

## Publication List

(\* means corresponding author, <sup>†</sup> means equal contribution)

### Journal articles

6. Zeng, H., Zhong, W., and Xu, X. (2025). Transfer learning for spatial autoregressive models with application to U.S. presidential election prediction. *Journal of Business & Economic Statistics*, accepted.
5. Liu, K., Sun, T., Zeng, H., Zhang, Y, Pun, C.-M., and Vong, C.-M. (2025). Spatial-aware conformal prediction for trustworthy hyperspectral image classification. *IEEE Transactions on Circuits and Systems for Video Technology*.
4. Zeng, H., Wan, C., Zhong, W., and Liu, T. (2024). Robust integrative analysis via quantile regression with homogeneity and sparsity. *Journal of Statistical Planning and Inference*.
3. Wan, C.<sup>†</sup>, Zeng, H.\*<sup>†</sup>, Zhang, W.<sup>†</sup>, Zhong, W.<sup>†</sup>, and Zou, C.<sup>†</sup> (2024). Data-driven estimation for multithreshold accelerated failure time model. *Scandinavian Journal of Statistics*.
2. Chen, W., Zeng, H., Wang, X., et al. (2022). A structural equation modeling approach to determine the correlation between the vertical and sagittal skeletal patterns and posterior basal bones mismatching in patients with skeletal Class III malocclusion. *American Journal of Orthodontics and Dentofacial Orthopedics*.
1. Chen, W., Zeng, H., Sun, L., et al. (2021). Match of the bimaxillary basal bone arches and its variations among individuals. *Scanning* 2021(1): 9625893.

### Conference papers

3. Zeng, H.<sup>†</sup>, Liu, K.<sup>†</sup>, Jing, B., and Wei, H. (2025). Parametric scaling law of tuning bias in conformal prediction. *Forty-Second International Conference on Machine Learning*.
2. Xi, H., Liu, K., Zeng, H., Sun, W., and Wei, H. (2025). Robust online conformal prediction under uniform label noise. *Thirty-Ninth Annual Conference on Neural Information Processing Systems*.
1. Liu, K., Zeng, H., Huang, J., Zhuang, H., Vong, C.-M., and Wei, H. (2025). C-Adapter: Adapting deep classifiers for efficient conformal prediction sets. *Twenty-Eighth European Conference on Artificial Intelligence*.

### Working papers

10. Zhang, J., Yue, Y., Zhong, W., and Zeng, H.\* (2025). Robust estimation of grouped network vector autoregression: An empirical analysis based on China air quality data. Submitted to *Statistical Research*.
9. Huang, H., Liao, W., Xi, H., Zeng, H., Zhao, M., and Wei, H. (2025). Selective labeling with false discovery rate control. Submitted to ICLR 2026.

8. Liu, Z., Zeng, H., Huang, W., and Wei, H. (2025). High-power training data identification with provable statistical guarantees. Submitted to ICLR 2026.
7. Zeng, H.<sup>†</sup>, Huang, J.<sup>†</sup>, Jing, B., Wei, H., and An, B. (2025). PAC reasoning: Controlling the performance loss for efficient reasoning. Submitted to ICLR 2026.
6. Gao, H., Zhang, F., Zeng, H., Meng, D., Jing, B., and Wei, H. (2025). Exploring imbalanced annotations for effective in-context learning. Submitted to ICLR 2026.
5. Zeng, H., Jing, B., and Wei, H. (2025). Conditional tuning in conformal prediction. Working paper.
4. Zeng, H., Jing, B., and Wei, H. (2025). The double descent of conformal prediction. Working paper.
3. Zeng, H., Liu, K., Jing, B., and Wei, H. (2025). On tuning bias in conformal prediction. Working paper.
2. Zeng, H., and Huang, J. (2025). PAC accelerate: A statistically guaranteed acceleration method for large generative models. Working paper.
1. Zeng, H., and Huang, J. (2025). Group-conditional PAC reasoning: Groupwise efficient reasoning with statistical guarantees. Working paper.

## Software

1. Wan, C., Zeng, H., Zhong, W., and Zou, C. (2023). MTAFT: Data-driven estimation for multi-threshold accelerate failure time model. <https://cran.r-project.org/web/packages/MTAFT/index.html>.