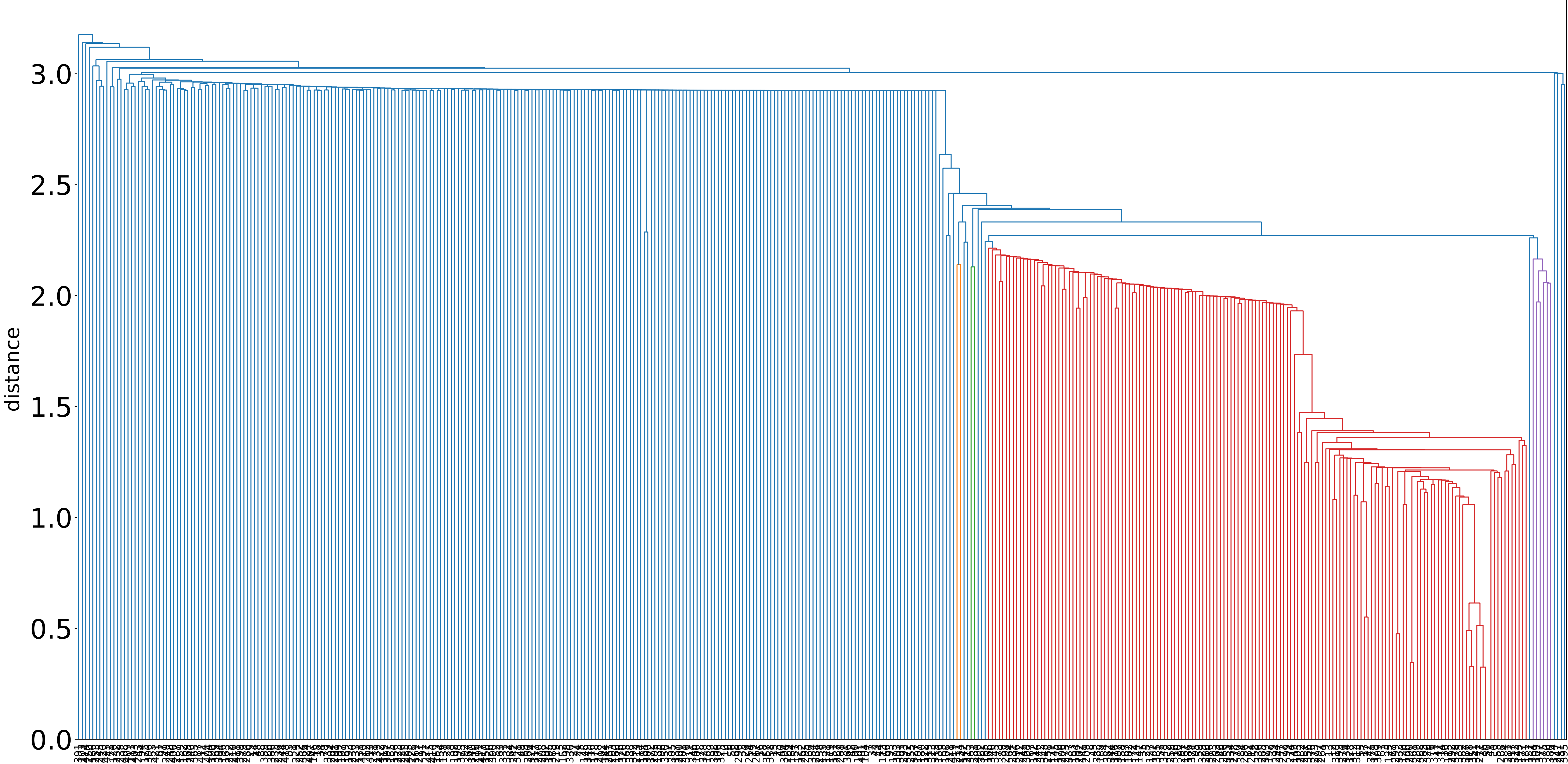Hierarchical Clustering Dendrogram - gap: 0.00, Tp: 0.25, single link
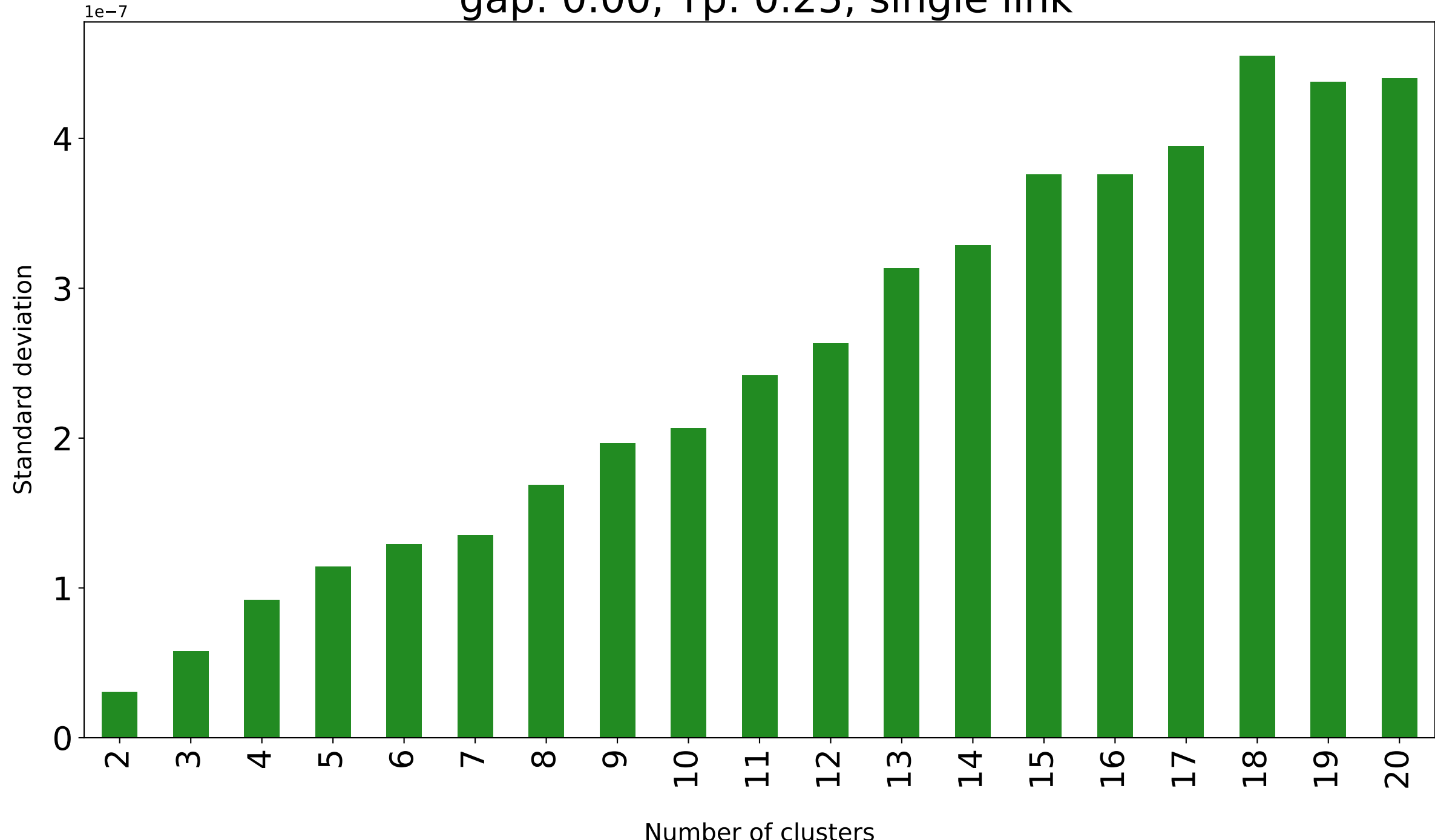
patient index

Cophenetic Correlation Coefficient: 0.4769504092054939
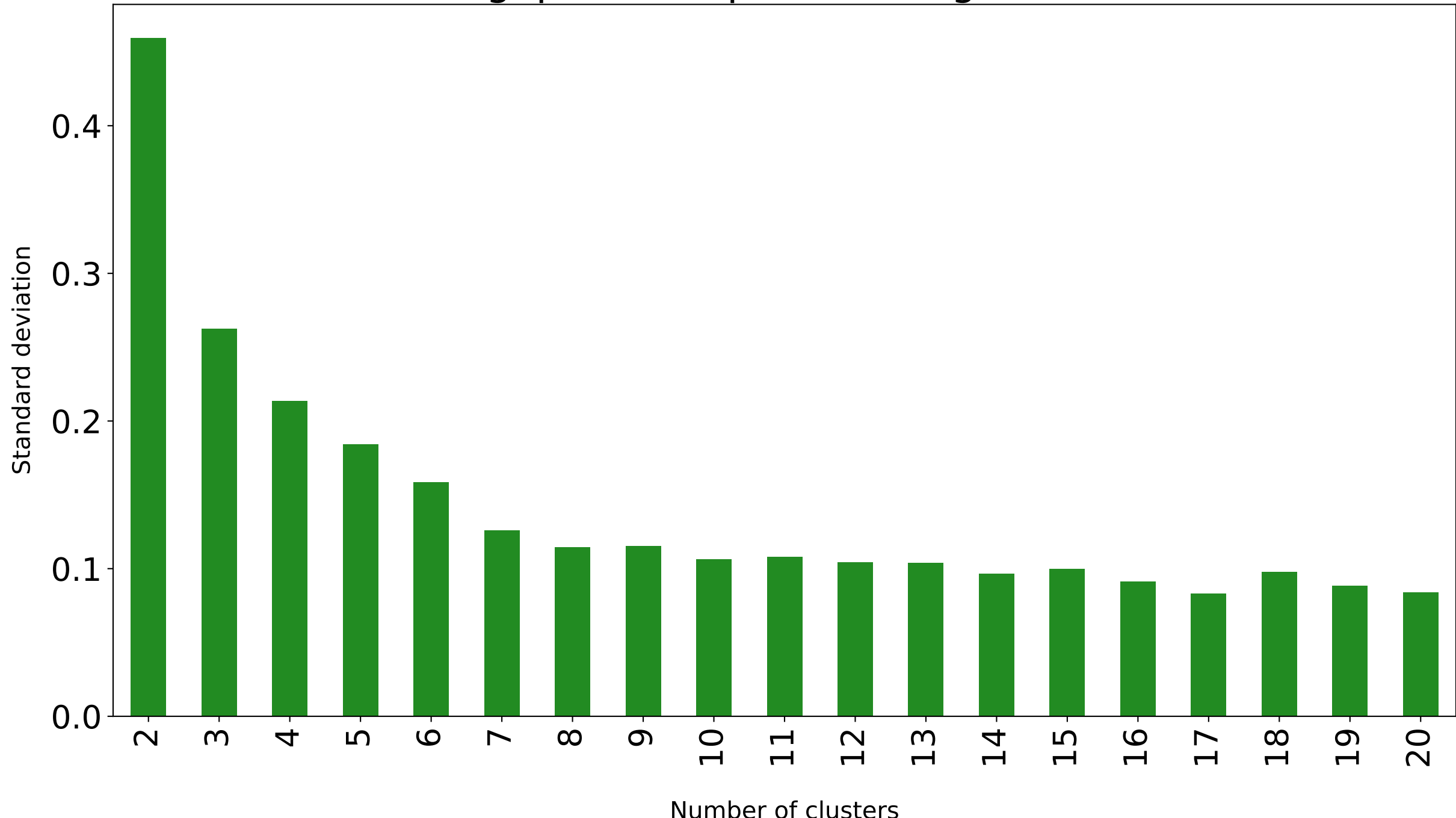
Average values of five clustering indices
gap: 0.00, Tp: 0.25, single link

