

# Pierre-Michel Hillenbrand

## List of Publications by Year in descending order

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89  
papers

2,784  
citations

257450

24  
h-index

175258

52  
g-index

89  
all docs

89  
docs citations

89  
times ranked

1489  
citing authors

#	ARTICLE	IF	CITATIONS
1	Proton Structure from the Measurement of 2S-2P Transition Frequencies of Muonic Hydrogen. Science, 2013, 339, 417-420.	12.6	676
2	Multiconfigurational Dirac-Fock studies of two-electron ions. II. Radiative corrections and comparison with experiment. Journal of Physics B: Atomic and Molecular Physics, 1987, 20, 651-663.	1.6	225
3	Multiconfiguration Dirac-Fock calculations of transition energies with QED corrections in three-electron ions. Physical Review A, 1990, 42, 5139-5149.	2.5	218
4	Systematic calculation of total atomic energies of ground state configurations. Atomic Data and Nuclear Data Tables, 2004, 86, 117-233.	2.4	155
5	Physics book: CRYRING@ESR. European Physical Journal: Special Topics, 2016, 225, 797-882.	2.6	101
6	Measurement of the ground-state lambshift of hydrogenlike uranium at the electron cooler of the ESR. Zeitschrift für Physik D-Atoms Molecules and Clusters, 1995, 35, 169-175.	1.0	91
7	Spectroscopy of hydrogenlike and heliumlike argon. Physical Review A, 1983, 28, 1413-1417.	2.5	85
8	Relativistic quantum dynamics in strong fields: photon emission from heavy, few-electron ions. Journal of Physics B: Atomic, Molecular and Optical Physics, 2005, 38, S707-S726.	1.5	84
9	High-Precision Spectroscopic Studies of Lyman Lines of Hydrogenlike Iron: A Measurement of the 1s Lamb Shift. Physical Review Letters, 1983, 50, 832-835.	7.8	81
10	All the fun of the FAIR: fundamental physics at the facility for antiproton and ion research. Physica Scripta, 2019, 94, 033001.	2.5	79
11	Observation and measurement of $n=2 \rightarrow n=1$ transitions of hydrogenlike and heliumlike uranium. Physical Review Letters, 1990, 65, 2761-2764.	7.8	78
12	QED tests with highly charged ions. Journal of Physics B: Atomic, Molecular and Optical Physics, 2019, 52, 232001.	1.5	60
13	Spectroscopic Study of Hydrogenlike and Heliumlike Xenon Ions. Europhysics Letters, 1989, 9, 225-230.	2.0	52
14	Dielectronic Resonance Method for Measuring Isotope Shifts. Physical Review Letters, 2005, 95, 183003.	7.8	46
15	Measurement of the 1s Lamb shift in hydrogenlike nickel. Physical Review A, 1991, 43, 223-227.	2.5	45
16	Observation of hydrogenlike and heliumlike krypton spectra. Zeitschrift für Physik A, 1984, 318, 1-5.	1.4	44
17	Two-loop QED corrections with closed fermion loops. Physical Review A, 2008, 77, .	2.5	39
18	Approaching the Gamow Window with Stored Ions: Direct Measurement of $\text{Xe}^{124}(\rho, \text{I}^3)$ in the ESR Storage Ring. Physical Review Letters, 2019, 122, 092701.	7.8	38

#	ARTICLE	IF	CITATIONS
19	X-ray spectroscopy of highly-charged heavy ions at FAIR. Nuclear Instruments & Methods in Physics Research B, 2009, 267, 248-250.	1.4	37
20	Observation of the $2p_{3/2} \rightarrow 2s_{1/2}$ intra-shell transition in He-like uranium. Europhysics Letters, 2009, 87, 63001.	2.0	29
21	Observation of Coherence in the Time-Reversed Relativistic Photoelectric Effect. Physical Review Letters, 2014, 113, 113001. Photoionization of metastable heliumlike $\langle \text{mml:math} \text{xmlns:mml="http://www.w3.org/1998/Math/MathML"} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:msup} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mi}$	7.8	28

