

Dependent test statistics - 1,000 tests

We generated dependent test statistics. We used multivariate normal and t distributions (10 df for the t-distribution). We considered block-diagonal matrices with the number of blocks equal to 20 or 10 and the within-block correlation, ρ , of 0.2, 0.5, or 0.9. Thus, 20 blocks meant a block size of 50 tests (lesser dependence) and 10 blocks a block size of 100 tests (more dependence).

BL = Boca-Leek, Scott T = Scott theoretical null, Scott E = Scott empirical null

$\pi_0(x)$	Dist. under H_1	Reg. model	FDR					TPR				
			BL	Scott T	Scott E	Storey	BH	BL	Scott T	Scott E	Storey	BH
V	N, 20 blocks, $\rho=0.2$	Linear	4.5	5.2	23.2	4.8	2.5	79.0	83.0	74.6	74.1	66.9
V	N, 20 blocks, $\rho=0.5$	Linear	4.6	6.0	22.4	4.9	2.4	79.2	83.2	72.1	74.3	66.9
V	N, 20 blocks, $\rho=0.9$	Linear	5.5	7.9	22.1	5.3	2.2	79.1	83.7	69.9	74.5	66.8
V	N, 10 blocks, $\rho=0.2$	Linear	4.4	5.3	21.6	4.8	2.5	78.5	82.8	73.0	73.8	66.7
V	N, 10 blocks, $\rho=0.5$	Linear	4.7	6.5	20.4	4.9	2.3	78.6	83.2	69.2	73.8	66.5
V	N, 10 blocks, $\rho=0.9$	Linear	7.1	10.3	21.9	6.0	2.1	79.6	84.2	67.5	74.7	66.3

$\pi_0(x)$	Dist. under H_1	Reg. model	FDR					TPR				
			BL	Scott T	Scott E	Storey	BH	BL	Scott T	Scott E	Storey	BH
V	T, 20 blocks, $\rho=0.2$	Linear	2.9	5.6	23.9	3.1	1.2	70.3	82.8	71.3	60.8	48.1
V	T, 20 blocks, $\rho=0.5$	Linear	3.1	6.2	23.0	3.1	1.2	69.4	82.6	69.4	59.9	47.2
V	T, 20 blocks, $\rho=0.9$	Linear	3.7	7.9	22.0	3.5	1.1	68.7	82.7	65.5	59.6	46.3
V	T, 10 blocks, $\rho=0.2$	Linear	2.7	5.9	22.7	3.0	1.2	69.7	82.8	68.8	60.3	48.0
V	T, 10 blocks, $\rho=0.5$	Linear	3.2	6.9	24.6	3.2	1.3	69.5	82.4	69.0	60.0	47.5
V	T, 10 blocks, $\rho=0.9$	Linear	6.6	10.3	22.5	4.6	1.2	69.6	83.0	67.2	60.3	45.9