|  |  | gene- $\varepsilon$ Approaches |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Causal Genes | Metric | OLS | RR | EN | LASSO |
| $1 \%$ | Power | $0.707(0.111)$ | $0.567(0.107)$ | $0.624(0.115)$ | $0.638(0.123)$ |
|  | FDR | $0.591(0.132)$ | $0.260(0.161)$ | $\mathbf{0 . 0 0 4}(\mathbf{0 . 0 2 2})$ | $0.006(0.030)$ |
|  | Power | $0.101(0.030)$ | $\mathbf{0 . 1 7 2}(0.060)$ | $0.013(0.012)$ | $0.010(0.007)$ |
|  | FDR | $0.119(0.101)$ | $0.365(0.160)$ | $0.060(0.192)$ | $\mathbf{0 . 0 5 6}(\mathbf{0 . 1 8 3})$ |


|  |  | Other Methods |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Causal Genes | Metric | PEGASUS | VEGAS | RSS | SKAT | MAGMA |
| $1 \%$ | Power | $0.719(0.108)$ | $0.787(0.106)$ | $0.744(0.107)$ | $0.636(0.114)$ | $0.753(0.109)$ |
|  | FDR | $0.605(0.127)$ | $0.626(0.116)$ | $0.116(0.126)$ | $0.575(0.142)$ | $0.677(0.108)$ |
|  | Power | $0.117(0.019)$ | $0.065(0.015)$ | $0.054(0.012)$ | $0.093(0.016)$ | $0.118(0.017)$ |
|  | FDR | $0.132(0.101)$ | $0.226(0.154)$ | $0.091(0.128)$ | $0.116(0.106)$ | $0.162(0.106)$ |

