simulated null datasets: false postive rate with different levels of replication 0.50 0.50 p = 0.1p = 0.4Beta-Binom Beta-Binom 0.45 0.45 Binom Binom 0.40 0.40 0.35 -0.350.30 0.30 0.250.25 0.20 0.20 0.150.15 -0.10 0.10 0.05 positive rate 0.00 0.00 1 2 3 8 5 6 1 8 9 10 1 12 13 18 15 16 1 18 19 10 12 12 12 15 5 6 1 8 9 10 1 12 13 18 16 10 10 10 10 10 10 10 10 10 10 0.50 0.50 p = unif(0,0.8)8.0 = 0Beta-Binom Beta-Binom 0.45 0.45Binom Binom 0.40 -0.40 0.350.35 -0.30 0.300.250.25 0.20 0.20 0.15 0.15 0.10 0.10 -0.05 -0.05 +0.00 0.00 8 9 10 1 12 13 14 16 16 17 18 19 10 12 12 12 15 15

level of replication (Nr)