

# Two-Step Kernel Method Power Analysis (Dist1=Hamming or Jaccard, Dist2=Aitchison): 20 Cell Types with 4 Rare Cell Types

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## 0.1 Zero Imputation Method vs Two-Step Kernel Method (Dist1 = Hamming, Dist 2 = Aitchison) for 20 Cell Types with 4 Rare Cell Types.

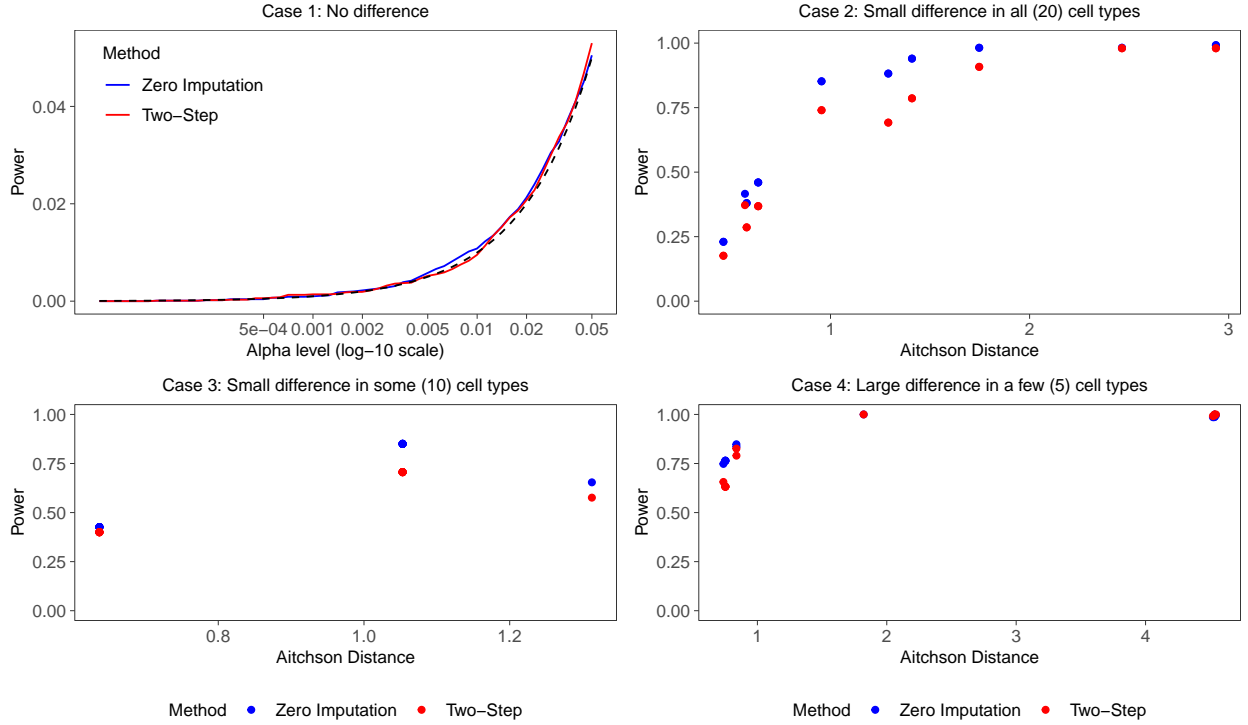


Figure 1: Type I error and power plots for zero-imputation method and two-step kernel method (Dist1 = Hamming, Dist 2 = Aitchison). Maxeffects used were: case 2 = 0.004, case 3 = 0.004 and case 4 = 0.009