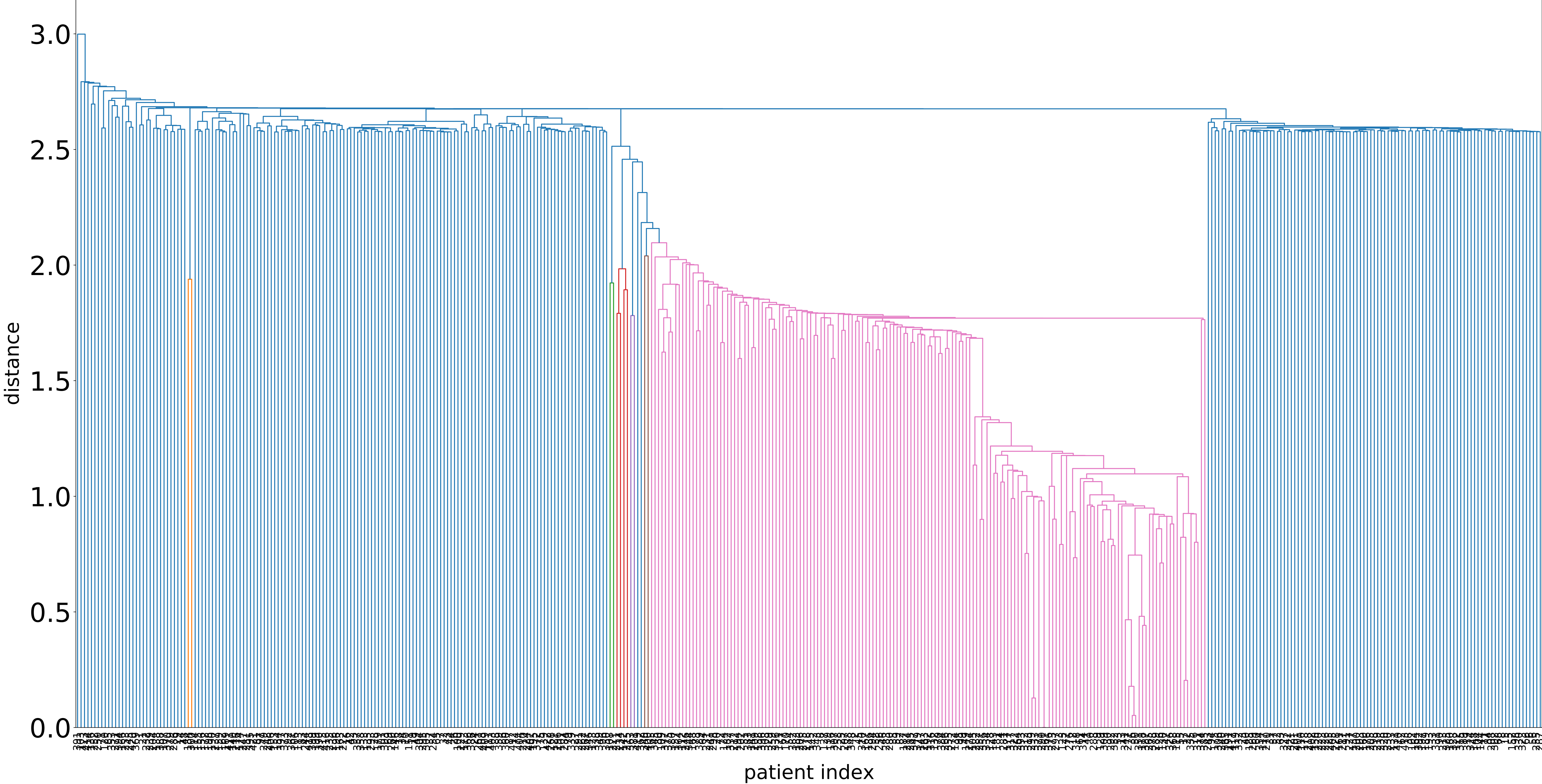| k	AR	FM	J	AW	VD	H	F	VI	K	Phi	RT	SS	CVNN	S	Dunn
2.0	1.0	0.99903	0.99806	0.69999	0.00048	0.69998	0.99903	0.00653	0.99903	0.00441	0.99615	0.99615	2.0	0.54785	0.76108
3.0	1.0	0.99717	0.99436	0.64925	0.00141	0.74225	0.99717	0.01863	0.99718	0.00275	0.98891	0.98885	2.0	0.67705	0.75276
4.0	1.0	0.99575	0.99155	0.6652	0.00211	0.77365	0.99574	0.02686	0.99577	0.00189	0.98354	0.98339	2.0	0.75648	0.75129
5.0	1.0	0.99364	0.98736	0.64376	0.00316	0.76855	0.99361	0.03866	0.99368	0.00136	0.97561	0.97527	2.0	0.80179	0.74759
6.0	1.0	0.99194	0.98405	0.74583	0.00422	0.7965	0.99192	0.04943	0.99196	0.00086	0.96969	0.96888	2.0	0.68497	0.73403
7.0	1.0	0.99215	0.98445	0.75725	0.0044	0.83947	0.99212	0.0493	0.99218	0.00077	0.97069	0.96967	2.0	0.72741	0.73269
8.0	1.0	0.98916	0.97851	0.67507	0.00565	0.80897	0.98908	0.06573	0.98924	0.00069	0.95984	0.95835	2.0	0.7428	0.72763
9.0	1.0	0.98793	0.97613	0.70542	0.00598	0.81955	0.98784	0.07052	0.98803	0.00059	0.95594	0.95393	2.0	0.6859	0.7261
10.0	1.0	0.98704	0.97437	0.72181	0.00632	0.83375	0.98693	0.07377	0.98716	0.00051	0.95323	0.95064	2.0	0.64097	0.72519
11.0	1.0	0.98534	0.97116	0.77514	0.00803	0.84047	0.98525	0.08381	0.98543	0.00043	0.94836	0.94474	2.0	0.58644	0.72022
12.0	1.0	0.98275	0.96602	0.71929	0.00931	0.82898	0.98258	0.09778	0.98292	0.0004	0.93965	0.93519	2.0	0.61864	0.71983
13.0	1.0	0.9776	0.95593	0.65437	0.0113	0.79859	0.97728	0.12242	0.97792	0.00037	0.92267	0.91677	2.0	0.64824	0.71944
14.0	1.0	0.97689	0.95465	0.6999	0.01141	0.81546	0.9766	0.1231	0.97718	0.00033	0.92176	0.91446	2.0	0.60634	0.71858
15.0	1.0	0.97456	0.95036	0.72446	0.01257	0.81668	0.97431	0.13355	0.97481	0.00029	0.91597	0.90689	2.0	0.56843	0.71457
16.0	1.0	0.97043	0.94225	0.67539	0.0151	0.79964	0.97003	0.15602	0.97083	0.00028	0.90304	0.89223	2.0	0.6427	0.71329
17.0	1.0	0.96487	0.93158	0.63905	0.01775	0.77577	0.96433	0.18525	0.96541	0.00026	0.88648	0.87335	2.0	0.66372	0.71245
18.0	1.0	0.96525	0.93277	0.70321	0.01773	0.79641	0.9649	0.18275	0.96559	0.00023	0.89077	0.87581	2.0	0.63012	0.71226
19.0	1.0	0.96323	0.92867	0.67679	0.01903	0.79384	0.96274	0.19572	0.96373	0.00023	0.88483	0.86846	2.0	0.64851	0.71151
20.0	1.0	0.96118	0.92461	0.65657	0.02009	0.78951	0.96055	0.20818	0.96181	0.00022	0.87889	0.86136	2.0	0.66475	0.71091

Standard deviation of Adjusted Rand versus number of clusters
gap: 0.00, Tp: 0.25, single link

Standard deviation of Huberts index versus number of clusters
gap: 0.00, Tp: 0.25, single link

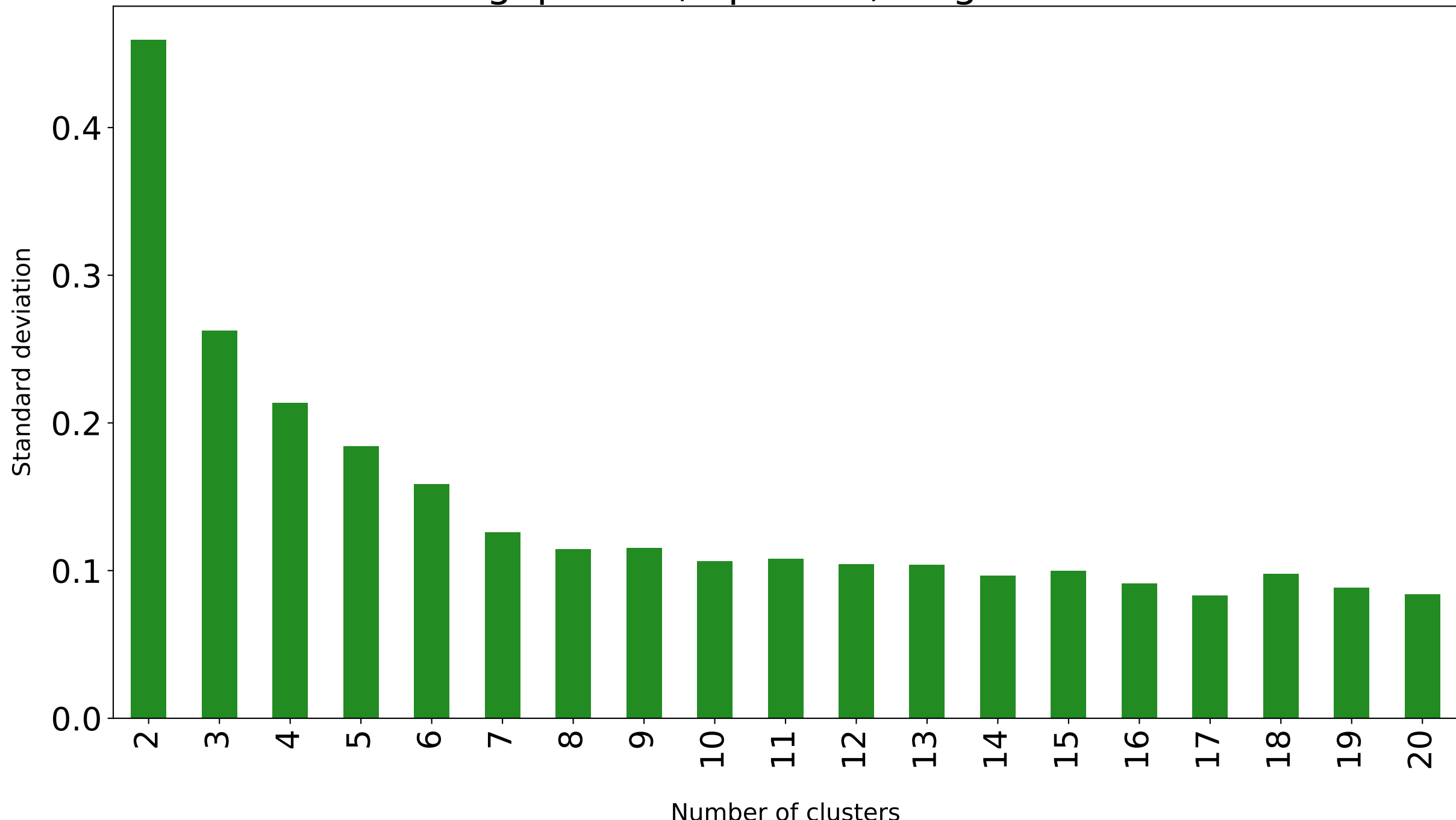Hierarchical Clustering Dendrogram - gap: 0.10, Tp: 0.25, single link

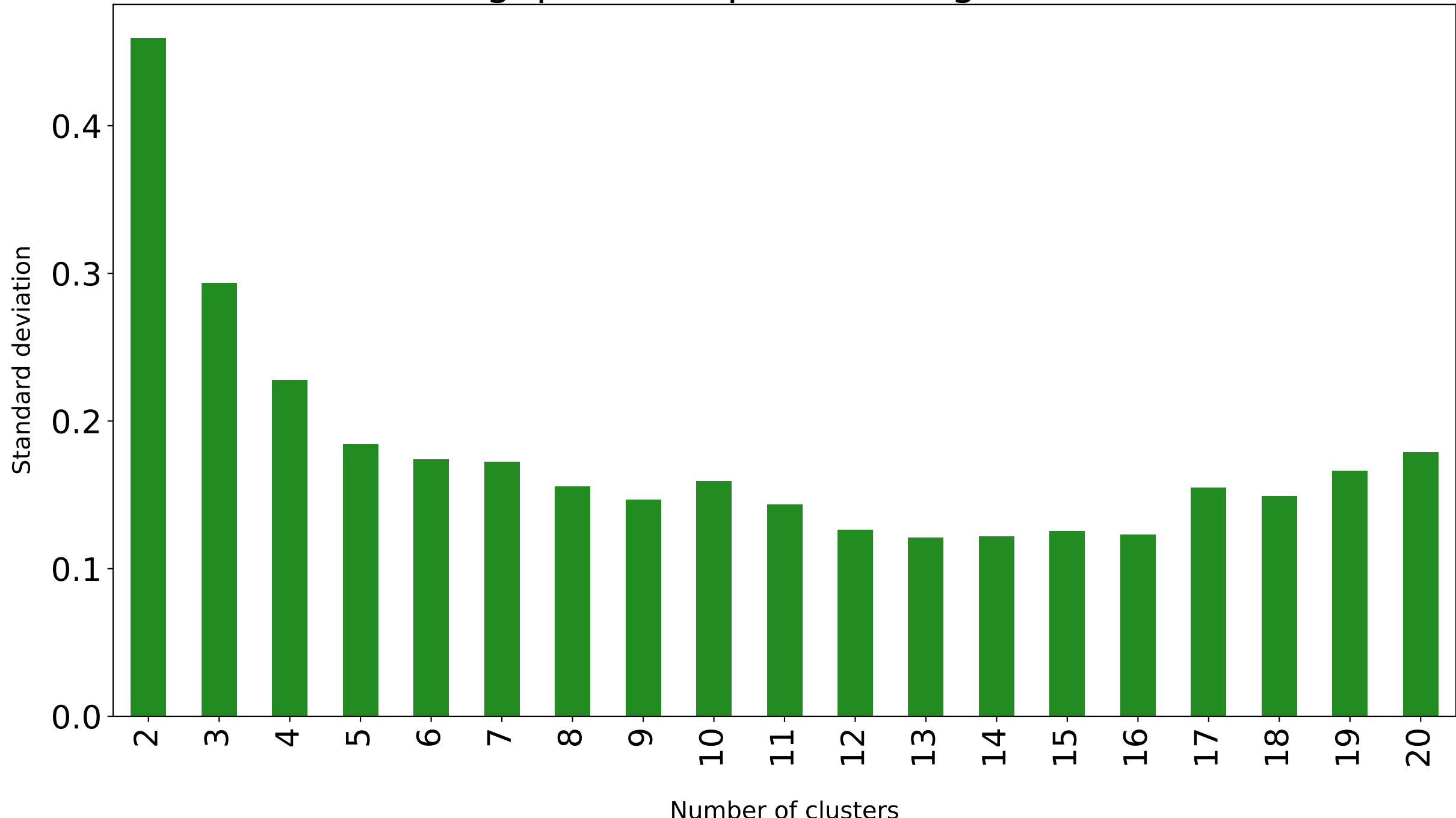Cophenetic Correlation Coefficient: 0.3975067141620937

