

Results: Execution Time (in secs) taken for the implementation of the parallel framework on 15 GRN Inference methods

No. of genes	RELN	CLR	ARACNE	MRNET	MRNETB	C3NET	C3MTC	BC3NET	MutRank	PCOR	SPCOR	Genie3	GeneNet	MINE	G1DBN
100	0.204475	0.17919	0.184735	0.345075	0.258279	0.51672	0.78877	0.781401	0.205228	0.3089573	0.42288	55.9298	4.27017	0.89201	19.16968
500	0.800966	0.60281	0.434578	0.72608	0.746817	1.23295	0.65954	2.186672	0.585462	1.704897	1.97305	488.789	7.6872	3.395	299.04444
1000	2.047779	1.41811	0.888528	1.357832	1.625044	2.73455	1.08314	3.876542	1.552822	5.607112	5.55842	948.419	9.55122	8.20522	1332.399
2000	8.786921	4.79426	2.22538	4.93659	5.366306	4.63711	2.22602	8.696837	5.369251	15.19478	19.0843	2460.79	15.6025	27.1	4552.362
3000	19.41902	9.5417	4.274082	10.08324	9.627196	7.81924	3.05682	11.64699	9.492831	32.52597	39.6393	3625.3	29.3682	50.2548	10959.523
4000	35.50105	16.5067	6.470149	18.25389	17.14795	9.96609	5.02833	18.56242	19.01626	61.68558	67.354	5195.47	44.4271	88.2916	19063.739
10000	1764.365	1006.03	251.5325	1057.256	1036.185	352.125	196.321	1123.058	1257.357	3258.149	3401.28	10256.5	2568.16	4023.57	489568.84
15000	6201.918	2588.23	462.4093	2931.489	2936.125	852.36	396.415	3075.236	3120.459	9236.154	9456.33	15896.8	4589.3	10589.6	NA
20000	10815.24	3553.55	2046.086	3979.663	3962.758	2105.24	1996.35	4012.349	4099.128	12036.851	12537	20296.7	8974.24	15781.9	NA
25000	14128.78	4367.34	5489.01	5194.082	5001.79	3508.62	2809.83	5908.78	6019.73	14237.98	14765.8	24987.6	12098.9	18765.5	NA

Speed Up Achieved

Methods	No. of genes in the dataset						
	100	500	1000	2000	3000	4000	10000
RelNet	0.13	0.83	2.3	2.37	6.46	7.45	1.33308
CLR	0.13	0.63	1.42	2.19	7.97	15.24	3.34058
ARACNE	0.14	1.37	4.14	12.7	34.73	51.19	19.0076
C3NET	0.52	1.23	1.75	8.23	14.45	25.26	9.81542
C3MTC	0.24	0.46	1.07	1.82	2.52	2.55	0.28146
BC3NET	1.01	5.15	16.16	31.57	50.39	54.42	12.0388
MutRank	0.13	0.78	1.81	2.66	8.91	12.89	5.00376
PCOR	1.96	9.12	15.72	41.5	111.8	158.84	35.4405
SPCOR	4.28	17.58	30.85	62.94	97.28	120.95	32.0612
GeneNet	0.66	1.16	12.52	51.36	126.77	313.59	72.6202
G1DBN	30.98	230.8	245.79	729.52	NA	NA	NA
MINE	3.74	24.64	44	64.6	84.09	100.05	29.3897
MRNET	0.06	0.69	2.81	7.31	17.1	22.9	5.48955
MRNETB	0.12	1.93	5.4	11.36	24.2	34.8	6.85711
GENIE3	1.82	2.25	3.19	3.4	4.26	4.57	31.0057