

Fabio Bernardini

List of Publications by Year in descending order

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105
papers

9,091
citations

109321

35
h-index

39675

94
g-index

107
all docs

107
docs citations

107
times ranked

5892
citing authors

#	ARTICLE	IF	CITATIONS
1	Spontaneous polarization and piezoelectric constants of III-V nitrides. <i>Physical Review B</i> , 1997, 56, R10024-R10027.	3.2	2,662
2	Pyroelectric properties of Al(In)GaN/GaN hetero- and quantum well structures. <i>Journal of Physics Condensed Matter</i> , 2002, 14, 3399-3434.	1.8	864
3	Evidence for nonlinear macroscopic polarization in III-V nitride alloy heterostructures. <i>Applied Physics Letters</i> , 2002, 80, 1204-1206.	3.3	746
4	Effects of macroscopic polarization in III-V nitride multiple quantum wells. <i>Physical Review B</i> , 1999, 60, 8849-8858.	3.2	488
5	First-principles prediction of structure, energetics, formation enthalpy, elastic constants, polarization, and piezoelectric constants of AlN, GaN, and InN: Comparison of local and gradient-corrected density-functional theory. <i>Physical Review B</i> , 2001, 64, .	3.2	421
6	Macroscopic polarization and band offsets at nitride heterojunctions. <i>Physical Review B</i> , 1998, 57, R9427-R9430.	3.2	371
7	Nonlinear macroscopic polarization in III-V nitride alloys. <i>Physical Review B</i> , 2001, 64, .	3.2	272
8	Spontaneous versus Piezoelectric Polarization in III-V Nitrides: Conceptual Aspects and Practical Consequences. <i>Physica Status Solidi (B): Basic Research</i> , 1999, 216, 391-398.	1.5	271
9	Free-carrier screening of polarization fields in wurtzite GaN/InGaN laser structures. <i>Applied Physics Letters</i> , 1999, 74, 2002-2004.	3.3	268
10	Polarization-Based Calculation of the Dielectric Tensor of Polar Crystals. <i>Physical Review Letters</i> , 1997, 79, 3958-3961.	7.8	236
11	Accurate calculation of polarization-related quantities in semiconductors. <i>Physical Review B</i> , 2001, 63, .	3.2	168
12	Electronic and structural properties of superconducting MgB ₂ , CaSi ₂ , and related compounds. <i>Physical Review B</i> , 2001, 64, .	3.2	135
13	First-principles calculation of the piezoelectric tensor d_{33} of III-V nitrides. <i>Applied Physics Letters</i> , 2002, 80, 4145-4147.	3.3	125
14	Theoretical evidence for efficient p-type doping of GaN using beryllium. <i>Applied Physics Letters</i> , 1997, 70, 2990-2992.	3.3	102
15	Electronic dielectric constants of insulators calculated by the polarization method. <i>Physical Review B</i> , 1998, 58, 15292-15295.	3.2	84
16	Polarization fields in nitride nanostructures: 10 points to think about. <i>Applied Surface Science</i> , 2000, 166, 23-29.	6.1	71
17	Playing quantum hide-and-seek with the muon: localizing muon stopping sites. <i>Physica Scripta</i> , 2013, 88, 068510.	2.5	67
18	Electronics and sensors based on pyroelectric AlGaIn/GaN heterostructures. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2003, 0, 1878-1907.	0.8	65

#	ARTICLE	IF	CITATIONS
19	Isoelectronic Ru substitution at the iron site in SmFe_2 . Physical Review B, 2010, 81, .	3.2	63
20	Robot-Based Indoor Positioning of UHF-RFID Tags: The SAR Method With Multiple Trajectories. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-15.	4.7	59
21	Doping screening of polarization fields in nitride heterostructures. Applied Physics Letters, 2000, 76, 3950-3952.	3.3	56
22	<i>Ab initio</i> strategy for muon site assignment in wide band gap fluorides. Physical Review B, 2013, 87, .	3.2	54
23	Theoretical evidence for the semi-insulating character of AlN. Journal of Applied Physics, 1999, 85, 2001-2003.	2.5	52
24	Energetic stability and magnetic properties of Mn dimers in silicon. Applied Physics Letters, 2004, 84, 2289-2291.	3.3	52
25	Proof of the Thermodynamical Stability of the E^{2} Center in SiO_2 . Physical Review Letters, 2001, 86, 3064-3067.	7.8	46
26	Self-interstitial trapping by carbon complexes in crystalline silicon. Physical Review B, 2002, 66, .	3.2	45
27	Particle Swarm Optimization in SAR-Based Method Enabling Real-Time 3D Positioning of UHF-RFID Tags. IEEE Journal of Radio Frequency Identification, 2020, 4, 300-313.	2.3	45
28	Nonlinear Behavior of Spontaneous and Piezoelectric Polarization in III-V Nitride Alloys. Physica Status Solidi A, 2002, 190, 65-73.	1.7	44
29	The phase diagrams of iron-based superconductors: Theory and experiments. Comptes Rendus Physique, 2016, 17, 5-35.	0.9	44
30	Light Emission at Room Temperature from Si/CaF_2 Multilayers. Europhysics Letters, 1995, 31, 25-30.	2.0	43
31	Electron states and luminescence transition in porous silicon. Physical Review B, 1996, 53, 4557-4564.	3.2	41
32	Nickelate Superconductors: An Ongoing Dialog between Theory and Experiments. Journal of Experimental and Theoretical Physics, 2021, 132, 618-627.	0.9	41
33	Understanding the SR spectra of MnSi without magnetic polarons. Physical Review B, 2014, 89, .	3.2	40
34	Magnetotransport in $\text{La}(\text{Fe,Ru})\text{AsO}$ as a probe of band structure and mobility. Physical Review B, 2011, 84, .	3.2	39
35	Hydrogen covered Si(111) surfaces. Surface Science, 1992, 269-270, 879-885.	1.9	35
36	Effect of Magnetic Impurities in a Two-Band Superconductor: A Point-Contact Study of Mn-Substituted MgB_2 Single Crystals. Physical Review Letters, 2006, 97, 037001.	7.8	35