Average values of five clustering indices
gap: 0.10, Tp: 0.25, single link

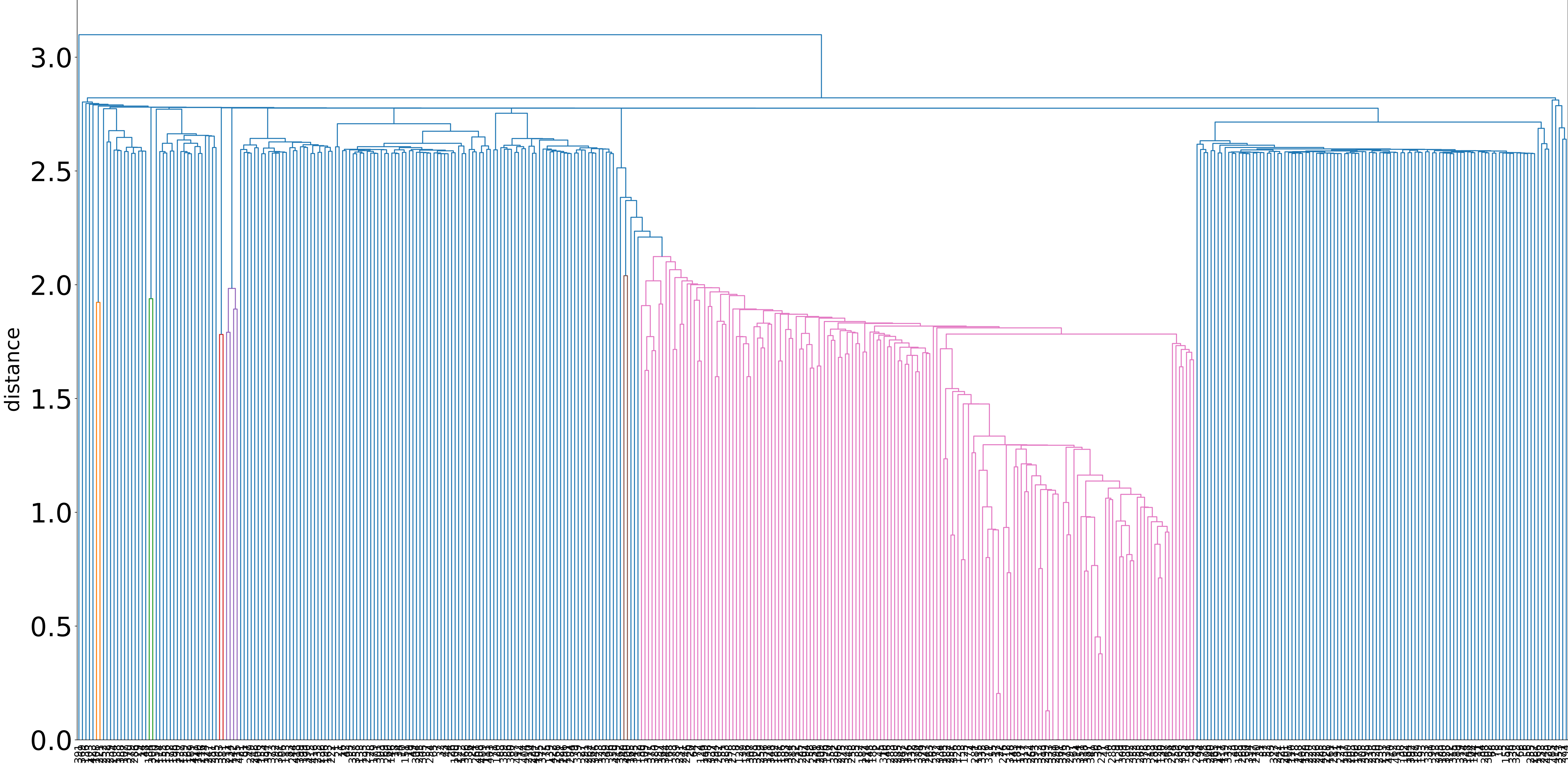| k	AR	FM	J	AW	VD	H	F	VI	K	Phi	RT	SS	CVNN	S	Dunn
2.0	1.0	0.99879	0.99759	0.77999	0.00061	0.77998	0.99878	0.00704	0.99879	0.00491	0.99531	0.99531	2.0	0.55131	0.64862
3.0	1.0	0.99394	0.98803	0.56102	0.00303	0.653	0.9939	0.03434	0.99398	0.00229	0.97702	0.97689	2.0	0.67356	0.60413
4.0	1.0	0.99255	0.98528	0.59891	0.00372	0.71767	0.99249	0.04175	0.99261	0.00169	0.97196	0.97168	2.0	0.74668	0.60352
5.0	1.0	0.98968	0.97962	0.58492	0.00525	0.72556	0.98957	0.0556	0.98979	0.00122	0.96158	0.96096	2.0	0.79638	0.60281
6.0	1.0	0.9879	0.97612	0.63497	0.00625	0.76276	0.98776	0.06419	0.98804	0.00092	0.95556	0.95444	2.0	0.69846	0.59991
7.0	1.0	0.98459	0.96964	0.59296	0.00767	0.74252	0.9844	0.08013	0.98479	0.00074	0.94398	0.94235	2.0	0.73898	0.59958
8.0	1.0	0.98149	0.9636	0.59086	0.00914	0.73939	0.98126	0.09495	0.98172	0.00059	0.9336	0.93108	2.0	0.68168	0.59571
9.0	1.0	0.98225	0.9652	0.68874	0.00928	0.79417	0.98206	0.0909	0.98243	0.00049	0.93763	0.93424	2.0	0.61035	0.58874
10.0	1.0	0.98372	0.96829	0.78232	0.00889	0.8417	0.98357	0.08345	0.98386	0.00043	0.9444	0.94062	2.0	0.56454	0.58734
11.0	1.0	0.98057	0.96203	0.72222	0.01026	0.82441	0.98032	0.09847	0.98082	0.0004	0.93378	0.92892	2.0	0.60269	0.58667
12.0	1.0	0.97724	0.95546	0.69534	0.01196	0.81221	0.97688	0.11412	0.9776	0.00037	0.92313	0.9169	2.0	0.62335	0.58478
13.0	1.0	0.97162	0.94452	0.63215	0.0152	0.78148	0.97106	0.14096	0.97219	0.00034	0.90515	0.89735	2.0	0.71235	0.58333
14.0	1.0	0.96415	0.93012	0.57014	0.01894	0.74467	0.96325	0.17573	0.96505	0.00031	0.8821	0.87241	2.0	0.73301	0.58185
15.0	1.0	0.95367	0.91031	0.50475	0.02353	0.6992	0.9522	0.22025	0.95515	0.00028	0.85157	0.83964	2.0	0.73753	0.58137
16.0	1.0	0.9428	0.89027	0.47255	0.02828	0.6604	0.94086	0.26386	0.94475	0.00024	0.82233	0.80718	2.0	0.69559	0.58087
17.0	1.0	0.93377	0.87565	0.55557	0.03264	0.66723	0.93196	0.29055	0.93561	0.00019	0.80843	0.78575	2.0	0.65772	0.5799
18.0	1.0	0.91642	0.84488	0.50332	0.04096	0.64072	0.91296	0.34943	0.92002	0.00017	0.77066	0.74105	2.0	0.63614	0.57972
19.0	1.0	0.91891	0.85168	0.65582	0.04204	0.73276	0.91461	0.31802	0.92349	0.00016	0.79885	0.75845	2.0	0.60451	0.57955
20.0	0.99999	0.89194	0.80707	0.57366	0.05498	0.70124	0.88287	0.38785	0.90187	0.00015	0.7537	0.70271	2.0	0.57569	0.57917

Standard deviation of Adjusted Rand versus number of clusters
gap: 0.10, Tp: 0.25, single link

Standard deviation of Huberts index versus number of clusters
gap: 0.10, Tp: 0.25, single link

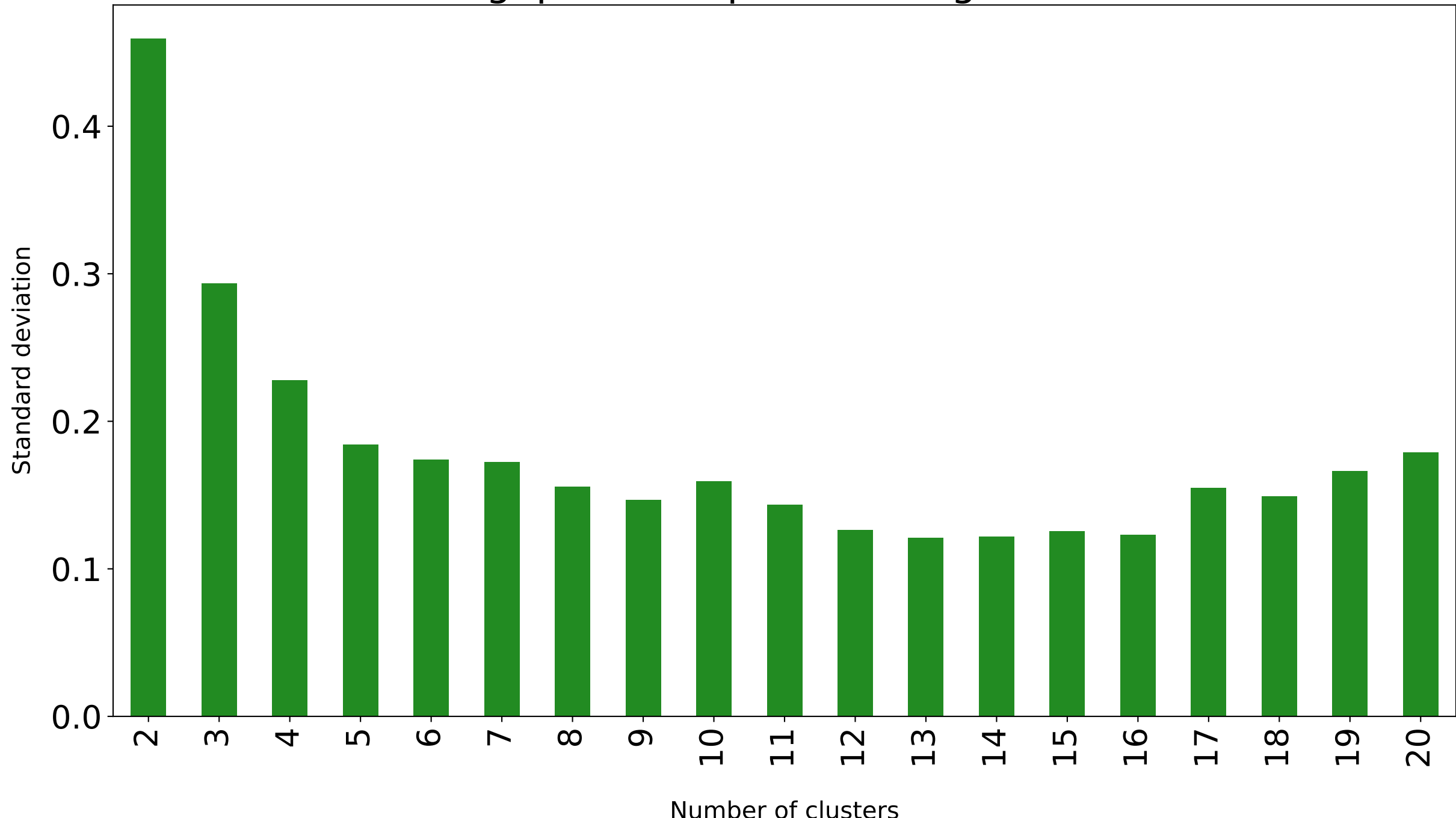Hierarchical Clustering Dendrogram - gap: 0.20, Tp: 0.25, single link

