1 Measures
2 Algorithms
3 Average Ranks

Critical value for Nemenyi test ($\alpha = 0.05$) and 33 sets: 0.576979199548027 Critical value for Dunn test ($\alpha = 0.05$) and 33 sets: 0.64100054283814

x

1 Hamming.Loss
2 Zero.One.Loss
3 Tversky.LossA0.5B0.5
4 Ranking.Loss
5 MacroPrecisionM

6 MacroRecallM 7 Macro_Tversky_A0.5_B0.5 8 MicroTversky_A0.5B_0.5

x
1 PairWise
2 PairWise-FCMK-N
3 PairWise-FCMK-W

 Hamming.Loss
 2.697
 1.682
 1.621

 Zero.One.Loss
 2.621
 1.758
 1.621

 Tversky.LossA0.5B0.5
 2.485
 1.773
 1.742

 Ranking.Loss
 1.758
 2.106
 2.136

 MacroPrecisionM
 2.697
 1.712
 1.591

 MacroRecallM
 1.364
 2.258
 2.379

 MacroTversky_A0.5B0.5
 2.545
 1.773
 1.682

 MicroTversky_A0.5B_0.5
 2.485
 1.773
 1.742

↦

4 Group Test

Test Function: function (y, ...) Test Function: UseMethod("friedman.test")

Table 2: Group test p-value

5 Pairwise Tests

Correction method: holm
Test Function: function (x, ...)
Test Function: UseMethod("wilcox.test")

 Rank
 2.697
 1.682
 1.621

 1
 0.000
 0.000

 2
 0.388

Table 3: Pairwise test for Hamming.Loss

Table 4: Pairwise test for Zero.One.Loss

 Rank
 2.485
 1.773
 1.742

 1
 0.004
 0.002

 2
 0.310

 3

Table 5: Pairwise test for Tversky.LossA0.5B0.5

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Table 7: Pairwise test for MacroPrecisionM

Table 8: Pairwise test for MacroRecallM

6 Alg Vs test

Correction method: holm
Test Function: function (x, ...)
Test Function: UseMethod("wilcox.test")
Algorithms: 1 vs rest

Table 13: Pairwise test for Tversky.LossA0.5B0.5

7 Given pairs Correction method: holm Test Function: function (x, ...) Test Function: UseMethod("wilcox.test")

Table 21: Pairwise test for Tversky.LossA0.5B0.5

8 Raw Means

PairWise PairWise-FCMK-N PairWise-FCMK-W Azotobacter_vinelandii 0.887 0.489 0.1410.2850.285Caenorhabditis_elegans 0.846 Drosophila_melanogaster 0.861 0.5060.506eclipse-churn 0.898 0.5290.477eclipse-ent 0.941 0.5390.453emotions 0.282 0.2580.2560.7120.712enron 0.596equinox-churn 0.915 0.9150.915equinox-ent 0.915 0.9150.915flags 0.4320.330 0.329genbase 0.925 Geobacter-sulfurreducens 0.698 0.410 0.4100.3090.311 Haloarcula_marismortui 0.682 0.7590.759Human3160 0.618 0.2050.205lucene-churn 0.981 0.9810.981lucene-ent 0.9810.9810.981 $\text{mimlImg} \qquad 0.402$ 0.2460.246mylyn-churn 0.761 0.6840.5290.359 0.883 0.867mylyn-ent 0.760 0.311 pde-churn 0.768 0.728pde-ent 0.770 Plant978 0.428 $0.730 \\ 0.274$ 0.273 $0.584 \\ 0.675$ pyrococcus_furiosus 0.750 0.582Saccharomyces_cerevisiae 0.785 0.6760.104 0.111 0.650 0.269 0.165 0.177 0.182 0.315 scene 0.3270.105 $\begin{array}{ll} \text{simpleHC} & 0.400 \\ \text{simpleHS} & 0.686 \end{array}$ 0.111 0.651SLASHDOT-F 0.883 0.269stackex_chemistry 0.447 0.165stackex_chess 0.439 tmc2007-500_sub_0 0.384 yeast 0.580 0.177 $0.182 \\ 0.315$ Table 27: Mean value for: Hamming.Loss

