Contact:

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Academic Degrees:

B. Sc. 1997 Theoretical and Experimental Physics
Faculty of Physics, University of Belgrade, Serbia and Montenegro

M. Sc. 2001 Theoretical Physics of Plasmas
Faculty of Physics, University of Belgrade, Serbia and Montenegro

Ph. D. 2004 Natural Sciences (Physics)
Institute of Physics and Physical Technologies (IPPT), Clausthal University of Technology, Germany

Employment history:

Feb. 1998 - Jan. 1999:	"D. Maksimović" Primary-school, and EMŠ "Zemun" High-school, both in Zemun, Serbia and Montenegro, as a Physics Teacher
Feb. 1999 - Jul. 2002:	Vinča Institute of Nuclear Sciences, Belgrade, Serbia and Montenegro, as a Research Assistant
Nov. 2002 - Nov. 2004:	Institute of Physics and Physics Technologies (IPPT), Clausthal University of Technology, Clausthal-Zellerfeld, Germany, as a Research Assistant
Jul. 2002 - Feb. 2006:	Vinča Institute of Nuclear Sciences, Belgrade, Serbia and Montenegro, as a Research Associate
Dec. 2004 - Jul. 2006:	IPPT, Clausthal University of Technology, Clausthal-Zellerfeld, Germany, as a Postdoctoral Research Fellow
Aug. 2006 - Jun. 2007:	National Institute of Metrology (PTB), Braunschweig, Germany, as a Postdoctoral Research Fellow
Feb. 2006 – Oct. 2008	Vinča Institute of Nuclear Sciences, Belgrade, Serbia, as a Research Assistant Professor
Oct. 2008 - …	Vinča Institute of Nuclear Sciences, Belgrade, Serbia, as a Research Associate Professor
Apr. 2009 - …	Deputy head, Atomics Physics Laboratory, Vinča Institute of Nuclear Sciences, Belgrade, Serbia

Professional interests and experience:

- nonlinear optics and photonics
- nonlinear dynamics
- nonlinear waveguides, couplers, arrays
- photorefractive crystals, photonic crystals and fibres
- all-optical devices and communications

Selected publications:

1. D. Kip and **M. Stepić**: „*Nonlinear effects in one-dimensional photonic lattices*“, Springer Series in Optical Sciences **150**, 3-19 (2010), Eds. C. Denz, S. Flach, and Yu. S. Kivshar „**Nonlinearities in Periodic Structures and Metamaterials**“ (Springer Verlag, Berlin, Heidelberg).
2. E. Smirnov, **M. Stepić**, C. Rüter, D. Kip, and V. Shandarov: "*Observation of staggered surface solitary waves in one-dimensional waveguide arrays*", Opt. Lett. **31,** 2338 (2006).
3. F. Chen, **M. Stepić**, V. Shandarov, D. Runde, C. Rüter, D. Kip, O. Manela, and M. Segev: "*Discrete diffraction and staggered gap solitons in $LiNbO_3$:Cu waveguide arrays*", Opt. Exp. **13**, 4314 (2005).
4. Lj. Hadžievski, A. Maluckov, **M. Stepić**, and D. Kip: "*Power controlled soliton stability and steering in lattices with saturable nonlinearity*", Phys. Rev. Lett. **93**, 033901 (2004).
5. **M. Stepić**, D. Kip, Lj. Hadžievski, and A. Maluckov: "*One-dimensional bright discrete solitons in media with saturable nonlinearity*", Phys. Rev. E **69**, 066618 (2004).
6. **M. Stepić**, C. Wirth, C. Rüter, and D. Kip: "*Observation of MI in discrete media with self-defocusing nonlinearity*", Opt. Lett. 31, 247 (2006).
7. E. Smirnov, C. E. Rüter, **M. Stepić**, D. Kip, and V. Shandarov: „*Formation and light guiding properties of dark solitons in one-dimensional waveguide arrays*“, Phys. Rev. E **74**, 065601 (R) (2006).
8. P. P. Beličev, I. Ilić, **M. Stepić**, A. Maluckov, Y. Tan, and F. Chen: „*Observation of linear and nonlinear strongly localized modes at phase-slip defects in one-dimensional photonic lattices*“, Opt. Lett. **35,** 3099 (2010).
9. G. Gligorić, A. Maluckov, **M. Stepić**, Lj. Hadžievski, and B. A. Malomed: ”*Two-dimensional discrete solitons in dipolar Bose-Einstein condensates*”, Phys. Rev. A **81**, 013633 (2010).
10. P. P. Beličev,I. Ilić,A. Maluckov, **M. Stepić,** A. Kanshu, C. E. Rüter, and D. Kip: „ *Dynamics of gap solitons in one-dimensional binary lattices with saturable self-defocusing nonlinearity and alternating spacing* “, Phys. Rev. A **86**, 033835 (2012).

