

# Lilia Boeri

## List of Publications by Year in descending order

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75  
papers

3,945  
citations

117453

34  
h-index

118652

62  
g-index

75  
all docs

75  
docs citations

75  
times ranked

3490  
citing authors

#	ARTICLE	IF	CITATIONS
1	Is $\text{LaFeAsO}$ an Electron-Phonon Superconductor?. <i>Physical Review Letters</i> , 2008, 101, 026403.	2.9	569
2	Problems with reconciling density functional theory calculations with experiment in ferropnictides. <i>Physical Review B</i> , 2008, 78, .	1.1	352
3	A perspective on conventional high-temperature superconductors at high pressure: Methods and materials. <i>Physics Reports</i> , 2020, 856, 1-78.	10.3	304
4	Three-Dimensional $\text{MgB}_2$ -Type Superconductivity in Hole-Doped Diamond. <i>Physical Review Letters</i> , 2004, 93, 237002.	2.9	226
5	Optical properties of $\text{LaFeAsO}$ under high pressure. <i>Physical Review B</i> , 2008, 77, .	1.1	108
6	Superconductivity in metastable phases of phosphorus-hydride compounds under high pressure. <i>Physical Review B</i> , 2016, 93, .	1.1	125
7	On the multi-orbital band structure and itinerant magnetism of iron-based superconductors. <i>Annalen Der Physik</i> , 2011, 523, 8-50.	0.9	118
8	Effects of magnetism and doping on the electron-phonon coupling in $\text{BaFe}_2\text{As}_2$ . <i>Physical Review B</i> , 2010, 82, .	1.1	112
9	: Towards high- $T_c$ low pressure superconductivity in ternary superhydrides. <i>Physical Review B</i> , 2021, 104, .	1.1	95
10	Superconductivity in sodalite-like yttrium hydride clathrates. <i>Physical Review B</i> , 2019, 99, .	1.1	92
11	Influence of bonding on superconductivity in high-pressure hydrides. <i>Physical Review B</i> , 2015, 92, .	1.1	91
12	Specific heat and upper critical fields in $\text{KFeAs}_2$ single crystals. <i>Physical Review B</i> , 2012, 85, .	1.1	80
13	The 2021 room-temperature superconductivity roadmap. <i>Journal of Physics Condensed Matter</i> , 2022, 34, 183002.	0.7	79
14	Effect of pressure on superconducting Ca-intercalated graphite $\text{CaC}_6$ . <i>Physical Review B</i> , 2006, 74, .	1.1	72
15	Superconductivity in Heavy Alkaline-Earth Intercalated Graphites. <i>Physical Review Letters</i> , 2007, 99, 027001.	2.9	68
16	Specific Heat of the Ca-Intercalated Graphite Superconductor $\text{CaC}_6$ . <i>Physical Review Letters</i> , 2006, 96, 217002.	2.9	66
17	Manipulating the mechanical properties of $\text{Ti}_2\text{C}$ MXene: Effect of substitutional doping. <i>Physical Review B</i> , 2017, 95, .	1.1	65
18	A disorder-enhanced quasi-one-dimensional superconductor. <i>Nature Communications</i> , 2016, 7, 12262.	5.8	62

#	ARTICLE	IF	CITATIONS
19	Energy Gaps and Kohn Anomalies in Elemental Superconductors. Science, 2008, 319, 1509-1512.	6.0	60
20	Electron-phonon interaction in graphite intercalation compounds. Physical Review B, 2007, 76, .	1.1	59
21	Small Fermi energy and phonon anharmonicity in MgB <sub>2</sub> and related compounds. Physical Review B, 2002, 65, .	1.1	56
22	Vibrational spectrum and electron-phonon coupling of doped solid picene from first principles. Physical Review B, 2011, 84, .	1.1	56
23	Electrons and phonons in the ternary alloy CaAl <sub>2</sub> ~xSix as a function of composition. Physical Review B, 2005, 72, .	1.1	54
24	Interplay between structure and superconductivity: Metastable phases of phosphorus under pressure. Physical Review Materials, 2017, 1, .	0.9	48
25	Phonon mode spectroscopy, electron-phonon coupling, and the metal-insulator transition in quasi-one-dimensional $M_2Mn_2$ . Physical Review B, 2010, 82, .	1.1	43
26	Accounting for spin fluctuations beyond local spin density approximation in the density functional theory. Physical Review B, 2012, 86, .	1.1	43
27	Gutzwiller Theory of Band Magnetism in LaOFeAs. Physical Review Letters, 2012, 108, 036406.	2.9	41
28	Phase diagram and superconductivity of calcium borohydrides at extreme pressures. Physical Review B, 2020, 102, .	1.1	41
29	Small Fermi energy, zero-point fluctuations, and nonadiabaticity in MgB <sub>2</sub> . Physical Review B, 2005, 71, .	1.1	40
30	Search for high- $T_c$ superconductivity at megabar pressures in the lithium-sulfur system. Physical Review B, 2016, 94, .	1.1	40
31	Electron-phonon properties of pnictide superconductors. Physica C: Superconductivity and Its Applications, 2009, 469, 628-634.	0.6	39
32	Prediction of high- $T_c$ conventional superconductivity in the ternary lithium borohydride system. Physical Review Materials, 2017, 1, .	0.9	38
33	Unresolved problems in superconductivity of CaC <sub>6</sub> . Physica C: Superconductivity and Its Applications, 2007, 460-462, 116-120.	0.6	37
34	Electron-phonon superconductivity in $A_3Pt$ .		