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#	ARTICLE	IF	CITATIONS
37	New test of modulated electron capture decay of hydrogen-like 142Pm ions: Precision measurement of purely exponential decay. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2019, 797, 134800.	4.1	13
38	Electron- and proton-impact excitation of heliumlike uranium in relativistic collisions. Physical Review A, 2019, 99, .	2.5	13
39	Experimental and Theoretical Studies of the Isotope Exchange Reaction. Astrophysical Journal, 2019, 877, 38.	4.5	12
40	Strong asymmetry of the electron-loss-to-continuum cusp of multielectron $U$ in near-relativistic collisions with gaseous targets. Physical Review A, 2016, 93, .	2.5	11
41	Investigation of the Decay Properties of the 1s(2s)2 State in Li-Like Uranium. Journal of Physics: Conference Series, 2007, 58, 141-144.	0.4	9
42	Future experiments using forward electron spectroscopy to study the quantum dynamics of high-Z ions at the ESR/CRYRING storage rings. Physica Scripta, 2013, T156, 014087.	2.5	8
43	Radiative electron capture as a tunable source of highly linearly polarized x rays. Physical Review A, 2019, 99, .	2.5	8
44	Radiative electron capture to the continuum in $N$ collisions: Experiment and theory. Physical Review A, 2020, 101, .	2.5	8
45	Strong asymmetry of the electron-loss-to-continuum cusp of multielectron $U$ in collisions with gaseous targets ranging from hydrogen to krypton. Physical Review Special Topics: X-ray emission associated with radiative recombination for $Pb$ ions at threshold energies. Physical Review A, 2022, 105, .	1.8	8
46	X-ray emission associated with radiative recombination for $Pb$ ions at threshold energies. Physical Review A, 2022, 105, .	2.5	8
47	A study of radiative double electron capture in bare chromium ions at the ESR. Physica Scripta, 2013, T156, 014048.	2.5	7
48	Electron capture of $Xe$ in collisions with $H$ molecules in the energy range between	2.5	7
49	Beta decay of highly charged ions. Physica Scripta, 2013, T156, 014025.	2.5	6
50	Half-life measurements of highly charged radionuclides. Physica Scripta, 2013, T156, 014026.	2.5	6
51	Few-body quantum dynamics of high- $Z$ ions studied at the future relativistic high-energy storage ring. Physica Scripta, 2013, T156, 014086.	2.5	5
52	Experimental concepts of positron spectroscopy at HESR. Physica Scripta, 2015, T166, 014026.	2.5	5
53	Impact parameter sensitive study of inner-shell atomic processes in the experimental storage ring. Nuclear Instruments & Methods in Physics Research B, 2017, 408, 27-30.	1.4	5
54	Single and double $K$ -shell vacancy production in slow $Xe$ - $Xe$ collisions. Physical Review A, 2022, 105, .	2.5	5

#	ARTICLE	IF	CITATIONS
55	Electron Spectroscopy In Heavy-Ion Storage Rings: Resonant and Non-Resonant Electron Transfer Processes. , 2011, , .		4
56	Charge transfer of slow highly charged xenon ions in collisions with magnesium atoms. Physical Review A, 2013, 88, .	2.5	4
57	Forward-angle electron spectroscopy in heavy-ion atom collisions studied at the ESR. Journal of Physics: Conference Series, 2015, 635, 012011.	0.4	4
58	Search for bound-state electron+positron pair decay. EPJ Web of Conferences, 2016, 123, 04003.	0.3	4
59	Experimental study of the proton-transfer reaction $C + H_{2^{+}}$ $\hat{=}$ $CH^{+}$ + H and its isotopic variant ( $D_{2^{+}}$ ). Physical Chemistry Chemical Physics, 2020, 22, 27364-27384.	2.8	4
60	Coherent population of magnetic sublevels of $2p_{3/2}$ state in hydrogenlike uranium by radiative recombination. Physica Scripta, 2015, T166, 014027.	2.5	3
61	Studies at the border between nuclear and atomic physics: Weak decays of highly charged ions. Journal of Physics: Conference Series, 2017, 875, 012008.	0.4	3
62	Towards experiments with highly charged ions at HESR. X-Ray Spectrometry, 2020, 49, 33-36.	1.4	3
63	Dynamics of the isotope exchange reaction of D with $H_3^+$ , $H_2D^+$ , and $D_2H^+$ . Journal of Chemical Physics, 2021, 154, 084307.	3.0	3
64	Angular Distribution of Characteristic Radiation Following the Excitation of He-Like Uranium in Relativistic Collisions. Atoms, 2021, 9, 20.	1.6	3
65	Electron loss to continuum cusp in collisions of $U^{89+}$ with $N_2$	2.5	3
66	Experimental study of the dielectronic recombination into Li-like uranium. Physica Scripta, 2015, T166, 014024.	2.5	2
67	Determination of luminosity for in-ring reactions: A new approach for the low-energy domain. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2020, 982, 164367.	1.6	2
68	Electron emission spectra of $U^{28+}$ ions colliding with gaseous targets. Journal of Physics: Conference Series, 2015, 635, 022049.	0.4	1
69	Proton and $\hat{=}$ capture studies for nuclear astrophysics at GSI storage rings. Journal of Physics: Conference Series, 2017, 875, 092015.	0.4	1
70	The magnetic toroidal sector as a broad-band electron-positron pair spectrometer I. lepton trajectories. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2019, 946, 162641.	1.6	1
71	High-resolution wavelength-dispersive spectroscopy of K-shell transitions in hydrogen-like gold. X-Ray Spectrometry, 2020, 49, 204-208.	1.4	1
72	Spectroscopy of $Ly-\hat{=}$ Lines at Storage Rings by Crystal Spectrometry and Absorption Edge Technique. , 2001, , 491-494.		1

