# Krzysztof Pachucki

List of Publications by Year
in descending order



| 182 | 8,057 | 38742 50 | 64796 79 |
|---|---|---|---|
| papers | citations | h-index | g-index |

| 187 | 187 | 187 | 2245 |
|---|---|---|---|
| all docs | docs citations | times ranked | citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Muonic Hydrogen and the Proton Radius Puzzle. Annual Review of Nuclear and Particle Science, 2013, 63, 175-204. | 10.2 | 283 |
| 2 | The CODATA 2017 values ofh,e,k, andN<sub>A</sub>for the revision of the SI. Metrologia, 2018, 55, L13-L16. | 1.2 | 228 |
| 3 | Theory of the Lamb shift in muonic hydrogen. Physical Review A, 1996, 53, 2092-2100. | 2.5 | 187 |
| 4 | Hydrogen-Deuterium1Sâ^'2SIsotope Shift and the Structure of the Deuteron. Physical Review Letters, 1998, 80, 468-471. | 7.8 | 186 |
| 5 | Theoretical Determination of the Dissociation Energy of Molecular Hydrogen. Journal of Chemical Theory and Computation, 2009, 5, 3039-3048. | 5.3 | 174 |
| 6 | Quantum Electrodynamics Effects in Rovibrational Spectra of Molecular Hydrogen. Journal of Chemical Theory and Computation, 2011, 7, 3105-3115. | 5.3 | 169 |
| 7 | Nonadiabatic corrections to rovibrational levels of H2. Journal of Chemical Physics, 2009, 130, 164113. | 3.0 | 146 |
| 8 | Higher-Order Binding Corrections to the Lamb Shift. Annals of Physics, 1993, 226, 1-87. | 2.8 | 136 |
| 9 | Fundamental Vibration of Molecular Hydrogen. Physical Review Letters, 2013, 110, 193601. | 7.8 | 135 |
| 10 | Complete two-loop correction to the bound-electrongfactor. Physical Review A, 2005, 72, . | 2.5 | 133 |
| 11 | Proton structure effects in muonic hydrogen. Physical Review A, 1999, 60, 3593-3598. | 2.5 | 132 |
| 12 | Complete two-loop binding correction to the Lamb shift. Physical Review Letters, 1994, 72, 3154-3157. | 7.8 | 129 |
| 13 | Born-Oppenheimer potential for<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mi mathvariant="normal">H</mml:mi><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msub></mml:mrow></mml:math>. Physical Review A, 2010, 82, . | 2.5 | 108 |
| 14 | Theoretical energies of low-lying states of light helium-like ions. Physical Review A, 2010, 81, . | 2.5 | 107 |
| 15 | Theory of the energy levels and precise two-photon spectroscopy of atomic hydrogen and deuterium. Journal of Physics B: Atomic, Molecular and Optical Physics, 1996, 29, 177-195. | 1.5 | 106 |
| 16 | Relativistic, QED, and finite nuclear mass corrections for low-lying states of Li and<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msup><mml:mi mathvariant="normal">Be</mml:mi><mml:mo>+</mml:mo></mml:msup></mml:math>. Physical Review A, 2008, 78, . | 2.5 | 102 |
| 17 | Higher-order binding corrections to the Lamb shift of 2Pstates. Physical Review A, 1996, 54, 1853-1861. | 2.5 | 100 |
| 18 | Pure recoil corrections to hydrogen energy levels. Physical Review A, 1995, 51, 1854-1862. | 2.5 | 98 |

