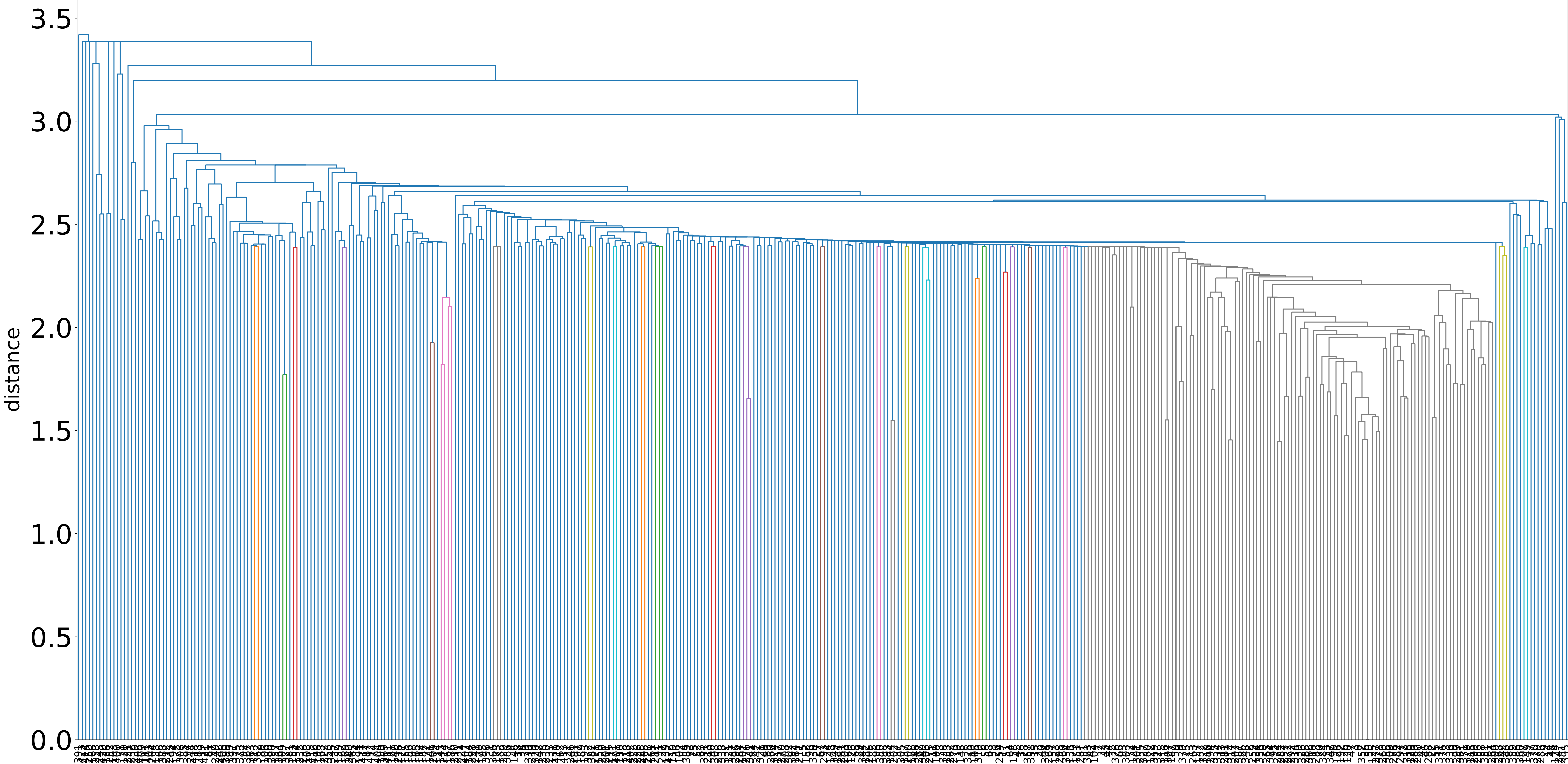Hierarchical Clustering Dendrogram - gap: 0.00, Tp: 2.00, single link
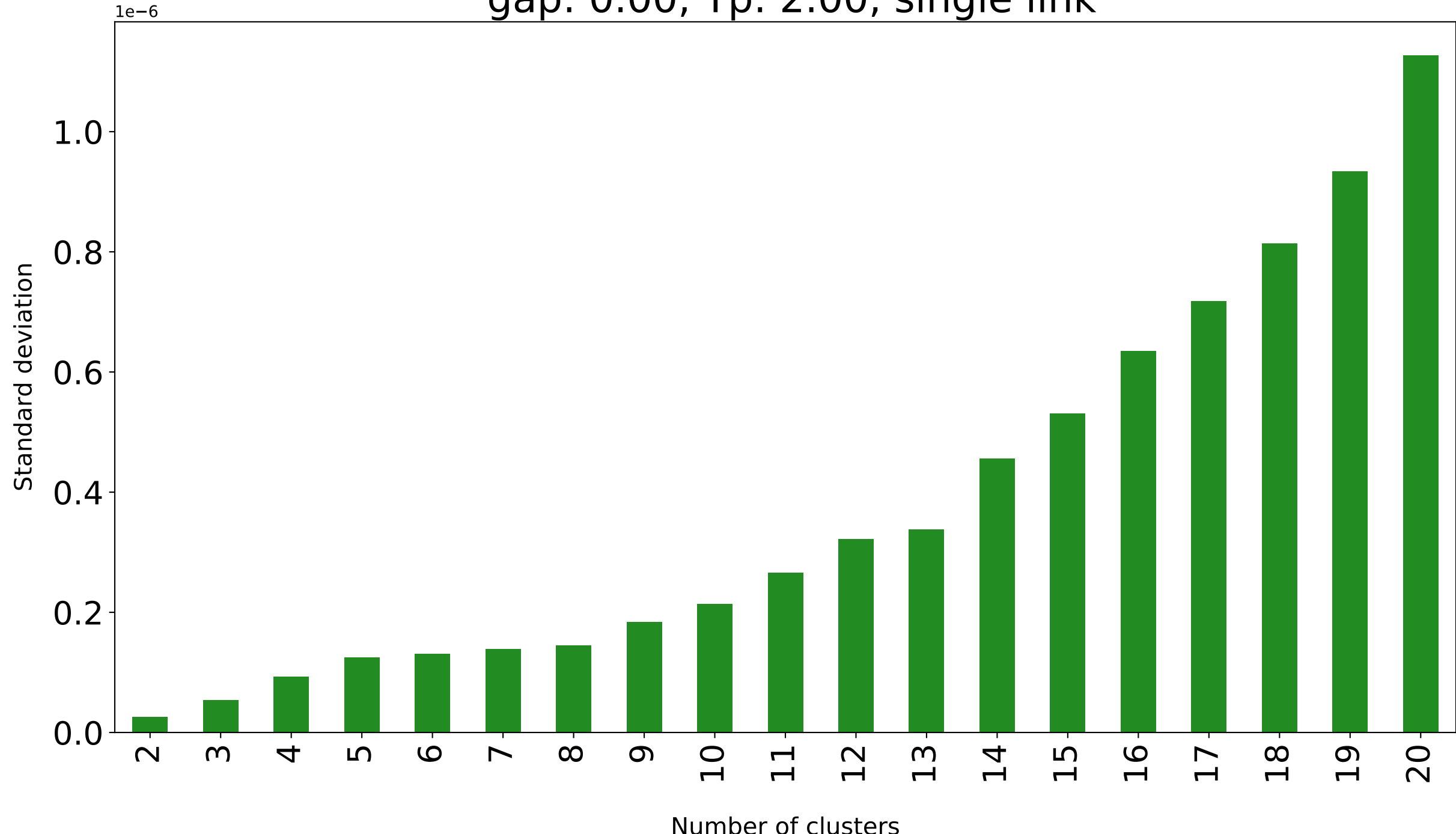
Cophenetic Correlation Coefficient: 0.37012891622652083

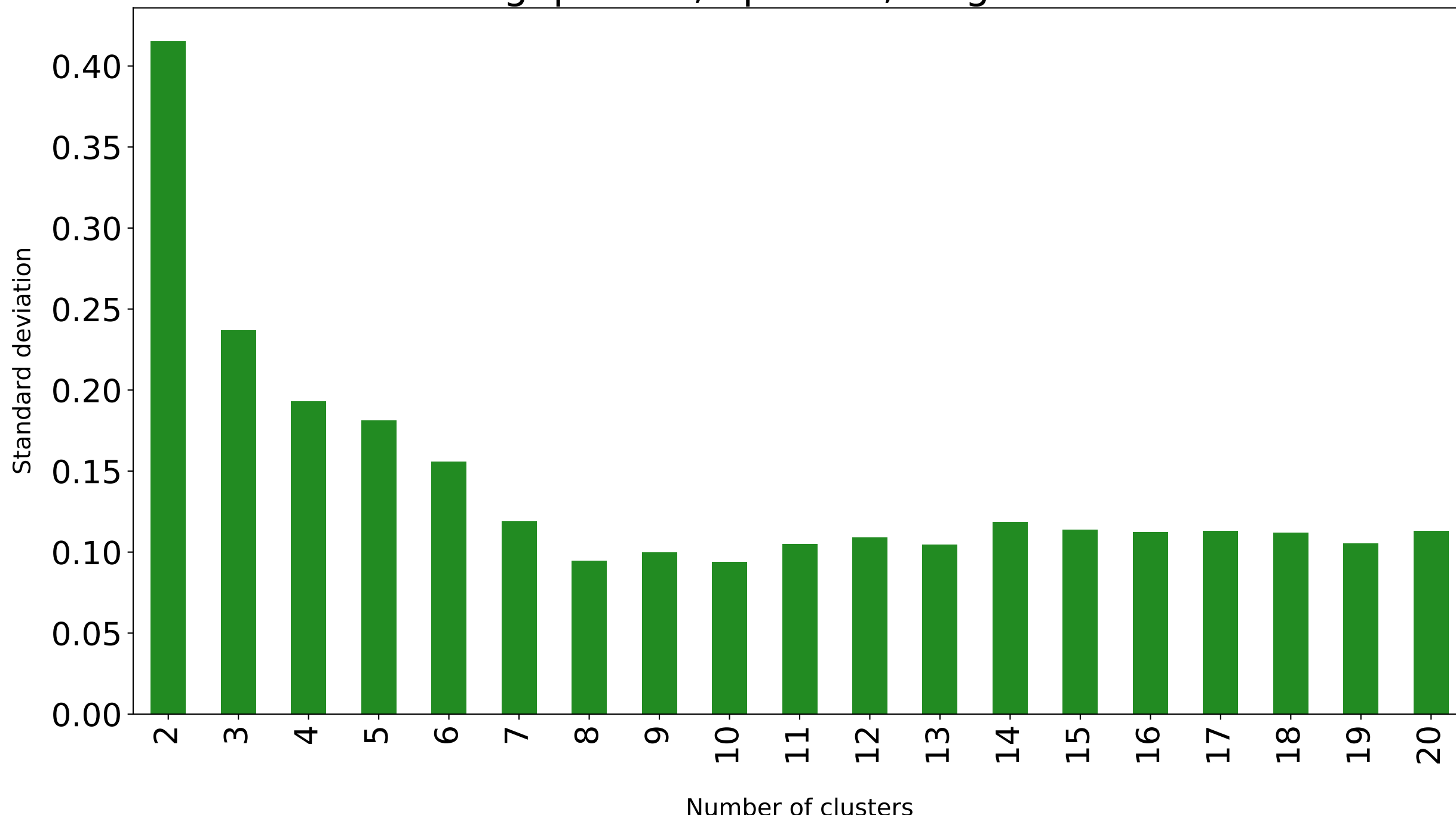## Average values of five clustering indices
gap: 0.00, Tp: 2.00, single link

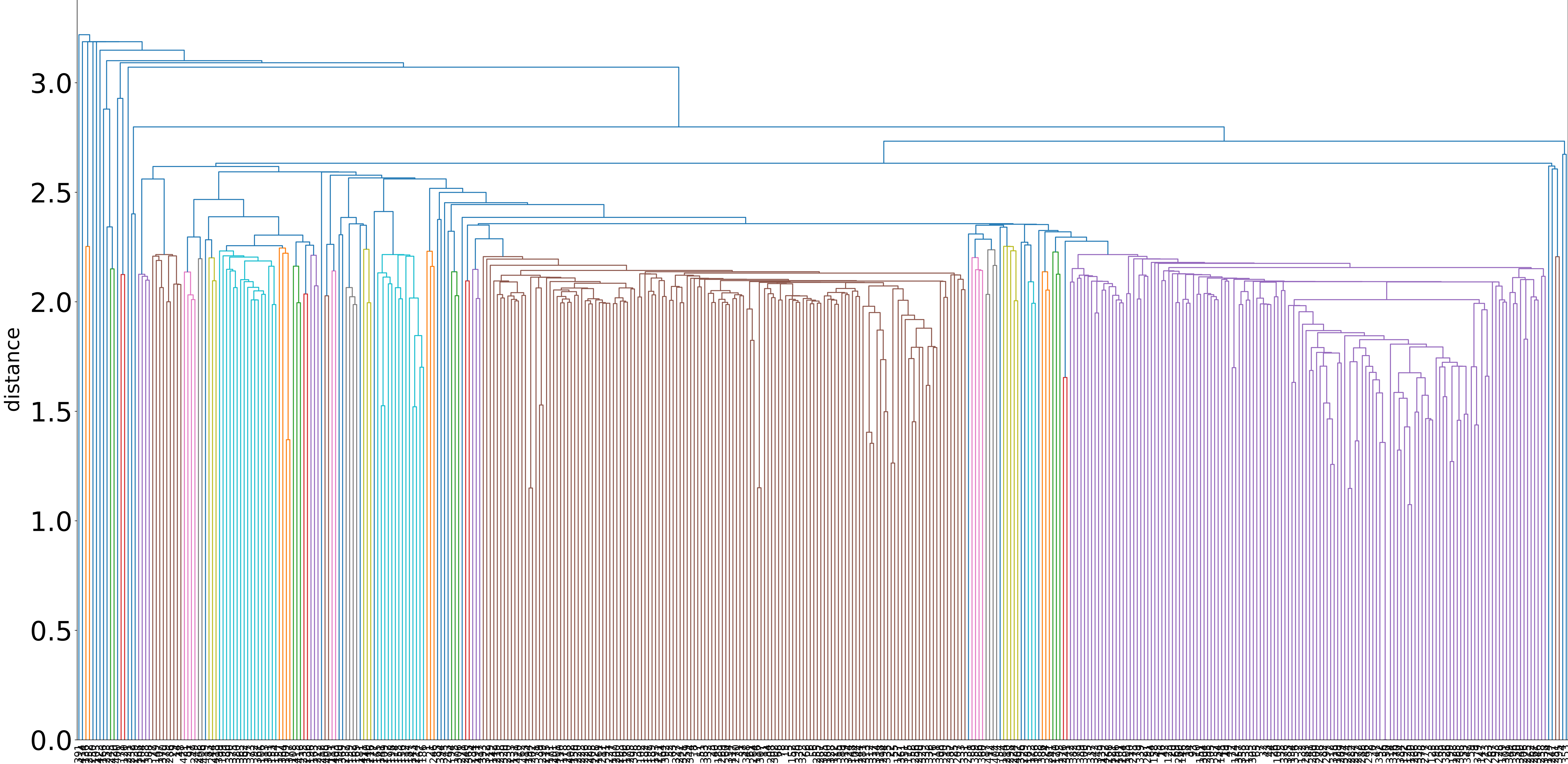| k	AR	FM	J	AW	VD	H	F	VI	K	Phi	RT	SS	CVNN	S	Dunn
2.0	1.0	0.99931	0.99862	0.78	0.00035	0.78	0.99931	0.00468	0.99931	0.00491	0.99725	0.99725	2.0	0.52713	0.77936
3.0	1.0	0.99806	0.99612	0.73423	0.00097	0.8233	0.99805	0.01257	0.99806	0.00297	0.99237	0.99233	2.0	0.67908	0.77208
4.0	1.0	0.99604	0.99213	0.69202	0.00197	0.80705	0.99603	0.02436	0.99606	0.00194	0.98468	0.98453	2.0	0.75662	0.77208
5.0	1.0	0.99282	0.98573	0.61781	0.00357	0.75359	0.99278	0.04303	0.99286	0.00132	0.97253	0.97215	2.0	0.80379	0.77208
6.0	1.0	0.992	0.98416	0.752	0.0042	0.80687	0.99198	0.04899	0.99202	0.00085	0.96995	0.96911	2.0	0.69984	0.77208
7.0	1.0	0.9915	0.98316	0.77675	0.00447	0.839	0.99147	0.05164	0.99153	0.00071	0.96843	0.96719	2.0	0.64845	0.77208
8.0	1.0	0.99013	0.98044	0.74956	0.00527	0.84106	0.99008	0.05971	0.99018	0.00062	0.96366	0.96195	2.0	0.68548	0.77208
9.0	1.0	0.99164	0.98347	0.83498	0.00491	0.88713	0.9916	0.05072	0.99168	0.00055	0.96975	0.96797	2.0	0.62524	0.77208
10.0	1.0	0.98949	0.9792	0.77568	0.00574	0.87261	0.9894	0.06135	0.98959	0.00051	0.96223	0.95987	2.0	0.65738	0.74753
11.0	1.0	0.9866	0.97354	0.74848	0.0073	0.8548	0.98645	0.07542	0.98675	0.00047	0.95253	0.94938	2.0	0.68855	0.74558
12.0	1.0	0.98086	0.96228	0.6694	0.00947	0.80998	0.98058	0.10329	0.98113	0.00042	0.93308	0.92858	2.0	0.71627	0.7359
13.0	1.0	0.97768	0.95607	0.65883	0.01089	0.80255	0.97733	0.11669	0.97802	0.00037	0.9231	0.9172	2.0	0.66924	0.72901
14.0	1.0	0.97427	0.94979	0.68825	0.01336	0.80124	0.9739	0.13199	0.97465	0.00032	0.9142	0.90646	2.0	0.62849	0.69121
15.0	1.0	0.96923	0.93995	0.63556	0.01575	0.78162	0.96861	0.15619	0.96985	0.0003	0.89862	0.8892	2.0	0.65233	0.68826
16.0	1.0	0.96092	0.92403	0.57245	0.01919	0.74432	0.95992	0.1935	0.96193	0.00027	0.87362	0.86187	2.0	0.67726	0.68525
17.0	1.0	0.95505	0.91315	0.58126	0.02174	0.73745	0.9539	0.21552	0.9562	0.00024	0.85902	0.84375	2.0	0.65009	0.67875
18.0	1.0	0.95185	0.90728	0.59963	0.02331	0.74793	0.95057	0.22623	0.95315	0.00022	0.853	0.83435	2.0	0.62683	0.6748
19.0	1.0	0.94468	0.89368	0.56578	0.02665	0.7332	0.94288	0.25628	0.94648	0.00021	0.83436	0.81229	2.0	0.64499	0.65927
20.0	1.0	0.93333	0.87358	0.54958	0.03164	0.70432	0.93128	0.30003	0.93541	0.00018	0.80854	0.78087	2.0	0.62342	0.6482

Standard deviation of Adjusted Rand versus number of clusters
gap: 0.00, Tp: 2.00, single link

Standard deviation of Huberts index versus number of clusters
gap: 0.00, Tp: 2.00, single link

