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Current Appointments:

- Fellow of the American Physical Society
- Member of Sigma Xi
- Editorial Board: Symmetry [MDPI Publishing]
- Editorial Board: Atoms [MDPI Publishing]

Education:

- PhD (University of Technology, Dresden, Germany (1999)
- Habilitation (University of Technology, Dresden, Germany (2003)
- Second Habilitation (Heridelberg University, Germany (2005)
- Heisenberg Fellow of the German Science Foundation (2005–2008)

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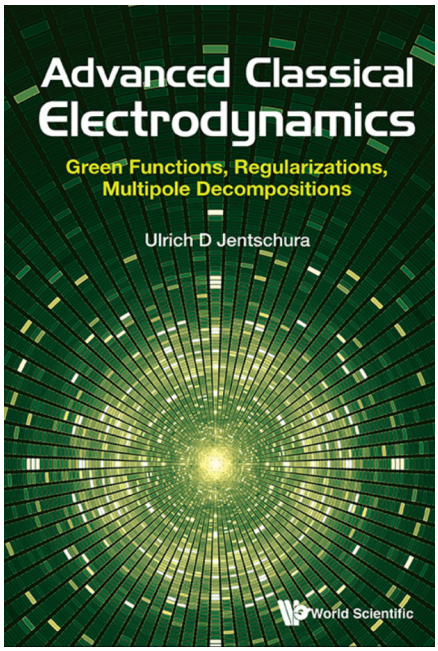
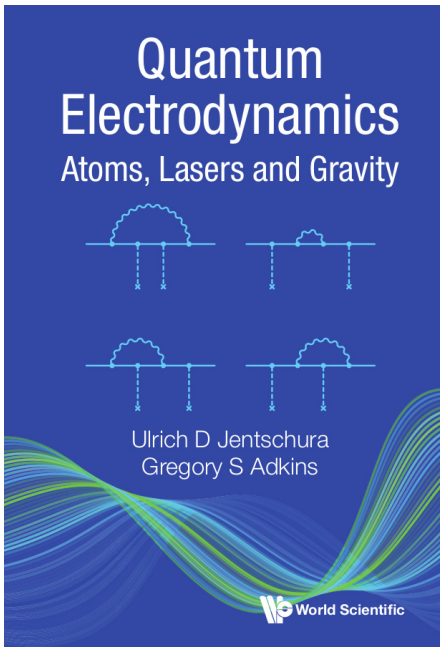
Two books were published in 2017 and 2022, with World Scientific:





Refereed publications (*excluding* conference proceedings) are listed in the following:

Publications in Refereed Journals

excluding refereed contributions to conference-related special journal issues.

== Publications in 2026

241. G. S. Adkins and U. D. Jentschura, "Deuteronium as a Sensitive Probe for Low–Energy Additions to the Standard Model", *submitted (2026).*

240. G. A. Bougas, U. D. Jentschura, and S. I. Mistakidis, "Entanglement-dependent interaction of identical atoms in polarized Dicke states", *submitted (2026).*

239. T. Das, D. Alam, C. A. Ullrich and U. D. Jentschura, "Temperature–Dependent Dielectric Function of Calcium Fluoride: From a Compact Functional Form to Atom–Surface Interactions", Phys. Rev. B **114**, 045115 (2026).

238. S. Rathi, U. D. Jentschura, P. Indelicato and B. Ohayon, "Binding Energy of Muonic Beryllium: Perturbative versus All–Order Calculations", J. Phys. B **59**, 125002 (2026).

237. G. S. Adkins and U. D. Jentschura, "Tensor Polarizability of the Nucleus and Angular Mixing in Muonic Deuterium", Phys. Rev. A **113**, 052807 (2026).

236. G. S. Adkins and U. D. Jentschura, "Relativistic and Recoil Corrections to Light–Fermion Vacuum Polarization for Bound Systems of Spin-0, Spin-1/2, and Spin-1 Particles", Phys. Rev. D **113**, 056029 (2026).

235. R. G. Bullis, W. L. Tavis, M. R. Weiss, J. Orellana Cisneros, A. J. Cheeseman, U. D. Jentschura, and D. C. Yost, "Precision spectroscopy of 2S-nS transitions in atomic hydrogen: a determination of the proton charge radius", Phys. Rev. Lett. **136**, 123001 (2026).