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| 19 | Ground-state wave function and energy of the lithium atom. Physical Review A, 2006, 73, . | 2.5 | 97 |
| 20 | Î±4Rcorrections to singlet states of helium. Physical Review A, 2006, 74, . | 2.5 | 97 |
| 21 | Relativistic and QED Corrections for the Beryllium Atom. Physical Review Letters, 2004, 92, 213001. | 7.8 | 95 |
| 22 | Nonrelativistic QED approach to the Lamb shift. Physical Review A, 2005, 72, . | 2.5 | 90 |
| 23 | Fine Structure of Heliumlike Ions and Determination of the Fine Structure Constant. Physical Review Letters, 2010, 104, 070403. | 7.8 | 89 |
| 24 | Rovibrational levels of HD. Physical Chemistry Chemical Physics, 2010, 12, 9188. | 2.8 | 88 |
| 25 | The absorption spectrum of H<sub>2</sub>: CRDS measurements of the (2-0) band, review of the literature data and accurate ab initio line list up to 35â€‰000 cm<sup>â^'1</sup>. Physical Chemistry Chemical Physics, 2012, 14, 802-815. | 2.8 | 88 |
| 26 | Effective Hamiltonian approach to the bound state: Positronium hyperfine structure. Physical Review A, 1997, 56, 297-304. | 2.5 | 86 |
| 27 | Precision measurement of the 1Sground-state Lamb shift in atomic hydrogen and deuterium by frequency comparison. Physical Review A, 1995, 52, 2664-2681. | 2.5 | 80 |
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| 29 | Two-Loop Bethe-Logarithm Correction in Hydrogenlike Atoms. Physical Review Letters, 2003, 91, 113005. | 7.8 | 79 |
| 30 | Higher-order effective Hamiltonian for light atomic systems. Physical Review A, 2005, 71, . | 2.5 | 79 |
| 31 | Isotope Shift of the3â€‰S1/22â^'2â€‰S1/22Transition in Lithium and the Nuclear Polarizability. Physical Review Letters, 2006, 97, 133001. | 7.8 | 79 |
| 32 | Testing fundamental interactions on the helium atom. Physical Review A, 2017, 95, . | 2.5 | 75 |
| 33 | Relativistic and QED corrections to the polarizability of helium. Physical Review A, 2000, 63, . | 2.5 | 74 |
| 34 | Logarithmic two-loop corrections to the Lamb shift in hydrogen. Physical Review A, 2001, 63, . | 2.5 | 71 |
| 35 | Simple derivation of helium Lamb shift. Journal of Physics B: Atomic, Molecular and Optical Physics, 1998, 31, 5123-5133. | 1.5 | 70 |
| 36 | Nonrelativistic QED Approach to the Bound-ElectrongFactor. Physical Review Letters, 2004, 93, 150401. | 7.8 | 67 |

