

Publications

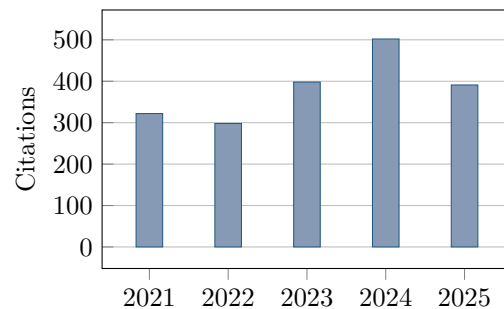
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 Scholar profile

Citation metrics

 Scholar	All	Since 2020
Citations	2533	2112
h-index	27	26
i10-index	37	35



Five most important articles

- [1] K. Stolzenberg, C. Struckmann, S. Bode, R. Li, A. Herbst, V. Vollenkemper, D. Thomas, E. M. Rasel, N. Gaaloul, **D. Schlippert**, *Multi-axis inertial sensing with 2D matter-wave arrays*, Phys. Rev. Lett. **134**, 143601 (2025).
- [2] A. Herbst, T. Estrampes, H. Albers, R. Corgier, K. Stolzenberg, S. Bode, E. Charron, E. M. Rasel, N. Gaaloul, **D. Schlippert**, *Matter-wave collimation to picokelvin energies with scattering length and potential shape control*, Commun. Phys. **7**, 132 (2024).
- [3] L. L. Richardson, D. Nath, A. Rajagopalan, H. Albers, C. Meiners, C. Schubert, D. Tell, E. Wodey, S. Abend, M. Gersemann, W. Ertmer, E. M. Rasel, **D. Schlippert**, M. Mehmet, L. Kumanchik, L. Colmenero, R. Spannagel, C. Braxmaier, F. Guzmán, *Optomechanical resonator-enhanced atom interferometry*, Commun. Phys. **3**, 208 (2020).
- [4] F. Anders, A. Idel, P. Feldmann, D. Bondarenko, S. Loriani, K. Lange, J. Peise, M. Gersemann, B. Meyer, S. Abend, N. Gaaloul, C. Schubert, **D. Schlippert**, L. Santos, E. Rasel, C. Klempt, *Momentum Entanglement for Atom Interferometry*, Phys. Rev. Lett. **127**, 140402 (2021).
- [5] **D. Schlippert**, J. Hartwig, H. Albers, L. L. Richardson, A. Roura, W. P. Schleich, W. Ertmer, E. M. Rasel, *Quantum Test of the Universality of Free Fall*, Phys. Rev. Lett. **112**, 203002 (2014).

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- [6] M. Gersemann, A. Rajagopalan, M. Abidi, P. Barbey, A. Sabu, X. Chen, N. B. Weddig, B. Tennstedt, J. Petring, N. Droese, A. Kassner, C. Künzler, L. Keinert, X. Xiao, F. Dencker, M. C. Wurz, A. Löwer, E. von Hinüber, **D. Schlippert**, E. M. Rasel, S. Schön, S. Abend *Developments for quantum inertial navigation systems employing Bose–Einstein condensates*, Appl. Phys. Rev. **12**, 031306 (2025).
- [7] A. Abdalla, ..., **D. Schlippert et al.**, *Terrestrial Very-Long-Baseline Atom Interferometry: summary of the second workshop*, EPJ Quantum Technol. **12**, 42 (2025).
- [8] C. Schubert, **D. Schlippert**, M. Gersemann, S. Abend, E. Giese, A. Roura, W. P. Schleich, W. Ertmer, E. M. Rasel, *Scalable, symmetric atom interferometer for infrasound gravitational wave detection*, AVS Quantum Sci. **6**, 044404 (2024).
- [9] S. Abend, ..., **D. Schlippert et al.**, *Terrestrial Very-Long-Baseline Atom Interferometry: Workshop Summary*, AVS Quantum Sci. **6**, 024701 (2024).

