Alexander Semenov

List of Publications by Year
in descending order

40 papers	542 citations	759055 12 h-index	677027 22 g-index
40 all docs	40 docs citations	40 times ranked	641 citing authors

#	Article	IF	Citations
1	Measuring Hot-Spot Interaction Length in Single-Strip SNSPD. IEEE Transactions on Applied Superconductivity, 2022, 32, 1-4.	1.1	0
2	Thermal Relaxation in Metal Films Limited by Diffuson Lattice Excitations of Amorphous Substrates. Physical Review Applied, 2021, 15, .	1.5	7
3	A phononic crystal coupled to a transmission line via an artificial atom. Communications Physics, 2020, 3, .	2.0	5
4	Microwave response of a superconductor beyond the Eliashberg theory. Annals of Physics, 2020, 417, 168101.	1.0	5
5	Effect of Microwaves on Superconductors for Kinetic Inductance Detection and Parametric Amplification. Physical Review Applied, 2020, 13, .	1.5	7
6	Comparison single- and double- spot detection efficiencies of SSPD based to MoSi and NbN films. Journal of Physics: Conference Series, 2020, 1695, 012146.	0.3	1
7	Analysis of the detection response of waveguide-integrated superconducting nanowire single-photon detectors at high count rate. Applied Physics Letters, 2019, 115, .	1.5	7
8	Relaxation of Coherent Excited States of a Superconductor to a Superconducting Reservoir. JETP Letters, 2019, 109, 256-260.	0.4	1
9	Protocol of Measuring Hot-Spot Correlation Length for SNSPDs With Near-Unity Detection Efficiency. IEEE Transactions on Applied Superconductivity, 2019, 29, 1-5.	1.1	4
10	Extracting hot-spot correlation length from SNSPD tomography data. Journal of Physics: Conference Series, 2019, 1410, 012166.	0.3	1
11	Thermal Properties of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:mi>NbN</mml:mi></mml:math> Single-Photon Detectors. Physical Review Applied, 2018, 10, .	1.5	10
12	Nonbolometric bottleneck in electron-phonon relaxation in ultrathin WSi films. Physical Review B, 2018, 97, .	1.1	20
13	Photon Switching Statistics in Multistrip Superconducting Single-Photon Detectors. IEEE Transactions on Applied Superconductivity, 2018, 28, 1-4.	1.1	2
14	Superconducting Nanowire Single Photon Detector for Coherent Detection of Weak Signals. IEEE Transactions on Applied Superconductivity, 2017, 27, 1-5.	1.1	3
15	Heterodyne spectroscopy with superconducting single-photon detector. EPJ Web of Conferences, 2017, 132, 01005.	0.1	0
16	Coherent detection of weak signals with superconducting nanowire single photon detector at the telecommunication wavelength. Proceedings of SPIE, 2017, , .	0.8	0
17	On-chip coherent detection with quantum limited sensitivity. Scientific Reports, 2017, 7, 4812.	1.6	14
18	Waveguide integrated superconducting single-photon detector for on-chip quantum and spectral photonic application. Journal of Physics: Conference Series, 2017, 917, 062032.	0.3	5

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19	Engineering Physics of Superconducting Hot-Electron Bolometer Mixers. IEEE Transactions on Terahertz Science and Technology, 2017, 7, 627-648.	2.0	29
20	Superconductivity in highly disordered NbN nanowires. Nanotechnology, 2016, 27, 47LT02.	1.3	11
21	Coherent dynamics and decoherence in a superconducting weak link. Physical Review B, 2016, 94, .	1.1	22
22	Coherent Excited States in Superconductors due to a Microwave Field. Physical Review Letters, 2016, 117, 047002.	2.9	44
23	Comparison of Hot-Spot Formation in NbC and NbN Single-Photon Detectors. IEEE Transactions on Applied Superconductivity, 2016, 26, 1-4.	1.1	6
24	Vortex-assisted mechanism of photon counting in a superconducting nanowire single-photon detector revealed by external magnetic field. Physical Review B, 2015, 92, .	1.1	52
25	Three Temperature Regimes in Superconducting Photon Detectors: Quantum, Thermal and Multiple Phase-Slips as Generators of Dark Counts. Scientific Reports, 2015, 5, 10174.	1.6	26
26	NbN Hot-Electron-Bolometer Mixer for Operation in the Near-IR Frequency Range. IEEE Transactions on Applied Superconductivity, 2015, 25, 1-4.	1.1	8
27	Heterodyne detection at near-infrared wavelengths with a superconducting NbN hot-electron bolometer mixer. Optics Letters, 2014, 39, 1429.	1.7	13
28	Characterization of MoSi superconducting single-photon detectors in magnetic field. IEEE Transactions on Applied Superconductivity, 2014, , 1-1.	1.1	8
29	Recent Nanowire Superconducting Single-Photon Detector Optimization for Practical Applications. IEEE Transactions on Applied Superconductivity, 2013, 23, 2201204-2201204.	1.1	11
30	Investigating the detection regimes of a superconducting single-photon detector. Journal of Optical Technology (A Translation of Opticheskii Zhurnal), 2013, 80, 435.	0.2	11
31	Coherent flux tunneling through NbN nanowires. Physical Review B, 2013, 88, .	1.1	54
32	Sensitivity of a superconducting nanowire detector for single ions at low energy. Nanotechnology, 2012, 23, 065501.	1.3	16
33	New Generation of Nanowire NbN Superconducting Single-Photon Detector for Mid-Infrared. IEEE Transactions on Applied Superconductivity, 2011, 21, 323-326.	1.1	19
34	Microscopic theory of phase slip in a narrow durty superconducting strip. JETP Letters, 2010, 92, 762-766.	0.4	10
35	Spectral dependency of superconducting single photon detectors. Journal of Applied Physics, 2010, 107, .	1.1	34
36	A superconducting NbN detector for neutral nanoparticles. Nanotechnology, 2009, 20, 455501.	1.3	12

#	Article	IF	Citations
37	Theoretical analysis of electronic thermal properties of the interfaces between multiband superconductors and a normal metal. Proceedings of SPIE, 2009, , .	0.8	0
38	Nonequilibrium fluctuations of a thin metal diffuse film exposed to microwave radiation. JETP Letters, 2008, 88, 254-258.	0.4	3
39	Theoretical analysis of the operation of the kinetic inductance-based superconducting microwave detector. JETP Letters, 2008, 88, 441-447.	0.4	6
40	Ultrafast reset time of superconducting single photon detectors. Applied Physics Letters, 2008, 92, .	1.5	55