PairWise PairWise-FCMK-N PairWise-FCMK-W ii 1.000 0.995 0.995 Azotobacter_vinelandii 1.000 0.995 0.951 0.887 0.998 birds 1.000 0.951Caenorhabditis_elegans 1.000 0.887Drosophila_melanogaster 0.999 emotions 0.881
enron 1.000
equinox-churn 1.000
flags 0.989
genbase 1.000
Geobacter-sulfurreducens 1.000
Human3160 1.000
lucene-churn 1.000
lucene-ent 1.000
mimlImg 0.994
mylyn-churn 0.999
mylyn-ent 0.999
pde-churn 1.000
pde-ent 1.000
pde-ent 1.000
pyrococcus_furiosus 1.000
Saccharomyces_cerevisiae 1.000
simpleHC 1.000
SLASHDOT-F 1.000
stackex_chemistry 1.000 1.000 0.968 1.000 0.982 1.000 1.000 0.758 0.993 0.968 0.997 1.000 0.995 1.000 1.000 0.454 0.670 1.000 1.000 0.971 0.973 0.962 0.980

Table 28: Mean value for: Zero.One.Loss

PairWise PairWise-FCMK-N PairWise-FCMK-W Azotobacter_vinelandii 0.831 0.854 birds 0.8560.7870.786Caenorhabditis_elegans 0.831 0.7940.794Drosophila_melanogaster 0.830 0.8220.822eclipse-churn 0.914 0.8780.886eclipse-ent 0.918 emotions 0.365 0.8870.8730.3670.366enron 0.8320.8560.8560.862equinox-churn 0.862 0.862equinox-ent 0.862 0.8620.862flags 0.356 0.2960.293genbase 0.910 Geobacter-sulfurreducens 0.799 0.9630.9630.7670.768Haloarcula_marismortui 0.778 0.8150.815Human3160 0.796 0.6560.657lucene-churn 0.969 0.9690.969lucene-ent 0.969 0.9690.969mimlImg 0.4940.4370.437mylyn-churn 0.927 0.9310.923mylyn-ent 0.927 0.913 0.908pde-churn 0.935 0.9380.930pde-ent 0.935 Plant978 0.727 0.9380.9310.711 0.711pyrococcus_furiosus 0.804 0.7860.787Saccharomyces_cerevisiae 0.873 0.8730.872scene 0.4870.2960.2980.320 0.627 0.847 $\begin{array}{ll} {\rm simpleHC} & 0.598 \\ {\rm simpleHS} & 0.633 \end{array}$ 0.3200.627SLASHDOT-F 0.893 0.8470.736stackex_chemistry 0.800 0.7360.729 0.517 0.408 stackex_chess 0.774 0.729 $tmc2007-500_sub_0$ 0.667 0.517yeast 0.521 0.407

Table 29: Mean value for: Tversky.LossA0.5B0.5

PairWise PairWise-FCMK-N PairWise-FCMK-W Azotobacter_vinelandii 0.261 0.236 birds 0.1470.1570.156Caenorhabditis_elegans 0.195 0.1740.174Drosophila_melanogaster 0.184 0.1780.178eclipse-churn 0.004 0.010 0.009eclipse-ent 0.0050.010 0.008emotions 0.2400.2410.240enron 0.2220.3380.338equinox-churn 0.003 0.003 0.003equinox-ent 0.003 0.0030.003flags 0.2040.2520.249genbase 0.190 Geobacter-sulfurreducens 0.141 0.2680.2680.1620.1630.2820.282Haloarcula_marismortui 0.195 Human3160 0.280 0.2850.2850.000lucene-churn 0.000 0.0000.000lucene-ent 0.000 0.000mimlImg 0.302 0.2780.2780.020mylyn-churn 0.0150.014mylyn-ent 0.007 0.0120.006pde-churn 0.002 0.006pde-ent 0.0020.0050.005Plant978 0.259 0.3020.303pyrococcus_furiosus 0.191 0.2170.2170.147Saccharomyces_cerevisiae 0.167 0.147scene 0.1890.1640.164simpleHC 0.315 0.2080.208simpleHS 0.407 0.4760.476SLASHDOT-F 0.424 0.3440.344stackex_chemistry 0.199 0.2060.206stackex_chess 0.2050.2090.209 $tmc2007-500_sub_0$ 0.174 0.1640.1640.2590.258yeast 0.269Table 30: Mean value for: Ranking.Loss