== Publications in 2025

234. G. S. Adkins and U. D. Jentschura, "Bound Deuteron–Antideuteron System (Deuteronium): Leading Radiative and Internal–Structure Corrections to Bound-State Energies", *Phys. Rev. Research* **7***, 043300 (2025).*

233. G. S. Adkins and U. D. Jentschura, "Short–Range Hard–Sphere Potential and Coulomb Interaction: Generalized Deser–Trueman Formula", *Atoms* **13***, 81 (2025).*

232. U. D. Jentschura, "Radiative Energy and Mass Shifts of Quantum Cyclotron States", Eur. Phys. J. D **79**, 31 (2025).

231. R. G. Bullis, U. D. Jentschura, and D. C. Yost, "Interferometric High–Frequency Differential Lock–In Probe for Laser-Induced Vacuum Birefringence", Phys. Rev. Research **7**, 023026 (2025).

230. T. Das, C. A. Ullrich and U. D. Jentschura, "Coupled Oscillators and Dielectric Function", *Phys. Rev. B* **111***, 115101 (2025).*

229. G. S. Adkins and U. D. Jentschura, "Irreducible Three–Loop Vacuum–Polarization Correction in Muonic Bound Systems", *Phys. Rev. D* **111**, *056016 (2025)*.

== Publications in 2024

228. B. Ohayon and U. D. Jentschura, "Reexamination of vacuum-polarization corrections to the self-energy in muonic bound systems", *Phys. Rev. A* **110**, *032820 (2024)*.

227. G. S. Adkins and U. D. Jentschura, "Relativistic and Reduced–Mass Corrections to Vacuum Polarization in Muonic Systems: Three–Photon Exchange, Gauge Invariance and Numerical Values", *Phys. Rev. A* **110**, *032816 (2024)*.

226. L. T. Giorgini, U. D. Jentschura, E. M. Malatesta, T. Rizzo and J. Zinn-Justin, "Instantons in ϕ^4 Theories: Transseries, Virial Theorems and Numerical Aspects", *Phys. Rev. D* **110**, *036003 (2024)*.

225. U. D. Jentschura, "Eighth–Order Foldy–Wouthuysen Transformation", *Phys. Rev. A* **110**, *012808 (2024)*.

224. S. Hariharakrishnan, U. D. Jentschura, I. G. Márián, K. Szabó and I. Nándori, "Perturbative versus Non–Perturbative Renormalization", *J. Phys. G* **85**, *085005 (2024)*.

223. U. D. Jentschura and L. T. Giorgini, "Enhanced and Generalized One–Step Neville Algorithm: Fractional Powers and Access to the Convergence Rate", *Comput. Phys. Commun.* **303**, *109280 (2024)*.

222. S. Laporta and U. D. Jentschura, "Dimensional Regularization and Two–Loop Vacuum Polarization Operator: Master Integrals, Analytic Results and Energy Shifts", *Phys. Rev. D* **109**, *096020 (2024)*.

221. T. Das, C. A. Ullrich and U. D. Jentschura, "Retardation Effects in Atom-Wall Interactions", *Phys. Rev. A* **109**, *022808 (2024)*.

220. U. D. Jentschura, "Revisiting Multipole Corrections to Atom–Wall Interactions with an Emphasis on α–Quartz, Hydrogen and Positronium", *Phys. Rev. A* **109**, *012802 (2024)*; see also Reply to "Comment on 'Revisiting the divergent multipole expansion of atom-surface interactions: Hydrogen and positronium, α-quartz, and physisorption'" [Phys. Rev. A **109**, 012802 (2024)], *Phys. Rev. A* **111**, *016802 (2025)*.

== Publications in 2023

219. U. D. Jentschura and D. C. Yost, "Precision Rydberg State Spectroscopy with Slow Electrons and Proton Radius Puzzle", *Phys. Rev. A* **108**, *062822 (2023)*.

218. U. D. Jentschura and C. Moore, "Quantum Electrodynamic Corrections for Quantum Cyclotron States", *Phys. Rev. D* **108**, *036004 (2023)*.

