

Lect. univ. dr. DEAC DAN STELIAN
Department : Mathematics and Informatics
The Faculty of Exact Sciences
"Aurel Vlaicu" University of Arad

LIST OF SCIENTIFIC WORKS

1. PhD thesis:

2009 **Western University of Timisoara**, elaboration and support of the doctoral thesis in the Mathematical field "*Geometric methods for the study of some economic systems*" under the scientific leadership of prof. univ. dr. Mircea Craioveanu

2. Books and chapters of books:

[1] Vladislav, T., **Deac, D.**, "*Complemente de matematică pentru studenții facultăților cu profil economic*". Vol.I, "Vasile Goldiș" University Press, Arad 2000, ISBN 973-9328-61-X.

[2] S. Nădăban, **D. Deac**, (2024). Fuzzy Functional Analysis—A General View. In: Balas, V.E., Dzemyda, G., Belciug, S., Kacprzyk, J. (eds) Decision Making and Decision Support in the Information Era. Studies in Systems, Decision and Control, vol 534. Springer, Cham. https://doi.org/10.1007/978-3-031-62158-1_17

3. Articles published in journals from the main stream with international recognition –

ISI

[1] S. Dzitac, H.Oros, **D. Deac**, S. Nadaban, *Fixed Point Theory in Fuzzy Normed Linear Spaces: A General View*. INTERNATIONAL JOURNAL OF COMPUTERS COMMUNICATIONS & CONTROL Online ISSN 1841-9844, ISSN-L 1841-9836, Volume: 16, Issue: 6, Month: December, Year: 2021 Article Number: 4587, <https://doi.org/10.15837/ijccc.2021.6.4587>. DOI:[10.15837/ijccc.2021.6.4587](https://doi.org/10.15837/ijccc.2021.6.4587)

[2] Nădăban, S., **Deac, D.**, *Nonstandard Fuzzy Sets: A General View*. Intelligent Methods Systems and Applications in Computing, Communications and Control. ICCCC 2022. Advances in Intelligent Systems and Computing, vol 1435, pp 208–218. Springer, Cham. https://doi.org/10.1007/978-3-031-16684-6_17

4. *Articles published in journals from the main stream with international recognition*

indexed in databases

- [1] Schebesch, K., **Deac, D.**, „*Innovation Clusters: Social Learning and Bussines Incubation*”. Zilele Academice, Arad, 2011, nr 21/2011, partea 1 a revistei „Studia Universitatis Vasile Goldiș”, p. 73-82, ISSN 1584-2339.
- [2] **Dan Deac**, Titus Petrila, „*Mathematical and numerical model for blood flow in large vessels with some pathology*”, Lucrare prezentată în plen la Lucrările Conferinței internaționale ”Zilele Academice Arădene”, 14 -17 mai 2014 , Arad, ”Vasile Goldiș” University Press, secțiunea: Present and prospects in life sciences research (biological science). Studia Universitatis “Vasile Goldiș”, Seria Științele Vieții Vol. 24, issue 2, 2014, pp.265-270, ISSN: 1584-2363, e-ISSN: 1842-7863, ISSN-L: 1584-2363.
- [3] **Deac D.**, Schebesch K.B., *Market Forecasts and Client Behavioral Data:Towards Finding Adequate Model Complexity*, Studia Universitatis „Vasile Goldiș” Arad, Economics Series, Volume 28, Issue 3/2018, pp. 50-76, ISSN 1584-2339, ISSN online 22285-3065.
- [4] **Deac, D.**, *Modele economice prin sisteme de ecuații cu diferențe*, Studia Universitatis 6/1997, ISBN 973-9328-07-05, Ed. Universitară „Vasile Goldiș”, Arad, 1997.
- [5] **Deac, D.**, *Considerații asupra dinamicii masei monetare*, Studia Universitatis 9/2000, p. 345-352, ISSN: 1453-103X, Ed. Universitară „Vasile Goldiș” , Arad, 2000.
- [6] **Deac, D.**, Danciu, L., „*Model matematic privind experiența practică și formarea capitalului uman*” Zilele Academice, Arad, 2006, nr 16/2006, vol. I, p.332-338, al revistei „Studia Universitatis Vasile Goldiș”, Arad. ISSN 1584-2339.
- [7] **Deac, D.**, Opriș, D., *The geometry of fractional osculator bundle of higher order on $\mathbb{R}$, Applications in Mechanics and Economics*, Prezentată la „ The Conference on Differential Geometry: Lagrange and Hamiltonian Spaces”, Sept 3-8, 2007, Iași. Apărută în nr 19/2009 partea a-III-a, p.398-404, al revistei „Studia Universitatis Vasile Goldiș”, Arad. ISSN 1584-2339.
- [8] **Deac, D.**, Danciu, L., „*Analiza unui model de creștere economică. Modelul bisectorial bunuri- educație*”. Zilele Academice, Arad, 2009, nr 19/2009 al revistei „Studia Universitatis Vasile Goldiș”, p. 96-101. ISSN 1584-2339.

