Astrid Lambrecht

List of Publications by Year in descending order

Source: https://exaly.com/author-pdf/4881789/publications.pdf

Version: 2024-02-01

145 papers	5,690 citations	61984 43 h-index	85541 71 g-index
147 all docs	147 docs citations	147 times ranked	2492 citing authors

#	Article	IF	Citations
1	Detailed Seismic Bathymetry Beneath EkstrÃ¶m Ice Shelf, Antarctica: Implications for Glacial History and Iceâ€Ocean Interaction. Geophysical Research Letters, 2020, 47, e2019GL086187.	4.0	14
2	High altitude accumulation and preserved climate information in the western Pamir, observations from the Fedchenko Glacier accumulation basin. Journal of Glaciology, 2020, 66, 219-230.	2.2	7
3	Scattering properties of collective dipolar systems. European Physical Journal D, 2020, 74, 1.	1.3	0
4	Scattering theory of the screened Casimir interaction in electrolytes. European Physical Journal D, 2019, 73, 1.	1.3	10
5	The method of UCN â€œsmall heatingâ€•measurement in the big gravitational spectrometer (BGS) and studies of this effect on Fomblin oil Y-HVAC 18/8. Review of Scientific Instruments, 2018, 89, 023501.	1.3	3
6	Accounting for Dissipation in the Scattering Approach to the Casimir Energy. Symmetry, 2018, 10, 37.	2.2	5
7	Negative entropies in Casimir and Casimirâ€Polder interactions. Fortschritte Der Physik, 2017, 65, 1600047.	4.4	16
8	Casimir-Polder shifts on quantum levitation states. Physical Review A, 2017, 95, .	2.5	13
9	Quantum reflection of antihydrogen from a liquid helium film. Europhysics Letters, 2017, 119, 33001.	2.0	11
10	Local surface mass-balance reconstruction from a tephra layer â€“ a case study on the northern slope of MÃ½rdalsjÃ¶kull, Iceland. Journal of Glaciology, 2017, 63, 79-87.	2.2	4
11	Casimir-Polder force fluctuations as spatial probes of dissipation in metals. Europhysics Letters, 2017, 117, 63001.	2.0	3
12	Casimir forces and vacuum energy. , 2017, , .		3
13	Macroscopic Quantum Resonators (MAQRO): 2015 update. EPJ Quantum Technology, 2016, 3, .	6.3	77
14	Reply to â€œComment on â€˜Lifshitz-Matsubara sum formula for the Casimir pressure between magnetic metallic mirrorsâ€™Ââ€• Physical Review E, 2016, 94, 026102.	2.1	1
15	Quenching of antihydrogen gravitational states by surface charges. Journal of Physics B: Atomic, Molecular and Optical Physics, 2016, 49, 205003.	1.5	3
16	Velocity-dependent dipole forces on an excited atom. Physical Review A, 2016, 93, .	2.5	7
17	Lifshitz-Matsubara sum formula for the Casimir pressure between magnetic metallic mirrors. Physical Review E, 2016, 93, 022108.	2.1	4
18	Surface-modified Wannier-Stark states in a one-dimensional optical lattice. Physical Review A, 2016, 94, .	2.5	5

