

Literature List

Required reading

Rapaport, W. (2023). Philosophy of computer science. John Wiley & Sons.

Hill, R. K. (2016). What an Algorithm Is. *Philosophy & Technology*, 29(1), 35–59.

<https://doi.org/10.1007/s13347-014-0184-5>

Landauer, R. (1961). Irreversibility and Heat Generation in the Computing Process. *IBM Journal of Research and Development*, 183–191.

Wigderson, A. (2009). Knowledge, Creativity and P versus N P.

Additional reading

Aaronson, S. (2011). Why Philosophers Should Care About Computational Complexity. arXiv:1108.1791 [Quant-Ph]. <http://arxiv.org/abs/1108.1791>

Baez, J. C. (2016). Computing the Uncomputable.

<https://johncarlosbaez.wordpress.com/2016/04/02/computing-the-uncomputable/>

Copeland, B. Jack, "The Modern History of Computing", *The Stanford Encyclopedia of Philosophy* (Winter 2020 Edition), Edward N. Zalta (ed.),

<https://plato.stanford.edu/archives/win2020/entries/computing-history.>

Davis, M. (n.d.). What is a computation? *Mathematics Today*, 1978, 241–267.

De Haas, J., & Houkes, W. (2025). Can't Software Malfunction? *Metaphysics*, 9(1), 1–15.

<https://doi.org/10.5334/met.165>

Dewdney, A. K. (1984). COMPUTER RECREATIONS. *SCIENTIFIC AMERICAN*.

Friedman, M. (2023). Leibniz and the Stocking Frame: Computation, Weaving and Knitting in the 17th Century. *Minds and Machines*. <https://doi.org/10.1007/s11023-023-09623-3>

Hamkins, J. D., & Nenu, T. (2024). Did Turing prove the undecidability of the halting problem? (No. arXiv:2407.00680). arXiv. <https://doi.org/10.48550/arXiv.2407.00680>

Knuth, D. E. (1976). Mathematics and Computer Science: Coping with Finiteness. *Science*, 194(4271), 1235–1242. <https://doi.org/10.1126/science.194.4271.1235>

Moore, G. E. (1998). Cramming More Components onto Integrated Circuits. *PROCEEDINGS OF THE IEEE*, 86(1).

Symons, J., & Horner, J. K. (2020). Why There is no General Solution to the Problem of Software Verification. *Foundations of Science*, 25(3), 541–557. <https://doi.org/10.1007/s10699-019-09611-w>

Wigderson, A. (2019). *Mathematics and Computation: A Theory Revolutionizing Technology and Science*. Princeton University Press.