

Philippe Ben-Abdallah

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/2939581/publications.pdf>

Version: 2024-02-01

76
papers

4,889
citations

87888

38
h-index

91884

69
g-index

78
all docs

78
docs citations

78
times ranked

1590
citing authors

#	ARTICLE	IF	CITATIONS
1	Near-Field Thermal Transistor. <i>Physical Review Letters</i> , 2014, 112, 044301.	7.8	406
2	Hyperbolic Metamaterials as an Analog of a Blackbody in the Near Field. <i>Physical Review Letters</i> , 2012, 109, 104301.	7.8	349
3	Graphene-based photovoltaic cells for near-field thermal energy conversion. <i>Scientific Reports</i> , 2013, 3, 1383.	3.3	215
4	Phase-change radiative thermal diode. <i>Applied Physics Letters</i> , 2013, 103, .	3.3	203
5	Many-Body Radiative Heat Transfer Theory. <i>Physical Review Letters</i> , 2011, 107, 114301.	7.8	194
6	Nanoscale heat flux between nanoporous materials. <i>Optics Express</i> , 2011, 19, A1088.	3.4	169
7	A Thermal Diode Based on Nanoscale Thermal Radiation. <i>ACS Nano</i> , 2018, 12, 5774-5779.	14.6	167
8	Super-Planckian near-field thermal emission with phonon-polaritonic hyperbolic metamaterials. <i>Applied Physics Letters</i> , 2013, 102, .	3.3	156
9	Radiative Bistability and Thermal Memory. <i>Physical Review Letters</i> , 2014, 113, 074301.	7.8	156
10	Modulation of near-field heat transfer between two gratings. <i>Applied Physics Letters</i> , 2011, 98, .	3.3	146
11	Near-field radiative heat transfer in many-body systems. <i>Reviews of Modern Physics</i> , 2021, 93, .	45.6	143
12	Phonon polaritons enhance near-field thermal transfer across the phase transition of VO_2 . <i>Physical Review B</i> , 2011, 84, .	3.2	123
13	Photon Thermal Hall Effect. <i>Physical Review Letters</i> , 2016, 116, 084301.	7.8	122
14	Fluctuation-electrodynamic theory and dynamics of heat transfer in systems of multiple dipoles. <i>Physical Review B</i> , 2013, 88, .	3.2	119
15	Three-Body Amplification of Photon Heat Tunneling. <i>Physical Review Letters</i> , 2012, 109, 244302.	7.8	109
16	Fundamental limits for noncontact transfers between two bodies. <i>Physical Review B</i> , 2010, 82, .	3.2	101
17	Giant Thermal Magnetoresistance in Plasmonic Structures. <i>Physical Review Letters</i> , 2017, 118, 173902.	7.8	86
18	Near-field heat transfer mediated by surface wave hybridization between two films. <i>Journal of Applied Physics</i> , 2009, 106, .	2.5	85

#	ARTICLE	IF	CITATIONS
19	Anisotropic Thermal Magnetoresistance for an Active Control of Radiative Heat Transfer. ACS Photonics, 2018, 5, 705-710.	6.6	80
20	Radiative thermal diode driven by nonreciprocal surface waves. Applied Physics Letters, 2019, 114, .	3.3	76
21	Heat Superdiffusion in Plasmonic Nanostructure Networks. Physical Review Letters, 2013, 111, 174301.	7.8	73
22	Noncontact heat transfer between two metamaterials. Physical Review B, 2010, 81, .	3.2	72
23	Modulation and amplification of radiative far field heat transfer: Towards a simple radiative thermal transistor. Applied Physics Letters, 2015, 106, .	3.3	66
24	Contactless heat flux control with photonic devices. AIP Advances, 2015, 5, .	1.3	63
25	Heat transport through plasmonic interactions in closely spaced metallic nanoparticle chains. Physical Review B, 2008, 77, .	3.2	62
26	Radiative heat transfer and nonequilibrium Casimir-Lifshitz force in many-body systems with planar geometry. Physical Review B, 2017, 95, .	3.2	59
27	Tuning the electromagnetic local density of states in graphene-covered systems via strong coupling with graphene plasmons. Physical Review B, 2013, 87, .	3.2	56
28	Hyperbolic waveguide for long-distance transport of near-field heat flux. Physical Review B, 2016, 94, .	3.2	55
29	Surface-mode-assisted amplification of radiative heat transfer between nanoparticles. Physical Review B, 2018, 97, .	3.2	54
30	On the limits of the effective description of hyperbolic materials in the presence of surface waves. Journal of Optics (United Kingdom), 2013, 15, 105101.	2.2	50
31	Heat transfer through near-field interactions in nanofluids. Applied Physics Letters, 2006, 89, 113117.	3.3	49
32	Towards Boolean operations with thermal photons. Physical Review B, 2016, 94, .	3.2	49
33	Ab initio design of coherent thermal sources. Journal of Applied Physics, 2007, 102, 114305.	2.5	47
34	Surface Bloch waves mediated heat transfer between two photonic crystals. Applied Physics Letters, 2010, 96, .	3.3	47
35	Strong tip-sample coupling in thermal radiation scanning tunneling microscopy. Journal of Quantitative Spectroscopy and Radiative Transfer, 2014, 136, 1-15.	2.3	46
36	Heat flux splitter for near-field thermal radiation. Applied Physics Letters, 2015, 107, .	3.3	45

