

Petra Beličev's publications:

Articles in journals:

1. N. Raičević, M. D. Ivanović, P. P. Beličev and J. Petrović, *Monitoring of respiratory volumes by an long period grating sensor of bending*, INERA CONFERENCE 2015: Light in nanoscience and nanotechnology (LNN2015), vol. 682 (2016).
2. P. P. Beličev, G. Gligorić, A. Radosavljević, A. Maluckov, M. Stepić, R. A. Vicencio and M. Johansson, *Localized modes in nonlinear binary Kagome ribbons*, Physical review E, vol. 92, 052916-11 (2015).
3. P. P. Beličev, G. Gligorić, J. Petrovic, A. Maluckov, Lj. Hadžievski and B. Malomed, *Composite localized modes in discretized spin-orbit-coupled Bose-Einstein condensates*, Journal of Physics B – Atomic molecular and optical physics, vol. 48, 065301-11 (2015).
4. P. P. Beličev, *Propagation of light in photonic lattices with saturable nonlinearity comprising a defect*, Physica Scripta, T162, 014001-6 (2014).
5. P. P. Beličev, I. Ilić, M. Stepić, Lj. Hadžievski, C. Lou, S. Suntsov, C. E. Rüter, and D. Kip, *Spontaneous symmetry breaking of gap-solitons in defect-loaded uniform photonic lattices*, Physical Review A, vol. 88, 023858-5 (2013).
6. P. P. Beličev, G. Gligorić, A. Maluckov, and M. Stepić, *Dynamics of dark solitons localized at structural defect in one-dimensional photonic lattices with defocusing saturable nonlinearity*, Europhysics Letters, vol. 104, 14006-6 (2013).
7. 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*, Physical Review A, vol. 86, 033835-8 (2012).
8. I. Ilić, P. P. Beličev, V. Milanović, *Modeling of tunneling times in anisotropic-magnetic metamaterials*, Physica Scripta, T149, 014050-3 (2012).
9. I. Ilić, P. P. Beličev, V. Milanović, J. Radovanović, and Lj. Hadžievski, *Refractive properties of metamaterial composed of InGaAs layers with alternating doping densities*, Journal of Electromagnetic Waves and Applications, vol. 26, 2323-2331 (2012).
10. A. Kanshu, C. E. Rüter, D. Kip, V. M. Shandarov, P. P. Beličev, I. Ilić, and M. Stepić, *Observation of discrete gap solitons in one-dimensional waveguide arrays with alternating spacings and saturable nonlinearity*, Optics Letters, vol. 37, 1253-1255 (2012).
11. J. Radovanović, I. Ilić, P. P. Beličev, V. Milanović, and Lj. Hadžievski, *Comparison of tunneling times in isotropic and anisotropic media*, Applied Physics A, vol. 109, 997-1006 (2012).
12. J. Radovanović, I. Ilić, P. P. Beličev, Lj. Hadžievski and V. Milanović, *On tunneling times in dispersive and nonlinear metamaterials*, Journal of Nanophotonics, vol. 5, 051802-9 (2011).
13. I. Ilić, P. P. Beličev, V. Milanović, J. Radovanović and Lj. Hadžievski, *Goos-Hänchen shift and time delay in dispersive nonlinear media*, Physics Letters A, vol. 375, 1357-1361 (2011).
14. A. Kanshu, C. E. Rüter, D. Kip, P. P. Beličev, I. Ilić, M. Stepić, and V. M. Shandarov, *Linear and nonlinear light propagation at the interface of two homogenous waveguide arrays*, Optics Express, vol. 19, 1158-1167 (2011).
15. 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*, Optics Letters, vol. 35, 3099-3101 (2010).
16. P. P. Beličev, I. Ilić, V. Milanović, J. Radovanović, and Lj. Hadžievski, *Tunneling times in metamaterials with saturable nonlinearity*, Physical Review A, vol. 80, 023821-7 (2009).
17. P. P. Beličev, I. Ilić, J. Radovanović, V. Milanović, and Lj. Hadžievski, *Time delay in thin dielectric slabs with saturable nonlinearity*, Acta Physica Polonica A, vol. 115, 834-837 (2009).

