

List of papers in Impact Journals in 2020

1. Abdujabbarov, A., Rayimbaev, J., Turimov, B., Atamurotov, F., Dynamics of magnetized particles around 4-D Einstein Gauss-Bonnet black hole, PHYSICS OF THE DARK UNIVERSE, 30, 100715, 2020 (IF: 4,473)
2. Abramowicz, M., Bejger, M., Gourgoulhon, E., Straub, O., A Galactic centre gravitational-wave Messenger, SCIENTIFIC REPORTS, 10, 7054, 2020 (IF: 3,998)
3. Bakala, P., Dočekal, J., Turoňová, Z., Habitable Zones around Almost Extremely Spinning Black Holes (Black Sun Revisited), ASTROPHYSICAL JOURNAL, 889, 41, 2020 (IF: 5,746)
4. Bezbakh, A. A., Chudoba, V., Krupko, S. A., et al., Evidence for the First Excited State of H-7, PHYSICAL REVIEW LETTERS, 124, 022502, 2020 (IF: 8,385)
5. Bhatta, G., Páris, R., Stuchlík, Z., Deterministic Aspect of the gamma-Ray Variability in Blazars, ASTROPHYSICAL JOURNAL, 905, 160, 2020 (IF: 5,746)
6. Bibrzycki, L., Burakowski, D., Homola, P., et al., Towards A Global Cosmic Ray Sensor Network: CREDO Detector as the First Open-Source Mobile Application Enabling Detection of Penetrating Radiation, SYMMETRY-BASEL, 12, 1802, 2020 (IF: 2,645)
7. Blaschke, F., Karpíšek, O. N., Beneš, P., Solitons in the Peyrard-Bishop model of DNA and the Renormalization Group method, PROGRESS OF THEORETICAL AND EXPERIMENTAL PHYSICS, 2020, 063J02, 2020 (IF: 2,091)
8. Bormotova, I., Koptěva, E., Churilova, M., Stuchlík, Z., Accelerated expansion of the universe from the perspective of inhomogeneous cosmology, INTERNATIONAL JOURNAL OF MODERN PHYSICS A, 35, 2040037, 2020 (IF: 1,486)
9. Bronnikov, K. A., Konoplya, R. A., Echoes in brane worlds: Ringing at a black hole-wormhole transition, PHYSICAL REVIEW D, 101, 064004, 2020 (IF: 4,833)
10. Chirenti, C., Posada, C., Guedes, V., Where is Love? Tidal deformability in the black hole compactness limit, CLASSICAL AND QUANTUM GRAVITY, 37, 195017, 2020 (IF: 3,071)
11. Churilova, M., Black holes in Einstein-aether theory: Quasinormal modes and time-domain evolution, PHYSICAL REVIEW D, 102, 024076, 2020 (IF: 4,833)
12. Churilova, M., Stuchlík, Z., Quasinormal modes of black holes in 5D Gauss-Bonnet gravity combined with non-linear electrodynamics, ANNALS OF PHYSICS, 418, 168181, 2020 (IF: 2,083)

13. Churilova, M., Stuchlík, Z., Ringing of the regular black-hole/wormhole transition, CLASSICAL AND QUANTUM GRAVITY, 37, 075014, 2020 (IF: 3,071)
14. Churilova, M., Konoplya, R. A., Zhidenko, A., Arbitrarily long-lived quasinormal modes in a wormhole background, PHYSICS LETTERS B, 802, 135207, 2020 (IF: 4,384)
15. Cremaschini, C., Tessarotto, M., Quantum-Gravity Stochastic Effects on the de Sitter Event Horizon, ENTROPY, 22, 696, 2020 (IF: 2,494)
16. Cremaschini, C., Tessarotto, M., Quantum-Gravity Screening Effect of the Cosmological Constant in the DeSitter Space-Time, SYMMETRY-BASEL, 12, 531, 2020 (IF: 2,645)
17. Cremaschini, C., Tessarotto, M., Classical Variational Theory of the Cosmological Constant and Its Consistency with Quantum Prescription, SYMMETRY-BASEL, 12, 633, 2020 (IF: 2,645)
18. Cremaschini, C., Tessarotto, M., The Wave-Front Equation of Gravitational Signals in Classical General Relativity, SYMMETRY-BASEL, 12, 216, 2020 (IF: 2,645)