PairWise PairWise-FCMK-N PairWise-FCMK-W Azotobacter_vinelandii 0.887 Caenorhabditis_elegans 0.878 Drosophila_melanogaster 0.878 eclipse-churn 0.948 eclipse-ent 0.947 emotions 0.4550.414enron 0.925equinox-churn 0.915 equinox-ent 0.915 0.915flags 0.444 genbase 0.943 Geobacter-sulfurreducens 0.827 Haloarcula_marismortui 0.822 Human3160 0.901 lucene-churn 0.981 lucene-ent 0.981 $\text{mimlImg} \qquad 0.616$ 0.450mylyn-churn 0.929 0.919 0.882mylyn-ent 0.937 0.910 0.878pde-churn 0.964 0.903pde-ent 0.952Plant978 0.860 0.821 pyrococcus_furiosus 0.848 0.8300.827Saccharomyces_cerevisiae 0.904 0.8970.897scene 0.6270.2690.270simpleHC 0.715 simpleHS 0.758 0.121 0.121 $0.756 \\ 0.817$ 0.756SLASHDOT-F 0.944 0.818 stackex_chemistry 0.881 0.733 0.733 $stackex_chess$ 0.865 0.7190.719

 $0.731 \\ 0.589$ yeast 0.659 Table 31: Mean value for: MacroPrecisionM 0.731

0.589

 $tmc2007-500_sub_0$ 0.837

PairWise PairWise-FCMK-N PairWise-FCMK-W Azotobacter_vinelandii 0.000 0.439 birds 0.1830.5510.548Caenorhabditis_elegans 0.031 0.672Drosophila_melanogaster 0.019 0.2980.299eclipse-churn 0.230 0.4020.362eclipse-ent 0.160 emotions 0.155 0.3580.3380.2230.223enron 0.2830.2540.254equinox-churn 0.640 0.6400.640equinox-ent 0.640 0.6400.640flags 0.154 0.2480.221genbase 0.278 Geobacter-sulfurreducens 0.075 0.5840.5840.4850.485Haloarcula_marismortui 0.119 0.112 0.112 Human3160 0.197 0.5800.594lucene-churn 0.800 0.800 0.800lucene-ent 0.800 0.800 0.800mimlImg 0.144 0.3440.344mylyn-churn 0.320 0.4250.501mylyn-ent 0.335 0.6050.619pde-churn 0.480 0.2400.240pde-ent 0.440 Plant978 0.320 0.2600.2600.5090.509pyrococcus_furiosus 0.075 0.2420.251Saccharomyces_cerevisiae 0.110 0.2040.201 scene 0.0300.2570.257 $\begin{array}{ll} \text{simpleHC} & 0.281 \\ \text{simpleHS} & 0.095 \end{array}$ 0.5090.5100.134 0.134SLASHDOT-F 0.152 0.610 0.610stackex_chemistry 0.166 0.5140.514 $stackex_chess$ 0.167 0.5200.520 $0.485 \\ 0.341$ $tmc2007-500_sub_0$ 0.068 0.486yeast 0.092 0.344

Table 32: Mean value for: MacroRecallM

PairWise PairWise-FCMK-N PairWise-FCMK-W Azotobacter_vinelandii 0.800 0.845 0.730Caenorhabditis_elegans 0.789 0.8530.853Drosophila_melanogaster 0.785 0.7050.706eclipse-churn 0.911 0.8240.798eclipse-ent 0.909 0.8060.7750.3450.3460.344emotions 0.8820.8820.880enron 0.8770.8770.877equinox-churn equinox-ent 0.877 0.8770.877flags 0.3830.3800.364genbase 0.904 0.8240.824Geobacter-sulfurreducens 0.736 0.7170.722Haloarcula_marismortui 0.739 0.7990.799Human3160 0.835 0.7720.770lucene-churn 0.9660.9660.9660.9660.9660.966lucene-ent $\min I mg$ 0.4750.4160.416mylyn-churn 0.9010.9150.887mylyn-ent 0.9130.9150.890pde-churn 0.9360.8730.826pde-ent 0.9180.8730.836Plant978 0.778 0.7700.771pyrococcus_furiosus 0.761 0.7580.760Saccharomyces_cerevisiae 0.836 0.8280.828scene 0.4670.2690.269simpleHC 0.594 0.3770.377simpleHS 0.632 0.6310.632SLASHDOT-F 0.899 0.818 0.819stackex_chemistry 0.794 0.6800.6810.697 0.687 0.517 $stackex_chess$ 0.772 0.697 $tmc2007-500_sub_0$ 0.738 0.687yeast 0.5510.517