Teaching:

1998 Physics Teacher in both Primary and High school
2003 Assistant at TU Clausthal (subject Atomic Physics)

Supervisor:

Goran Gligorić (PhD thesis, University of Belgrade, 2010)
Petra P. Beličev (PhD thesis, University of Belgrade, 2012).

Organizing:

Member of the local Organizing Committee of the Third Yu- Japan Workshop on Computer Simulation Science, 2.-3.9.2002, Belgrade, Yugoslavia
Chair of the Scientific and Organizing Committee of the First national conference “Photonica 2009 - theory and experiments in Serbia”
Member of the Organizing Committee of the Third international summer school and conference on photonics - Photonica 2011
Member of the Scientific Committee of the Third international conference on optical materials and devices – ICOM 2012

Professional activities:

Reviewer in: Opt. Lett, Opt. Exp., Appl. Phys. B, J. Opt. Soc. Am. B, Phys. Lett. A, NIMB, Physica Scripta, Chin. Phys. Lett. and Acta Phys. Polon. A

Project reviewer for the Serbian (2010) and Georgian (2011-2012) Ministry of Science.

Editorial work:

2008-2009	Editor, Vinča za početnike (http://vincazapocetnike.vinca.rs/vinca.html)
2009	Editor, Book of abstracts, First national conference "Photonica 2009 - theory and experiments in Serbia", grant 451-03-00209/2009-02
2011	Editor, Conference proceedings, Third international summer school and conference on photonics - Photonica 2011
2011-2012	Guest editor, Topical Issue 3rd International School/Conference on Photonics, Eds. J. Petrović, **M. Stepić** and Lj. Hadžievski, Physica Scripta, **T149**, 010101 (2012), 2 pages.

Gremien:

2009-2012	Organizer of the Open day of the Vinča Institute
2011-2013	Founder and president of the Optical Society of Serbia
2012	Founder of reestablished Serbian Physics Society
2012	Founder and vice-president of the Society of researchers "Vinča"
2007 - …	Member of the Scientific Board of the Vinča Institute
2008-2010	Head of the Physics Scientific Board of the Vinča Institute
2008-2010	Deputy head of the Committee for promotion in career, Scientific Board of the Vinča Institute
2008-2010	Member of the Committee for awards, Scientific Board of the Vinča Institute
2010-2012	Deputy head of the Physics Scientific Board of the Vinča Institute
2011-2012	Member of the Committee for popularization of science, Scientific Board of the Vinča Institute
2012-2014	Head of the Committee for normative activities, Scientific Board of the Vinča Institute
2012-2014	Head of the Committee for popularization of science, Scientific Board of the Vinča Institute

Membership:

2007 - …	Optical Society of America
2011 - …	Optical Society of Serbia

Awards:

2007 The yearly award of the Vinča Institute

Scientific projects:

1999-2002	"Physics of fusion plasmas", Ministry of Science of Republic of Serbia, Project 01-E11 (part of the project was focused on the dynamics and stability of solitons in 1D nonlinear fiber arrays)
2002-2005	"Complex phenomena in fusion plasmas", Ministry of Science and Technologies of Republic of Serbia, Project 1964 (part of the project was focused on the dynamics and stability of solitons in 2D nonlinear fiber arrays/lattices with long-range interactions)

2003-2004 "Investigation of spatial optical solitons in photorefractive waveguides", INTAS, Project 01-0481

2003-2006 "Ensembles of interacting solitons", BMBF (German Ministry of Education and Research), grant DIP-E6.1

2005-2006 "Investigation of the behavior of discrete solitons in waveguide arrays with saturable nonlinearity", DFG (German Research Foundation), grants KI482/8-1,2

