

# Patrick Irvin

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/2513546/publications.pdf>

Version: 2024-02-01

48  
papers

3,228  
citations

394421

19  
h-index

214800

47  
g-index

48  
all docs

48  
docs citations

48  
times ranked

4435  
citing authors

#	ARTICLE	IF	CITATIONS
1	One-dimensional Kronig-Penney superlattices at the LaAlO <sub>3</sub> /SrTiO <sub>3</sub> interface. Nature Physics, 2021, 17, 782-787.	16.7	9
2	Gate-tunable optical extinction of graphene nanoribbon nanoclusters. APL Materials, 2021, 9, 071101.	5.1	1
3	Electronically reconfigurable complex oxide heterostructure freestanding membranes. Science Advances, 2021, 7, .	10.3	15
4	Correlated oxide Dirac semimetal in the extreme quantum limit. Science Advances, 2021, 7, eabf9631.	10.3	19
5	Spin-orbit-assisted electron pairing in one-dimensional waveguides. Physical Review B, 2021, 104, .	3.2	3
6	Engineered spin-orbit interactions in LaAlO <sub>3</sub> /SrTiO <sub>3</sub> -based 1D serpentine electron waveguides. Science Advances, 2020, 6, .	10.3	10
7	Gate-Tunable Optical Nonlinearities and Extinction in Graphene/LaAlO <sub>3</sub> /SrTiO <sub>3</sub> Nanostructures. Nano Letters, 2020, 20, 6966-6973.	9.1	6
8	Nanoscale control of LaAlO <sub>3</sub> /SrTiO <sub>3</sub> metal-insulator transition using ultra-low-voltage electron-beam lithography. Applied Physics Letters, 2020, 117, .	3.3	5
9	Pascal conductance series in ballistic one-dimensional LaAlO <sub>3</sub> /SrTiO <sub>3</sub> channels. Science, 2020, 367, 769-772.	12.6	43
10	Frictional drag between superconducting LaAlO <sub>3</sub> /SrTiO <sub>3</sub> nanowires. Semiconductor Science and Technology, 2020, 35, 09LT01.	2.0	3
11	Coupled Nanowires: Long-Range Non-Coulombic Electron-Electron Interactions between LaAlO <sub>3</sub> /SrTiO <sub>3</sub> Nanowires (Adv. Mater. Interfaces 15/2019). Advanced Materials Interfaces, 2019, 6, 1970098.	3.7	0
12	Strong Aharonov-Bohm quantum interference in simply connected LaAlO <sub>3</sub> /SrTiO <sub>3</sub> structures. Physical Review B, 2019, 100, .	3.7	1
13	Inhomogeneous energy landscape in LaAlO <sub>3</sub> /SrTiO <sub>3</sub> nanostructures. Nanoscale Horizons, 2019, 4, 1194-1201.	8.0	5
14	Reconfigurable edge-state engineering in graphene using LaAlO <sub>3</sub> /SrTiO <sub>3</sub> nanostructures. Applied Physics Letters, 2019, 114, .	3.3	5
15	Over 100-THz bandwidth selective difference frequency generation at LaAlO <sub>3</sub> /SrTiO <sub>3</sub> nanojunctions. Light: Science and Applications, 2019, 8, 24.	16.6	6
16	Long-Range Non-Coulombic Electron-Electron Interactions between LaAlO <sub>3</sub> /SrTiO <sub>3</sub> Nanowires. Advanced Materials Interfaces, 2019, 6, 1900301.	3.7	5
17	One-Dimensional Nature of Superconductivity at the LaAlO <sub>3</sub> /SrTiO <sub>3</sub> Interface. Physical Review Letters, 2018, 120, 147001.	7.8	34
18	Shubnikov-de Haas-like Quantum Oscillations in Artificial One-Dimensional LaAlO <sub>3</sub> /SrTiO <sub>3</sub> Electron Channels. Physical Review Letters, 2018, 120, 076801.	7.8	19