Table 33: Mean value for: Macro Tversky A0.5 B0.5

PairWise PairWise-FCMK-N PairWise-FCMK-W Azotobacter_vinelandii 0.797 0.804 birds 0.8380.7350.733Caenorhabditis_elegans 0.789 0.8140.814Drosophila_melanogaster 0.784 0.7490.749eclipse-churn 0.897 0.8440.828eclipse-ent 0.899 0.8470.814emotions 0.3460.3460.3440.858enron 0.8300.858equinox-churn 0.844 0.8440.844equinox-ent 0.844 0.8440.844flags 0.3410.2850.281genbase 0.909 0.9630.963Geobacter-sulfurreducens 0.763 0.7080.709Haloarcula_marismortui 0.747 0.790Human3160 0.794 0.6570.658lucene-churn 0.964 0.9640.964lucene-ent 0.964 0.9640.964mimlImg 0.485 mylyn-churn 0.897 mylyn-ent 0.897 pde-churn 0.915 0.4310.4310.8980.8750.840 0.8220.921 pde-ent 0.915
Plant978 0.727
pyrococcus_furiosus 0.770 $0.919 \\ 0.710 \\ 0.746$ $0.907 \\ 0.711$ 0.747Saccharomyces_cerevisiae 0.837 0.831scene 0.485
simpleHC 0.592
simpleHS 0.619
SLASHDOT-F 0.892 0.282 0.371 0.612 0.839 0.2830.3710.6130.839stackex_chemistry 0.787 stackex_chess 0.763 tmc2007-500_sub_0 0.659 yeast 0.509 0.697 $0.684 \\ 0.535$ 0.6840.5350.3950.395

