

CURRICULUM VITAE

MEHMED NURKANović



Position

23/01/2014–Present Full Professor

University of Tuzla, Faculty of Natural Sciences and Mathematics, Department of Mathematics

U. Vežagića 4, 75000 Tuzla (Bosnia and Herzegovina)

<https://mehmednurkanovic.com/>

Full Professor - "Pure Mathematics"

Publications

A) BOOKS

1. *Diferentne jednačbe - Teorija i primjene* (Difference equations - Theory and applications) (University textbook), DENFAS, Tuzla, 2008.
2. *Laplaceova transformacija i primjena (Laplace transformation and application)* PrintCom d.o.o. grafički inženjering, Tuzla, 2010. (with Z. Nurkanović)
3. *Elementarna matematika - Teorija i zadaci (Elementary mathematics - Theory and problems)*, PrintCom d.o.o. grafički inženjering, Tuzla, 2009. (with Z. Nurkanović)
4. *Matematika za ekonomiste* (Mathematics for economists), (University textbook), PrintCom d.o.o. grafički inženjering, Tuzla, 2013. (with O. Kurtanović)
5. *Linearne diferentne jednačbe – Teorija i zadaci s primjenama (Linear difference equations - Theory and problems with applications)*, PrintCom d.o.o. grafički inženjering, Tuzla, 2016. (with Z. Nurkanović)
6. *A Brief Discussion on Birkhoff Normal Forms, KAM Theory, Periodicity and Symmetries for Certain Rational Difference Equation with Cubic Terms – CHAPTER in "Theory and Practice of Mathematics and Computer Science Vol. 4"* (with Z. Nurkanović)
7. *Zbirka zadataka iz matematike za pripremanje prijemnih ispita na fakultetima*, Ekonomski fakultet, Tuzla, 1996. (sa Z. Nurkanović)

8. *Priručnik za polaganje prijemnog ispita iz matematike na Ekonomskom fakultetu u Tuzli*, Ekonomski fakultet, Tuzla, 2009. (sa Z. Nurkanović)

B) Research articles

1. Global asymptotical behavior of a two dimensional system of difference equations modelling cooperation, *Journal of Difference Equations and Applications*, 9 (2003), 149-159. (with M.R.S. Kulenović).
2. Asymptotical behavior of a system of linear fractional difference equations, *Journal of Inequalities and Applications* (Hindawi Publishing Corporation), Vol. 2005, No.2 (2005), 127-143. (with M.R.S. Kulenović).
3. Asymptotic Behavior of a Competitive System of Linear Fractional Difference Equations, *Advances in Difference Equations* (Hindawi Publishing Corporation), Volume 2006, Article ID 19756, Pages 1-13. (with M.R.S. Kulenović).
4. Global Behavior of Four Competitive Rational Systems of Difference Equations in the Plane, *Discrete Dynamics in Nature and Society* (Hindawi Publishing Corporation), Volume 2009, Article ID 153058, 34 pages. (with M. Garić-Demirović and M.R.S. Kulenović).
5. Global Dynamics of Certain Competitive Systems in the Plane, *Journal of Difference Equations and Applications*, Vol. 18, No. 12 (2012), 1951-1966. (with M.R.S. Kulenović and Orlando Merino)
6. Global Behavior of a Two-dimensional Competitive System of Difference Equations with Stocking, *Mathematical and Computer Modelling* 55 (2012), 1998-2011. (with M.R.S. Kulenović)
7. Basins of Attraction of Equilibrium Points of Second Order Difference Equations, *Applied Mathematics Letters*, 25 (2012), 2110-2115. (with M. Garić-Demirović and M.R.S. Kulenović).
8. Global Dynamics of Certain Homogeneous Second Order Quadratic Fractional Difference Equation, *The Scientific World Journal* 12/2013; 2013 (Article 210846):10 pages (with M.R.S. Kulenović and M. Garić-Demirović)
9. Global Dynamics and Bifurcations of Certain Second Order Rational Difference Equation with Quadratic Terms, *Qualitative Theory of Dynamical Systems*, Vol. 15, No. 1 (2016), 283-307. DOI 10.1007/s12346-015-0148-x (with M.R.S. Kulenović and Sabina Jašarević Hrustić)
10. Local Dynamics and Global Stability of Certain Second Order Rational Difference Equation with Quadratic Terms, *Discrete Dynamics in Nature and Society* (Hindawi Publishing Corporation), Volume 2016 (2016), Article ID 3716042, 14 pages (with M.R.S. Kulenović and Sabina Jašarević Hrustić).
11. Stability, periodicity and symmetries of certain second-order fractional difference equation with quadratic terms via KAM theory, *Mathematical Methods in the Applied Sciences*, Vol. 40, No. 1 (2017), 306-318; DOI: 10.1002/mma.4000 (with M. Garić-Demirović and Z. Nurkanović)
12. Global Dynamics of Certain Mix Monotone Difference Equation, *Mathematics*, **2018**, 6(1), 10; doi:10.3390/math6010010 (pp. 13) (with. Z. Nurkanović and S. Kalabušić)
13. Global Asymptotic Stability and Naimark-Sacker Bifurcation of Certain Mix Monotone Difference Equation, *Discrete Dynamics in Nature and Society* (Hindawi Publishing Corporation), Volume 2018 (2018), Article ID 7052935, 22 pages; <http://doi.org/10.1155/2018/7052935> (with M.R.S. Kulenović, S. Moranjković and Z. Nurkanović).
14. Stability, Neimark-Sacker Bifurcation and Approximation of the Invariant Curve of Certain Homogeneous Second Order Fractional Difference Equation, *Discrete Dynamics in Nature and Society*, Volume 2020, Article ID 6254013, 12 pages, <https://doi.org/10.1155/2020/6254013>. (Hindawi Publishing Corporation) (with M. Garić-Demirović, S. Moranjković and Z. Nurkanović).

