



# Multistage tests of multiple hypotheses

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Conventional multiple hypothesis tests use step-up, step-down, or closed testing methods to control the overall error rates. We will discuss marrying these methods with adaptive multistage sampling rules and stopping rules to perform efficient multiple hypothesis testing in sequential experimental designs. The result is a multistage step-down procedure that adaptively tests multiple hypotheses while preserving the family-wise error rate, and extends Holm's (1979) step-down procedure to the sequential setting, yielding substantial savings in sample size with small loss in power.

Subjects: **Methodology (stat.ME)**; Statistics Theory (math.ST)

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