

Performance analysis of the three methods: Standard ANOVA, SVPLS and SVA, under the clustered setting, with signal to noise ratio (SNR) = 0.1 and 1

SNR=0.1

Method	Sensitivity	Specificity	FDR	FNR
Std. ANOVA	0.029	1	0	0.007
SVPLS	0.996	0.989	0.063	0.001

SNR=1

Method	Sensitivity	Specificity	FDR	FNR
Std. ANOVA	0.021	1	0	0.013
SVPLS	0.075	0.999	0.030	0.114

Table 1: Performance analysis of standard ANOVA, SVPLS and SVA under the setting of co-regulated genes, with similar effects of the hidden variable over the two varieties.

SNR=0.1

Method	Sensitivity	Specificity	FDR	FNR
Std. ANOVA	0.146	1	0	0.024
SVPLS	0.972	0.991	0.050	0.004

SNR=1

Method	Sensitivity	Specificity	FDR	FNR
Std. ANOVA	0.093	1	0	0.034
SVPLS	0.530	0.995	0.045	0.070

Table 2: Performance analysis of standard ANOVA, SVPLS and SVA under the setting of co-regulated genes, with different effects of the hidden variable over the two varieties.