#	ARTICLE	IF	CITATIONS
37	Graphene-based amplification and tuning of near-field radiative heat transfer between dissimilar polar materials. <i>Physical Review B</i> , 2017, 96, .	3.2	44
38	Circular heat and momentum flux radiated by magneto-optical nanoparticles. <i>Physical Review B</i> , 2018, 97, .	3.2	41
39	Near-Field Heat Transfer between Multilayer Hyperbolic Metamaterials. <i>Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences</i> , 2017, 72, 115-127.	1.5	38
40	Radiative cooling of nanoparticles close to a surface. <i>European Physical Journal B</i> , 2012, 85, 1.	1.5	36
41	Magnetothermoplasmonics: from theory to applications. <i>Journal of Photonics for Energy</i> , 2019, 9, 1.	1.3	36
42	Heat Engine Driven by Photon Tunneling in Many-Body Systems. <i>Physical Review Applied</i> , 2015, 4, .	3.8	34
43	Revisiting super-Planckian thermal emission in the far-field regime. <i>Physical Review B</i> , 2016, 93, .	3.2	33
44	Anomalous photon thermal Hall effect. <i>Physical Review B</i> , 2020, 101, .	3.2	33
45	Fundamental limits for light absorption and scattering induced by cooperative electromagnetic interactions. <i>Physical Review B</i> , 2015, 91, .	3.2	30
46	Ballistic near-field heat transport in dense many-body systems. <i>Physical Review B</i> , 2018, 97, .	3.2	29
47	Multitip Near-Field Scanning Thermal Microscopy. <i>Physical Review Letters</i> , 2019, 123, 264301.	7.8	29
48	Tailoring the local density of states of nonradiative field at the surface of nanolayered materials. <i>Applied Physics Letters</i> , 2009, 94, 153117.	3.3	27
49	Dynamical Response of a Radiative Thermal Transistor Based on Suspended Insulator-Metal-Transition Membranes. <i>Physical Review Applied</i> , 2019, 11, .	3.8	26
50	Radiative heat flux predictions in hyperbolic metamaterials. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2015, 158, 17-26.	2.3	25
51	Radiative Heat Shuttling. <i>Physical Review Letters</i> , 2018, 121, 023903.	7.8	25
52	Scalable radiative thermal logic gates based on nanoparticle networks. <i>Scientific Reports</i> , 2020, 10, 3596.	3.3	23
53	Radiative thermal rectification in many-body systems. <i>Physical Review B</i> , 2021, 104, .	3.2	23
54	Cooperative electromagnetic interactions between nanoparticles for solar energy harvesting. <i>Optics Express</i> , 2014, 22, A577.	3.4	22

#	ARTICLE	IF	CITATIONS
55	Thermotronics: Towards Nanocircuits to Manage Radiative Heat Flux. Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences, 2017, 72, 151-162.	1.5	22
56	Limitations of kinetic theory to describe near-field heat exchanges in many-body systems. Physical Review B, 2018, 98, .	3.2	22
57	Blackbody Theory for Hyperbolic Materials. Physical Review Letters, 2015, 115, 174301.	7.8	21
58	Thermal memristor and neuromorphic networks for manipulating heat flow. AIP Advances, 2017, 7, .	1.3	18
59	Smart thermal management with near-field thermal radiation [invited]. Optics Express, 2021, 29, 24816.	3.4	18
60	Thermal photon drag in many-body systems. Physical Review B, 2019, 99, .	3.2	15
61	Microsecond switchable thermal antenna. Journal of Applied Physics, 2014, 116, 034306.	2.5	14
62	Many-body near-field radiative heat pumping. Physical Review B, 2020, 101, .	3.2	14
63	Coherent thermal conductance of 1-D photonic crystals. Physics Letters, Section A: General, Atomic and Solid State Physics, 2012, 376, 3462-3465.	2.1	13
64	High temperature layered absorber for thermo-solar systems. Journal of Quantitative Spectroscopy and Radiative Transfer, 2014, 149, 8-15.	2.3	12
65	Conduction-Radiation Coupling between Two Closely Separated Solids. Physical Review Letters, 2020, 125, 224302.	7.8	9
66	Graphene-based enhancement of near-field radiative-heat-transfer rectification. Applied Physics Letters, 2022, 120, .	3.3	9
67	Harvesting the Electromagnetic Energy Confined Close to a Hot Body. Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences, 2019, 74, 689-696.	1.5	7
68	Strong slowing down of the thermalization of solids interacting in the extreme near field. Physical Review B, 2021, 104, .	3.2	7
69	Graphene-based autonomous pyroelectric system for near-field energy conversion. Scientific Reports, 2021, 11, 19489.	3.3	7
70	Fluctuations of radiative heat exchange between two bodies. Physical Review B, 2018, 97, .	3.2	6
71	Saturation of radiative heat transfer due to many-body thermalization. Scientific Reports, 2020, 10, 8938.	3.3	6
72	Radiative cooling induced by time-symmetry breaking in periodically driven systems. Physical Review B, 2021, 103, .	3.2	6

#	ARTICLE	IF	CITATIONS
73	Nanoscale Radiative Heat Transfer and Its Applications. , 0, , .		3
74	Thermomechanical bistability of phase-transition oscillators driven by near-field heat exchange. Physical Review B, 2020, 101, .	3.2	3
75	Energy harvesting from lukewarm photons. Nature Nanotechnology, 2018, 13, 772-773.	31.5	2
76	Mechanical relations between conductive and radiative heat transfer. Physical Review B, 2020, 102, .	3.2	2