

More empirical datasets fitting results

The datasets of each system have been largely extended, and the results in the main text have been verified. The names of all the sequences are kept the same as they appear on the downloaded websites.

Table I. Results of more Protein datasets.

Sequence	$\langle L \rangle$	λ	R^2_{NND}	R^2_{NV}
A2ASS6	9.76401	2.44104	0.982834	0.998408
A5ISW6	6.46089	6.18207	0.972191	0.997687
A6QGY5	6.67982	4.24821	0.962464	0.995412
A6U1Q5	6.46089	6.18207	0.972191	0.997687
A8Z414	6.47554	5.72391	0.971866	0.998544
C6KTB7	5.23601	61.0471	0.961706	0.897832
C6KTD2	3.92268	20.9135	0.974027	0.868311
G4SLH0	6.8232	4.09926	0.984116	0.995087
O01761	9.31114	8.02348	0.955982	0.991131
P0C6W0	8.91935	49.2152	0.960833	0.979953
P0C6W1	9.46029	81.6309	0.958192	0.99132
P0C6W2	9.38235	80.5407	0.95096	0.931204
P0C6W3	9.5744	125.109	0.960369	0.98584
P0C6W4	9.55376	267.864	0.962839	0.97244
P0C6W5	8.97983	55.3474	0.962811	0.985021
P0C6W6	9.48071	100.482	0.952678	0.926294
P0C6W7	8.98161	844.007	0.971344	0.978717
P0C6X1	9.05812	37.8563	0.954425	0.990679
P0C6X2	8.94282	138.579	0.967684	0.979729
P0C6X5	8.94083	37.958	0.946111	0.984446
P0C6X7	9.49926	82.988	0.951868	0.94479
P0C6X9	8.55228	128.192	0.97447	0.989575
P0C6Y5	9.95402	3048.68	0.9302	0.939609
P20929	6.97343	51.3331	0.956987	0.985999
Q008X6	7.71156	14.4602	0.957465	0.985905
Q03001	7.92444	180.434	0.953345	0.965551
Q09165	7.83627	66.2442	0.944027	0.830944
Q09221	7.56347	28.0167	0.957989	0.933891
Q18DN4	6.24483	10.4502	0.969353	0.988026
Q18SQ001	6.24483	10.4502	0.969353	0.988026
Q23551	10.8212	5.2961	0.926265	0.984389
Q2FYJ6	6.70259	5.44662	0.969548	0.997926
Q54CU4	9.86897	19.3091	0.92775	0.967694
Q54QG5	7.3357	2661.38	0.958837	0.689329
Q555C6	6.91743	12.0236	0.915499	0.83908
Q5CZC0	7.75604	4213.4	0.953249	0.886756
Q5HFX8	6.48249	5.73511	0.971954	0.998463

Q5VST9	8.65534	82.1596	0.973876	0.981758
Q6GGX3	6.43164	6.86548	0.968147	0.997756
Q6PZE0	3.4592	6.25156	0.940782	0.981308
Q6ZWQ0	6.37419	2037.23	0.975183	0.948258
Q7Z5P9	4.072	3.69843	0.959995	0.998387
Q869L3	8.20188	48.9964	0.914097	0.694546
Q8CP76	6.94675	2271.14	0.982226	0.530689
Q8I3Z1	4.0553	28.2205	0.975505	0.894846
Q8NF91	6.65126	1697.4	0.9798	0.825579
Q8NWQ6	6.49203	5.66854	0.967991	0.998203
Q8R0W0	7.48438	156.176	0.871818	0.969729
Q8VHN7	9.55966	1633.62	0.960584	0.95557
Q8WXH0	6.70067	1835.94	0.961181	0.605706
Q8WXI7	4.4777	13.1243	0.978288	0.961323
Q8WZ42	9.46783	2.41473	0.986472	0.999662
Q91ZU6	7.80907	34.032	0.952711	0.978239
Q9I7U4	5.66341	3.36478	0.979735	0.995876
Q9QXZ0	7.38488	1047.26	0.966464	0.900179
Q9UPN3	7.48212	3973.16	0.946275	0.815944
W6RTA4	6.91385	1514.88	0.963568	0.981759