#	ARTICLE	IF	CITATIONS
19	Physics of SrTiO <sub>3</sub> -based heterostructures and nanostructures: a review. Reports on Progress in Physics, 2018, 81, 036503.	20.1	202
20	Quantized Ballistic Transport of Electrons and Electron Pairs in LaAlO <sub>3</sub> /SrTiO <sub>3</sub> Nanowires. Nano Letters, 2018, 18, 4473-4481.	9.1	50
21	Extreme Reconfigurable Nanoelectronics at the CaZrO <sub>3</sub> /SrTiO <sub>3</sub> Interface. Advanced Materials, 2018, 30, 1801794.	21.0	16
22	Graphene-Complex-Oxide Nanoscale Device Concepts. ACS Nano, 2018, 12, 6128-6136.	14.6	6
23	Room-temperature Quantum Transport Signatures in Graphene/LaAlO <sub>3</sub> /SrTiO <sub>3</sub> Heterostructures. Advanced Materials, 2017, 29, 1603488.	21.0	12
24	Electrostatically tuned dimensional crossover in LaAlO <sub>3</sub> /SrTiO <sub>3</sub> heterostructures. APL Materials, 2017, 5, 106107.	5.1	6
25	Tunable Electron-Electron Interactions in LaAlO <sub>3</sub> /SrTiO <sub>3</sub> Nanostructures. Physical Review X, 2016, 6, .	8.9	29
26	Electro-mechanical response of top-gated LaAlO <sub>3</sub> /SrTiO <sub>3</sub> . Journal of Applied Physics, 2016, 119, .	2.5	11
27	Micrometer-Scale Ballistic Transport of Electron Pairs in $\text{LaAlO}_3/\text{SrTiO}_3$ Heterostructures. Physical Review Letters, 2016, 117, 096801.	7.8	32
28	Giant conductivity switching of LaAlO <sub>3</sub> /SrTiO <sub>3</sub> heterointerfaces governed by surface protonation. Nature Communications, 2016, 7, 10681.	12.8	68
29	LaAlO <sub>3</sub> thickness window for electronically controlled magnetism at LaAlO <sub>3</sub> /SrTiO <sub>3</sub> heterointerfaces. Applied Physics Letters, 2015, 107, .	3.3	14
30	Electric field effects in graphene/LaAlO <sub>3</sub> /SrTiO <sub>3</sub> heterostructures and nanostructures. APL Materials, 2015, 3, 062502.	5.1	17
31	Photoconductive response of a single Au nanorod coupled to LaAlO <sub>3</sub> /SrTiO <sub>3</sub> nanowires. Applied Physics Letters, 2015, 106, .	3.3	6
32	Electron pairing without superconductivity. Nature, 2015, 521, 196-199.	27.8	141
33	Room-temperature electronically-controlled ferromagnetism at the LaAlO <sub>3</sub> /SrTiO <sub>3</sub> interface. Nature Communications, 2014, 5, 5019.	12.8	115
34	Nanoscale Phenomena in Oxide Heterostructures. Annual Review of Materials Research, 2014, 44, 117-149.	9.3	121
35	Writing and Low-Temperature Characterization of Oxide Nanostructures. Journal of Visualized Experiments, 2014, , .	0.3	4
36	Anomalous High Mobility in LaAlO <sub>3</sub> /SrTiO <sub>3</sub> Nanowires. Nano Letters, 2013, 13, 364-368.	9.1	39

#	ARTICLE	IF	CITATIONS
37	Parallel Conductive-AFM Lithography on LaAlO <sub>3</sub> /SrTiO <sub>3</sub> Interfaces. IEEE Nanotechnology Magazine, 2013, 12, 518-520.	2.0	5
38	Broadband Terahertz Generation and Detection at 10 nm Scale. Nano Letters, 2013, 13, 2884-2888.	9.1	26
39	Oxide-based platform for reconfigurable superconducting nanoelectronics. Nanotechnology, 2013, 24, 375201.	2.6	26
40	Nonlocal current-voltage characteristics of gated superconducting sketched oxide nanostructures. Europhysics Letters, 2013, 103, 57001.	2.0	8
41	Direct imaging of LaAlO <sub>3</sub> /SrTiO <sub>3</sub> nanostructures using piezoresponse force microscopy. APL Materials, 2013, 1, 052110.	5.1	20
42	Anomalous Transport in Sketched Nanostructures at the LaAlO <sub>3</sub> /SrTiO <sub>3</sub> Interface. Physical Review X, 2013, 3, .	8.9	23
43	Gigahertz-frequency operation of a LaAlO <sub>3</sub> /SrTiO <sub>3</sub> -based nanotransistor. Applied Physics Letters, 2013, 102, .	3.3	16
44	Rewritable nanoscale oxide photodetector. Nature Photonics, 2010, 4, 849-852.	31.4	126
45	Gigahertz optical spin transceiver. Optics Express, 2007, 15, 11756.	3.4	2
46	Localized microwave resonances in strained SrTiO <sub>3</sub> thin films. Applied Physics Letters, 2006, 88, 042902.	3.3	14
47	Three-dimensional polarization imaging of (Ba,Sr)TiO <sub>3</sub> :MgO composites. Applied Physics Letters, 2005, 86, 042903.	3.3	27
48	Room-temperature ferroelectricity in strained SrTiO <sub>3</sub> . Nature, 2004, 430, 758-761.	27.8	1,857