

Supplementary Table 3: Summaries of the execution times in 5 replicates (if the number of genes was 5000 only one replicate was used). Notice that at level 3, the required time to build an equivalence dendrogram for 50 gene lists and 5000 genes is more than 32 hours ($115858.16/3600=32.1828222$) which is clearly not assumable for “ordinary calculations”.

GOlevel	numLists	numGenes	min	Lower quartile	mean	median	Upper quartile	max	neval
2	5	100	21.78	22.54	22.46	22.60	22.61	22.75	5
2	5	200	39.94	39.95	40.49	40.60	40.79	41.18	5
2	5	1000	190.93	193.90	196.88	197.42	200.28	201.85	5
2	5	2000	402.09	403.05	405.43	406.30	406.49	409.25	5
2	5	5000	1162.33	1162.33	1162.33	1162.33	1162.33	1162.33	1
2	10	100	64.60	64.86	65.09	65.10	65.36	65.53	5
2	10	200	120.94	121.94	122.83	122.04	123.43	125.78	5
2	10	1000	580.55	581.73	586.29	582.88	586.43	599.88	5
2	10	2000	1191.84	1193.99	1198.12	1194.65	1204.39	1205.71	5
2	10	5000	3569.97	3569.97	3569.97	3569.97	3569.97	3569.97	1
2	25	100	334.57	337.67	340.24	337.71	343.40	347.86	5
2	25	200	585.72	589.02	590.32	592.04	592.08	592.72	5
2	25	1000	2823.50	2830.39	2856.94	2861.41	2882.41	2887.00	5
2	25	2000	5861.17	5921.54	5930.98	5933.15	5962.99	5976.05	5
2	25	5000	18638.63	18638.63	18638.63	18638.63	18638.63	18638.63	1
2	50	100	1179.01	1203.87	1225.43	1242.87	1244.95	1256.47	5
2	50	200	2269.67	2271.40	2331.32	2285.38	2387.36	2442.80	5
2	50	1000	10236.89	10253.71	10605.71	10515.83	10882.41	11139.72	5
2	50	2000	21524.27	22231.70	22514.92	22541.41	22612.63	23664.61	5
2	50	5000	68553.81	68553.81	68553.81	68553.81	68553.81	68553.81	1
3	5	100	24.27	24.27	24.27	24.27	24.27	24.27	1
3	5	200	55.17	55.17	55.17	55.17	55.17	55.17	1
3	5	1000	253.43	253.43	253.43	253.43	253.43	253.43	1
3	5	2000	542.17	542.17	542.17	542.17	542.17	542.17	1
3	5	5000	1430.19	1430.19	1430.19	1430.19	1430.19	1430.19	1
3	10	100	91.58	91.58	91.58	91.58	91.58	91.58	1
3	10	200	169.92	169.92	169.92	169.92	169.92	169.92	1
3	10	1000	929.68	929.68	929.68	929.68	929.68	929.68	1
3	10	2000	1923.07	1923.07	1923.07	1923.07	1923.07	1923.07	1
3	10	5000	5237.34	5237.34	5237.34	5237.34	5237.34	5237.34	1
3	25	100	509.27	509.27	509.27	509.27	509.27	509.27	1
3	25	200	983.91	983.91	983.91	983.91	983.91	983.91	1
3	25	1000	4904.14	4904.14	4904.14	4904.14	4904.14	4904.14	1
3	25	2000	10889.39	10889.39	10889.39	10889.39	10889.39	10889.39	1
3	25	5000	29216.93	29216.93	29216.93	29216.93	29216.93	29216.93	1
3	50	100	1887.05	1887.05	1887.05	1887.05	1887.05	1887.05	1
3	50	200	3583.98	3583.98	3583.98	3583.98	3583.98	3583.98	1
3	50	1000	18767.41	18767.41	18767.41	18767.41	18767.41	18767.41	1
3	50	2000	40803.71	40803.71	40803.71	40803.71	40803.71	40803.71	1
3	50	5000	115858.16	115858.16	115858.16	115858.16	115858.16	115858.16	1