

## Published papers:

1. **Chunlin Liu**, Changlin Wang and Weisheng Wu. Relative sequence entropy for amenable group actions. *J. Differential Equations*. 445 (2025), 113582.
2. **Chunlin Liu**, Xiangtong Wang and Leiye Xu. Sequence entropy and IT-tuples for minimal group actions. *Adv. Math.* 467 (2025), Paper No. 110183.
3. **Chunlin Liu**. Directional weak mixing for  $\mathbb{Z}^q$ -actions. *Fund. Math.* 268 (2025), no. 1, 73–100.
4. **Chunlin Liu** and Leiye Xu. Directional Pinsker algebra and its applications. *J. Math. Phys.* 65 (2024), no. 10, Paper No. 102702, 12 pp.
5. **Chunlin Liu**. Positive density subsets in amenable groups. *J. Dynam. Differential Equations*. 36 (2024), 2283–2288.
6. **Chunlin Liu**, Feng Tan and Jianhua Zhang. Mean Li-Yorke chaos along any infinite sequence for infinite-dimensional random dynamical systems. *J. Differential Equations*. 403 (2024), 548–575.
7. **Chunlin Liu** and Fagner B. Rodrigues. Metric Mean Dimension via Preimage Structures. *J. Stat. Phys.* 191 (2024), no. 2, 31.
8. Jie Li, **Chunlin Liu**, Siming Tu and Tao Yu. Sequence entropy tuples and mean sensitive tuples. *Ergodic Theory Dynam. Systems* 44 (2024), no. 1, 184–203.
9. **Chunlin Liu** and Xue Liu. The irregular set for maps with almost weak specification property has full metric mean dimension. *J. Math. Anal. Appl.* 534 (2024), no. 1, Paper No. 128043, 26 pp.
10. **Chunlin Liu** and Leiye Xu. Directional Kronecker algebra for  $\mathbb{Z}^q$ -actions. *Ergodic Theory Dynam. Systems* 43 (2023), no. 4, 1324–1350.
11. **Chunlin Liu** and Xiaomin Zhou. Directional entropy dimension of topological dynamical systems. *J. Differential Equations* 333 (2022), 332–360.
12. **Chunlin Liu** and Kesong Yan. Sequence entropy for amenable group actions. *Phys. Scripta* DOI: 10.1088/1402-4896/ad0f05 (Publish online)
13. **Chunlin Liu**, Rongzhong Xiao and Leiye Xu. Pinsker  $\sigma$ -algebra character and mean Li-Yorke chaos. *J. Dynam. Differential Equations*. <https://doi.org/10.1007/s10884-024-10381-8> (Publish online)
14. **Chunlin Liu** and Fei Wang. Parameter identification of genetic regulatory network with time-varying delays via adaptive synchronization method. *Adv. Difference Equ.* Paper No. 127, 15 pp.<sup>2</sup>

## Preprints:

1. Lino Haupt, Tobias Jäger and **Chunlin Liu**. A note on multivariate diam mean equicontinuity and frequent stability. (preprint)  
arXiv:2506.23313
2. Pintu Debnath, Sayan Goswami and **Chunlin Liu**. The Interplay between Additive and Multiplicative Central Sets Theorems. (preprint)  
arXiv:2506.00369

---

<sup>1</sup>All authors are assumed to have contributed equally and are listed alphabetically.

<sup>2</sup>This paper was published in my undergraduate studies and is not my current research interest.

3. Chunrong Feng, Wen Huang, **Chunlin Liu** and Huaizhong Zhao. Ergodicity and Mixing of invariant capacities and applications. (preprint)  
arXiv:2407.18853
  4. Chunrong Feng, Wen Huang, **Chunlin Liu** and Huaizhong Zhao. Finite ergodic components for upper probabilities. (preprint)  
arXiv:2411.02030
  5. Wen Huang, **Chunlin Liu**, Shige Peng and Baoyou Qu. Ergodicity and Mixing of Sublinear Expectation System and Applications. (preprint)  
arXiv:2411.03512
  6. **Chunlin Liu**, Leiye Xu and Shuhao Zhang. Independence, sequence entropy and mean sensitivity for invariant measures. (preprint)  
arXiv:2501.08069
  7. **Chunlin Liu**, Leiye Xu and Shuhao Zhang. Independence and mean sensitivity in minimal systems under group actions. (preprint)  
arXiv:2501.15622
  8. **Chunlin Liu**, Baoyou Qu, Jinxiang Yao and Yanpeng Zhi. Unstable Invariant Measures and Connecting Orbits of Cooperative McKean-Vlasov SDEs. (preprint)  
arXiv:2501.15622
  9. **Chunlin Liu** and Leiye Xu. Directional bounded complexity, mean equicontinuity and discrete spectrum for  $\mathbb{Z}^q$ -actions. (preprint)  
arXiv:2105.03132
  10. Lucas Backes, **Chunlin Liu** and Fagner B. Rodrigues. Variational principles for metric mean dimension with potential of level sets. (preprint)  
arXiv:2407.16548
  11. **Chunlin Liu**. Mean Li–Yorke chaos along some sequence under amenable group actions. (preprint)  
DOI: 10.13140/RG.2.2.30311.15525
-