

Specify simulation variables; Sample standard deviations  
and covariance matrices from real data



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graph TD; A[Specify simulation variables; Sample standard deviations and covariance matrices from real data] --> B[Generate one sample]; A --> C[Generate many samples]; B --> D[Estimate sigma_g^2 for generated sample]; D --> E[Estimate power based on formula]; C --> F[Perform t-test for each sample]; F --> G[Pool test results to calculate true power]; E --> H[Compare estimated and true power curve]; G --> H;
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Generate one sample

Estimate  $\sigma_g^2$  for generated  
sample

Estimate power based on  
formula

Generate many samples

Perform t-test for each  
sample

Pool test results to calculate  
true power

Compare estimated and  
true power curve