distance

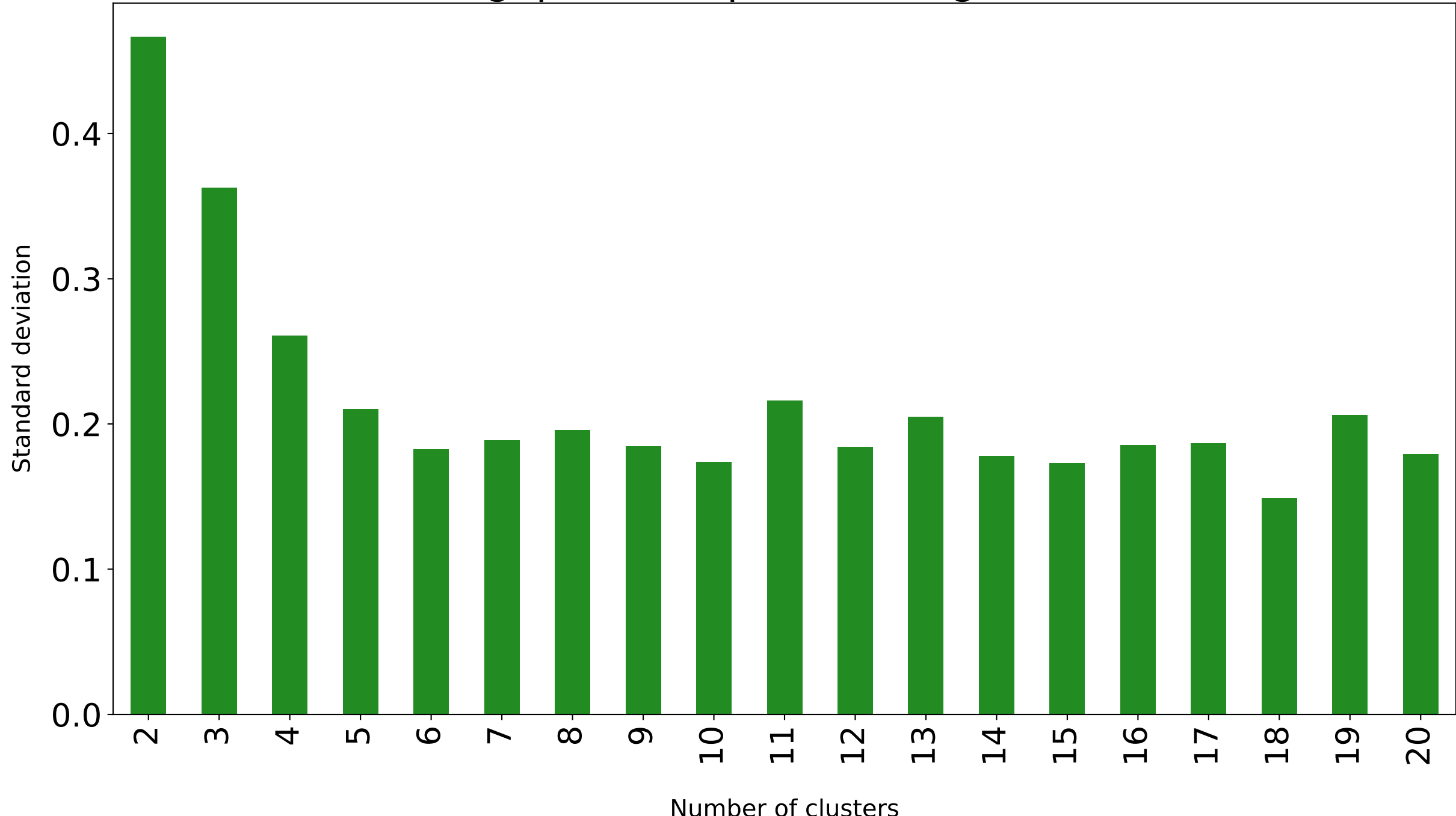patient index

Cophenetic Correlation Coefficient: 0.34839039971379676

Average values of five clustering indices
gap: 0.20, Tp: 0.25, single link

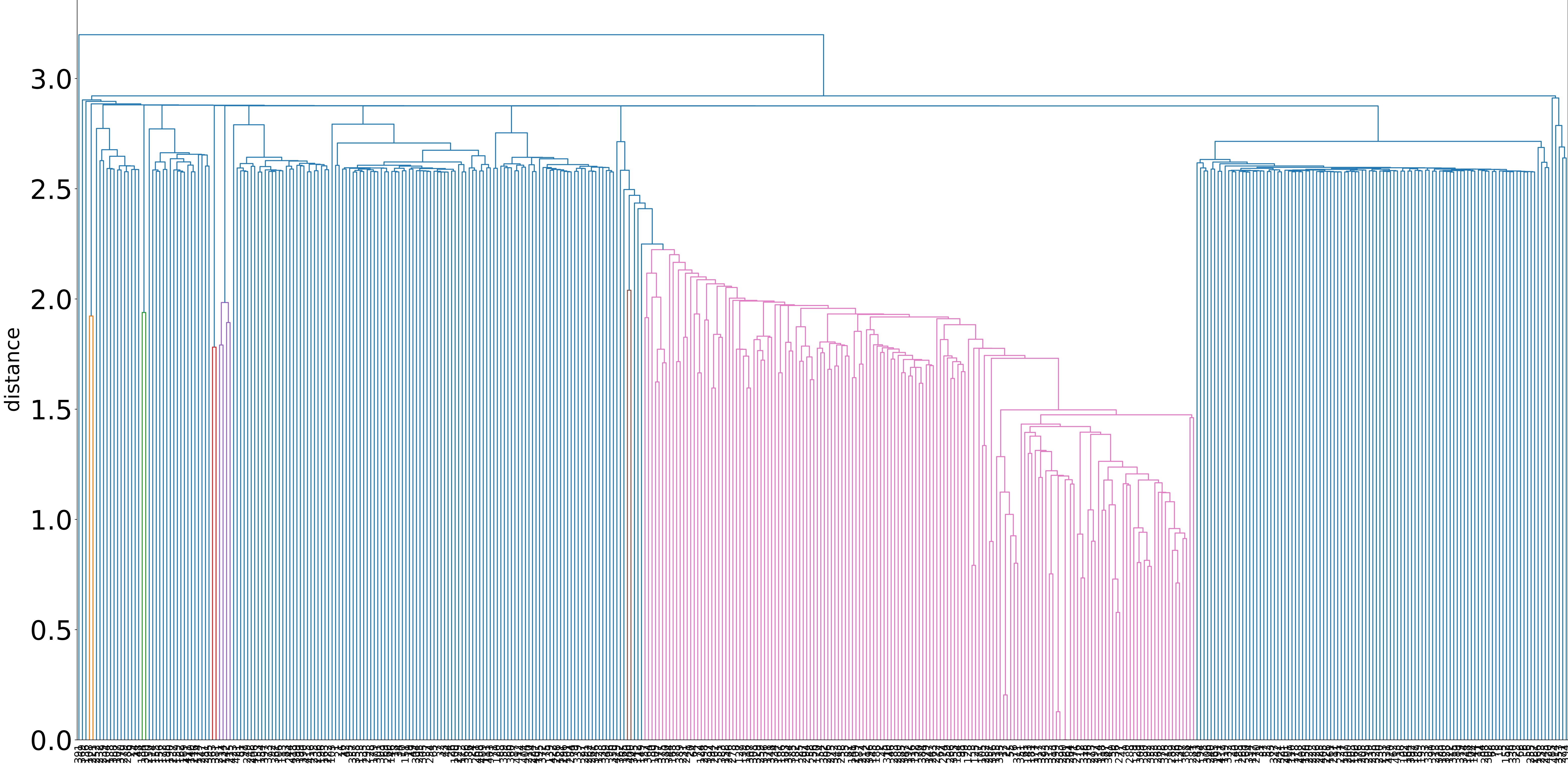| k	AR	FM	J	AW	VD	H	F	VI	K	Phi	RT	SS	CVNN	S	Dunn
2.0	1.0	0.99569	0.99147	0.68379	0.00217	0.68363	0.99565	0.02244	0.99573	0.00431	0.98357	0.98357	2.0	0.55039	0.57138
3.0	1.0	0.98857	0.97785	0.72271	0.00599	0.71807	0.98846	0.05629	0.98868	0.0011	0.95928	0.95891	2.0	0.47207	0.52023
4.0	1.0	0.98676	0.97414	0.66124	0.00716	0.75588	0.98656	0.06602	0.98696	0.001	0.9528	0.95182	2.0	0.52646	0.51847
5.0	1.0	0.98427	0.96924	0.64472	0.00828	0.75246	0.984	0.07808	0.98453	0.00084	0.94424	0.94271	2.0	0.60969	0.51686
6.0	1.0	0.98066	0.96222	0.61477	0.01027	0.73865	0.98028	0.09491	0.98104	0.00069	0.93231	0.93007	2.0	0.66563	0.51563
7.0	1.0	0.97471	0.95085	0.56325	0.01318	0.69966	0.97417	0.12111	0.97525	0.00057	0.91312	0.91001	2.0	0.70929	0.51501
8.0	1.0	0.96792	0.93795	0.5263	0.01664	0.67215	0.96712	0.1497	0.96873	0.00048	0.8922	0.88796	2.0	0.74457	0.51449
9.0	1.0	0.96008	0.92293	0.45669	0.02043	0.63875	0.95884	0.18143	0.96132	0.00042	0.86799	0.86259	2.0	0.7719	0.51388
10.0	1.0	0.95055	0.90501	0.43286	0.02499	0.61366	0.94888	0.21827	0.95223	0.00034	0.84051	0.83278	2.0	0.72984	0.51355
11.0	1.0	0.94476	0.89584	0.56756	0.02725	0.65179	0.94354	0.23261	0.94598	0.00023	0.83243	0.81867	2.0	0.67282	0.5127
12.0	1.0	0.93447	0.87651	0.51989	0.03199	0.64551	0.93258	0.26938	0.93638	0.00021	0.8064	0.78744	2.0	0.65093	0.51254
13.0	1.0	0.93522	0.88002	0.67897	0.03107	0.72873	0.93361	0.25251	0.93685	0.00018	0.82453	0.79718	2.0	0.60463	0.51894
14.0	1.0	0.92266	0.85697	0.62603	0.03713	0.73266	0.91897	0.28394	0.92649	0.00016	0.80163	0.76436	2.0	0.59076	0.51867
15.0	0.99999	0.88716	0.79662	0.54442	0.05418	0.683	0.87861	0.37552	0.89627	0.00014	0.73838	0.6843	2.0	0.5714	0.51853
16.0	1.0	0.86481	0.76308	0.62472	0.06384	0.71264	0.85173	0.38537	0.87903	0.00013	0.73599	0.65041	2.0	0.53667	0.51846
17.0	1.0	0.80763	0.67248	0.61152	0.08855	0.66004	0.78931	0.46207	0.82727	0.00011	0.69233	0.5374	2.0	0.50867	0.51843
18.0	1.00002	0.81318	0.67318	0.66479	0.08594	0.71831	0.79304	0.37144	0.83415	0.00013	0.74399	0.53706	2.0	0.48264	0.51842
19.0	1.0	0.9089	0.84817	0.96919	0.04479	0.87119	0.89771	0.20081	0.92104	0.00019	0.88606	0.79477	2.0	0.45791	0.51835
20.0	1.0	0.95539	0.92398	0.96851	0.02257	0.9377	0.95085	0.11625	0.96031	0.00021	0.94702	0.88984	2.0	0.48246	0.51794

Standard deviation of Adjusted Rand versus number of clusters
gap: 0.20, Tp: 0.25, single link

Standard deviation of Huberts index versus number of clusters
gap: 0.20, Tp: 0.25, single link

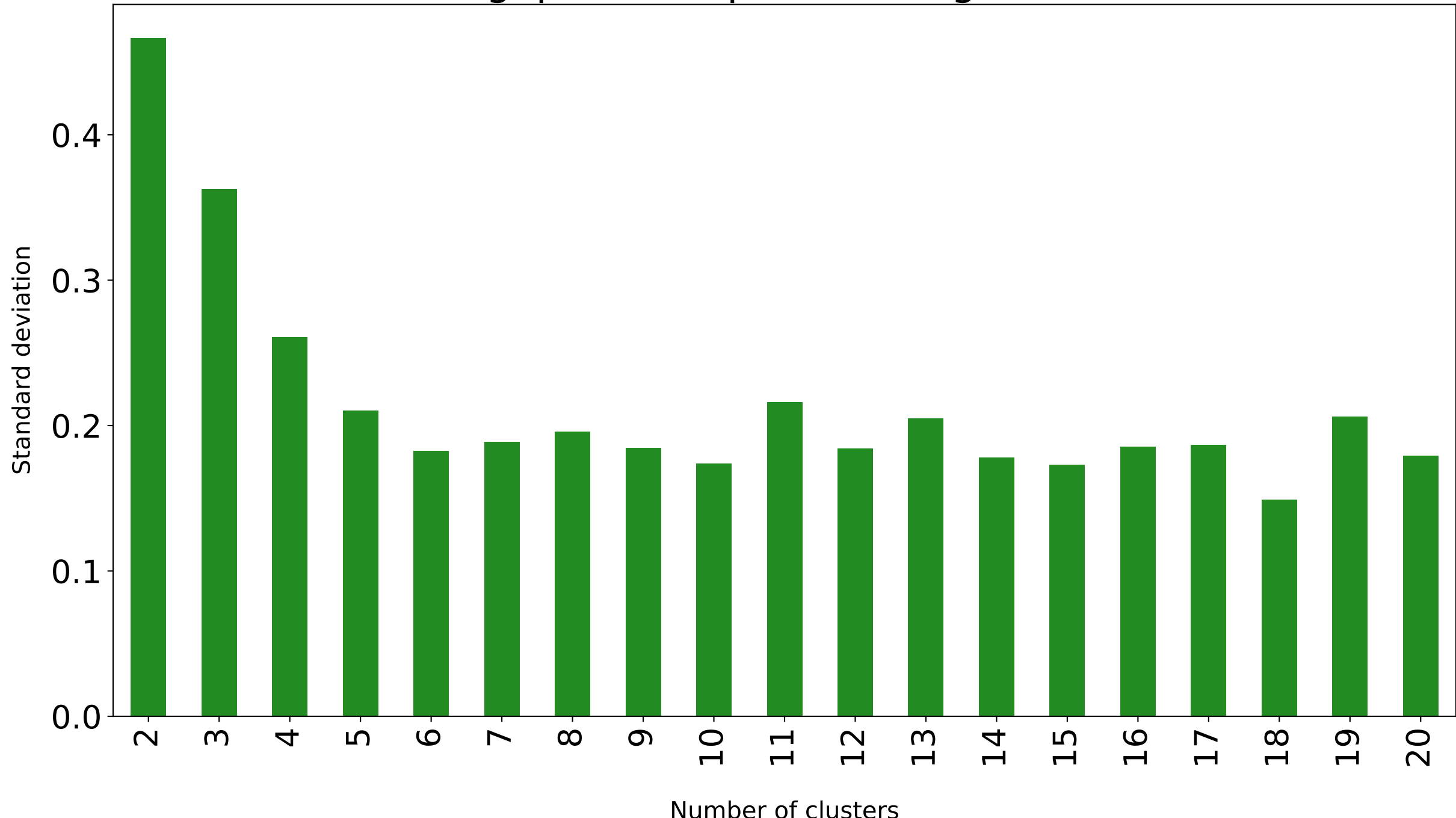Hierarchical Clustering Dendrogram - gap: 0.30, Tp: 0.25, single link
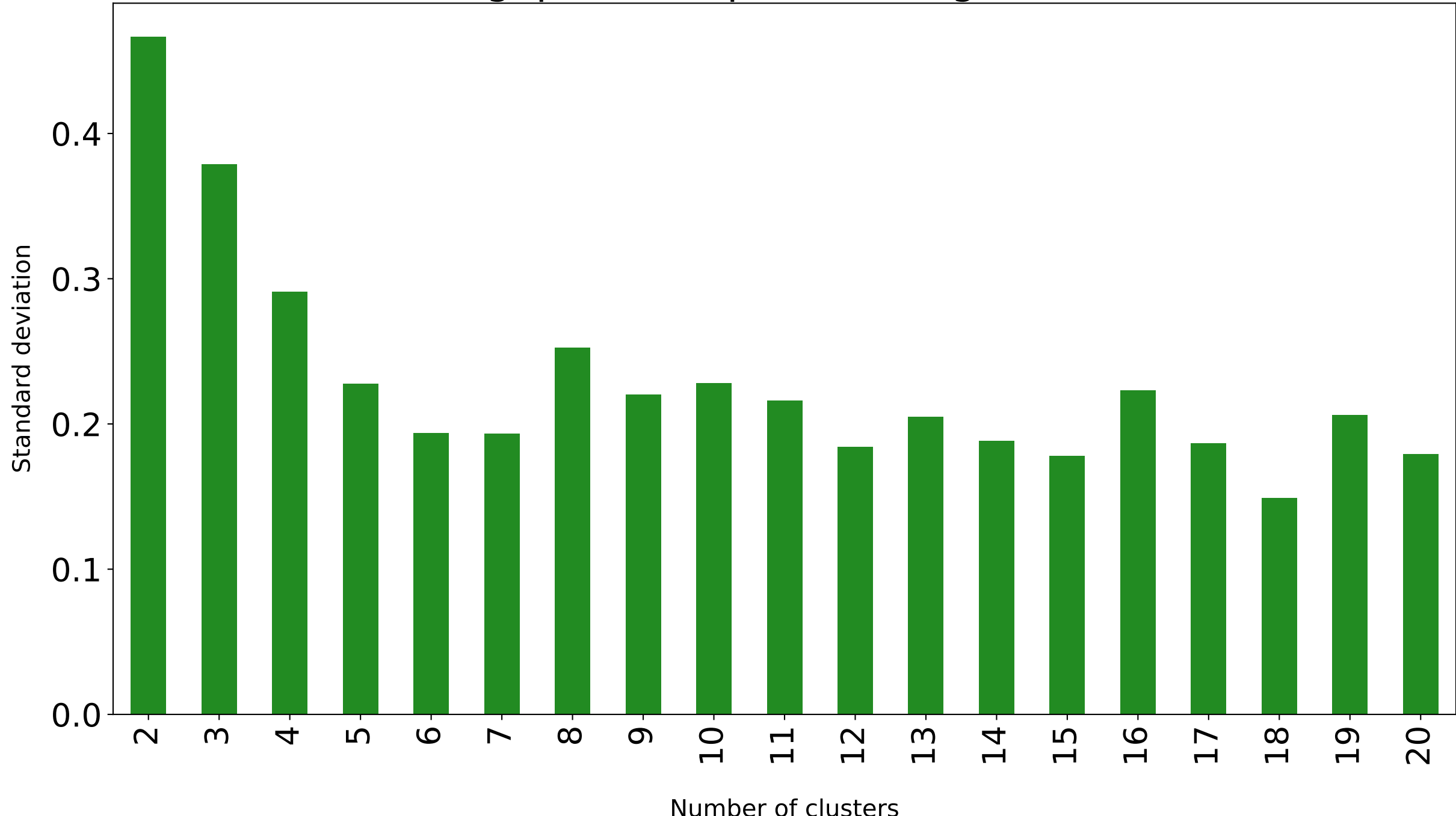
Cophenetic Correlation Coefficient: 0.32370854148513306

