звање доцент најмање две публикације из категорије уџбеник или монографија из уже научне области за коју се бира при чему најмање једна мора бити основни уџбеник или монографија

**Марија Милошевић**, *Актуарска математика*, Природно-математички факултет Ниш, 2020. (рукопис прихваћен за штампу као универзитетски уџбеник одлуком Наставно-научног већа Природно-математичког факултета у Нишу број 816/3-01 од 16.9.2020, ИСБН 978-86-6275-130-0)

7. Учешће у међународним или домаћим научним пројектима

[1] **Пројекат:** *Функционална анализа, стохастичка анализа и примене* (174007), Министарство просвете, науке и технолошког развоја Републике Србије, 2011-2019.

[2] **Пројекат:** *Теорија оператора, стохастичка анализа и примене* (144003), Министарство за науку и технолошки развој Републике Србије, 2007-2010.

8. У последњих пет година најмање један рад објављен у часопису који издаје Универзитет у Нишу или факултет Универзитета у Нишу или са SCI листе, у којем је првопотписани аутор

**Marija Milošević**, *The Euler-Maruyama approximation of solutions to stochastic differential equations with piecewise constant arguments*, Journal of Computational and Applied Mathematics 298 (2016) 1-12. [M21, SCI]

<https://ezproxy.nb.rs:2055/science/article/pii/S0377042715005646>

<https://doi.org/10.1016/j.cam.2015.11.019>

9. Најмање 18 поена остварених објављивањем научних радова у часописима категорија M21, M22, M23, у складу са начином бодовања Министарства просвете, науке и технолошког развоја Републике Србије, с тим што бар на једном раду кандидат мора бити првопотписани аутор (навести податке о научним радовима, DOI бројеве)

Од избора у претходно звање остварено је 57 поена објављивањем 7 научних радова:

[1] **Marija Milošević**, *The Euler-Maruyama approximation of solutions to stochastic differential equations with piecewise constant arguments*, Journal of Computational and Applied Mathematics 298 (2016) 1-12. [M21, SCI]

<https://ezproxy.nb.rs:2055/science/article/pii/S0377042715005646>

<https://doi.org/10.1016/j.cam.2015.11.019>

[2] **Marija Milošević**, *An explicit analytic approximation of solutions for a class of neutral stochastic differential equations with time-dependent delay based on Taylor expansion*, Applied Mathematics and Computation 274 (2016) 745-761. [M21]

<https://ezproxy.nb.rs:2055/science/article/pii/S0096300315015088>

<https://doi.org/10.1016/j.amc.2015.11.026>

[3] Maja Obradović, **Marija Milošević**, *Stability of a class of neutral stochastic differential equations with unbounded delay and Markovian switching and the Euler-Maruyama method*, Journal of Computational and Applied Mathematics 309 (2017) 244-266. [M21]

<https://ezproxy.nb.rs:2055/science/article/pii/S0377042716303107>

<https://doi.org/10.1016/j.cam.2016.06.038>

[4] Maja Obradović, **Marija Milošević**, *Almost sure exponential stability of the  $\theta$ -Euler-Maruyama method for neutral stochastic differential equations with time-dependent delay when  $\theta \in [0, 1/2]$* , *FILOMAT* 31:18 (2017) 5629-5645. [M22]  
<http://www.doiserbia.nb.rs/img/doi/0354-5180/2017/0354-518017186290.pdf>  
<https://doi.org/10.2298/FIL1718629O>

[5] **Marija Milošević**, *Convergence and almost sure polynomial stability of the backward and forward-backward Euler methods for highly nonlinear pantograph stochastic differential equations*, *Mathematics and Computers in Simulation* 150 (2018) 25-48. [M21]  
<https://ezproxy.nb.rs:2055/science/article/pii/S0378475418300466>  
<https://doi.org/10.1016/j.matcom.2018.02.006>

[6] Maja Obradović, **Marija Milošević**, *Almost sure exponential stability of the  $\theta$ -Euler-Maruyama method, when  $\theta \in (1/2, 1)$  for neutral stochastic differential equations with time-dependent delay under nonlinear growth conditions*, *Calcolo* (2019) 56:9. [M21a]  
<https://ezproxy.nb.rs:2078/article/10.1007/s10092-019-0306-7>  
<https://doi.org/10.1007/s10092-019-0306-7>

[7] **Marija Milošević**, *Divergence of the backward Euler method for ordinary stochastic differential equations*, *Numerical Algorithms* 82 (2019) 1395-1407. [M21a]  
<https://ezproxy.nb.rs:2078/article/10.1007/s11075-019-00661-6>  
<https://doi.org/10.1007/s11075-019-00661-6>

9. замена: Један рад се замењује оствареним резултатом категорије M91

10. Најмање шест излагања на међународним или домаћим научним скуповима (копије радова из Зборника радова скупа или потврде организатора скупа да су радови презентовани)

[1] **Marija Milošević**, Svetlana Janković, *An approximation via Taylor series of solutions to functional stochastic differential equations*, XIII International Summer Conference on Probability and Statistics, Sozopol, Bugarska, 2008.

[2] **Marija Milošević**, Svetlana Janković, *Analytic approximations of solutions for stochastic differential delay equations via Taylor series*, XII Serbian Mathematical Congress, Novi Sad, Srbija, 2008.  
[http://tesla.pmf.ni.ac.rs/people/smak/List\\_of\\_Talks12.pdf](http://tesla.pmf.ni.ac.rs/people/smak/List_of_Talks12.pdf)

[3] **Marija Milošević**, Miljana Jovanović, *An approximate method for stochastic differential equations with time-dependent delay*, MICOM, Ohrid, Makedonija, 2009.

[4] **Marija Milošević**, Miljana Jovanović, *On the approximation of solutions to hybrid pantograph stochastic differential equations*, First Mathematical Conference, Pale, Bosna i Hercegovina, 2011.

[5] **Marija Milošević**, *Numerical solution of highly nonlinear neutral stochastic differential equations with time-dependent delay*, Spring school in probability, Dubrovnik, Hrvatska, 2012.

<https://web.math.pmf.unizg.hr/ssp-iuc/poster/Booklet>

[6] **Marija Milošević**, *Pantograph stochastic differential equations under nonlinear growth conditions and the Euler-Maruyama approximation*, 13th Serbian Mathematical Congress, Vrnjačka banja, Srbija, 2014.  
[http://tesla.pmf.ni.ac.rs/people/smak/book\\_of\\_abstracts.pdf](http://tesla.pmf.ni.ac.rs/people/smak/book_of_abstracts.pdf) (str. 59)

[7] **Marija Milošević**, *Analysis of the backward Euler method for a class of neutral stochastic differential equations with time-dependent delay*, Junior female researchers in probability, Berlin, Germany, October 22-23, 2015. <http://wias-berlin.de/workshops/index.jsp?lang=1>

[8] **Marija Milošević**, *An explicit approximation of solutions for a class of neutral stochastic differential equations with time-dependent delay*, 7<sup>th</sup> European Congress of Mathematics, Berlin, Germany, July 18-22, 2016. <http://www.7ecm.de/program/schedule.html>

[9] **Marija Milošević**, Miljana Jovanović, Svetlana Janković, *An application of Taylor expansion in the approximation of solutions to various types of stochastic differential equations*, Mini-symposium "Stochastic Vibrations and Fatigue: Theory and Applications" (predavanje po pozivu), MI SASA Belgrade, Serbia, July 2017.