- [9] Danciu, L., **Deac, D.**, „*Utilizarea modelelor informatice pentru realizarea studiilor previzionale*”. Zilele Academice, Arad, 2009, nr 19/2009, partea a-III-a, a revistei „Studia Universitatis Vasile Goldiș”, p. 405-411. ISSN 1584-2339.
- [10] Fărcaș, P., **Deac, D.**, “*Managementul portofoliilor de acțiuni cotate la bursa de valori București și analiza legăturilor statistice ale variației cotațiilor.*”. Zilele Academice, Arad, 2010, nr 20/2010 al revistei „Studia Universitatis Vasile Goldiș”, p. 167-177. ISSN 1584-2339.
- [11] Schebesch Klaus B., **Deac Dan S.**: „*The dynamics of unemployment and job creation using a time-delayed model*”. Ovidius University Annals Series: Civil Engineering, 16 (2014), p. 129-142, ISSN 1584-5990
- [12] Remeș E., Schebesch K.B., Remeș C., **Deac D.**, *Specific Aspects of Unregistered Unemployment in the Western Part of Romania*, Studia Universitatis „Vasile Goldiș” Arad, Seria Științe Economice, Vol.4/2016 ISSN 1584-2339, ISSN online 22285-3065.

5. Articles published in the volumes of internationally recognized scientific events

- 1) Deac, D.**, *Despre compacitatea relativizată*, Proceedings of the communications meeting of „Aurel Vlaicu” University. Third edition, volume 14B, ISBN 973-97708-0-0, Arad, 1996
- 2) Deac, D.**, *Some fractional dynamical systems which describe economic processes*, Proceedings of The International Conference „Differential Geometry and Dynamical Systems” (DGDS-2007), pp 61-67, Geometry Balkan Press 2008, ISSN 1454-511X.
- 3) Deac, D.**, Neamțu, M., Opriș, D., *The dynamical economic model with discrete time and consumer sentiment*, Applied Sciences Papers Fac. Of Appl. Sci. Politehnica Bucharest, DGDS Journal Papers, Volume 11, 95-104, 2009. ISSN 1454-511X.
- 4) Schebesch, K.**, Suciu, M., **Deac, D.**, Ivanovici M., „*Business incubators and collective learning for sustainable innovation: From concepts to first steps in computational modelling*”. , GIRA 2010 Conference, 9-10 September, Lisbon Portugal.
- 5) Schebesch, K.**, **Deac, D.**, “*Knowledge about replenishable resources: the dynamics of unemployment and job creation*”. Third International Conference on Modelling and Development of Intelligent Systems, October 10-12, 2013 Sibiu, România, pp.119-126, ISSN 2067-3965
- 6) Schebesch Klaus B.**, **Deac Dan S.**: „*The dynamics of unemployment and job creation using a time-delayed model*”. Ovidius University Annals Series: Civil Engineering, 16 (2014), p. 129-142, ISSN 1584-5990

7) Nicoleta Sârghi, Mihaela Neamțu, **Dan Stelian Deac** „*A dynamic model for unemployment control with distributed delay*” Methods in Finance and Business Administration, Proceeding of the International Business Administration conference, Tenerife Spain, 1(2014), p.42-48. ISBN 978-960-474-360-5.