Average values of five clustering indices
gap: 0.30, Tp: 0.25, single link

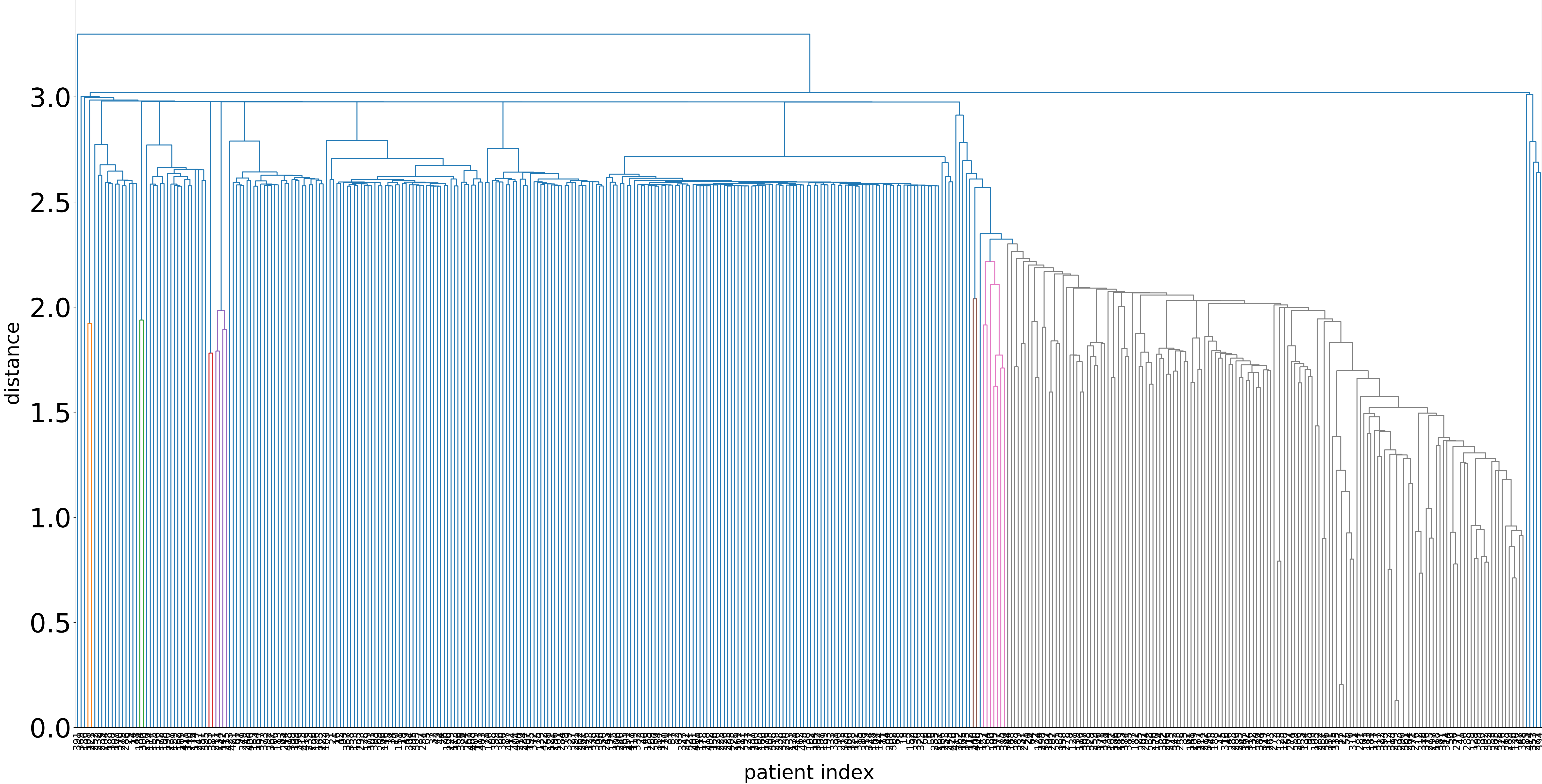| k	AR	FM	J	AW	VD	H	F	VI	K	Phi	RT	SS	CVNN	S	Dunn
2.0	1.0	0.99609	0.99227	0.73194	0.00197	0.7319	0.99605	0.0199	0.99613	0.00461	0.98513	0.98513	2.0	0.54958	0.514
3.0	1.0	0.98504	0.97104	0.65161	0.00779	0.65851	0.98493	0.07285	0.98515	0.00099	0.94669	0.94623	2.0	0.48032	0.46943
4.0	1.0	0.9832	0.96729	0.5924	0.00894	0.69703	0.98299	0.08295	0.98342	0.0009	0.94027	0.93916	2.0	0.53378	0.46789
5.0	1.0	0.98011	0.96121	0.58578	0.01021	0.70903	0.97977	0.09449	0.98045	0.00075	0.92999	0.92815	2.0	0.61516	0.46648
6.0	1.0	0.97399	0.94933	0.53001	0.0133	0.68118	0.97341	0.12022	0.97456	0.0006	0.90998	0.90708	2.0	0.66971	0.46541
7.0	1.0	0.9635	0.92942	0.48332	0.01847	0.63175	0.96256	0.16364	0.96445	0.00045	0.87756	0.87285	2.0	0.63916	0.46361
8.0	1.0	0.95071	0.90724	0.59723	0.02435	0.64054	0.94988	0.20757	0.95154	0.00026	0.84777	0.83778	2.0	0.57504	0.46286
9.0	1.0	0.94193	0.89072	0.55389	0.02834	0.64383	0.94056	0.23845	0.94331	0.00023	0.82529	0.81083	2.0	0.56014	0.46273
10.0	1.0	0.93717	0.88377	0.68406	0.02991	0.70212	0.93609	0.2452	0.93825	0.00018	0.82512	0.80209	2.0	0.50661	0.46774
11.0	1.0	0.93628	0.88113	0.66888	0.03034	0.74228	0.93437	0.24262	0.93822	0.00018	0.82739	0.79814	2.0	0.50337	0.4675
12.0	1.0	0.91432	0.84249	0.61034	0.04042	0.72136	0.90979	0.2996	0.91905	0.00016	0.78635	0.74383	2.0	0.4876	0.46738
13.0	0.99999	0.89669	0.81352	0.70252	0.04697	0.74542	0.88987	0.31133	0.90387	0.00014	0.77756	0.7082	2.0	0.44961	0.46732
14.0	1.00001	0.83126	0.70948	0.68729	0.07586	0.671	0.81891	0.42798	0.84433	0.00011	0.70722	0.5759	2.0	0.43068	0.46729
15.0	1.0	0.83012	0.70426	0.72816	0.07753	0.73107	0.81295	0.3559	0.84797	0.00013	0.75543	0.57972	2.0	0.40686	0.46728
16.0	1.00001	0.88691	0.81279	0.9671	0.05425	0.83905	0.87288	0.2363	0.90208	0.00018	0.85694	0.7509	2.0	0.38338	0.46723
17.0	1.0	0.94454	0.90656	0.9718	0.02657	0.92224	0.93885	0.12495	0.95062	0.0002	0.93378	0.86906	2.0	0.41082	0.45379
18.0	1.0	0.97678	0.95938	0.97385	0.0116	0.96788	0.97508	0.06945	0.97863	0.00021	0.97423	0.93641	2.0	0.44007	0.45334
19.0	1.0	0.98637	0.97475	0.97293	0.00706	0.98167	0.98582	0.05556	0.98698	0.00022	0.98616	0.95519	2.0	0.46742	0.4528
20.0	1.0	0.98546	0.97243	0.96927	0.00739	0.98087	0.98507	0.05988	0.98586	0.00022	0.98603	0.94978	2.0	0.49003	0.45062

Standard deviation of Adjusted Rand versus number of clusters
gap: 0.30, Tp: 0.25, single link

Standard deviation of Huberts index versus number of clusters
gap: 0.30, Tp: 0.25, single link

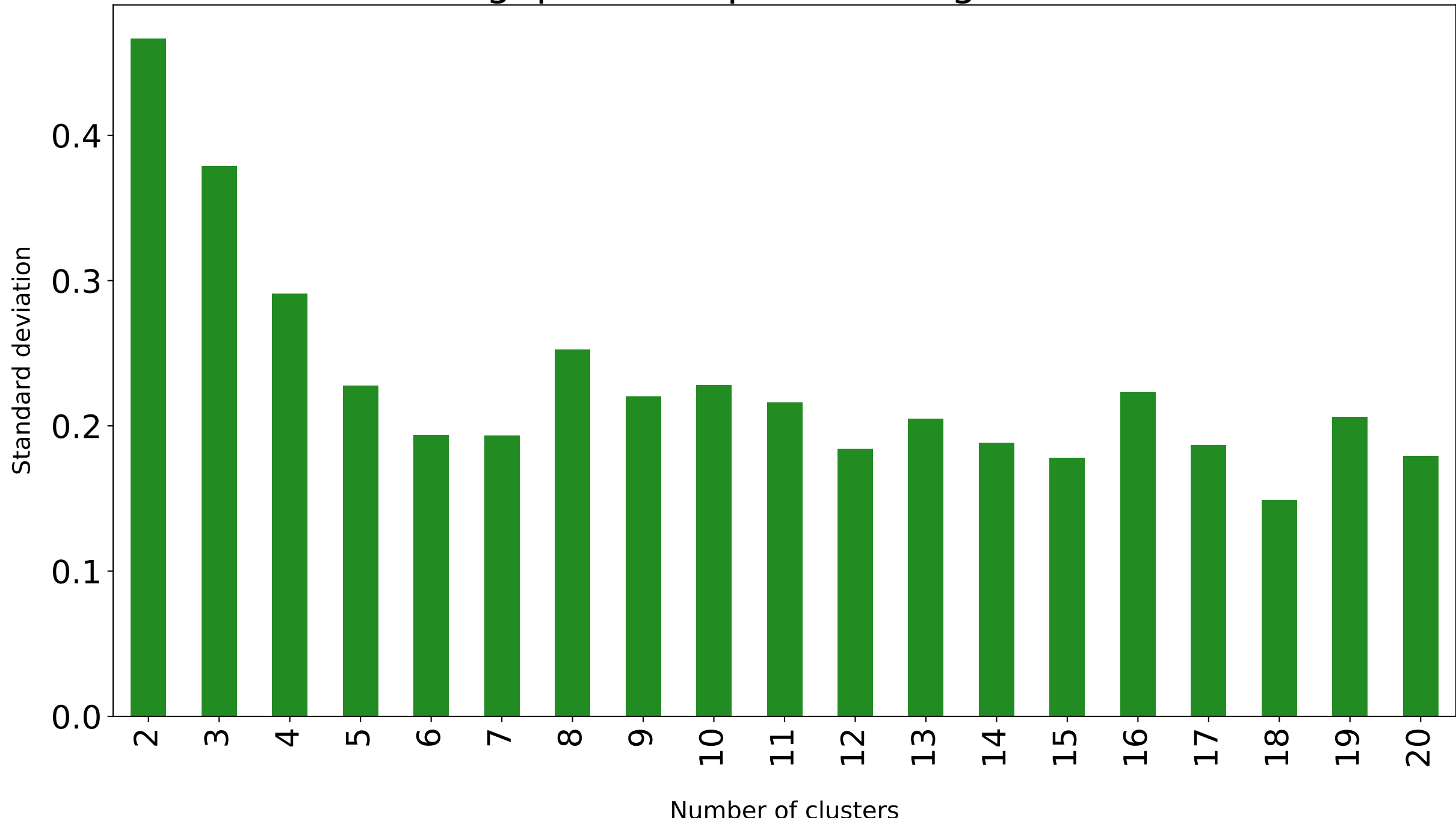Hierarchical Clustering Dendrogram - gap: 0.40, Tp: 0.25, single link

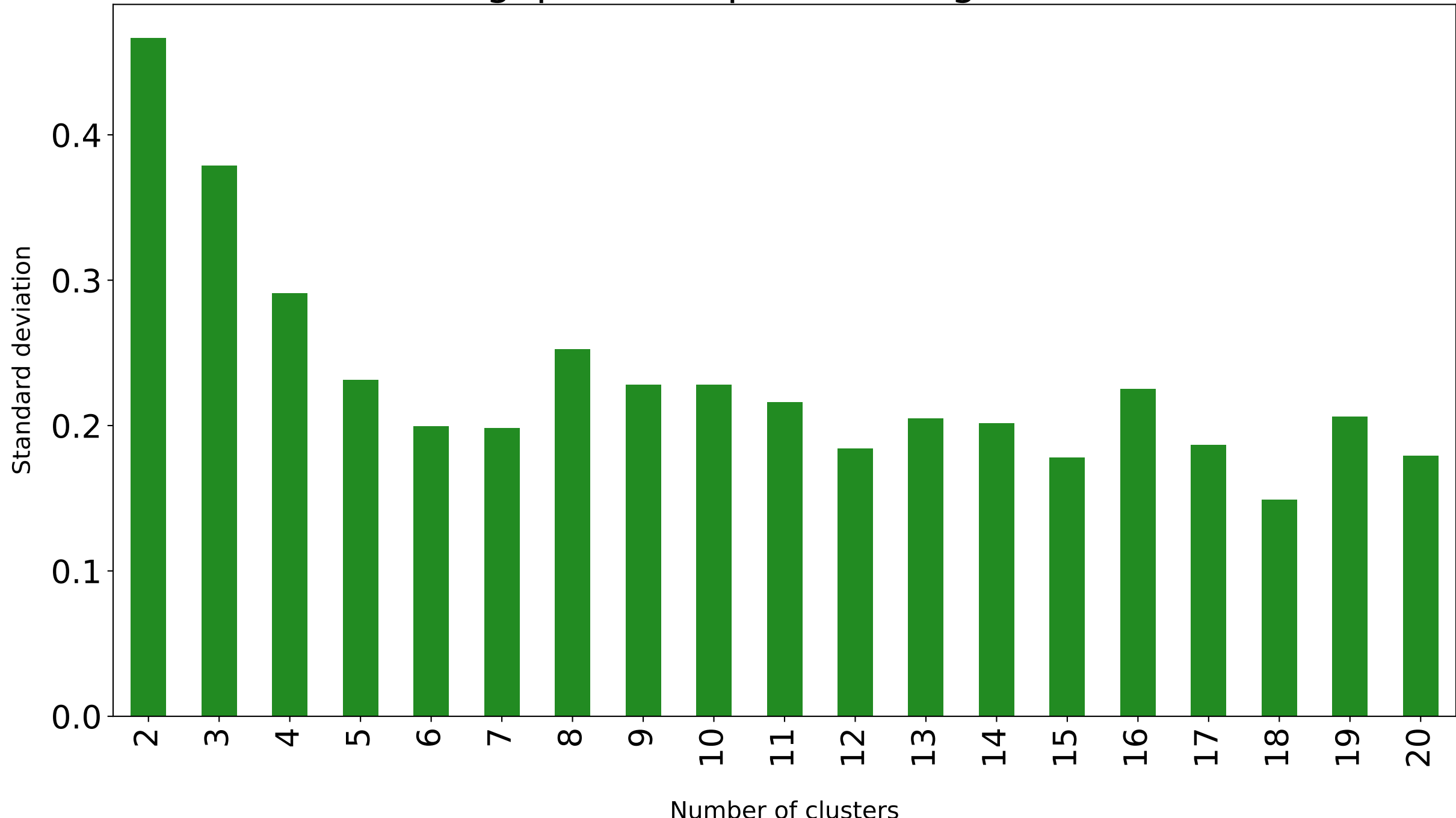Cophenetic Correlation Coefficient: 0.31388275992571224