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37	n effect of chemical and external pressures on the magnetic properties of		
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<http://www.w3.org/1998/Math/MathML>

#	ARTICLE	IF	CITATIONS
55	Defect energetics of β -SiC using a new tight-binding molecular dynamics model. Journal of Nuclear Materials, 2004, 329-333, 1219-1222.	2.7	18
56	Theoretical investigation of optical conductivity in $\text{Ba}(\text{Fe}_{1-x}\text{Co}_x)_2\text{As}_2$. Physical Review B, 2011, 83, .	3.2	18
57	Theoretical investigation of FeTe magnetic ordering under hydrostatic pressure. Physical Review B, 2013, 87, .	3.2	17
58	Hydrogen on semiconductor surfaces. Physica B: Condensed Matter, 1991, 170, 429-435.	2.7	16
59	Stability of Ge-related point defects and complexes in Ge-doped SiO_2 . Physical Review B, 2002, 66, .	3.2	16
60	Interaction of doping impurities with the 30° partial dislocations in SiC: Anab initioinvestigation. Physical Review B, 2005, 72, .	3.2	16
61	Role of Dirac cones in magnetotransport properties of REFeAsO (RE = rare earth) oxypnictides. European Physical Journal B, 2013, 86, 1.	1.5	16
62	Infinite-layer fluoro-nickelates as d^9 model materials. JPhys Materials, 2020, 3, 035003.	4.2	15
63	Band offsets and stability of BeTe/ZnSe (100) heterojunctions. Physical Review B, 2000, 62, R16302-R16305.	3.2	14
64	A UHF-RFID Multi-Antenna Sensor Fusion Enables Item and Robot Localization. IEEE Journal of Radio Frequency Identification, 2022, 6, 456-466.	2.3	14
65	Geometric effects in the infinite-layer nickelates. Physical Review Materials, 2022, 6, .	2.4	13
66	Effects of isoelectronic Ru substitution at the Fe site on the energy gaps of optimally F-doped SmFeAsO. Superconductor Science and Technology, 2012, 25, 084012.	3.5	12
67	Particle Swarm Optimization in Multi-Antenna SAR-based Localization for UHF-RFID Tags. , 2019, , .		12
68	Electronic and dynamical properties of the MgB_2 surface: Implications for the superconducting properties. Physical Review B, 2002, 66, .	3.2	10
69	First-principle investigation of native and impurity defects in MgB_2 . Europhysics Letters, 2006, 76, 491-497.	2.0	10
70	Multiband superconductivity in Pb, H under pressure and CaBeSi fromab initio calculations. Journal of Physics Condensed Matter, 2009, 21, 164209.	1.8	10
71	Si/CaF ₂ Superlattices. A Direct Gap Structure Due to Interface State Coupling. Physica Status Solidi (B): Basic Research, 1995, 190, 117-122.	1.5	9
72	A magnetic glassy phase in $\text{Fe}_{1+y}\text{SexTe}_{1-x}$ single crystals. Journal of Physics Condensed Matter, 2013, 25, 156004.	1.8	9

