All partitions

A|BCD
n = 600

AB|CD
n = 600

n = 450

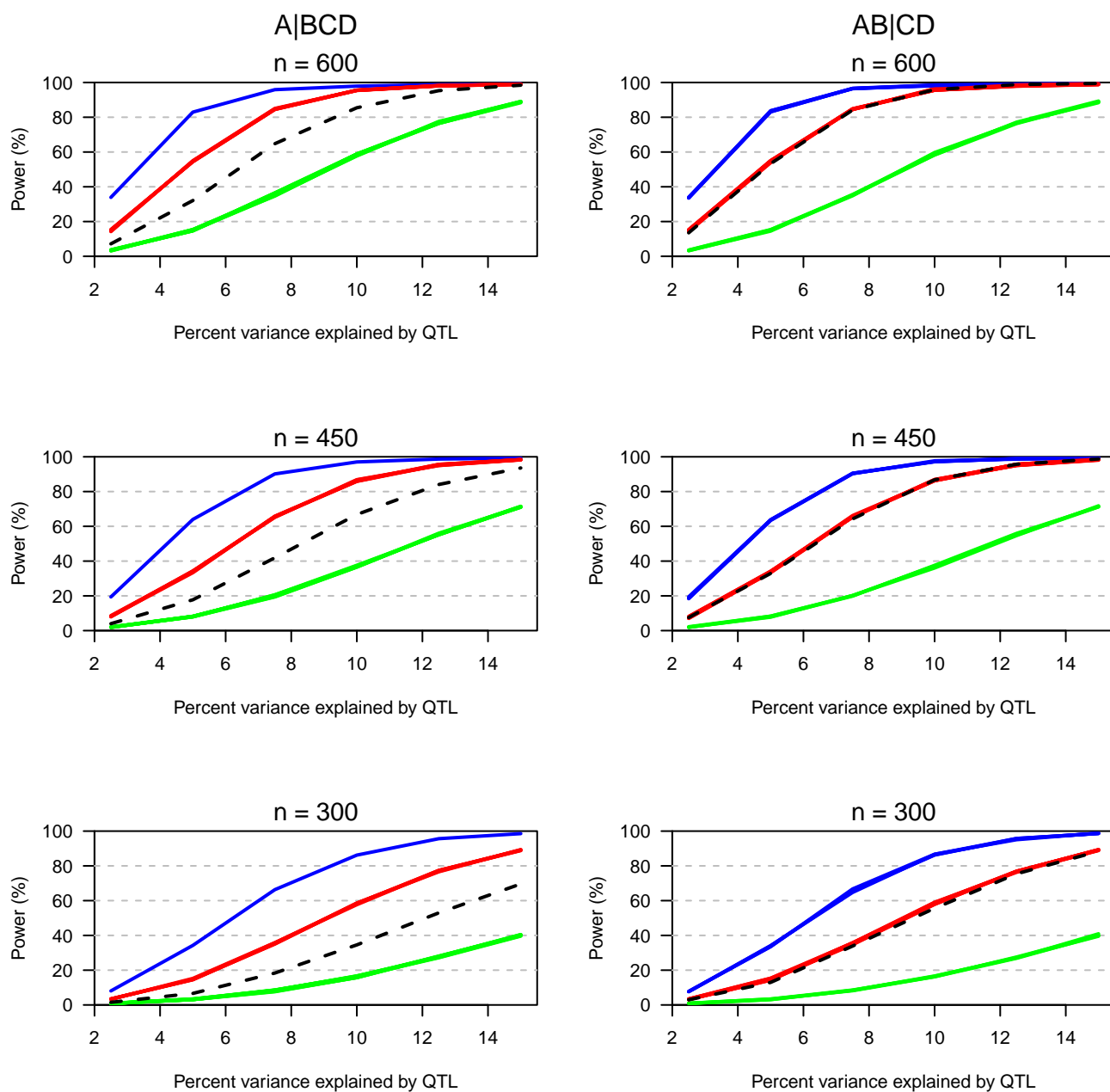#### n = 450

n = 300

n = 300

Figure S1: Estimated power in the case of four taxa with a total sample size of either 300 (bottom panels) 450 (middle panels) or 600 (top panels), as a function of the percent phenotypic variance explained by the QTL. The black dashed curves correspond to the use of all six possible crosses. The other curves are for the various choices of a minimal set of three crosses, with the curves in blue, red and green corresponding to cases in which 3, 2 and 1 of the crosses are segregating the QTL, respectively. The results are based on 10,000 simulation replicates, with analyses considering all possible partitions of the taxa.