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# Bibliography

- [1] J. Aaronson, *An Introduction to Infinite Ergodic Theory*, American Mathematical Society, 1997.
- [2] T. Adams, N. Friedman, and C.E. Silva. Rank-one weak mixing for nonsingular transformations, *Israel J. Math.* **102** (1997), 269–281.
- [3] S. Alpern and V.S. Prasad, *Typical dynamics of volume preserving homeomorphisms*, Cambridge, 2000.
- [4] V.I. Arnold and A. Avez, *Ergodic Problems of Classical Mechanics*, W.A. Benjamin, 1968.
- [5] P. Billingsley, *Ergodic Theory and Information*, Wiley, 1965.
- [6] P. Billingsley, *Probability and Measure*, Wiley, 1986.
- [7] G.D. Birkhoff, *Collected Mathematical Papers*, 3 vols., American Mathematical Society, New York, 1950.
- [8] A. Boyarski and P. Gora, *Laws of Chaos: Invariant Measures and Dynamical Systems in One Dimension*, Birkhäuser, 1997.
- [9] A. Bowles, L. Fidkowski, A. Marinello, and C.E. Silva, Double ergodicity of nonsingular transformations and infinite measure-preserving staircase transformations, *Illinois J. Math.* **45** (2001), no. 3, 999–1019.
- [10] M. Brin and G. Stuck, *Introduction to Dynamical Systems*, Cambridge, 2002.
- [11] A. Bruckner, J. Bruckner, and B. Thomson, *Real Analysis*, Prentice Hall, 1997.
- [12] J. Bryk and C.E. Silva, Measurable dynamics of simple  $p$ -adic polynomials, *Amer. Math. Monthly* **112** (2005), no. 3, 212–232.

- [13] R.V. Chacón, Weakly mixing transformations which are not strongly mixing, *Proc. Am. Math. Soc.* **22** (1969), 559–562.
- [14] D.C. Cohn, *Measure Theory*, Birkhäuser, 1980.
- [15] I.P. Cornfeld, S.V. Fomin, and Ya. G. Sinai, *Ergodic Theory*, Springer-Verlag, 1982.
- [16] K. Dajani and C. Kraaikamp, *Ergodic Theory of Numbers*, Mathematical Association of America, 2002.
- [17] S. Day, B. Grivna, E. McCartney, and C.E. Silva, Power weakly mixing infinite transformations, *New York J. Math.* **5** (1999), 17–24.
- [18] R.M. Dudley, *Real Analysis and Probability*, Wadsworth & Brooks/Cole, 1989.
- [19] N. Friedman, *Introduction to Ergodic Theory*, Van Nostrand Reinhold, 1970.
- [20] N. Friedman, Mixing on sequences, *Canad. J. Math.* **35** (1983), no. 2, 339–352.
- [21] N. Friedman, Replication and stacking in ergodic theory, *Amer. Math. Monthly* **99** (1992), no. 1, 31–41.
- [22] N. Friedman and J.L. King, Rank one lightly mixing, *Israel J. of Math.* **73** (1991), no. 3, 281–288.
- [23] H. Furstenberg, Strict ergodicity and transformation of the torus, *Amer. J. Math.* **83** (1961), 573–601.
- [24] H. Furstenberg, *Recurrence in Ergodic Theory and Combinatorial Number Theory*, Princeton Univ. Press, 1981.
- [25] H. Furstenberg and B. Weiss, The finite multipliers of infinite ergodic transformations, *The Structure of Attractors in Dynamical Systems*, Lecture Notes in Mathematics, Vol. 668, Springer, Berlin, 1978, 127–132.
- [26] A. Hajian and S. Kakutani, Weakly wandering sets and invariant measures, *Trans. Amer. Math. Soc.* **110** (1964), 136–151.
- [27] A. Hajian and S. Kakutani, An example of an ergodic measure, preserving transformation defined on an infinite measure space, *Contributions to Ergodic Theory and Probability*, Lecture Notes in Mathematics, vol. 160, Springer, Berlin, 1970, 45–52.
- [28] P.R. Halmos, *Measure Theory*, Van Nostrand, 1950.
- [29] P.R. Halmos, *Lectures on Ergodic Theory*, Chelsea, 1956.
- [30] P.R. Halmos, *Naive Set Theory*, Van Nostrand, 1960.
- [31] B. Hasselblatt and A. Katok, *A First Course in Dynamics*, Cambridge, 2003.

