Publication List

Matthias Lienert

November 2, 2020

Journal Papers

1. M. K.-H. Kiessling, M. Lienert and A. S. Tahvildar-Zadeh, *A Lorentz-Covariant Interacting Electron–Photon System in One Space Dimension.* **Lett. Math. Phys.** (2020). `https://doi.org/10.1007/s11005-020-01331-8`.

2. M. Lienert and R. Tumulka. *Born's rule for arbitrary Cauchy surfaces.* **Lett. Math. Phys.** 110, 753–804 (2020) `https://doi.org/10.1007/s11005-019-01239-y`

3. M. Lienert and L. Nickel. *Multi-time formulation of particle creation and annihilation via interior-boundary conditions.* **Rev. Math. Phys.** 32, 2050004 (2020). `https://doi.org/10.1142/S0129055X2050004X`

4. M. Lienert and R. Tumulka. *Interacting relativistic quantum dynamics of two particles on spacetimes with a Big Bang singularity.* **J. Math. Phys.** 60, 042302 (2019). `https://doi.org/10.1063/1.5078579`

5. M. Lienert and R. Tumulka. *A new class of Volterra-type integral equations from relativistic quantum physics.* **J. Integral Equations Applications** 31, 535-569 (2019). `https://doi.org/10.1216/JIE-2019-31-4-535`

6. M. Lienert. *Direct interaction along light cones at the quantum level.* **J. Phys. A: Math. Theor.** 51, 435302 (2018). `https://doi.org/10.1088/1751-8121/aae0c4`

7. M. Lienert, S. Petrat, and R. Tumulka. *Multi-time wave functions versus multiple timelike dimensions.* **Found. Phys.** 47, 1582-1590 (2017). `https://doi.org/10.1007/s10701-017-0120-5`

8. M. Lienert and L. Nickel. *A simple explicitly solvable interacting relativistic N-particle model.* **J. Phys. A: Math. Theor.** 48, 325301 (2015). `https://doi.org/10.1088/1751-8113/48/32/325301`

9. M. Lienert. *On the question of current conservation for the Two-Body Dirac equations of constraint theory.* **J. Phys. A: Math. Theor.** 48, 325302 (2015). `https://doi.org/10.1088/1751-8113/48/32/325302`

10. M. Lienert. *A relativistically interacting exactly solvable multi-time model for two mass-less Dirac particles in 1+1 dimensions.* **J. Math. Phys.** 56, 042301 (2015). `https://doi.org/10.1063/1.4915952`

11. D. Dürr and M. Lienert. *On the description of subsystems in relativistic hypersurface Bohmian mechanics.* **Proc. R. Soc. A** 470, 20140181 (2014). `https://doi.org/10.1098/rspa.2014.0181`

Books

12. M. Lienert, S. Petrat and R. Tumulka. *Multi-time Wave Functions – An Introduction.* **Springer Briefs in Physics** (Springer, 2020). `https://doi.org/10.1007/978-3-030-60691-6`

Preprints

13. M. Lienert and M. Nöth. *Singular light cone interactions of scalar particles in 1+3 dimensions.* `https://arxiv.org/abs/2003.08677`

14. M. Lienert and M. Nöth. *Existence of relativistic dynamics for two directly interacting Dirac particles in 1+3 dimensions.* `https://arxiv.org/abs/1903.06020`

Conference Proceedings

15. M. Lienert, S. Petrat, and R. Tumulka. *Multi-time wave functions.* **J. Phys.: Conf. Ser.** 880: 012006 (2017). `https://doi.org/10.1088/1742-6596/880/1/012006`

16. M. Lienert. *Interacting relativistic quantum dynamics for multi-time wave functions.* **EPJ Web of Conferences** 128, 04026 (2016). `https://doi.org/10.1051/epjconf/201612604026`

Theses

17. M. Lienert. *Lorentz invariant quantum dynamics in the multi-time formalism.* PhD thesis. Department of Mathematics, Computer Science and Statistics, Ludwig-Maximilians-Universität München. September 2015. `https://edoc.ub.uni-muenchen.de/18705/`

18. M. Lienert. *Pilot Wave Theory and Quantum Fields.* Part III Essay. Department of Applied Mathematics and Theoretical Physics, University of Cambridge, May 2011. `http://philsci-archive.pitt.edu/id/eprint/8710`

19. M. Lienert. *Luttinger liquids with boundaries – How properties differ from the translationally invariant case.* Bachelor thesis. Department of Theoretical Physics, Georg-August-Universität Göttingen, July 2010