15. Asymptotic Behavior of a Discrete-Time Density-Dependent SI Epidemic Model With Constant Recruitment, *Journal of Applied Mathematics and Computing* **67**, 733–753 (2021). <https://doi.org/10.1007/s12190-021-01503-2> (with M.R.S. Kulenović and A.A. Yakubu).
16. Stability and Neimark-Sacker Bifurcation of Certain Mixed Monotone Rational Second-Order Difference Equation, *Qualitative Theory of Dynamical Systems*, **20**, 75 (2021). <https://doi.org/10.1007/s12346-021-00515-4> (with Z. Nurkanović and M. Garić-Demirović).
17. Asymptotic Behavior of Certain Non-Autonomous Planar Competitive Systems of Difference Equations, *Mathematics*, **11** (18), 3909 (2023). <https://doi.org/10.3390/math11183909> (with MRS Kulenović, Z. Nurkanović, and S. Trolle)
18. Computing Indefinite Integrals by Using Difference Equations, *The Mathematical Gazette* **The Mathematical Gazette**, Vol. 107, No. 570 (2023), 474-487. <https://doi.org/10.1017/mag.2023.99> (with M. Trumić)
19. The Existence of Li-Yorke Chaos in a Discrete-Time Glycolytic Oscillator Model, *Axioms* **2024**, Volume 13, Issue 4, 280. <https://doi.org/10.3390/axioms13040280> (sa M. Garić-Demirović, M.R.S. Kulenović and Z. Nurkanović)
20. Stability analysis of solutions of certain May's host-parasitoid model by using KAM theory, *AIMS Mathematics*, **2024**, 9(6): 15584-15609. doi: [10.3934/math.2024753](https://doi.org/10.3934/math.2024753) (sa M. Garić-Demirović and D. Kovačević)
21. Asymptotical behavior of a two dimensional linear fractional system of difference equations, *Radovi matematički*, **11**, 1 (2002), 59-78. (with M.R.S. Kulenović) (Ovaj rad je sastavni dio grupnog projekta broj 04-39-6171/165/01 finansijski podržan od Federalnog ministarstva obrazovanja, nauke, kulture i sporta, Bosna i Hercegovina.)
22. On the Dynamics of $x_{n+1} = p_n + x_{n-1}x_{n-2}$, $n=0, 1, \dots$ with a Periodic Coefficient, *Communications on Applied Nonlinear Analysis* (International Publications – USA), Vol **13**, No. 2 (2006), 37-57. (with S. Kalabušić) (Scopus)
23. Global Dynamics of a Rational System of Difference Equations in the Plane, *Communications on Applied Nonlinear Analysis* (International Publications – USA), Vol **15**(2008), No. 1, 71-84. (with Dž. Burgić and R.S. Kulenović) (Scopus)
24. Global Behavior of Two Competitive Rational Systems of Difference Equations in the Plane, *Communications on Applied Nonlinear Analysis* (International Publications – USA), **16**(2009), No. 3, 1-18. (with A. Brett, M. Garić-Demirović and M.R.S. Kulenović) (Scopus)
25. The rational system of nonlinear difference equations in the modeling competitive populations, *15th International Research/Expert Conference TMT 2011*, Prague, 12-18 september 2011. (with Dž. Burgić)
26. Dynamics of an anti-competitive two dimensional rational system of difference equations, *Sarajevo Journal of Mathematics*, **7** (19) (2011), 39-56 (with Mirela Garić-Demirović)
27. Basins of Attraction of an Anti-competitive System of Difference Equations in the Plane, *Communications on Applied Nonlinear Analysis* (International Publications – USA), Vol. **19**(2012), No. 2, 41-53. (with M.R.S. Kulenović) (Scopus)
28. Basins of Attraction of an Anti-competitive Discrete Rational System in the Plane, *Sarajevo Journal of Mathematics*, Vol.8 (21) (2012), 259-272. (with Z. Nurkanović)
29. Basins of Attraction of Certain Homogeneous Second Order Quadratic Fractional Difference Equation, *Journal of Concrete and Applicable Mathematics*, Vol. 13, No.'s 1-2 (2015), 35-50. (with M.R.S. Kulenović and M. Garić-Demirović)
30. Birkhoff normal forms, KAM theory, periodicity and symmetries for certain rational difference equation with cubic terms, *Sarajevo Journal of Mathematics*, Vol. 12 (25), No. 2 (2016), 217-231. (with Z. Nurkanović)

