
References for CUWF Paper A-2

Editorial note. This bibliography is designed to support the mainstream physics, information-theory, quantum-foundations, and empirical-evidence layers used in Paper A-2. It does not claim that every CUWF-specific interpretive statement already has an external source; rather, it provides a serious reference base for the standard scientific background, key constants, and the major experimental phenomena discussed in the manuscript.

A. Foundational Physics and Constants

1. Techasamran, C. Chayut Universe Wave Function (CUWF) Paper A: The Theory. Unpublished manuscript / prior foundational paper cited internally by Paper A-2.
2. Einstein, A. (1916). The Foundation of the General Theory of Relativity. *Annalen der Physik*, 49, 769–822.
3. CERN. The Standard Model. CERN Science – Physics Overview.
4. Nobel Prize Outreach. (2013). The Nobel Prize in Physics 2013: Englert and Higgs. NobelPrize.org.
5. NIST. CODATA Value: Inverse Fine-Structure Constant. National Institute of Standards and Technology (CODATA 2022 values).

B. Entropy, Probability, Information, and Statistical Mechanics

6. Shannon, C. E. (1948). A Mathematical Theory of Communication. *Bell System Technical Journal*, 27, 379–423 and 623–656.
7. Boltzmann, L. (1877/2015). On the Relationship between the Second Fundamental Theorem of the Mechanical Theory of Heat and Probability Calculations Regarding the Conditions for Thermal Equilibrium. In K. Sharp & F. Matschinsky (Trans.), *Entropy*, 17(4), 1971–2009.

8. Zurek, W. H. (2003). Decoherence, Einselection, and the Quantum Origins of the Classical. *Reviews of Modern Physics*, 75, 715–775.
9. Bell, J. S. (1964). On the Einstein Podolsky Rosen Paradox. *Physics Physique Fizika*, 1, 195–200.
10. Nobel Prize Outreach. (2022). The Nobel Prize in Physics 2022: Press Release and Popular Information on Bell Inequalities, Entanglement, and Nonlocal Correlations. NobelPrize.org.

C. Quantum Measurement, Cat States, and Macroscopic Coherence

11. Haroche, S. (2012). Nobel Lecture: Controlling Photons in a Box and Exploring the Quantum to Classical Boundary. NobelPrize.org / Nobel Lecture archive.
12. Wineland, D. J. (2012). Superposition, Entanglement, and Raising Schrödinger's Cat. Nobel Lecture, NobelPrize.org.
13. Nobel Prize Outreach. (2001). The Nobel Prize in Physics 2001: Bose–Einstein Condensation in Dilute Gases. NobelPrize.org.

D. Collapse, Recurrence, Time Crystals, Many-Body Localization, and Superconductivity

14. Zhang, J. et al. (2017). Observation of a Discrete Time Crystal. *Nature*, 543, 217–220.
15. Choi, S. et al. (2017). Observation of Discrete Time-Crystalline Order in a Disordered Dipolar Many-Body System. *Nature*, 543, 221–225.
16. Keßler, H. et al. (2021). Observation of a Dissipative Time Crystal. *Physical Review Letters*, 127, 043602.
17. Abanin, D. A., Altman, E., Bloch, I., & Serbyn, M. (2019). Colloquium: Many-Body Localization, Thermalization, and Entanglement. *Reviews of Modern Physics*, 91, 021001.
18. Bardeen, J., Cooper, L. N., & Schrieffer, J. R. (1957). Theory of Superconductivity. *Physical Review*, 108, 1175–1204.

E. Dark Matter, Gravity, and Large-Scale Observational Background

19. Rubin, V. C., & Ford, W. K., Jr. (1970). Rotation of the Andromeda Nebula from a Spectroscopic Survey of Emission Regions. *The Astrophysical Journal*, 159, 379–403.
20. Clowe, D., Bradač, M., Gonzalez, A. H., Markevitch, M., Randall, S. W., Jones, C., & Zaritsky, D. (2006). A Direct Empirical Proof of the Existence of Dark Matter. *The Astrophysical Journal Letters*, 648(2), L109–L113.
21. Bertone, G., & Hooper, D. (2018). History of Dark Matter. *Reviews of Modern Physics*, 90, 045002.
22. NASA. Dark Matter; How Gravity Warps Light; Hubble Gravitational Lenses. NASA Science mission overviews on lensing and dark matter evidence.

F. High-Dimensional Quantum States and the Photon-37 Evidence Layer

23. Liu, Z.-H., Meng, Y., Wu, Y.-Z., Hao, Z.-Y., Xu, Z.-P., Ai, C.-J., Wei, H., Wen, K., Chen, J.-L., Ma, J., Xu, J.-S., Li, C.-F., & Guo, G.-C. (2025). Exploring the Boundary of Quantum Correlations with a Time-Domain Optical Processor. *Science Advances*, 11(5), eabd8080.
<https://doi.org/10.1126/sciadv.abd8080>
24. PubMed entry for Liu et al. (2025), *Science Advances* 11(5): eabd8080, confirming the 37-dimensional setup and DOI.
25. Phys.org. (2025). Extending a paradox: Quantum mechanics experiment measures a pulse of light in 37 dimensions.

G. Optional Supporting References if You Want a Heavier Academic Tail

26. Einstein, A. (1916). *Relativity: The Special and the General Theory*. Popular but still authorial explanatory treatment of relativity.

27. NASA / ESA lensing mission explainers for gravitational curvature and dark-matter mapping via lensing.

28. APS Physics and Review articles on time crystals, superconductivity, and many-body localization for explanatory background beyond the primary papers.

Suggested insertion note for the manuscript

For Paper A-2 itself, a balanced final References section can be built by keeping Sections A–F as the core list. Section G is optional if a more discursive or review-oriented bibliography is desired. If you want the reference style converted to APA, Chicago, MLA, or a numbered journal style later, that can be done without changing the content of the list.