#	Article	IF	Citations
19	Statistical approach to Casimir-Polder potentials in heterogeneous media. Physical Review A, 2015, 92, .	2.5	2
20	Casimir torque between nanostructured plates. Europhysics Letters, 2015, 111, 44001.	2.0	29
21	Coherent effect of vacuum fluctuations on driven atoms. Physical Review A, 2015, 92, .	2.5	2
22	Quasiresonant van der Waals Interaction between Nonidentical Atoms. Physical Review Letters, 2015, 115, 033201.	7.8	43
23	Casimir Physics. Journal of Physics Condensed Matter, 2015, 27, 210301.	1.8	4
24	Prospects for Studies of the Free Fall and Gravitational Quantum States of Antimatter. Advances in High Energy Physics, 2015, 2015, 1-16.	1.1	16
25	The GBAR antimatter gravity experiment. Hyperfine Interactions, 2015, 233, 21-27.	0.5	109
26	Non-Markovian polariton dynamics in organic strong coupling. European Physical Journal D, 2015, 69, 1.	1.3	43
27	Casimir-Polderâ€“induced Rabi oscillations. Europhysics Letters, 2015, 109, 24003.	2.0	8
28	Casimir effect from a scattering approach. American Journal of Physics, 2015, 83, 156-162.	0.7	13
29	Geometric origin of negative Casimir entropies: A scattering-channel analysis. Physical Review E, 2015, 91, 033203.	2.1	14
30	Fluctuations of the Casimir potential above a disordered medium. European Physical Journal D, 2015, 69, 1.	1.3	3
31	Liouville transformations and quantum reflection. Journal of Physics B: Atomic, Molecular and Optical Physics, 2015, 48, 155002.	1.5	5
32	Negative Casimir entropies in nanoparticle interactions. Journal of Physics Condensed Matter, 2015, 27, 214003.	1.8	11
33	Quantum reflection and Liouville transformations from wells to walls. Europhysics Letters, 2015, 110, 30007.	2.0	8
34	Kelvin probe force microscopy of metallic surfaces used in Casimir force measurements. Physical Review A, 2014, 90, .	2.5	41
35	Derivation of the Lifshitz-Matsubara sum formula for the Casimir pressure between metallic plane mirrors. Physical Review E, 2014, 90, 042125.	2.1	18
36	Shaping the distribution of vertical velocities of antihydrogen in GBAR. European Physical Journal C, 2014, 74, 1.	3.9	24

#	Article	IF	Citations
37	The Gbar project, or how does antimatter fall?. Hyperfine Interactions, 2014, 228, 141-150.	0.5	47
38	Quantum reflection of antihydrogen in the GBAR experiment. International Journal of Modern Physics Conference Series, 2014, 30, 1460265.	0.7	2
39	The evolution of Fedchenko glacier in the Pamir, Tajikistan, during the past eight decades. Journal of Glaciology, 2014, 60, 233-244.	2.2	37
40	Quantum levitation of nanoparticles seen with ultracold neutrons. Crystallography Reports, 2013, 58, 743-748.	0.6	6
41	Quantum reflection of antihydrogen from the Casimir potential above matter slabs. Physical Review A, 2013, 87, .	2.5	40
42	Thermal properties of a supraglacial debris layer with respect to lithology and grain size. Geografiska Annaler, Series A: Physical Geography, 2013, 95, 197-209.	1.5	17
43	Pairwise summation approximation for Casimir potentials and its limitations. Physical Review B, 2013, 87, .	3.2	12
44	Quantum reflection of antihydrogen from nanoporous media. Physical Review A, 2013, 87, .	2.5	23
45	Thermal Casimir force between nanostructured surfaces. Physical Review A, 2013, 87, .	2.5	34
46	Study of levitating nanoparticles using ultracold neutrons. New Journal of Physics, 2012, 14, 093053.	2.9	6
47	Enhanced radiative heat transfer between nanostructured gold plates. Journal of Physics: Conference Series, 2012, 395, 012154.	0.4	7
48	Radiative heat transfer between two dielectric nanogratings in the scattering approach. Physical Review B, 2012, 86, .	3.2	75
49	Casimir energy between nanostructured gratings of arbitrary periodic profile. Physical Review A, 2012, 86, .	2.5	18
50	Classical Casimir interaction in the plane-sphere geometry. Physical Review A, 2012, 85, .	2.5	21
51	CASIMIR EFFECT: THEORY AND EXPERIMENTS. International Journal of Modern Physics A, 2012, 27, 1260013.	1.5	10
52	Roughness correction to the Casimir force: Beyond the Proximity Force Approximation. Europhysics Letters, 2012, 100, 29902.	2.0	4
53	THE CASIMIR EFFECT IN THE SPHERE-PLANE GEOMETRY. International Journal of Modern Physics Conference Series, 2012, 14, 250-259.	0.7	4
54	CASIMIR EFFECT: THEORY AND EXPERIMENTS. International Journal of Modern Physics Conference Series, 2012, 14, 171-180.	0.7	2

