

NELI KRISTINA TODOROVIĆ VASOVIĆ

15nd of November 1959, Paris, France

Employment Information:

| | |
|-------------|--|
| 1987 - 1990 | Associate of the Institute of Physics, Zemun |
| 1990 - 1994 | Professor of physics at the Fifth Belgrade Gymnasium |
| 1994 - 1996 | Part-time assistant at the Faculty of Transport and Traffic Engineering, University of Belgrade |
| 1996 - 1998 | Expert Associate for Physics, Faculty of Pharmacy, University of Belgrade |
| 1998 -2007 | Physics Assistant, Institute of Mathematics and Physics, Faculty of Pharmacy, University of Belgrade |
| 2007-2012 | Assistant Professor of Physics, Department of Physics and Mathematics, Faculty of Pharmacy, University of Belgrade |
| 2012-2018 | Associate Professor of Physics, Department of Physics and Mathematics, Faculty of Pharmacy, University of Belgrade |
| 2018- | Full Professor of Physics, Department of Physics and Mathematics, Faculty of Pharmacy, University of Belgrade |

Education:

| | |
|------|--|
| 1978 | Eight-year school and high school in Paris, Požarevac and Belgrade have been completed |
| 1987 | Graduated astronomer, astrophysicist Faculty of Science, University of Belgrade Degree: Graduate in astronomi-astrophysics |
| 1990 | Specialization at the Institute of Physics, Zemun. Specialist paper "First Resonance in the Helium Atom" |
| 1995 | Master's thesis at the Faculty of Physics, University of Belgrade Thesis title: Analysis of a simplified semiclassical approach for the calculation of Stark parameters of propagation of spectral lines of neutral atoms. Degree: Master of Science |
| 2005 | PhD dissertation at the Faculty of Physics, University of Belgrade |

Dissertation title: Universality of fractal structure in Hamilton systems

Degree: Doctor of Philosophy

Training:

Participation in many international seminars and conferences abroad

Academic awards and distinctions:

Scholarship for three years of the Institute of Physics since 1987.

As part of her scientific research activity, as an associate of the scientific research project, Dr. Kristina Todorović-Vasović in 2004 received an incentive award from the Ministry of Science for the number of scientific papers in leading journals of international importance

Teaching activities:

Subject teacher in the compulsory subject Physics, Faculty of Pharmacy, University of Belgrade.

Participates in the final work commission entitled "Optical microscopy and photomicrography in pharmacognosy" candidate Ivan D. Jankovic, Department of Pharmacognosy, Faculty of Pharmacy, July 2014

Candidate Bojana Mišulić, Department of General and Inorganic Chemistry, Faculty of Pharmacy, February 8, 2017, participates in the final work commission entitled "Obtaining, properties and use of inorganic acids of elements of the III period".

Participates in the preparation of a diploma thesis entitled "Typical Hamilton dynamical systems" Candidate Lovorka Pantić, Institute of Physics and Mathematics, Faculty of Pharmacy, 1998

Mentoring in student research work

"Influence of bending on mode coupling in plastic optical fibers with step refractive index" 9th Student Mini-Congress, April 11-14, 2016, Belgrade

Author: Second year student of the Faculty of Pharmacy Isidora Savović

Textbooks:

1) Neli Kristina Todorović-Vasović, Aleksandra Jesenko

Practicum for experimental exercises in physics

Faculty of Pharmacy, University of Belgrade, 1st edition 2012

2) Dragoslav Kuzmanović, Nebojša Vasović, Srđan Kostić, Srboľjub Simić, Igor Franović, Ines Grozdanović, Kristina Todorović-Vasović, Biljana Ranković Plazinić, Introduction to Chaos Theory, Faculty of Transport and Traffic Engineering and Faculty of Mining and Geology in Belgrade, 1st edition, 2013

3) Basic textbook General Physics for students of the Faculty of Pharmacy, authors: Neli Kristina Todorović-Vasović, Dragan Prekrat, ready to print.

4) Auxiliary textbook Practicum in Physics for students of the Faculty of Pharmacy, authors: Neli Kristina Todorović-Vasović, Dragan Prekrat; ready to print.