217. U. D. Jentschura, "Algebraic Approach to Relativistic Landau Levels in the Symmetric Gauge", *Phys. Rev. D* **108**, *016016 (2023)*.

216. U. D. Jentschura and C. Moore, "Logarithmic terms in atom-surface potentials: Limited applicability of rational approximations for intermediate distance", *Phys. Rev. A* **108**, *012815 (2023)*.

215. U. D. Jentschura, "Apparatus–Dependent Corrections to $g-2$ Revisited", *Phys. Rev. D* **107**, *076014 (2023)*.

214. U. D. Jentschura and C. M. Adhikari, "Quantum Electrodynamics of Dicke States: Resonant One-Photon Exchange Energy and Entangled Decay Rate", *Atoms* **11**, *10 (2023)*.

== Publications in 2022

213. J. Nicasio and U. D. Jentschura, "Dispersion of Ultra–Relativistic Tardyonic and Tachyonic Wave Packets on Cosmic Scales", *Symmetry* **14**, *2596 (2022)*.

212. A. Wienczek, C. Moore and U. D. Jentschura, "Foldy–Wouthuysen Transformation in Strong Magnetic Fields and Relativistic Corrections for Quantum Cyclotron Energy Levels", *Phys. Rev. A* **106**, *012816 (2022)*.

211. C. Moore, C. M. Adhikari, T. Das, L. Resch, C. A. Ullrich, and U. D. Jentschura, "Temperature–Dependent Dielectric Function of Intrinsic Silicon: Analytic Models and Atom–Surface Potentials", *Phys. Rev. B* **106**, *045202 (2022)*; Erratum: *Phys. Rev. B* **111**, *079902 (2025)*.

210. L. T. Giorgini, U. D. Jentschura, E. M. Malatesta, G. Parisi, T. Rizzo and J. Zinn-Justin, "Correlation Functions of the Anharmonic Oscillator: Numerical Verification of Two–Loop Corrections to the Large–Order Behavior", *Phys. Rev. D* **105**, *105012 (2022)*.

209. I. G. Márián, U. D. Jentschura, N. Defenu, A. Trombettoni and I. Nándori, "Vacuum energy and renormalization of the field-independent term", *JCAP (Journal of Cosmology and Astrophysics)* **2022_03**, *062 (2022)*.

208. C. M. Adhikari and U. D. Jentschura, "Long–Range Interactions for Hydrogen Atoms in Excited D States", *Atoms* **10**, *6 (2022)*.

207. C. M. Adhikari, J. C. Canales, T. P. W. Arthanayaka, and U. D. Jentschura, "Magic Wavelengths for $1S$–nS and $2S$–nS Transitions in Hydrogenlike Systems", *Atoms* **10**, *1 (2022)*.

== Publications in 2021

206. U. D. Jentschura, "Antimatter Free-Fall Experiments and Charge Asymmetry", Symmetry **13**, 1192 (2021).

== Publications in 2020

205. U. D. Jentschura, "Antimatter Gravity: Second Quantization and Lagrangian Formalism", *Physics* **2**, *397–411 (2020)*.

204. U. D. Jentschura, "Squeezing the Parameter Space for Lorentz Violation in the Neutrino Sector by Additional Decay Channels", *Particles* **3**, *630–641 (2020)*.

203. I. G. Márián, N. Defenu, U. D. Jentschura, A. Trombettoni, and I. Nándori, "Renormalization–Group Running Induced Cosmic Inflation", *JCAP (Journal of Cosmology and Astrophysics)* **2020_06**, *028 (2020)*.

202. U. D. Jentschura, "Fifth Force and Hyperfine Splitting in Bound Systems", *Phys. Rev. A* **101**, *062503 (2020)*.

201. L. T. Giorgini, U. D. Jentschura, E. M. Malatesta, T. Rizzo, G. Parisi, J. Zinn–Justin, "Two–Loop Corrections to the Large–Order Behavior of Correlation Functions in the One–Dimensional N–Vector Model", *Phys. Rev. D* **101**, *125001 (2020)*.

== Publications in 2019

200. U. D. Jentschura, "Equivalence Principle for Antiparticles and Its Limitations", *Int. J. Mod. Phys. A* **34**, *1950180 (2019)*.