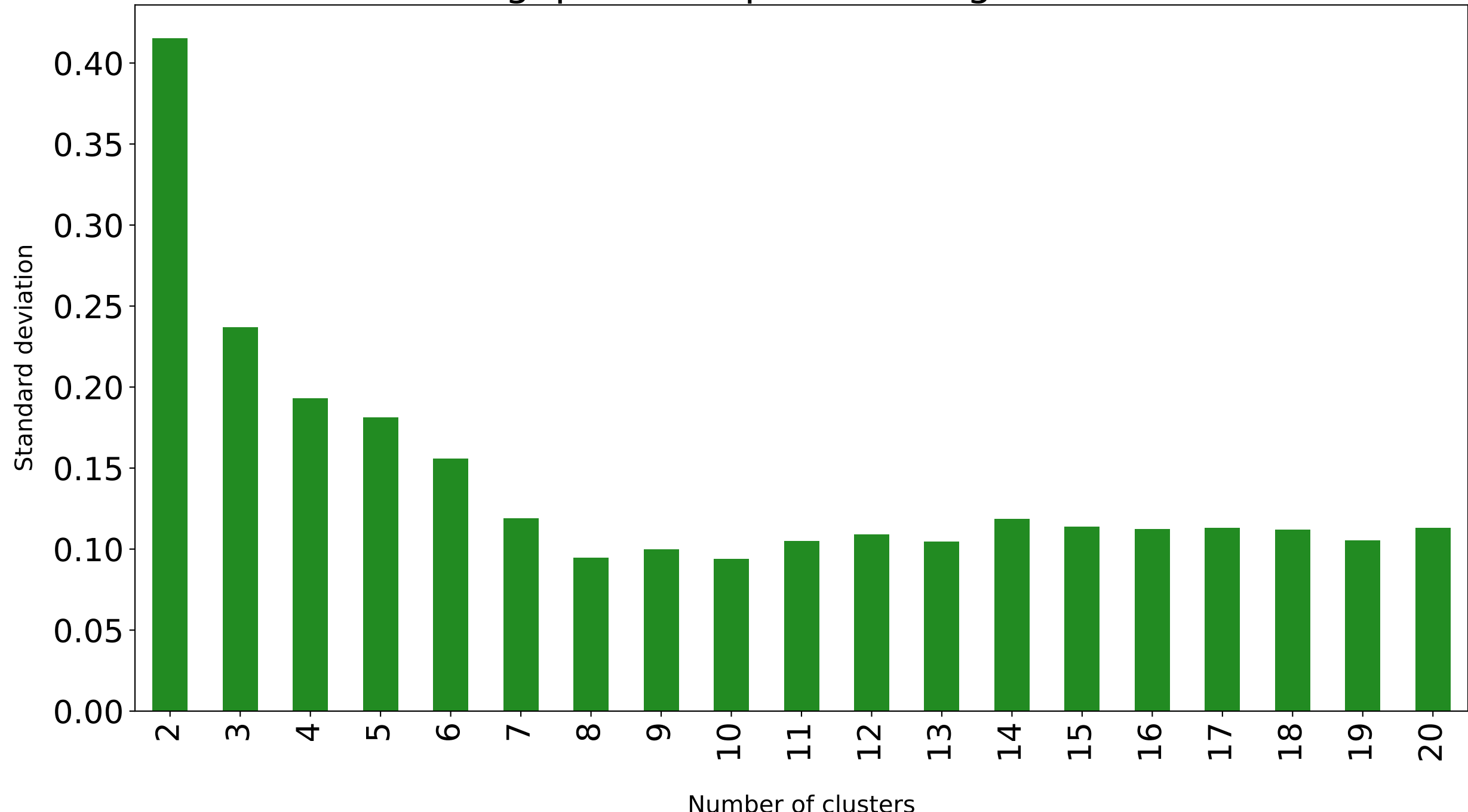Hierarchical Clustering Dendrogram - gap: 0.10, Tp: 2.00, single link
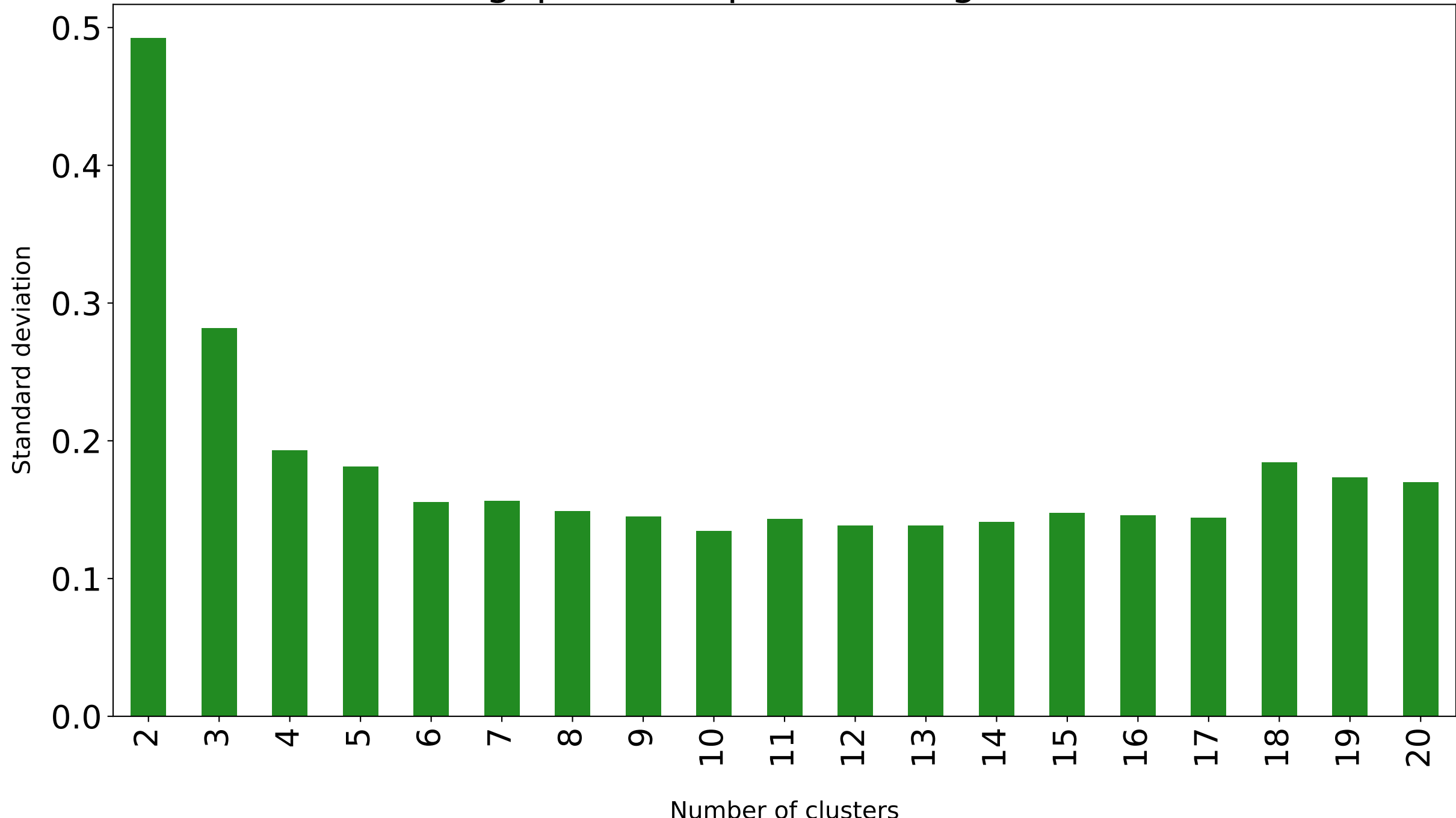
Cophenetic Correlation Coefficient: 0.4987154374796922

Average values of five clustering indices
gap: 0.10, Tp: 2.00, single link

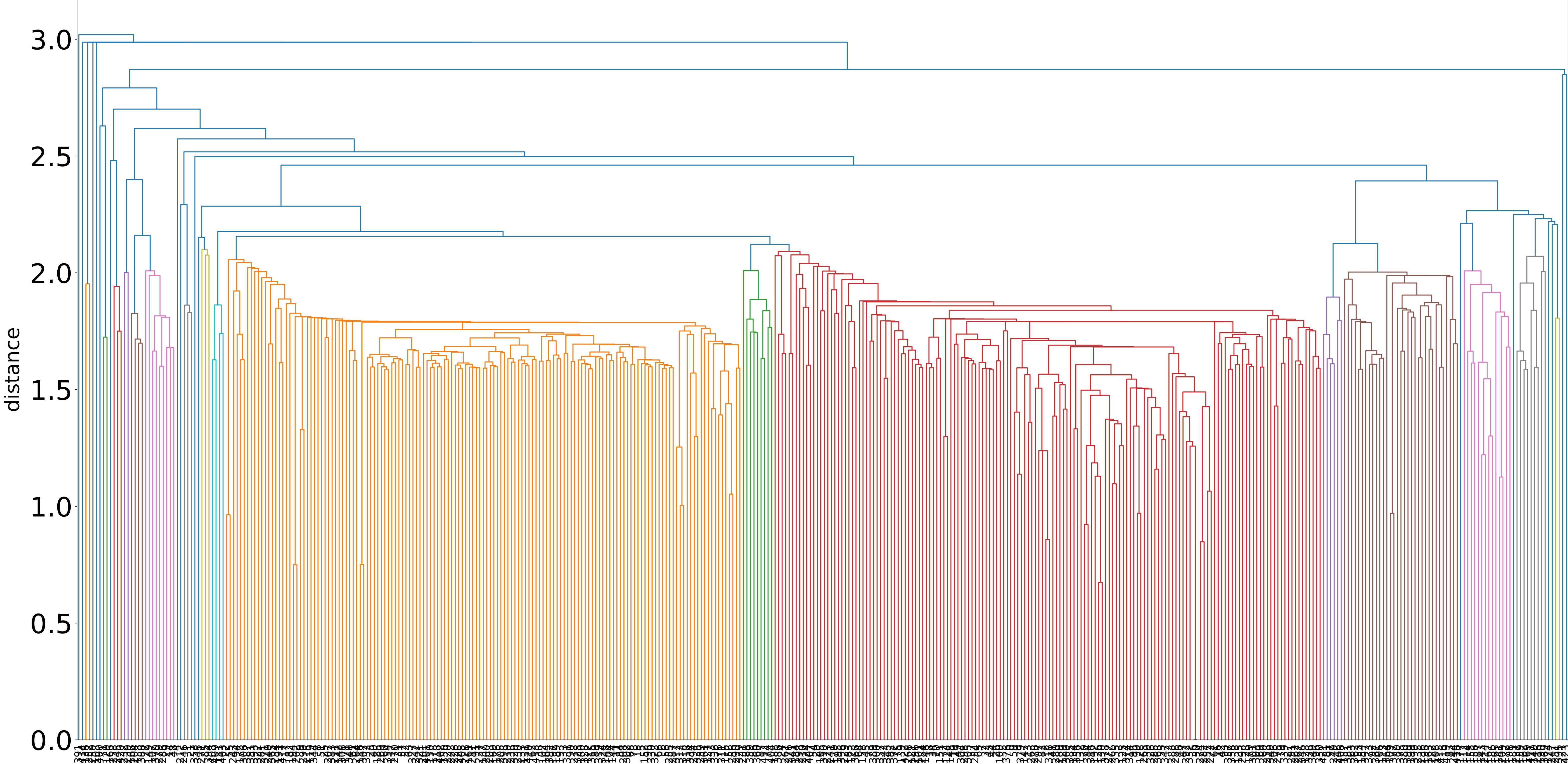| k	AR	FM	J	AW	VD	H	F	VI	K	Phi	RT	SS	CVNN	S	Dunn
2.0	1.0	0.99817	0.99636	0.59558	0.00091	0.59558	0.99817	0.01214	0.99817	0.00375	0.99279	0.99279	2.0	0.52264	0.60958
3.0	1.0	0.99551	0.99107	0.56531	0.00224	0.66085	0.99549	0.02794	0.99552	0.0023	0.98254	0.98244	2.0	0.67535	0.60353
4.0	1.0	0.99556	0.99118	0.73548	0.00221	0.80841	0.99554	0.02711	0.99557	0.00161	0.98296	0.98273	2.0	0.62647	0.60353
5.0	1.0	0.99461	0.9893	0.74088	0.00267	0.83308	0.99458	0.03205	0.99464	0.00127	0.97953	0.97914	2.0	0.6994	0.60353
6.0	1.0	0.99164	0.98344	0.68713	0.00414	0.8027	0.99158	0.04757	0.99171	0.00098	0.96869	0.96794	2.0	0.73951	0.60353
7.0	1.0	0.98738	0.97507	0.62276	0.00633	0.76383	0.98725	0.06972	0.98751	0.00077	0.95351	0.95218	2.0	0.77485	0.59619
8.0	1.0	0.98635	0.97317	0.71388	0.00687	0.80441	0.98624	0.07395	0.98647	0.00059	0.951	0.94886	2.0	0.69847	0.58713
9.0	1.0	0.98761	0.97569	0.78599	0.0065	0.86137	0.98747	0.06427	0.98775	0.00052	0.95654	0.95405	2.0	0.64259	0.58535
10.0	1.0	0.98588	0.97223	0.76493	0.00774	0.85738	0.98568	0.07277	0.98607	0.00048	0.95077	0.94757	2.0	0.67792	0.58152
11.0	1.0	0.97659	0.9542	0.65242	0.01248	0.79418	0.97608	0.1138	0.97709	0.00041	0.92052	0.91527	2.0	0.70454	0.55454
12.0	1.0	0.96852	0.93859	0.56947	0.01586	0.74157	0.96775	0.15065	0.96929	0.00036	0.89449	0.8875	2.0	0.72815	0.54527
13.0	1.0	0.96078	0.9241	0.54958	0.01987	0.72137	0.95956	0.1825	0.96201	0.00032	0.8731	0.86384	2.0	0.68587	0.52988
14.0	1.0	0.94728	0.89925	0.50129	0.02626	0.67049	0.94536	0.23582	0.94922	0.00027	0.8366	0.82404	2.0	0.65094	0.51754
15.0	1.0	0.93335	0.87359	0.43775	0.03331	0.63071	0.93029	0.28932	0.93644	0.00024	0.80002	0.78472	2.0	0.72759	0.50618
16.0	1.0	0.91927	0.84831	0.42829	0.04165	0.61204	0.9153	0.34176	0.92328	0.0002	0.76799	0.74679	2.0	0.69208	0.49848
17.0	1.0	0.90401	0.82098	0.37977	0.04924	0.58247	0.8983	0.39535	0.90982	0.00018	0.73254	0.70804	2.0	0.70739	0.49603
18.0	1.0	0.89683	0.81167	0.46502	0.0523	0.60731	0.89207	0.40559	0.90167	0.00015	0.73168	0.69664	2.0	0.67713	0.49566
19.0	1.0	0.8845	0.78962	0.42374	0.0583	0.59003	0.87808	0.4487	0.89107	0.00014	0.70556	0.66599	2.0	0.69645	0.49353
20.0	1.0	0.90735	0.83095	0.68705	0.05048	0.72067	0.90471	0.37194	0.91007	0.00013	0.78067	0.72104	2.0	0.66701	0.49104

Standard deviation of Adjusted Rand versus number of clusters
gap: 0.10, Tp: 2.00, single link

Standard deviation of Huberts index versus number of clusters
gap: 0.10, Tp: 2.00, single link

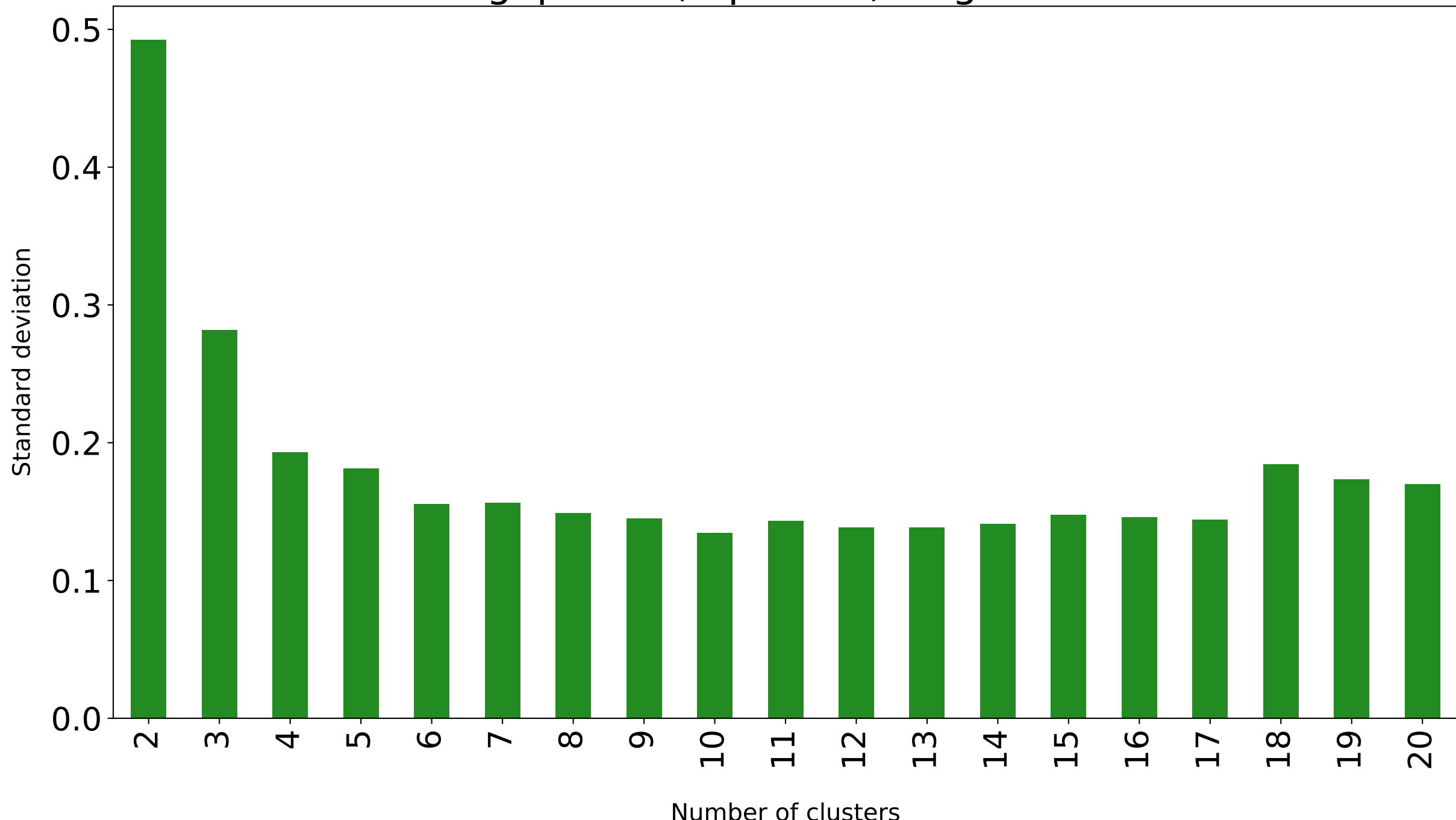Hierarchical Clustering Dendrogram - gap: 0.20, Tp: 2.00, single link
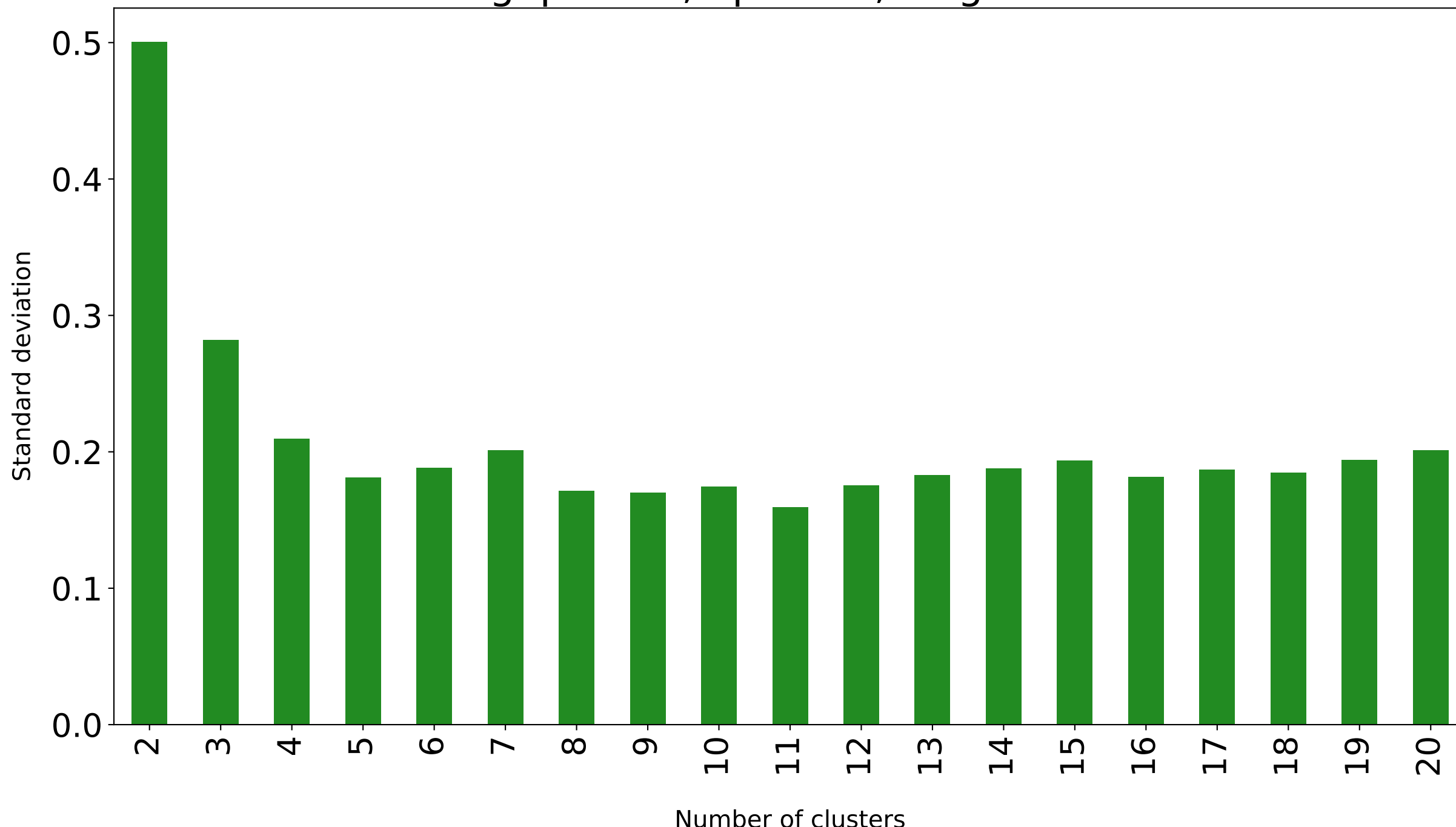
Cophenetic Correlation Coefficient: 0.5557573073710503