19. De Falco, V., Bakala, P., Falanga, M., Three-dimensional general relativistic Poynting-Robertson effect. III. Static and nonspherical quadrupolar massive source, PHYSICAL REVIEW D, 101, 124031, 2020 (IF: 4,833)
20. De Falco, V., Battista, E., Capozziello, S., De Laurentis, M., General relativistic Poynting-Robertson effect to diagnose wormholes existence: Static and spherically symmetric case, PHYSICAL REVIEW D, 101, 104037, 2020 (IF: 4,833)
21. De Falco, V., Battista, E., Poynting-Robertson effect as a dissipative system in general relativity, PHYSICAL REVIEW D, 101, 064040, 2020 (IF: 4,833)
22. De Falco, V., Bakala, P., Stable attractors in the three-dimensional general relativistic Poynting-Robertson effect, PHYSICAL REVIEW D, 101, 024025, 2020 (IF: 4,833)
23. Gialamas, I. D., Karam, A., Lykkas, A., Pappas, T. D., Palatini-Higgs inflation with nonminimal derivative coupling, PHYSICAL REVIEW D, 102, 063522, 2020 (IF: 4,833)
24. Gintner, M., Juráň, J., A case study about the mass exclusion limits for the BSM vector resonances with the direct couplings to the third quark generation, EUROPEAN PHYSICAL JOURNAL C, 80, 161, 2020 (IF: 4,389)
25. Habrman, P., Evaluating inorganic compounds as air substitute materials in photon irradiation, JOURNAL OF INSTRUMENTATION, 15, P08007, 2020 (IF: 1,454)

26. Hladík, J., Posada, C., Stuchlík, Z., Radial instability of trapping polytropic spheres, INTERNATIONAL JOURNAL OF MODERN PHYSICS D, 29, 2050030, 2020 (IF: 2,154)
27. Homola, P., Beznosko, D., Bhatta, G., Bibrzycki, L., et al., Cosmic-Ray Extremely Distributed Observatory, SYMMETRY-BASEL, 12, 1835, 2020 (IF: 2,645)
28. Kaminski, G., Zalewski, B., Belogurov, S. G., Bezbakh, A. A., et al., Status of the new fragment separator ACCULINNA-2 and first experiments, NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION B-BEAM INTERACTIONS WITH MATERIALS AND ATOMS, 463, 504, 2020 (IF: 4,389)
29. Kološ, M., Shahzadi, M., Stuchlík, Z., Quasi-periodic oscillations around Kerr-MOG black holes, EUROPEAN PHYSICAL JOURNAL C, 80, 133, 2020 (IF: 4,389)
30. Konoplya, R. A., Zhidenko, A., (In)stability of black holes in the 4D Einstein-Gauss-Bonnet and Einstein-Lovelock gravities, PHYSICS OF THE DARK UNIVERSE, 30, 100697, 2020 (IF: 4,473)
31. Konoplya, R. A., Zinhailo, A. F., Quasinormal modes, stability and shadows of a black hole in the 4D Einstein-Gauss-Bonnet gravity, EUROPEAN PHYSICAL JOURNAL C, 80, 1049, 2020 (IF: 4,389)
32. Konoplya, R. A., Zhidenko, A., Simply rotating higher dimensional black holes in Einstein-Gauss-Bonnet theory, PHYSICAL REVIEW D, 102, 084030, 2020 (IF: 4,833)
33. Konoplya, R. A., Zhidenko, A., BTZ black holes with higher curvature corrections in the 3D Einstein-Lovelock gravity, PHYSICAL REVIEW D, 102, 064004, 2020 (IF: 4,833)
34. Konoplya, R. A., Zinhailo, A. F., Stuchlík, Z., Quasinormal modes and Hawking radiation of black holes in cubic gravity, PHYSICAL REVIEW D, 102, 044023, 2020 (IF: 4,833)
35. Konoplya, R. A., Zhidenko, A., 4D Einstein-Lovelock black holes: Hierarchy of orders in curvature, PHYSICS LETTERS B, 807, 135607, 2020 (IF: 4,384)
36. Konoplya, R. A., Zhidenko, A., General parametrization of black holes: The only parameters that matter, PHYSICAL REVIEW D, 101, 124004, 2020 (IF: 4,833)
37. Konoplya, R. A., Quantum corrected black holes: Quasinormal modes, scattering, shadows, PHYSICS LETTERS B, 804, 135363, 2020 (IF: 4.384)
