

Pairwise path length in reference tree Jaccard distance over extended gene set 0.032 0.66 0.813 0.733 0.324 0.171 -0.244-0.225-0.303-0.226-0.272-0.363 0.351 0.373 0.819 0.667 0.672 0.528 0.458 0.459 0.546 0.545 0.817 0.441 Dijkstra BMA PPI 0.031 0.425 0.382 0.329 0.17 0.158 -0.615-0.665-0.632-0.617 -0.7 -0.703 0.727 0.501 0.153 -0.125-0.083 0.307 0.225 0.292 0.325 0.433 0.478 WM distance over gene symbols W2V 0.058 0.664 0.826 0.761 0.433 0.322 -0.258-0.233 -0.29 -0.243-0.276-0.347 0.427 0.445 0.788 0.679 0.684 0.635 0.565 0.541 0.756 0.706 Cosine distance over over NCBI summary W2V  $0.006\ 0.481\ 0.556\ 0.332\ 0.266\ 0.018\ -0.255\ -0.282\ -0.296\ -0.242\ -0.341\ -0.367\ 0.348\ 0.269\ 0.644\ 0.574\ 0.566\ 0.812\ 0.564\ 0.549\ 0.769$ Cosine distance over gene symbols W2V 0.016 -0.234-0.251-0.279-0.217-0.303-0.345 0.368 0.267 0.658 0.614 0.666 0.73 0.515 0.63 Cosine distance GO MF description W2V 0.04 -0.13 -0.161-0.152-0.117-0.224-0.225 0.247 0.185 0.539 0.45 0.658 0.598 0.393 Cosine distance GO CC description W2V 0.053 0.136 0.053 -0.007 -0.05 -0.071 0.624 0.715 0.544 0.524 1.0 0.393 0.515 0.564 0.565 0.225 0.458 0.093 Cosine distance GO BP description W2V 0.668 0.668 0.334 0.316 0.039 -0.156-0.165-0.194-0.143-0.211-0.249 0.231 0.213 0.708 0.628 1.0 0.524 0.598 0.73 0.812 0.635 0.307 0.528 0.3 GO-distance (go\_type=MF, measure=Wang, combine=BMA) 0.119 0.164 0.15 0.136 0.063 -0.07 0.06 0.89 0.875 1.0 0.666 0.544 0.658 0.666 0.566 0.684 -0.083 0.672 0.161 GO-distance (go\_type=CC, measure=Wang, combine=BMA) 0.144 0.149 GO-distance (go type=BP, measure=Wang, combine=BMA) -0.015 -0.096 0.061 0.152 0.152 0.018 0.06 0.213 -0.071 0.185 0.267 0.269 0.445 0.501 0.373 0.495 Overlap distance over genes 0.004 0.466 0.275 0.551 -0.008 0.425 -0.736-0.655-0.671 -0.734-0.606-0.639 0.755 1.0 Overlap distance over gene traits 0.235 -0.742 -0.767 -0.726 -0.748 -0.793 -0.781 .061 -0.104 -0.07 0.231 -0.05 0.247 0.368 0.348 0.427 0.727 0.351 0.458 Minkowski distance (p=2) over genes 0.021-0.502-0.161 -0.19 0.325 0.142 -0.781-0.639-0.096 0.049 0.063 -0.249-0.007-0.225-0.345-0.367-0.347-0.703-0.363-0.256 Minkowski distance (p=2) over gene traits 0.019-0.428-0.059-0.112 0.366 0.138 -0.793-0.606-0.015 0.149 0.136 -0.211 0.053 -0.224-0.303-0.341-0.276 <math>-0.7 -0.272-0.246Minkowski distance (p=2) over gene trait frequency -0.748-0.734 0.019 - 0.348 - 0.034 - 0.192 0.371 0.014 0.031 0.144 0.15 -0.143 0.136 -0.117 -0.217 -0.242 -0.243 -0.617 -0.226 -0.283 Minkowski distance (p=1) over genes Minkowski distance (p=1) over gene traits -0.767 -0.655 0.164 0.164 -0.165 0.112 -0.161 -0.251 -0.282 -0.233 -0.665 -0.225 -0.256 Minkowski distance (p=1) over gene trait frequency -0.742-0.736 0.112 0.119 -0.156 0.121 -0.13 -0.234-0.255-0.258-0.615-0.244-0.283 Kappa distance over genes 0.014 0.138 0.142 0.235 0.425 Kappa distance over gene traits 1.0 0.564 0.373 0.396 0.371 0.371 0.366 0.325 0.033 -0.008 0.463 0.459 0.439 0.316 0.344 0.184 0.329 0.266 0.433 0.17 0.324 0.182 Jaccard distance over genes 0.428 0.652 -0.192-0.105-0.173-0.192-0.112 -0.19 0.407 0.551 0.548 0.426 0.466 0.334 0.249 0.282 0.349 0.332 0.761 0.329 0.733 0.383 Jaccard distance over gene traits 0.679 0.285 -0.046 -0.012 -0.103 -0.034 -0.059 -0.161 0.311 0.275 0.803 0.712 0.694 0.564 0.528 0.404 0.606 0.556 0.826 0.382 0.813 0.296 Cosine distance over gene trait frequency 0.658 0.511 0.323 0.137 -0.369 -0.384 -0.431 -0.348 -0.428 -0.502 0.582 0.466 0.587 0.471 0.471 0.477 0.321 0.468 0.642 0.481 0.664 0.425 Random (uniform, (0,1)) -0.029-0.054-0.083-0.064 -0.1 -0.02 -0.029-0.034-0.019-0.019-0.021-0.017 0.004 -0.022 0.002-0.002-0.019-0.066-0.003 -0.02 -0.006-0.058-0.031-0.032 0.02