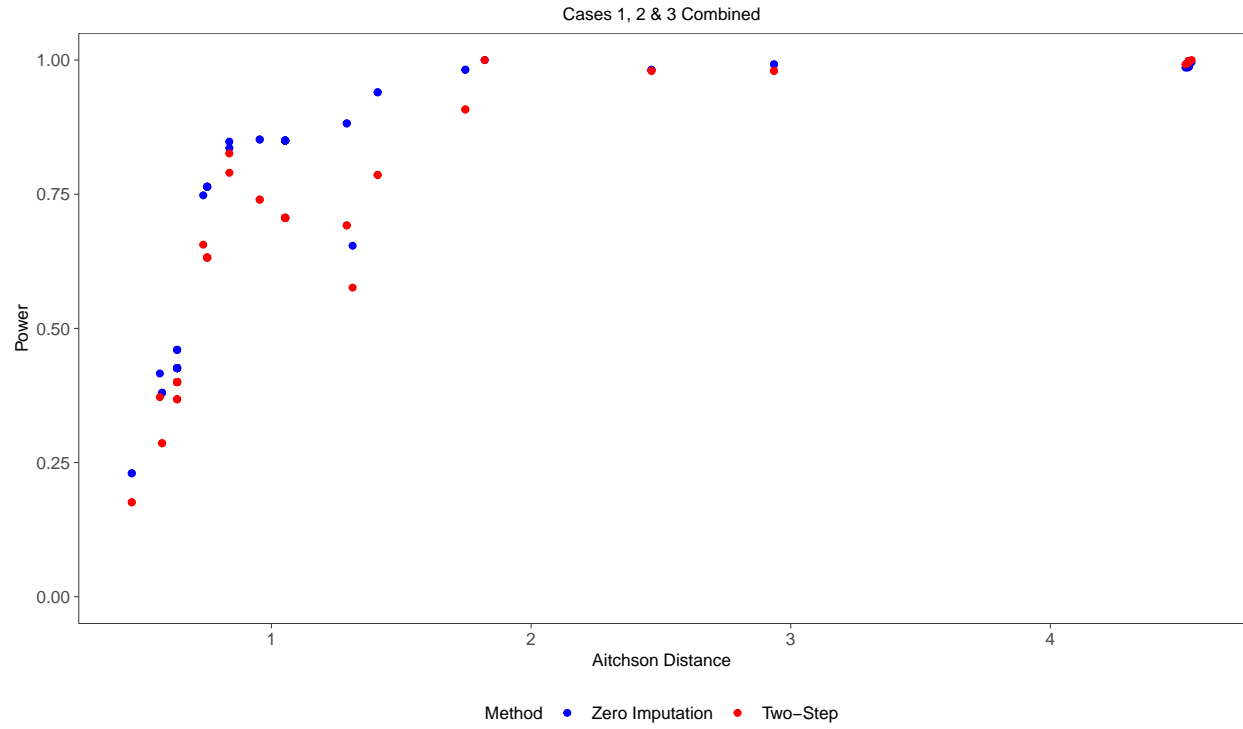


Figure 2: Power plot for all 3 cases for zero-imputation method and two-step kernel method (Dist1 = Hamming, Dist 2 = Aitchison). Maxeffects used were: case 2 = 0.004, case 3 = 0.004 and case 4 = 0.009

