DuÅ¡ko Borka

List of Publications by Year
in descending order

85 papers	1,270 citations	361045 20 h-index	395343 33 g-index
86 all docs	86 docs citations	86 times ranked	736 citing authors

#	Article	IF	Citations
1	Estimating the Parameters of the Hybrid Palatini Gravity Model with the Schwarzschild Precession of S2, S38 and S55 Stars: Case of Bulk Mass Distribution. Universe, 2022, 8, 70.	0.9	3
2	Guiding of protons through radially deformed triple-wall carbon nanotubes. European Physical Journal D, 2021, 75, 1.	0.6	1
3	Influence of bulk mass distribution on orbital precession of S2 star in Yukawa gravity. European Physical Journal D, 2021, 75, 1.	0.6	10
4	Possible effects of hybrid gravity on stellar kinematics in elliptical galaxies. European Physical Journal D, 2021, 75, 1.	0.6	4
5	Estimating the Parameters of Extended Gravity Theories with the Schwarzschild Precession of S2 Star. Universe, 2021, 7, 407.	0.9	19
6	Constraining theories of gravity by fundamental plane of elliptical galaxies. Physics of the Dark Universe, 2020, 29, 100573.	1.8	15
7	Possible observational signatures of supermassive black hole binaries in their Fe KÎ± line profiles. Contributions of the Astronomical Observatory Skalnate Pleso, 2020, 50, .	0.2	1
8	Observational tests of general relativity and alternative theories of gravity with Galactic Center observations using current and future large observational facilities. Contributions of the Astronomical Observatory Skalnate Pleso, 2020, 50, .	0.2	0
9	Channeling of Protons through Radial Deformed Double Wall Carbon Nanotubes. Atoms, 2019, 7, 88.	0.7	3
10	Hyperfine interactions of constituent quarks and the mass spectrum of tetraquark states. AIP Conference Proceedings, 2019, , .	0.3	0
11	Constraining nonlocal gravity by S2 star orbits. Physical Review D, 2019, 99, .	1.6	27
12	Fundamental Plane of Elliptical Galaxies in f(R) Gravity: The Role of Luminosity. Atoms, 2019, 7, 4.	0.7	4
13	Constraining scalar-tensor gravity models by S2 star orbits around the galactic center. Facta Universitatis - Series Physics Chemistry and Technology, 2019, 17, 11-20.	0.2	7
14	Constraining Yukawa gravity from planetary motion in the solar system. Journal of the Geographical Institute Jovan Cvijic SASA, 2019, 69, 265-269.	0.3	0
15	Constraining the range of Yukawa gravity interaction from S2 star orbits III: improvement expectations for graviton mass bounds. Journal of Cosmology and Astroparticle Physics, 2018, 2018, 050-050.	1.9	37
16	Analytical modeling of electron energy loss spectroscopy of graphene: Ab initio study versus extended hydrodynamic model. Ultramicroscopy, 2018, 184, 134-142.	0.8	13
17	Different Ways to Estimate Graviton Mass. International Journal of Modern Physics Conference Series, 2018, 47, 1860096.	0.7	9
18	Electron transmission through a steel capillary. Nuclear Instruments & Methods in Physics Research B, 2018, 423, 87-91.	0.6	1

#	Article	IF	Citations
19	Galactic Structures from Gravitational Radii. Galaxies, 2018, 6, 22.	1.1	2
20	Backscattered electron spectra from graphite. Physics Letters, Section A: General, Atomic and Solid State Physics, 2018, 382, 2470-2474.	0.9	1
21	Electron transmission through a macroscopic platinum capillary. Nuclear Instruments & Methods in Physics Research B, 2017, 406, 413-416.	0.6	3
22	Dispersion and damping of the interband Ï€ plasmon in graphene grown on Cu(111) foils. Carbon, 2017, 114, 70-76.	5.4	25
23	Channeling of protons through radial deformed carbon nanotubes. Physics Letters, Section A: General, Atomic and Solid State Physics, 2017, 381, 1687-1692.	0.9	6
24	Addressing the missing matter problem in galaxies through a new fundamental gravitational radius. Journal of Cosmology and Astroparticle Physics, 2017, 2017, 044-044.	1.9	37
25	Excitation of plasmon wakes in two-dimensional electron systems by moving external charged particles. Radiation Effects and Defects in Solids, 2017, 172, 90-99.	0.4	1
26	Graviton mass bounds from an analysis of bright star trajectories at the Galactic Center. EPJ Web of Conferences, 2017, 138, 01010.	0.1	9
27	Graviton mass evaluation with trajectories of bright stars at the Galactic Center. Journal of Physics: Conference Series, 2017, 798, 012081.	0.3	9
28	Electron transmission through macroscopic metallic capillaries. Journal of Physics: Conference Series, 2017, 875, 072003.	0.3	0
29	Trajectories of bright stars at the Galactic Center as a tool to evaluate a graviton mass. EPJ Web of Conferences, 2016, 125, 01011.	0.1	12
30	Constraining the range of Yukawa gravity interaction from S2 star orbits II: bounds on graviton mass. Journal of Cosmology and Astroparticle Physics, 2016, 2016, 045-045.	1.9	53
31	Channeling of fast ions through the bent carbon nanotubes: The extended two-fluid hydrodynamic model. Chinese Physics B, 2016, 25, 046106.	0.7	1
32	Probing hybrid modified gravity by stellar motion around Galactic Center. Astroparticle Physics, 2016, 79, 41-48.	1.9	54
33	Carbon nanotubes characterization by channeled fast ions spatial and angular distribution fingerprints. , 2016, , .		0
34	Recovering the fundamental plane of galaxies by <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" id="mml75" display="inline" overflow="scroll" altimg="si75.gif"><mml:mi>f</mml:mi><mml:mrow><mml:mo>(</mml:mo><mml:mi>R</mml:mi><mml:mo>)</mml:mo></mml:mrow> gravity. Physics of the Dark Universe, 2016, 14, 73-83.	1.8	28
35	Line shifts in accretion disksâ€"the case of Fe K Î± $alpha$. Astrophysics and Space Science, 2016, 361, 1.	0.5	2
36	Image potential and stopping force in the interaction of fast ions with carbon nanotubes: The extended two-fluid hydrodynamic model. Nuclear Instruments & Methods in Physics Research B, 2016, 366, 83-89.	0.6	1