31. Stability, Periodicity and Neimark-Sacker Bifurcation of Certain Homogeneous Fractional Difference Equations, *International Journal of Difference Equations*, Vol. 12 , No. 1 (2017), 27-53 (with M. Garić-Demirović and Z. Nurkanović)
32. Stability and Periodicity of Certain Homogeneous Second Order Fractional Difference Equation with Quadratic Terms, *Advances in Dynamical Systems and Applications*, ISSN 0973-5321, Volume 14, Number 2, pp. 149–178 (2019) <http://campus.mst.edu/adsa> (with M. Garić-Demirović and S. Hrustić)
33. Global Dynamics of Certain Mix Monotone Difference Equation via Center Manifold Theory and Theory of Monotone Maps, *Sarajevo Journal of Mathematics*, Vol. 15 (28), No. 2 (2019), 129-154. (with M.R.S. Kulenović and Z. Nurkanović)
34. The existence of Li-Yorke chaos in certain predator-prey system of difference equations, *Sarajevo Journal of Mathematics*, Vol. 18 (31), No. 1 (2022), 45-62. (with M.Garić-Demirović, S. Hrustić, S. Moranjkić, and Z. Nurkanović)
35. Happy 70th birthday Professor Mustafa Kulenović, *Sarajevo Journal of Mathematics*, Vol. 18 (31), No. 1 (2022), 3-6.
36. The rate of convergence of a certain mixed monotone difference equation, *Sarajevo Journal of Mathematics*, Vol. 20 (33), No. 1 (2024), 121-135. (with M.R.S. Kulenović and Z. Nurkanović)
37. Primjer konstrukcije invarijantnog intervala sistema diferentnih jednažbi (An Example of a Construction of the Invariant Interval for the System of Difference Equations), *Zbornik radova Ekonomskog fakulteta Univerziteta u Tuzli* (u povodu 25-godišnjice fakulteta)(Collected Works of University of Tuzla), Tuzla (2001), 239-246 (with M.R.S. Kulenović).
38. Analiza asimptotskog ponašanja jednog dvodimenzionalnog kompetitivnog sistema diferentnih jednažbi, *Zbornik radova Ekonomskog fakulteta Univerziteta u Tuzli*, Tuzla (2002), 257-265 (with Z. Nurkanović).
39. Brzina konvergencije rješenja nekih dvodimenzionalnih sistema diferentnih jednažbi (The rate of convergence of some two-dimensional systems of difference equations), *Godišnjak Filozofskog fakulteta Univerziteta u Tuzli*, **4** (2002), 271-279 (with Nurkanović).
40. Dinamika jedne diferentne jednažbe s periodičnim koeficijentom perioda dva (On the dynamics of the certain difference equation with coefficient of the period two), *Zbornik radova Prirodno-matematičkog fakulteta Univerziteta u Tuzli*, **1** (2004), 41-5
41. Stability of a Difference Equation with Period-Three Coefficient, *Zbornik radova Prirodno-matematičkog fakulteta Univerziteta u Tuzli – Svezak Matematika*, **2** (2005), 20-29 (with Z. Nurkanović).
42. On the Recursive Sequence, *Zbornik radova Prirodno-matematičkog fakulteta Univerziteta u Tuzli – Svezak Matematika*, **2** (2005), 7-19.
43. Global Asymptotic Behavior of a Two Dimensional Fractional System of Difference Equations, *Zbornik radova PMF Tuzla – Svezak Matematika*, **3** (2007), 9-19.