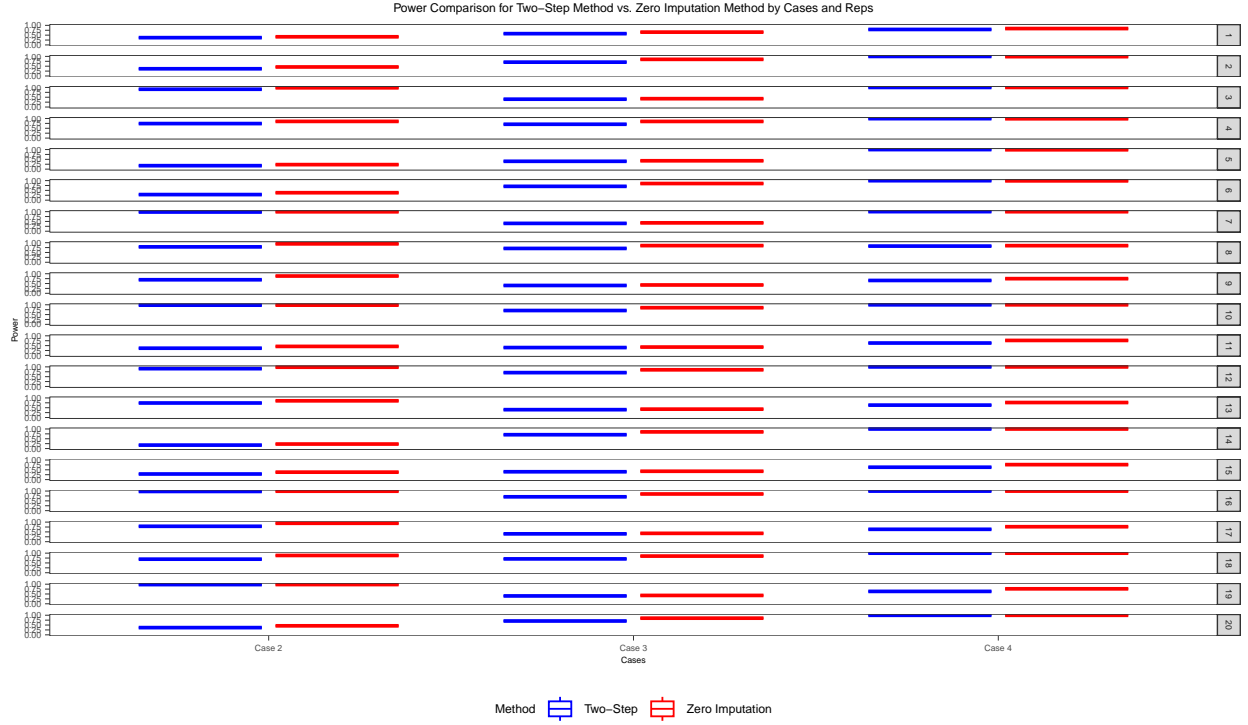


Figure 3: Power plot for all 3 cases for zero-imputation method and two-step kernel method (Dist1 = Hamming, Dist 2 = Aitchison). Maxeffects used were: case 2 = 0.004, case 3 = 0.004 and case 4 = 0.009

## 0.2 Zero Imputation Method vs Two-Step Kernel Method (Dist1 = Jaccard, Dist 2 = Aitchison) for 20 Cell Types with 4 Rare Cell Types.