#	Article	IF	Citations
55	Enhanced radiative heat transfer between nanostructured gold plates. Physical Review B, 2012, 85, .	3.2	80
56	Short-range fundamental forces. Comptes Rendus Physique, 2011, 12, 755-778.	0.9	83
57	Casimir force between a metal and a semimetal. Europhysics Letters, 2011, 93, 51001.	2.0	44
58	Large-scale EPR correlation and gravitational waves backgrounds. Europhysics Letters, 2011, 95, 20004.	2.0	44
59	A surge of North Gasherbrum Glacier, Karakoram, China. Journal of Glaciology, 2011, 57, 904-916.	2.2	55
60	Casimir interaction between a dielectric nanosphere and a metallic plane. Physical Review A, 2011, 83, .	2.5	24
61	Casimir Effect in the Scattering Approach: Correlations Between Material Properties, Temperature and Geometry. Lecture Notes in Physics, 2011, , 97-127.	0.7	6
62	Thermal Casimir effect for Drude metals in the plane-sphere geometry. Physical Review A, 2010, 82, .	2.5	64
63	Casimir Force on a Surface with Shallow Nanoscale Corrugations: Geometry and Finite Conductivity Effects. Physical Review Letters, 2010, 105, 250402.	7.8	63
64	Casimir-Polder interaction between an atom and a dielectric grating. Physical Review A, 2010, 82, .	2.5	38
65	Disorder in Quantum Vacuum: Casimir-Induced Localization of Matter Waves. Physical Review Letters, 2010, 105, 210401.	7.8	15
66	Measurement of the Casimir effect under ultrahigh vacuum: Calibration method. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2010, 28, C4A30-C4A35.	1.2	9
67	Thermal Casimir Effect in the Plane-Sphere Geometry. Physical Review Letters, 2010, 104, 040403.	7.8	73
68	THE SCATTERING APPROACH TO THE CASIMIR FORCE. International Journal of Modern Physics A, 2010, 25, 2201-2211.	1.5	8
69	Driving quantized vortices with quantum vacuum fluctuations. Europhysics Letters, 2010, 92, 40010.	2.0	9
70	Analogue Casimir radiation using an optical parametric oscillator. Europhysics Letters, 2010, 89, 14001.	2.0	51
71	Repulsive Casimir force: Sufficient conditions. Physical Review D, 2010, 82, .	4.7	8
72	Dispersive interactions between atoms and nonplanar surfaces. Physical Review A, 2009, 80, .	2.5	55

#	Article	IF	Citations
73	Repulsive Casimir forces and the role of surface modes. Physical Review A, 2009, 80, .	2.5	6
74	THEORY OF THE CASIMIR EFFECT IN ONE-DIMENSIONAL PERIODIC DIELECTRIC SYSTEMS. International Journal of Modern Physics A, 2009, 24, 1789-1795.	1.5	27
75	GAUGE: the GrAnd Unification and Gravity Explorer. Experimental Astronomy, 2009, 23, 549-572.	3.7	15
76	Matter wave explorer of gravity (MWXG). Experimental Astronomy, 2009, 23, 611-649.	3.7	30
77	Van der Waals Forces Between Plasmonic Nanoparticles. Plasmonics, 2009, 4, 31-36.	3.4	21
78	Quantitative non-contact dynamic Casimir force measurements. Europhysics Letters, 2009, 85, 31001.	2.0	110
79	Quantum dissipative Brownian motion and the Casimir effect. Physical Review E, 2009, 80, 041113.	2.1	44
80	Casimir Interaction between Plane and Spherical Metallic Surfaces. Physical Review Letters, 2009, 102, 230404.	7.8	82
81	New geometries in the Casimir effect: Dielectric gratings. Journal of Physics: Conference Series, 2009, 161, 012014.	0.4	7
82	The Casimir effect in the nanoworld. European Physical Journal: Special Topics, 2008, 160, 183-193.	2.6	39
83	Shaping the void. Nature, 2008, 454, 836-837.	27.8	7
84	Subâ€debris melt rates on southern inylchek glacier, central tian shan. Geografiska Annaler, Series A: Physical Geography, 2008, 90, 55-63.	1.5	72
85	Casimir Interaction of Dielectric Gratings. Physical Review Letters, 2008, 101, 160403.	7.8	171
86	Casimir energy between a plane and a sphere in electromagnetic vacuum. Physical Review A, 2008, 78, .	2.5	95
87	Casimir repulsion and metamaterials. Journal of Physics A: Mathematical and Theoretical, 2008, 41, 164015.	2.1	70
88	Lateral Casimirâ€"Polder force with corrugated surfaces. Journal of Physics A: Mathematical and Theoretical, 2008, 41, 164028.	2.1	20
89	Casimir torque between corrugated metallic plates. Journal of Physics A: Mathematical and Theoretical, 2008, 41, 164019.	2.1	14
90	Casimir energy and geometry: beyond the proximity force approximation. Journal of Physics A: Mathematical and Theoretical, 2008, 41, 164004.	2.1	18