Conferences

1. **M. Nurkanović** and Z. Nurkanović*, *Asymptotic Behavior of a Two Dimensional Competition Fractional System of Difference Equations*, 2. Bosnian-Herzegovinian Mathematical Conference, PMF Sarajevo, 23.06.2007. (speaker: Z. Nurkanović)
2. M.R.S. Kulenović and **M.Nurkanović***, *Global Asymptotic Behavior of a Two Dimensional System of Difference Equations Modeling Competition*, 2. Bosnian-Herzegovinian Mathematical Conference, PMF, Sarajevo, 23.06.2007. (speaker: M. Nurkanović)
3. **M. Nurkanović** and S. Kalabušić*, On the Dynamics of with a Periodic Coefficient, **European**

Advanced Studies Conference 2006-03-20 "Progres on Difference Equations", Homburg / Saar (Germany), Mart 06-10,2006. (speaker: S. Kalabušić)

4. M.R.S. Kulenović and **M. Nurkanović***, *Asymptotic behavior of a competitive system of linear fractional difference equations*, 1. Bosnian-Herzegovinian Mathematical Conference, PMF Sarajevo, 01.07.2006. (speaker: M. Nurkanović)

5. **M. Nurkanović*** and M.R.S.Kulenović, *Globalno asimptotsko ponašanje dvodimenzionalnog sistema diferentnih jednažbi koji modelira kooperaciju*, Bosnian-Croatian Analysis Meeting, Bihać, May 10-12,2001. (speaker: M. Nurkanović).

6. Dž. Burgić*, M. Kulenović and **M. Nurkanović**, *Global dynamics of rational systems of difference equations in the plane*, Third Bosnian-Herzegovinian Mathematical Conference, Sarajevo, April 28, 2008.

7. **M. Nurkanović**, *Global behavior of four two dimensional competitive rational systems of difference equations*, Fourth Bosnian_Herzegovinian Mathematical Conference, Sarajevo 06.06.2009.

8. **M. Nurkanović**, *Globalno ponašanje jednog dodimenzionalnog kompetitivnog sistema diferentnih jednažbi*, Fifth Bosnian_Herzegovinian Mathematical Conference, Tuzla, 07-08. juli 2010.