[http://www.mi.sanu.ac.rs/novi\\_sajt/research/projects/015=FINAL%20SVEN%20----Booklet%20of%20%20Abstracts-](http://www.mi.sanu.ac.rs/novi_sajt/research/projects/015=FINAL%20SVEN%20----Booklet%20of%20%20Abstracts-)

[Mini%20Symposium%20Stochastic%20Vibrations%20and%20Fatigue%20%20%204%20%20-jul-2017-header\\_3I-KATICA.pdf](http://www.mi.sanu.ac.rs/novi_sajt/research/projects/015=FINAL%20SVEN%20----Mini%20Symposium%20Stochastic%20Vibrations%20and%20Fatigue%20%20%204%20%20-jul-2017-header_3I-KATICA.pdf) (str. 9)

[10] **Marija Milošević**, *Backward Euler and forward-backward Euler methods for pantograph stochastic differential equations under nonlinear growth conditions*, 14th Serbian mathematical congress, Kragujevac, Serbia, May 16-19, 2018.

[https://imi.pmf.kg.ac.rs/kongres/assets/Book\\_of\\_abstract\\_SMAK2018.pdf](https://imi.pmf.kg.ac.rs/kongres/assets/Book_of_abstract_SMAK2018.pdf) (str. 77)

[11] Maja Obradović, **Marija Milošević**, *A class of neutral stochastic differential equations with time-dependent delay and Markovian switching and the Euler-Maruyama approximation*, Kongres mladih matematičara u Novom Sadu 03 – 05. oktobar 2019, Novi Sad, Srbija.  
<https://kmmns.pmf.uns.ac.rs/assets/PDF/bookOfAbstractsFinal.pdf> (str. 32)

11. Najmaње deset citata naučnih radova kandidata u drugim naučnim radovima objavljenim u naučnim časopisima kategorija M21, M22, M23 (izuzimajući аутоцитате и цитате сарадника, односно коцитате)

**Marija Milošević**, Miljana Jovanović, Svetlana Janković, *An approximate method via Taylor series for stochastic functional differential equations*, Journal of Mathematical Analysis and Applications 363(1) (2010) 128-137. [M21] (<http://www.sciencedirect.com/science/article/pii/S0022247X09006143>)

- 1) P. E. Kloeden, T. Shardlow, *The Milstein scheme for stochastic delay differential equations without anticipative calculus*, Stochastic Analysis & Applications 30(2) (2012) 181-202. [M23]  
<https://www.tandfonline.com/doi/full/10.1080/07362994.2012.628907>
- 2) G. Wang, S. Wang, M. Wang, *Taylor approximation of stochastic functional differential equations with Poisson jump*, Advances in Difference Equations 2013, 230 (2013). [M21]  
<https://link.springer.com/article/10.1186/1687-1847-2013-230>
- 3) Q. Guo, M. Qiu, T. Mitsui, *Asymptotic mean-square stability of explicit Runge-Kutta Maruyama methods for stochastic delay differential equations*, J. Comput. Appl. Math. 296 (2016) 427-442. [M21]  
<https://ezproxy.nb.rs:2055/science/article/pii/S0377042715005142>

**Marija Milošević**, Miljana Jovanović, *A Taylor polynomial approach in approximations of solution to pantograph stochastic differential equations with Markovian switching*, Mathematical and Computer Modelling 53(1-2) (2011) 280-293. [M21]  
<http://www.sciencedirect.com/science/article/pii/S0895717710003900>

- 4) W. Mao, X. Mao, *Approximate Solutions of Hybrid Stochastic Pantograph Equations with Levy Jumps*, Abstract and Applied Analysis, Volume 2013 (2013) 718627. [M21a]  
<http://dx.doi.org/10.1155/2013/718627>
- 5) K. Wang, Q. Wang, *Taylor polynomial method and error estimation for a kind of mixed Volterra Fredholm integral equations*, Appl. Math. Comput. 229 (2014) 53-59. [M21]  
<https://ezproxy.nb.rs:2055/science/article/pii/S0096300313012903>
- 6) S. Zhou, M. Xue, *Exponential stability for nonlinear hybrid stochastic pantograph equations and numerical approximation*, Acta Mathematica Scientia 34(4) (2014) 1254-1270. [M22]  
<https://ezproxy.nb.rs:2055/science/article/pii/S0252960214600837>
- 7) S. Zhou, *Almost Surely Exponential Stability of Numerical Solutions for Stochastic Pantograph Equations*, Abstract and Applied Analysis, Volume 2014 (2014) 751209. [M21a]  
<http://downloads.hindawi.com/journals/aaa/2014/751209.pdf>
- 8) W. Mao, L. Hu, X. Mao, *The existence and asymptotic estimations of solutions to stochastic pantograph equations with diffusion and Levy jumps*, Appl. Math. Comput. 268 (2015) 883-896. [M21]  
<https://ezproxy.nb.rs:2055/science/article/pii/S0096300315008905>
- 9) S. Zhou, Y. Hu, *Numerical approximation for nonlinear stochastic pantograph equations with Markovian switching*, Appl. Math. Comput. 286 (2016) 126-138. [M21]  
<https://ezproxy.nb.rs:2055/science/article/pii/S0096300316302417>
- 10) Z. Fan, *Convergence of numerical solutions to stochastic differential equations with Markovian switching*, Appl. Math. Comput. 315 (2017) 176-187. [M21a]  
<https://ezproxy.nb.rs:2055/science/article/pii/S0096300317305222>
- 11) M. Shen, W. Fei, X. Mao, Y. Liang, *Stability of highly nonlinear neutral stochastic differential delay equations*, Syst. Cont. Lett. 115 (2018) 1-8. [M21]  
<https://ezproxy.nb.rs:2055/science/article/pii/S0167691118300422>
- 12) C. Yang, *Modified Chebyshev collocation method for pantograph-type differential equations*, Appl. Num. Math. 134 (2018) 132-144. [M21]  
<https://ezproxy.nb.rs:2055/science/article/pii/S0168927418301594>
- 13) M. Shen, W. Fei, X. Mao, S. Deng, *Exponential Stability of Highly Nonlinear Neutral Pantograph Stochastic Differential Equations*, Asian Journal of Control 22(1) (2020) 436-448. [M21]

<https://ezproxy.nb.rs:2069/doi/full/10.1002/asjc.1903>

**Marija Milošević**, Miljana Jovanović, *An application of Taylor series in the approximation of solutions to stochastic differential equations with time-dependent delay*, Journal of Computational and Applied Mathematics 235(15) (2011) 4439-4451. [M21]