Average values of five clustering indices
gap: 0.20, Tp: 2.00, single link

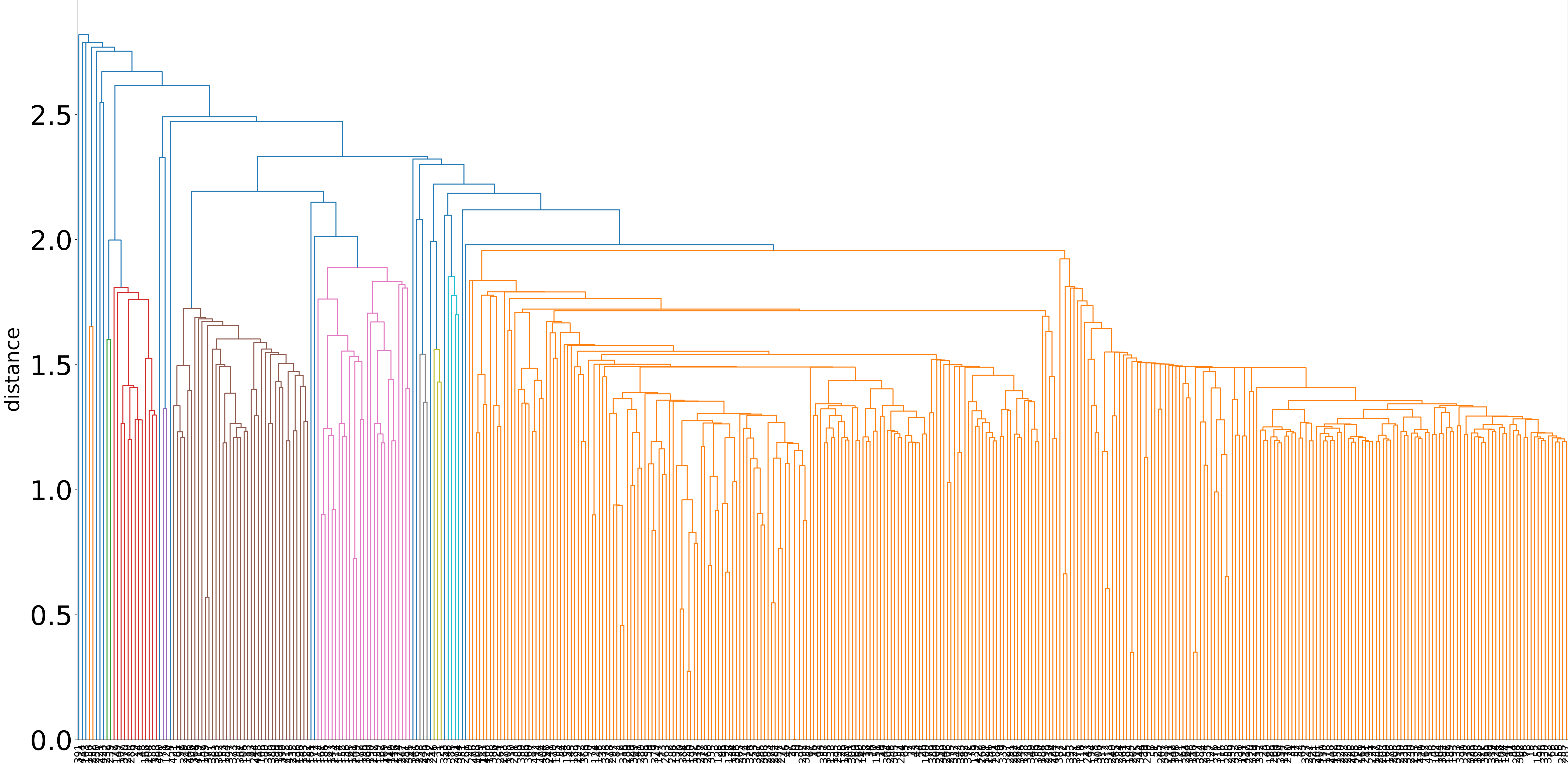| k	AR	FM	J	AW	VD	H	F	VI	K	Phi	RT	SS	CVNN	S	Dunn
2.0	1.0	0.99776	0.99553	0.53544	0.00112	0.53544	0.99775	0.01479	0.99776	0.00337	0.99116	0.99116	2.0	0.51823	0.48848
3.0	1.0	0.99514	0.99035	0.53056	0.00243	0.62668	0.99513	0.03047	0.99516	0.00222	0.98118	0.98108	2.0	0.6709	0.48331
4.0	1.0	0.9951	0.9903	0.71378	0.00245	0.78624	0.99508	0.02981	0.99513	0.00161	0.98132	0.9811	2.0	0.63635	0.48331
5.0	1.0	0.9935	0.98714	0.71304	0.00323	0.81128	0.99345	0.03771	0.99355	0.00127	0.97561	0.9752	2.0	0.70723	0.48331
6.0	1.0	0.98865	0.97764	0.65528	0.00565	0.7759	0.98851	0.0597	0.98879	0.00095	0.95844	0.9575	2.0	0.74536	0.48331
7.0	1.0	0.9828	0.96627	0.62524	0.00887	0.75063	0.98254	0.08451	0.98306	0.00069	0.93858	0.93673	2.0	0.66431	0.4645
8.0	1.0	0.97481	0.95058	0.48893	0.0127	0.67461	0.97435	0.124	0.97527	0.00055	0.91076	0.90782	2.0	0.80748	0.46086
9.0	1.0	0.96939	0.94034	0.51192	0.01542	0.6862	0.96873	0.14317	0.97006	0.00043	0.89502	0.89041	2.0	0.74717	0.4516
10.0	1.0	0.9625	0.92762	0.53183	0.01891	0.67926	0.96168	0.17064	0.96332	0.00034	0.87625	0.86913	2.0	0.69667	0.43695
11.0	1.0	0.9518	0.90741	0.46462	0.0245	0.65166	0.95015	0.2137	0.95347	0.0003	0.84582	0.83649	2.0	0.7225	0.42528
12.0	1.0	0.9587	0.92169	0.69714	0.02092	0.77738	0.95736	0.17403	0.96006	0.00025	0.87762	0.86364	2.0	0.67459	0.4235
13.0	1.0	0.9425	0.89251	0.63762	0.02982	0.75385	0.93933	0.22035	0.94575	0.00022	0.84114	0.82154	2.0	0.69945	0.41631
14.0	1.0	0.91938	0.8513	0.58042	0.04134	0.71127	0.91429	0.28365	0.92459	0.00019	0.79064	0.76126	2.0	0.67073	0.40735
15.0	1.0	0.89334	0.80523	0.49487	0.05557	0.66297	0.88517	0.35649	0.90178	0.00017	0.73499	0.69673	2.0	0.69252	0.4041
16.0	0.99999	0.86064	0.74849	0.39781	0.0733	0.59921	0.84803	0.44682	0.87382	0.00014	0.66755	0.61996	2.0	0.70845	0.40118
17.0	1.0	0.92228	0.86096	0.8302	0.05828	0.82248	0.91721	0.28264	0.92755	0.00014	0.84276	0.78314	2.0	0.6638	0.39813
18.0	1.00002	0.91309	0.84622	0.77702	0.0691	0.82855	0.90511	0.30072	0.92151	0.00014	0.84008	0.76896	2.0	0.64321	0.38803
19.0	1.00001	0.89822	0.82268	0.74676	0.06867	0.82024	0.88706	0.28438	0.91007	0.00014	0.82788	0.74462	2.0	0.62745	0.3872
20.0	1.00001	0.87298	0.78032	0.67761	0.08432	0.78882	0.85749	0.33346	0.88948	0.00013	0.79423	0.69148	2.0	0.64284	0.37089

Standard deviation of Adjusted Rand versus number of clusters
gap: 0.20, Tp: 2.00, single link

Standard deviation of Huberts index versus number of clusters
gap: 0.20, Tp: 2.00, single link

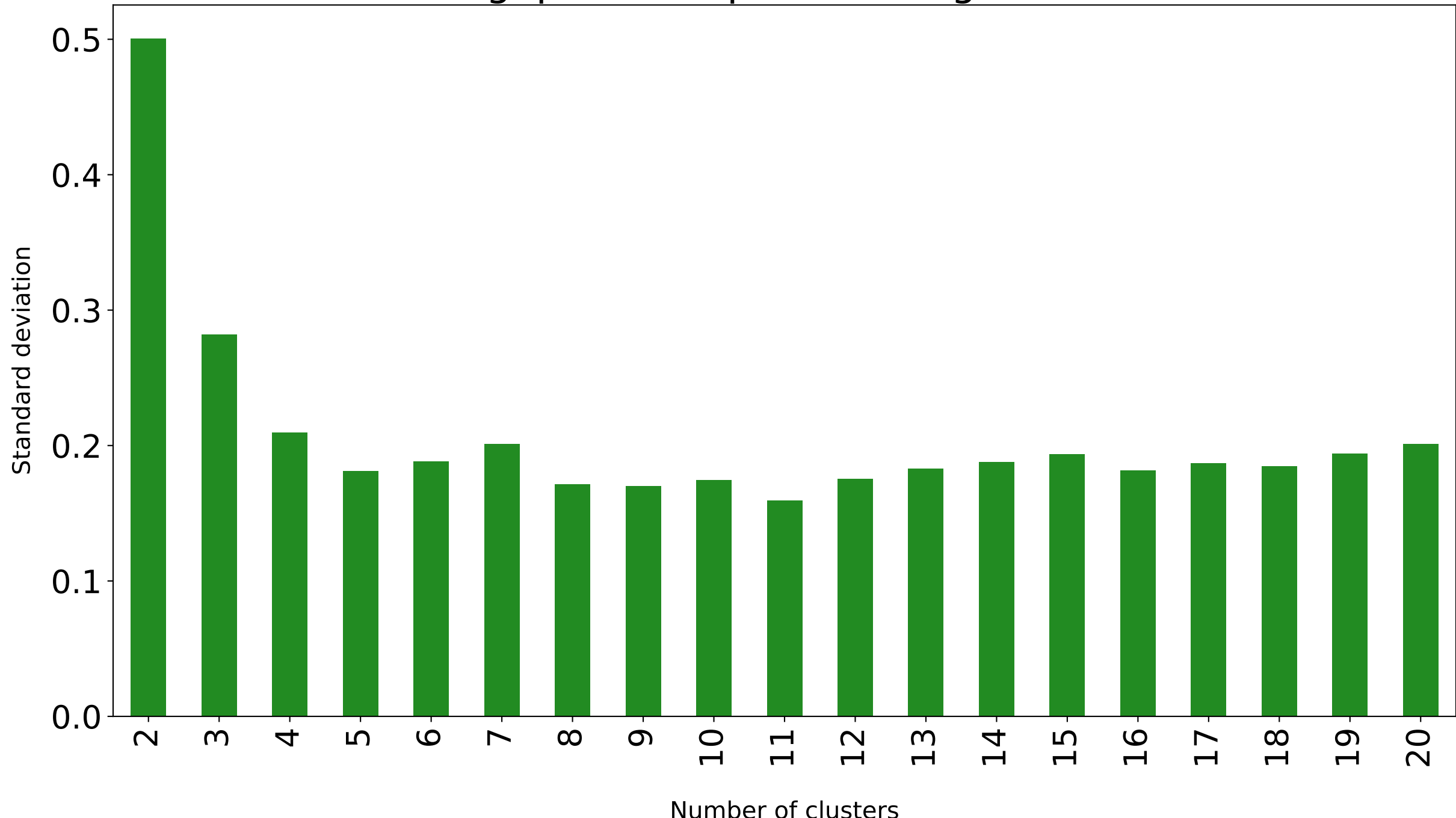Hierarchical Clustering Dendrogram - gap: 0.30, Tp: 2.00, single link

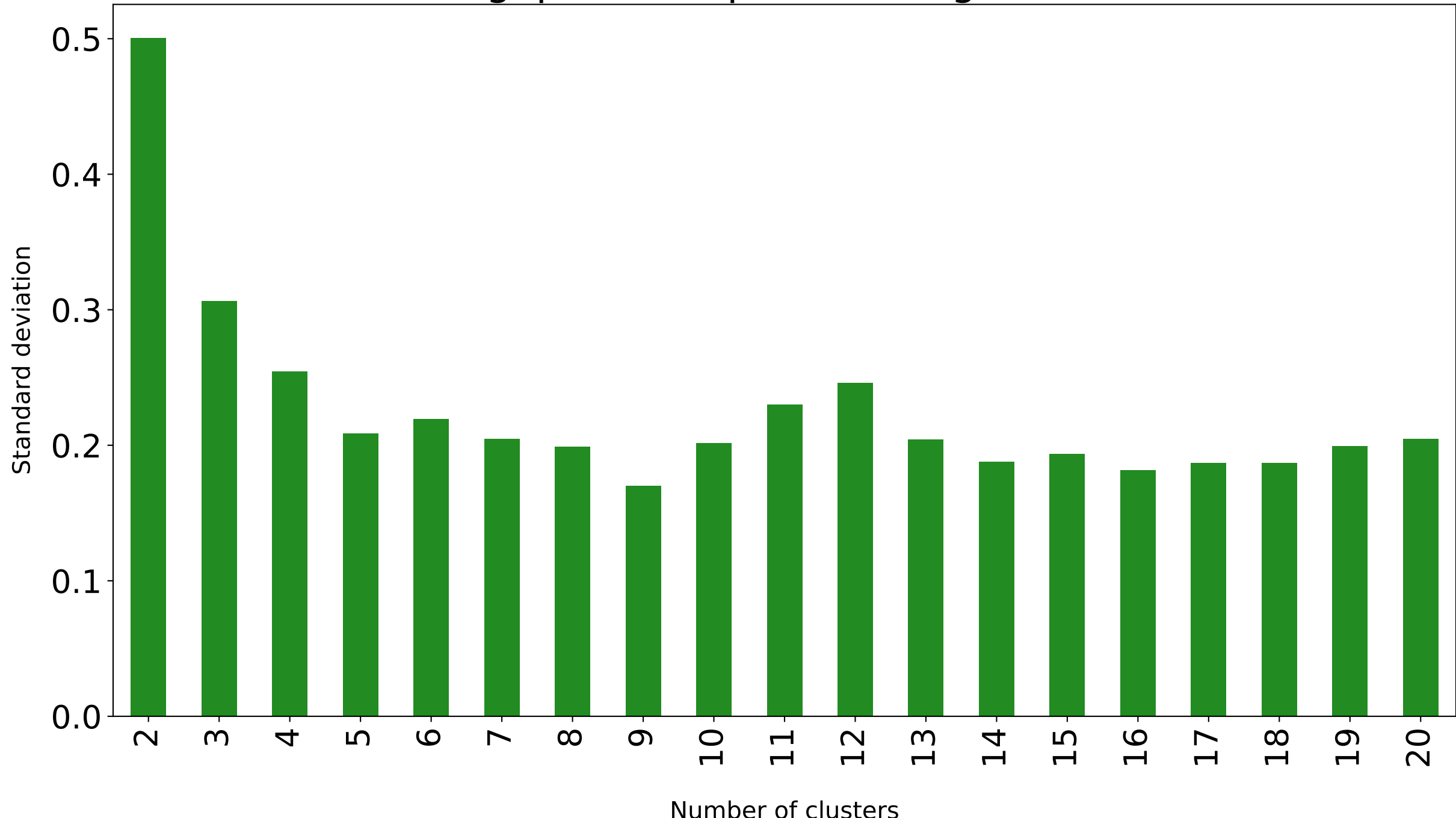Cophenetic Correlation Coefficient: 0.5739204638316607