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37	Structural Origin of the Anomalous Temperature Dependence of the Local Magnetic Moments in the $\text{CaFe}_2\text{As}_2$ of Materials. Physical Review Letters, 2015, 114, 047001.	2.9	28
38	Absence of superconductivity in iron polyhydrides at high pressures. Physical Review B, 2018, 97, .	1.1	28
39	Combined experimental and computational study of the pressure dependence of the vibrational mode with Fe and Se concentrations in Fe <sub>1-x</sub> Se <sub>x</sub>	1.1	25
40	spectrum of solid picene C <sub>22</sub> H <sub>14</sub> . Physical Review B, 2013, 88, .	1.1	25
41	First-principles search of hot superconductivity in La-X-H ternary hydrides. Npj Computational Materials, 2022, 8, .	3.5	25
42	In-silico synthesis of lowest-pressure high-T <sub>c</sub> ternary superhydrides. Npj Computational Materials, 2022, 8, .	3.5	25
43	Accurate bare susceptibilities from full-potential <i>ab initio</i> calculations. Physical Review B, 2014, 90, .	1.1	23
44	High- $T_c$ superconductivity in doped boron-carbon clathrates. Physical Review B, 2022, 105, .	1.1	23
45	Reentrant Phase Coherence in Superconducting Nanowire Composites. ACS Nano, 2016, 10, 515-523.	7.3	19
46	High-temperature conventional superconductivity in the boron-carbon system: Material trends. Physical Review B, 2020, 102, .	1.1	16
47	Momentum-Resolved Electron-Phonon Interaction in Lead Determined by Neutron Resonance Spin-Echo Spectroscopy. Physical Review Letters, 2006, 96, 225501.	2.9	15
48	Competition between electron-phonon coupling and spin fluctuations in superconducting hole-doped CuBiSO. Physical Review B, 2011, 83, .	1.1	15
49	Electron-phonon superconductivity in hole-doped diamond: A first-principles study. Journal of Physics and Chemistry of Solids, 2006, 67, 552-556.	1.9	14
50	Functional renormalization group study of an eight-band model for the iron arsenides. Physical Review B, 2014, 89, .	1.1	12
51	Structural Evolution of Solid Phenanthrene at High Pressures. Journal of Physical Chemistry C, 2016, 120, 14310-14316.	1.5	11
52	Pressure effects on the superconducting transition in $\text{CaAlSi}_n\text{H}$ . Physical Review B, 2008, 77, .	1.1	10
53	Quasiparticle bands and structural phase transition of iron from Gutzwiller density-functional theory. Physical Review B, 2016, 93, .	1.1	10
54	Conventional/unconventional superconductivity in high-pressure hydrides and beyond: insights from theory and perspectives. Quantum Studies: Mathematics and Foundations, 2018, 5, 5-21.	0.4	9

#	ARTICLE	IF	CITATIONS
55	Ab initio prediction of the high-pressure phase diagram of BaBiO <sub>3</sub> . Physical Review B, 2017, 96, .	1.1	8
56	Superconductivity in doped polyethylene at high pressure. European Physical Journal B, 2018, 91, 1.	0.6	8
57	Lattice dynamics of the cluster chain compounds $M_2$		

#	ARTICLE	IF	CITATIONS
73	Understanding Novel Superconductors with Ab Initio Calculations. , 2018, , 1-41.		1
74	Special issue on novel superconducting and magnetic materials. Journal of Physics Condensed Matter, 2020, 32, 040401.	0.7	0
75	Understanding Novel Superconductors with Ab Initio Calculations. , 2020, , 73-112.		0