Average values of five clustering indices
gap: 0.40, Tp: 0.25, single link

k	AR	FM	J	AW	VD	H	F	VI	K	Phi	RT	SS	CVNN	S	Dunn
2.0	1.0	0.99488	0.98992	0.68785	0.00259	0.68775	0.99481	0.025	0.99495	0.00433	0.98089	0.98089	2.0	0.54886	0.46969
3.0	1.0	0.98498	0.97088	0.64903	0.00778	0.63814	0.98485	0.07316	0.9851	0.00097	0.94631	0.94584	2.0	0.4876	0.43019
4.0	1.0	0.98348	0.96784	0.616	0.00878	0.71696	0.98321	0.07975	0.98376	0.00092	0.94166	0.9405	2.0	0.54064	0.42883
5.0	1.0	0.98059	0.96222	0.60448	0.00994	0.72116	0.98022	0.09216	0.98095	0.00076	0.93217	0.93042	2.0	0.6203	0.42759
6.0	1.0	0.97496	0.95131	0.55517	0.01274	0.69485	0.97437	0.11628	0.97556	0.00062	0.9138	0.9111	2.0	0.67356	0.42664
7.0	1.0	0.96414	0.93075	0.50048	0.01819	0.64375	0.96315	0.16139	0.96514	0.00046	0.88031	0.87578	2.0	0.64662	0.42504
8.0	1.0	0.95274	0.91071	0.61173	0.02333	0.64654	0.95193	0.20142	0.95356	0.00027	0.85266	0.84296	2.0	0.58477	0.42438
9.0	1.0	0.9415	0.89003	0.54589	0.02856	0.63887	0.94014	0.24353	0.94286	0.00023	0.82409	0.80992	2.0	0.57215	0.42426
10.0	1.0	0.94373	0.89565	0.71661	0.02678	0.73632	0.9427	0.22396	0.94476	0.00019	0.84303	0.82174	2.0	0.51796	0.42832
11.0	1.0	0.93691	0.88312	0.67825	0.03004	0.75143	0.93478	0.24032	0.93909	0.00018	0.83186	0.804	2.0	0.51638	0.42811
12.0	1.0	0.91039	0.83672	0.60233	0.04255	0.71446	0.90523	0.30992	0.91586	0.00015	0.78053	0.73785	2.0	0.5008	0.428
13.0	1.0	0.88932	0.80255	0.68969	0.05122	0.7315	0.88142	0.3296	0.89781	0.00013	0.76638	0.69539	2.0	0.46335	0.42794
14.0	1.0	0.83102	0.71042	0.68214	0.07606	0.66832	0.81894	0.43334	0.84379	0.00011	0.7075	0.57887	2.0	0.44502	0.42792
15.0	1.0	0.8278	0.7005	0.7271	0.07785	0.72731	0.81087	0.36199	0.84539	0.00013	0.75221	0.57395	2.0	0.42233	0.42791
16.0	1.0	0.88045	0.80209	0.96125	0.05691	0.83017	0.86577	0.24962	0.89634	0.00018	0.84941	0.73547	2.0	0.39913	0.42786
17.0	1.0	0.93568	0.89128	0.96618	0.03003	0.91036	0.9291	0.14037	0.94272	0.0002	0.92388	0.84669	2.0	0.43387	0.41893
18.0	1.0	0.97176	0.94952	0.96477	0.01276	0.96185	0.96996	0.08126	0.97368	0.00021	0.96996	0.91837	2.0	0.45567	0.40159
19.0	1.0	0.9803	0.96292	0.96243	0.00872	0.97419	0.97968	0.06763	0.98095	0.00022	0.98115	0.9341	2.0	0.47995	0.40119
20.0	1.0	0.9819	0.96471	0.95768	0.00768	0.97666	0.98159	0.06742	0.98222	0.00022	0.98355	0.93403	2.0	0.50246	0.40072

Standard deviation of Huberts index versus number of clusters
gap: 0.40, Tp: 0.25, single link

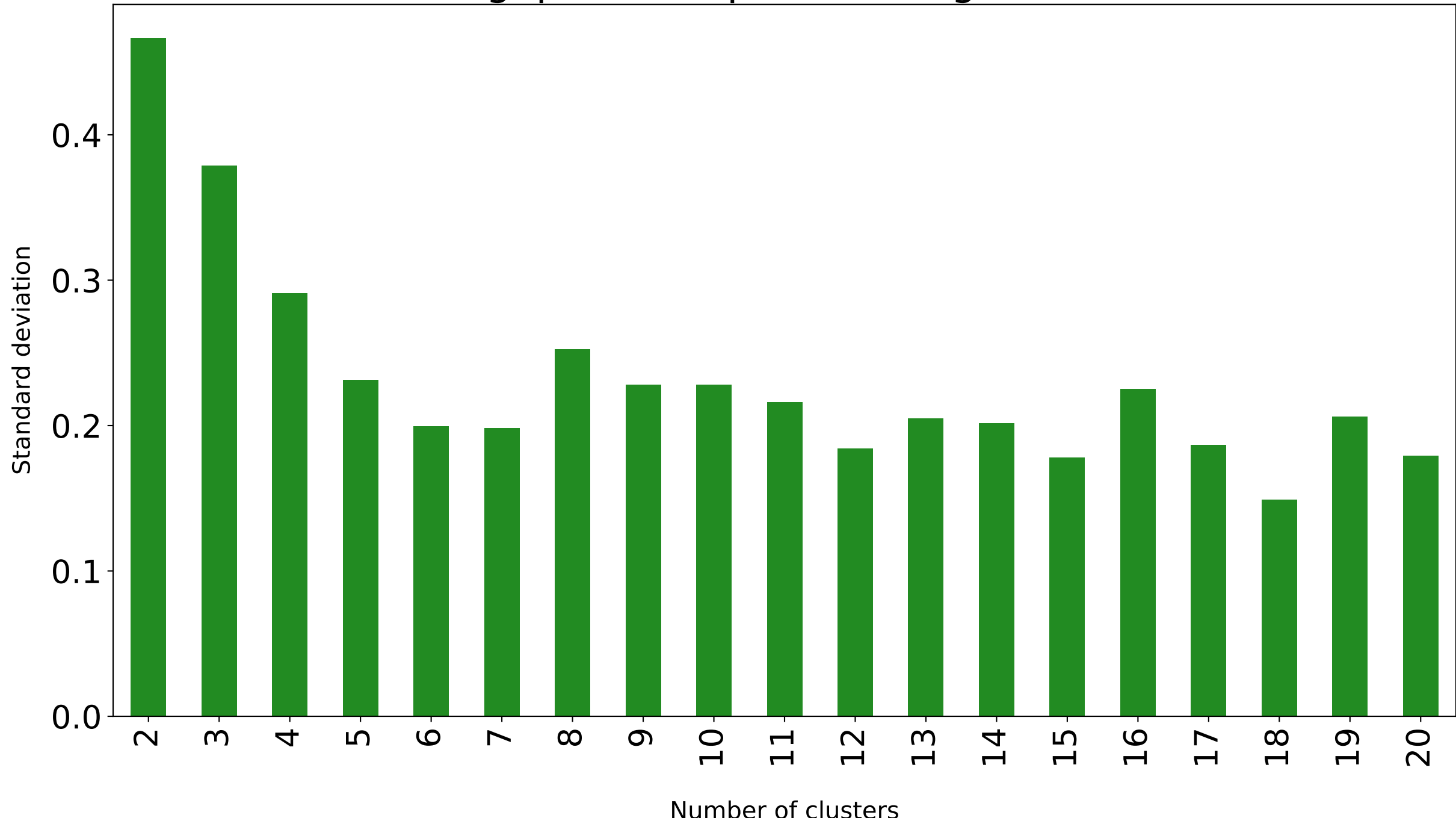Hierarchical Clustering Dendrogram - gap: 0.50, Tp: 0.25, single link

distance
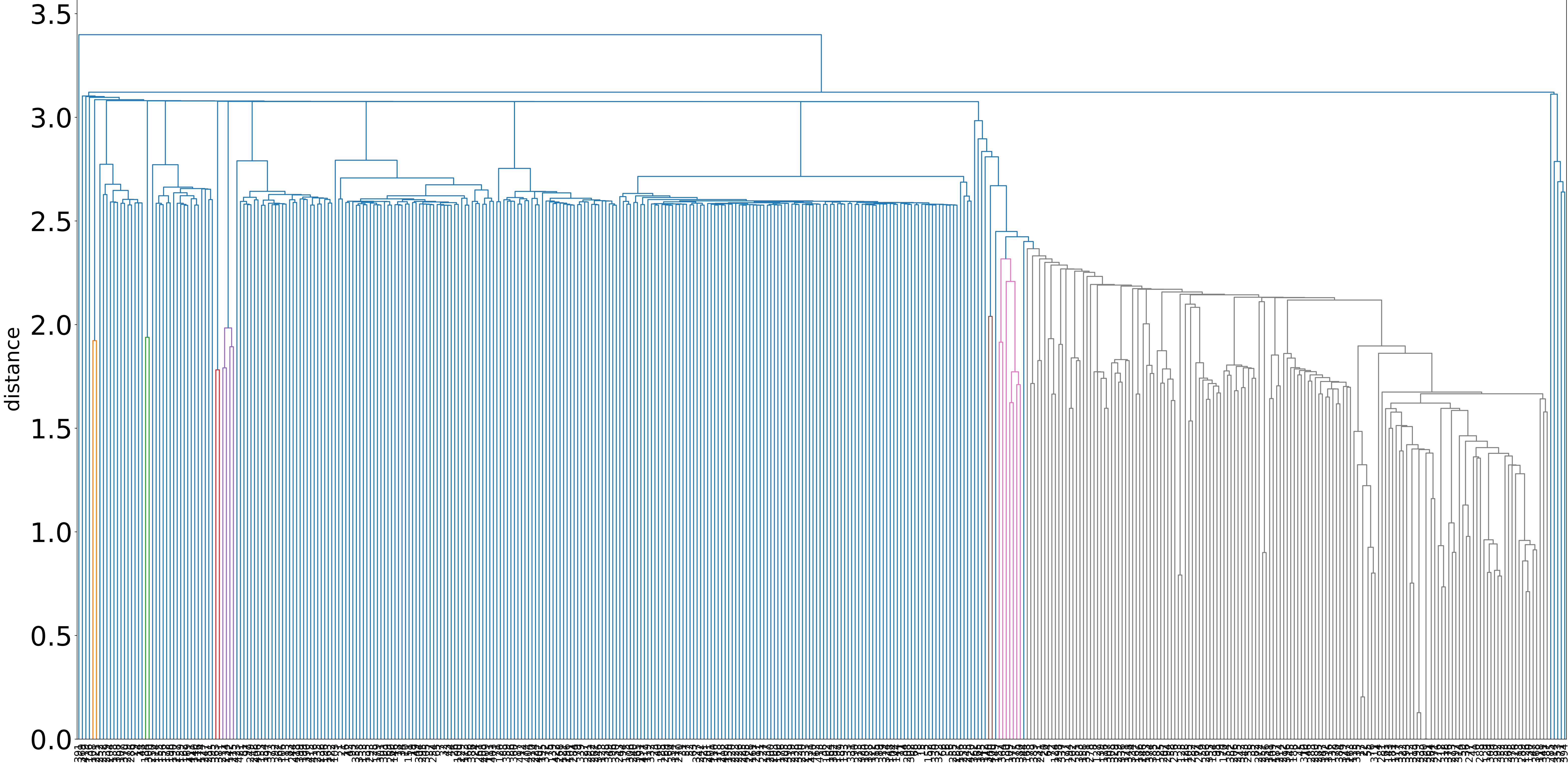
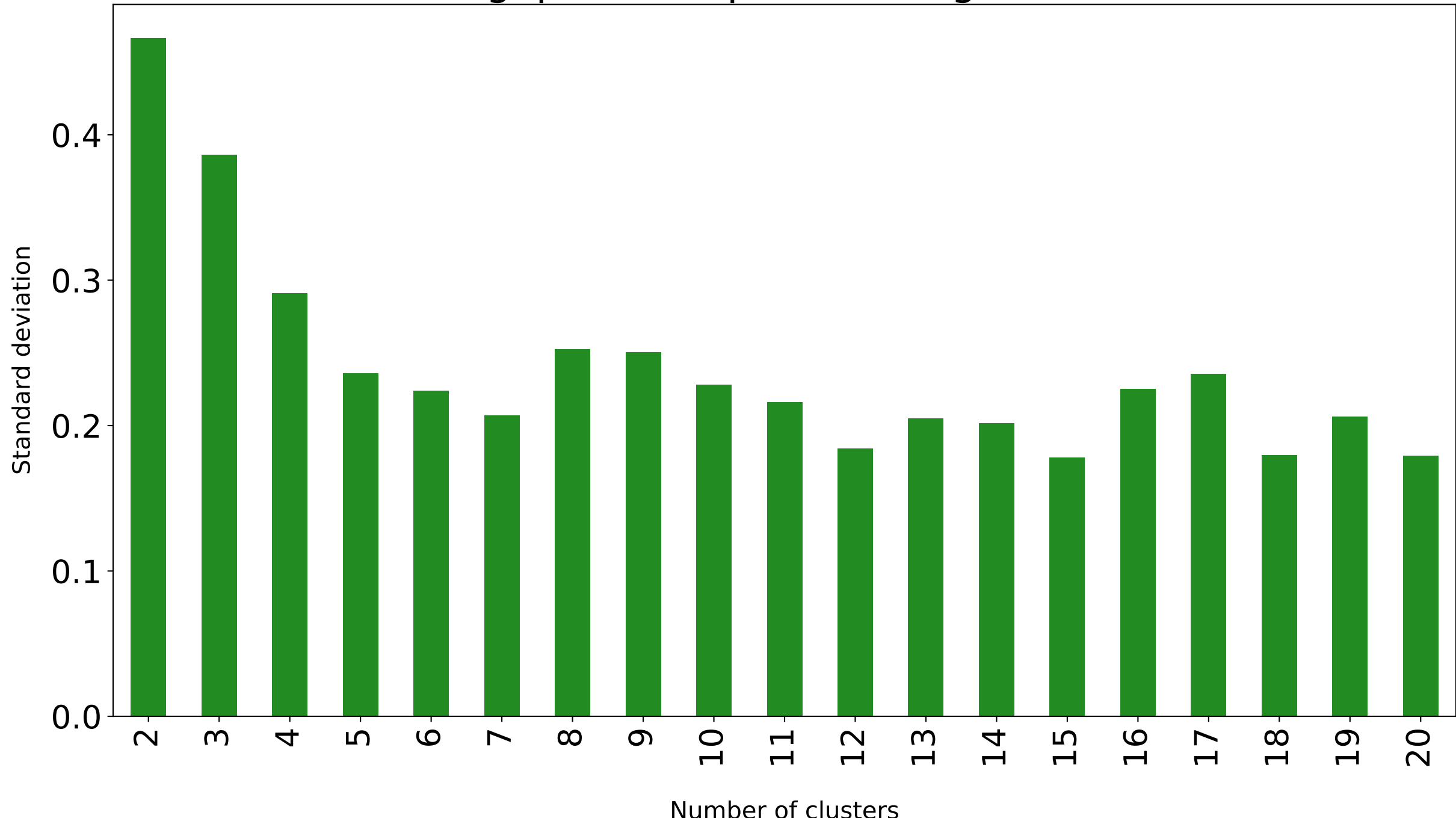patient index