Table 34: Mean value for: MicroTversky A0.5B 0.5

9 Combined Means

Hamm	ing.Loss.PairWise Hamming.Lo	oss.PairWise.FCMK.N Hamming.Lo	oss.PairWise.FCMK.W Zero.O	One.Loss.PairWise Zero.One.Lo	oss.PairWise.FCMK.N Zero.One.Lo	oss.PairWise.FCMK.W Tversky.Lo	ssA0.5B0.5.PairWise Tversky.LossAucconstants	0.5B0.5.PairWise.FCMK.N Tversky.LossA0.5	5B0.5.PairWise.FCMK.W Rankin	g.Loss.PairWise Ranking.Lo	oss.PairWise.FCMK.N Ranking.Los	ss.PairWise.FCMK.W MacroPre	cisionM.PairWise MacroPrecision	nM.PairWise.FCMK.N MacroPrecision	onM.PairWise.FCMK.W MacroRec	callM.PairWise MacroReca	callM.PairWise.FCMK.N Ma
Azotobacter_vinelandii	0.887	0.489	0.489	1.000	0.995	0.995	0.831	0.854	0.854	0.261	0.236	0.236	0.887	0.896	0.896	0.000	0.439
birds	0.510	0.140	0.141	1.000	0.951	0.951	0.856	0.787	0.786	0.147	0.157	0.156	0.899	0.745	0.744	0.183	0.551
$Caenorhab ditis_elegans$	0.846	0.285	0.285	1.000	0.887	0.887	0.831	0.794	0.794	0.195	0.174	0.174	0.878	0.864	0.864	0.031	0.672
$Drosophila_melanogaster$	0.861	0.506	0.506	0.999	0.998	0.998	0.830	0.822	0.822	0.184	0.178	0.178	0.878	0.754	0.756	0.019	0.299
eclipse-churn	0.898	0.529	0.477	1.000	0.992	0.984	0.914	0.886	0.878	0.004	0.010	0.009	0.948	0.860	0.837	0.230	0.402
eclipse-ent	0.941	0.539	0.453	1.000	0.996	0.980	0.918	0.887	0.873	0.005	0.010	0.008	0.947	0.839	0.806	0.160	0.358
emotions	0.282	0.258	0.256	0.881	0.862	0.857	0.365	0.367	0.366	0.240	0.241	0.240	0.455	0.414	0.412	0.155	0.223
enron	0.596	0.712	0.712	1.000	1.000	1.000	0.832	0.856	0.856	0.222	0.338	0.338	0.925	0.912	0.912	0.283	0.254
equinox-churn	0.915	0.915	0.915	1.000	1.000	1.000	0.862	0.862	0.862	0.003	0.003	0.003	0.915	0.915	0.915	0.640	0.640
equinox-ent	0.915	0.915	0.915	1.000	1.000	1.000	0.862	0.862	0.862	0.003	0.003	0.003	0.915	0.915	0.915	0.640	0.640
flags	0.432	0.330	0.329	0.989	0.938	0.923	0.356	0.296	0.293	0.204	0.252	0.249	0.444	0.449	0.449	0.154	0.248
genbase	0.925	0.410	0.410	1.000	1.000	1.000	0.910	0.963	0.963	0.190	0.268	0.268	0.943	0.838	0.838	0.278	0.584
Geobacter-sulfurreducens	0.698	0.309	0.311	1.000	0.966	0.968	0.799	0.767	0.768	0.141	0.162	0.163	0.827	0.744	0.757	0.075	0.485
Haloarcula_marismortui	0.682	0.759	0.759	1.000	1.000	1.000	0.778	0.815	0.815	0.195	0.282	0.282	0.822	0.883	0.883	0.119	0.112
Human3160	0.618	0.205	0.205	1.000	0.982	0.982	0.796	0.656	0.657	0.280	0.285	0.285	0.901	0.809	0.807	0.197	0.580
lucene-churn	0.981	0.981	0.981	1.000	1.000	1.000	0.969	0.969	0.969	0.000	0.000	0.000	0.981	0.981	0.981	0.800	0.800
lucene-ent	0.981	0.981	0.981	1.000	1.000	1.000	0.969	0.969	0.969	0.000	0.000	0.000	0.981	0.981	0.981	0.800	0.800
$\operatorname{mimlImg}$	0.402	0.246	0.246	0.994	0.758	0.758	0.494	0.437	0.437	0.302	0.278	0.278	0.616	0.450	0.449	0.144	0.344
mylyn-churn	0.761	0.684	0.529	0.999	0.995	0.993	0.927	0.931	0.923	0.007	0.020	0.015	0.929	0.919	0.882	0.320	0.425
mylyn-ent	0.760	0.359	0.311	0.999	0.979	0.968	0.927	0.913	0.908	0.007	0.014	0.012	0.937	0.910	0.878	0.335	0.605
pde-churn	0.768	0.883	0.728	1.000	1.000	0.997	0.935	0.938	0.930	0.002	0.006	0.006	0.964	0.903	0.871	0.480	0.240
pde-ent	0.770	0.867	0.730	1.000	1.000	1.000	0.935	0.938	0.931	0.002	0.005	0.005	0.952	0.903	0.873	0.440	0.260
Plant978	0.428	0.273	0.274	1.000	0.995	0.995	0.727	0.711	0.711	0.259	0.302	0.303	0.860	0.821	0.822	0.320	0.509
pyrococcus_furiosus	0.750	0.584	0.582	1.000	1.000	1.000	0.804	0.786	0.787	0.191	0.217	0.217	0.848	0.830	0.827	0.075	0.242
Saccharomyces_cerevisiae	0.785	0.675	0.676	1.000	1.000	1.000	0.873	0.873	0.872	0.167	0.147	0.147	0.904	0.897	0.897	0.110	0.204
scene	0.327	0.104	0.105	0.998	0.450	0.454	0.487	0.296	0.298	0.189	0.164	0.164	0.627	0.269	0.270	0.030	0.257
$\operatorname{simpleHC}$	0.400	0.111	0.111	1.000	0.670	0.670	0.598	0.320	0.320	0.315	0.208	0.208	0.715	0.121	0.121	0.281	0.509
$\begin{array}{c} { m simpleHC} \\ { m simpleHS} \end{array}$	0.686	0.650	0.651	1.000	1.000	1.000	0.633	0.627	0.627	0.407	0.476	0.476	0.758	0.756	0.756	0.095	0.134
SLASHDOT-F	0.883	0.269	0.269	1.000	1.000	1.000	0.893	0.847	0.847	0.424	0.344	0.344	0.944	0.817	0.818	0.152	0.610
stackex_chemistry	0.447	0.165	0.165	1.000	0.971	0.971	0.800	0.736	0.736	0.199	0.206	0.206	0.881	0.733	0.733	0.166	0.514
stackex_chess	0.439	0.177	0.177	1.000	0.973	0.973	0.774	0.729	0.729	0.205	0.209	0.209	0.865	0.719	0.719	0.167	0.520
$tmc2007-500_sub_0$	0.384	0.182	0.182	1.000	0.962	0.962	0.667	0.517	0.517	0.174	0.164	0.164	0.837	0.731	0.731	0.068	0.485
veast	0.580	0.315	0.315	1.000	0.980	0.980	0.521	0.408	0.407	0.269	0.259	0.258	0.659	0.589	0.589	0.092	0.341