9. M.R.S. Kulenović* and **M. Nurkanović**, *Global Behavior of a Two-dimensional Competitive System of Difference Equations with Stocking*, **AMS Spring Eastern Sectional Meeting**, Worcester, MA, April 9-10, 2011.

10. M.R.S. Kulenović, O. Merino and **M. Nurkanović***, *Global Dynamics of Certain Competitive Systems in the Plane*, Sixth Bosnian_Herzegovinian Mathematical Conference, Sarajevo, 18.06.2011.

11. M.R.S. Kulenović*, O. Merino and **M. Nurkanović**, *Global Dynamics of Certain Competitive System in the Plane*, **2012 Joint Mathematics Meeting**, Boston, January 4-7, 2012.

12. **M. Nurkanović*** and M. Kulenović, *Basins of attraction of an anti-competitive system in the plane*, Seventh Bosnian_Herzegovinian Mathematical Conference, Sarajevo, August 16, 2012.

13. M. Garić-Demirović*, M. Kulenović and **M. Nurkanović**, *Basins of attraction of fixed points of second order difference equations*, Seventh Bosnian_Herzegovinian Mathematical Conference, Sarajevo, August 16, 2012.

14. S. Kalabušić*, **M. Nurkanović** and Z. Nurkanović, *Global dynamics of certain mix monotone second order difference equation*, 24th International Conference on Difference Equations and Applications – ICDEA 2018, Dresden, Germany, 21.05.-25.05.2018.

15. M. Kulenović, S. Moranjkic*, **M. Nurkanović** and Z. Nurkanović: *Global Asymptotic Stability and Naimark-Sacker Bifurcation of Certain Mix Monotone Difference Equation*, BMS Mathematical Conference 2018, July 12 - 14, Sarajevo, Bosnia and Herzegovina.

16. M. Garić-Demirović*, S. Hrustić and **M. Nurkanović**: *Global Asymptotic Stability and NeimarkSacker Bifurcation of Certain Homogeneous Fractional Difference Equation with Quadratic Terms*, BMS Mathematical Conference 2018, July 12 - 14, Sarajevo, Bosnia and Herzegovina.

17. E. Tasdemir*, **M. Nurkanović** and Y. Soykan: *Global Behavior of Certain Higher Order Difference Equation*, ICDEA 2021 July 26 - 30, Sarajevo, Bosnia and Herzegovina.
18. M.R. Kulenović*, **M. Nurkanović**, and A.A. Yakubu: *Global dynamics of a discrete-time density-dependent SI epidemic model with constant recruitment*, Joint Mathematics Meetings, Boston, MA, USA, January 4-7, 2023 (AMS Special Session on Recent Trends in Discrete-Time Ecological and Epidemiological Models I)
19. M.R. Kulenović*, **M. Nurkanović**, Z. Nurkanović, and S. Trolle*: *Dynamics of Non-autonomous Cooperative Systems with Applications to Evolutionary Dynamics*, AMS Fall Eastern Sectional Meeting, University at Buffalo (SUNY), Buffalo, NY September 9-10, 2023 (**Special Session on Difference and Differential Equations: Modeling, Analysis, and Applications to Mathematical Biology**)
20. **M. Nurkanović**: Asimptotsko ponašanje neautonomnih kompetitivnih i kooperativnih sistema diferentnih jednačbi, Konferencija povodom 14. marta - Svjetskog dana matematike, ANUBiH, Sarajevo, 14.03.2024.
21. **M. Nurkanović***, Z. Nurkanović: Dinamika jedne općenite klase diferentnih jednačbi drugog reda, Konferencija povodom 14. marta - Svjetskog dana matematike, ANUBiH, Sarajevo, 14.03.2024.
22. **M. Nurkanović**, M. Trumić*: Rješavanje diferentnih jednačbi prvog i drugog reda pomoću Lievih simetrija, Konferencija povodom 14. marta - Svjetskog dana matematike, ANUBiH, Sarajevo, 14.03.2024.
23. M. Garić-Demirović, D. Kovačević*, **M. Nurkanović**: Analiza stabilnostirješenja određenih Meyevih hoost-parasitoid modela korištenjem KAM teorije, Konferencija povodom 14. marta - Svjetskog dana matematike, ANUBiH, Sarajevo, 14.03.2024.
24. M.R.S. Kulenović, **M. Nurkanović**, Z. Nurkanović, and S. Trolle*: Stability and evolutionary stability of certain non-autonomous competitive systems of difference equations 29th International Conference on Difference Equations and Applications - ICDEA 2024, Paris, June 24-28, 2024 (Special sesion 6: Discrete Dynamical Systems and Applications n Mathematical Biology)

