

Differentially Private Hypothesis Testing

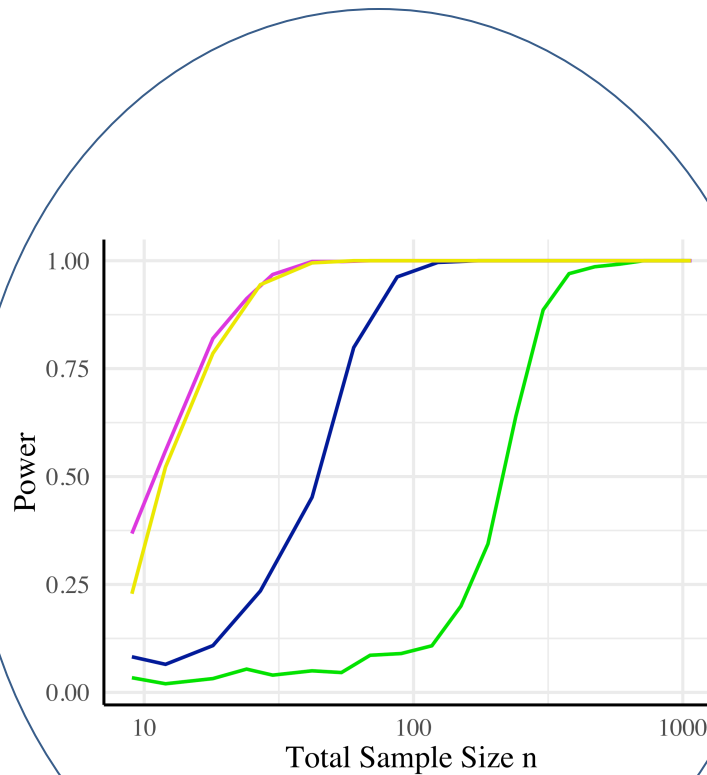


Challenge:

- Hypothesis tests are crucial to lots of scientific research
- They have largely been ignored by differential privacy researchers

Solution:

- We develop many effective tests
- Concrete power analysis for low database size



Scientific Impact:

- We show that approximating the standard (public) test is not always ideal
- Both CS and statistics communities are target audiences

Broader Impact:

- These tests are built with practical data analysis in mind and can be used by researchers in other fields
- Undergraduates are deeply involved at all steps of the research process

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