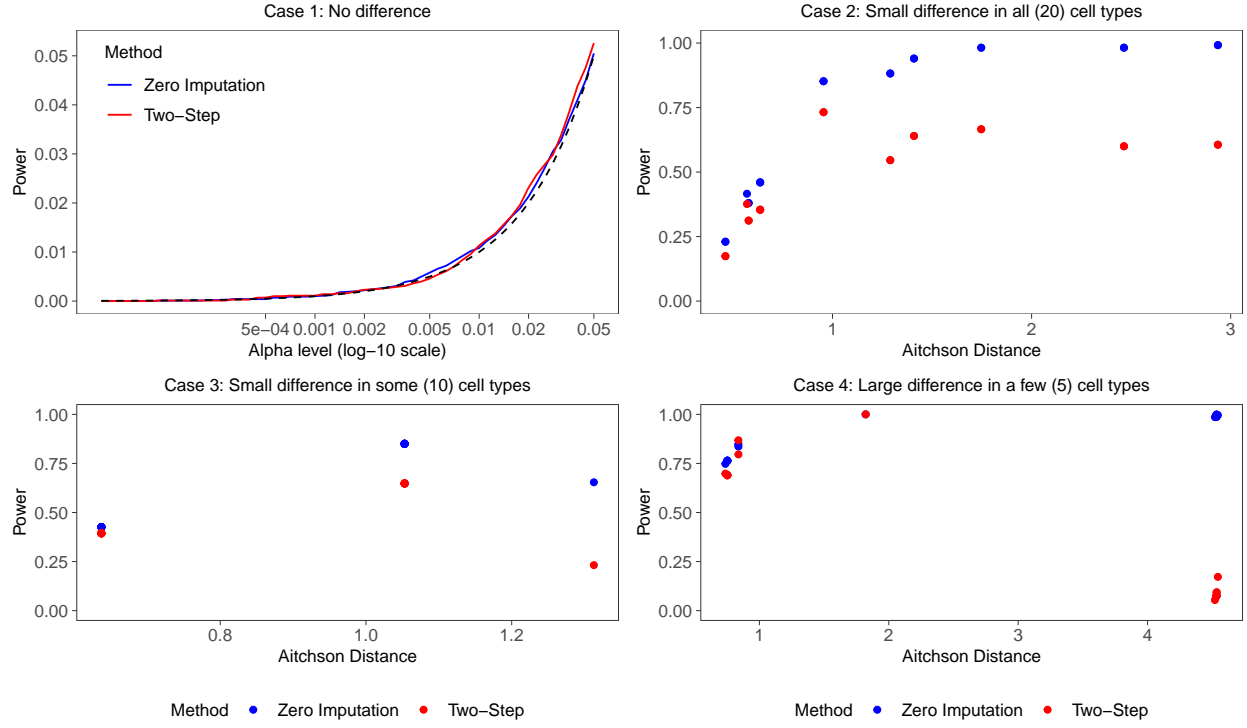


Figure 4: Type I error and power plots for zero-imputation method and two-step kernel method (Dist1 = Jaccard, Dist 2 = Aitchison). Maxeffects used were: case 2 = 0.004, case 3 = 0.004 and case 4 = 0.009