<http://www.sciencedirect.com/science/article/pii/S0377042711001865>

- 14) H. Meng-Li, X. Wei, G. Xu-Dong, Q. Lu-Yuan, *Effects of Levy noise and immune delay on the extinction behavior in a tumor growth model*, Chinese Physics B 23(9) (2014) 090501. [M22]  
<https://ezproxy.nb.rs:2472/article/10.1088/1674-1056/23/9/090501/pdf>
  - 15) B. Benhammouda, H. Vazquez-Leal, *A new multi-step technique with differential transform method for analytical solution of some nonlinear variable delay differential equations*, SpringerPlus 5(1) (2016) 1723. [M22] (<https://springerplus.springeropen.com/track/pdf/10.1186/s40064-016-3386-8>)
  - 16) P. Paymard, S. Rezvani, N. Mokari, *Joint task scheduling and uplink/downlink radio resource allocation in PD-NOMA based mobile edge computing networks*, Phys. Commun. 32 (2019) 160-171. [M22]  
<https://ezproxy.nb.rs:2055/science/article/pii/S1874490718301186>
- Marija Milošević**, *Highly nonlinear neutral stochastic differential equations with time-dependent delay and the Euler-Maruyama method*, Mathematical and Computer Modelling 54(9-10) (2011) 2235-2251. [M21] (<http://www.sciencedirect.com/science/article/pii/S0895717711003037> )
- 17) S. Zhou, M. Xue, *Exponential stability for nonlinear hybrid stochastic pantograph equations and numerical approximation*, Acta Mathematica Scientia 34(4) (2014) 1254-1270. [M22]  
<https://ezproxy.nb.rs:2055/science/article/pii/S0252960214600837>
  - 18) S. Zhou, *Almost Surely Exponential Stability of Numerical Solutions for Stochastic Pantograph Equations*, Abstract and Applied Analysis, Volume 2014 (2014) 751209. [M21]  
<https://www.hindawi.com/journals/aaa/2014/751209/>
  - 19) X. Zhao, F. Deng, S. Kuang, *Numerical schemes for stochastic differential equations with variable and distributed delays: the interpolation approach*, Abstract and Applied Analysis, Volume 2014 (2014) 565812. [M21] (<https://www.hindawi.com/journals/aaa/2014/565812/>)
  - 20) S. Zhou, S. Xie, Z. Fang, *Almost sure exponential stability of the backward Euler-Maruyama discretization for highly nonlinear stochastic functional differential equation*, Appl. Math. Comput. 236 (2014) 150-160. [M21] (<https://ezproxy.nb.rs:2055/science/article/pii/S0096300314003634>)
  - 21) Y. Tian, B. Chen, *Sufficient Conditions on the Exponential Stability of Neutral Stochastic Differential Equations with Time-Varying Delays*, Abstract and Applied Analysis, Volume 2014 (2014) 391461. [M21] (<https://www.hindawi.com/journals/aaa/2014/391461/>)
  - 22) S. Zhou, *Exponential stability of numerical solution to neutral stochastic functional differential equation*, Appl. Math. Comput. 266 (2015) 441-461. [M21]  
<https://ezproxy.nb.rs:2055/science/article/pii/S009630031500658X>
  - 23) S. Zhou, *Strong convergence and stability of backward Euler-Maruyama scheme for highly nonlinear hybrid stochastic differential delay equation*, Calcolo 52(4) (2015) 445-473. [M21]  
<https://ezproxy.nb.rs:2078/article/10.1007/s10092-014-0124-x>
  - 24) Z. Yu, *Almost sure and mean square exponential stability of numerical solutions for neutral stochastic functional differential equations*, Int. Journal Comput. Math. 92(1) (2015) 132-150. [M22]  
<https://www.tandfonline.com/doi/abs/10.1080/00207160.2014.887699>
  - 25) W. Mao, S. You, X. Mao, *On the asymptotic stability and numerical analysis of solutions to nonlinear stochastic differential equations with jumps*, J. Comput. Appl. Math. 301 (2016) 1-15. [M21]  
<https://ezproxy.nb.rs:2055/science/article/pii/S037704271600039X>
  - 26) S. Zhou, C. Hu, *Numerical approximation of stochastic differential delay equation with coefficients of polynomial growth*, Calcolo 54(1) (2017) 1-22. [M21a]  
<https://ezproxy.nb.rs:2078/article/10.1007/s10092-016-0173-4>
  - 27) S. Zhou, H. Jin, *Strong convergence of implicit numerical methods for nonlinear stochastic functional differential equations*, J. Comput. Appl. Math. 324 (2017) 241-257. [M21]  
<https://ezproxy.nb.rs:2055/science/article/pii/S037704271730170X>
  - 28) Z. Yan, A. Xiao, X. Tang, *Strong convergence of the split-step theta method for neutral stochastic delay differential equations*, Appl. Num. Math. 120 (2017) 215-232. [M21]  
<https://ezproxy.nb.rs:2055/science/article/pii/S016892741730123X>

- 29) P. Guo, C. J. Li, *Almost sure exponential stability of numerical solutions for the stochastic pantograph differential equations*, J. Math. Anal. Appl. 460(1) (2018) 411-424. [M21]  
<https://ezproxy.nb.rs:2055/science/article/pii/S0022247X17308910>
- 30) C. Zhang, Y. Xie, *Backward Euler-Maruyama method applied to nonlinear hybrid stochastic differential equations with time-variable delay*, Science China Mathematics 62(3) (2019) 597-616. [M21]  
<https://link.springer.com/article/10.1007/s11425-017-9135-6>
- 31) S. Zhou, H. Jin, *Implicit numerical solutions to neutral-type stochastic systems with superlinearly growing coefficients*, J. Comput. Appl. Math. 350 (2019) 423-441. [M21]  
<https://ezproxy.nb.rs:2055/science/article/pii/S037704271830637X>
- 32) S. Zhou, H. Jin, *Numerical solution to highly nonlinear neutral-type stochastic differential equation*, Appl. Num. Math. 140 (2019) 48-75. [M21]  
<https://ezproxy.nb.rs:2055/science/article/pii/S016892741930025X>
- 33) L. Liu, F. Deng, *Almost sure exponential stability of semi-Euler numerical scheme for nonlinear stochastic functional differential equation*, Int. Journal Comput. Math. (2020) (in press). [M21]  
<https://doi.org/10.1080/00207160.2020.1809655>
- 34) X. Liu, F. Deng, L. Liu, S. Luo, X. Zhao, *Mean-square stability of two classes of  $\theta$ -methods for neutral stochastic delay integro-differential equations*, Appl. Math. Lett. 109 (2020) 106544. [M21a]  
<https://ezproxy.nb.rs:2055/science/article/pii/S0893965920302597>
- 35) A. Wu, S. You, W. Mao, X. Mao, L. Hu, *On exponential stability of hybrid neutral stochastic differential delay equations with different structures*, Nonlin. Anal: Hybrid Syst. 39 (2021) 100971. [M21]  
<https://ezproxy.nb.rs:2055/science/article/pii/S1751570X20301187>

**Marija Milošević**, *Almost sure exponential stability of solutions to highly nonlinear neutral stochastic differential equations with time-dependent delay and the Euler-Maruyama approximation*, Mathematical and Computer Modelling 57(3-4) (2013) 887-899. [M21a]  
<http://www.sciencedirect.com/science/article/pii/S0895717712002555>

