

Lista de lucrări pentru Kovács Katalin

Teza de doctorat:

Titlu: *Studiul fenomenelor de magnetizare prin metode tip Monte Carlo*

Conducător de doctorat: Prof. Univ. Dr. Néda Zoltán, Universitatea Babeş-Bolyai, Cluj-Napoca

Data susţinerii tezei: 12. 11. 2007; data ordinului ministrului: 12.03.2008.

Cărţi publicate:

1. Kovács Katalin, [*The Study of Magnetization Processes Using Monte Carlo Methods*](#), Scholar's Press (2014), ISBN 978-3-639-71370-1

Cursuri universitare:

1. Néda Zoltán, Libál András, Kovács Katalin, [*Elemi kvantummechanika*](#) (Mecanică cuantică elementară, lb. maghiară), Presa Universitară Clujeană (2006); ISBN 973-610-399-4
2. Néda Zoltán, Libál András, Horvát Szabolcs, Kovács Katalin, [*Kvantummechanika II.*](#) (Mecanică cuantică II.), on-line: <http://www.phys.ubbcluj.ro/znedu/edu/files/ln2.html>

Articole în reviste cotate ISI (IF = Impact factor; AIS = Article Influence Score; IC = Independent citations, enumerate începând cu cele mai recente):

1. Tosa, V., Gherman, AMM., Kovács, K., Tóth, I., [*Modeling Femtosecond Beam Propagation in Dielectric Hollow-Core Waveguides*](#), **Photonics** **12(1)**, 65 (2025) DOI: 10.3390/photronics12010065 **IF= 2.1; AIS= 0.37; IC= 0**
2. Yun, H; Cho, W; Sung, JH; Yang, JM; Choi, JH; Kovács, K; Tosa, V; Kim, HT, [*Spectral response of chirp-dependent femtosecond laser filamentation in air*](#), **Journal of the Korean Physical Society** **83(12)**, 950-956 (2023) DOI: 10.1007/s40042-023-00966-9 **IF= 0.8; AIS= 0.14; IC= 0**
3. Toth, I; Gherman, AMM; Kovács, K; Cho, WS; Yun, H; Tosa, V, [*Reconstruction of Femtosecond Laser Pulses from FROG Traces by Convolutional Neural Networks*](#), **Photonics** **10(11)**, 1195 (2023), DOI: 10.3390/photronics10111195 **IF= 2.1; AIS= 0.37; IC= 5**
4. Major, B; Ghafur, O; Kovács, K; Varjú, K; Tosa, V; Vrakking, MJJ; Schütte, B; [*Compact intense extreme-ultraviolet source*](#), **Optica** **8(7)**, 960-965 (2021) DOI: 10.1364/OPTICA.421564 **IF= 10.64; AIS= 3.64; IC= 28**
5. Major, B., Kretschmar, M., Ghafur, O., Hofmann, A., Kovács, K., Varjú, K., Senftleben, B., Tummler, J., Will, I., Nagy, T., Rupp, D., Vrakking, M.J.J., Tosa, V., Schutte, B., [*Propagation-assisted generation of intense few-femtosecond high-harmonic pulses*](#), **Journal of Physics-Photonics** **2** (3), 034002 (2020) DOI: 10.1088/2515-7647/ab869d **IF= 0; AIS= 0; IC= 13**