#	Article	IF	Citations
37	Interband plasmons in supported graphene on metal substrates: Theory and experiments. Carbon, 2016, 96, 91-97.	5.4	28
38	Study of electron transmission through a metallic capillary. Journal of Physics: Conference Series, 2015, 635, 062011.	0.3	0
39	Probing the Plasmon-Phonon Hybridization in Supported Graphene by Externally Moving Charged Particles. Plasmonics, 2015, 10, 1741-1749.	1.8	16
40	Energy loss of charged particles traversing multilayer graphene. Nuclear Instruments & Methods in Physics Research B, 2015, 347, 7-10.	0.6	2
41	Interaction of low energy electrons with platinum surface. Nuclear Instruments & Methods in Physics Research B, 2015, 354, 112-115.	0.6	4
42	Study of electron transmission through a platinum tube. Nuclear Instruments & Methods in Physics Research B, 2015, 354, 86-89.	0.6	4
43	Image potential in the interaction of fast ions with carbon nanotubes: A comparison between the one- and two-fluid hydrodynamic models. Nuclear Instruments & Methods in Physics Research B, 2015, 358, 82-87.	0.6	3
44	Interaction of low energy electrons with iron surface: Energy loss and penetration depths. Journal of Physics: Conference Series, 2015, 635, 062015.	0.3	0
45	Wake effect in the interaction of slow correlated charges with supported graphene due to plasmonâ€"phonon hybridization. Physics Letters, Section A: General, Atomic and Solid State Physics, 2015, 379, 377-381.	0.9	9
46	Channeling of protons through BN nanotubes. Nuclear Instruments & Methods in Physics Research B, 2015, 354, 60-63.	0.6	0
47	Masses of constituent quarks confined in open bottom hadrons. Modern Physics Letters A, 2014, 29, 1450202.	0.5	1
48	Wake effect in graphene due to moving charged particles. Journal of Physics: Conference Series, 2014, 565, 012009.	0.3	0
49	Constraining extended gravity models by S2 star orbits around the Galactic Centre. Physical Review D, 2014, 90, .	1.6	31
50	Composite profile of the Fe KÎ± spectral line emitted from a binary system of supermassive black holes. Advances in Space Research, 2014, 54, 1448-1457.	1.2	3
51	Constraints on <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si8.gif" overflow="scroll"><mml:mrow><mml:msup><mml:mrow><mml:mi>R</mml:mi></mml:mrow><mml:mrow><mml:mi>n</mml:mi></m gravity from precession of orbits of S2-like stars: A case of a bulk distribution of mass. Advances in Space Research, 2014, 54, 1108-1112.	1.2	37
52	Theoretical modeling of experimental HREEL spectra for supported graphene. Physics Letters, Section A: General, Atomic and Solid State Physics, 2014, 378, 2206-2210.	0.9	8
53	Wake effect in interactions of dipolar molecules with doped graphene. Physics Letters, Section A: General, Atomic and Solid State Physics, 2013, 377, 2614-2620.	0.9	7
54	Constraining the range of Yukawa gravity interaction from S2 star orbits. Journal of Cosmology and Astroparticle Physics, 2013, 2013, 050-050.	1.9	71