Average values of five clustering indices
gap: 0.30, Tp: 2.00, single link

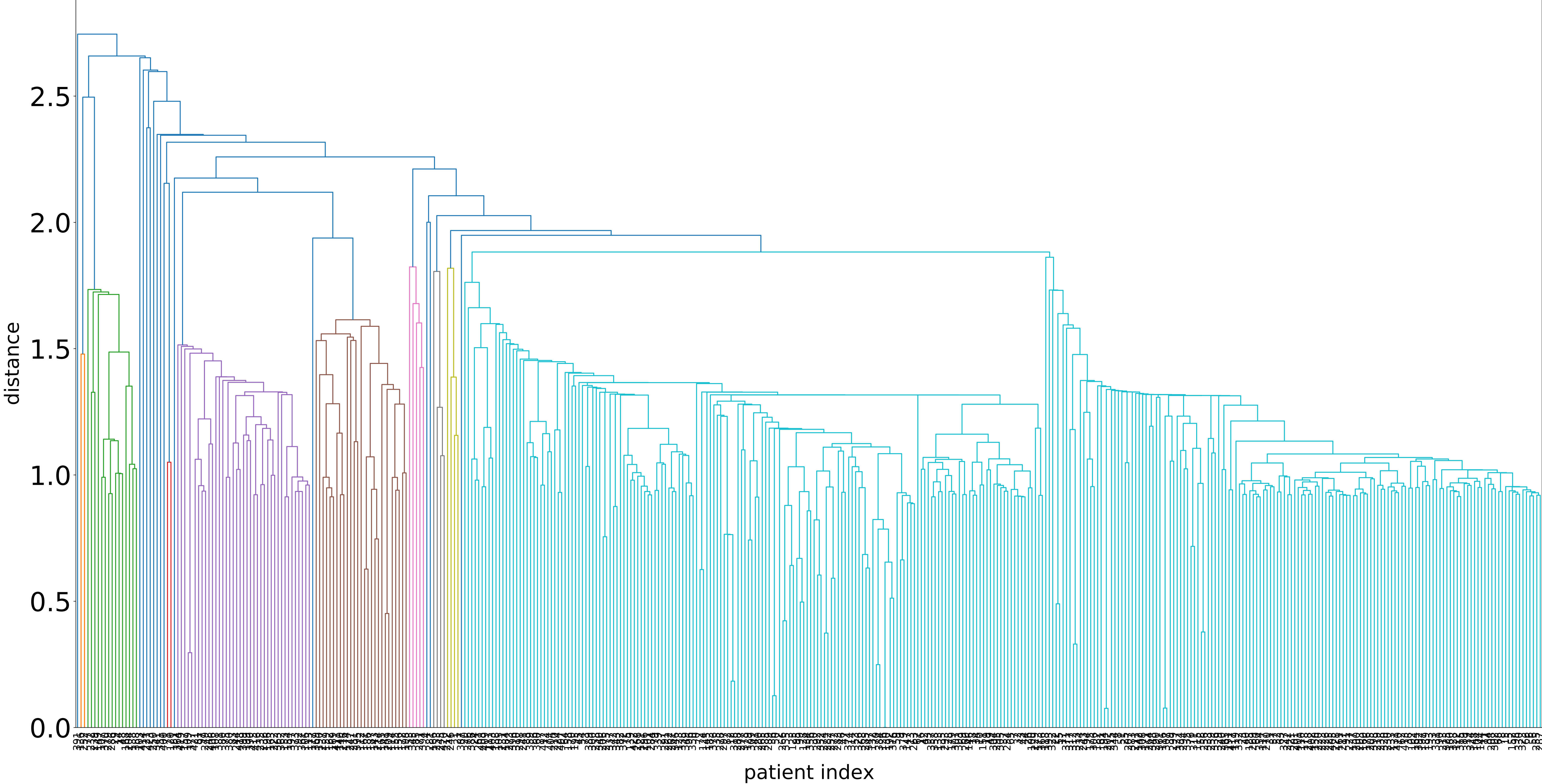| k	AR	FM	J	AW	VD	H	F	VI	K	Phi	RT	SS	CVNN	S	Dunn
2.0	1.0	0.9978	0.99562	0.59548	0.0011	0.59548	0.99779	0.01401	0.9978	0.00375	0.99138	0.99138	2.0	0.51309	0.40922
3.0	1.0	0.99474	0.98958	0.56073	0.00263	0.64556	0.99471	0.03138	0.99477	0.00228	0.97982	0.97972	2.0	0.66638	0.40458
4.0	1.0	0.98987	0.98004	0.50726	0.00506	0.61837	0.98978	0.05711	0.98995	0.00144	0.96209	0.96177	2.0	0.73272	0.40458
5.0	1.0	0.98821	0.97677	0.61234	0.00599	0.72208	0.98808	0.06282	0.98834	0.00107	0.95657	0.95578	2.0	0.70415	0.40204
6.0	1.0	0.98157	0.96388	0.56571	0.00925	0.7035	0.98123	0.08975	0.9819	0.0008	0.9341	0.93265	2.0	0.75216	0.39965
7.0	1.0	0.97153	0.94455	0.49691	0.01436	0.66242	0.97086	0.12845	0.97221	0.00055	0.90142	0.89836	2.0	0.6771	0.3877
8.0	1.0	0.98021	0.96173	0.80428	0.01001	0.82675	0.97985	0.09144	0.98057	0.00034	0.93468	0.92996	2.0	0.61134	0.37995
9.0	1.0	0.97307	0.94871	0.74083	0.01384	0.83355	0.97198	0.11647	0.97418	0.00032	0.91785	0.91033	2.0	0.73908	0.36992
10.0	1.0	0.95098	0.90923	0.69176	0.0258	0.79428	0.94759	0.17285	0.95448	0.00027	0.86694	0.8534	2.0	0.70622	0.36161
11.0	1.0	0.92242	0.85795	0.58394	0.04117	0.72435	0.91616	0.25174	0.9289	0.00023	0.79955	0.77853	2.0	0.73256	0.35899
12.0	1.0	0.91418	0.84516	0.84873	0.05079	0.73988	0.90949	0.28091	0.91898	0.00013	0.79753	0.75633	2.0	0.66891	0.33865
13.0	1.0	0.93719	0.88633	0.84235	0.04172	0.82723	0.93422	0.23172	0.94026	0.00014	0.85842	0.81629	2.0	0.69435	0.338
14.0	1.00001	0.94032	0.8926	0.81682	0.04331	0.86412	0.93656	0.22329	0.94427	0.00014	0.8779	0.82812	2.0	0.7157	0.33707
15.0	1.0	0.94013	0.89211	0.82018	0.0459	0.87912	0.93517	0.2185	0.94539	0.00015	0.88518	0.83083	2.0	0.68917	0.33396
16.0	1.0	0.93439	0.88314	0.81507	0.05323	0.87691	0.9285	0.23408	0.94063	0.00014	0.88143	0.82094	2.0	0.66893	0.32255
17.0	1.0	0.92115	0.86167	0.79269	0.05506	0.86073	0.91349	0.2359	0.92924	0.00014	0.86561	0.79515	2.0	0.65503	0.31835
18.0	1.00001	0.91376	0.85037	0.78998	0.05886	0.85756	0.90423	0.2241	0.92382	0.00014	0.86204	0.78739	2.0	0.62977	0.3172
19.0	1.00001	0.89915	0.82595	0.75029	0.06652	0.83818	0.88687	0.2449	0.91217	0.00014	0.84236	0.75788	2.0	0.64634	0.312
20.0	1.00001	0.88357	0.79916	0.71292	0.07446	0.81513	0.86914	0.27163	0.89886	0.00013	0.81973	0.72221	2.0	0.66365	0.30755

Standard deviation of Adjusted Rand versus number of clusters
gap: 0.30, Tp: 2.00, single link

Standard deviation of Huberts index versus number of clusters
gap: 0.30, Tp: 2.00, single link

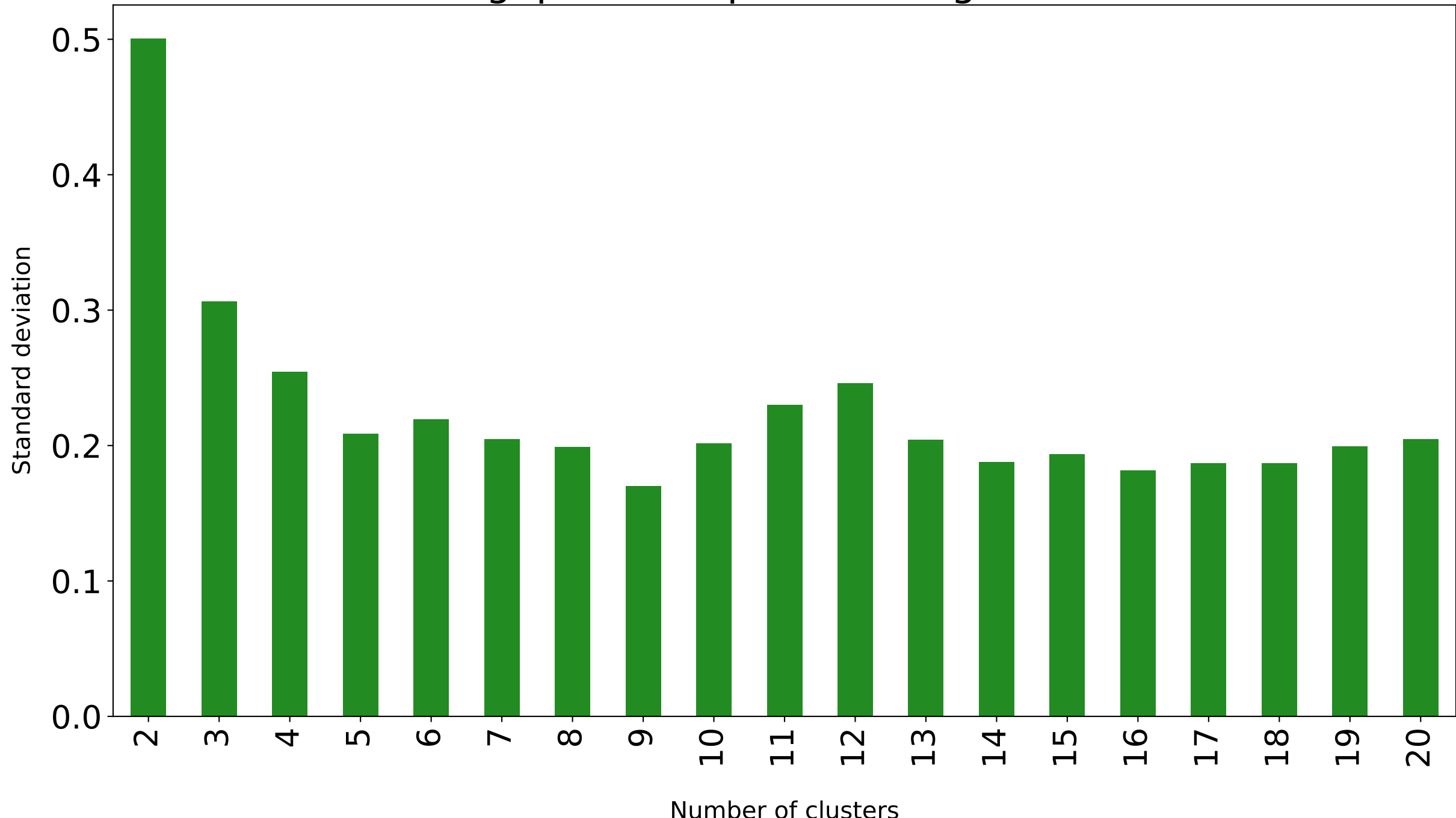Hierarchical Clustering Dendrogram - gap: 0.40, Tp: 2.00, single link

distance

patient index

Cophenetic Correlation Coefficient: 0.5844662552990025

Average values of five clustering indices
gap: 0.40, Tp: 2.00, single link

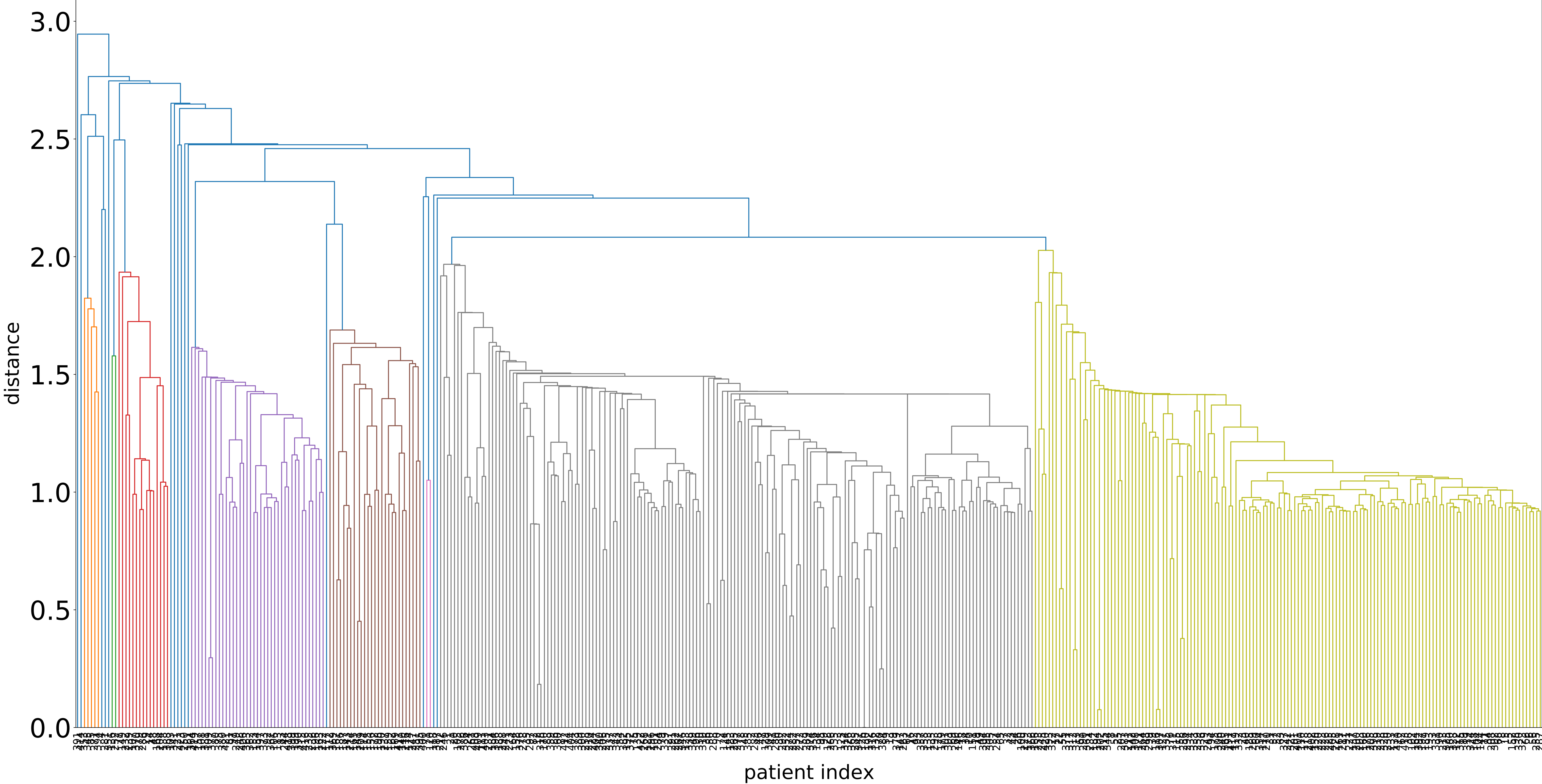| k	AR	FM	J	AW	VD	H	F	VI	K	Phi	RT	SS	CVNN	S	Dunn
2.0	1.0	0.99448	0.98914	0.55139	0.00279	0.55139	0.9944	0.02774	0.99456	0.00347	0.97945	0.97945	2.0	0.50909	0.35859
3.0	1.0	0.98183	0.96461	0.82129	0.00957	0.66799	0.98157	0.08421	0.98209	0.00043	0.93511	0.93439	2.0	0.47613	0.34729
4.0	1.0	0.9897	0.97995	0.8721	0.00553	0.85229	0.9896	0.05338	0.98981	0.00044	0.96388	0.96256	2.0	0.58806	0.34638
5.0	1.0	0.99264	0.98545	0.89255	0.00416	0.92112	0.99259	0.04438	0.99268	0.00043	0.97403	0.97188	2.0	0.66338	0.34
6.0	1.0	0.9911	0.98265	0.90156	0.00532	0.928	0.99093	0.04982	0.99127	0.0004	0.97052	0.96769	2.0	0.612	0.33923
7.0	1.0	0.98618	0.97331	0.84424	0.00772	0.90699	0.98574	0.06708	0.98663	0.00038	0.95621	0.95189	2.0	0.59092	0.326
8.0	1.0	0.97712	0.95649	0.79586	0.01202	0.87382	0.97605	0.09412	0.9782	0.00034	0.93178	0.92511	2.0	0.63068	0.32386
9.0	1.0	0.96461	0.93312	0.70998	0.01843	0.82341	0.9627	0.1366	0.96654	0.00031	0.89731	0.88726	2.0	0.75148	0.31017
10.0	1.0	0.94558	0.89873	0.63511	0.02817	0.76451	0.94205	0.19659	0.94918	0.00027	0.85005	0.83562	2.0	0.77407	0.30673
11.0	1.0	0.90994	0.83472	0.5031	0.04666	0.66538	0.90306	0.30347	0.917	0.00022	0.76419	0.74141	2.0	0.79324	0.30628
12.0	1.0	0.87585	0.77506	0.40788	0.06505	0.58808	0.8654	0.39663	0.88669	0.00017	0.68955	0.65647	2.0	0.76767	0.30269
13.0	0.99999	0.92921	0.87321	0.8252	0.0476	0.81545	0.92484	0.24351	0.93375	0.00014	0.84726	0.80077	2.0	0.70698	0.29845
14.0	1.0	0.94663	0.90447	0.86878	0.04369	0.88627	0.94201	0.18299	0.95147	0.00015	0.89585	0.8538	2.0	0.67698	0.29214
15.0	1.00001	0.93672	0.88813	0.8229	0.05336	0.88155	0.93024	0.20844	0.94358	0.00015	0.88619	0.83368	2.0	0.69735	0.2874
16.0	1.0	0.91675	0.8531	0.76018	0.06799	0.85003	0.90784	0.26549	0.92621	0.00014	0.85333	0.78373	2.0	0.71759	0.28465
17.0	1.0	0.90801	0.83885	0.74677	0.05418	0.84107	0.8979	0.23491	0.91874	0.00014	0.84419	0.76676	2.0	0.70411	0.27998
18.0	1.0	0.8868	0.80342	0.70174	0.06477	0.81104	0.87334	0.26993	0.90115	0.00013	0.81459	0.72168	2.0	0.6809	0.27815
19.0	1.00001	0.87002	0.77656	0.67698	0.07273	0.78771	0.85466	0.30017	0.88644	0.00013	0.79415	0.68759	2.0	0.66648	0.26776
20.0	1.00002	0.83744	0.72175	0.59812	0.09147	0.73986	0.81694	0.36881	0.85944	0.00012	0.74681	0.61684	2.0	0.71571	0.26428

Standard deviation of Adjusted Rand versus number of clusters
gap: 0.40, Tp: 2.00, single link

Standard deviation of Huberts index versus number of clusters
gap: 0.40, Tp: 2.00, single link
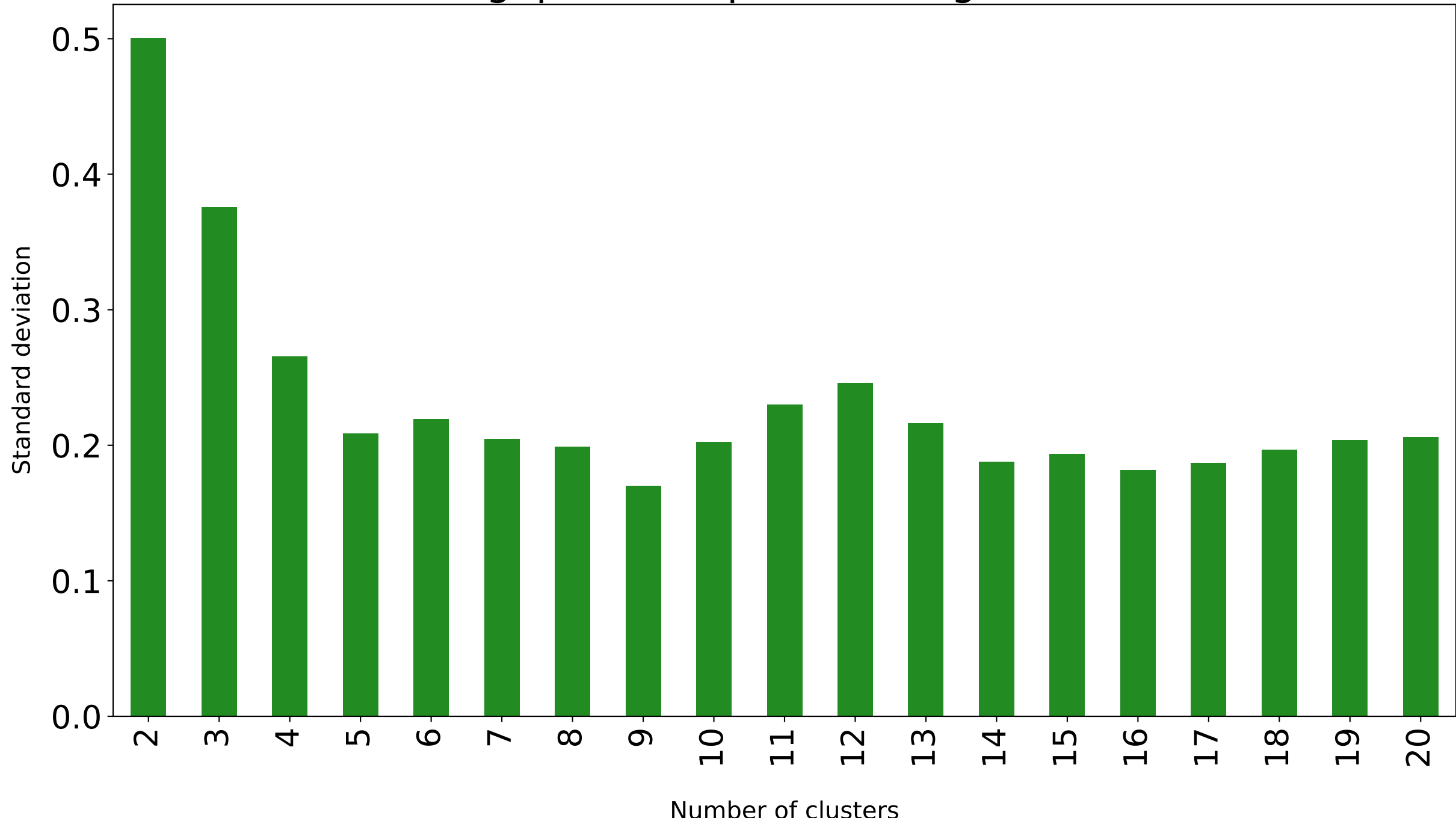
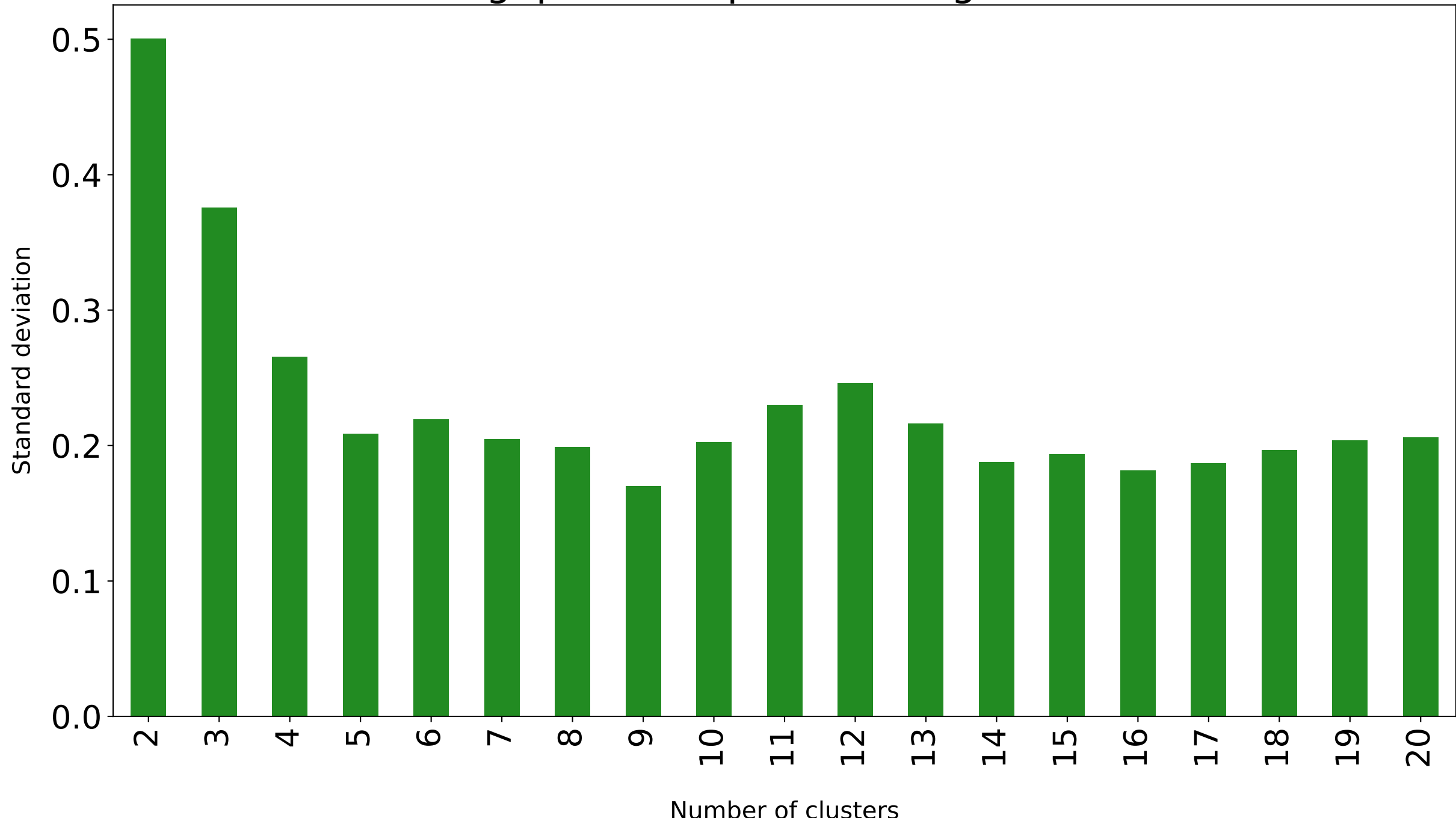Hierarchical Clustering Dendrogram - gap: 0.50, Tp: 2.00, single link