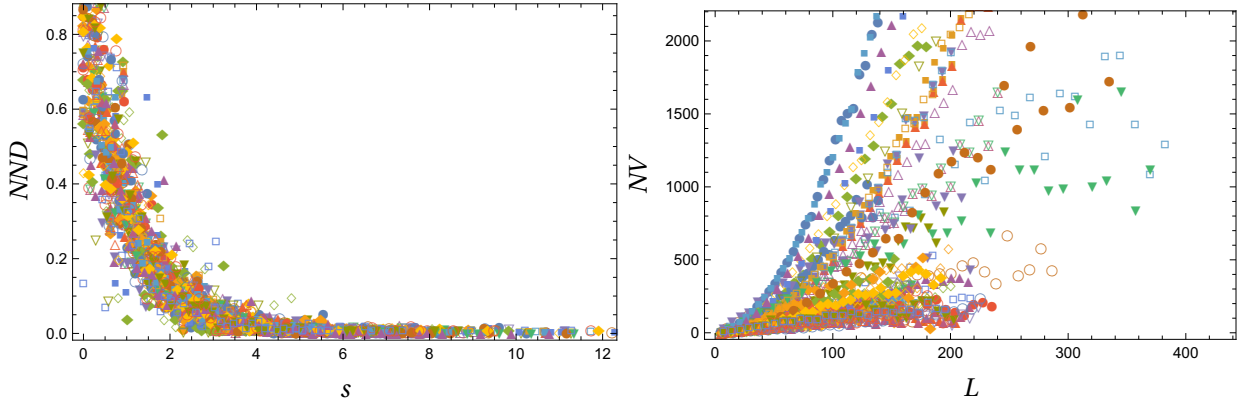


FIG. 1: The NND and NV of more Protein datasets.

Table II. Results of more DNA datasets.

Sequence	$\langle L \rangle$	λ	R^2_{NND}	R^2_{NV}
A2ASS6	2.23578	1054.09	0.99277	0.988999
A5ISW6	1.44785	1155.92	0.995825	0.970662
A6QGY5	1.51293	1252.26	0.994416	0.973604
A6U1Q5	1.44785	1155.92	0.995825	0.970662
A8Z414	1.455	1627.14	0.995226	0.966316
C6KTB7	1.27536	4378.35	0.996386	0.771291
C6KTD2	1.14903	3355.52	0.982432	0.907043
G4SLH0	1.75357	42.51	0.996001	0.999697