199. U. D. Jentschura, I. Nándori, and G. Somogyi, "Lorentz Breaking and $SU(2)_L \times U(1)_Y$ Gauge Invariance for Neutrinos", *Int. J. Mod. Phys. E* **28**, *1950072 (2019)*.

198. G. Somogyi, I. Nándori, and U. D. Jentschura, "Neutrino Splitting for Lorentz–Violating Neutrinos: Detailed Analysis", *Phys. Rev. D* **100**, *035036 (2019)*.

197. I. G. Márián, N. Defenu, U. D. Jentschura, A. Trombettoni, and I. Nándori, "Pseudo–Periodic Natural Higgs Inflation", *Nucl. Phys. B* **945**, *114642 (2019)*

196. A. Matveev, N. Kolachevsky, C. M. Adhikari, and U. D. Jentschura, "Pressure Shifts in High–Precision Hydrogen Spectroscopy. II. Impact Approximation and Monte–Carlo Simulations", *J. Phys. B* **52**, *075006 (2019)*.

195. U. D. Jentschura, C. M. Adhikari, R. Dawes, A. Matveev, and N. Kolachevsky, "Pressure Shifts in High–Precision Hydrogen Spectroscopy. I. Long–Range Atom–Atom and Atom–Molecule Interactions", *J. Phys. B* **52**, *075005 (2019)*.

194. Z. Harman, C. Shah, A. J. González Martínez, H. Tawara, U. D. Jentschura, C. H. Keitel, J. Ullrich and J. R. Crespo López-Urrutia, "Resonance strengths for KLL dielectronic recombination of highly charged mercury ions and improved empirical Z-scaling law", *Phys. Rev. A* **99**, *012506 (2019)*.

== Publications in 2018

193. C. M. Adhikari and U. D. Jentschura, "Close Examination of the Ground–State Casimir–Polder Interaction: Time–Ordered Versus Covariant Formalism and Radiative Corrections", *J. Phys. B* **51**, *215002 (2018)*.

192. U. D. Jentschura, "Gravitational Effects in g Factor Measurements and High–Precision Spectroscopy: Limits of Einstein's Equivalence Principle", *Phys. Rev. A* **98**, *032508 (2018)*.

191. U. D. Jentschura and C. M. Adhikari, "Relativistic and Radiative Corrections to the Dynamic Stark Shift: Gauge Invariance and Transition Currents in the Velocity Gauge", *Phys. Rev. A* **97**, *062120 (2018)*.

190. U. D. Jentschura and I. Nándori, "Atomic Physics Constraints on the X Boson", *Phys. Rev. A* **97**, *042502 (2018)*.

189. U. D. Jentschura, "Enzyme–Supported Immunotherapy: Case Study and Possible Generalizations", *Journal of Cancer Therapy* **9**, *156-162 (2018)*.

188. U. D. Jentschura and J. Sapirstein, "Green Function of the Poisson Equation: $D = 2, 3, 4$", *J. Phys. Commun.* **2**, *015026 (2018)*.

== Publications in 2017

187. U. D. Jentschura and C. M. Adhikari, "Long–Range Interactions for Hydrogen: $6P$–$1S$ and $6P$–$2S$", *Atoms* **5**, *48 (2017).*

186. U. D. Jentschura and I. Nándori, "Neutrino Pair Cerenkov Radiation for Tachyonic Neutrinos", *Adv. High Energy Phys.* **2017**, *9850312 (2017).*

185. J. H. Noble, M. Lubasch and J. Stevens and U. D. Jentschura, "Diagonalization of Complex Symmetric Matrices: Generalized Householder Reflections, Iterative Deflation and Implicit Shifts", *Comput. Phys. Commun.* **221**, *304–316 (2017).*

184. U. D. Jentschura, I. Nándori and R. Ehrlich, "Calculation of the Decay Rate of Tachyonic Neutrinos against Charged–Lepton–Pair and Neutrino–Pair Cerenkov Radiation", *J. Phys. G* **44**, *105201 (2017).*