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| 37 | Relativistic, QED, and nuclear mass effects in the magnetic shielding of H3e. Journal of Chemical Physics, 2009, 130, 244102. | 3.0 | 67 |
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| 39 | QED Corrections to the Parity-Nonconserving6sâ^'7sAmplitude inCs133. Physical Review Letters, 2005, 94, 213002. | 7.8 | 66 |
| 40 | Nonadiabatic corrections to the wave function and energy. Journal of Chemical Physics, 2008, 129, 034102. | 3.0 | 65 |
| 41 | Nonadiabatic QED Correction to the Dissociation Energy of the Hydrogen Molecule. Physical Review Letters, 2019, 122, 103003. | 7.8 | 59 |
| 42 | Improved Theory of Helium Fine Structure. Physical Review Letters, 2006, 97, 013002. | 7.8 | 58 |
| 43 | Contributions to the binding, two-loop correction to the Lamb shift. Physical Review A, 1993, 48, 2609-2614. | 2.5 | 57 |
| 44 | Complete<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msup><mml:mrow><mml:mi>Î±</mml:mi></mml:mrow><mml:mrow><mml:mn>6</mml:mn></mm to the Ground State of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi mathvariant="normal">H</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msub></mml:mrow></mml: Physical Review Letters, 2016, 117, 263002. | 7.8 | 57 |
| 45 | Accurate deuterium spectroscopy for fundamental studies. Journal of Quantitative Spectroscopy and Radiative Transfer, 2018, 213, 41-51. | 2.3 | 54 |
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| 47 | Î±(ZÎ±)2EFcorrection to hyperfine splitting in hydrogenic atoms. Physical Review A, 1996, 54, 1994-1998. | 2.5 | 53 |
| 48 | Higher-order recoil corrections to energy levels of two-body systems. Physical Review A, 1999, 60, 2792-2798. | 2.5 | 52 |
| 49 | Measurement of the Frequency of the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mn>2</mml:mn><mml:mtext>â€‰</mml:mtext><mml:mmultiscripts><mml:mrow><mml:mi>S</mml: /><mml:none /><mml:mrow><mml:mn>3</mml:mn></mml:mrow></mml:mmultiscripts><mml:mo>â^'</mml:mo><mml:mn>2</mml:mn><mml:mte /><mml:none /><mml:mrow><mml:mn>3</mml:mn></mml:mrow></mml:mmultiscr Physical Review Letters, 2017, 119, 263002. | 7.8 | 52 |
| 50 | Theory of the Lamb Shift in Hydrogen and Light Hydrogenâ€Like Ions. Annalen Der Physik, 2019, 531, 1800324. | 2.4 | 52 |
| 51 | On the acceleration of the convergence of singular operators in Gaussian basis sets. Journal of Chemical Physics, 2005, 122, 184101. | 3.0 | 51 |
| 52 | Nuclear Structure Corrections in Muonic Deuterium. Physical Review Letters, 2011, 106, 193007. | 7.8 | 51 |
| 53 | Rovibrational energy levels of the hydrogen molecule through nonadiabatic perturbation theory. Physical Review A, 2019, 100, . | 2.5 | 51 |
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| 56 | Complete Results for Positronium Energy Levels at OrdermÎ±6. Physical Review Letters, 1998, 80, 2101-2104. | 7.8 | 48 |
| 57 | Forbidden transitions in the helium atom. Physical Review A, 2001, 64, . | 2.5 | 47 |
| 58 | Improved Result for Helium23S1Ionization Energy. Physical Review Letters, 2000, 84, 4561-4564. | 7.8 | 46 |
| 59 | Helium energy levels includingmÎ±6corrections. Physical Review A, 2006, 74, . | 2.5 | 46 |
| 60 | The absorption spectrum of D2: Ultrasensitive cavity ring down spectroscopy of the (2â€“0) band near 1.7 Î¼m and accurate ab initio line list up to 24 000 cmâ¯1. Journal of Chemical Physics, 2012, 136, 184309. | 3.0 | 46 |
| 61 | Theory of the hydrogen-deuterium isotope shift. Physical Review A, 1994, 49, 2255-2259. | 2.5 | 45 |
| 62 | Calculation of the One- and Two-Loop Lamb Shift for Arbitrary Excited Hydrogenic States. Physical Review Letters, 2005, 95, 180404. | 7.8 | 45 |
| 63 | Testing quantum electrodynamics in the lowest singlet states of the beryllium atom. Physical Review A, 2013, 87, . | 2.5 | 45 |
| 64 | Long-wavelength quantum electrodynamics. Physical Review A, 2004, 69, . | 2.5 | 44 |
| 65 | Leading order nonadiabatic corrections to rovibrational levels of H2, D2, and T2. Journal of Chemical Physics, 2015, 143, 034111. | 3.0 | 44 |
| 66 | Nuclear-spin-dependent recoil correction to the Lamb shift. Journal of Physics B: Atomic, Molecular and Optical Physics, 1995, 28, L221-L224. | 1.5 | 43 |
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| 91 | Mass measurements and the bound-electron g factor. International Journal of Mass Spectrometry, 2006, 251, 102-108. | 1.5 | 32 |
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| 93 | Theory of the Helium Isotope Shift. Journal of Physical and Chemical Reference Data, 2015, 44, . | 4.2 | 31 |
| 94 | Nonadiabatic rotational states of the hydrogen molecule. Physical Chemistry Chemical Physics, 2018, 20, 247-255. | 2.8 | 31 |
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| 106 | Quantum Electrodynamics Corrections to the2PFine Splitting in Li. Physical Review Letters, 2014, 113, 073004. | 7.8 | 24 |
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| 108 | Nuclear Charge Radii of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mmultiscripts><mml:mrow><mml:mi mathvariant="normal">B</mml:mi></mml:mrow><mml:mprescripts /><mml:none /><mml:mrow><mml:mn>10</mml:mn><mml:mo>,</mml:mo><mml:mn>11</mml:mn></mml:mrow></mml:mmultiscripts></mml:mrow Physical Review Letters, 2019, 122, 182501. | 7.8 | 24 |

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| 110 | Hyperfine Structure of the First Rotational Level in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi mathvariant="normal">H</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msub></mml:mrow></mml:math>, <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi mathvariant="normal">D</mml:mi></mml:mrow></mml:m | 7.8 | 22 |
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