Articles in other mathematical journals

1. Karakterizacija funkcionalnih prostora pomoću malih talasa, *Zbornik radova*, Ekonomski fakultet Univerziteta u Tuzli, Tuzla (2000), 79-96.
2. Metodčki pristup obradi naredbe uslovnog grananja u programskom jeziku BASIC, *Putokazi* **1/88**, Tuzla, 1988.
3. Algoritmi za određivanje prostih brojeva, *Triangle*, Vol. **1** (1997), N° 1, UM BiH Sarajevo, 54-56.
4. Algoritmi za određivanje članova Fibonačijevog niza uz posebne uvjete, *Triangle*, Vol. **1** (1997), N° 2, UM BiH Sarajevo, 110-112.
5. Rješavanje (kosouglog) trougla pomoću računara, *Triangle*, Vol. **2** (1998), N° 1, UM BiH Sarajevo, 50-55.
6. Linearne jednačbe i sistemi linearnih jednačbi s parametrima, *Triangle*, Vol. **3** (1999), N° 2, UM BiH Sarajevo, 83-88.
7. Problemi "koncentracije" i "procentnog sadržaja", *Triangle*, Vol. **3** (1999), N° 4, UM BiH Sarajevo, 276-288.
8. Problemi rada, *Triangle*, Vol. **4** (2000), N° 2, UM BiH Sarajevo, 54-60.
9. Problemi kretanja, *Triangle*, Vol. **4** (2000), N° 4, UM BiH Sarajevo, 164-171.
10. Jedan prirodan, ali neuobičajen, način dokazivanja nejednakosti, *Triangle*, Vol. **6** (2003), N° 2, UM BiH Sarajevo, 55-61.

11. Posebni metodi rješavanja autonomnih sistema diferentnih jednačbi, *Zbornik radova PMF Tuzla – Svezak Matematika*, **3** (2007), 76-86.
12. Diracov problem, *Evolventa (JAMTK)*, Vol. 1, N^o1 (2018), 2-5.
13. Iracionalne jednačbe i nejednačbe, *Evolventa (JAMTK)*, Vol. 2, N^o1 (2019), 21-33. (with Z. Nurkanović)
14. Eksponencijalne jednačbe i nejednačbe, *Evolventa (JAMTK)*, Vol. 3, N^o1 (2020), 2-10. (with Z. Nurkanović)
15. Explicit Form of the Solutions of Pell's Equation by the Difference Equations Method, *Matematika Plyus (Mathematics Plus)*, Vol. 29, No.1 (2021), 76-87. (with M. Trumić)
16. Logaritmi, logaritamske jednačbe i nejednačbe, *Evolventa (JAMTK)*, Vol. 4, N^o1 (2021), 2-16. (with Z. Nurkanović)
17. Različiti metodi u ispitivanju konvergencije nizova zadanih rekurentim ormulama, *Evolventa (JAMTK)*, Vol. 4, N^o1 (2021), 25-37. (with M. Trumić)
18. Metod snižavanja reda pri rješavanju linearnih diferentnih jednačbi s varijabilnim koeficijentima, *Evolventa (JAMTK)*, Vol. 6, No. 1 (2023), 2-9. (with M. Trumić)

