

Table 5: Simulated power with interference in a randomized experiment in a single block, $B = 1$, of size $N = 250$, when 50% of trials are successful, $\lambda = 0.5$. The case $\nu = 1$ is the null hypothesis of no effect and hence no interference among effects, so the simulation is estimating the true size of a test with nominal level 0.05. The statistic $k = 2$ is the Mann-Whitney-Wilcoxon statistic. The highest power in a non-null row is in **bold**.

| | $\lambda = 0.5, N = 250$ | | | |
|------------------------------|------------------------------------|---------------|---------------|----------|
| | No Autoregressive Errors Added | | | |
| | $F(.)$ is Normal | | | |
| | t-test | $k = 2$ | $k = 5$ | $k = 10$ |
| $\nu = 1$, No effect | 0.0434 | 0.0462 | 0.0432 | 0.0412 |
| $\nu = 10$, No interference | 0.9992 | 0.9998 | 1.0000 | 0.9856 |
| $\nu = 10$, Interference A | 0.8028 | 0.8014 | 0.8928 | 0.7328 |
| $\nu = 10$, Interference B | 0.8006 | 0.7968 | 0.8810 | 0.7274 |
| $\nu = 10$, Interference C | 0.3056 | 0.2830 | 0.3704 | 0.2806 |
| $\nu = 10$, Interference D | 0.1174 | 0.1060 | 0.1238 | 0.0896 |
| | $F(.)$ is the t-distribution, 2 df | | | |
| | t-test | $k = 2$ | $k = 5$ | $k = 10$ |
| $\nu = 1$, No effect | 0.0410 | 0.0448 | 0.0430 | 0.0436 |
| $\nu = 10$, No interference | 0.9542 | 1.0000 | 1.0000 | 0.9854 |
| $\nu = 10$, Interference A | 0.6610 | 0.8130 | 0.9004 | 0.7392 |
| $\nu = 10$, Interference B | 0.6510 | 0.7998 | 0.8892 | 0.7316 |
| $\nu = 10$, Interference C | 0.2464 | 0.2838 | 0.3652 | 0.2704 |
| $\nu = 10$, Interference D | 0.0966 | 0.1188 | 0.1302 | 0.0984 |
| | Autoregressive Errors Added | | | |
| | $F(.)$ is Normal | | | |
| | t-test | $k = 2$ | $k = 5$ | $k = 10$ |
| $\nu = 1$, No effect | 0.0494 | 0.0518 | 0.0458 | 0.0476 |
| $\nu = 10$, No interference | 0.9714 | 0.9744 | 0.9454 | 0.7670 |
| $\nu = 10$, Interference A | 0.4868 | 0.4824 | 0.4528 | 0.2976 |
| $\nu = 10$, Interference B | 0.4874 | 0.4772 | 0.4572 | 0.3002 |
| $\nu = 10$, Interference C | 0.1622 | 0.1562 | 0.1498 | 0.0892 |
| $\nu = 10$, Interference D | 0.0786 | 0.0746 | 0.0726 | 0.0524 |
| | $F(.)$ is the t-distribution, 2 df | | | |
| | t-test | $k = 2$ | $k = 5$ | $k = 10$ |
| $\nu = 1$, No effect | 0.0442 | 0.0524 | 0.0476 | 0.0476 |
| $\nu = 10$, No interference | 0.9506 | 0.9968 | 0.9976 | 0.9670 |
| $\nu = 10$, Interference A | 0.5826 | 0.6602 | 0.7494 | 0.6184 |
| $\nu = 10$, Interference B | 0.5810 | 0.6534 | 0.7316 | 0.5926 |
| $\nu = 10$, Interference C | 0.1996 | 0.2218 | 0.2502 | 0.1826 |
| $\nu = 10$, Interference D | 0.0866 | 0.0928 | 0.0950 | 0.0704 |