

Philip K. Schwartz: Publikationen

- P. K. Schwartz, *Newton–Cartan Gravity: A Modern Introduction to Geometrised Newtonian Gravity*, *Lecture Notes in Physics* **1044** (Springer, Cham, 2026)
- D. Prinz, A. Schmeding, P. K. Schwartz, *Group Contractions via Infinite-Dimensional Lie Theory*, [arXiv:2512.18530](https://arxiv.org/abs/2512.18530)
- A. L. von Blanckenburg, D. Giulini, P. K. Schwartz, *The trace-free Einstein tensor is not variational for the metric as field variable*, *Classical and Quantum Gravity* **43**, 047001 (2026), [arXiv:2509.02490](https://arxiv.org/abs/2509.02490)
- P. K. Schwartz, A. L. von Blanckenburg, *Comment on ‘The Classical Limit of Teleparallel Gravity’*, [arXiv:2410.02839](https://arxiv.org/abs/2410.02839)
- P. K. Schwartz, A. L. von Blanckenburg, *The Newtonian limit of orthonormal frames in metric theories of gravity*, *General Relativity and Gravitation* **57**, 166 (2025), [arXiv:2410.01800](https://arxiv.org/abs/2410.01800)
- P. K. Schwartz, *The classification of general affine connections in Newton–Cartan geometry: Towards metric-affine Newton–Cartan gravity*, *Classical and Quantum Gravity* **42**, 015010 (2025), [arXiv:2403.15460](https://arxiv.org/abs/2403.15460)
- A. L. von Blanckenburg, P. K. Schwartz, *On gauge transformations in twistless torsional Newton–Cartan geometry*, *Classical and Quantum Gravity* **42**, 225021 (2025), [arXiv:2402.05105](https://arxiv.org/abs/2402.05105)
- M. Werner, P. K. Schwartz, J.-N. Kirsten-Siemß, N. Gaaloul, D. Giulini, K. Hammerer, *Atom interferometers in weakly curved spacetimes using Bragg diffraction and Bloch oscillations*, *Physical Review D* **109**, 022008 (2024), [arXiv:2310.03719](https://arxiv.org/abs/2310.03719)
- A. Alibabaei, P. K. Schwartz, D. Giulini, *Geometric post-Newtonian description of massive spin-half particles in curved spacetime*, *Classical and Quantum Gravity* **40**, 235014 (2023), [arXiv:2307.04743](https://arxiv.org/abs/2307.04743)
- P. K. Schwartz, *Teleparallel Newton–Cartan gravity*, *Classical and Quantum Gravity* **40**, 105008 (2023), [arXiv:2211.11796](https://arxiv.org/abs/2211.11796)
- D. Giulini, A. Großardt, P. K. Schwartz, *Coupling Quantum Matter and Gravity*, in: Christian Pfeifer, Claus Lämmerzahl (Hrsg.), *Modified and Quantum Gravity*, *Lecture Notes in Physics* **1017** (Springer, Cham, 2023), [arXiv:2207.05029](https://arxiv.org/abs/2207.05029)
- P. K. Schwartz, *Post-Newtonian Description of Quantum Systems in Gravitational Fields*, Dissertation (Gottfried Wilhelm Leibniz Universität Hannover, 2020), [arXiv:2009.11319](https://arxiv.org/abs/2009.11319)
- P. K. Schwartz, D. Giulini, *Classical perspectives on the Newton–Wigner position observable*, *International Journal of Geometric Methods in Modern Physics* **17**, 2050176 (2020), [arXiv:2004.09723](https://arxiv.org/abs/2004.09723)
- P. K. Schwartz, D. Giulini, *Post-Newtonian Hamiltonian description of an atom in a weak gravitational field*, *Physical Review A* **100**, 052116 (2019), [arXiv:1908.06929](https://arxiv.org/abs/1908.06929)
- P. K. Schwartz, D. Giulini, *Post-Newtonian corrections to Schrödinger equations in gravitational fields*, *Classical and Quantum Gravity* **36**, 095016 (2019), [arXiv:1812.05181](https://arxiv.org/abs/1812.05181)