#	Article	IF	Citations
55	Constraints on<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msup><mml:mi>R</mml:mi><mml:mi>n</mml:mi></mml:msup></mml:math>gravity from precession of orbits of S2-like stars. Physical Review D, 2012, 85, .	1.6	61
56	THE FIRST SPECTROSCOPICALLY RESOLVED SUB-PARSEC ORBIT OF A SUPERMASSIVE BINARY BLACK HOLE. Astrophysical Journal, 2012, 759, 118.	1.6	95
57	Dynamic polarization of graphene by external correlated charges. Physical Review B, 2012, 86, .	1.1	18
58	Using proton beams as a diagnostic tool in carbon nanotubes. Nuclear Instruments & Methods in Physics Research B, 2012, 279, 169-172.	0.6	6
59	Identification of the types of carbon nanotubes using donut effects. Nuclear Instruments & Methods in Physics Research B, 2012, 279, 198-201.	0.6	7
60	Interactions of slowly moving charges with graphene: The role of substrate phonons. Nuclear Instruments & Methods in Physics Research B, 2012, 279, 165-168.	0.6	11
61	High-energy plasmon spectroscopy of freestanding multilayer graphene. Physical Review B, 2011, 84, .	1.1	57
62	Influence of Black Hole Spin on the Shape of the Fe KÎ± Spectral Line: The Case of 3C 405. Open Astronomy, 2011, 20, .	0.2	1
63	Wake effect in doped graphene due to moving external charge. Physics Letters, Section A: General, Atomic and Solid State Physics, 2011, 375, 3720-3725.	0.9	15
64	Dynamic polarization of graphene by moving external charges: Comparison with 2D electron gas. Nuclear Instruments & Methods in Physics Research B, 2011, 269, 1225-1228.	0.6	6
65	Interactions of fast charged particles with supported two-dimensional electron gas: One-fluid model. Physics Letters, Section A: General, Atomic and Solid State Physics, 2010, 374, 1527-1533.	0.9	11
66	Wake effect in interactions of fast ions with supported two-dimensional electron gas. Nuclear Instruments & Methods in Physics Research B, 2010, 268, 2649-2654.	0.6	7
67	Rainbows in Channeling of 1 GeV Protons in a Bent Very Short (11,9) Single-wall Carbon Nanotube. International Journal of Nonlinear Sciences and Numerical Simulation, 2010, 11, .	0.4	8
68	The donut and dynamic polarization effects in proton channeling through carbon nanotubes. New Journal of Physics, 2010, 12, 043021.	1.2	20
69	Constituent quark masses obtained from hadron masses with contributions of Fermi-Breit and Glozman-Riska hyperfine interactions. Physical Review D, 2010, 82, .	1.6	16
70	Angular distributions of high energy protons channeled in long (10,10) single-wall carbon nanotubes. Nuclear Instruments & Methods in Physics Research B, 2009, 267, 2365-2368.	0.6	8
71	Superfocusing of channeled protons and crystal rainbows. Nuclear Instruments & Methods in Physics Research B, 2009, 267, 2616-2620.	0.6	14
72	Dynamic polarization of graphene by moving external charges: Random phase approximation. Physical Review B, 2009, 80, .	1.1	43

#	Article	IF	Citations
73	Proton channeling through long chiral carbon nanotubes: The rainbow route to equilibration. Physics Letters, Section A: General, Atomic and Solid State Physics, 2008, 372, 6003-6007.	0.9	13
74	Dynamic polarization effects on the angular distributions of protons channeled through carbon nanotubes in dielectric media. Physical Review A, 2008, 77, .	1.0	23
75	Channeling of protons through carbon nanotubes embedded in dielectric media. Journal of Physics Condensed Matter, 2008, 20, 474212.	0.7	12
76	Channeling of protons through carbon nanotubes. Journal of Physics: Conference Series, 2008, 133, 012015.	0.3	8
77	Influence of the dynamic polarization effect on the angular distributions of protons channeled in double-wall carbon nanotubes. Nuclear Instruments & Methods in Physics Research B, 2007, 256, 131-136.	0.6	11
78	Influence of the dynamical image potential on the rainbows in ion channeling through short carbon nanotubes. Physical Review A, 2006, 73, .	1.0	53
79	Channeling star effect with bundles of carbon nanotubes. Physics Letters, Section A: General, Atomic and Solid State Physics, 2006, 354, 457-461.	0.9	14
80	Rainbow effect in channeling of high energy protons through single-wall carbon nanotubes. Nuclear Instruments & Methods in Physics Research B, 2005, 234, 78-86.	0.6	16
81	Angular distributions of 1GeV protons channeled in bent short single-wall carbon nanotubes. Nuclear Instruments & Methods in Physics Research B, 2005, 230, 106-111.	0.6	20
82	Rainbows in transmission of high energy protons through carbon nanotubes. European Physical Journal B, 2005, 44, 41-45.	0.6	36
83	Rainbow Effect in Channeling of High Energy Protons in (10, 0) Single-Wall Carbon Nanotubes. Materials Science Forum, 2005, 494, 89-94.	0.3	9
84	Doughnuts with a â€ˆ110â€‰ very thin Si crystal. Journal of Electron Spectroscopy and Related Phenomena, 2003, 129, 183-187.	0.8	15
85	Rainbows with a tilted â€ˆ111â€‰ Si very thin crystal. Physics Letters, Section A: General, Atomic and Solid State Physics, 2002, 304, 114-119.	0.9	14