patient index

Cophenetic Correlation Coefficient: 0.6172502969483431

Average values of five clustering indices
gap: 0.50, Tp: 2.00, single link

k	AR	FM	J	AW	VD	H	F	VI	K	Phi	RT	SS	CVNN	S	Dunn
2.0	1.0	0.99372	0.98762	0.53132	0.00317	0.53131	0.99365	0.03195	0.9938	0.00335	0.97644	0.97644	2.0	0.50618	0.35011
3.0	1.0	0.97348	0.94913	0.54327	0.01375	0.47051	0.97329	0.12425	0.97368	0.00055	0.90773	0.90681	2.0	0.46092	0.32871
4.0	1.0	0.96901	0.94029	0.5189	0.01618	0.58896	0.96858	0.14103	0.96944	0.00048	0.89396	0.8911	2.0	0.59308	0.32651
5.0	1.0	0.98401	0.96924	0.95204	0.00921	0.86281	0.98365	0.07411	0.98437	0.00035	0.94777	0.94443	2.0	0.56018	0.32525
6.0	1.0	0.98891	0.97855	0.94362	0.00697	0.92195	0.98859	0.05739	0.98924	0.00034	0.96469	0.96115	2.0	0.62179	0.31522
7.0	1.0	0.98907	0.97905	0.93053	0.00716	0.93664	0.98869	0.05718	0.98947	0.00033	0.9668	0.96279	2.0	0.67328	0.3148
8.0	1.0	0.98079	0.96413	0.90374	0.01196	0.92274	0.97962	0.07717	0.98198	0.0003	0.94781	0.94112	2.0	0.63411	0.31256
9.0	1.0	0.97308	0.94992	0.85227	0.01628	0.90131	0.97128	0.09902	0.97491	0.00029	0.92844	0.91937	2.0	0.65254	0.30942
10.0	1.0	0.94396	0.89611	0.70094	0.03042	0.80644	0.93997	0.18215	0.94801	0.00024	0.85351	0.83503	2.0	0.6235	0.29852
11.0	1.0	0.91508	0.84327	0.56665	0.04434	0.71798	0.90868	0.26244	0.9216	0.0002	0.78158	0.75397	2.0	0.60878	0.29668
12.0	1.0	0.88771	0.79488	0.4708	0.05896	0.65039	0.87838	0.33919	0.89735	0.00017	0.72016	0.68398	2.0	0.62829	0.29473
13.0	0.99999	0.85466	0.73708	0.3621	0.07706	0.57368	0.84143	0.42966	0.86845	0.00014	0.64866	0.60254	2.0	0.65681	0.30176
14.0	0.99999	0.82189	0.68263	0.28248	0.09479	0.51225	0.80353	0.52744	0.84129	0.00012	0.58656	0.53342	2.0	0.73606	0.30165
15.0	1.0	0.92643	0.8696	0.78908	0.05569	0.86275	0.91915	0.22859	0.93411	0.00014	0.86703	0.80586	2.0	0.68497	0.30174
16.0	0.99998	0.90801	0.8384	0.74564	0.06987	0.83803	0.89833	0.2688	0.91823	0.00014	0.84163	0.76486	2.0	0.67361	0.28666
17.0	1.0	0.89268	0.81252	0.71637	0.06193	0.81871	0.88059	0.25365	0.90547	0.00013	0.82201	0.73226	2.0	0.66514	0.28458
18.0	0.99998	0.85854	0.75599	0.63964	0.07875	0.76864	0.84118	0.31752	0.87709	0.00013	0.77317	0.66061	2.0	0.6832	0.28355
19.0	1.0	0.83336	0.71444	0.58376	0.09179	0.73309	0.81149	0.36622	0.85689	0.00012	0.73765	0.60914	2.0	0.70093	0.28265
20.0	1.00003	0.8052	0.6685	0.52615	0.10828	0.69405	0.77854	0.41823	0.83399	0.00012	0.69975	0.55287	2.0	0.71497	0.28191

Standard deviation of Adjusted Rand versus number of clusters
gap: 0.50, Tp: 2.00, single link

Standard deviation of Huberts index versus number of clusters
gap: 0.50, Tp: 2.00, single link

Hierarchical Clustering Dendrogram - gap: 0.60, Tp: 2.00, single link

Cophenetic Correlation Coefficient: 0.6245414984050521
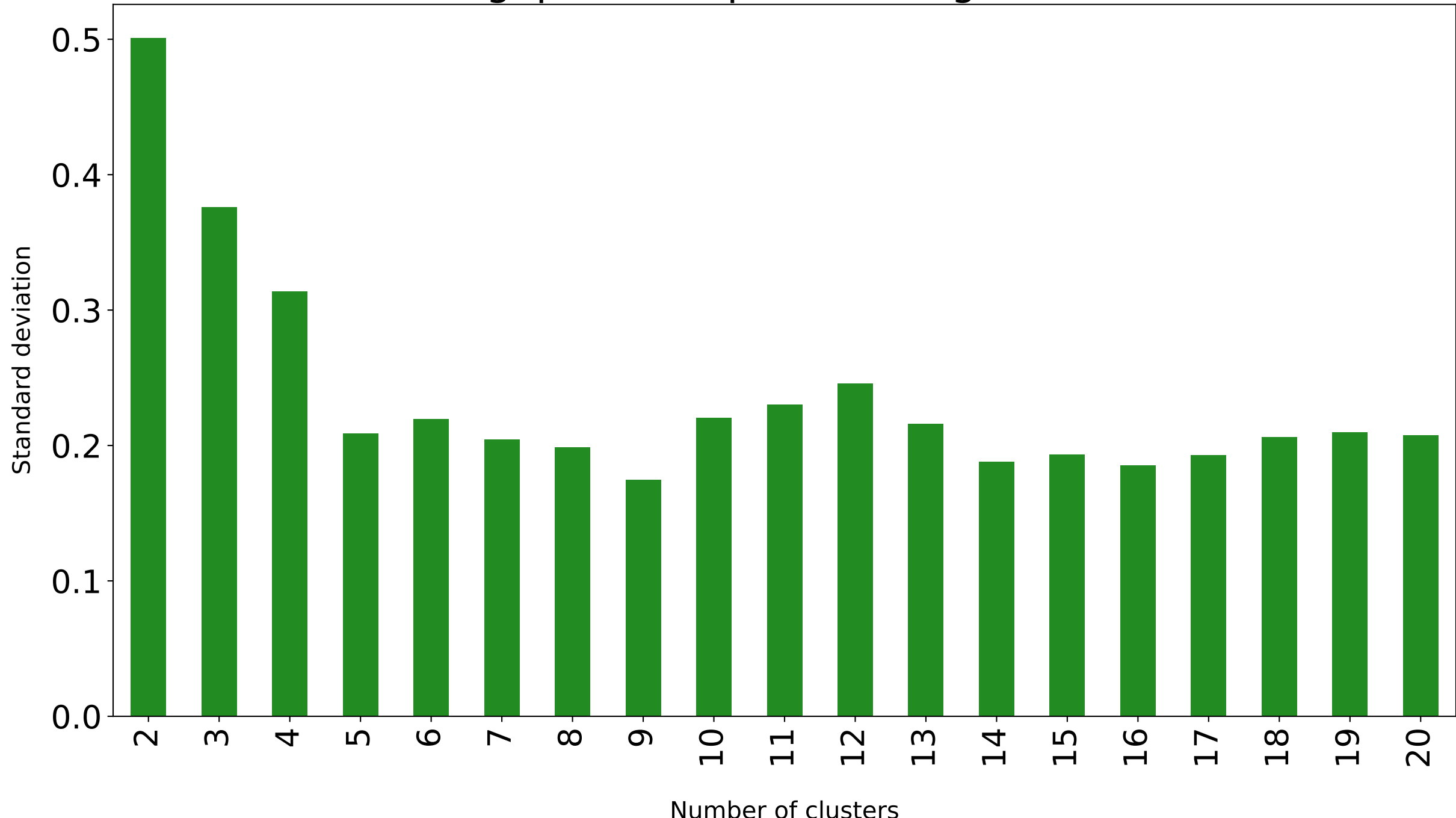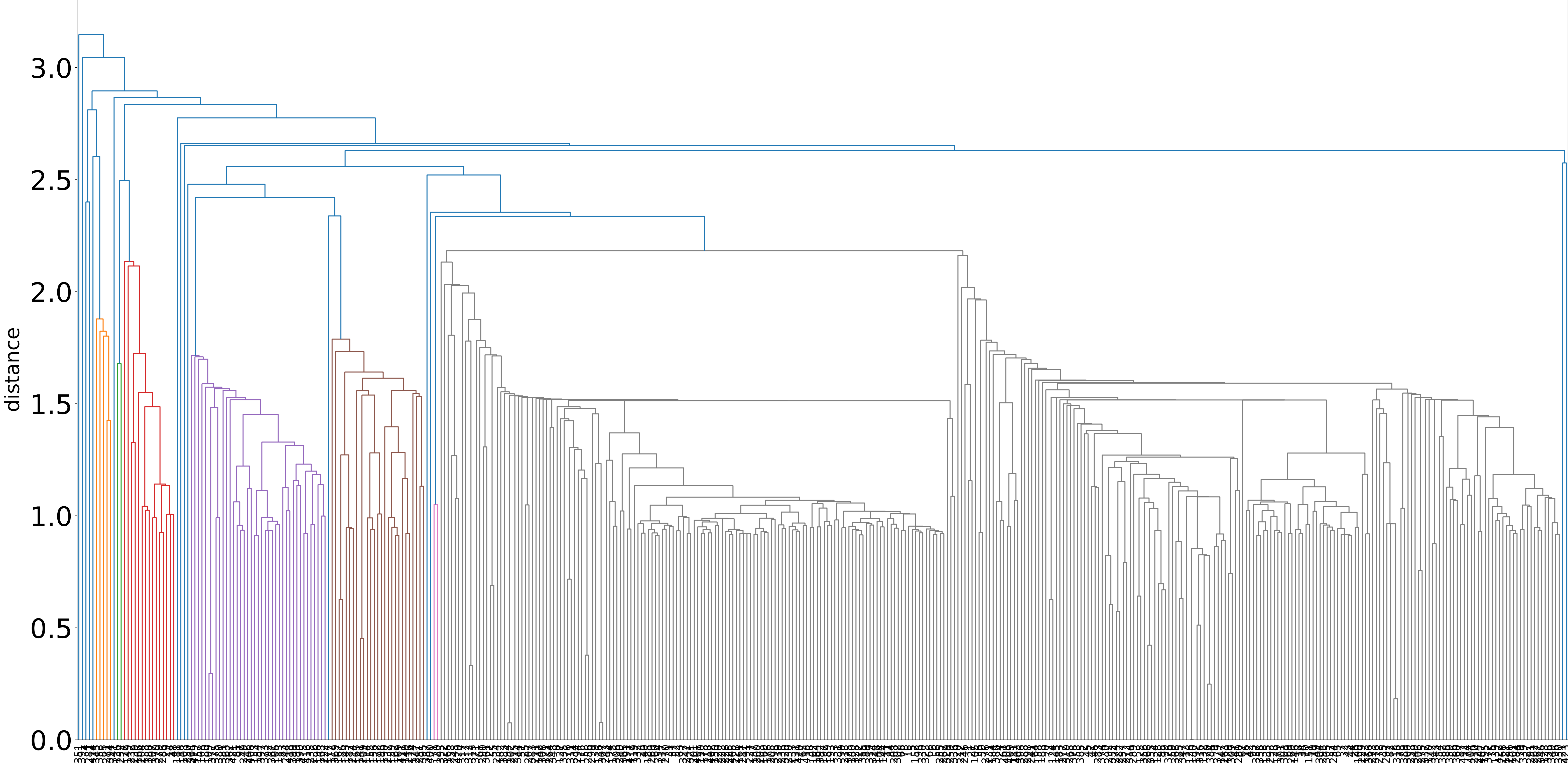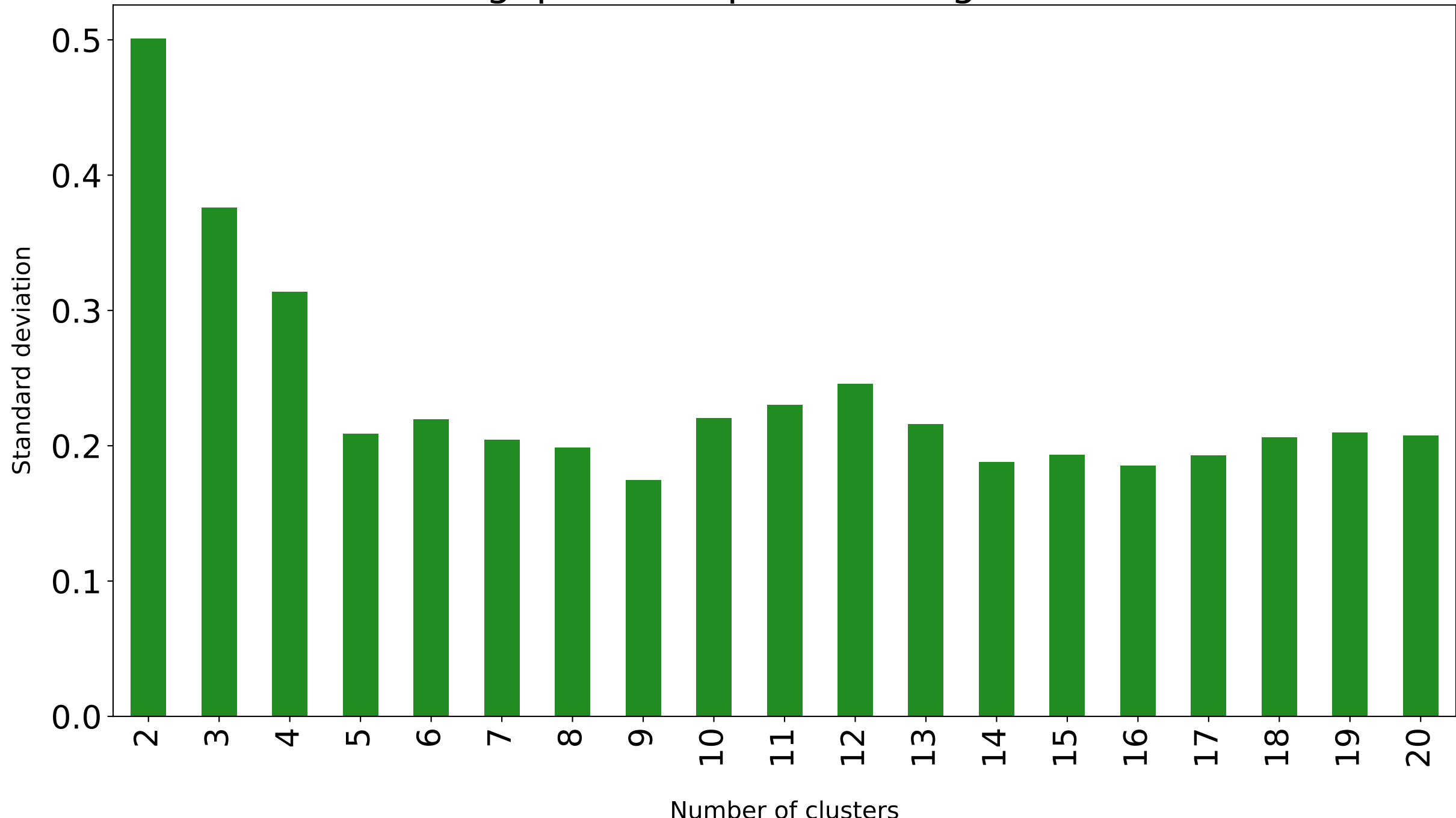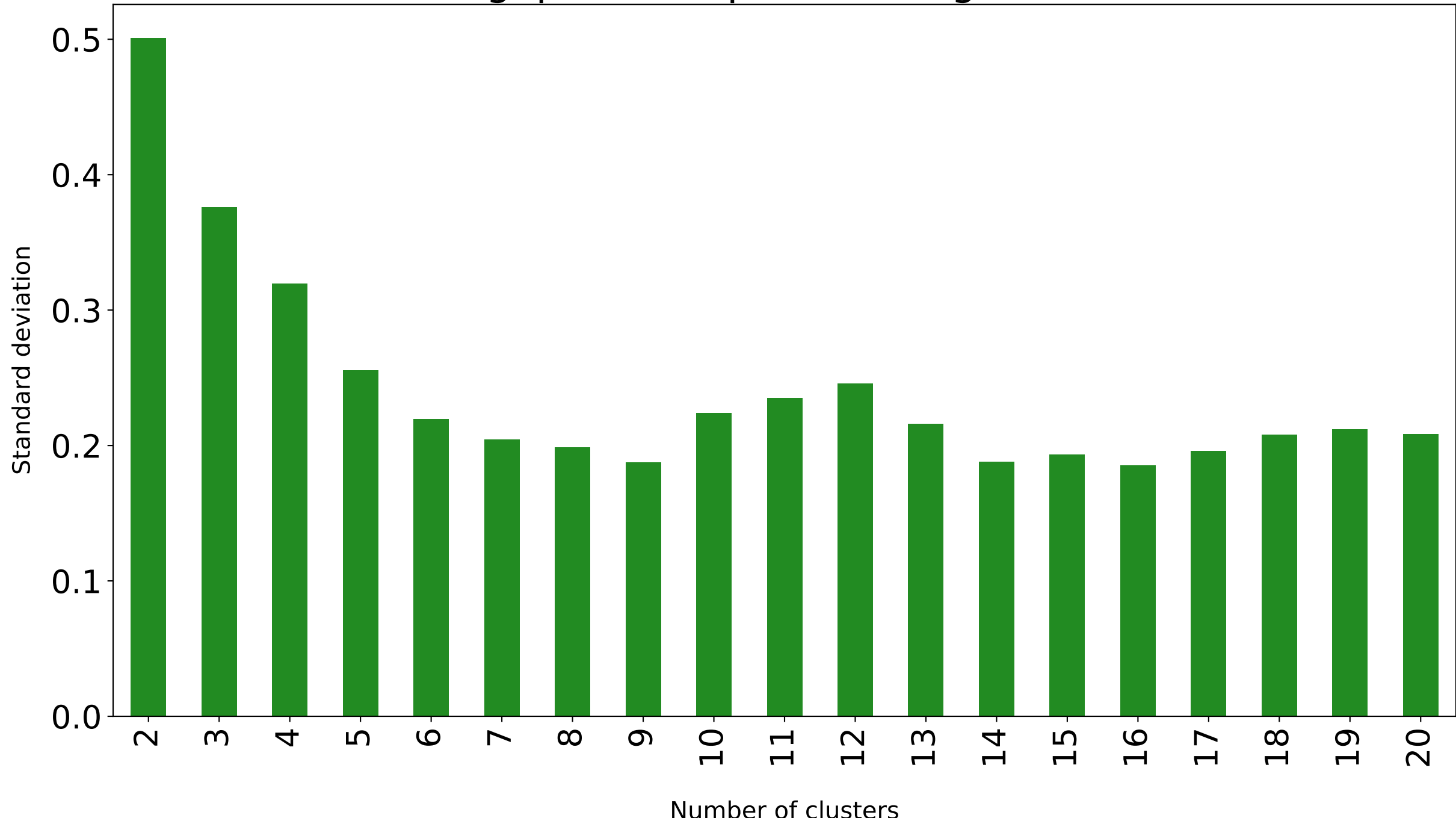
Average values of five clustering indices
gap: 0.60, Tp: 2.00, single link

