## **QVALUE: The Manual Version 1.1**

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If you discuss the strong control, conservative point estimation, or the simultaneous

in the next section. The fourth command writes the results to a file called myresults.txt, which will be written in the same directory as pvalues.txt. The file contains the function call used and the estimate of  $_{0}$ , where  $_{0}$ 

The function qplot

## > qobj\$pi0

Clearly, an estimate of *the proportion of significant tests* is one minus this number. This is quite a useful number to know, even if all the truly si

## 6. What is a Q-value? (A primer)

The q-value is similar to the well known p-value. It gives each hypothesis test a measure of significance in terms of a certain error rate. The p-value of a test measures the minimum *false positive rate* that is incurred when calling that test significant. Likewise,

100 significant tests, then this results in about 5 false posities; 500 significant tests results in about 25 false posities, etc.

If all tests are called significant then the false positie rate = 1 since all tests are called significant, and therefore all