183. C. M. Adhikari, V. Debierre and U. D. Jentschura, "Long-range interactions of hydrogen atoms in excited states. III. nS–$1S$ interactions for $n \geq 3$", *Phys. Rev. A* **96**, *032702 (2017).*

182. U. D. Jentschura and V. Debierre, "Long–Range Tails in van der Waals Interactions of Excited–State and Ground–State Atoms", *Phys. Rev. A* **95**, *042506 (2017).*

181. U. D. Jentschura, C. M. Adhikari, and V. Debierre, "Virtual Resonant Emission and Oscillatory Long–Range Tails in van der Waals Interactions of Excited States: QED Treatment and Applications", *Phys. Rev. Lett.* **118**, *123001 (2017).*

180. U. D. Jentschura, V. Debierre, C. M. Adhikari, A. Matveev, and N. Kolachevsky, "Long-range interactions of excited hydrogen atoms. II. Hyperfine-resolved $2S$–$2S$ system", *Phys. Rev. A* **95**, *022704 (2017).*

179. C. M. Adhikari, V. Debierre, A. Matveev, N. Kolachevsky and U. D. Jentschura, "Long-range interactions of hydrogen atoms in excited states. I. $2S$–$1S$ interactions and Dirac–δ perturbations", *Phys. Rev. A* **95**, *022703 (2017).*

178. C. M. Adhikari, V. Debierre, U. D. Jentschura, "Adjacency Graphs and Long-Range Interactions of Atoms in Quasi-Degenerate States: Applied Graph Theory", *Appl. Phys. B* **123**, *13 (2017).*

== Publications in 2016

177. C. M. Adhikari, A. Kawasaki and U. D. Jentschura, "Magic Wavelength for the hydrogen $1S$–$2S$ transition: Contribution of the continuum and the reduced-mass correction", *Phys. Rev. A* **94**, *032510 (2016).*

176. U. D. Jentschura, "Non–Resonant Two–Photon Transitions in Length and Velocity Gauges", *Phys. Rev. A* **94**, *022117 (2016).*

175. U. D. Jentschura, M. Janke and M. DeKieviet, "Theory of Non–Contact Friction for Atom–Surface Interactions", *Phys. Rev. A* **94**, *022510 (2016).*

174. U. D. Jentschura and R. Ehrlich, "Lepton-pair Čerenkov radiation emitted by tachyonic neutrinos: Lorentz-covariant approach and Ice Cube data", *Adv. High Energy Phys.* **2016**, *4764981 (2016).*

173. J. H. Joble and U. D. Jentschura, "Dirac Hamiltonian and Reissner–Nordström Metric: Coulomb Interaction in Curved Space–Time", *Phys. Rev. A* **93**, *032108 (2016).*

== Publications in 2015

172. U. D. Jentschura, "Muonic bound systems, virtual particles, and proton radius", *Phys. Rev. A* **92**, *012123 (2015).*

171. J. H. Noble and U. D. Jentschura, "Ultrarelativistic Decoupling Transformation for Generalized Dirac Equations," *Phys. Rev. A* **92**, *012101 (2015).*

170. U. D. Jentschura and G. Łach, "Non–Contact Friction for Ion–Surface Interactions," *Eur. Phys. J D* **69**, *119 (2015).*

169. U. D. Jentschura and K. Pachucki, "Functional Form of the Imaginary Part of the Atomic Polarizability", *Eur. Phys. J D* **69**, *118 (2015).*

168. U. D. Jentschura, "Gravitational Correction to Vacuum Polarization", *Phys. Rev. A* **91**, *022112 (2015).*

167. U. D. Jentschura, G. Łach, M. De Kieviet and K. Pachucki, "One–Loop Dominance in the Imaginary Part of the Polarizability: Application to Blackbody and Non–Contact Quantum Friction", *Phys. Rev. Lett.* **114**, *043001 (2015).*

166. U. D. Jentschura, "Long-range atom-wall interactions and mixing terms: Metastable hydrogen", *Phys. Rev. A* **91**, *010502(R) (2015).*

165. J. H. Noble and U. D. Jentschura, "Dirac Equations with Confining Potentials", *Int. J. Mod. Phys. A* **50**, *1550002 (2015).*

