Topological Fractal Dimension of Networks of Protein–Protein Interaction Networks

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Fig. 1. Placeholder image of a frog with an example caption.

Table 1. Comparison of the fitted potential energy surfaces and ab initio benchmark electronic energy calculations

Species	CBS	CV	G3
Acetaldehyde	0.0	0.0	0.0
Vinyl alcohol	9.1	9.6	13.5
3. Hydroxyethylidene	50.8	51.2	54.0

nomenclature for the TSs refers to the numbered species in the table.

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Table 2. Basic Information about PPINs

Organism	# Nodes	# Edges	Avg Degree	ConComps	Largest
$An opheles\ gambiae\ PEST$	2	1	1.00	1	2
$Apis\ mellifera$	2	1	1.00	1	2
Arabidopsis thaliana Columbia	9626	36091	7.50	134	9389
Bacillus subtilis 168	3	2	1.33	2	2
Bos taurus	439	412	1.88	75	71
Caenorhabditis elegans	3954	8051	4.07	93	3753
Candida albicans SC5314	726	886	2.44	43	637
Canis familiaris	53	35	1.32	21	7
Cavia porcellus	9	5	1.11	4	3
Chlamydomonas reinhardtii	19	16	1.68	4	12
Chlorocebus sabaeus	11	7	1.27	4	3
Cricetulus griseus	32 247	24	1.50	8	16
Danio rerio	247	255 20	2.06 1.67	39 6	99 5
Dictyostelium discoideum AX4 Drosophila melanogaster	9197	55350	12.04	43	9113
Emericella nidulans FGSC A4	64	62	1.94	6	45
Equus caballus	4	2	1.00	2	2
Escherichia coli K12	2	1	1.00	1	2
Escherichia coli K12 MC4100 BW2952	10	9	1.80	2	8
Escherichia coli K12 MG1655	150	133	1.77	25	91
Escherichia coli K12 W3110	4063	181621	89.40	1	4063
Gallus gallus	391	421	2.15	42	230
Glycine max	45	40	1.78	8	14
Hepatitus C Virus	131	129	1.97	2	129
Homo sapiens	22840	321550	28.16	28	22798
Human Herpesvirus 1	174	195	2.24	1	174
Human Herpesvirus 2	7	4	1.14	3	3
Human Herpesvirus 3	4	2	1.00	2	2
Human Herpesvirus 4	240	235	1.96	7	185
Human Herpesvirus 5	91	80	1.76	12	35
$Human\ Herpesvirus\ 6A$	11	7	1.27	4	4
Human Herpesvirus 6B	7	4	1.14	3	3
Human Herpesvirus 7	2	1	1.00	1	2
Human Herpesvirus 8	714	689	1.93	45	378
Human Immunode ficiency Virus 1	1121	1306	2.33	1	1121
Human Immunode ficiency Virus 2	16	12	1.50	4	8
Human papillomavirus 16	14	12	1.71	2	12
Macaca mulatta	15	13	1.73	3	11
Meleagris gallopavo	2	2	2.00	1	2
Mus musculus	13021	38893	5.97	107	12793
Mycobacterium tuberculosis H37Rv	11	9	1.64	2	9
$Neurospora\ crassa\ OR74A$	12	10	1.67	2	8
$Nicotiana\ tomentosiformis$	2	2	2.00	1	2
Oryctolagus cuniculus	283	278	1.96	33	142
Oryza sativa Japonica	75	94	2.51	19	26
Ovis aries	2	1	1.00	1	2
Pan troglodytes	10	5	1.00	5	2
Pediculus humanus	2	1	1.00	1	2
$Plasmodium\ falciparum\ 3D7$	1227	2508	4.09	26	1179
Rattus norvegicus	3718	5282	2.84	123	3407
Ricinus communis	3	2	1.33	1	3
$Saccharomyces\ cerevisiae\ S288c$	7158	535782	149.70	1	7158
$Schizosaccharomyces\ pombe\ 972h$	4318	58739	27.21	33	4279
$Selaginella\ moellendorffii$	6	8	2.67	1	6
$Simian\ Immunodeficiency\ Virus$	19	16	1.68	4	8
Simian Virus 40	6	5	1.67	1	6
Solanum lycopersicum	-			7	21
3 · 1	45	109	4.84	7	
Solanum tuberosum		109 3	4.84 1.20	3	2
	45				
Solanum tuberosum Strongylocentrotus purpuratus	45 5	3	1.20	3	2
Solanum tuberosum Strongylocentrotus purpuratus Sus scrofa	45 5 17	3 16	1.20 1.88	3 1	2 17
Solanum tuberosum Strongylocentrotus purpuratus Sus scrofa	45 5 17 94	3 16 79	1.20 1.88 1.68	3 1 23	2 17 22
Solanum tuberosum Strongylocentrotus purpuratus Sus scrofa Tobacco Mosaic Virus	45 5 17 94 3	3 16 79 2	1.20 1.88 1.68 1.33	3 1 23 1	2 17 22 3
Solanum tuberosum Strongylocentrotus purpuratus Sus scrofa Tobacco Mosaic Virus Ustilago maydis 521	45 5 17 94 3 4	3 16 79 2 4	1.20 1.88 1.68 1.33 2.00	3 1 23 1 1	2 17 22 3 4
Solanum tuberosum Strongylocentrotus purpuratus Sus scrofa Tobacco Mosaic Virus Ustilago maydis 521 Vaccinia Virus	45 5 17 94 3 4	3 16 79 2 4 6	1.20 1.88 1.68 1.33 2.00 1.50	3 1 23 1 1 3	2 17 22 3 4 3

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