38. Konoplya, R. A., Zhidenko, A., Black holes in the four-dimensional Einstein-Lovelock gravity, PHYSICAL REVIEW D, 101, 084038, 2020 (IF: 4,833)

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40. Konoplya, R. A., Pappas, T. D., Stuchlík, Z., General parametrization of higher-dimensional black holes and its application to Einstein-Lovelock theory, *PHYSICAL REVIEW D*, 102, 084043, 2020 (IF: 4,833)
41. Konoplya, R. A., Pappas, T. D., Zhidenko, A., Einstein-scalar-Gauss-Bonnet black holes: Analytical approximation for the metric and applications to calculations of shadows, *PHYSICAL REVIEW D*, 101, 044054, 2020 (IF: 4,833)
42. Kotrlová, A., Šrámková, E., Török, G., Goluchová, K., Horák, J., et al., Models of high-frequency quasi-periodic oscillations and black hole spin estimates in Galactic microquasars, *ASTRONOMY & ASTROPHYSICS*, 643, A31, 2020 (IF: 5,636)
43. Kovář, J., Kojima, Y., Slaný, P., Stuchlík, Z., Karas, V., Charged fluids encircling compact objects: force representations and conformal geometries, *CLASSICAL AND QUANTUM GRAVITY*, 37, 245007, 2020 (IF: 3,071)
44. Krivoruchenko, M. I., Tursunov, A., Noether's Theorem in Non-Local Field Theories, *SYMMETRY-BASEL*, 12, 35, 2020 (IF: 2,645)
45. Kučáková, H., WHOO! - White Hole Observatory Opava, *CONTRIBUTIONS OF THE ASTRONOMICAL OBSERVATORY SKALNATE PLESO*, 50, 398, 2020 (IF: 0,636)
46. La Placa, R., Stella, L., Papitto, A., Bakala, P., Neutron Star Radius-to-mass Ratio from Partial Accretion Disk Occultation as Measured through Fe K alpha Line Profiles, *ASTROPHYSICAL JOURNAL*, 893, 129, 2020 (IF: 5,746)
47. Lichard, P., Pionium as a source of false events in the $K \rightarrow \pi \nu(\bar{\nu})$ decays, *PHYSICAL REVIEW D*, 102, 113005, 2020 (IF: 4,833)
48. Lichard, P., Possible manifestation of the 2p pionium in particle physics processes, *PHYSICAL REVIEW D*, 102, 073004, 2020 (IF: 4,833)
49. Lichard, P., Manifestation of kaonium in the $e^+ e^- \rightarrow K^+ K^-$ proces, *PHYSICAL REVIEW D*, 101, 111501, 2020 (IF: 4,833)
50. Papitto, A., Falanga, M., Hermsen, W., Mereghetti, S., et al., The INTEGRAL view of the pulsating hard X-ray sky: from accreting and transitional millisecond pulsars to rotation-powered pulsars and magnetars, *NEW ASTRONOMY REVIEWS*, 91, 101544, 2020 (IF: 4,2)
51. Parimucha, S., Dubovsky, P. A., Kudzej, I., Breus, V., Petrík, K., About the dependency of the spin maxima on orbital phase in the intermediate polar MU Cam,

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52. Posada, C., Hladík, J., Stuchlík, Z., Dynamical instability of polytropic spheres in spacetimes with a cosmological constant, PHYSICAL REVIEW D, 102, 024056, 2020 (IF: 4,833)
53. Pugliese, D., Stuchlík, Z., Embedded BHs and multipole globules: clustered misaligned thick accretion disks around static SMBHs, CLASSICAL AND QUANTUM GRAVITY, 37, 195025, 2020 (IF: 3,071)
54. Pugliese, D., Montani, G., Constraining LQG Graph with Light Surfaces: Properties of BH Thermodynamics for Mini-Super-Space, Semi-Classical Polymeric BH, ENTROPY, 22, 402, 2020 (IF: 2,494)
55. Pugliese, D., Stuchlík, Z., Limiting effects in clusters of misaligned toroids orbiting static SMBHs, MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY, 493, 4229, 2020 (IF: 5,357)