== Publications in 2014

164. U. D. Jentschura and I. Nándori, "Attempts at a determination of the fine-structure from first principles: A brief historical overview", *Eur. Phys. J. H* **39**, *591–613 (2014).*

163. U. D. Jentschura, "Fine–Structure Constant for Gravitational and Scalar Interactions", *Phys. Rev. A* **90**, *022112 (2014).*

162. U. D. Jentschura, "From Dirac theories in curved space-times to a variation of Dirac's large number hypothesis", *Ann. Phys. (Berlin)* **526**, *A47–A50 (2014).*

161. U. D. Jentschura and B. J. Wundt, "Neutrino Helicity Reversal and Fundamental Symmetries", *J. Phys. G* **41**, *075201 (2014).*

160. I. G. Márián, U. D. Jentschura and I. Nándori, "Numerically Optimized Regulator and Functional Renormalization Group", *J. Phys. G* **41**, *055001 (2014).*

159. U. D. Jentschura, D. Horváth, S. Nagy, I. Nándori, Z. Trócsányi and B. Ujvári, "Weighing the Neutrino", *Int. J. Mod. Phys. E* **23**, *145004 (2014).*

158. U. D. Jentschura and J. H. Noble, "Foldy–Wouthuysen Transformation, Scalar Potentials and Gravity," *J. Phys. A* **47**, *045402 (2014).*

== Publications in 2013

157. U. D. Jentschura, "Light Sea Fermions in Electron–Proton and Muon–Proton Interactions", *Phys. Rev. A* **88**, *062514 (2013).*

156. J. H. Noble, M. Lubasch and U. D. Jentschura, "Generalized Householder Transformations for the Complex Symmetric Eigenvalue Problem," *Eur. Phys. J. Plus* **128**, *93 (2013).*

155. U. D. Jentschura and J. H. Noble, "Nonrelativistic Limit of the Dirac–Schwarzschild Hamiltonian: Gravitational Zitterbewegung and Gravitational Spin–Orbit Coupling," *Phys. Rev. A* **88**, *022121 (2013).*

154. U. D. Jentschura and B. J. Wundt, "From Generalized Dirac Equations to a Candidate for Dark Energy," *ISRN High–Energy Physics* **2013**, *374612 (2013).*

153. U. D. Jentschura, "Gravitationally coupled Dirac equation for antimatter," *Phys. Rev. A* **87**, *032101 (2013); Erratum* ibid. **87**, *069903 (2013).*

152. E. Lötstedt and U. D. Jentschura, "Theoretical study of the Compton effect with correlated three-photon emission: From the differential cross section to high-energy triple-photon entanglement," *Phys. Rev. A* **87**, *033401 (2013).*

== Publications in 2012

151. B. J. Wundt, C. T. Munger and U. D. Jentschura, "Quantum dynamics in atomic-fountain experiments for measuring the electric dipole moment of the electron with improved sensitivity," *Phys. Rev. X* **2**, *041009 (2012).*

150. U. D. Jentschura and B. J. Wundt, "Pseudo–Hermitian Quantum Dynamics of Tachyonic Spin–1/2 Particles," *J. Phys. A* **45**, *444017 (2012).*

149. U. D. Jentschura, "Properties of the Dirac Hamiltonian with Imaginary Mass and Induced Helicity–Dependence by Indefinite Metric," *J. Mod. Phys.* **3**, *887–894 (2012).*

148. M. Puchalski and U. D. Jentschura, "Quantum Electrodynamic Corrections to the g Factor of Helium P States," *Phys. Rev. A* **86**, *022508 (2012).*

147. U. D. Jentschura, "Tachyonic Field Theory and Neutrino Mass Running," *Cent. Eur. J. Phys.* **10**, *749-762 (2012).*

146. G. Łach, U. D. Jentschura and M. DeKieviet, "Einstein-Hopf drag, Doppler shift of thermal radiation and blackbody friction: A unifying perspective on an intriguing physical effect," *Cent. Eur. J. Phys.* **10**, *763-767 (2012).*

145. E. Lötstedt and U. D. Jentschura, "Triple Compton effect: A photon splitting into three upon collision with a free electron," *Phys. Rev. Lett.* **108**, *233201 (2012).*

