

C.Wetterich

List of Publications, 2018-2023

- 320) C.Wetterich: Infrared limit of quantum gravity, arXiv: 1802.05947 [gr-qc], Phys. Rev. **D98** (2018) 026028
- 321) D. Sexty, C. Wetterich: Static memory materials, arXiv: 1802.08596 [cond.-mat. stat.-mech]
- 322) C.Wetterich: Quantum computing with classical bits, arXiv: 1806.05960 [quant-ph], Nucl. Phys. **B948** (2019) 114776
- 323) C. Pehle, K. Meier, M. Oberthaler, C. Wetterich: Emulating quantum computation with artificial neural networks, arXiv: 1810.10335 [quant-ph]
- 324) J.M. Pawłowski, M. Reichert, C. Wetterich, M. Yamada: Higgs scalar potential in asymptotically safe quantum gravity, arXiv: 1811.11706, Phys. Rev **D99** (2019) 086010
- 325) C.Wetterich: Quantum scale symmetry, arXiv: 1901.04741
- 326) C. Wetterich, M. Yamada: Variable Planck mass from gauge invariant flow equation; arXiv: 1906.01721, Phys. Rev. **D100** (2019) 066017
- 327) S. Savastano, L. Amendola, J. Rubio, C. Wetterich: Primordial dark matter halos from fifth forces, arXiv: 1906.05300, Phys. Rev. **D100** (2019) 083518
- 328) A. Eichhorn, A. Held, C. Wetterich: Predictive power of grand unification from quantum gravity, arXiv: 1909.07318, JHEP08 (2020) 111
- 329) B. Faigle-Cedzich, J. M. Pawłowski, C. Wetterich: Dimensional crossover in ultracold Fermi gases from functional renormalization, arXiv: 1910.07365, Phys. Rev. A103 (2021) 3
- 330) T. Denz, M. Mitter, J. M. Pawłowski, C. Wetterich, M. Yamada: Partial bosonisation for the two-dimensional Hubbard model: How well does it work?, arXiv: 1910.08300, Phys. Rev. **B101** (2020) 155115
- 331) C. Wetterich: Effective scalar potential in asymptotically safe quantum gravity, arXiv: 1911.06100, Universe 7 (2021) 2
- 332) C. Pehle, C. Wetterich, Neuromorphic quantum computing, arXiv 2005.01533, Phys. Rev. **E 106 (2022)** 045311
- 333) C. Wetterich: The great emptiness at the beginning of the Universe, arXiv:1912.00792, Phys. Lett. B818 (2021) 136355

- 334) G. Domènech, A. Naruko, M. Sasaki, C. Wetterich: Could the black hole singularity be a field singularity?, arXiv: 1912.02845, Int. J. Mod. Phys. **D 29** (2020) no.03, 2050026
- 335) C. Wetterich: Primordial flat frame -- a new view on inflation, arXiv: 2003.08908, Phys. Rev. D104 (2021), 083525
- 336) C. Wetterich: Crossing the Big Bang singularity, arXiv: 2004.04506, Phys. Dark Univ. 33 (2021) 100866
- 337) C. Wetterich: Probabilistic cellular automata for interacting fermionic quantum field theories, arXiv: 2007.06366, Nucl. Phys. B963 (2021)115296
- 338) C. Wetterich: Fundamental scale invariance, arXiv: 2007.08805, Nucl. Phys. B964 (2021)115326
- 339) G. Domènech, M. Goodsell and C. Wetterich: Neutrino masses, vacuum stability and quantum gravity prediction for the mass of the top quark, arXiv: 2008.04310, JHEP 01 (2021) 180
- 340) A. Platania, C. Wetterich: Non-perturbative unitarity and fictitious ghosts in quantum gravity, arXiv: 2009.06637, Phys. Lett. **B811** (2020)
- 341) C. Wetterich: The probabilistic world, arXiv: 2011.02867
- 342) C. Wetterich: Pregeometry and euclidean quantum gravity; arXiv: 2101.07849, Nucl. Phys. B 971 (2021) 115526
- 343) C. Wetterich: Pregeometry and spontaneous time-space asymmetry, arXiv: 2101.11519, JHEP06 (2022) 069
- 344) C. Wetterich: Cosmology from pregeometry, arXiv: 2104.14013, Phys. Rev. D104 (2021) 04040
- 345) C. Wetterich: Quantum fermions from classical bits, arXiv: 2106.15517, Phil. Trans. A. Math. Phys. Eng. Sci. 380 (2021)2216, 20210066
- 346) A. Gomez-Valent, Z. Zheng, L. Amendola, V. Pettorino, C. Wetterich: Early dark energy in the pre- and post-recombination epochs, arXiv: 2107.11065, Phys. Rev. D104 (2021) 083536
- 347) S. Sen, C. Wetterich, M. Yamada: Asymptotic freedom and safety in quantum gravity, arXiv: 2111.04696, JHEP03 (2022) 130
- 348) C. Wetterich: Fermionic quantum field theories as probabilistic cellular automata, arXiv: 2111.06728, Phys. Rev. **D 105** (2022) 074502
- 349) J. Horak, F. Ihssen, J. Papavassiliou, J. M. Pawłowski, A. Weber, C. Wetterich: Gluon condensates and effective gluon mass, arXiv: 2201.09747, SciPost Phys. 13 (2022) 042

- 350) C. Wetterich: The quantum gravity connection between inflation and quintessence, arXiv: 2201.12213, *Galaxies* **10** (2022) 10020050
- 351) C. Wetterich: Fermion picture for cellular automata, arXiv: 2203.14081
- 352) C. Wetterich: Scaling solution for field dependent gauge couplings in quantum gravity, arXiv: 2205.07029, *Nucl. Phys. B* **985** (2022) 116017
- 353) A. Gomez-Valent, Z. Zheng, L. Amendola, V. Pettorino, C. Wetterich, Coupled and uncoupled early dark energy, massive neutrinos and the cosmological tensions, arXiv: 2207.14487, *Phys. Rev. D* **106** (2022), 103522
- 354) V. A. Rubakov, C. Wetterich, Geodesic (in)completeness in general metric frames, arXiv: 2210.11198, *Symmetry* **14** (2022), 2557
- 355) C. Wetterich, Quantum gravity and scale symmetry in cosmology, arXiv: 2211.03596
- 356) S. Sen, C. Wetterich, M. Yamada, Scaling solutions for asymptotically free quantum gravity, arXiv: 2211.05508, *JHEP* **02** (2023) 054
- 357) C. Wetterich, Cellular automaton for spinor gravity in four dimensions, arXiv: 2211.09002, *J. Phys. Conf. Ser.* **2533** (2023) 1, 012016
- 358) C. Wetterich, Probabilistic cellular automaton for quantum particle in a potential, arXiv: 2211.17034
- 359) A. Gomez-Valent, Z. Zheng, L. Amendola, V. Pettorino, C. Wetterich, Early and not so early dark energy. What do cosmological observations tell us about them? contributions to MG 16, 1713-1732
- 360) B. M. Faigle-Cedzich, J. M. Pawłowski, C. Wetterich, Towards quantitative precision in ultracold atoms with functional renormalisation, arXiv: 2307.14787