Table 35: Combined Mean values

10 Raw Ranks

PairWise PairWise-FCMK-N PairWise-FCMK-W Azotobacter_vinelandii 3.000 Caenorhabditis_elegans 3.000 Drosophila_melanogaster 3.000 1.000 eclipse-churn 3.000 2.000 eclipse-ent 3.000 2.000 emotions 3.000 2.000 1.000 2.000 3.000 enron 2.000 2.000 2.000 equinox-churn 2.000 2.000 1.500 1.000 equinox-ent 2.000 flags 3.000 genbase 3.000 Geobacter-sulfurreducens 3.000 2.000Haloarcula_marismortui 1.000 2.5002.500Human3160 3.000 1.000
2.000
2.000
2.000
2.000
2.000
3.000
3.000
1.000
1.000
1.000
1.000
1.000
1.000
1.000
2.000
1.000
2.000
1.000 2.000 lucene-churn 2.000 2.000 2.000 lucene-ent $\min I mg$ 3.000 mylyn-churn 3.000 mylyn-ent 3.000 pde-churn 2.000 pde-ent 2.000 Plant978 3.000 pyrococcus_furiosus 3.000 Saccharomyces_cerevisiae 3.000 scene 3.000 $\begin{array}{ll} \text{simpleHC} & 3.000 \\ \text{simpleHS} & 3.000 \end{array}$ SLASHDOT-F 3.000 stackex_chemistry 3.000 stackex_chess 3.000 tmc2007-500_sub_0 3.000 yeast 3.000 2.000 1.000 1.000 Table 36: Ranks for: Hamming.Loss

PairWise PairWise-FCMK-N PairWise-FCMK-W 1.500 1.500 1.500 1.500Caenorhabditis_elegans 3.000 1.500
Drosophila_melanogaster 3.000 1.500
eclipse-churn 3.000 2.000
emotions 3.000 2.000
emotions 3.000 2.000
equinox-churn 2.000 2.000
equinox-ent 2.000 2.000
flags 3.000 2.000
genbase 2.000 2.000
Geobacter-sulfurreducens 3.000 1.000
Haloarcula_marismortui 2.000 2.000
Human3160 3.000 1.500
lucene-churn 2.000 2.000
mimlImg 3.000 1.000
mimlImg 3.000 1.000
mylyn-churn 3.000 2.000
mylyn-churn 3.000 2.000
pde-churn 2.500 2.500
pde-ent 2.000 2.000
Plant978 3.000 1.500
pyrococcus_furiosus 2.000 2.000
Saccharomyces_cerevisiae 2.000 2.000
Saccharomyces_cerevisiae 2.000 2.000
Stacks_chess 3.000 1.500
stackex_chess 3.000 1.500
stackex_chess 3.000 1.500
tmc2007-500_sub_0 3.000 1.500
tmc2007-500_sub_0 3.000 1.500
yeast 3.000 1.500
Table 37: Ranks for: Zero.One.Loss 1.000 1.000 2.000
2.000
1.000
2.000
2.000
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2.000
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Table 37: Ranks for: Zero.One.Loss