k	AR	FM	J	AW	VD	H	F	VI	K	Phi	RT	SS	CVNN	S	Dunn
2.0	1.0	0.99848	0.99699	0.7198	0.00076	0.7198	0.99847	0.00916	0.99849	0.00453	0.99412	0.99412	2.0	0.67565	0.34532
3.0	1.0	0.99314	0.98644	0.61154	0.00345	0.68344	0.99307	0.0365	0.99321	0.00228	0.97414	0.974	2.0	0.6666	0.33419
4.0	1.0	0.97806	0.95764	0.65802	0.01155	0.60276	0.97791	0.10614	0.97822	0.0006	0.92305	0.92162	2.0	0.59076	0.31778
5.0	1.0	0.97138	0.94468	0.58716	0.01512	0.65368	0.97088	0.13045	0.97188	0.00049	0.90256	0.89902	2.0	0.66973	0.31471
6.0	1.0	0.98403	0.96946	0.94879	0.00955	0.86408	0.98372	0.07574	0.98435	0.00034	0.94816	0.94503	2.0	0.62975	0.31124
7.0	1.0	0.98426	0.97037	0.91098	0.00868	0.90792	0.98363	0.06394	0.98491	0.00033	0.95366	0.94937	2.0	0.58087	0.30851
8.0	1.0	0.97683	0.95667	0.86329	0.01251	0.90303	0.97537	0.08285	0.9783	0.00031	0.93642	0.92908	2.0	0.63209	0.31491
9.0	1.0	0.96511	0.93504	0.80199	0.01854	0.86602	0.96286	0.12022	0.96741	0.00028	0.90627	0.8948	2.0	0.67226	0.31482
10.0	1.0	0.94316	0.89647	0.71772	0.03086	0.80802	0.9386	0.18403	0.9479	0.00025	0.85654	0.83913	2.0	0.69831	0.31364
11.0	1.0	0.92253	0.85895	0.64226	0.04201	0.75526	0.91617	0.24115	0.92914	0.00022	0.80761	0.78254	2.0	0.66732	0.31099
12.0	1.0	0.89714	0.81387	0.53671	0.05536	0.68925	0.88797	0.31217	0.90677	0.00019	0.74929	0.71699	2.0	0.6845	0.30786
13.0	0.99999	0.8669	0.76004	0.41872	0.07121	0.6112	0.85444	0.40144	0.87999	0.00016	0.68002	0.63883	2.0	0.75634	0.30451
14.0	1.00002	0.94295	0.89713	0.88248	0.04208	0.87008	0.93803	0.1899	0.94809	0.00015	0.88296	0.84252	2.0	0.70124	0.30268
15.0	1.0	0.9328	0.88064	0.82898	0.05108	0.87009	0.92603	0.21327	0.93994	0.00014	0.87621	0.82311	2.0	0.72022	0.29816
16.0	0.99998	0.92047	0.86022	0.78052	0.06013	0.85963	0.91151	0.23995	0.93	0.00014	0.86202	0.79756	2.0	0.70243	0.29519
17.0	0.99999	0.88899	0.80614	0.69645	0.08032	0.80963	0.87584	0.31477	0.90301	0.00013	0.81192	0.72378	2.0	0.71813	0.29325
18.0	0.99999	0.8606	0.75967	0.64171	0.08026	0.7697	0.84342	0.32259	0.87901	0.00013	0.77389	0.66566	2.0	0.70743	0.28614
19.0	1.00003	0.83536	0.71825	0.58587	0.0913	0.73442	0.81359	0.37069	0.85885	0.00012	0.73861	0.61455	2.0	0.75912	0.28391
20.0	1.00002	0.80939	0.67529	0.5306	0.10585	0.69763	0.78338	0.41844	0.83751	0.00012	0.70251	0.56068	2.0	0.77058	0.27849

Standard deviation of Adjusted Rand versus number of clusters
gap: 0.60, Tp: 2.00, single link

Standard deviation of Huberts index versus number of clusters
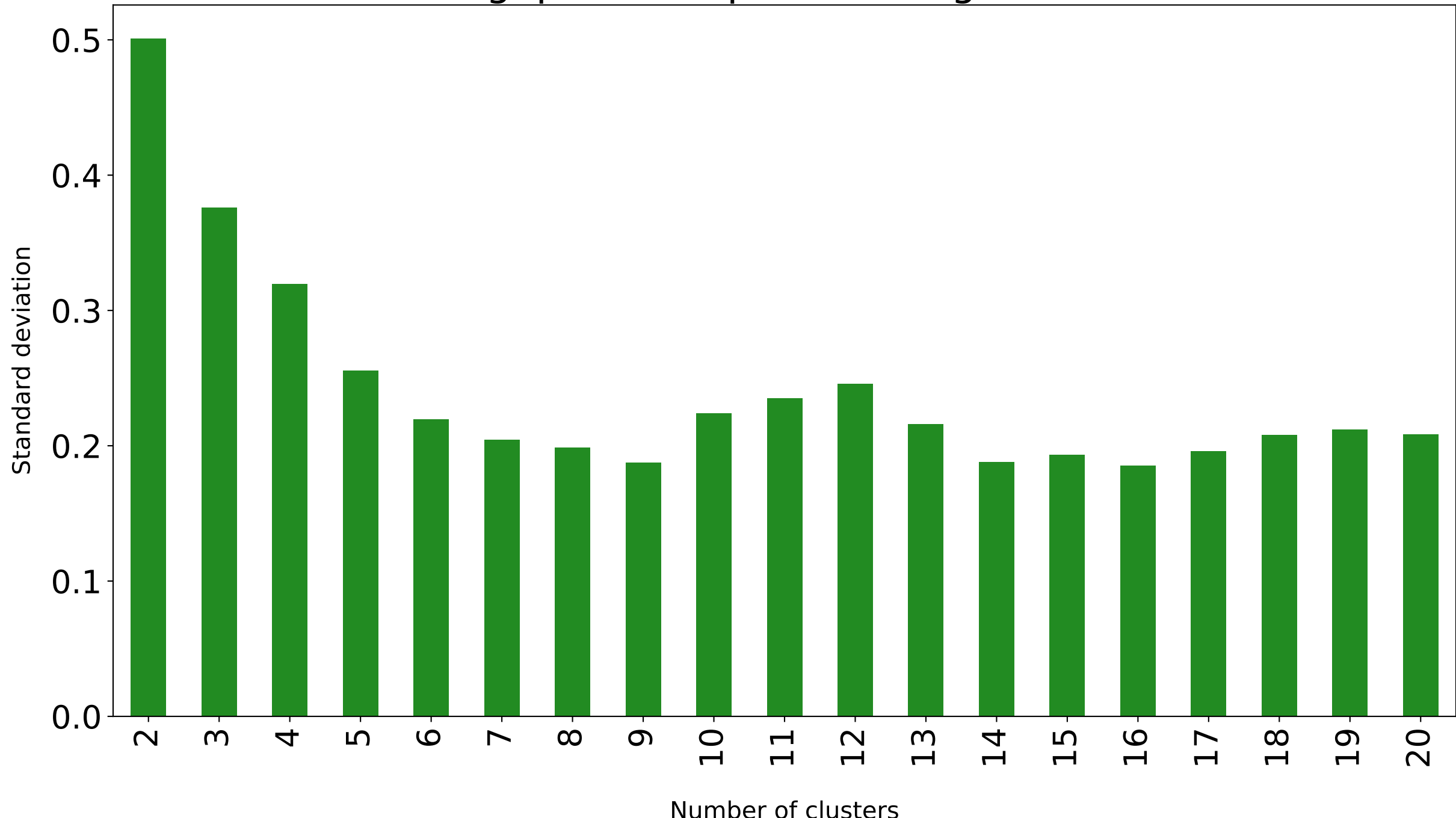gap: 0.60, Tp: 2.00, single link

Hierarchical Clustering Dendrogram - gap: 0.70, Tp: 2.00, single link

Cophenetic Correlation Coefficient: 0.6062901240454501

Average values of five clustering indices
gap: 0.70, Tp: 2.00, single link

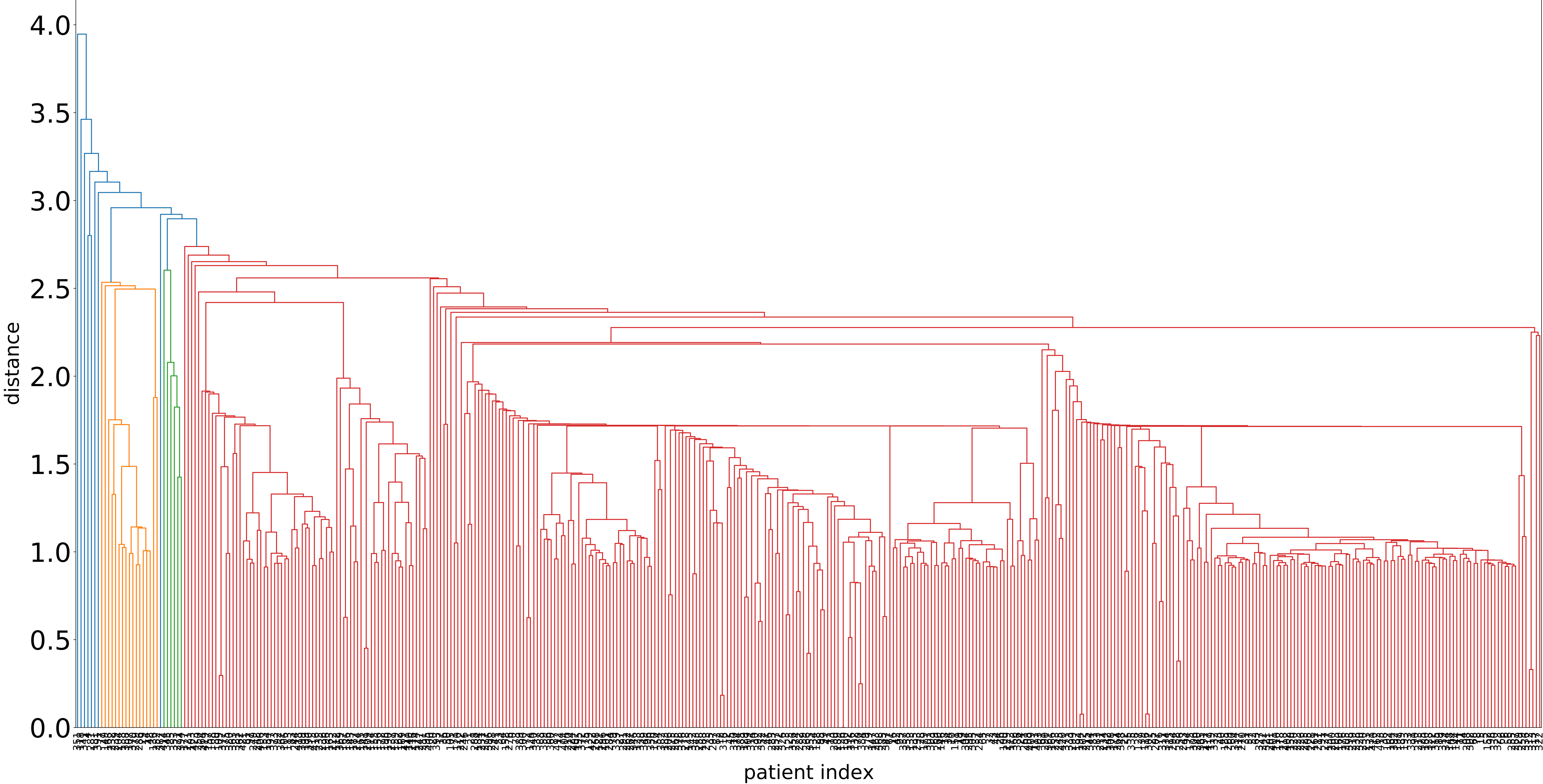| k	AR	FM	J	AW	VD	H	F	VI	K	Phi	RT	SS	CVNN	S	Dunn
2.0	1.0	0.99919	0.99839	0.78399	0.0004	0.78399	0.99919	0.00529	0.9992	0.00494	0.99681	0.99681	2.0	0.6945	0.36517
3.0	1.0	0.99539	0.99082	0.54632	0.0023	0.60853	0.99538	0.03023	0.99539	0.00211	0.98198	0.98189	2.0	0.75098	0.31586
4.0	1.0	0.99545	0.99098	0.74325	0.00226	0.78993	0.99544	0.02865	0.99547	0.0016	0.98256	0.98234	2.0	0.69345	0.3156
5.0	1.0	0.99391	0.98797	0.75795	0.00304	0.83433	0.99384	0.03424	0.99397	0.00128	0.97735	0.97696	2.0	0.74944	0.33917
6.0	1.0	0.98588	0.97234	0.65549	0.00707	0.76376	0.9856	0.06908	0.98616	0.00091	0.94962	0.94851	2.0	0.75001	0.33734
7.0	1.0	0.97226	0.94595	0.5083	0.01387	0.66183	0.97159	0.12689	0.97294	0.00061	0.9038	0.90119	2.0	0.78484	0.33283
8.0	1.0	0.97186	0.94629	0.75532	0.01427	0.77696	0.97113	0.12306	0.9726	0.00031	0.91082	0.90415	2.0	0.73895	0.32581
9.0	1.0	0.97825	0.95905	0.87611	0.01148	0.89418	0.97714	0.08347	0.97939	0.0003	0.93812	0.93096	2.0	0.67343	0.32134
10.0	1.0	0.96999	0.94433	0.82723	0.01609	0.88259	0.968	0.10624	0.97205	0.00028	0.91974	0.90959	2.0	0.70525	0.30193
11.0	1.0	0.95915	0.92443	0.77704	0.02179	0.85418	0.95628	0.13956	0.9621	0.00026	0.89317	0.87902	2.0	0.73054	0.29859
12.0	1.0	0.94189	0.8932	0.70714	0.03094	0.80629	0.9375	0.18916	0.9464	0.00023	0.85187	0.83217	2.0	0.74768	0.29605
13.0	1.0	0.92076	0.85461	0.61879	0.04251	0.7485	0.91453	0.249	0.92715	0.0002	0.80079	0.77355	2.0	0.76618	0.29354
14.0	1.0	0.88333	0.78758	0.4709	0.06199	0.65016	0.87328	0.35427	0.89372	0.00017	0.71401	0.67516	2.0	0.77168	0.29059
15.0	0.99999	0.85147	0.73083	0.35341	0.07857	0.56971	0.83805	0.44886	0.86539	0.00014	0.64159	0.59295	2.0	0.83275	0.29031
16.0	1.0	0.94432	0.90206	0.8663	0.04372	0.88223	0.93978	0.19052	0.94906	0.00015	0.89347	0.85288	2.0	0.77978	0.2857
17.0	1.0	0.93558	0.88567	0.82674	0.05206	0.87651	0.92912	0.21381	0.94236	0.00015	0.88212	0.83007	2.0	0.79198	0.28334
18.0	1.0002	0.91459	0.84858	0.75873	0.0637	0.84535	0.90549	0.26262	0.92419	0.00014	0.84859	0.77731	2.0	0.77159	0.27863
19.0	0.99999	0.89122	0.8083	0.69329	0.07848	0.80972	0.87909	0.32401	0.9041	0.00013	0.81213	0.72169	2.0	0.78156	0.2768
20.0	1.00002	0.86076	0.75777	0.62564	0.0985	0.7656	0.84389	0.39052	0.8788	0.00013	0.76844	0.65761	2.0	0.79191	0.27403

Standard deviation of Adjusted Rand versus number of clusters
gap: 0.70, Tp: 2.00, single link