- 36) S. Zhou, S. Xie, Z. Fang, *Almost sure exponential stability of the backward Euler-Maruyama discretization for highly nonlinear stochastic functional differential equation*, Appl. Math. Comput. 236 (2014) 150-160. [M21] (<https://ezproxy.nb.rs:2055/science/article/pii/S0096300314003634>)
- 37) Y. Tian, B. Chen, *Sufficient Conditions on the Exponential Stability of Neutral Stochastic Differential Equations with Time-Varying Delays*, Abstract and Applied Analysis, Volume 2014 (2014) 391461. [M21] (<https://www.hindawi.com/journals/aaa/2014/391461/>)
- 38) S. Zhou, *Exponential stability of numerical solution to neutral stochastic functional differential equation*, Appl. Math. Comput. 266 (2015) 441-461. [M21]  
<https://ezproxy.nb.rs:2055/science/article/pii/S009630031500658X>
- 39) Z. Yu, *Almost sure and mean square exponential stability of numerical solutions for neutral stochastic functional differential equations*, Int. Journal Comput. Math. 92(1) (2015) 132-150. [M22]  
<https://www.tandfonline.com/doi/abs/10.1080/00207160.2014.887699>
- 40) Z. Liu, N. Song, *Asymptotic behavior of sample paths for retarded stochastic differential equations without dissipativity*, Advances in Difference Equations (2015) 2015:177. [M21]  
<https://advancesindifferenceequations.springeropen.com/track/pdf/10.1186/s13662-015-0512-9>
- 41) X. Zong, F. Wu, C. Huang, *Exponential mean square stability of the theta approximations for neutral stochastic differential delay equations*, J. Comput. Appl. Math. 286 (2015) 172-185. [M21]  
<https://ezproxy.nb.rs:2055/science/article/pii/S0377042715001624>
- 42) G. Lan, C. Yuan, *Exponential stability of the exact solutions and  $\theta$ -EM approximations to neutral SDDs with Markov switching*, J. Comput. Appl. Math. 285 (2015) 230-242. [M21]  
<https://ezproxy.nb.rs:2055/science/article/pii/S0377042715000989>
- 43) Y. Yang, T. Liang, X. Xu, *Almost sure exponential stability of stochastic Cohen-Grossberg neural networks with continuous distributed delays of neutral type*, Optik 126(23) (2015) 4628-4635. [M23]  
<https://ezproxy.nb.rs:2055/science/article/pii/S0030402615008608>
- 44) W. Chen, S. Xu, Y. Zou, *Stabilization of hybrid neutral stochastic differential delay equations by delay feedback control*, Syst. Cont. Lett. 88 (2016) 1-13. [M21]  
<https://ezproxy.nb.rs:2055/science/article/pii/S0167691115000821>
- 45) W. Chen, S. Xu, B. Zhang, Z. Qi, *Stability and stabilisation of neutral stochastic delay Markovian jump systems*, IET Control Theory and Applications 10(15) (2016) 1798-1807. [M21]



DOI:10.1049/jet-cta.2015.1241

- 46) L. Liu, Q. Zhu, *Mean square stability of two classes of theta method for neutral stochastic differential delay equations*, J. Comput. Appl. Math. 305 (2016) 55-67. [M21]  
<https://ezproxy.nb.rs:2055/science/article/pii/S0377042716301418>
- 47) H. Liang, Z. Yang, J. Gao, *Strong superconvergence of the Euler-Maruyama method for linear stochastic Volterra integral equations*, J. Comput. Appl. Math. 317 (2017) 447-457. [M21]  
<https://ezproxy.nb.rs:2055/science/article/pii/S0377042716305295>
- 48) S. Zhou, H. Jin, *Strong convergence of implicit numerical methods for nonlinear stochastic functional differential equations*, J. Comput. Appl. Math. 324 (2017) 241-257. [M21]  
<https://ezproxy.nb.rs:2055/science/article/pii/S037704271730170X>
- 49) W. Chen, Q. Ma, L. Wang, H. Xu, *Stabilisation and  $H^\infty$  control of neutral stochastic delay Markovian jump systems*, Int. Journal of Systems Science 49(1) (2018) 58-67. [M21]  
<https://www.tandfonline.com/doi/full/10.1080/00207721.2017.1390703>
- 50) L. Liu, F. Deng, T. Hou, *Almost sure exponential stability of implicit numerical solution for stochastic functional differential equation with extended polynomial growth condition*, Appl. Math. Comput. 330 (2018) 201-212. [M21a] (<https://ezproxy.nb.rs:2055/science/article/pii/S0096300318301334>)
- 51) G. Lan, *Asymptotic exponential stability of modified truncated EM method for neutral stochastic differential delay equations*, J. Comput. Appl. Math. 340 (2018) 334-341. [M21]  
<https://ezproxy.nb.rs:2055/science/article/pii/S0377042718301213>
- 52) L. Liu, M. Li, F. Deng, *Stability equivalence between the neutral delayed stochastic differential equations and the Euler-Maruyama numerical scheme*, Appl. Num. Math. 127 (2018) 370-386. [M21]  
<https://ezproxy.nb.rs:2055/science/article/pii/S0168927418300254>
- 53) G. Lan, F. Xia, Q. Wang, *Polynomial stability of exact solution and a numerical method for stochastic differential equations with time-dependent delay*, J. Comput. Appl. Math. 346 (2019) 340-356. [M21]  
<https://ezproxy.nb.rs:2055/science/article/pii/S0377042718304448>
- 54) C. Zhang, Y. Xie, *Backward Euler-Maruyama method applied to nonlinear hybrid stochastic differential equations with time-variable delay*, Science China Mathematics 62(3) (2019) 597-616. [M21]  
<https://link.springer.com/article/10.1007/s11425-017-9135-6>
- 55) S. Zhou, H. Jin, *Implicit numerical solutions to neutral-type stochastic systems with superlinearly growing coefficients*, J. Comput. Appl. Math. 350 (2019) 423-441. [M21]  
<https://ezproxy.nb.rs:2055/science/article/pii/S037704271830637X>
- 56) S. Zhou, H. Jin, *Numerical solution to highly nonlinear neutral-type stochastic differential equation*, Appl. Num. Math. 140 (2019) 48-75. [M21]  
<https://ezproxy.nb.rs:2055/science/article/pii/S016892741930025X>
- 57) G. Lan, F. Xia, *General decay asymptotic stability of neutral stochastic differential delayed equations with Markov switching*, Frontiers of Mathematics in China 14(4) (2019) 793-818. [M22]  
<https://link.springer.com/article/10.1007/s11464-019-0781-9>
- 58) L. Liu, F. Deng, *Almost sure exponential stability of semi-Euler numerical scheme for nonlinear stochastic functional differential equation*, Int. Journal Comput. Math. (2020) (in press). [M21]  
<https://www.tandfonline.com/doi/abs/10.1080/00207160.2020.1809655>
- 59) G. Lan, F. Xia, M. Zhao,  *$p$ th moment ( $p \in (0,1)$ ) and almost sure exponential stability of the exact solutions and modified truncated EM method for stochastic differential equations*, Stat. Prob. Let. 160 (2020) 108701. [M23] (<https://ezproxy.nb.rs:2055/science/article/pii/S0167715220300043>)
- 60) X. Liu, F. Deng, L. Liu, S. Luo, X. Zhao, *Mean-square stability of two classes of  $\theta$ -methods for neutral stochastic delay integro-differential equations*, Appl. Math. Let. 109 (2020) 106544. [M21a]  
<https://ezproxy.nb.rs:2055/science/article/pii/S0893965920302597>
- 61) A. Wu, S. You, W. Mao, X. Mao, L. Hu, *On exponential stability of hybrid neutral stochastic differential delay equations with different structures*, Nonlin. Anal: Hybrid Syst. 39 (2021) 100971. [M21]  
<https://ezproxy.nb.rs:2055/science/article/pii/S1751570X20301187>