6. K. Kovács, V. Tosa, [*Generation of two successive attosecond pulses in separate spectral domains*](#), **Sci. Rep.** **10** (1), 7392 (2020); DOI: 10.1038/s41598-020-64373-x; **IF= 4.011; AIS= 1.263; IC=1**
7. C. Tripon, D. Dadarlat, K. Kovács, V.P. Tosa, M. Franko, [*Thermal Effusivity Investigations of Solid Thermoelectrics Using the Front Photopyroelectric Detection*](#), **Int. J. of Thermophysics** **41** (15) 1-11, (2020); DOI: 10.1007/s10765-019-2593-2; **IF= 0.853; AIS= 0.172; IC= 5**
8. K. Kovács, V. Tosa, [*Macroscopic attosecond chirp compensation*](#), **Optics Express** **27** (15), 21873-21880 (2019); DOI: 10.1364/OE.27.021872; **IF= 3.561; AIS= 0.813; IC= 8;**
9. B. Major, K. Kovács, V. Tosa, P. Rudawski, A. L'Huillier, K. Varjú, [*Effect of plasma-core-induced self-guiding on phase matching of high-order harmonic generation in gases*](#), **J. Opt. Soc. Am. B** **36** (6), 1594-1601 (2019); DOI: 10.1364/JOSAB.36.001594; **IF= 2.284; AIS= 0.514; IC=7**
10. K. Kovács, B. Major, E. Balogh, C. P. Koros, S. P. Rudawski, C.M. Heyl, P. Johnsson, C.L. Arnold, A. L'Huillier, V. Tosa, K. Varjú, [*Multi-parameter optimization of a loose focusing high flux high-harmonic beamline*](#), **J. Phys. B-At. Molec. Opt. Phys.** **52** (5), 055402 (2019); DOI: 10.1088/1361-6455/aaff7f; **IF= 2.115; AIS= 0.609; IC= 4;**
11. A.M.M. Gherman, K. Kovács, M.V. Cristea, V. Tosa, [*Artificial Neural Network Trained to Predict High-Harmonic Flux*](#), **Appl. Sci. Basel** **8** (1), 2106 (2018); DOI: 10.3390/app8112106; **IF= 2.217; AIS= 0.345; IC= 12;**
12. D.E. Rivas, B. Major, M. Weidman, W. Helml, G. Marcus, R. Kienberger, D. Charalambidis, P. Tzallas, E. Balogh, K. Kovács, V. Tosa, B. Bergues, K. Varjú, L. Veisz, [*Propagation-enhanced generation of intense high-harmonic continua in the 100-eV spectral region*](#), **Optica** **5**(10), 1283-1289 (2018); DOI: 10.1364/OPTICA.5.001283; **IF= 9.263; AIS= 3.701; IC= 16;**
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15. K. Kovács, M. Negro, C. Vozzi, S. Stagira, V. Tosa, [*Attosecond lighthouse above 100eV from high-harmonic generation of mid-infrared pulses*](#), **J. of Optics** **19** (10), 104003 (2017); DOI: 10.1088/2040-8986/aa802b; **IF= 2.323; AIS= 0.603; IC= 4;**
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29. V. Tosa, [K. Kovács](#), C. Altucci, and R. Velotta, [Generating single attosecond pulse using multi-cycle lasers in a polarization gate](#), **Optics Express** **17**, 17700 (2009) DOI: 10.1364/OE.17.017700 **IF= 3.278; AIS= 1.235; IC= 7;**
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31. [K. Kovács](#) and Z. Néda, [Disorder-driven Phase Transition in a Spring-block type Magnetization Model](#), **Physics Letters A** **361**, 18 (2007) DOI: 10.1016/j.physleta.2006.08.086 **IF= 1.711; AIS= 0.624; IC= 5**
32. [K. Kovács](#) and Z. Néda, [Critical Behavior of a Spring-block Model for Magnetization](#), **Journal of Optoelectronics and Advanced Materials** **8**, 1093 (2006) WOS:000238506500042 **IF= 1.106; AIS= 0.130; IC= 7**
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2. C. L. Arnold, C. M. Heyl, H. Coudert-Aalteirac, M. Miranda, M. Lousy, [K. Kovács](#), V. Tosa, E. Balogh, K. Varjú, A. Couairon, A. L'Huillier, [Energy scaling of gas nonlinear optics](#), **Book Series: IEEE Photonics Conference** art. no. 132705, 503-504 (2017); WOS:000426792600216; ISBN:978-1-5090-6578-3; ISSN: 2374-0140
3. C. M. Heyl, H. Coudert-Aalteirac, M. Miranda, M. Lousy, [K. Kovács](#), V. Tosa, E. Balogh, K. Varjú, A. L'Huillier, A. Couairon, C. L. Arnold, [Scale-Invariant Nonlinear Optical Effects in Gases](#), **IEEE Book Series: Conference on Lasers and Electro-Optics**, no. 7787635 (2016); WOS: 000391286400367; ISBN: 978-1-9435-8011-8; ISSN: 2160-9020

4. [Katalin Kovács](#), Emeric Balogh, Valer Toşa, and Katalin Varjú, [Tunable generation of high-order harmonics by IR and THz fields](#), PIM 2013, **AIP Conference Proceedings** **1565**, 117-121 (2013); DOI: 10.1063/1.4833709
5. [Katalin Kovács](#), Emeric Balogh, János Hebling, Valer Toşa, and Katalin Varjú, [Quasi-Phase-Matching High-Harmonics With THz Assistance](#), LIGHT AT EXTREME INTENSITIES 2011, **AIP Conference Proceedings** **1462**, 41-44 (2012) DOI: 10.1063/1.4736756
6. Negro, M.; Vozzi, C.; [Kovács, K.](#); Altucci, C.; Velotta, R.; Frassetto, F.; Poletto, L.; Villoresi, P.; De Silvestri, S.; Tosa, V. Stagira, S., [Two-Color Mid-IR Optical Parametric Amplifier for Attosecond Pulse Generation](#) LIGHT AT EXTREME INTENSITIES 2011, **AIP Conference Proceedings** **1462**, 45-48 (2012) DOI: 10.1063/1.4736756; IC=2
7. Tosa, V. Altucci, C. [Kovács, K.](#) Negro, M. Stagira, S. Vozzi, C. Velotta, R., [Single Attosecond Pulse Generation By Two Laser Fields](#) PROCESSES IN ISOTOPES AND MOLECULES (PIM 2011) **AIP Conference Proceedings** **1425**, 102-105 (2012) DOI: 10.1063/1.3681977
8. M. Negro, C. Vozzi, [K. Kovács](#), C. Altucci, R. Velotta, F. Frassetto, L. Poletto, P. Villoresi, S. De Silvestri, V. Tosa, S. Stagira, [XUV Supercontinuum Generated by Incommensurate Two-Color Mid-IR Optical Parametric Amplifier](#), **Springer Proc. in Phys.** **125**, p 85-89 (2012) DOI: 10.1007/978-3-642-28948-4_14
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11. P. Mercea, V. Tosa, [Katalin Kovács](#), and O. Piringer, [Modeling Migration of Chemical Impurities in Drinking Water Supply Systems](#), **AIP Conference Proceedings** **1281**, 87-90 (2010) DOI: 10.1063/1.3498642
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14. Katalin Kovács and Valer Tosa, [*Tracing quantum trajectories of electrons in interaction with arbitrary-shape laser pulses*](#), **Journal of Physics: Conference Series** **182**, 012028 (2009) DOI: 10.1088/1742-6596/182/1/012028
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1. K. Kovács, Z. Néda, [*Disorder-induced Phase Transition in a Spring-block Type Magnetization Model*](#), **Műszaki Szemle** **42**, 26 (2007)
2. K. Kovács, [*Ising-Type Spin Model for Barkhausen Noise and Magnetization Phenomena*](#), **Studia Universitatis Babeş-Bolyai, Physica LI**, **1**, 85 (2006)

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