18. Y. Tan, F. Chen, P. P. Beliĉev, M. Stepić, A. Maluckov, C. E. Rüter, and D. Kip, *Gap solitons in defocusing lithium niobate binary waveguide arrays fabricated by proton implantation and selective light illumination*, Applied Physics B, vol. 95, 531-535 (2009).
19. I. Ilić, P.P. Beliĉev, V. Milanović, and J. Radovanović, *Modeling of dwell time and group delay in dispersive and absorptive media*, Physica Scripta, T135, 014040-4 (2009).
20. I. Ilić, P.P. Beliĉev, V. Milanović, J. Radovanović, and Lj. Hadžievski, *Influence of the Goos-Hänchen shift on tunneling times in dispersive nonlinear media*, Acta Physica Polonica A, vol. 116, 638-641 (2009).
21. I. Ilić, P.P. Beliĉev, V. Milanović, and J. Radovanović, *Analysis of tunneling times in absorptive and dispersive media*, Journal of Optical Society of America B, vol. 25, 1800-1804 (2008).

Conference talks and contributions:

1. Petra P. Beliĉev, "Propagation of light in complex photonic lattices with saturable nonlinearity", *Photonica2015- 5th International School and Conference in Photonics*, Belgrade, Serbia (2015).
2. Petra P. Beliĉev, Marija D. Petrović, Goran Gligorić, Jovana Petrović, "Modelovanje i spektralna svojstva fiber-optičkih senzora baziranih na rešetki sa dugim periodom", *Sedma radionica fotonike*, Zbornik apstrakata, str.31, Kopaonik, Srbija (2014).
3. Petra P. Beliĉev, "Propagation of light in complex photonic lattices with saturable nonlinearity", *Photonica2013- 4th International School and Conference in Photonics*, Belgrade, Serbia (2013) **(Invited)**.
4. P. P. Beliĉev, G. Gligorić, A. Maluckov, and M. Stepić, "Dark solitons formed at defect in one-dimensional waveguide array with saturable nonlinearity", *Photonica2013- 4th International School and Conference in Photonics*, Book of abstracts, pp. 64, Belgrade, Serbia (2013).
5. M. Stepić, P. P. Beliĉev, A. Maluckov, I. ilić, A. Kanshu, D. Kip, C. E. Rüter, and V. Shandarov, "Soliton dynamics in one-dimensional waveguide arrays with saturable, self-defocusing nonlinearity", *8th Serbian Symposium in area of Non-linear Sciences - SNDMIA 2012*, Belgrade, Serbia (2012).
6. M. Stepić, P. P. Beliĉev, I. ilić, A. Maluckov, A. Kanshu and D. Kip, "Soliton interactions in one-dimensional photonic lattices with alternating couplings and saturable defocusing nonlinearity", *2nd Conference on Localized Excitations in Nonlinear Complex Systems - LENCOS'12*, Sevilla, Spain (2012).
7. Petra P. Beliĉev, Igor Ilić, Milutin Stepić, A. Kanshu, C.E. Rüter, D. Kip, V.M. Shandarov, "Gap solitoni u jednodimenzionalnim binarnim rešetkama sa zasićujućom nelinearnošću", *Peta radionica fotonike*, Zbornik apstrakata, str. 27, Kopaonik, Srbija (2012).
8. Igor Ilić, Petra P. Beliĉev, Vitomir Milanović, Jelena Radovanović, Ljupĉo Hadžievski, "Poluprovodniĉki metamaterijal baziran na različito dopiranim slojevima InGaAs", *Peta radionica fotonike*, Zbornik apstrakata, str. 34, Kopaonik, Srbija (2012).
9. A. Kanshu, C. E. Rüter, D. Kip, P. P. Beliĉev, I. Ilić, and M. Stepić, "Gap solitons in one - dimensional photonic lattices with defocusing nonlinearity and alternating couplings", *Photorefractive Materials, Effects, and Devices - Light in Nonlinear Structured Materials*, Proceedings T3-3, Ensenada, Mexico (2011).
10. P. P. Beliĉev, I. Ilić, M. Stepić, "Interactions of gap solitons in double-periodic one-dimensional photonic superlattices with saturable nonlinearity", *Photonica2011- 3rd International School and Conference in Photonics*, Book of abstracts, pp. 102, Belgrade, Serbia (2011).
11. Petra P. Beliĉev, Igor Ilić, Milutin Stepić, A. Kanshu, C.E. Rüter, D. Kip, V.M. Shandarov, "Linearno i nelinearno prostiranje svetlosti na spoju dve različite jednodimenzionalne homogene fotonske rešetke", *Ĉetvrta radionica fotonike*, Zbornik apstrakata, str. 26, Kopaonik, Srbija (2011).
12. P. P. Beliĉev, I. Ilić, M. Stepić, Y. Tan, F. Chen, "Linear localized modes at phase-slip defects in one-dimensional waveguide arrays", *Nonlinear Photonics*, NTuC53, Karlsruhe, Germany (2010).