Caenorhabditis_elegans 3.000 1.500 Drosophila_melanogaster 3.000 1.000 eclipse-ent 3.000 emotions 1.000 2.000 2.000 3.000 enron 1.0002.000 equinox-churn 2.000 2.000 equinox-ent 2.000 2.000 flags 3.000 2.000 genbase 1.000 Geobacter-sulfurreducens 3.000 2.5001.000 Haloarcula_marismortui 1.000 2.500Human3160 3.000 1.000 lucene-churn 2.000 2.000 2.0002.000 lucene-ent $3.000 \\ 2.000$ $\min I mg$ 1.000 mylyn-churn 3.000 mylyn-ent 3.000 pde-churn 2.000 2.000 3.000 pde-ent 2.000 Plant978 3.000 3.000 1.000 pyrococcus_furiosus 3.000 1.000 Saccharomyces_cerevisiae 3.000 2.000scene 3.0001.000 $\begin{array}{ll} \text{simpleHC} & 3.000 \\ \text{simpleHS} & 3.000 \end{array}$ 1.000 1.000 SLASHDOT-F 3.000 1.000 stackex_chemistry 3.000 1.000 $stackex_chess$ 3.000 1.000 $tmc2007-500_sub_0$ 3.000 $2.000 \\ 2.000$ yeast 3.000 Table 38: Ranks for: Tversky.LossA0.5B0.5

Azotobacter_vinelandii 1.000

birds 3.000

PairWise PairWise-FCMK-N PairWise-FCMK-W

2.000

1.000

2.000

1.000

1.000

2.000

3.000

2.000

2.000

1.000

2.500

2.000

2.500

2.000

2.000

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1.000

1.000

PairWise PairWise-FCMK-N PairWise-FCMK-W Azotobacter_vinelandii 3.000 birds 1.0002.000Caenorhabditis_elegans 3.000 1.5001.500Drosophila_melanogaster 3.000 1.000 eclipse-churn 1.000 3.0002.0003.000 eclipse-ent 1.0002.0003.000 emotions 1.000 enron 1.000 2.000 3.0002.000 equinox-churn 2.000 2.0002.000 equinox-ent 2.000 2.000flags 1.000 3.000 2.000genbase 1.000 Geobacter-sulfurreducens 1.000 2.5002.5002.000 3.000Haloarcula_marismortui 1.000 2.500Human3160 1.000 2.000 3.000lucene-churn 2.000 2.000 2.000 lucene-ent $\min IImg$ 2.000 1.000 3.000 mylyn-churn 1.000 3.000 mylyn-ent pde-churn 1.000 2.500pde-ent 1.0002.500Plant978 1.000 2.000 pyrococcus_furiosus 1.000 3.000Saccharomyces_cerevisiae 3.000 2.000scene 3.000simpleHC 3.000 simpleHS 1.000 2.000SLASHDOT-F 3.000 stackex_chemistry 1.000 $stackex_chess$ 1.000 2.000 3.000 $tmc2007-500_sub_0$ 3.000 1.000 2.0002.000 yeast 3.000 1.000 Table 39: Ranks for: Ranking.Loss

PairWise PairWise-FCMK-N PairWise-FCMK-W Caenorhabditis_elegans 3.000 Drosophila_melanogaster 3.000 eclipse-churn 3.000 eclipse-ent 3.000 emotions 3.000 enron 3.000 equinox-churn 2.000 equinox-ent 2.000 flags 1.000 genbase 3.000 Geobacter-sulfurreducens 3.000 Haloarcula_marismortui 1.000 Human3160 3.000 lucene-churn 2.000 lucene-ent 2.000 $\text{mimlImg} \qquad 3.000$ 2.000 2.000 2.000 mylyn-churn 3.000 mylyn-ent 3.000 pde-churn 3.000 2.000 1.000 2.000 pde-ent 3.000 Plant978 3.000 pyrococcus_furiosus 3.000
Saccharomyces_cerevisiae 3.000 2.000 scene 3.000
simpleHC 3.000
simpleHS 3.000
SLASHDOT-F 3.000 1.000 2.000 2.000 1.000 1.000 1.000 2.000 2.000 stackex_chemistry 3.000 1.000 2.000 stackex_chess 3.000 tmc2007-500_sub_0 3.000 yeast 3.000 2.000 2.000 1.000 1.000 1.000 2.000