Standard deviation of Huberts index versus number of clusters
gap: 0.70, Tp: 2.00, single link
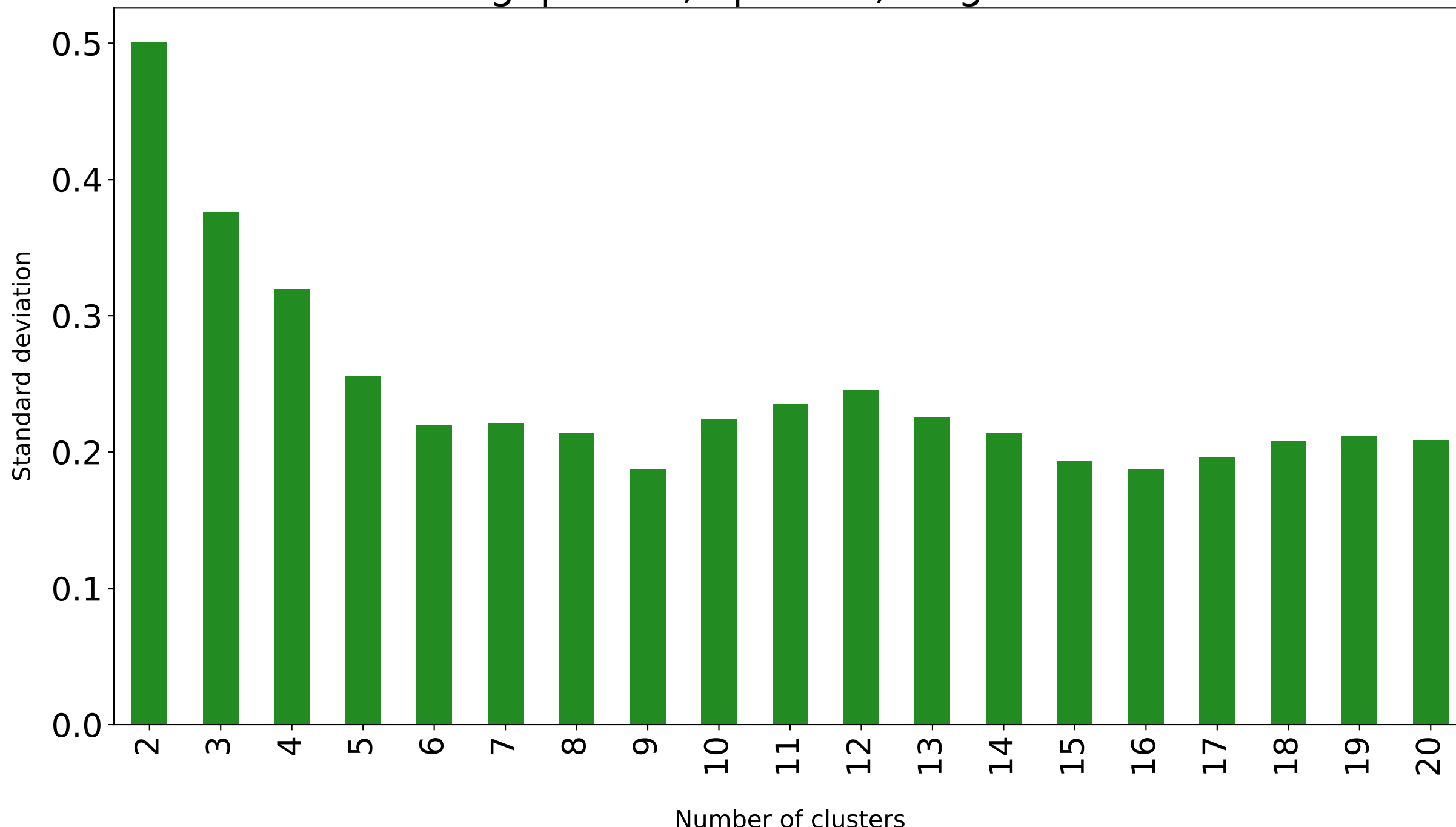
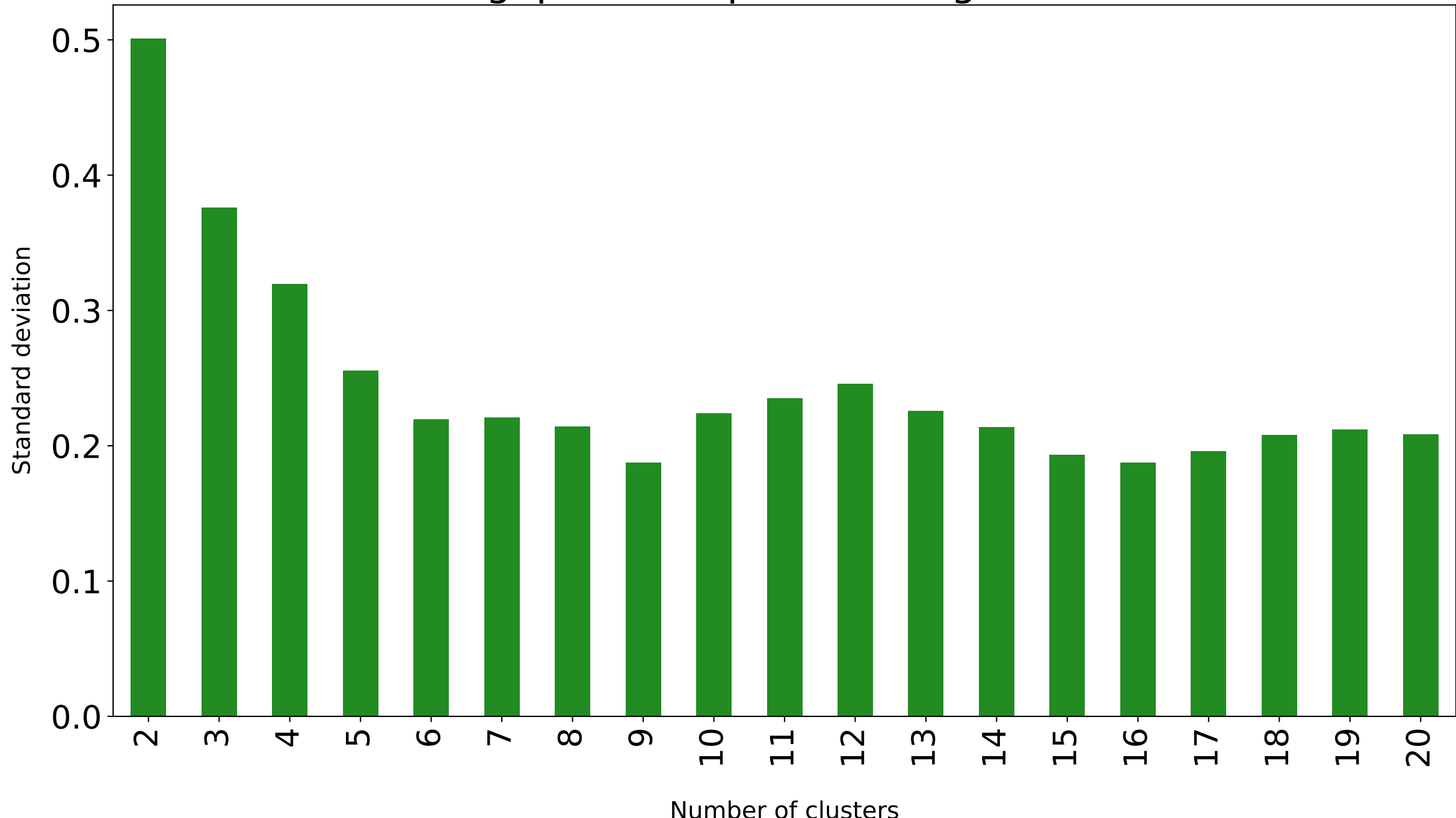Hierarchical Clustering Dendrogram - gap: 0.80, Tp: 2.00, single link

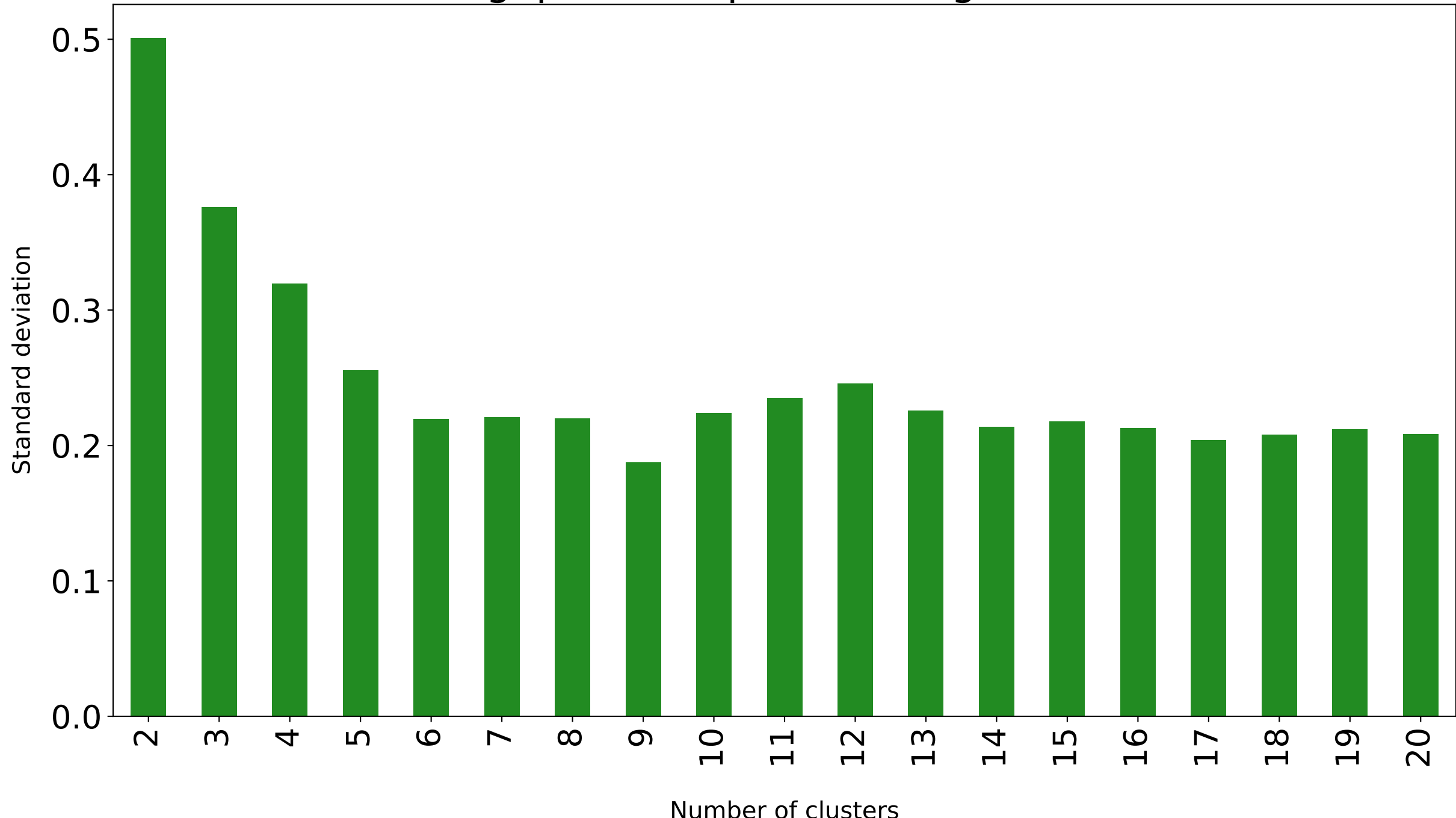Cophenetic Correlation Coefficient: 0.6063893367274049

Average values of five clustering indices
gap: 0.80, Tp: 2.00, single link

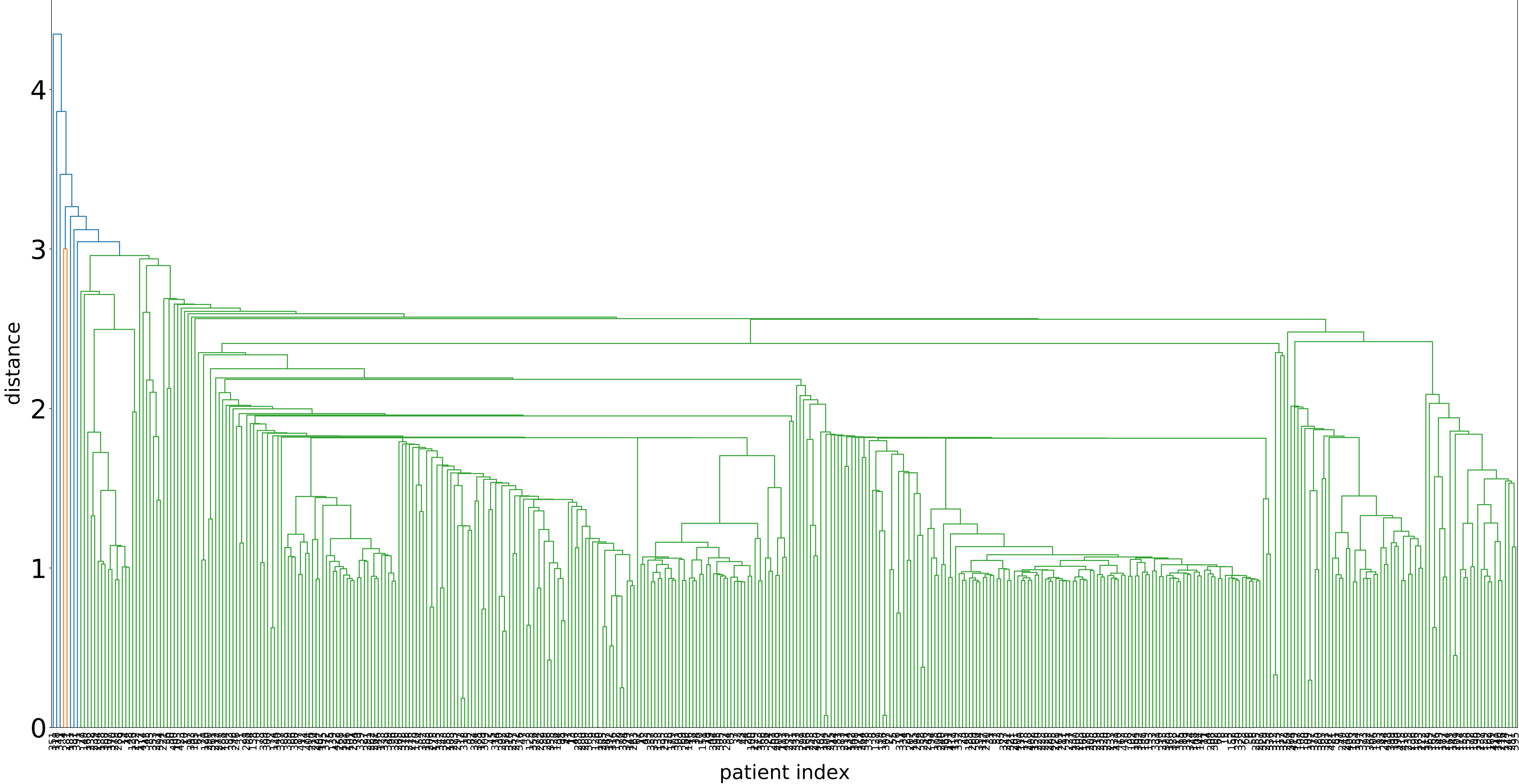| k	AR	FM	J	AW	VD	H	F	VI	K	Phi	RT	SS	CVNN	S	Dunn
2.0	1.0	0.99888	0.99776	0.69194	0.00056	0.69194	0.99888	0.00745	0.99888	0.00436	0.99556	0.99556	2.0	0.70962	0.38272
3.0	1.0	0.99723	0.99449	0.64669	0.00138	0.72697	0.99723	0.01825	0.99724	0.00263	0.98915	0.9891	2.0	0.78711	0.35143
4.0	1.0	0.99405	0.98819	0.5882	0.00296	0.68925	0.99402	0.03719	0.99408	0.00168	0.97713	0.97694	2.0	0.81444	0.33173
5.0	1.0	0.99235	0.9849	0.69538	0.00381	0.77411	0.99228	0.04388	0.99242	0.00125	0.9715	0.97107	2.0	0.75407	0.32132
6.0	1.0	0.98833	0.97706	0.67054	0.00582	0.77164	0.98815	0.06154	0.98851	0.00097	0.95764	0.9568	2.0	0.78868	0.31516
7.0	1.0	0.97771	0.95649	0.56177	0.01119	0.69654	0.9772	0.10613	0.97823	0.00069	0.92197	0.91995	2.0	0.78329	0.30914
8.0	1.0	0.97363	0.94895	0.78365	0.01333	0.74474	0.9732	0.1227	0.97406	0.00032	0.91163	0.90624	2.0	0.73635	0.30036
9.0	1.0	0.97714	0.95573	0.77218	0.01157	0.82214	0.97669	0.10887	0.97759	0.00031	0.92543	0.91873	2.0	0.76493	0.29651
10.0	1.0	0.98285	0.96742	0.89256	0.00936	0.91216	0.98213	0.07396	0.98358	0.0003	0.94976	0.94356	2.0	0.70633	0.29397
11.0	1.0	0.98025	0.96269	0.85735	0.01067	0.91083	0.97924	0.0833	0.98128	0.00029	0.94402	0.93659	2.0	0.78963	0.28429
12.0	1.0	0.97176	0.94708	0.82068	0.01519	0.8871	0.97003	0.10971	0.97352	0.00027	0.92291	0.91243	2.0	0.80671	0.27795
13.0	1.0	0.95741	0.9212	0.7614	0.02287	0.84771	0.95436	0.15142	0.96056	0.00025	0.88865	0.87334	2.0	0.82045	0.27296
14.0	1.0	0.94314	0.89512	0.70343	0.03026	0.80806	0.93892	0.19515	0.94747	0.00023	0.85393	0.83369	2.0	0.82892	0.2692
15.0	1.0	0.9232	0.85894	0.62748	0.04091	0.75624	0.9172	0.25194	0.92936	0.0002	0.80688	0.77957	2.0	0.83943	0.26693
16.0	1.0	0.89344	0.80507	0.50535	0.05598	0.67643	0.88468	0.33872	0.90247	0.00017	0.73641	0.69923	2.0	0.84146	0.26424
17.0	1.0	0.93415	0.88035	0.89408	0.04205	0.8261	0.93017	0.22816	0.93822	0.00014	0.85215	0.8105	2.0	0.79064	0.25979
18.0	0.99999	0.94148	0.89436	0.88006	0.03992	0.85881	0.93788	0.21211	0.9452	0.00014	0.87616	0.83303	2.0	0.80169	0.25934
19.0	0.99999	0.94261	0.89704	0.85424	0.04072	0.87214	0.93892	0.21172	0.94644	0.00014	0.88496	0.83816	2.0	0.80878	0.25726
20.0	1.0	0.94197	0.89437	0.83055	0.04211	0.88025	0.93754	0.21768	0.94658	0.00014	0.88671	0.83329	2.0	0.81932	0.25527

Standard deviation of Adjusted Rand versus number of clusters
gap: 0.80, Tp: 2.00, single link

Standard deviation of Huberts index versus number of clusters
gap: 0.80, Tp: 2.00, single link

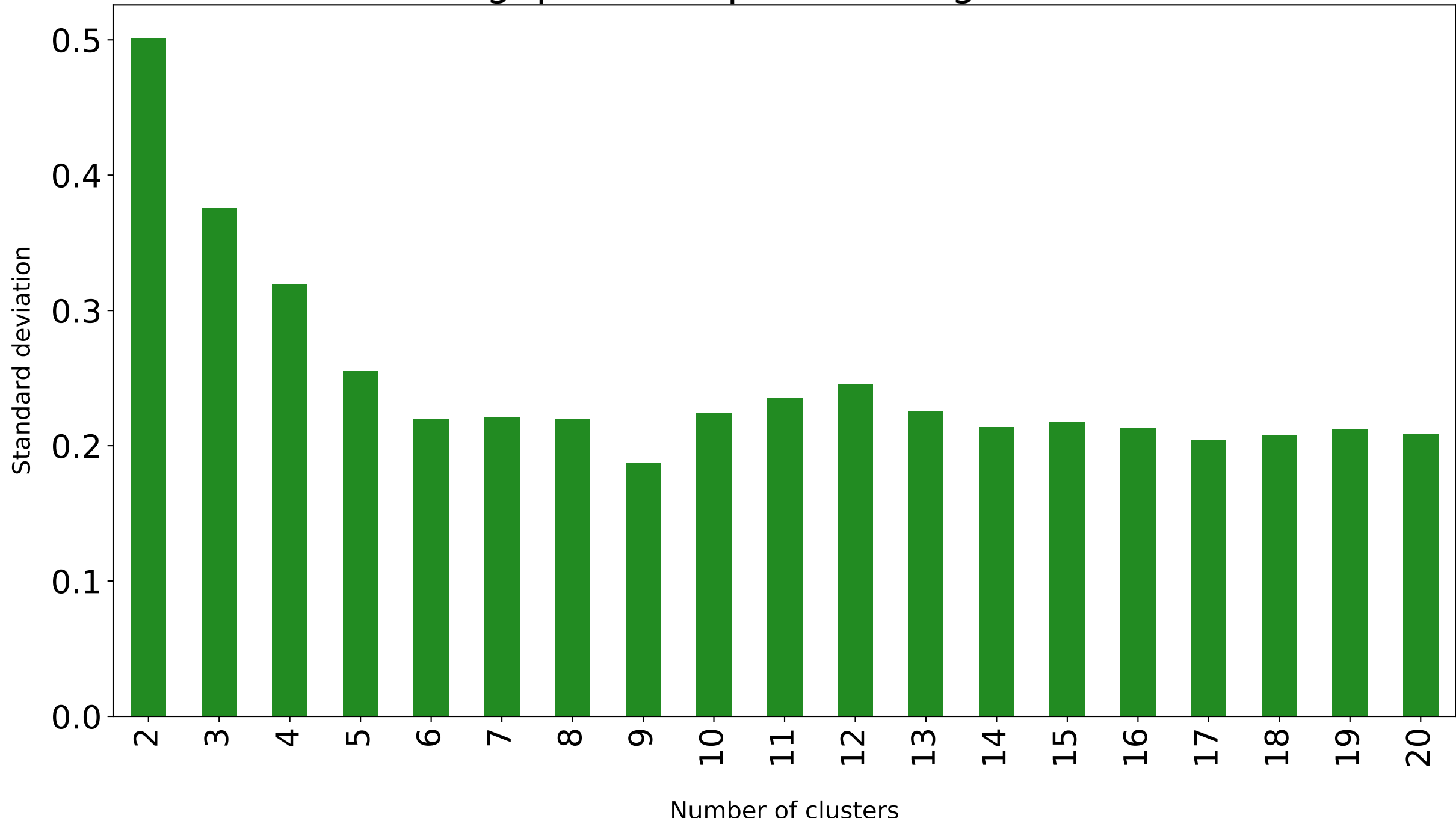Hierarchical Clustering Dendrogram - gap: 0.90, Tp: 2.00, single link

