

PRIVATE SYNTHETIC DATA

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We study the extent to which private synthetic data can accurately and uniformly preserve a given class of queries. For the class of 1-Lipschitz queries on hypercubes, we find the optimal accuracy up to a universal constant. We also study this question for other classes of queries.

Joint work with Thomas Strohmer (UC Davis), Roman Vershynin (UC Irvine), Konstantin Donhauser (ETH Zurich), Johan Lokna (ETH Zurich), Amartya Sanyal (ETH Zurich), Robert Honig (ETH Zurich) and Fanny Yang (ETH Zurich).