- [10] A. Herbst, T. Estrampes, H. Albers, V. Vollenkemper, K. Stolzenberg, S. Bode, E. Charron, E. M. Rasel, N. Gaaloul, **D. Schlippert**, *High-flux source system for matter-wave interferometry exploiting tunable interactions*, Phys. Rev. Research **6**, 013139 (2024).
- [11] D. Lindberg, N. Gaaloul, J. R. Williams, **D. Schlippert**, P. Boegel, E. M. Rasel, D. I. Bondar, *Asymmetric Tunneling of Bose-Einstein Condensates*, J. Phys. B: At. Mol. Opt. Phys. **56**, 025302 (2023).
- [12] H. Albers, R. Corgier, A. Herbst, A. Rajagopalan, C. Schubert, C. Vogt, M. Woltmann, C. Lämmerzahl, S. Herrmann, E. Charron, W. Ertmer, E. M. Rasel, N. Gaaloul, **D. Schlippert**, *All-Optical Matter-Wave Lens using Time-Averaged Potentials*, Commun. Phys. **5**, 60 (2022).
- [13] I. Alonso, ..., **D. Schlippert** et al., *Cold atoms in space: community workshop summary and proposed road-map*, EPJ Quantum Technol. **9**, 30 (2022).
- [14] A. Herbst, H. Albers, K. Stolzenberg, S. Bode, **D. Schlippert**, *Rapid generation of all-optical ^{39}K Bose-Einstein condensates using a low-field Feshbach resonance*, Phys. Rev. A **106**, 043320 (2022).
- [15] A. Roura, C. Schubert, **D. Schlippert**, E. M. Rasel, *Measuring gravitational time dilation with delocalized quantum superpositions*, Phys. Rev. D **104**, 084001 (2021).
- [16] C. Schubert, S. Abend, M. Gersemann, M. Gebbe, **D. Schlippert**, P. Berg, E. M. Rasel, *Multi-loop atomic Sagnac interferometry*, Sci. Rep. **11**, 16121 (2021).
- [17] É. Wodey, R. J. Rengeling, C. Meiners, E. M. Rasel, **D. Schlippert**, *A robust, high-flux source of laser-cooled ytterbium atoms*, J. Phys. B: At. Mol. Opt. Phys. **54**, 035301 (2021).
- [18] S. Loriani, C. Schubert, **D. Schlippert**, W. Ertmer, F. Pereira Dos Santos, E. M. Rasel, N. Gaaloul, P. Wolf, *Resolution of the colocation problem in satellite quantum tests of the universality of free fall*, Phys. Rev. D **102**, 124043 (2020).
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- [20] C. Ufrecht, F. Di Pumpo, A. Friedrich, A. Roura, C. Schubert, **D. Schlippert**, E. M. Rasel, W. P. Schleich, E. Giese, *An atom interferometer testing the universality of free fall and gravitational redshift*, Phys. Rev. Research **2**, 043240 (2020).
- [21] B. Canuel, ..., **D. Schlippert**, et al., *ELGAR – a European Laboratory for Gravitation and Atom-interferometric Research*, Class. Quantum Grav. **37**, 225017 (2020).
- [22] H. Albers, A. Herbst, L. L. Richardson, H. Heine, D. Nath, J. Hartwig, C. Schubert, C. Vogt, M. Woltmann, C. Lämmerzahl, S. Herrmann, W. Ertmer, E. M. Rasel, **D. Schlippert**, *Quantum test of the Universality of Free Fall using rubidium and potassium*, Eur. Phys. J. D **74**, 145 (2020).
- [23] É. Wodey, D. Tell, E. M. Rasel, **D. Schlippert**, R. Baur, U. Kissling, B. Kölliker, M. Lorenz, M. Marrer, U. Schläpfer, M. Widmer, C. Ufrecht, S. Stüiber, P. Fierlinger, *A scalable high-performance magnetic shield for Very Long Baseline Atom Interferometry*, Rev. Sci. Instrum. **91**, 035117 (2020).
- [24] Y. A. El-Neaj, ... **D. Schlippert** et al., *AEDGE: Atomic Experiment for Dark Matter and Gravity Exploration in Space*, EPJ Quantum Technol. **7**, 6 (2020).

