

# A Simplified Approach for Tradeoffs in Differential Privacy

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## Abstract

In this work, we move towards a better understanding of the  $\epsilon, \delta$  tradeoff in differential privacy. We find sufficient conditions for DP in a simple manner. Among the applications, we apply Cauchy and more generally, Student's  $t$  noise for DP instead of Gaussian or Laplace, and we provide theoretical guarantees, as well as experiments showcasing better tradeoffs observed in the considered heavy-tailed mechanism.