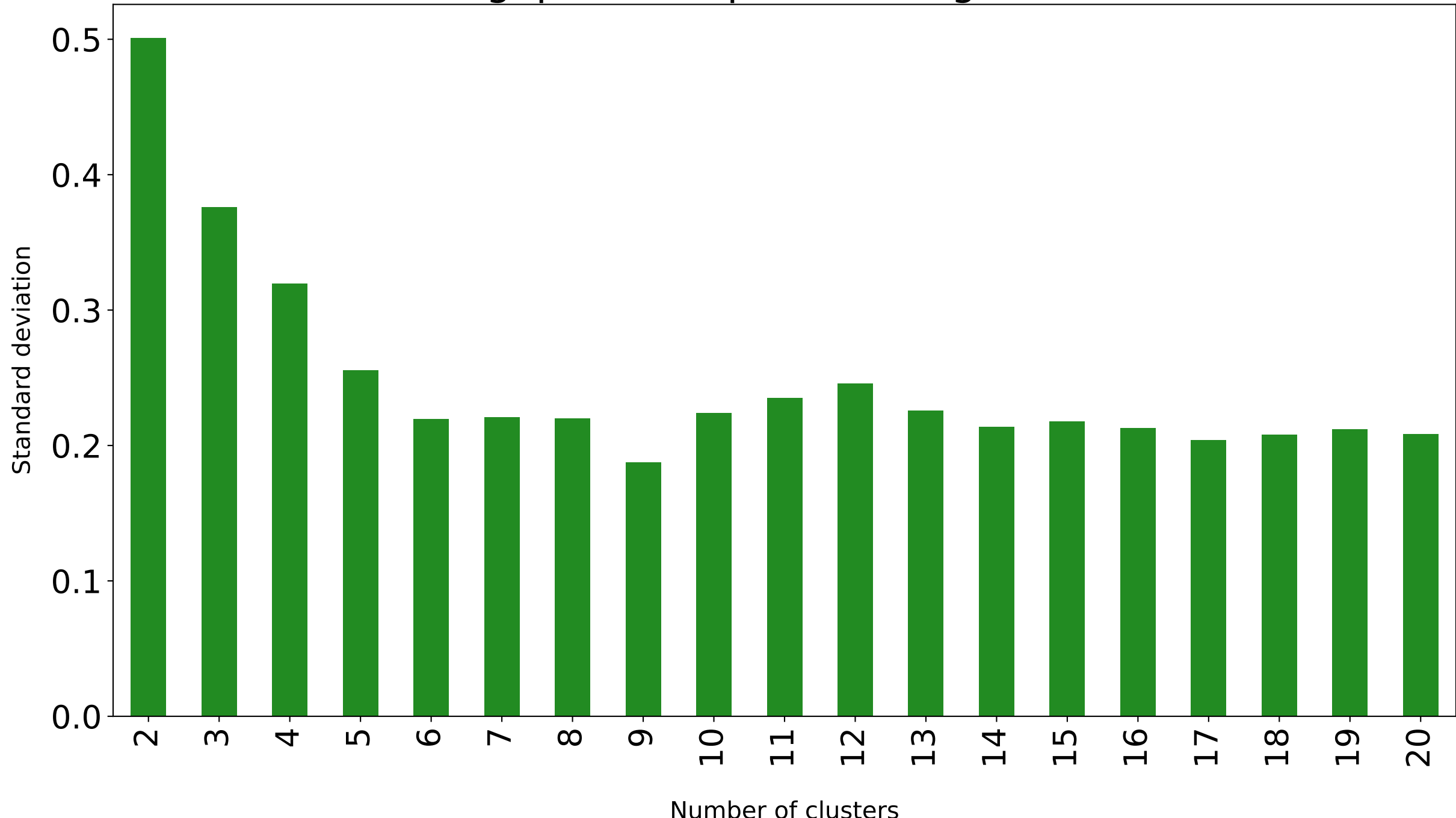Cophenetic Correlation Coefficient: 0.6144220589979713

Average values of five clustering indices
gap: 0.90, Tp: 2.00, single link

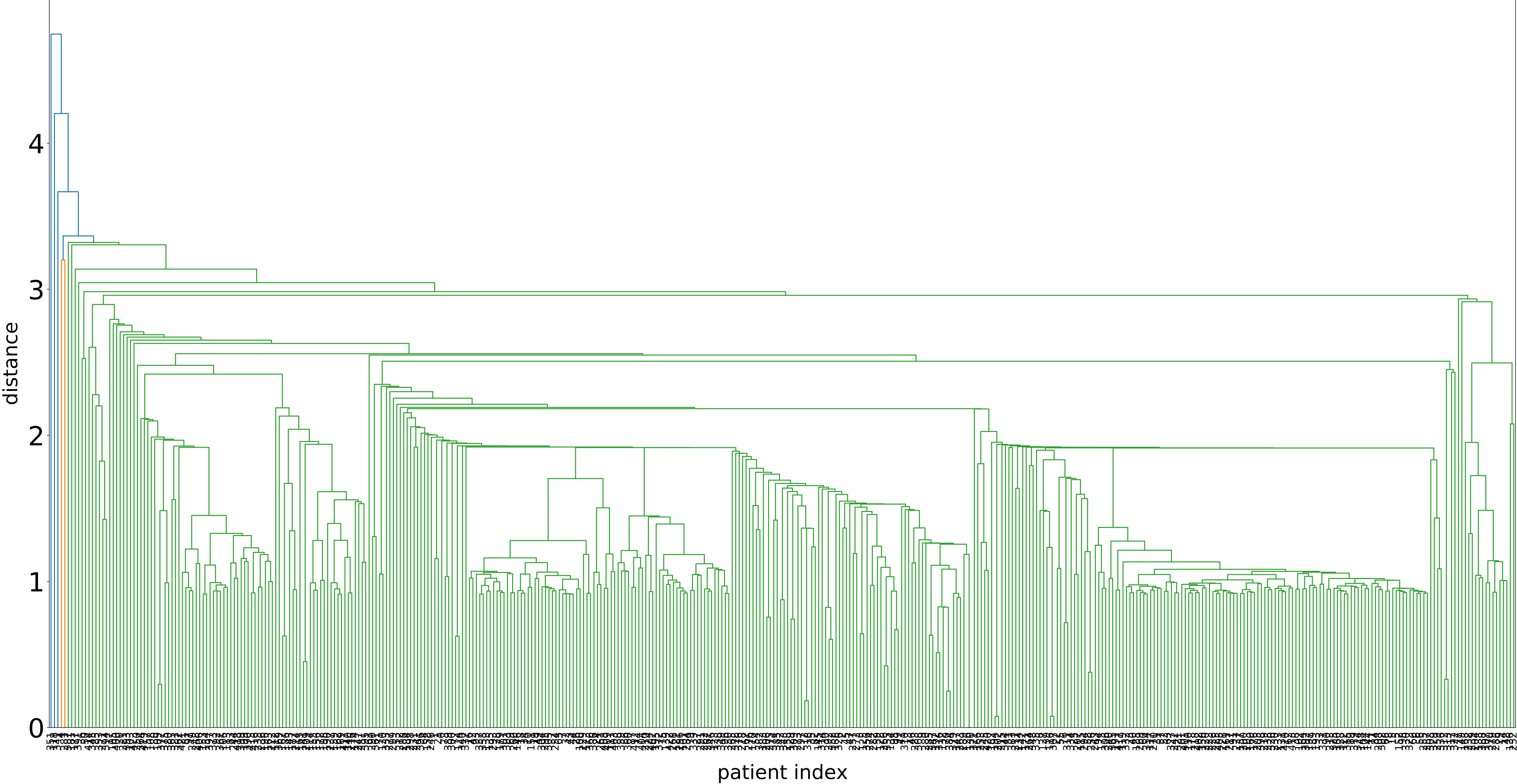| k	AR	FM	J	AW	VD	H	F	VI	K	Phi	RT	SS	CVNN	S	Dunn
2.0	1.0	0.99918	0.99836	0.74399	0.00041	0.74399	0.99918	0.00553	0.99918	0.00469	0.99675	0.99675	2.0	0.72272	0.39833
3.0	1.0	0.99805	0.99612	0.72089	0.00097	0.80738	0.99805	0.01293	0.99806	0.00292	0.99235	0.99231	2.0	0.79578	0.3776
4.0	1.0	0.99539	0.99083	0.6347	0.00229	0.74164	0.99538	0.02978	0.9954	0.00182	0.98211	0.98193	2.0	0.82138	0.33907
5.0	1.0	0.99341	0.98694	0.69272	0.00327	0.76388	0.99338	0.04109	0.99343	0.00126	0.97495	0.97456	2.0	0.75732	0.31927
6.0	1.0	0.99119	0.9826	0.69083	0.0044	0.78168	0.9911	0.05137	0.99127	0.00103	0.96729	0.96661	2.0	0.79146	0.31334
7.0	1.0	0.98627	0.973	0.64114	0.00692	0.7612	0.98606	0.07256	0.98648	0.00082	0.95037	0.94908	2.0	0.81687	0.30515
8.0	1.0	0.97527	0.9516	0.52991	0.0126	0.68264	0.97477	0.11895	0.97578	0.00059	0.91302	0.9104	2.0	0.80795	0.29776
9.0	1.0	0.96335	0.92863	0.40555	0.01864	0.60328	0.96241	0.17142	0.96431	0.00046	0.874	0.87007	2.0	0.88295	0.29337
10.0	1.0	0.97594	0.95323	0.75777	0.01237	0.80105	0.97557	0.12024	0.97631	0.00031	0.92019	0.91335	2.0	0.83445	0.28974
11.0	1.0	0.97633	0.95397	0.75265	0.01236	0.83542	0.97584	0.11918	0.97683	0.0003	0.92329	0.9151	2.0	0.849	0.28771
12.0	1.0	0.98416	0.96953	0.87853	0.00906	0.91411	0.98367	0.08029	0.98465	0.00029	0.95183	0.94533	2.0	0.80642	0.28358
13.0	1.0	0.98181	0.96518	0.85063	0.01057	0.9098	0.98108	0.09145	0.98256	0.00028	0.9461	0.93847	2.0	0.8175	0.26776
14.0	1.0	0.9765	0.95526	0.81173	0.01309	0.89054	0.97542	0.11172	0.97761	0.00027	0.93182	0.92209	2.0	0.83229	0.26583
15.0	1.0	0.9651	0.93489	0.76924	0.0192	0.85822	0.96296	0.14586	0.96731	0.00025	0.90505	0.89151	2.0	0.84282	0.26489
16.0	1.0	0.95832	0.92282	0.75901	0.0226	0.84332	0.95554	0.16344	0.96121	0.00024	0.89008	0.87375	2.0	0.82026	0.28344
17.0	1.0	0.94609	0.90089	0.71432	0.02889	0.81246	0.94221	0.19866	0.95014	0.00022	0.86184	0.8411	2.0	0.82968	0.28037
18.0	1.0	0.932	0.87589	0.66681	0.03647	0.78091	0.92663	0.23792	0.9376	0.0002	0.83084	0.80517	2.0	0.83619	0.28007
19.0	1.0	0.91696	0.84876	0.61256	0.04433	0.74637	0.9101	0.2817	0.92411	0.00019	0.79681	0.76518	2.0	0.8441	0.2777
20.0	1.0	0.89338	0.8072	0.53549	0.05692	0.69447	0.88391	0.3452	0.90329	0.00017	0.7462	0.70614	2.0	0.85166	0.27554

Standard deviation of Adjusted Rand versus number of clusters
gap: 0.90, Tp: 2.00, single link

Standard deviation of Huberts index versus number of clusters
gap: 0.90, Tp: 2.00, single link

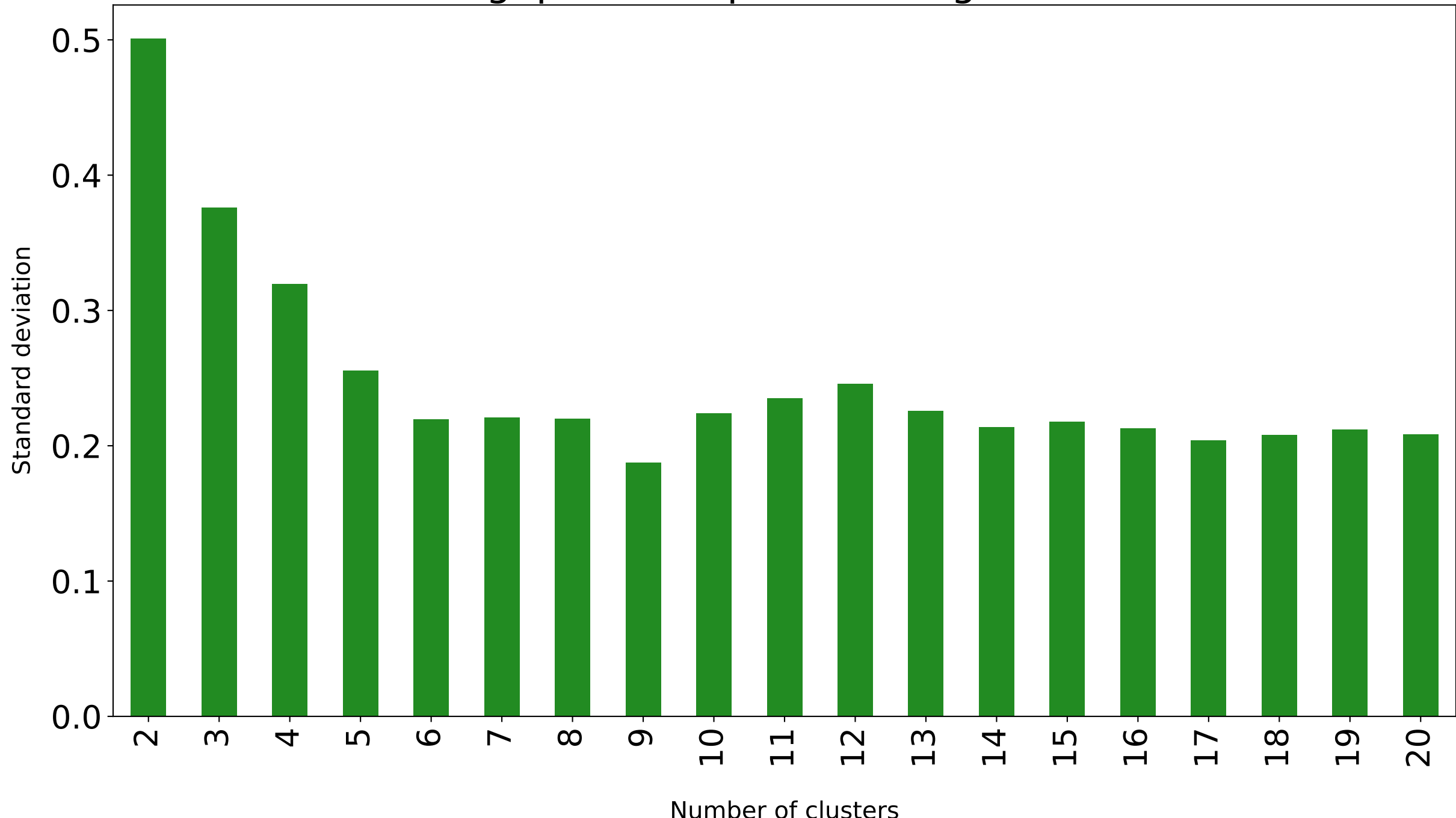Hierarchical Clustering Dendrogram - gap: 1.00, Tp: 2.00, single link

distance

patient index

Cophenetic Correlation Coefficient: 0.6254614159490662

Average values of five clustering indices
gap: 1.00, Tp: 2.00, single link

k	AR	FM	J	AW	VD	H	F	VI	K	Phi	RT	SS	CVNN	S	Dunn
2.0	1.0	0.99914	0.99829	0.732	0.00043	0.732	0.99914	0.00577	0.99914	0.00461	0.9966	0.9966	2.0	0.73399	0.41231
3.0	1.0	0.99828	0.99657	0.74777	0.00086	0.82331	0.99828	0.01139	0.99829	0.00293	0.99324	0.99321	2.0	0.80315	0.38838
4.0	1.0	0.99596	0.99196	0.66772	0.00201	0.77179	0.99595	0.0263	0.99597	0.00188	0.98427	0.98412	2.0	0.82737	0.33889
5.0	1.0	0.99518	0.99042	0.7387	0.00242	0.81093	0.99517	0.03151	0.99519	0.00135	0.98144	0.98112	2.0	0.75959	0.31094
6.0	1.0	0.99471	0.98948	0.75101	0.00277	0.83092	0.9947	0.03509	0.99472	0.00113	0.97976	0.97931	2.0	0.79445	0.30684
7.0	1.0	0.99325	0.98663	0.75834	0.00372	0.84206	0.99319	0.04169	0.9933	0.00097	0.9748	0.97414	2.0	0.81906	0.30533
8.0	1.0	0.98869	0.97769	0.65688	0.00582	0.79102	0.98854	0.06447	0.98884	0.00083	0.95867	0.95756	2.0	0.89908	0.29571
9.0	1.0	0.98188	0.96445	0.60193	0.00908	0.74962	0.98154	0.09379	0.98222	0.00066	0.93567	0.93367	2.0	0.90827	0.28994
10.0	1.0	0.97134	0.94409	0.511	0.01428	0.68215	0.97066	0.13888	0.97203	0.0005	0.90098	0.89748	2.0	0.89356	0.28138
11.0	1.0	0.96389	0.9297	0.46875	0.01787	0.64802	0.96304	0.1706	0.96474	0.00039	0.87701	0.87157	2.0	0.86286	0.30235
12.0	1.0	0.97634	0.95411	0.79804	0.01276	0.81665	0.97606	0.12255	0.97661	0.00029	0.9222	0.91493	2.0	0.82262	0.29982
13.0	1.0	0.97754	0.9563	0.77661	0.01194	0.84998	0.97713	0.1186	0.97796	0.00028	0.92749	0.91906	2.0	0.82482	0.29733
14.0	1.0	0.9739	0.94933	0.73946	0.01311	0.84445	0.97323	0.13125	0.97457	0.00027	0.91761	0.9073	2.0	0.83955	0.29534
15.0	1.0	0.98049	0.96235	0.84402	0.00991	0.90089	0.97989	0.09739	0.9811	0.00026	0.94105	0.93201	2.0	0.80567	0.29344
16.0	1.0	0.9771	0.95605	0.82593	0.01153	0.89246	0.97627	0.10985	0.97794	0.00025	0.93255	0.92187	2.0	0.81735	0.28312
17.0	1.0	0.97008	0.94309	0.79415	0.01514	0.8747	0.96871	0.13144	0.97147	0.00024	0.9154	0.90174	2.0	0.82769	0.28176
18.0	1.0	0.96286	0.92995	0.7668	0.01897	0.85738	0.96085	0.15471	0.9649	0.00023	0.89847	0.88206	2.0	0.83618	0.28089
19.0	1.0	0.94586	0.89917	0.70216	0.02804	0.81424	0.94232	0.20241	0.94947	0.00021	0.85897	0.83595	2.0	0.84352	0.27623
20.0	1.0	0.93064	0.87155	0.64688	0.03585	0.77714	0.9257	0.24706	0.93568	0.00019	0.82378	0.79478	2.0	0.85095	0.27418

Standard deviation of Adjusted Rand versus number of clusters
gap: 1.00, Tp: 2.00, single link

Standard deviation of Huberts index versus number of clusters
gap: 1.00, Tp: 2.00, single link