Scientific research grants

1. **Grupni projekat RSS 43/96 "Savremeni problemi matematičkih nauka"** Odsjeka za matematiku Prirodno-matematičkog fakulteta u Sarajevu, finansijski potpomognut od Soroš fondacije "Otvoreno društvo" – učesnik u projektu
2. **Grupni projekat broj 04-39-6171/165/01** Odsjeka za matematiku Prirodno-matematičkog fakulteta u Sarajevu, finansijski podržan od Federalnog ministarstva obrazovanja, nauke, kulture i sporta, Bosna i Hercegovina – učesnik u projektu
3. Istraživački projekat **Opravdanost izmještanja ili ugradnje novog ventilatora za jame pogona "Haljinići"**(Elaborat), koji je izvodila Katedra za ventilaciju, sigurnost i ekologiju RGGF Univerziteta u Tuzli – učesnik u projektu
4. Naučno-istraživački projekat **Diskretni modeli u matematičkoj biologiji i reakciono-difuzni problemi (2007 g.)**, sufinansiran od strane Ministarstva nauke, obrazovanja, kulture i sporta TK – voditelj projekta
5. Naučno-istraživački projekat **Istraživanje dinamike nekih diskretnih matematičkih modela iz oblasti fizike, biologije i epidemiologije (2008 g.)**, sufinansiran od strane Ministarstva nauke, obrazovanja, kulture i sporta TK – voditelj projekta
6. Naučno-istraživački projekat **Kompetitivni i antikompetitivni dinamički sistemi u ravni (2011. g.)**, sufinansiran od strane Ministarstva nauke, obrazovanja, kulture i sporta TK – član projektnog tima
7. Naučno-istraživački projekat: **Globalna dinamika diferentnih jednačbi drugog reda s kvadratnim članovima i primjene (2013. g.)**, sufinansiran od strane Ministarstva nauke, obrazovanja, kulture i sporta TK – voditelj projekta
8. Naučno-istraživački projekat „**Globalna asimptotska stabilnost rješenja i Neimark-Sackerova bifurkacija nekih racionalnih diferentnih jednačbi drugog reda sa primjenama**”, sufinansiran od strane Federalnog ministarstva nauke, obrazovanja, kulture i sporta (2016. g.) – učesnik u projektu
9. Naučno-istraživački projekat **"Globalna dinamika nekih racionalnih diferentnih jednačbi koje se primjenjuju u diskretnim modelima tipa host – parazitoid", broj 01/2- 3995-V/17**, sufinansiran od strane Federalnog ministarstva nauke, obrazovanja, kulture i sporta (2017. g.) – učesnik u projektu
10. Naučno-istraživački projekat **"Globalna dinamika diskretnih modela tipa Leslie – Gowera s kvadratnim članovima", broj 01/2- 5240-1/18-V**, sufinansiran od strane Federalnog ministarstva nauke, obrazovanja, kulture i sporta (2018. g.) – učesnik u projektu

11. Naučno-istraživački projekat "**Globalna dinamika određene klase miksa monotonih diferentnih jednačini primjenom teorije centralne mnogostrukosti i teorije monotonih preslikavanja**", broj 01-6211-1-IV/19, sufinansiran od strane Federalnog ministarstva nauke, obrazovanja, kulture i sporta (2019. g.) – voditelj projekta
12. Naučno-istraživački projekat „**Asimptotska stabilnost diskretnog host-parazitoid modela u matematičkoj biologiji**” (2023 g.), sufinansiran od strane Federalnog ministarstva nauke i obrazovanja, kulture i sporta– učesnik u projektu (voditelj projekta Mirela Garić-Demirović)

Presentations at mathematical colloquiums (by invitation)