**Marija Milošević**, *On the approximations of solutions to stochastic differential delay equations with Poisson random measure via Taylor series*, Filomat 27(1) (2013) 201-214. [M21]  
<http://www.doiserbia.nb.rs/Article.aspx?ID=0354-51801301201M\#.VIUMUHarTIU>

- 62) Y. H. Kim, *Caratheodory's Approximate Solution to Stochastic Differential Delay Equation*, Filomat 30(7) (2016) 2019-2028. [M22] (<https://doi.org/10.2298/FIL1607019K>)

- 63) F. Soleymani, A. R. Soheili, *A revisit of stochastic theta method with some improvements*, Filomat 31(3) (2017) 585-596. [M22] (<https://doi.org/10.2298/FIL1703585S>)
- 64) A. Chadha, *Exponential stability for neutral stochastic partial integro-differential equations of second order with poisson jumps*, Filomat 32(15) (2018) 5173-5190. [M22]  
<http://www.doiserbia.nb.rs/img/doi/0354-5180/2018/0354-51801815173C.pdf>

**Marija Milošević**, *Implicit numerical methods for highly nonlinear neutral stochastic differential equations with time-dependent delay*, Applied Mathematics and Computation 244 (2014) 741-760. [M21]  
<http://www.sciencedirect.com/science/article/pii/S0096300314009990>

- 65) M. Gao, L. Sheng, W. Zhang, *Stochastic  $H_2/H_\infty$  control of nonlinear systems with time-delay and state-dependent noise*, Appl. Math. Comput. 266 (2015) 429-440. [M21]  
<https://ezproxy.nb.rs:2055/science/article/pii/S0096300315007146>
- 66) Y. Jin, *Delay-independent stability of moments of a linear oscillator with delayed state feedback and parametric white noise*, Probabilistic Engineering Mechanics 41 (2015) 115-120. [M21]  
<https://ezproxy.nb.rs:2055/science/article/pii/S0266892015300199>
- 67) Z. Yan, A. Xiao, X. Tang, *Strong convergence of the split-step theta method for neutral stochastic delay differential equations*, Appl. Num. Math. 120 (2017) 215-232. [M21]  
<https://ezproxy.nb.rs:2055/science/article/pii/S016892741730123X>
- 68) C. Zhang, Y. Xie, *Backward Euler-Maruyama method applied to nonlinear hybrid stochastic differential equations with time-variable delay*, Science China Mathematics 62(3) (2019) 597-616. [M21]  
<https://link.springer.com/article/10.1007/s11425-017-9135-6>
- 69) J. Zhao, Y. Yi, Y. Xu, *Mean square convergence of explicit two-step methods for highly nonlinear stochastic differential equations*, Appl. Math. Comput. 361 (2019) 466-483. [M21a]  
<https://ezproxy.nb.rs:2055/science/article/pii/S0096300319304394>

**Marija Milošević**, *Existence, uniqueness, almost sure polynomial stability of solution to a class of highly nonlinear pantograph stochastic differential equations and the Euler-Maruyama approximation*, Applied Mathematics and Computation 237 (2014) 672-685. [M21]  
<http://www.sciencedirect.com/science/article/pii/S0096300314005037>

- 70) Y. Yang, T. Liang, X. Xu, *Almost sure exponential stability of stochastic Cohen-Grossberg neural networks with continuous distributed delays of neutral type*, Optik 126(23) (2015) 4628-4635. [M23]  
<https://ezproxy.nb.rs:2055/science/article/pii/S0030402615008608>
- 71) S. You, W. Mao, X. Mao, L. Hu, *Analysis on exponential stability of hybrid pantograph stochastic differential equations with highly nonlinear coefficients*, Appl. Math. Comput. 263 (2015) 73-83. [M21]  
<https://ezproxy.nb.rs:2055/science/article/pii/S0096300315004737>
- 72) Y. Guo, X. Ding, Y. Li, *Stochastic stability for pantograph multi-group models with dispersal and stochastic perturbation*, Journal of the Franklin Institute 353(13) (2016) 2980-2998. [M21a]  
<https://doi.org/10.1016/j.jfranklin.2016.06.001>
- 73) P. Guo, C. J. Li, *Almost sure exponential stability of numerical solutions for stochastic pantograph differential equations*, J. Math. Anal. Appl. 460(1) (2018) 411-424. [M21]  
<https://ezproxy.nb.rs:2055/science/article/pii/S0022247X17308910>
- 74) L. Liu, F. Deng,  *$p$ th moment exponential stability of highly nonlinear neutral pantograph stochastic differential equations driven by Lévy noise*, Appl. Math. Lett. 86 (2018) 313-319. [M21a]  
<https://ezproxy.nb.rs:2055/science/article/pii/S0893965918302246>
- 75) X. Dai, A. Xiao, *Numerical solutions of nonautonomous stochastic delay differential equations by discontinuous Galerkin methods*, Journal of Computational Mathematics 37(3) (2019) 419-436. [M21]  
DOI:10.4208/jcm.1806-m2017-0296
- 76) W. Mao, L. Hu, X. Mao, *Almost sure stability with general decay rate of neutral stochastic pantograph equations with Markovian switching*, Electronic Journal of Qualitative Theory of Differential Equations 2019,52 (2019) [M21a] (<https://doi.org/10.14232/ejqtde.2019.1.52>)
- 77) G. Lan, F. Xia, Q. Wang, *Polynomial stability of exact solution and a numerical method for stochastic differential equations with time-dependent delay*, J. Comput. Appl. Math. 346 (2019) 340-356. [M21]  
<https://ezproxy.nb.rs:2055/science/article/pii/S0377042718304448>