- [32] J. Hawkins and C.E. Silva, Characterizing mildly mixing actions by orbit equivalence of products, *New York J. Math.* **3A** (1997/98), Proceedings of the New York Journal of Mathematics Conference, June 9–13, (1997), 99–115.
- [33] E. Hopf, *Ergodentheorie*, Verlag, 1937.
- [34] F. Jones, *Lebesgue Integration on Euclidean Space*, Jones and Bartlett, 1993.
- [35] R.L. Jones, New proofs for the maximal ergodic theorem and the Hardy-Littlewood maximal theorem, *Proc. Amer. Math. Soc.* **87** (1983), no. 4, 681–684.
- [36] A. del Junco, A simple measure-preserving transformation with trivial centralizer, *Pacific J. Math.* **79** (1978), 357–362.
- [37] S. Kakutani, Induced measure-preserving transformations, *Proc. Japan Acad.* **19** (1943), 635–641.
- [38] S. Kakutani, Examples of ergodic measure preserving transformations which are weakly mixing but not strongly mixing, *Recent advances in topological dynamics*, Lecture Notes in Mathematics, Vol. 318, Springer, Berlin, 1973, 143–149.
- [39] A. Katok and B. Hasselblatt, *Introduction to the Modern Theory of Dynamical Systems*, Cambridge, 1995.
- [40] A.B. Katok and A.M. Stepin, Approximation in ergodic theory, *Russian Mathematical Surveys* **22** (1967), 77–102.
- [41] M. Keane and K. Petersen, *Easy and Nearly Simultaneous Proofs of the Ergodic Theorem and Maximal Ergodic Theorem*, IMS Lecture Notes–Monograph Series, Vol. 48, Inst. Math. Stat., 2006, 248–251.
- [42] A.Y. Khrennikov and M. Nilson, *P-adic deterministic and random dynamics*, Kluwer Academic Publishers, Dordrecht, 2004.
- [43] B. Kra, The Green-Tao theorem on arithmetic progressions in the primes: an ergodic point of view. *Bulletin Amer. Math. Soc. (N. S.)* **43** (2006), 3–23.
- [44] S. Krantz, *Real Analysis and Foundations*, CRC Press, 1991.
- [45] U. Krengel, *Ergodic Theorems*, de Gruyter Studies in Mathematics, Vol. 6, Walter de Gruyter & Co., Berlin-New York, 1985.
- [46] D. Lind and B. Marcus, *An introduction to Symbolic Dynamics and Coding*, Cambridge University Press, 1995.
- [47] D. Maharam, On orbits under ergodic measure-preserving transformations, *Trans. Amer. Math. Soc.* **119** (1965), 51–66.
- [48] R. Mañé, *Ergodic Theory and Differentiable Dynamics*, Springer-Verlag, 1987.

- [49] F. Morgan, *Real Analysis*, Amer. Math. Soc., 2005.
- [50] D. Witte Morris, *Ratner's Theorems on Unipotent Flows*, Univ. of Chicago Press, 2005.
- [51] E. Muehlegger, A. Raich, C.E. Silva, and W. Zhao, Lightly mixing on dense algebras, *Real Anal. Exchange* **23** (1997/8), 259–266.
- [52] M.G. Nadkarni, *Basic Ergodic Theory*, Second Edition, Birkh"auser, 1995.
- [53] D. Ornstein, *Ergodic Theory, Randomness and Dynamical Systems*, Yale Univ. Press, 1974.
- [54] D. Ornstein and B. Weiss, The Shannon-McMillan-Breiman theorem for a class of amenable groups, *Israel J. Math.* **44** (1983), no. 1, 53–60.
- [55] J. Oxtoby, Ergodic sets, *Bull. Amer. Math. Soc.* **58** (1952), 116–136.
- [56] J. Oxtoby, *Measure and Category*, Second Edition, Springer-Verlag, 1980.
- [57] W. Parry, *Topics in Ergodic Theory*, Cambridge, 1981.
- [58] K. Petersen, *Ergodic Theory*, Cambridge, 1983.
- [59] V.A. Rokhlin, On the fundamental ideas of measure theory, *Mat. Sb.* **25**, 107-50. Amer. Math. Soc. Transl. **71**, 1952.
- [60] J.M. Rosenblatt and M. Wierdl, Pointwise ergodic theorems via harmonic analysis, *Ergodic theory and its connections with harmonic analysis (Alexandria, 1993)*, London Math. Soc. Lecture Note Ser., 205, 3–151, Cambridge, 1995.
- [61] H.L. Royden, *Real Analysis*, Macmillan, 1988.
- [62] W. Rudin, *Principles of Mathematical Analysis*, MacGraw-Hill, 1976.
- [63] D. Rudolph, *Fundamentals of Measurable Dynamics*, Oxford, 1990.
- [64] D. Rudolph,  $\times 2$  and  $\times 3$  invariant measures and entropy, *Ergodic Theory Dynam. Systems* **10** (1990), no. 2, 395–406.
- [65] P.C. Shields, *The Ergodic Theory of Discrete Sample Paths*, Amer. Math. Soc., 1996.
- [66] C.E. Silva and P. Thiullen, The subadditive ergodic theorem and recurrence properties of Markovian transformations, *J. Math. Anal. Appl.* **154** (1991), no. 1, 83–99.
- [67] E.M. Stein and R. Shakarchi, *Real Analysis*, Princeton, 2005.
- [68] S.J. Taylor, *Introduction to Measure and Integration*, Cambridge, 1966.
- [69] P. Walters, *An Introduction to Ergodic Theory*, Springer-Verlag, 1981.
- [70] R. Wheeden and A. Zygmund, *Measure and Integral: An Introduction to Real Analysis*, Dekker, New York-Basel, 1977.
- [71] D. Williams, *Probability with Martingales*, Cambridge, 2004.