Activities within the Faculty:

2007 member of the enrollment committee. Every year a member of the Census Commissions

Activities within wider Academic Community:

Member of the commission for evaluation of fulfillment of conditions and justification of the proposed topic at the Faculty of Physics

Member of the Association of Astronomers

She has been a reviewer of papers in domestic scientific journals and international conferences

Projects:

2001 - 2005 Associate on a scientific research project (No. 1225) funded by the Ministry of Science and Environmental Protection of the Republic of Serbia

2005 -2010 Saradnik na naučno–istraživačkom projektu (br. 141003) koji finansira Ministarstvo za nauku i zaštitu životne sredine Republike Srbije

2010- 2020 Associate on a scientific research project (No. 171017) funded by the Ministry of Education and Science of the Republic of Serbia

Republic of Serbia 2017-2018 Associate on a scientific research project Dr Igor FRANOVIĆ Institut za fiziku, Univerzitet u Beogradu, Dr. Matthias WOLFRUM Weierstrass Institute for Applied Analysis and Stochastics, Berlin(WIAS) Emergentna dinamika u sistemima spregnutih ekscitabilnih jedinica Emergent Dynamics in Systems of Coupled Excitable Units-Ministry of Education Science and Technological

Development of the Republic of Serbia and Deutcher Akademischer Austauschdienst – DAAD

2018-2022 CA17120 Chemobrionics, Spanish National Research Council, Madrid, Spain
Instituto Andaluz de la Tierra (IACT)

Publications:

1) **Prekrat, D., Todorović-Vasović, K.N., Ranković, D.**

Detecting scaling in phase transitions on the truncated Heisenberg algebra, Journal of High Energy Physics, 2021, 2021(3),

[https://doi.org/10.1007/JHEP03\(2021\)197](https://doi.org/10.1007/JHEP03(2021)197)

2) **Kostić, S., Vasović, N., Todorović, K., Franović, I.**

Effect of colored noise on the generation of seismic fault MOVEMENT: Analogy with spring-block model dynamics, Chaos, Solitons and Fractals, 2020, 135,

<https://doi.org/10.1016/j.chaos.2020.109726>

3) **Kostić, S., Vasović, N., Todorović, K., Franović, I.**

Nonlinear dynamics behind the seismic cycle: One-dimensional phenomenological modeling, Chaos, Solitons and Fractals, 2018, 106, pp. 310–316

<https://doi.org/10.1016/j.chaos.2017.11.037>

4) **Kostić, S.; Vasović, N.; Franović, I.; Todorović, K.; Klinshov, V.; Nekorkin, V.**

Dynamics of fault motion in a stochastic spring-slider model with varying neighboring interactions and time-delayed coupling, *Nonlinear Dynamics*, 2017, 87, 4, 2563-2575. DOI:10.1007/s11071-016-3211-5

5) S. Kostić , I. Franović, K. Todorović , N.Vasović, Friction memory effect in complex dynamics of earthquake model. *Nonlinear Dynamics*, 73:1933–1943,2013; ISSN: 0924-090X (Print) 1573-269X (Online) DOI 10.1007/s11071-013-0914-8

6) S. Kostić , N. Vasović , I. Franović , D. Jevremović , D. Mitrinović, K. Todorović , Dynamics of landslide model with time delay and periodic parameter perturbations. *Communications in Nonlinear Science and Numerical Simulation* 19, 3346–3361, 2014; ISSN: 1007-5704, DOI: 10.1016/j.cnsns.2014.02.012

7) I.Franović, K. Todorović, N. Vasović, and N. Burić, Stability, coherent spiking and synchronization in noisy excitable systems with coupling and internal delays. *Communications in Nonlinear Science and Numerical Simulation* 19, 3202–3219, 2014; ISSN: 1007-5704, DOI: 10.1016/j.cnsns.2014.02.022

8) I.Franović, K. Todorović, N. Vasović, and N. Burić, Mean-field approximation of two coupled populations of excitable units. *Phys. Rev. E* 87, 012922, 2013; ISSN: 1539-3755 (print) 1063-651X (online) DOI: 10.1103/PhysRevE.87.012922

9) I.Franović, K. Todorović, N. Vasović, and N. Burić, Persistence and failure of mean-field approximations adapted to a class of systems of delay-coupled excitable units. *Phys. Rev. E* 89, 022926 (2014); ISSN: 1539-3755 (print) 1063-651X (online) DOI: 10.1103/PhysRevE.89.022926

10) S. Kostić , N. Vasović , I. Franović , K. Todorović, Complex Dynamics of Spring-Block Earthquake Model Under Periodic Parameter Perturbations. Journal of Computational and Nonlinear Dynamics 9, 031019, 2014; ISSN: 1555-1415 (print) 1555-1423(online) , DOI: 10.1115/1.4026259