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**Selective inference with a randomized response**

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Inspired by sample splitting and the reusable holdout introduced in the field of differential privacy, we consider selective inference with a randomized response. Using a randomized response can ensure that the leftover information of Fithian et al.(2014) is bounded below ensuring that selective intervals are better behaved than without randomization. Under independent sampling, we prove a selective (or privatized) central limit theorem that transfers procedures valid under asymptotic normality without selection to their corresponding selective counterparts. This allows selective inference in the nonparametric settings. Finally, we describe a method for selective inference following cross-validation using slightly more randomization than the split into groups of standard cross-validation. We focus on the classical asymptotic setting, leaving the interesting high-dimensional asymptotic questions for future work.