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Differential Privacy Mechanisms for Gentle Measurement

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Differential privacy is a robust definition of privacy that provides mathematical guarantees to participants in a statistical database that their privacy would not be compromised. It has its roots in the field of theoretical computer science. It has since proven to be a golden standard of data privacy. Recently, the connection between this privacy framework and quantum information science has been explored. In this work, we analyze and explore the connection between differential privacy and gentle measurement, using two differential privacy mechanism, namely; Exponential and Poisson-Binomial mechanisms. The results obtained from this work provide evidence for viability of investigating the connection between differential privacy mechanisms and gentle measurement.

Apply to be considered for a student award (Yes / No)?

No

Level for award (Hons, MSc, PhD, N/A)?

N/A

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