- 78) W. Mao, L. Hu, X. Mao, *Asymptotic boundedness and stability of solutions to hybrid stochastic differential equations with jumps and the Euler-Maruyama approximation*, *Discrete Contin. Dyn. Syst.-B* 24(2) (2019) 587-613. [M22] (doi: 10.3934/dcdsb.2018198)
- 79) P. Guo, C. J. Li, *Razumikhin-type technique on stability of exact and numerical solutions for the nonlinear stochastic pantograph differential equations*, *BIT Num. Math.* 59(1) (2019) 77-96. [M22] <https://ezproxy.nb.rs:2078/article/10.1007/s10543-018-0723-z>
- 80) W. Zhan, Y. Gao, Q. Guo, X. Yao, *The partially truncated Euler-Maruyama method for nonlinear pantograph stochastic differential equations*, *Appl. Math. Comput.* 346 (2019) 109-126. [M21a] <https://ezproxy.nb.rs:2055/science/article/pii/S0096300318309184>
- 81) P. Guo, C. J. Li, *Almost sure stability with general decay rate of exact and numerical solutions for stochastic pantograph differential equations*, *Num. Alg.* 80(4) (2019) 1391-1411. [M21a] <https://ezproxy.nb.rs:2078/article/10.1007/s11075-018-0531-1>
- 82) P. Guo, C. J. Li, *Razumikhin-type theorems on the moment stability of the exact and numerical solutions for the stochastic pantograph differential equations*, *J. Comput. Appl. Math.* 355 (2019) 77-90. [M21] (<https://ezproxy.nb.rs:2055/science/article/pii/S0377042719300202>)
- 83) L. Hu, Y. Ren, Q. He, *Pantograph stochastic differential equations driven by G-Brownian motion*, *J. Math. Anal. Appl.* 480(1) (2019) 123381. [M21] (<https://doi.org/10.1016/j.jmaa.2019.123381>)
- 84) W. Mao, L. Hu, X. Mao, *The asymptotic stability of hybrid stochastic systems with pantograph delay and non-Gaussian Lévy noise*, *Journal of the Franklin Institute* 357(2) (2020) 1174-1198. [M21a] <https://ezproxy.nb.rs:2055/science/article/pii/S0016003219308725>
- 85) W. Mao, L. Hu, X. Mao, *Razumikhin-type theorems on polynomial stability of hybrid stochastic systems with pantograph delay*, *Discrete Contin. Dyn. Syst.-B* 25(8) (2020) 3217-3232. [M22] doi: 10.3934/dcdsb.2020059

**Marija Milošević**, *Convergence and almost sure exponential stability of implicit numerical methods for a class of highly nonlinear neutral stochastic differential equations with constant delay*, *Journal of Computational and Applied Mathematics* 280(1) (2015) 248-264. [M21] <http://www.sciencedirect.com/science/article/pii/S0377042714005421>

- 86) S. Ahmad, M. Rehan, *On observer-based control of one-sided Lipschitz systems*, *Journal of the Franklin Institute* 353(4) (2016) 903-916. [M21a] (<https://doi.org/10.1016/j.jfranklin.2016.01.010>)
- 87) Y. L. Lu, M. H. Song, M. Z. Liu, *Convergence and stability of the split-step theta method for stochastic differential equations with piecewise continuous arguments*, *J. Comput. Appl. Math.* 317 (2017) 55-71. [M21] (<https://ezproxy.nb.rs:2055/science/article/pii/S0377042716305751>)
- 88) Z. Yan, A. Xiao, X. Tang, *Strong convergence of the split-step theta method for neutral stochastic delay differential equations*, *Appl. Num. Math.* 120 (2017) 215-232. [M21] <https://ezproxy.nb.rs:2055/science/article/pii/S016892741730123X>
- 89) Y. Lu, M. Song, M. Liu, *Convergence rate and stability of the split-step theta method for stochastic differential equations with piecewise continuous arguments*, *Discrete Contin. Dyn. Syst.-B* 24(2) (2019) 695-717. [M22] (doi: 10.3934/dcdsb.2018203)
- 90) G. Lan, Q. Wang, *Strong convergence rates of modified truncated EM methods for neutral stochastic differential delay equations*, *J. Comput. Appl. Math.* 362 (2019) 83-98. [M21] <https://ezproxy.nb.rs:2055/science/article/pii/S0377042719302560>
- 91) A. Wu, S. You, W. Mao, X. Mao, L. Hu, *On exponential stability of hybrid neutral stochastic differential delay equations with different structures*, *Nonlin. Anal: Hybrid Syst.* 39 (2021) 100971. [M21] (<https://ezproxy.nb.rs:2055/science/article/pii/S1751570X20301187>)

**Marija Milošević**, *The Euler-Maruyama approximation of solutions to stochastic differential equations with piecewise constant arguments*, *Journal of Computational and Applied Mathematics* 298 (2016) 1-12. [M21] (<https://ezproxy.nb.rs:2055/science/article/pii/S0377042715005646>)

- 92) Q. Wang, *Stability analysis of parabolic partial differential equations with piecewise continuous arguments*, *Numerical Methods for Partial Differential Equations* 33(2) (2017) 531-545. [M22] <https://ezproxy.nb.rs:2069/doi/10.1002/num.22113>
- 93) Y. L. Lu, M. H. Song, M. Z. Liu, *Convergence and stability of the split-step theta method for stochastic differential equations with piecewise continuous arguments*, *J. Comput. Appl. Math.* 317 (2017) 55-71. [M21] (<https://ezproxy.nb.rs:2055/science/article/pii/S0377042716305751>)

- 94) M. H. Song, Y. L. Lu, M. Z. Liu, *Convergence of the Tamed Euler Method for Stochastic Differential Equations with Piecewise Continuous Arguments Under Non-global Lipschitz Continuous Coefficients*, Numerical Functional Analysis and Optimization 39(5) (2018) 517-536. [M22]  
DOI:10.1080/01630563.2017.1387862
- 95) L. Liu, M. Li, F. Deng, *Stability equivalence between the neutral delayed stochastic differential equations and the Euler-Maruyama numerical scheme*, Appl. Num. Math. 127 (2018) 370-386. [M21]  
<https://ezproxy.nb.rs:2055/science/article/pii/S0168927418300254>
- 96) Q. Wang, *Stability of numerical solution for partial differential equations with piecewise constant arguments*, Advances in Difference Equations (2018) 2018:71. [M21]  
<https://advancesindifferenceequations.springeropen.com/articles/10.1186/s13662-018-1514-1>
- 97) Y. Xie, C. Zhang, *A class of stochastic one-parameter methods for nonlinear SFDEs with piecewise continuous arguments*, Appl. Num. Math. 135 (2019) 1-14. [M21]  
<https://ezproxy.nb.rs:2055/science/article/pii/S0168927418301752>
- 98) Y. Lu, M. Song, M. Liu, *Convergence and stability of the one-leg  $\theta$  method for stochastic differential equations with piecewise continuous arguments*, Filomat 33(3) (2019) 945-960. [M22]  
<http://www.doiserbia.nb.rs/img/doi/0354-5180/2019/0354-51801903945L.pdf>
- 99) Y. Lu, M. Song, M. Liu, *Convergence rate and stability of the split-step theta method for stochastic differential equations with piecewise continuous arguments*, Discrete Contin. Dyn. Syst.-B 24(2) (2019) 695-717. [M22] (doi: 10.3934/dcdsb.2018203)
- 100) M. Zhang, Q. Zhang, *A positivity preserving numerical method for stochastic R&D model*, Appl. Math. Comput. 351 (2019) 193-203. [M21a] (<https://doi.org/10.1016/j.amc.2018.12.003>)
- 101) W. Li, Q. Zhang, *Construction of positivity-preserving numerical method for stochastic SIVS epidemic model*, Advances in Difference Equations (2019) 2019:25. [M21a]  
<https://doi.org/10.1186/s13662-019-1966-y>
- 102) Y. Xie, C. Zhang, *Compensated split-step balanced methods for nonlinear stiff SDEs with jump-diffusion and piecewise continuous arguments*, Science China Mathematics (2020) (in press). [M21]  
<https://ezproxy.nb.rs:2078/article/10.1007/s11425-019-1781-6>
- 103) W. Zhang, *The truncated Euler-Maruyama method for stochastic differential equations with piecewise continuous arguments driven by Lévy noise*, Int. Journal Comput. Math. (2020) (in press). [M21] (<https://www.tandfonline.com/doi/abs/10.1080/00207160.2020.1748187>)
- 104) L. Liu, F. Deng, *Almost sure exponential stability of semi-Euler numerical scheme for nonlinear stochastic functional differential equation*, Int. Journal Comput. Math. (2020) (in press). [M21]  
<https://www.tandfonline.com/doi/abs/10.1080/00207160.2020.1809655>
- 105) H. Huang, Y. H. Xia, *New Results on Linearization of Differential Equations with Piecewise Constant Argument*, Qualitative Theory of Dynamical Systems 19(1) (2020) 9 [M21]  
<https://link.springer.com/article/10.1007/s12346-020-00353-w>
- 106) Y. Geng, M. Song, Y. Lu, M. Liu, *Convergence and stability of the truncated euler-maruyama method for stochastic differential equations with piecewise continuous arguments*, Numerical Mathematics - Theory Methods and Applications 14(1) (2020) 194-218. [M21]  
[https://doc.global-sci.org/uploads/Issue/NMTMA/v14n1/141\\_194.pdf](https://doc.global-sci.org/uploads/Issue/NMTMA/v14n1/141_194.pdf)
- Maja Obradović, **Marija Milošević**, *Stability of a class of neutral stochastic differential equations with unbounded delay and Markovian switching and the Euler-Maruyama method*, Journal of Computational and Applied Mathematics 309 (2017) 244-266. [M21]  
<https://ezproxy.nb.rs:2055/science/article/pii/S0377042716303107>
- 107) B. Lu, R. Song, *Stability of a Class of Hybrid Neutral Stochastic Differential Equations with Unbounded Delay*, Discrete Dynamics in Nature and Society 2017, Article ID 2941349 (2017). [M22]  
<https://www.hindawi.com/journals/ddns/2017/2941349/>
- 108) L. Liu, M. Li, F. Deng, *Stability equivalence between the neutral delayed stochastic differential equations and the Euler-Maruyama numerical scheme*, Appl. Num. Math. 127 (2018) 370-386. [M21]  
<https://ezproxy.nb.rs:2055/science/article/pii/S0168927418300254>
- 109) M. Shen, W. Fei, X. Mao, Y. Liang, *Stability of highly nonlinear neutral stochastic differential delay equations*, Syst. Cont. Lett. 115 (2018) 1-8. [M21] (<https://doi.org/10.1016/j.sysconle.2018.02.013>)
- 110) R. Song, B. Lu, Q. Zhu, *Stability of a class of neutral stochastic functional differential equations with Markovian switching*, IET Control Theory and Applications 12(15) (2018) 2043-2054. [M21]