Cophenetic Correlation Coefficient: 0.31694265502854563

Average values of five clustering indices
gap: 0.50, Tp: 0.25, single link

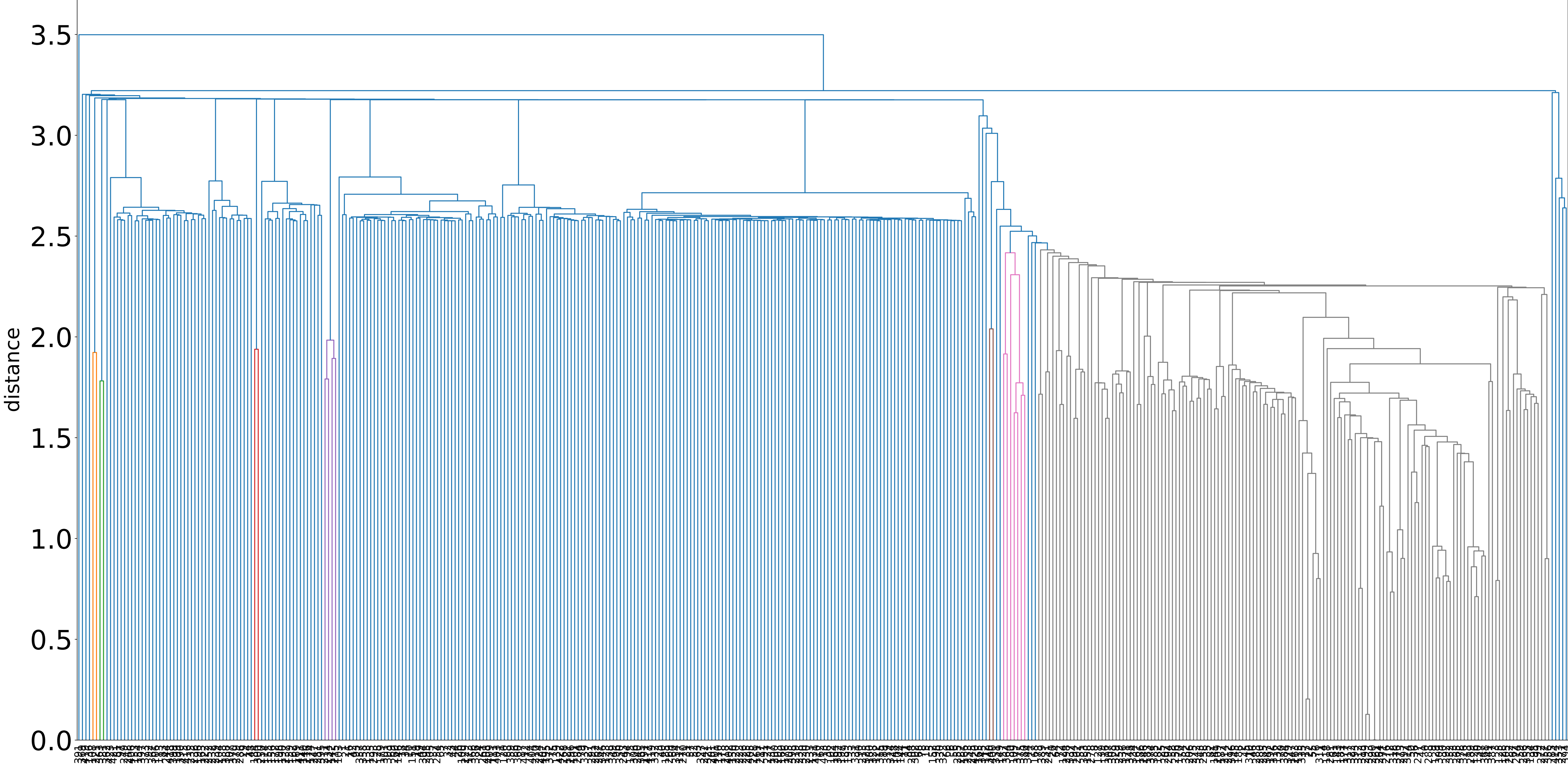| k	AR	FM	J	AW	VD	H	F	VI	K	Phi	RT	SS	CVNN	S	Dunn
2.0	1.0	0.99546	0.99105	0.70782	0.00229	0.70769	0.99541	0.02282	0.99552	0.00446	0.98291	0.98291	2.0	0.54821	0.43444
3.0	1.0	0.98324	0.96767	0.63411	0.0086	0.63703	0.98307	0.07905	0.9834	0.00094	0.94107	0.94056	2.0	0.49414	0.39898
4.0	1.0	0.97985	0.961	0.57593	0.01073	0.68824	0.97946	0.09397	0.98024	0.00085	0.9302	0.92883	2.0	0.5471	0.39776
5.0	1.0	0.97663	0.95471	0.569	0.0121	0.69329	0.9761	0.10822	0.97716	0.00071	0.91972	0.91757	2.0	0.62515	0.39665
6.0	1.0	0.9714	0.94464	0.53747	0.0145	0.6738	0.97067	0.12956	0.97213	0.00059	0.90298	0.89999	2.0	0.68661	0.39628
7.0	1.0	0.96652	0.93528	0.51095	0.01711	0.66769	0.96553	0.15089	0.96751	0.0005	0.88803	0.884	2.0	0.72245	0.39579
8.0	1.0	0.95787	0.91882	0.46969	0.02124	0.63263	0.95661	0.18471	0.95913	0.00039	0.86153	0.8555	2.0	0.69285	0.39435
9.0	1.0	0.94382	0.89494	0.56748	0.02767	0.634	0.94268	0.23333	0.94496	0.00024	0.83093	0.81891	2.0	0.63542	0.39376
10.0	1.0	0.93427	0.87648	0.52232	0.03202	0.64073	0.93234	0.26617	0.93621	0.00021	0.80631	0.78848	2.0	0.62191	0.39365
11.0	1.0	0.93025	0.87142	0.6544	0.03337	0.69554	0.92886	0.27021	0.93166	0.00017	0.81019	0.78299	2.0	0.57134	0.39703
12.0	1.0	0.92645	0.86389	0.64283	0.03521	0.73061	0.92339	0.27441	0.92958	0.00017	0.80809	0.77427	2.0	0.56763	0.39684
13.0	0.99999	0.90032	0.81929	0.57699	0.04755	0.7015	0.89355	0.34312	0.90752	0.00015	0.76207	0.7144	2.0	0.55039	0.39674
14.0	1.0	0.87674	0.78221	0.65432	0.05743	0.71475	0.86669	0.36504	0.88768	0.00013	0.74817	0.66986	2.0	0.51303	0.39669
15.0	1.0	0.81639	0.68502	0.65091	0.08226	0.64772	0.80256	0.46685	0.83106	0.00011	0.68693	0.54335	2.0	0.494	0.39667
16.0	1.0	0.81593	0.68027	0.69707	0.08319	0.70999	0.79699	0.38918	0.83565	0.00012	0.7378	0.54797	2.0	0.47151	0.39666
17.0	1.0	0.8748	0.79441	0.94488	0.05914	0.82153	0.85976	0.2698	0.89122	0.00018	0.84362	0.7247	2.0	0.44792	0.39662
18.0	1.0	0.92762	0.87828	0.94956	0.03251	0.89909	0.92055	0.16351	0.93526	0.0002	0.91562	0.82626	2.0	0.47825	0.38477
19.0	1.0	0.95885	0.92767	0.95289	0.0171	0.94424	0.95602	0.10452	0.96186	0.00021	0.95608	0.88609	2.0	0.50537	0.3735
20.0	1.0	0.97381	0.95157	0.95598	0.0102	0.96556	0.97278	0.07942	0.9749	0.00022	0.97468	0.91603	2.0	0.52991	0.36561

Standard deviation of Adjusted Rand versus number of clusters
gap: 0.50, Tp: 0.25, single link

Standard deviation of Huberts index versus number of clusters
gap: 0.50, Tp: 0.25, single link

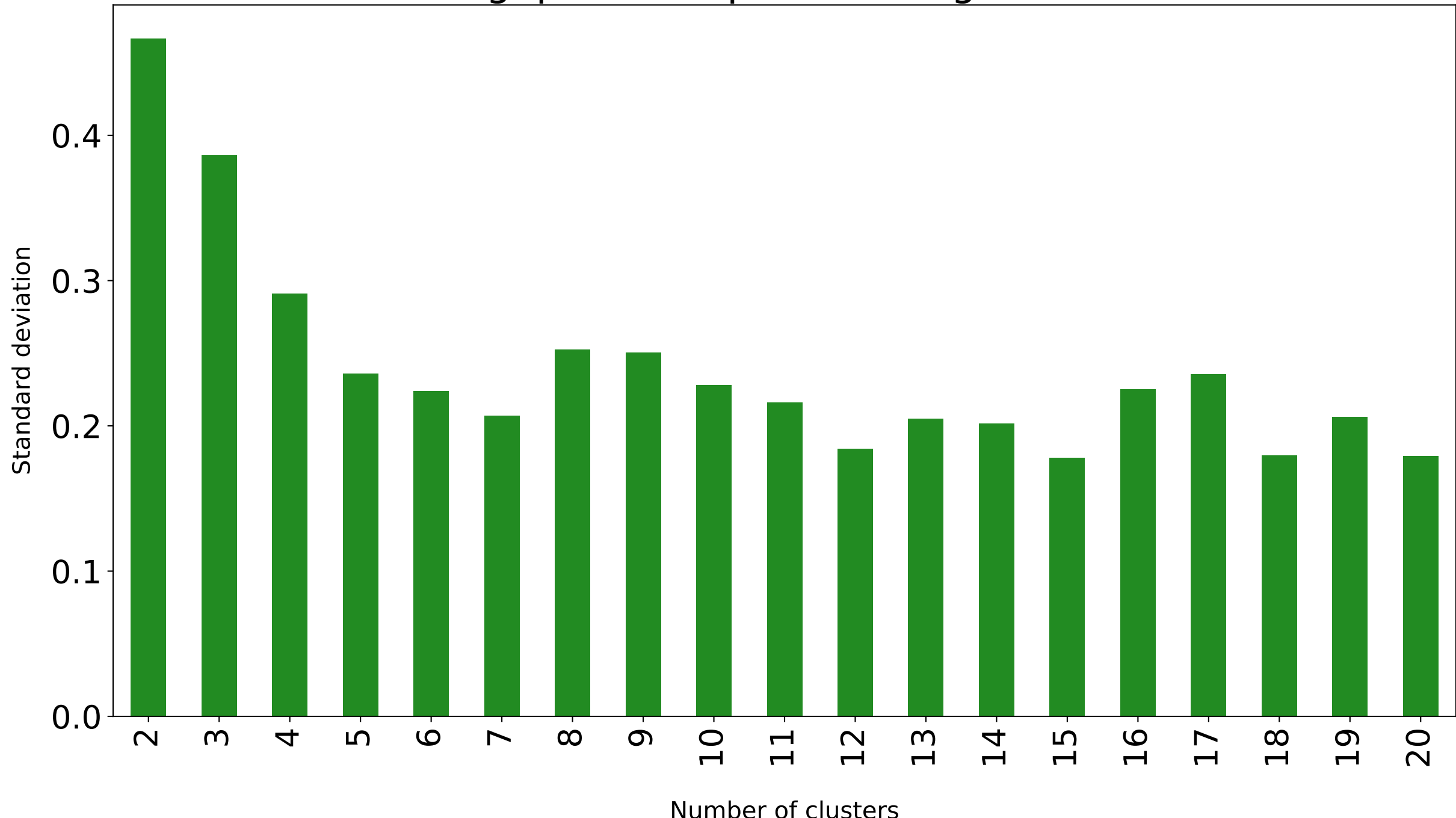Hierarchical Clustering Dendrogram - gap: 0.60, Tp: 0.25, single link
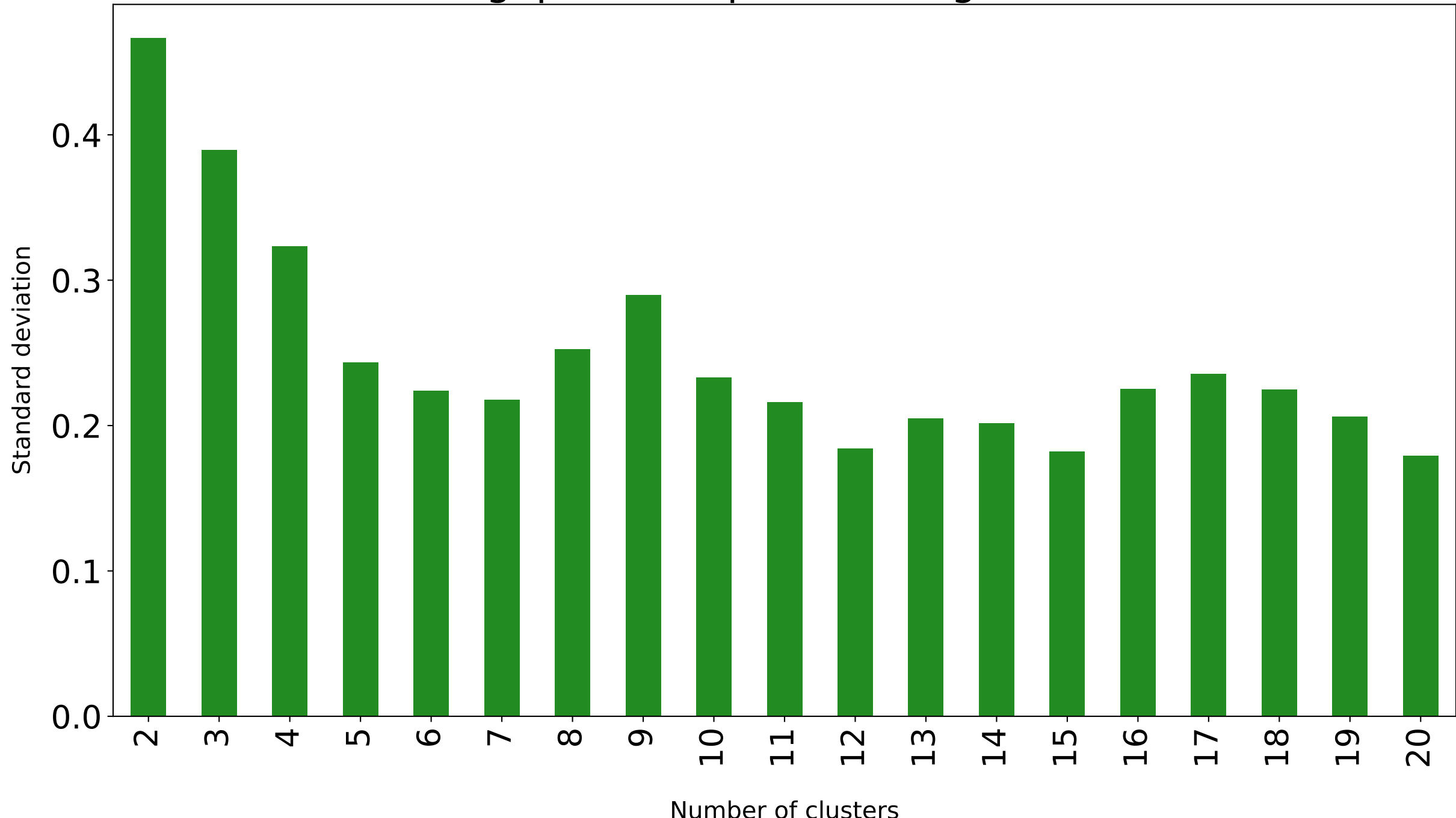
Cophenetic Correlation Coefficient: 0.32358844856525515