6. Papers published in other recognized journals

1) Balazs Albert, Vitalie Vacaras, **Dan Deac**, Titus Petrila, „*A global condition for the rupture risk of an Abdominal Aortic Aneurysm (AAA) obtained within a mathematical and numerical model for blood flow in large vessels*”, Jokull Journal, Vol 64, No 3, pp. 339-352, 2014, ISSN: 0449-0576. <http://jokulljournal.com/issue.php?v=64&i=3>

2) Balazs Albert, Vitalie Vacaras, **Dan Deac**, Titus Petrila, „*Non-Newtonian Mathematical Model and Numerical Simulations for the Blood Flow in Capillary Vessels*”, Jokull Journal, Vol 64, No. 5, pp. 13-22, 2014, ISSN: 0449-0576. <http://jokulljournal.com/issue.php?v=64&i=5>

3) Balazs Albert, Vitalie Vacaras, **Dan Deac**, Titus Petrila, „*Large caliber blood vessel pseudoaneurysm following prosthetic surgery. Mathematical model and numerical considerations*”, Jokull Journal, Vol 64, No. 7, pp. 215-229, 2014, ISSN: 0449-0576. <http://jokulljournal.com/issue.php?v=64&i=7>

4) **Dan Deac**, Titus Petrila, „*Mathematical and numerical model for blood flow in large vessels with some pathology*”, Paper presented in plenary at the Proceedings of the International Conference "Academic Days Aradana", May 14-17, 2014, Arad, "Vasile Goldiș" University Press, the section: Present and prospects in life sciences research (biological science). Studia Universitatis "Vasile Goldiș", Life Sciences Series Vol. 24, issue 2, 2014, pp.265-270, ISSN: 1584-2363, e-ISSN: 1842-7863, ISSN-L: 1584-2363.

7. Articles published in the volumes of national scientific events

1) **Deac, D.**, Benghia, O. *Submulțimi relativ compacte*, Studia Universitatis 5/1996, p. 281-285, ISBN 973-578-207-3, Ed. Mirton, Timișoara, 1996.

2) **Deac, D.**, *Modele economice prin sisteme de ecuații cu diferențe*, Studia Universitatis 6/1997, ISBN 973-9328-07-05, Ed. Universitară „Vasile Goldiș”, Arad, 1997.

3) **Deac, D.**, *Considerații asupra dinamicii masei monetare*, Studia Universitatis 9/2000, p. 345-352, ISSN: 1453-103X, Ed. Universitară „Vasile Goldiș”, Arad, 2000.

4) **Deac, D.**, Opreș, D., *The geometry of fractional osculator bundle of higher order on $\mathbb{R}$, Applications in Mechanics and Economics*, Prezentată la „The Conference on Differential Geometry: Lagrange and Hamiltonian Spaces”, Sept 3-8, 2007, Iași. Appeared in nr 19/2009 part III, p.398-404, „Studia Universitatis Vasile Goldiș”, Arad. ISSN 1584-2339.

8. Research / development-innovation projects based on contract / grant

P1: Member (expert mathematician) in the strategic project team POSDRU/111/4.1/S/91816 *Cercetarea și prognozarea pieței muncii din vestul României. Evidențierea șomajului neînregistrat din județul Arad*, in which the forecasting of the labor market was done by an international research team (2012-2015)

P2: Western Region Training Expert within the Project co-financed by the European Social Fund within POSDRU, “ *Microcreditarea, componenta fundamentală a antreprenoriatului în mediul rural*” ID 135486(09.2015-11.2015).

Date:

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20.06.2025