DOI:10.1049/iet-cta.2017.0806

- 111) L. Liu, F. Deng, *Stability analysis of time varying delayed stochastic Hopfield neural networks in numerical simulation*, *Neurocomputing* 316 (2018) 294-305. [M21]  
<https://ezproxy.nb.rs:2055/science/article/pii/S0925231218309196>
- 112) S. Zhou, H. Jin, *Numerical solution to highly nonlinear neutral-type stochastic differential equation*, *Appl. Num. Math.* 140 (2019) 48-75. [M21] (<https://doi.org/10.1016/j.apnum.2019.01.014>)
- 113) G. Lan, F. Xia, *General decay asymptotic stability of neutral stochastic differential delayed equations with Markov switching*, *Frontiers of Mathematics in China* 14(4) (2019) 793-818. [M22]  
<https://link.springer.com/article/10.1007/s11464-019-0781-9>
- 114) M. Zhou, Y. Fu, *Stability and Stabilization for Discrete-time Markovian Jump Stochastic Systems with Piecewise Homogeneous Transition Probabilities*, *International Journal of Control, Automation and Systems* 17(9) (2019) 2165-2173. [M22] (<https://doi.org/10.1007/s12555-018-0490-2>)
- 115) M. Shen, C. Fei, W. Fei, X. Mao, *Boundedness and stability of highly nonlinear hybrid neutral stochastic systems with multiple delays*, *Science China Information Sciences* 62(10) (2019) 202205. [M21] (<https://link.springer.com/article/10.1007/s11432-018-9755-7>)
- 116) K. Sun, S. Zhu, *The express decay effect of time delays for globally exponentially stable nonlinear stochastic systems*, *Peer-to-Peer Networking and Applications* 12(6) (2019) 1716-1725. [M22]  
<https://link.springer.com/article/10.1007/s12083-019-00735-1>
- 117) M. Shen, W. Fei, X. Mao, S. Deng, *Exponential Stability of Highly Nonlinear Neutral Pantograph Stochastic Differential Equations*, *Asian Journal of Control* 22(1) (2020) 436-448. [M21]  
<https://ezproxy.nb.rs:2069/doi/full/10.1002/asjc.1903>
- 118) R. Song, B. Wang, Q. Zhu, *Delay-dependent stability of nonlinear hybrid neutral stochastic differential equations with multiple delays*, *International Journal of Robust and Nonlinear Control* (2020) (in press). [M21a] (<https://onlinelibrary.wiley.com/doi/abs/10.1002/rnc.5275>)
- 119) L. Liu, F. Deng, *Almost sure exponential stability of semi-Euler numerical scheme for nonlinear stochastic functional differential equation*, *Int. Journal Comput. Math.* (2020) (in press). [M21]  
<https://www.tandfonline.com/doi/abs/10.1080/00207160.2020.1809655>
- 120) M. Shen, C. Fei, W. Fei, X. Mao, *Stabilisation by delay feedback control for highly nonlinear neutral stochastic differential equations*, *Syst. Cont. Let.* 137 (2020) 104645. [M21]  
<https://ezproxy.nb.rs:2055/science/article/pii/S0167691120300256>
- 121) L. Feng, Z. Wu, J. Cao, S. Zheng, F. E. Alsaadi, *Exponential stability for nonlinear hybrid stochastic systems with time varying delays of neutral type*, *Appl. Math. Let.* 107 (2020) 106468. [M21a]  
<https://ezproxy.nb.rs:2055/science/article/pii/S0893965920302184>
- 122) X. Liu, F. Deng, L. Liu, S. Luo, X. Zhao, *Mean-square stability of two classes of  $\theta$ -methods for neutral stochastic delay integro-differential equations*, *Appl. Math. Let.* 109 (2020) 106544. [M21a]  
<https://ezproxy.nb.rs:2055/science/article/pii/S0893965920302597>
- 123) L. Liu, F. Deng, *Complete backward Euler numerical scheme for general SFDEs with exponential stability under the polynomial growth condition*, *J. Comput. Appl. Math.* 386 (2021) 113242. [M21]  
<https://ezproxy.nb.rs:2055/science/article/pii/S0377042720305331>

**Marija Milošević**, *Convergence and almost sure polynomial stability of the backward and forward-backward Euler methods for highly nonlinear pantograph stochastic differential equations*, *Mathematics and Computers in Simulation* 150 (2018) 25-48. [M21]  
<https://ezproxy.nb.rs:2055/science/article/pii/S0378475418300466>