1. **M. Nurkanović**, *Teorija malih talasa*, Kolokvij Odsjeka za matematiku Filozofskog fakulteta Univerziteta u Tuzli, 13.12.1997. godine.
2. **M. Nurkanović**, *Mali talasi i karakterizacija nekih funkcionalnih prostora*, Kolokvij Prirodoslovno-matematičkog fakulteta u Zagrebu, 27. juni 2000. godine.
3. **M. Nurkanović**, *Globalno asimptotsko ponašanje bilinearnog sistema diferentnih jednačini*, Kolokvij Prirodno-matematičkog fakulteta u Sarajevu, 06.05.2002. godine.
4. **M. Nurkanović**, *Asimptotsko ponašanje jednog kompetitivnog dvodimenzionalnog sistema diferentnih jednačini*, Kolokvij Prirodno-matematičkog fakulteta u Sarajevu, 20.05.2002. godine.
5. **M. Nurkanović**, *Asimptotsko ponašanje jednog dvodimenzionalnog sistema diferentnih jednačini koji modelira kooperaciju*, Kolokvij Odsjeka za matematiku Filozofskog fakulteta Univerziteta u Tuzli, 20.06.2002. godine.
6. **M. Nurkanović**, *Asimptotsko ponašanje rješenja nekih dvodimenzionalnih i trodimenzionalnih sistema diferentnih jednačini*, Mathematical Colloquium, Odjel za matematiku Sveučilišta J.J. Štrosmajer u Osijeku, 15.04.2004.
7. **M. Nurkanović**, *Dinamike nekih diferentnih jednačini s periodičnim koeficijentima*, Matematički kolokvij Odsjeka matematika PMF Univerziteta u Tuzli, 01.12.2005.
8. **M. Nurkanović**, *Globalno ponašanje nekih kompetitivnih diskretnih dinamičkih sistema*, Mathematical Colloquium, Odjel za matematiku Sveučilišta J.J. Štrosmajer u Osijeku, 06.05.2010.
9. **M. Nurkanović**, *Bazeni privlačenja ekvilibrija i periodičnih rješenja nekih diferentnih jednačini drugog reda s kvadratnim članovima*, Mathematical Colloquium, Odjel za matematiku Sveučilišta J.J. Štrosmajer u Osijeku, 25.04.2013.
10. **M. Nurkanović**, *Perturbirani diskretni modeli Beverton-Holtonovog tipa s kašnjenjem*, *Mathematical Colloquium*, Odjel za matematiku Sveučilišta J.J. Štrosmajer u Osijeku, 11.05.2017.

Member of Organizing Committee

1. ICDEA 2021 July 26 - 30, Sarajevo, Bosnia and Herzegovina

Scientific Committee

1. BMS Mathematical Conference 2018, July 12 - 14, Sarajevo, Bosnia and Herzegovina

Editor

1. Sarajevo Journal of Mathematics ([ANUBiH](#)) – since 2016.
2. Frontiers in Applied Mathematics and Statistics (*Review Editor for Dynamical Systems (since 2023)*)
3. Discrete Dynamis in Nature and Society (Special Issue: Stability and Bifurcation Analysis of Discrete Dynamical Systems 2021)| Hindawi (*Guest Editor*) (2021.)

4. [Sarajevo Journal of Mathematics Vol.18, No.1](#), Special issue dedicated to Professor Mustafa Kulenović on the occasion of his 70th birthday (**Editors in chief:** Acc. *Mirjana Vuković* and Prof. dr. **Mehmed Nurkanović**) (2022.)
5. **Svezak Matematika** (Zbornik radova Prirodno-matematičkog fakulteta Univerziteta u Tuzli) – *Editor in chief* (2004.-2010.)
6. **Triangle** – *Urednik izdanja za OŠ* (1997.-2003.)
7. Evolventa (UM TK) - editor in chief (www.evolventa.ba)

Reviewer

1. Advances in Difference Equations
2. Discrete Dynamics in Nature and Society
3. International Journal of Biomathematics
4. International Journal of ADVANCED AND APPLIED SCIENCES (IJAAS)
5. A Journal of Physical Sciences: Zeitschrift für Naturforschung A (ZNA)
6. Mathematical Methods in the Applied Sciences
7. Mathematical Communications
8. Journal of Difference Equations and Applications
9. Frontiers in Applied Mathematics and Statistics
10. Jordan Journal of Mathematics & Statistics
11. Mathematics
12. Fractal and Fractional
13. Applied Mathematics and Computation
14. Proceedings of ICDEA 2021
15. Sarajevo Journal of Mathmatis
16. Economic Review: Journal of Economics and Busines