Table 40: Ranks for: MacroPrecisionM

Caenorhabditis_elegans 1.000 2.5002.500Drosophila_melanogaster 1.000 3.0002.000 eclipse-churn 1.000 3.000 2.000 eclipse-ent 1.000 emotions 1.000 3.000 2.000 2.5002.500enron 3.0001.500 1.500equinox-churn 2.000 2.000 2.000 equinox-ent 2.000 2.000 2.000 flags 1.000 3.000 2.000 genbase 1.000 Geobacter-sulfurreducens 1.000 2.5002.5002.5002.500Haloarcula_marismortui 3.000 1.500 1.500Human3160 1.000 2.000 3.000 lucene-churn 2.000 lucene-ent 2.000 2.000 2.0002.000 2.000 mimlImg 1.000 2.000 3.000 mylyn-churn 1.000 2.000 3.000 mylyn-ent 1.000 pde-churn 3.000 $2.000 \\ 1.500$ 3.000 1.500pde-ent 3.000 Plant978 1.000 1.500 1.5002.5002.500pyrococcus_furiosus 1.000 2.000 3.000 Saccharomyces_cerevisiae 1.000 3.000 2.000 scene 1.000 2.0003.000 $\begin{array}{ll} {\rm simpleHC} & 1.000 \\ {\rm simpleHS} & 1.000 \end{array}$ $2.000 \\ 2.000$ 3.000 3.000SLASHDOT-F 1.000 2.5002.500stackex_chemistry 1.000 2.5002.500stackex_chess 1.000 2.5002.5002.000 2.000 $tmc2007-500_sub_0$ 1.000 3.000yeast 1.000 3.000 Table 41: Ranks for: MacroRecallM

Azotobacter_vinelandii 1.000

birds 1.000

PairWise PairWise-FCMK-N PairWise-FCMK-W

3.000

2.000

PairWise PairWise-FCMK-N PairWise-FCMK-W Azotobacter_vinelandii 1.000 3.000 1.000 Caenorhabditis_elegans 1.000 2.5002.500Drosophila_melanogaster 3.000 1.000 2.000 eclipse-churn 3.000 2.000 1.000 eclipse-ent 3.000 2.000 1.000 2.000 3.000 emotions 1.000 2.000 1.000 3.000enron 2.000 2.000 2.000equinox-churn 2.000 2.000 2.000equinox-ent flags 3.000 2.0001.000 3.000 1.500 1.500genbase Geobacter-sulfurreducens 3.000 1.000 2.000 1.000 2.5002.500Haloarcula_marismortui Human3160 3.000 2.0001.000 lucene-churn 2.000 2.0002.0002.000 2.0002.000lucene-ent $\min I mg$ 3.000 1.000 2.000mylyn-churn 2.000 3.0001.000 mylyn-ent 2.0003.0001.000 pde-churn 3.000 2.0001.000 pde-ent 3.0002.0001.000 Plant978 3.000 1.000 pyrococcus_furiosus 3.000 1.000 Saccharomyces_cerevisiae 3.000 2.000scene 3.0001.000 simpleHC 3.000 1.000 $_{\rm simple HS}$ 1.000 3.000 SLASHDOT-F 3.000 1.000 stackex_chemistry 3.000 2.000 2.000 1.000 $stackex_chess$ 3.000 $tmc2007-500_sub_0$ 3.000 1.000 yeast 3.0002.000

yeast 3.000 1.000

Table 42: Ranks for: Macro Tversky A0.5 B0.5

PairWise PairWise-FCMK-N PairWise-FCMK-W Azotobacter_vinelandii 1.000 birds 3.0002.0001.000 Caenorhabditis_elegans 1.000 2.500Drosophila_melanogaster 3.000 1.000 eclipse-churn 3.000 2.000eclipse-ent 3.000 2.000 emotions 3.000 2.000 1.000 2.000 enron equinox-churn 2.000 2.000 equinox-ent 2.000 2.000flags 3.0002.000genbase 1.000 2.500Geobacter-sulfurreducens 3.000 1.000 Haloarcula_marismortui 1.000 2.500Human3160 3.000 lucene-churn 2.000 1.000 2.000 lucene-ent 2.000 2.000 mimlImg 3.000
mylyn-churn 2.000
mylyn-ent 3.000
pde-churn 2.000 $\min I mg$ 1.000 $3.000 \\ 2.000$ 3.000 pde-ent 2.000
Plant978 3.000
pyrococcus_furiosus 3.000
Saccharomyces_cerevisiae 3.000 3.000 1.000 1.000 2.000 scene 3.000
simpleHC 3.000
simpleHS 3.000
SLASHDOT-F 3.000 1.000 1.000 1.000 1.000 1.000 stackex_chemistry 3.000 stackex_chess 3.000 tmc2007-500_sub_0 3.000 yeast 3.000 1.000 2.000 2.000 2.000 1.000

Table 43: Ranks for: MicroTversky A0.5B 0.5