- 124) L. Zhou, Z. Zhao, *Exponential synchronization and polynomial synchronization of recurrent neural networks with and without proportional delays*, *Neurocomputing* 372 (2020) 109-116. [M21]  
<https://ezproxy.nb.rs:2055/science/article/pii/S0925231219313141>
- 125) M.S. Siddiqui, S.T.M. Latif, M. Saeed, M. Rahman, A. W. Badar, M. Hasan, *Reduced order model of offshore wind turbine wake by proper orthogonal decomposition*, *International Journal of Heat and Fluid Flow* 82 (2020) 108554. [M22] (<https://doi.org/10.1016/j.ijheatfluidflow.2020.108554>)
- 126) L. Zhou, Z. Zhao, *Asymptotic Stability and Polynomial Stability of Impulsive Cohen-Grossberg Neural Networks with Multi-proportional Delays*, *Neural Proc. Let.* 51(3) (2020) 2607-2627. [M22]  
<https://link.springer.com/article/10.1007%2Fs11063-020-10209-8>

12. Услови за ментора (најмање пет радова објављених у часописима са импакт фактором са SCI листе, односно SCIE листе у последњих 10 година)

[1] **Marija Milošević**, Miljana Jovanović, *A Taylor polynomial approach in approximations of solution to pantograph stochastic differential equations with Markovian switching*, Mathematical and Computer Modelling 53(1-2) (2011) 280-293. [M21]  
<http://www.sciencedirect.com/science/article/pii/S0895717710003900>  
<https://doi.org/10.1016/j.mcm.2010.08.016>

[2] **Marija Milošević**, Miljana Jovanović, *An application of Taylor series in the approximation of solutions to stochastic differential equations with time-dependent delay*, Journal of Computational and Applied Mathematics 235(15) (2011) 4439-4451. [M21]  
<http://www.sciencedirect.com/science/article/pii/S0377042711001865>  
<https://doi.org/10.1016/j.cam.2011.04.009>

[3] **Marija Milošević**, *Highly nonlinear neutral stochastic differential equations with time-dependent delay and the Euler-Maruyama method*, Mathematical and Computer Modelling 54(9-10) (2011) 2235-2251. [M21]  
<http://www.sciencedirect.com/science/article/pii/S0895717711003037>  
<https://doi.org/10.1016/j.mcm.2011.05.033>

[4] **Marija Milošević**, *Almost sure exponential stability of solutions to highly nonlinear neutral stochastic differential equations with time-dependent delay and the Euler-Maruyama approximation*, Mathematical and Computer Modelling 57(3-4) (2013) 887-899. [M21a]  
<http://www.sciencedirect.com/science/article/pii/S0895717712002555>  
<https://doi.org/10.1016/j.mcm.2012.09.016>

[5] **Marija Milošević**, *On the approximations of solutions to stochastic differential delay equations with Poisson random measure via Taylor series*, Filomat 27(1) (2013) 201-214. [M21]  
<http://www.doiserbia.nb.rs/Article.aspx?ID=0354-51801301201M#.VIUMUHArTIU>  
<https://doi.org/10.2298/FIL1301201M>

[6] **Marija Milošević**, *Implicit numerical methods for highly nonlinear neutral stochastic differential equations with time-dependent delay*, Applied Mathematics and Computation 244 (2014) 741-760. [M21]  
<http://www.sciencedirect.com/science/article/pii/S0096300314009990>  
<http://www.doiserbia.nb.rs/img/doi/0354-5180/2017/0354-518017186290.pdf>

[7] **Marija Milošević**, *Existence, uniqueness, almost sure polynomial stability of solution to a class of highly nonlinear pantograph stochastic differential equations and the Euler-Maruyama approximation*, Applied Mathematics and Computation 237 (2014) 672-685. [M21]  
<http://www.sciencedirect.com/science/article/pii/S0096300314005037>  
<https://doi.org/10.1016/j.amc.2014.03.132>

[8] **Marija Milošević**, *Convergence and almost sure exponential stability of implicit numerical methods for a class of highly nonlinear neutral stochastic differential equations with constant delay*, Journal of Computational and Applied Mathematics 280(1) (2015) 248-264. [M21]  
<http://www.sciencedirect.com/science/article/pii/S0377042714005421>  
<https://doi.org/10.1016/j.cam.2014.12.002>

[9] **Marija Milošević**, *The Euler-Maruyama approximation of solutions to stochastic differential equations with piecewise constant arguments*, Journal of Computational and Applied Mathematics 298 (2016) 1-12. [M21]  
<https://ezproxy.nb.rs:2055/science/article/pii/S0377042715005646>  
<https://doi.org/10.1016/j.cam.2015.11.019>

[10] **Marija Milošević**, *An explicit analytic approximation of solutions for a class of neutral stochastic differential equations with time-dependent delay based on Taylor expansion*, Applied Mathematics and Computation 274 (2016) 745-761. [M21]  
<https://ezproxy.nb.rs:2055/science/article/pii/S0096300315015088>  
<https://doi.org/10.1016/j.amc.2015.11.026>

- [11] Maja Obradović, **Marija Milošević**, *Stability of a class of neutral stochastic differential equations with unbounded delay and Markovian switching and the Euler-Maruyama method*, Journal of Computational and Applied Mathematics 309 (2017) 244-266. [M21]  
<https://ezproxy.nb.rs:2055/science/article/pii/S0377042716303107>  
<https://doi.org/10.1016/j.cam.2016.06.038>
- [12] Maja Obradović, **Marija Milošević**, *Almost sure exponential stability of the  $\theta$ -Euler-Maruyama method for neutral stochastic differential equations with time-dependent delay when  $\theta \in [0, 1/2]$* , FILOMAT 31:18 (2017) 5629-5645. [M22]  
<http://www.doiserbia.nb.rs/img/doi/0354-5180/2017/0354-518017186290.pdf>  
<https://doi.org/10.2298/FIL17186290>
- [13] **Marija Milošević**, *Convergence and almost sure polynomial stability of the backward and forward-backward Euler methods for highly nonlinear pantograph stochastic differential equations*, Mathematics and Computers in Simulation 150 (2018) 25-48. [M21]  
<https://ezproxy.nb.rs:2055/science/article/pii/S0378475418300466>  
<https://doi.org/10.1016/j.matcom.2018.02.006>
- [14] Maja Obradović, **Marija Milošević**, *Almost sure exponential stability of the  $\theta$ -Euler-Maruyama method, when  $\theta \in (1/2, 1)$  for neutral stochastic differential equations with time-dependent delay under nonlinear growth conditions*, Calcolo (2019) 56(2):9. [M21a]  
<https://ezproxy.nb.rs:2078/article/10.1007/s10092-019-0306-7>  
<https://doi.org/10.1007/s10092-019-0306-7>
- [15] **Marija Milošević**, *Divergence of the backward Euler method for ordinary stochastic differential equations*, Numerical Algorithms 82(4) (2019) 1395-1407. [M21a]  
<https://ezproxy.nb.rs:2078/article/10.1007/s11075-019-00661-6>  
<https://doi.org/10.1007/s11075-019-00661-6>

Потпис кандидата: Марија Милошевић

**Напомена:** Кандидат је дужан да попуњен, одштампан и потписан образац о испуњавању услова за избор у звање наставника достави факултету који је објавио конкурс заједно са осталом документацијом којом доказује да испуњава услове конкурса