#	Article	IF	Citations
91	Casimir force between dissimilar mirrors and the role of the surface plasmons. Physical Review A, 2008, 78, .	2.5	12
92	Influence of slab thickness on the Casimir force. Physical Review A, 2008, 77, .	2.5	105
93	Probing Quantum-Vacuum Geometrical Effects with Cold Atoms. Physical Review Letters, 2008, 100, 040405.	7.8	65
94	The Casimir effect for silicon and gold slabs. Europhysics Letters, 2008, 81, 19901.	2.0	11
95	RodriguesetÂal.Reply:. Physical Review Letters, 2007, 98, .	7.8	6
96	Lateral Casimir force beyond the proximity force approximation: A nontrivial interplay between geometry and quantum vacuum. Physical Review A, 2007, 75, .	2.5	62
97	Role of surface plasmons in the Casimir effect. Physical Review A, 2007, 76, .	2.5	76
98	From optical lattice clocks to the measurement of forces in the Casimir regime. Physical Review A, 2007, 75, .	2.5	58
99	The Casimir effect for silicon and gold slabs. Europhysics Letters, 2007, 77, 44006.	2.0	80
100	The Role of Surface Plasmon Modes in the Casimir Effect. Open Systems and Information Dynamics, 2007, 14, 159-168.	1.2	1
101	Ice ablation and meteorological conditions on the debris-covered area of Baltoro glacier, Karakoram, Pakistan. Annals of Glaciology, 2006, 43, 292-300.	1.4	173
102	Vacuum-induced torque between corrugated metallic plates. Europhysics Letters, 2006, 76, 822-828.	2.0	85
103	Decoherence induced by stochastic background of gravitational waves on matter-wave interferometers. Applied Physics B: Lasers and Optics, 2006, 84, 575-578.	2.2	1
104	Sample dependence of the Casimir force. New Journal of Physics, 2006, 8, 238-238.	2.9	98
105	Thermal and dissipative effects in Casimir physics. Journal of Physics A, 2006, 39, 6195-6208.	1.6	18
106	Roughness correction in the Casimir effect with metallic plates. Journal of Physics A, 2006, 39, 6517-6523.	1.6	9
107	The Casimir effect within scattering theory. New Journal of Physics, 2006, 8, 243-243.	2.9	221
108	Intravala and Lambrecht Reply:. Physical Review Letters, 2006, 96, .	7.8	5