- [25] C. Vogt, M. Woltmann, H. Albers, **D. Schlippert**, S. Herrmann, E. M. Rasel, C. Lämmerzahl, *Evaporative cooling from an optical dipole trap in microgravity*, Phys. Rev. A **101**, 013634 (2020).
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- [29] S. Kulas, C. Vogt, A. Resch, J. Hartwig, S. Ganske, J. Matthias, **D. Schlippert**, T. Wendrich, W. Ertmer, E. M. Rasel, M. Damjanic, P. Weßels, A. Kohfeldt, E. Luvsandamdin, M. Schiemangk, C. Grzeschik, M. Krutzik, A. Wicht, A. Peters, S. Herrmann, C. Lämmerzahl, *Miniaturized Lab System for Future Cold Atom Experiments in Microgravity*, Microgravity Sci. Technol. **29**, 37 (2017).
- [30] J. Hartwig, S. Abend, C. Schubert, **D. Schlippert**, H. Ahlers, K. Posso-Trujillo, N. Gaaloul, W. Ertmer, E. M. Rasel, *Testing the universality of free fall with rubidium and ytterbium in a very large baseline atom interferometer*, New J. Phys. **17**, 035011 (2015).
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- [32] M. Zaiser, J. Hartwig, **D. Schlippert**, U. Velte, N. Winter, V. Lebedev, W. Ertmer, E. M. Rasel, *Simple method for generating Bose-Einstein condensates in a weak hybrid trap*, Phys. Rev. A **83**, 035601 (2011).

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- [33] M. Werner, A. Lezeik, **D. Schlippert**, E. Rasel, N. Gaaloul, K. Hammerer, *Local Measurement Scheme of Gravitational Curvature using Atom Interferometers*, arXiv:2409.03515 (2024).
- [34] P. Feldmann, F. Anders, A. Idel, C. Schubert, **D. Schlippert**, L. Santos, E. M. Rasel, C. Klempt, *Optimal squeezing for high-precision atom interferometers*, arXiv:2311.10241 (2023).
- [35] H. Ahlers, ..., **D. Schlippert**, *et al.*, *STE-QUEST: Space Time Explorer and QUantum Equivalence principle Space Test*, arXiv:2211.15412 (2022).
- [36] B. Canuel, ..., **D. Schlippert**, *et al.*, *Technologies for the ELGAR large scale atom interferometer array*, arXiv:2007.04014 (2020).

Proceedings & miscellaneous publications

- [37] A. Lezeik, D. Tell, K. Zipfel, V. Gupta, É. Wodey, E. Rasel, C. Schubert, **D. Schlippert**,
Understanding the gravitational and magnetic environment of a very long baseline atom interferometer,
[arXiv:2209.08886](#),
Presented at the Ninth Meeting on CPT and Lorentz Symmetry, Bloomington, Indiana, May 17-26, 2022 (2022).
- [38] **D. Schlippert**, C. Meiners, R.J. Rengelink, C. Schubert, D. Tell, E. Wodey, K.H. Zipfel, W. Ertmer, E. M. Rasel,
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Presented at the Eighth Meeting on CPT and Lorentz Symmetry, Bloomington, Indiana, May 12-16, 2019 (2020).
- [39] B. Tennstedt, C. Schubert, **D. Schlippert**, S. Schön, E. M. Rasel,
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- [40] S. Abend, M. Gersemann, C. Schubert, **D. Schlippert**, E. M. Rasel, M. Zimmermann, M. A. Efremov, A. Roura, F. A. Narducci, W. P. Schleich,
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- [41] M. Bochhati, S. Schön, **D. Schlippert**, C. Schubert, E. Rasel,
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Published in: 2017 DGON Inertial Sensors and Systems (ISS) (2017).
- [42] **D. Schlippert**, H. Albers, L. L. Richardson, D. Nath, H. Heine, C. Meiners, É. Wodey, A. Billon, J. Hartwig, C. Schubert, N. Gaaloul, W. Ertmer, E. M. Rasel,
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Patents

- [45] K. Stolzenberg, S. Bode, E. M. Rasel, N. Gaaloul, **D. Schlippert**,
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filed to the European Patent Office by Leibniz University Hannover (2023).
- [46] F. Guzmán, E. M. Rasel, **D. Schlippert**,
Optomechanical Inertial Reference for Atom Interferometers (WO 2020/168314 A1),
filed by the University of Arizona (2020).