#	ARTICLE	IF	CITATIONS
73	Electron-impact single and double ionization of tin ions. Journal of Physics: Conference Series, 2012, 388, 062023.	0.4	0
74	First observation of correlated photons emitted by heavy highly charged ions in the process of radiative recombination. Journal of Physics: Conference Series, 2014, 488, 082023.	0.4	0
75	Metal vapor target for precise studies of ion-atom collisions. Review of Scientific Instruments, 2014, 85, 053513.	1.3	0
76	Electron-impact ionization of 4d-shell xenon and tin ions. Journal of Physics: Conference Series, 2014, 488, 062025.	0.4	0
77	Experiments with Stored Highly Charged Ions at the Border between Atomic and Nuclear Physics. Physics Procedia, 2015, 66, 28-38.	1.2	0
78	Forward-angle electron spectroscopy in heavy-ion atom collisions studied at the ESR. Journal of Physics: Conference Series, 2015, 635, 022005.	0.4	0
79	A lepton spectrometer for studies of fundamental atomic processes at HESR at FAIR. Journal of Physics: Conference Series, 2015, 635, 022087.	0.4	0
80	First observation of coherence in a highly charged ion. Journal of Physics: Conference Series, 2015, 635, 022096.	0.4	0
81	The magnetic toroidal sector: a broad-band electron-positron pair spectrometer. Journal of Physics: Conference Series, 2015, 635, 022046.	0.4	0
82	Radioactive decays of highly-charged ions. EPJ Web of Conferences, 2015, 93, 05003.	0.3	0
83	Relativistic effects in electron-capture to the continuum in 90 MeV/u U88++N2 collisions. Journal of Physics: Conference Series, 2015, 635, 022065.	0.4	0
84	Astrophysically motivated laboratory measurements of deuterium reacting with isotopologues of H. Proceedings of the International Astronomical Union, 2019, 15, 114-115.	0.0	0
85	A magnetic spectrometer for electron-positron pair spectroscopy in storage rings. X-Ray Spectrometry, 2020, 49, 115-119.	1.4	0
86	Coincident mapping of $e^+$ and $e\hat{e}^+$ from free-free pair production in a magnetic toroidal lepton spectrometer. Journal of Physics: Conference Series, 2020, 1412, 232004.	0.4	0
87	Impact parameter sensitive study of inner-shell atomic processes in $Xe^{54+}$ , $Xe^{52+}$ $\hat{e}^+$ Xe collisions. Journal of Physics: Conference Series, 2020, 1412, 142015.	0.4	0
88	Branching Ratio for $O + H^{3+}$ Forming $OH^+$ + $H^{2+}$ and $H^{2+}O^+$ + H. Astrophysical Journal, 2022, 927, 47.	4.5	0
89	Screening effects in the electron bremsstrahlung from heavy ions. Physical Review A, 2022, 105, .	2.5	0