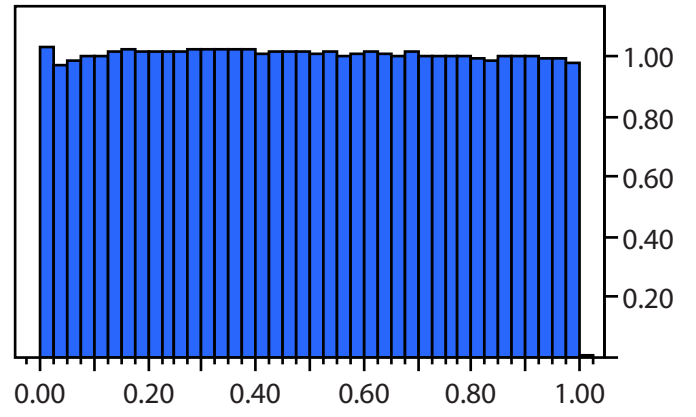
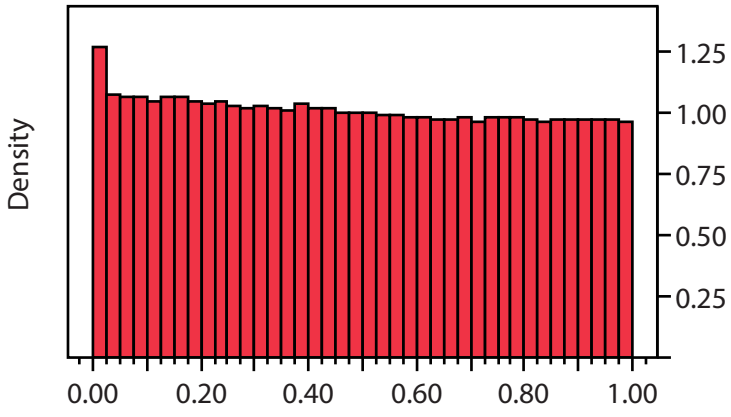
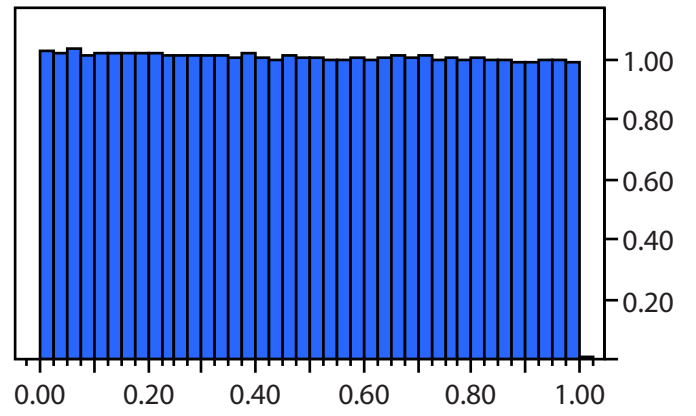
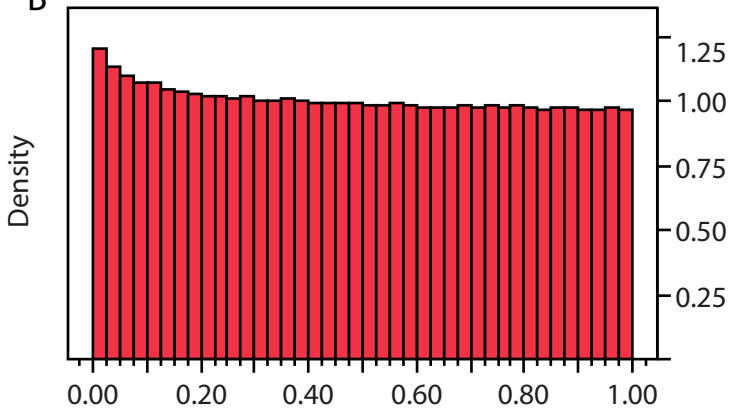
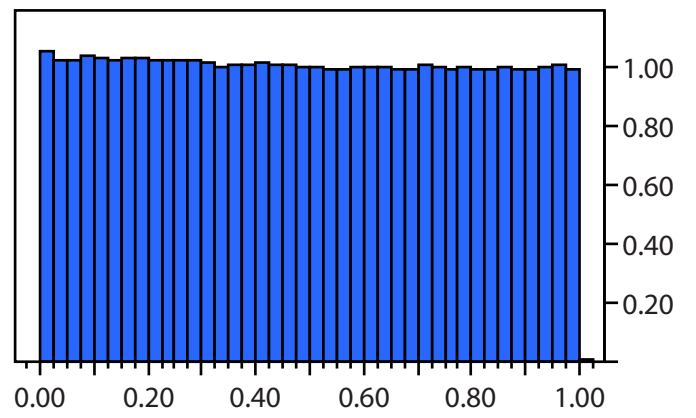
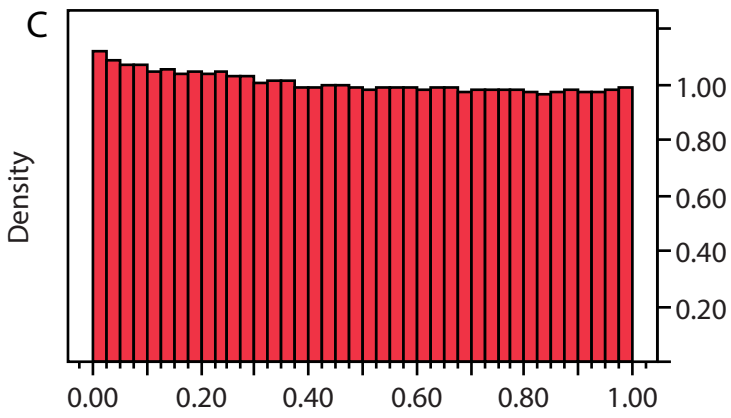