13. I. Ilić, P. P. Beliĉev, M. Stepić, Lj. Hadžievski, Y. Tan, F. Chen, "Stability analysis of nonlinear localized modes at the phase-slip defect in one-dimensional waveguide array", *Nonlinear Photonics*, NTuC51, Karlsruhe, Germany (2010).
 14. Igor Ilić, Petra P. Beliĉev, Vitomir Milanović, Jelena Radovanović, Ljupĉo Hadžievski, "Vremena tunelovanja u disperzivnim i nelinearnim sredinama", Konferencija: *Fotonika 2010 - Teorija i eksperiment u Srbiji*, Zbornik apstrakata, str. 42, Beograd, Srbija (2010).
 15. Petra P. Beliĉev, Igor Ilić, Milutin Stepić, Aleksandra Maluckov, Yang Tan, Feng Chen "Linearni lokalizovani modovi u jednodimenzionalnim fotonskim rešetkama sa defektom", *Fotonika 2010 - Teorija i eksperiment u Srbiji*, Zbornik apstrakata, str. 44, Beograd, Srbija (2010).
 16. P. P. Beliĉev, M. Stepić, A. Maluckov, "Gap solitons in binary waveguide arrays with saturable nonlinearity", *Photonica09 – 2nd International School and Conference on Photonics*, Book of Abstracts, pp. 57, Belgrade, Serbia (2009).
 17. Petra P. Beliĉev, Igor Ilić, Vitomir Milanović, Jelena Radovanović, Ljupĉo Hadžievski, "Vremena tunelovanja u metamaterijalima sa zasićujućom nelinearnošću", *Fotonika 2009 - Teorija i eksperiment u Srbiji*, Zbornik apstrakata, str. 12, Beograd, Srbija (2009).
 18. Igor Ilić, Petra Beliĉev, Vitomir Milanović, Jelena Radovanović, "Vreme zadržavanja i grupno kašnjenje u metamaterijalima sa negativnim indeksom prelamanja", *52. konferencija ETRAN*, Zbornik radova, MO3. 2-1-4, Palić, Srbija (2008).
 19. P. Beliĉev, I. Ilić, M. Krstić, "Large signal modulation of semiconductor laser at high bit rates", *51. konferencija ETRAN*, Zbornik radova, STU 1.4- MO-1-4, Herceg Novi, Crna Gora (2007).
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Seminars by invitation:

1. "Flat-band as a playground for localized modes in nonlinear binary kagome ribbons", Belgrade, Serbia (2015).
2. "Modelling and spectral properties of optical fiber long-period grating sensors", Faculty of Electrical Engineering, Belgrade, Serbia (2014).
3. "Modelling and spectral properties of optical fiber long-period grating sensors", Linköping University, Department of Physics, Chemistry and Biology (IFM), Linköping, Sweden (2014).
4. "Linear and nonlinear propagation of light in complex photonic lattices with saturable nonlinearity", Faculty of Electrical Engineering, Belgrade, Serbia (2013).
5. "Light propagation in binary photonic lattices with saturable nonlinearity", Faculty of Electrical Engineering, Belgrade, Serbia (2012).
6. "Metamaterials - Materials of the future", P.P. Beliĉev and I. Ilić, Mathematical Gymnasium, Belgrade, Serbia (2010).
7. "Tunneling times in metamaterials with saturable nonlinearity", TU Clausthal, Clausthal-Zellerfeld, Germany (2010).
8. "Metamaterials", Petnica Science Center, Valjevo, Serbia (2009).
9. "Photonics", Doors Open Days at the Vinĉa Institute of Nuclear Sciences, Belgrade, Serbia (2009).