#	Article	IF	Citations
109	Ultimate Decoherence Border for Matter-Wave Interferometry. Physical Review Letters, 2006, 96, 050405.	7.8	84
110	Lateral Casimir Force beyond the Proximity-Force Approximation. Physical Review Letters, 2006, 96, 100402.	7.8	114
111	Roughness correction to the Casimir force: Beyond the Proximity Force Approximation. Europhysics Letters, 2005, 69, 924-930.	2.0	96
112	Development of a high-sensitivity torsional balance for the study of the Casimir force in the 1â€“10 micrometre range. Classical and Quantum Gravity, 2005, 22, 5397-5406.	4.0	53
113	Casimir effect with rough metallic mirrors. Physical Review A, 2005, 72, .	2.5	116
114	Electromagnetic pulses from an oscillating high-finesse cavity: possible signatures for dynamic Casimir effect experiments. Journal of Optics B: Quantum and Semiclassical Optics, 2005, 7, S3-S10.	1.4	31
115	Surface Plasmon Modes and the Casimir Energy. Physical Review Letters, 2005, 94, 110404.	7.8	131
116	L'effet Casimir : thÃ©orie et expÃ©riences. European Physical Journal Special Topics, 2004, 119, 43-50.	0.2	0
117	Relic gravitational wave background and the isotropy of space. Classical and Quantum Gravity, 2004, 21, S1209-S1214.	4.0	0
118	HYPER and Gravitational Decoherence. General Relativity and Gravitation, 2004, 36, 2271-2288.	2.0	13
119	La force de Casimir et les plasmons de surface. European Physical Journal Special Topics, 2004, 119, 199-200.	0.2	2
120	Casimir force and the quantum theory of lossy optical cavities. Physical Review A, 2003, 67, .	2.5	144
121	The Casimir force between rough metallic plates. Europhysics Letters, 2003, 62, 484-490.	2.0	103
122	Recent Experiments on the Casimir Effect: Description and Analysis. , 2003, , 109-126.		5
123	CORRELATION BETWEEN PLASMA AND TEMPERATURE CORRECTIONS TO THE CASIMIR FORCE. International Journal of Modern Physics A, 2002, 17, 761-766.	1.5	22
124	DECOHERENCE AND GRAVITATIONAL BACKGROUDS. International Journal of Modern Physics A, 2002, 17, 1003-1012.	1.5	13
125	The Casimir effect: a force from nothing. Physics World, 2002, 15, 29-32.	0.0	33
126	Quantum vacuum, inertia and gravitation. New Astronomy Reviews, 2002, 46, 727-739.	12.8	6

#	Article	IF	Citations
127	Observing Mechanical Dissipation in the Quantum Vacuum: An Experimental Challenge. , 2002, , 197-207.		1
128	Gravitational decoherence of planetary motions. Europhysics Letters, 2001, 54, 135-140.	2.0	54
129	Quantum vacuum fluctuations. Comptes Rendus Physique, 2001, 2, 1287-1298.	0.1	4
130	Casimir force between metallic mirrors. European Physical Journal D, 2000, 8, 309-318.	1.3	269
131	Temperature dependence of the Casimir effect between metallic mirrors. Physical Review A, 2000, 62, .	2.5	160
132	Comment on â€œDemonstration of the Casimir Force in the 0.6 to 6Î¼m Rangeâ€• Physical Review Letters, 2000, 84, 5672-5672.	7.8	61
133	Thermodynamics of non-interacting bosons in low-dimensional potentials. European Physical Journal D, 1998, 1, 29-32.	1.3	20
134	Frequency up-converted radiation from a cavity moving in vacuum. European Physical Journal D, 1998, 3, 95-104.	1.3	34
135	Generating photon pulses with an oscillating cavity. Europhysics Letters, 1998, 43, 147-152.	2.0	23
136	Comment on â€œSonoluminescence as Quantum Vacuum Radiationâ€• Physical Review Letters, 1997, 78, 2267-2267.	7.8	17
137	The Casimir force for passive mirrors. Physics Letters, Section A: General, Atomic and Solid State Physics, 1997, 225, 188-194.	2.1	39
138	Motion Induced Radiation from a Vibrating Cavity. Physical Review Letters, 1996, 77, 615-618.	7.8	230
139	Transverse-mode coupling in a Kerr medium. Physical Review A, 1996, 54, 5243-5252.	2.5	3
140	Atomic number fluctuations in a falling cold atom cloud. Quantum and Semiclassical Optics: Journal of the European Optical Society Part B, 1996, 8, 457-472.	0.9	10
141	Squeezing with cold atoms. Europhysics Letters, 1996, 36, 93-98.	2.0	67
142	Transverse Effects on Squeezing with Atoms. Journal De Physique II, 1996, 6, 1133-1151.	0.9	3
143	Cold atoms: A new medium for quantum optics. Applied Physics B: Lasers and Optics, 1995, 60, 129-134.	2.2	41
144	Optical nonlinear dynamics with cold atoms in a cavity. Optics Communications, 1995, 115, 199-206.	2.1	38

#	Article	IF	Citations
145	Cooperativity and Entanglement of Atom-field States. Journal of Modern Optics, 1993, 40, 1605-1630.	1.3	41