

Bibliografía

- [1] A. Albrecht and P. J. Steinhardt, "Cosmology for grand unified theories with radiatively induced symmetry breaking," *Physical Review Letters*, vol. 48, no. 17, pp. 1220–1223, 1982. https://doi.org/10.1103/PhysRevLett.48.1220
- [2] A. H. Guth, "Inflationary universe: A possible solution to the horizon and flatness problems," *Physical Review D*, vol. 23, no. 2, pp. 347–356, 1981. https://doi.org/10.1103/PhysRevD.23.347
- [3] A. D. Linde, "A new inflationary universe scenario: a possible solution of the horizon, flatness, homogeneity, isotropy and primordial monopole problems," *Physics Letters B*, vol. 108, no. 6, pp. 389–393, 1982. https://doi.org/10.1016/0370-2693(82)91219-9
- [4] P. Peebles, *Principles of physical cosmology*. Princeton university press, 1993, vol. 27. https://doi.org/10.1515/9780691206721
- [5] V. F. Mukhanov and G. V. Chibisov, "Quantum Fluctuations and a Nonsingular Universe," *JETP Lett.*, vol. 33, pp. 532–535, 1981. http://jetpletters.ru/ps/1510/ article_23079.pdf
- [6] J. M. Bardeen, P. J. Steinhardt, and M. S. Turner, "Spontaneous creation of almost scale-free density perturbations in an inflationary universe," *Physical Review D*, vol. 28, no. 4, p. 679, 1983. https://doi.org/10.1103/PhysRevD.28.679
- [7] S. W. Hawking, "The development of irregularities in a single bubble inflationary universe," *Physics Letters B*, vol. 115, no. 4, pp. 295–297, 1982. https://doi.org/10.1016/0370-2693(82)90373-2
- [8] A. A. Starobinsky, "Dynamics of phase transition in the new inflationary universe scenario and generation of perturbations," *Physics Letters B*, vol. 117, no. 3-4, pp. 175–178, 1982. https://doi.org/10.1016/0370-2693(82)90541-X
- [9] A. H. Guth and S.-Y. Pi, "Quantum mechanics of the scalar field in the new inflationary universe," *Physical Review D*, vol. 32, no. 8, p. 1899, 1985. https://doi.org/10.1103/PhysRevD.32.1899

- [10] G. Gamow, "Expanding universe and the origin of elements," *Physical review*, vol. 70, no. 7-8, pp. 572–573, 1946. https://doi.org/10.1103/PhysRev.70.572.2
- [11] R. A. Alpher and R. Herman, "Evolution of the universe," *Nature*, vol. 162, no. 4124, pp. 774–775, 1948. https://doi.org/10.1038/162774b0
- [12] R. A. Alpher, J. W. Follin Jr, and R. C. Herman, "Physical conditions in the initial stages of the expanding universe," *Physical Review*, vol. 92, no. 6, pp. 1347–1361, 1953. https://doi.org/10.1103/PhysRev.92.1347
- [13] A. R. Liddle, "An introduction to cosmological inflation," *High energy physics and cosmology*, p. 260, 1998. https://doi.org/10.48550/arXiv.astro-ph/9901124
- [14] E. Hubble, "A relation between distance and radial velocity among extra-galactic nebulae," *Proceedings of the national academy of sciences*, vol. 15, no. 3, pp. 168–173, 1929. https://doi.org/10.1073/pnas.15.3.168
- [15] D. Baumann, *Cosmology*. Cambridge University Press, 2022. https://doi.org/10. 1017/9781108937092
- [16] A. A. Penzias and R. W. Wilson, "A measurement of excess antenna temperature at 4080 mc/s." *The Astrophysical Journal*, vol. 142, pp. 419–421, 1965. https://doi.org/10.1086/148307
- [17] S. Dodelson and F. Schmidt, *Modern cosmology*. Academic Press, 2020. https://doi.org/10.1016/C2017-0-01943-2
- [18] C. Knobel, "An introduction into the theory of cosmological structure formation," arXiv, 2012. https://doi.org/10.48550/arXiv.1208.5931
- [19] A. R. Liddle and D. H. Lyth, Cosmological inflation and large-scale structure. Cambridge university press, 2000. https://doi.org/10.1017/CBO9781139175180
- [20] J. A. Peacock, Cosmological physics. Cambridge university press, 1998. https://doi.org/10.1017/CBO9780511804533
- [21] A. Friedmann, "On the curvature of space," *Zeitschrift für Physik*, vol. 10, pp. 377–386, 1922. https://doi.org/10.1023/A:1026751225741
- [22] W. B. Bonnor, "Jeans' formula for gravitational instability," Monthly Notices of the Royal Astronomical Society, vol. 117, no. 1, pp. 104–117, 1957. https://doi.org/10.1093/mnras/117.1.104
- [23] H. Mo, F. van den Bosch, and S. White, *Galaxy Formation and Evolution*. Cambridge University Press, 2010. https://doi.org/10.1017/CBO9780511807244
- [24] K. S. Miller, "Complex random fields," *Information Sciences*, vol. 9, no. 3, pp. 185–225, 1975. https://doi.org/10.1016/0020-0255(75)90024-9