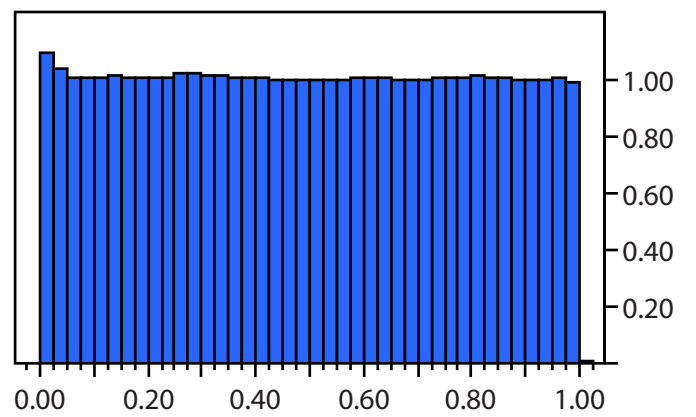
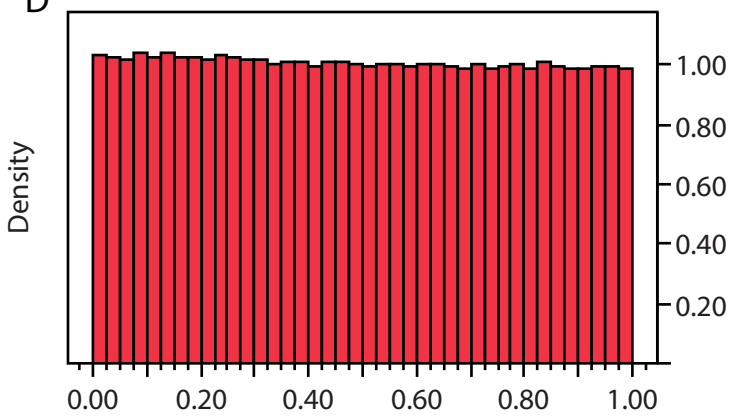
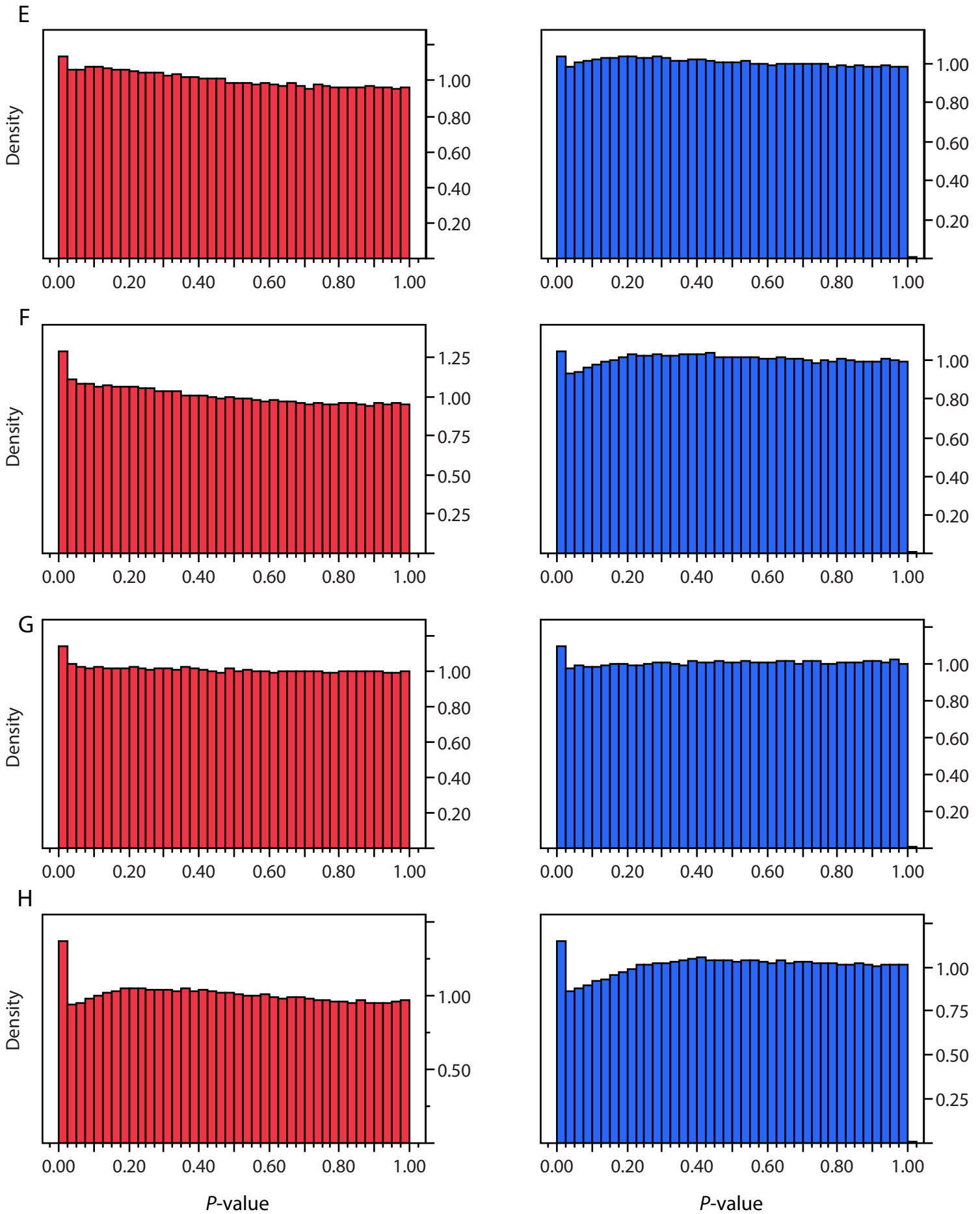
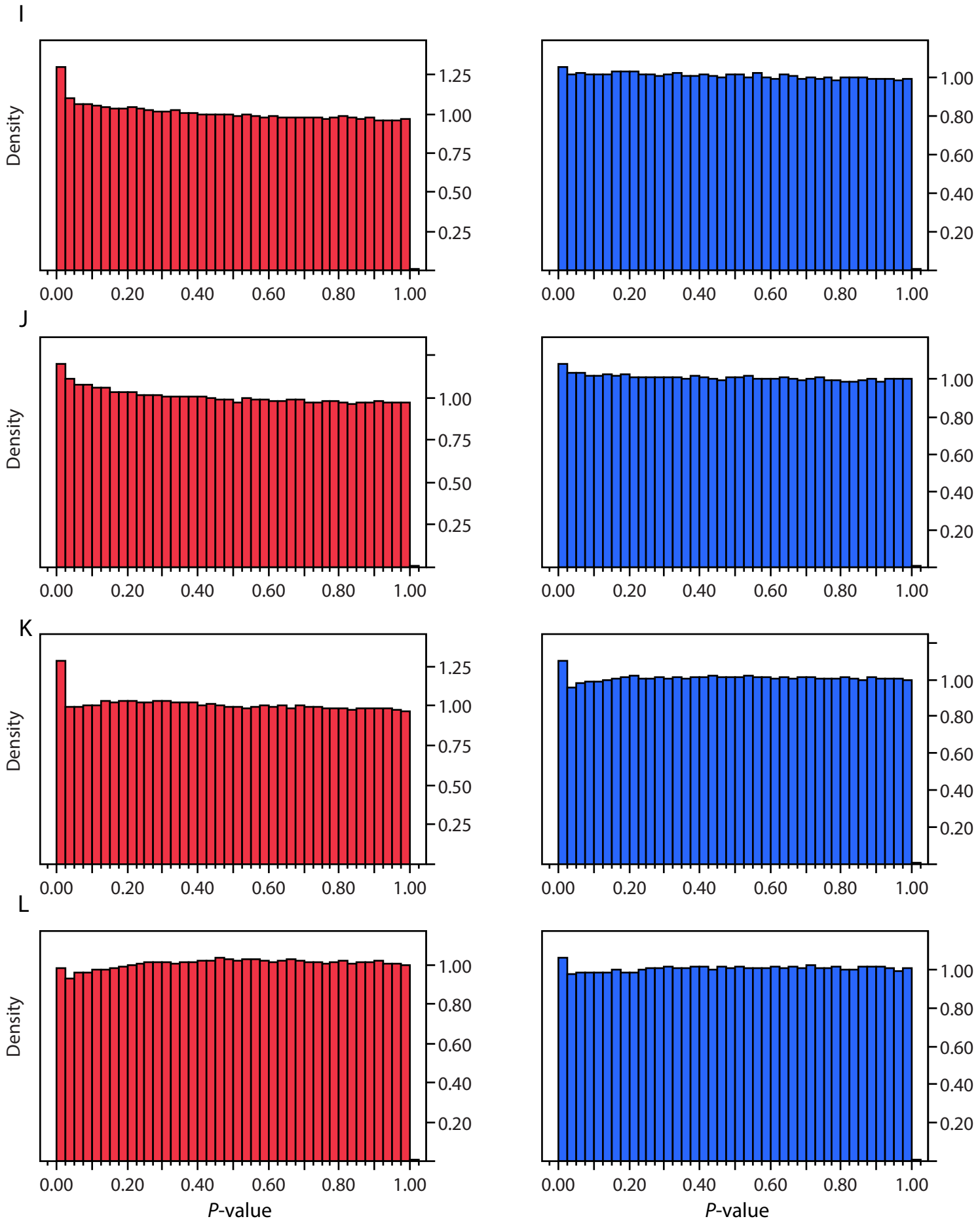
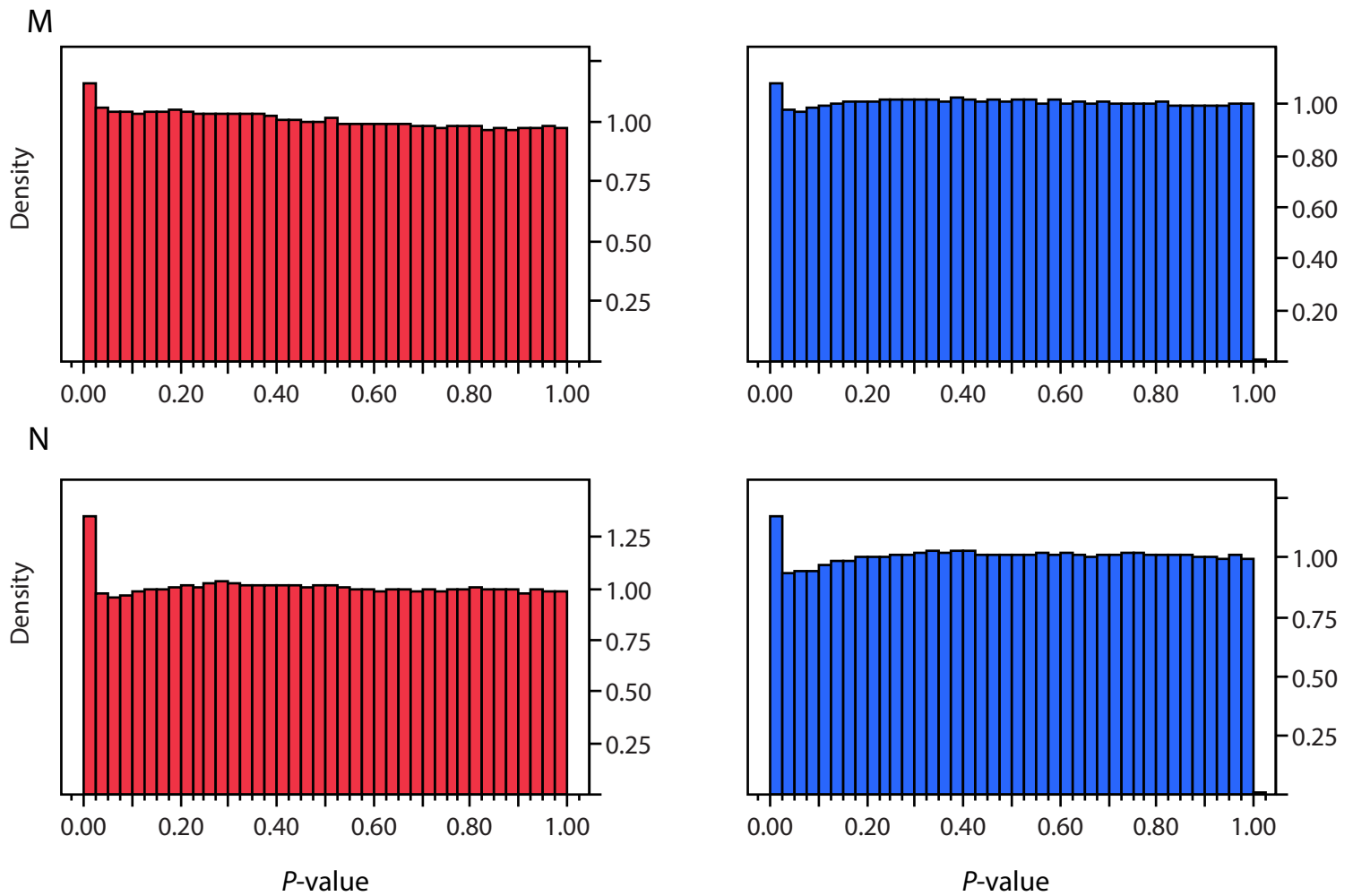


**A****B****C****D***P*-value*P*-value







Additional file 8. *P*-value histograms for females.

The red histogram shows the *P*-value distribution of the original genotype-phenotype association; for each trait; the blue histogram shows the *P*-value distribution of associations accounting for any relatedness in the DGRP. (a) Night sleep. (b) Day sleep. (c) Night bout number. (d) Day bout number. (e) Night average bout length. (f) Day average bout length. (g) Waking activity. (h) Night sleep  $CV_E$ . (i) Day sleep  $CV_E$ . (j) Night bout number  $CV_E$ . (k) Day bout number  $CV_E$ . (l) Night average bout length  $CV_E$ . (m) Day average bout number  $CV_E$ . (n) Waking activity  $CV_E$ .