56. Rayimbaev, J., Figueroa, M., Stuchlík, Z., Juraev, B., Test particle orbits around regular black holes in general relativity combined with nonlinear electrodynamics, PHYSICAL REVIEW D, 101, 104045, 2020 (IF: 4,833)
57. Rayimbaev, J., Turimov, B., Marcos, F., Palvanov, S., Rakhmatov, A., Particle acceleration and electromagnetic field of deformed neutron stars, MODERN PHYSICS LETTERS A, 35, 2050056, 2020 (IF: 1,391)
58. Samec, P., Zapletal, M., Lukeš, P., Rotter, P., Spatial lag effect of aridity and nitrogen deposition on Scots pine (*Pinus sylvestris* L.) damage, ENVIRONMENTAL POLLUTION, 265, 114352, 2020 (IF: 6,793)
59. Shaymatov, S., Vrba, J., Malafarina, D., Ahmedov, B., Stuchlík, Z., Charged particle and epicyclic motions around 4D Einstein-Gauss-Bonnet black hole immersed in an external magnetic field, PHYSICS OF THE DARK UNIVERSE, 30, 100648, 2020 (IF: 4,473)
60. Slaný, P., Stuchlík, Z., Equatorial circular orbits in Kerr-Newman-de Sitter spacetimes, EUROPEAN PHYSICAL JOURNAL C, 80, 587, 2020 (IF: 4,389)
61. Stuchlík, Z., Kološ, M., Kovář, J., Slaný, P., Tursunov, A., Influence of Cosmic Repulsion and Magnetic Fields on Accretion Disks Rotating around Kerr Black Holes, UNIVERSE, 6, 26, 2020 (IF: 1,752)
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63. Svítek, O., Tahamtan, T., Zampeli, A., Quantum fate of timelike naked singularity with scalar hair, ANNALS OF PHYSICS, 418, 168195, 2020 (IF: 2,083)
64. Tahamtan, T., Scalar hairy black holes in the presence of nonlinear electrodynamics, PHYSICAL REVIEW D, 101, 124023, 2020 (IF: 4,833)
65. Tessarotto, M., Cremaschini, C., The Heisenberg Indeterminacy Principle in the Context of Covariant Quantum Gravity, ENTROPY, 22, 1209, 2020 (IF: 2,494)
66. Trova, A., Hackmann, E., Karas, V., Schroven, K., Kovář, J., Slaný, P., Influence of test charge and uniform magnetic field on charged fluid equilibrium structures, PHYSICAL REVIEW D, 101, 083027, 2020 (IF: 4,833)
67. Turimov, B., Rayimbaev, J., Abdujabbarov, A., Ahmedov, B., Stuchlík, Z., Test particle motion around a black hole in Einstein-Maxwell-scalar theory, PHYSICAL REVIEW D, 102, 064052, 2020 (IF: 4,833)
68. Tursunov, A., Zajaček, M., Eckart, A., Kološ, M., et al., Effect of Electromagnetic Interaction on Galactic Center Flare Components, ASTROPHYSICAL JOURNAL, 89, 99, 2020 (IF: 5,746)
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70. Vrba, J., Urbanec, M., Stuchlík, Z., Miller, J. C., Trapping of null geodesics in slowly rotating spacetimes, EUROPEAN PHYSICAL JOURNAL C, 80, 1065, 2020 (IF: 4,389)
71. Vrba, J., Abdujabbarov, A., Kološ, M., Ahmedov, B., et al., Charged and magnetized particles motion in the field of generic singular black holes governed by general relativity coupled to nonlinear electrodynamics, PHYSICAL REVIEW D, 101, 124039, 2020 (IF: 4,833)
72. Wielgus, M., Horák, J., Vincent, F., Abramowicz, M. A., Reflection-asymmetric wormholes and their double shadows, PHYSICAL REVIEW D, 102, 084044, 2020 (IF: 4,833)
73. Wolf, M., Kučáková, H., A photometric study of HAT 141-03513: another twin of the V361 Lyr systém, NEW ASTRONOMY, 80, 101415, 2020 (IF: 1,058)
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