144. A. N. Artemyev, U. D. Jentschura, V. G. Serbo and A. Surzhykov, "Bound–free pair production in ultra–relativistic ion collisions at the LHC collider: Analytic approach to the total and differential cross sections," *Eur. Phys. J. C* **72**, *1935 (2012).*

143. U. D. Jentschura and B. J. Wundt, "Localizability of Tachyonic Particles and Neutrinoless Double Beta Decay," *Eur. Phys. J. C* **72**, *1894 (2012).*

142. B. J. Wundt and U. D. Jentschura, "Sources, Potentials and Fields in Lorenz and Coulomb Gauge: Cancellation of Instantaneous Interactions for Moving Point Charges," *Ann. Phys. (N.Y.)* **327**, *1217-1230 (2012).*

141. G. Łach, U. D. Jentschura and M. DeKieviet, "Enhancement of Blackbody Friction due to the Finite Lifetime of Atomic Levels," *Phys. Rev. Lett.* **108**, *043005 (2012)*.

140. U. D. Jentschura and E. Lötstedt, "Numerical Calculation of Bessel, Hankel and Airy Functions," *Comput. Phys. Commun.* **183**, *506–519 (2012)*.

== Publications in 2011

139. U. D. Jentschura and B. J. Wundt, "Semi–Analytic Approach to Higher–Order Corrections in Simple Muonic Bound Systems: Vacuum Polarization, Self–Energy and Radiative–Recoil," Eur. Phys. J. D **65**, 357-366 (2011).

138. U. D. Jentschura, M. Puchalski and P. J. Mohr, "Thermal Correction to the Molar Polarizability of a Boltzmann Gas," *Phys. Rev. A* **84**, *064102 (2011)*.

137. U. D. Jentschura, "Relativistic Reduced–Mass and Recoil Corrections to Vacuum Polarization in Muonic Hydrogen, Muonic Deuterium and Muonic Helium Ions," *Phys. Rev. A* **84**, *012505 (2011)*.

136. U. D. Jentschura and J. Zinn-Justin, "Multi–Instantons and Exact Results IV: Path Integral Formalism," *Ann. Phys. (N.Y.)* **326**, *2186–2242 (2011)*.

135. B. J. Wundt and U. D. Jentschura, "Self-Energy Correction to the Hyperfine Splitting for Excited States," *Phys. Rev. A* **83**, *052501 (2011)*.

134. M. Puchalski, U. D. Jentschura and P. J. Mohr, "Black–Body Radiation Correction to the Polarizability of Helium," *Phys. Rev. A* **83**, *042508 (2011)*.

133. U. D. Jentschura, A. Matveev, C. G. Parthey, J. Alnis, R. Pohl, Th. Udem, N. Kolachevsky, and T. W. Hänsch, "Hydrogen–Deuterium Isotope Shift: From the $1S$–$2S$ Frequency to the Proton–Deuteron Charge Radius Difference," *Phys. Rev. A* **83**, *042505 (2011)*.

132. U. D. Jentschura and V. G. Serbo, "Compton Upconversion of Twisted Photons: Backscattering of Particles with Non-Planar Wave Functions," *Eur. Phys. J. C* **71**, *1571 (2011)*.

131. U. D. Jentschura, "Lamb Shift in Muonic Hydrogen. —II. Analysis of the Discrepancy of Theory and Experiment," *Ann. Phys. (N.Y.)* **326**, *516-533 (2011)*.

130. U. D. Jentschura, "Lamb Shift in Muonic Hydrogen. —I. Verification and Update of Theoretical Predictions," *Ann. Phys. (N.Y.)* **326**, *500-515 (2011)*.

129. U. D. Jentschura, "Proton Radius, Darwin-Foldy Term and Radiative Corrections," *Eur. Phys. J. D* **61**, *7-14 (2011)*.

128. U. D. Jentschura, "From First Principles of QED to an Application: Hyperfine Structure of P States of Muonic Hydrogen," *Can. J. Phys.* **89**, *109-115 (2011)*.

127. U. D. Jentschura and V. G. Serbo, "Generation of High–Energy Photons with Large Orbital Angular Momentum by Compton Backscattering," *Phys. Rev. Lett.* **106**, *013001 (2011)*.

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