Context-Adaptive Statistical Inference: Recent Progress, Open Problems, and Opportunities for Foundation Models

Authors

- **Ben Lengerich**
  ⓘD [0000-0001-8690-9554](#) · ⓖ [blengerich](#) · 🐦 [ben_lengerich](#)
  Department of Statistics, University of Wisconsin-Madison · Funded by None

- **Jane Roe** ✉
  ⓘD [XXXX-XXXX-XXXX-XXXX](#) · ⓖ [janeroe](#)
  Department of Something, University of Whatever; Department of Whatever, University of Something

✉ — Correspondence possible via [GitHub Issues](#) or email to Jane Roe <jane.roe@whatever.edu>.

Abstract

Context-adaptive inference offers a promising way to improve statistical methods, particularly by using foundation models to provide context. Recent progress is reviewed, key challenges are identified, and practical opportunities for integration are explored. By combining these approaches, we can unlock new possibilities for making statistical methods more effective and adaptable in real-world scenarios, driving meaningful advances in both research and practice.

References