

Advanced theory of dynamical systems, Spring 2021

Topics for presentations

Student presentations, to be delivered on May 4 or May 11, are for cca. 30 minutes.

1. Lasota-Yorke example of a transformation without absolutely continuous invariant measure ([1], section 5.3) – Vilma Orgoványi, May 4
2. Ergodic properties of the Gauss map and continued fraction expansions ([2], section 4.8) – Mátyás Susits, May 4
3. Circle homeomorphisms ([2], section 7.1, possibly 7.2) – Loránd Nagy, May 11
4. Proving the Central Limit Theorem for expanding maps with spectral methods ([3], sections 1-2-3, possibly 4, or [1], section 8.5) – Tamás Havas and Dániel Keliger, May 11

References

- [1] BOYARSKI, A.; GÓRA, P.: *Laws of Chaos, Invariant Measures and Dynamical Systems in One Dimension*, Birkhäuser, 1997
- [2] BRIN, M.; STUCK, G.: *Introduction to Dynamical Systems*; Cambridge University Press, 2002
- [3] GOUËZEL, S.: *Limit theorems in dynamical systems using the spectral method*; in Proceedings of Symposia in Pure Mathematics, Volume 89, 2015 (preprint available from the author's webpage)