O01761	2.07809	116.743	0.99741	0.998312
P0C6W0	1.90436	1834.54	0.993563	0.947647
P0C6W1	1.8953	2047.02	0.988959	0.984806
P0C6W2	2.25938	128.16	0.992639	0.992008
P0C6W3	1.88386	1309.88	0.989207	0.795782
P0C6W4	2.29268	1036.54	0.994796	0.988257
P0C6W5	1.97269	933.885	0.992073	0.990352
P0C6W6	2.25123	94.9777	0.995968	0.991287
P0C6W7	1.76579	2699.42	0.993268	0.993464
P0C6X1	1.85642	1298.75	0.99377	0.97626
P0C6X2	1.51653	1076.95	0.995165	0.994376
P0C6X5	1.52945	1668.18	0.991988	0.979452
P0C6X7	2.24568	115.893	0.995588	0.990041
P0C6X9	2.0421	1574.21	0.992806	0.994917
P0C6Y5	2.0015	1277.19	0.994383	0.987528
P20929	2.2525	71.7038	0.985965	0.995377
Q008X6	1.93773	2076.6	0.992823	0.978481
Q03001	2.09012	35.8902	0.99666	0.997189
Q09165	2.15387	1590.73	0.992042	0.780806
Q09221	1.89553	2892.71	0.99463	0.900552
Q09666	2.84473	31.2372	0.992743	0.996423
Q18DN4	2.26734	135.753	0.995432	0.995848
Q23551	2.14551	1201.31	0.994262	0.992137
Q2FYJ6	1.4538	774.077	0.995098	0.973691
Q54CU4	1.79043	841.896	0.994537	0.976179
Q54QG5	1.71226	7795.24	0.984944	0.977407
Q555C6	1.41459	4119.43	0.990455	0.916913
Q5CZC0	2.02436	24.2466	0.988626	0.998804
Q5HFX8	1.45215	1465.8	0.995242	0.968618
Q5VST9	2.6241	10.6493	0.993547	0.995506
Q6GGX3	1.45279	1327.33	0.99069	0.969864
Q6ZWQ0	2.45219	60.9646	0.991541	0.989795
Q7Z5P9	2.15689	24.3382	0.993592	0.999703
Q869L3	1.50192	245.023	0.990872	0.998389
Q8CP76	1.32047	1574.99	0.996399	0.831862
Q8I3Z1	1.06888	5192.07	0.991689	0.992355
Q8NF91	2.18742	46.7486	0.99761	0.992315
Q8NWQ6	1.45708	1112.33	0.993752	0.970393
Q8R0W0	2.52005	71.8729	0.99211	0.992438
Q8VHN7	2.17481	32.6434	0.988767	0.996496
Q8WXH0	2.27631	33.1601	0.996249	0.995095
Q8WXI7	2.62768	23.4348	0.993684	0.994183
Q8WZ42	2.08509	1705.05	0.991474	0.990777
Q91ZU6	2.44286	51.1495	0.99298	0.993272
Q9I7U4	2.02909	16.5505	0.995566	0.999926
Q9QXZ0	2.30621	49.932	0.984838	0.991102

Q9UPN3	2.28546	36.5614	0.986823	0.993356
W6RTA4	1.94971	287.713	0.99461	0.998059

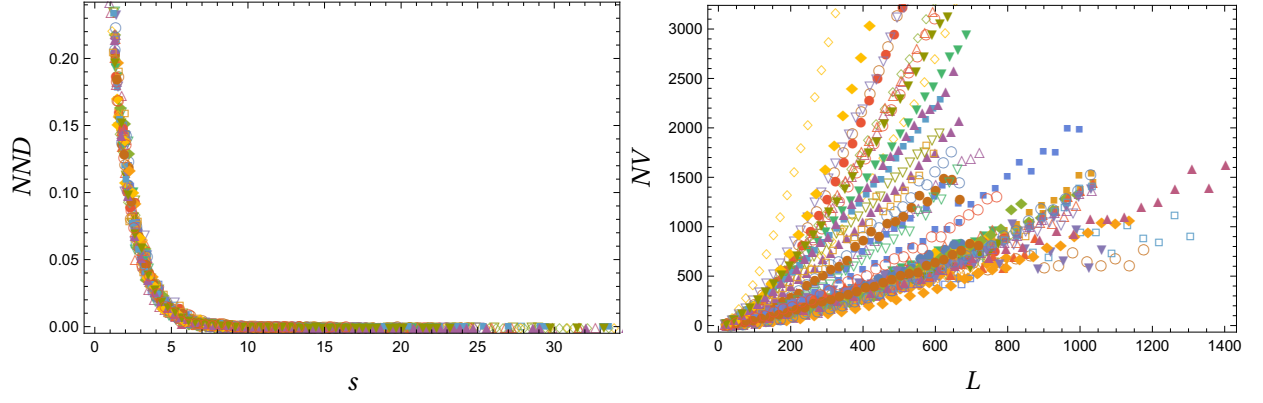


FIG. 2: The NND and NV of more DNA datasets.