2006-2010 "Physics of complex phenomena in plasmas, condensed matter, and nonlinear optics", Ministry of Science and Enviromental Protection of Republic of Serbia, Project 14-1034, subproject leader

2006-2007 "Quantum noise limited, high-power light sources", Project B7 in frame of Collaborative Research Centers (SFB) 407 "Quantum-limited Measurement Processes with Atoms, Molecules, and Photons"

2009-2010 "Linear and nonlinear wave propagation in sub-wavelength waveguide arrays", German Serbian project, grant 451-03-0025412009-010, principal investigator of Serbian team

2011-2014 "Photonics of micro and nanostructured materials", Ministry of Education, Science and Technological development of Republic of Serbia, subproject leader

2012-2013 "Symmetry breaking and all-optical light routing in complex photonic lattices", German-Serbian project grant 680-00-00095/2012-09/5, principal investigator of Serbian team

Projects for popularization of science:

2008-2009 "Research at Vinča Institute - for beginners", Ministry of Science of Republic of Serbia, grant 451-03-00723/2008-02, project leader

2011-2012 "Vinčaonica", Centre for promotion of Science of Republic Serbia, grant 467/12, project coordinator

2011-2012 "Vinčina naučionica", Secretariat for sport and youth of City Belgrade, grant 66-1606/12-G, project coordinator

2012-2013 "Vinča's winter charm", Secretariat for sport and youth of City Belgrade, grant 66-5222/12-G, project leader

Talks:

8. "Soliton dynamics in one-dimensional waveguide arrays with saturable, self-defocusing nonlinearity", Symposium Non-linear Dynamics with Multi and Interdisciplinary Applications (SNDMIA 2012), 01.-05.10.2012, Belgrade, Serbia. (**invited**)
7. **"***Strongly localized modes in one-dimensional photonic lattices with alternating couplings***", T**he Twentieth Annual International Symposium on Nonlinear Optics and Spectroscopy, 11.-15.07.2011, Sarajevo, Bosnia and Herzegovina. (**invited**)
6. "*Surface modes at the boundary of two dissimilar photonic lattices*", International Workshop on Complexity in Periodically Structured Systems, 30.08.-03.09.2010, Dresden, Germany
5. "*Research at Vinča Institute –for beginners*", 27. Republic Seminar on Teaching in Physics, 23.-25.04.2009, Vrnjačka Banja, Serbia. (**invited**)
4. "*Modulational instability and spatial solitons in one-dimensional lattices with resonant nonlinearity*", The First International Conference Nonlinear waves- theory and applications, 09.-12-06.2008, Beijing, China.
3. "*Discrete one-dimensional solitons in photorefractive media*", The Fifth General Conference of the Balkan Physical Union, 25.-29.8.2003, Vrnjačka Banja, Serbia and Montenegro.
2. "*Stability of optical solitary waves in 2D nonlinear fiber arrays*", 3. Yu- Japan workshop on computer simulation science, 2.-3.9.2002, Belgrade, Yugoslavia.
1. "*Stationary solutions of 2D continuous discrete nonlinear Schrödinger equation and their stability*", workshop "Dynamical Systems Methods in Nonlinear Wave Equations", 4.-5.7.2002 Loughborough, United Kingdom.

Seminars

Clausthal-Zellerfeld (3), Rostock, Erlangen, Braunschweig, Dresden, Chemnitz, Petnica (2), Niš, Jinan

Cooperation:

- Prof. Detlef Kip, Faculty of Electrical Engineering, Helmut Schmidt University, Hamburg, Germany
- Prof. Feng Chen, School of physics and microelectronics, Shandong University, Jinan, China
- Prof. Rodrigo Vicencio, Department of physics, Faculty of sciences, University of Chile, Santiago, Chile
- Prof. Vladimir Shandarov, State University of control systems and radioelectronics, Tomsk, Russia

Languages: Serbian (native), English (very good), German (good), able to read and understand Russian

Personal:

Citizenship: Serbian
Born: 30.10.1969, Zemun, Serbia (former Yugoslavia)
Marital Status: Married with Aleksandra. We have two children: daughter Mitra and son Jug.

Dr. Milutin Stepić Zemun, 21.01.2013