#	ARTICLE	IF	CITATIONS
73	Intrinsic thermoelectric figure of merit of bulk compositional SiGe alloys: A first-principles study. <i>Physical Review Materials</i> , 2021, 5, .	2.4	9
74	Incorporation, diffusion, and electrical activity of Li in GaN. <i>Physical Review B</i> , 2000, 61, 12598-12601.	3.2	8
75	RFID-Based Localization Enables a Smart System for Worker Safety. , 2021, , .		7
76	Topotactic fluorination of intermetallics as an efficient route towards quantum materials. <i>Nature Communications</i> , 2022, 13, 1462.	12.8	7
77	Static and dynamical susceptibility of $\text{LaO}_{1-x}\text{F}_x\text{FeAs}$. <i>Physical Review B</i> , 2010, 81, .	3.2	6
78	Quantum oscillations in the SmFeAsO parent compound and superconducting $\text{SmFeAs}(\text{O},\text{F})$. <i>Physical Review B</i> , 2017, 96, .	3.2	6
79	The puzzling structure of Cu_5FeS_4 (bornite) at low temperature. <i>Acta Crystallographica Section B: Structural Science, Crystal Engineering and Materials</i> , 2018, 74, 405-415.	1.1	6
80	Towards a Multi-antenna approach for UHF-RFID tag 3D localization with a Synthetic Aperture Radar Method. , 2019, , .		6
81	RFID-Based Tracking for Worker Safety in Industrial Scenario. , 2021, , .		6
82	Bi incorporation in GaN and $\text{Al}_x\text{Ga}_{1-x}\text{N}$ alloys. <i>Physical Review B</i> , 2003, 68, .	3.2	5
83	Evidence of the isoelectronic character of F doping in $\text{SmFeAsO}_{1-x}\text{F}_x$: a first-principles investigation. <i>Journal of Physics Condensed Matter</i> , 2019, 31, 244001.	1.8	5
84	Single-layer T' -type nickelates: Ni is Ni . <i>Physical Review Materials</i> , 2021, 5, .	2.4	5
85	ELECTRONIC AND DYNAMICAL PROPERTIES OF MgB_2 AND RELATED COMPOUNDS. <i>International Journal of Modern Physics B</i> , 2002, 16, 1563-1569.	2.0	4
86	The MONITOR Project: RFID-based Robots enabling real-time inventory and localization in warehouses and retail areas. , 2021, , .		4
87	Thin-Film Aspects of Superconducting Nickelates. <i>Frontiers in Physics</i> , 2022, 10, .	2.1	4
88	CORRELATION BETWEEN LOCAL OXYGEN DISORDER AND ELECTRONIC PROPERTIES IN SUPERCONDUCTING $\text{RESR}_2\text{CU}_3\text{O}_{6+x}$ ($\text{RE} = \text{Y}, \text{YB}$). <i>International Journal of Modern Physics B</i> , 2003, 17, 873-878.	2.0	3
89	Evidence of nodal superconductivity in LaFeSiH . <i>Physical Review B</i> , 2020, 101, .	3.2	3
90	Magnetic competition in Fe-based germanide and silicide superconductors. <i>Europhysics Letters</i> , 2019, 128, 47004.	2.0	3

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91	Fermi-level pinning and interface states at Pb _{1-x} Si _x (111) interface. Solid State Communications, 1992, 82, 863-866.	1.9	2
92	First-principles investigation of the electronic structure of Si-based layered structures. Surface Science, 1994, 307-309, 984-988.	1.9	2
93	The luminescence transition in porous silicon: the nature of the electronic states. Thin Solid Films, 1996, 276, 261-264.	1.8	2
94	Valence-band offsets at the Al _x Ga _{0.5-x} In _{0.5} P-ZnSe(001) lattice-matched interface. Physical Review B, 1997, 55, 1718-1723.	3.2	2
95	Electronic, dynamical and superconducting properties of MgB ₂ : doping, surface and pressure effects. Superconductor Science and Technology, 2003, 16, 137-142.	3.5	2
96	Universal conductivity and the electrodynamics of graphite at high pressures. Physical Review B, 2012, 86, .	3.2	2
97	Self-Locating RFID Robot for Tag Localization in Retail. , 2021, , .		2
98	Engineering the Thermal Conductivity of Doped SiGe by Mass Variance: A First-Principles Proof of Concept. Frontiers in Mechanical Engineering, 2021, 7, .	1.8	2
99	Electronic Properties of Low Dimensional Silicon Structures. , 1993, , 219-228.		2
100	Disorder-induced localisation and suppression of superconductivity in YSr ₂ Cu ₃ O _{6+x} . Journal of Physics Condensed Matter, 2019, 31, 284001.	1.8	1
101	Performance Assessment of a UHF-RFID Robotic Inventory System for Industry 4.0. , 2022, , .		1
102	Electronic structure of thin Si layers in CaF ₂ : Hybridization versus confinement. Solid-State Electronics, 1994, 37, 1145-1147.	1.4	0
103	Electronic and structural properties of Li-Al co-doped MgB ₂ . Physica C: Superconductivity and Its Applications, 2007, 460-462, 566-567.	1.2	0
104	Special issue on novel superconducting and magnetic materials. Journal of Physics Condensed Matter, 2020, 32, 040401.	1.8	0
105	Past, Present and Future RFID Activities at the University of Pisa. , 2021, , .		0