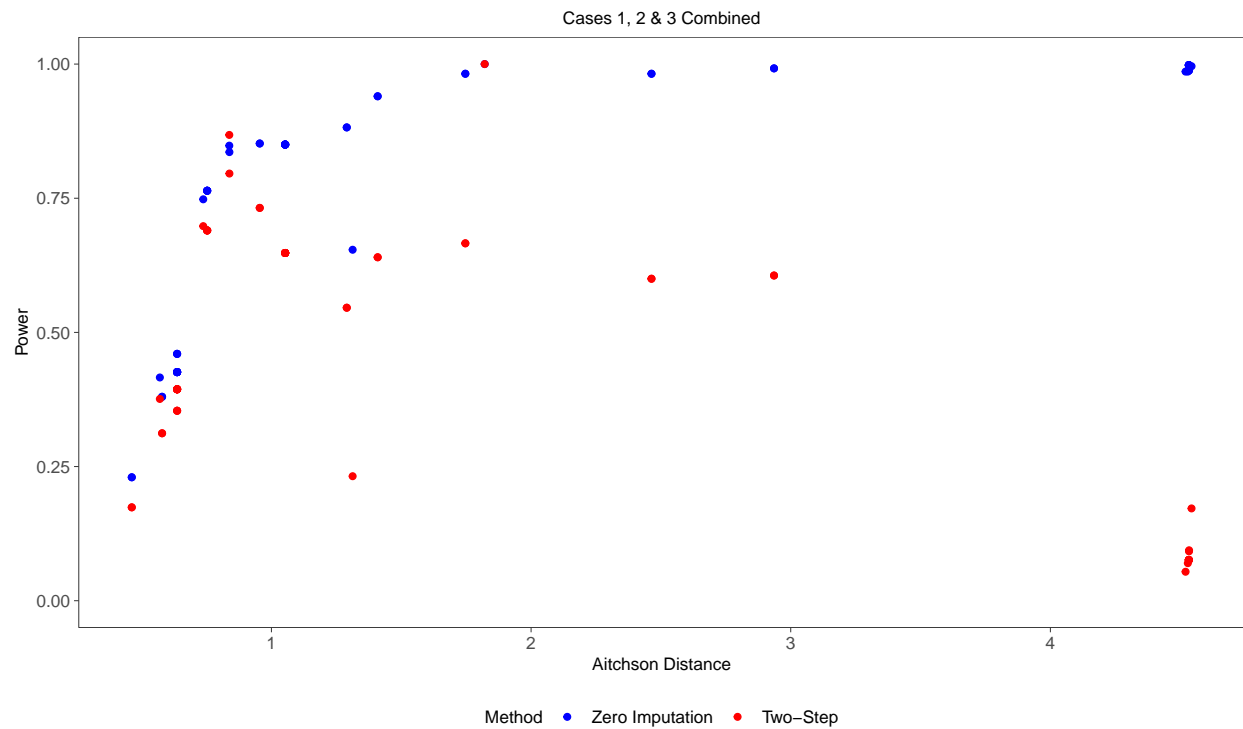


Figure 5: Power plot for all 3 cases for zero-imputation method and two-step kernel method (Dist1 = Jaccard, Dist 2 = Aitchison). Maxeffects used were: case 2 = 0.004, case 3 = 0.004 and case 4 = 0.009

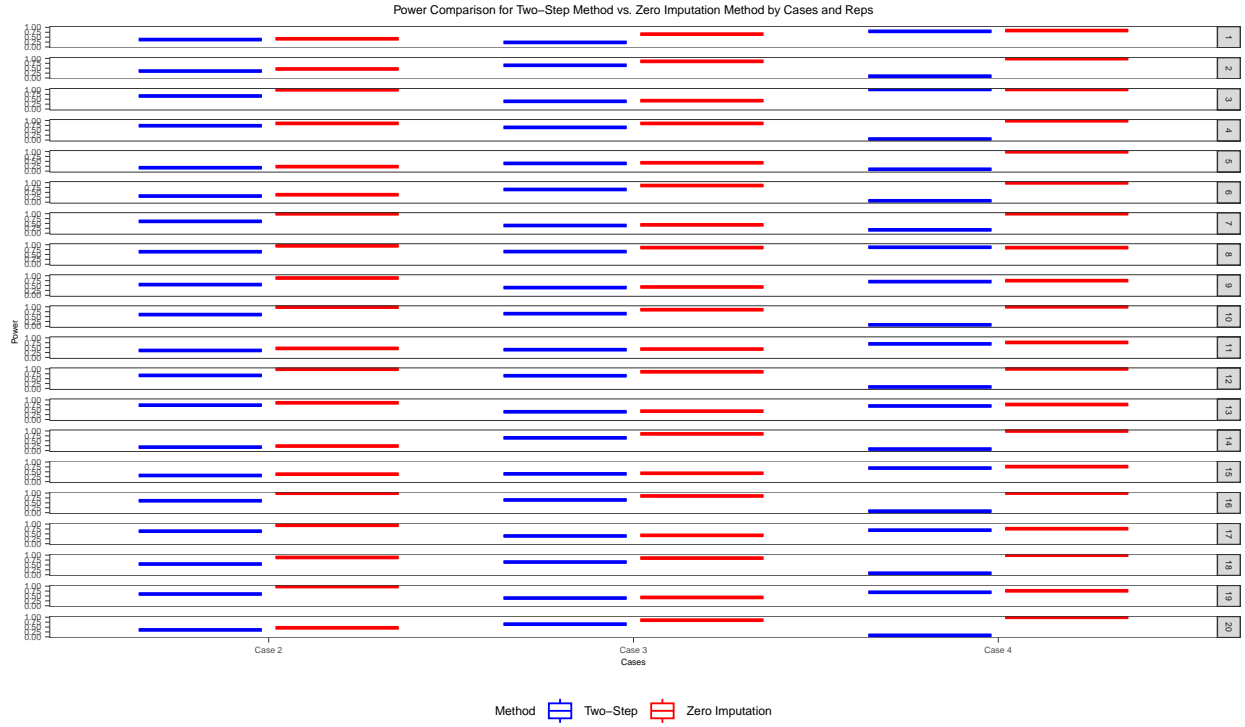


Figure 6: Power plot for all 3 cases for zero-imputation method and two-step kernel method (Dist1 = Jaccard, Dist 2 = Aitchison). Maxeffects used were: case 2 = 0.004, case 3 = 0.004 and case 4 = 0.009