- [25] R. J. Adler, *The Geometry of Random Fields*. Society for Industrial and Applied Mathematics, 2010. https://doi.org/10.1137/1.9780898718980
- [26] P. Peebles, *The Large-scale Structure of the Universe*, ser. Princeton Series in Physics. Princeton University Press, 1980. https://doi.org/10.1063/1.2914699
- [27] P. Watts and P. Coles, "Statistical cosmology with quadratic density fields," Monthly Notices of the Royal Astronomical Society, vol. 338, no. 3, pp. 806–815, 2003. https://doi.org/10.1046/j.1365-8711.2003.06130.x
- [28] N. Aghanim et al., "Planck 2018 results. iv. diffuse component separation," Astronomy & Astrophysics, vol. 641, no. A4, 2020. https://doi.org/10.1051/0004-6361/201833881
- [29] E. R. Harrison, "Fluctuations at the threshold of classical cosmology," *Phys. Rev. D*, vol. 1, pp. 2726–2730, May 1970. https://doi.org/10.1103/PhysRevD.1.2726
- [30] Y. B. Zel'dovich and I. D. Novikov, "A hypothesis for the initial spectrum of perturbations in the metric of the friedmann model universe." *Soviet Astronomy*, vol. 13, pp. 754–757, 1970. https://articles.adsabs.harvard.edu/pdf/1970SvA....13. .754Z
- [31] P. J. Peebles and J. Yu, "Primeval adiabatic perturbation in an expanding universe," *The Astrophysical Journal*, vol. 162, pp. 815–836, 1970. https://articles.adsabs.harvard.edu/pdf/1970ApJ...162..815P
- [32] N. Aghanim et al., "Planck 2018 results. vi. cosmological parameters," Astronomy & Astrophysics, vol. 641, no. A6, 2020. https://doi.org/10.1051/0004-6361/201833910
- [33] N. Aghanim *et al.*, "Planck 2018 results. i. overview and the cosmological legacy of planck," *Astronomy & Astrophysics*, vol. 641, no. A1, 2020. https://doi.org/10.1051/0004-6361/201833880
- [34] D. J. Eisenstein and W. Hu, "Baryonic features in the matter transfer function," *The Astrophysical Journal*, vol. 496, no. 2, p. 605, 1998. https://doi.org/10.1086/305424
- [35] C. R. Harris *et al.*, "Array programming with NumPy," *Nature*, vol. 585, no. 7825, pp. 357–362, Sep. 2020. https://doi.org/10.1038/s41586-020-2649-2
- [36] S. G. Murray, "powerbox: A python package for creating structured fields with isotropic power spectra," *Journal of Open Source Software*, vol. 3, no. 28, p. 850, 2018. https://doi.org/10.21105/joss.00850
- [37] J. W. Cooley and J. W. Tukey, "An algorithm for the machine calculation of complex fourier series," *Mathematics of computation*, vol. 19, no. 90, pp. 297–301, 1965. https://doi.org/10.2307/2003354

- [38] G. C. Danielson and C. Lanczos, "Some improvements in practical fourier analysis and their application to x-ray scattering from liquids," *Journal of the Franklin Institute*, vol. 233, no. 5, pp. 435–452, 1942. https://doi.org/10.1016/S0016-0032(42)90624-0
- [39] W. H. Press, S. A. Teukolsky, W. T. Vetterling, and B. P. Flannery, *Numerical recipes* 3rd edition: The art of scientific computing. Cambridge university press, 2007. https://dl.acm.org/doi/10.5555/1403886
- [40] M. E. O'Neill, "Pcg: A family of simple fast space-efficient statistically good algorithms for random number generation," ACM Transactions on Mathematical Software, 2014. https://www.cs.hmc.edu/tr/hmc-cs-2014-0905.pdf
- [41] J. D. Hunter, "Matplotlib: A 2d graphics environment," Computing in Science & Engineering, vol. 9, no. 3, pp. 90–95, 2007. https://doi.org/10.1109/MCSE.2007.55
- [42] O. I. Ltd., "Animated gif editor and gif maker," 2012. https://ezgif.com/