Average values of five clustering indices
gap: 0.60, Tp: 0.25, single link

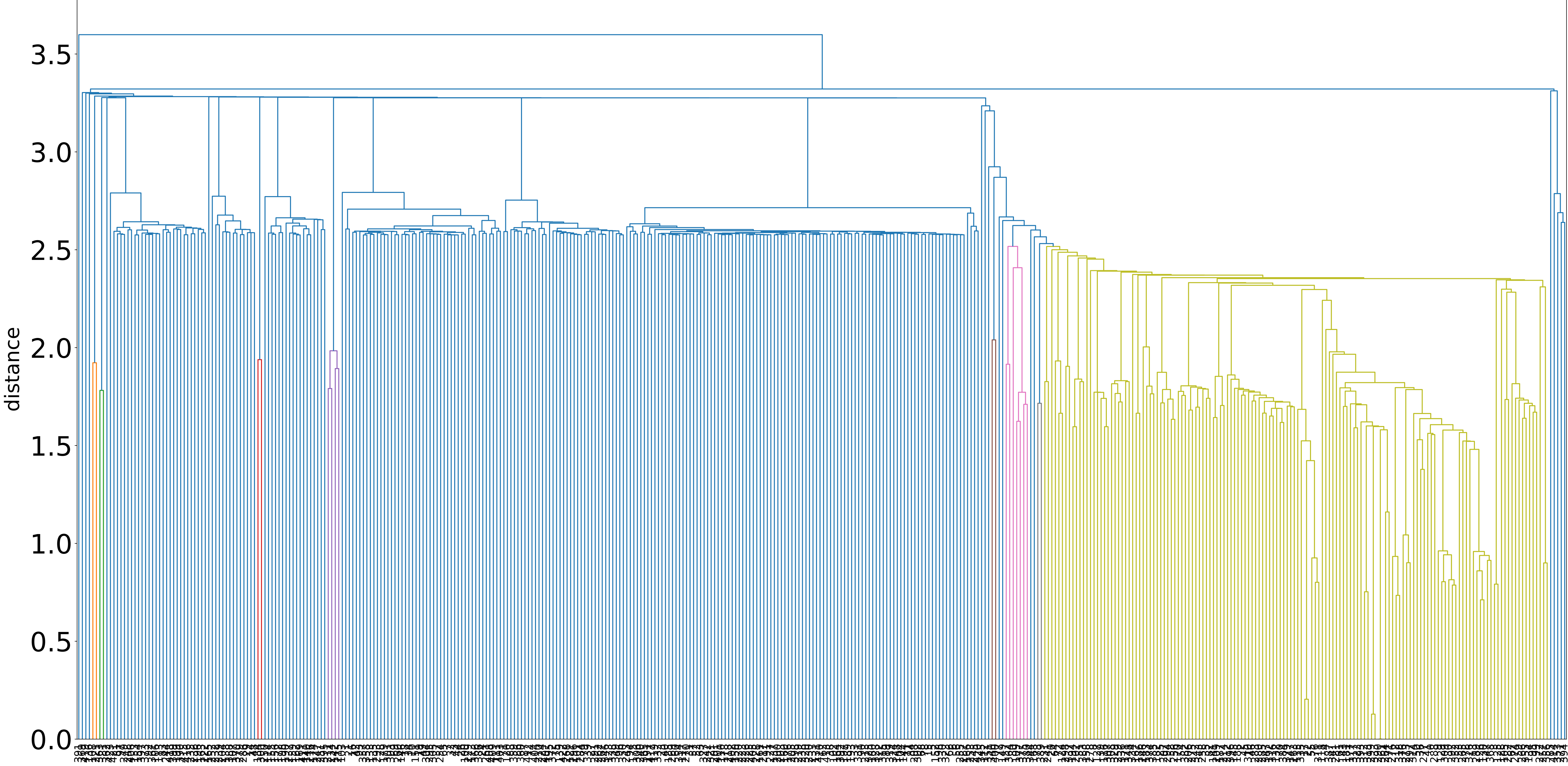| k	AR	FM	J	AW	VD	H	F	VI	K	Phi	RT	SS	CVNN	S	Dunn
2.0	1.0	0.99632	0.99275	0.76387	0.00187	0.76378	0.99626	0.01814	0.99637	0.00481	0.9863	0.9863	2.0	0.54497	0.4105
3.0	1.0	0.98128	0.9641	0.62701	0.00968	0.61945	0.98105	0.08609	0.98152	0.00096	0.93533	0.93479	2.0	0.49454	0.37795
4.0	1.0	0.97368	0.94963	0.53502	0.01399	0.63887	0.97302	0.11678	0.97435	0.00081	0.91204	0.9105	2.0	0.55209	0.37683
5.0	1.0	0.97182	0.94579	0.5366	0.01466	0.66225	0.97101	0.12506	0.97263	0.00071	0.90588	0.90341	2.0	0.62946	0.3758
6.0	1.0	0.96886	0.94012	0.53215	0.0159	0.66999	0.9679	0.13608	0.96983	0.00061	0.89692	0.89367	2.0	0.69025	0.37547
7.0	1.0	0.96003	0.92319	0.47955	0.02048	0.63838	0.95864	0.1703	0.96142	0.00049	0.86946	0.86478	2.0	0.7258	0.37502
8.0	1.0	0.94576	0.89626	0.41672	0.02775	0.58646	0.94368	0.22628	0.94785	0.00036	0.82736	0.81998	2.0	0.69901	0.3737
9.0	1.0	0.93125	0.87282	0.60134	0.03432	0.60371	0.93025	0.27698	0.93226	0.00016	0.80132	0.78281	2.0	0.63286	0.37338
10.0	1.0	0.94296	0.89399	0.77454	0.02782	0.74123	0.94203	0.23097	0.94389	0.00017	0.84185	0.81784	2.0	0.58939	0.37316
11.0	1.0	0.94763	0.90192	0.76403	0.02521	0.78937	0.94685	0.21432	0.94842	0.00017	0.85782	0.82912	2.0	0.58277	0.37306
12.0	1.0	0.96116	0.92664	0.90732	0.01908	0.86815	0.96043	0.16643	0.9619	0.00016	0.89867	0.87118	2.0	0.54504	0.37725
13.0	1.0	0.95915	0.92247	0.85992	0.01926	0.87907	0.95796	0.16232	0.96036	0.00016	0.89852	0.86481	2.0	0.5378	0.37708
14.0	1.0	0.93655	0.88212	0.78701	0.02889	0.84399	0.9331	0.21509	0.94009	0.00015	0.85844	0.8062	2.0	0.52479	0.37699
15.0	1.0	0.89465	0.81359	0.67588	0.0495	0.78612	0.88388	0.30838	0.90633	0.00014	0.7954	0.72218	2.0	0.55637	0.37694
16.0	0.99999	0.81596	0.68702	0.64133	0.08311	0.668	0.80104	0.44836	0.83197	0.00011	0.70301	0.55324	2.0	0.53699	0.37692
17.0	0.9999	0.82701	0.70016	0.71378	0.07784	0.72943	0.81028	0.3648	0.84443	0.00013	0.75672	0.57418	2.0	0.51481	0.37692
18.0	1.0	0.88089	0.80439	0.94198	0.05554	0.83195	0.86776	0.25251	0.89505	0.00018	0.85605	0.7361	2.0	0.49116	0.37688
19.0	1.0	0.93203	0.8855	0.9487	0.03021	0.90587	0.92581	0.15348	0.93869	0.0002	0.9224	0.83508	2.0	0.51762	0.36747
20.0	1.0	0.96169	0.93239	0.95106	0.01571	0.9484	0.95933	0.10177	0.96422	0.00022	0.96019	0.89184	2.0	0.54155	0.36021

Standard deviation of Adjusted Rand versus number of clusters
gap: 0.60, Tp: 0.25, single link

Standard deviation of Huberts index versus number of clusters
gap: 0.60, Tp: 0.25, single link

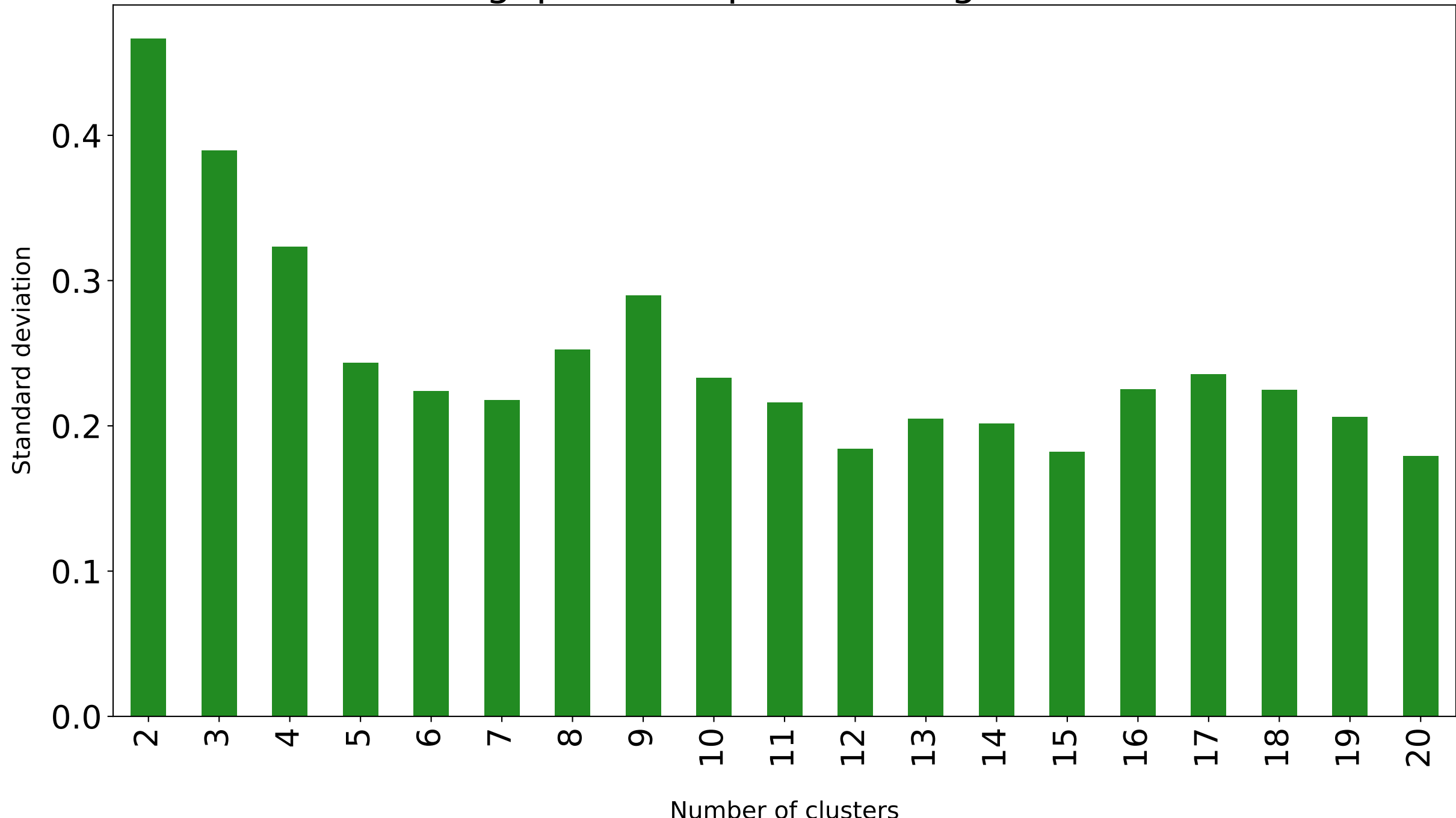Hierarchical Clustering Dendrogram - gap: 0.70, Tp: 0.25, single link
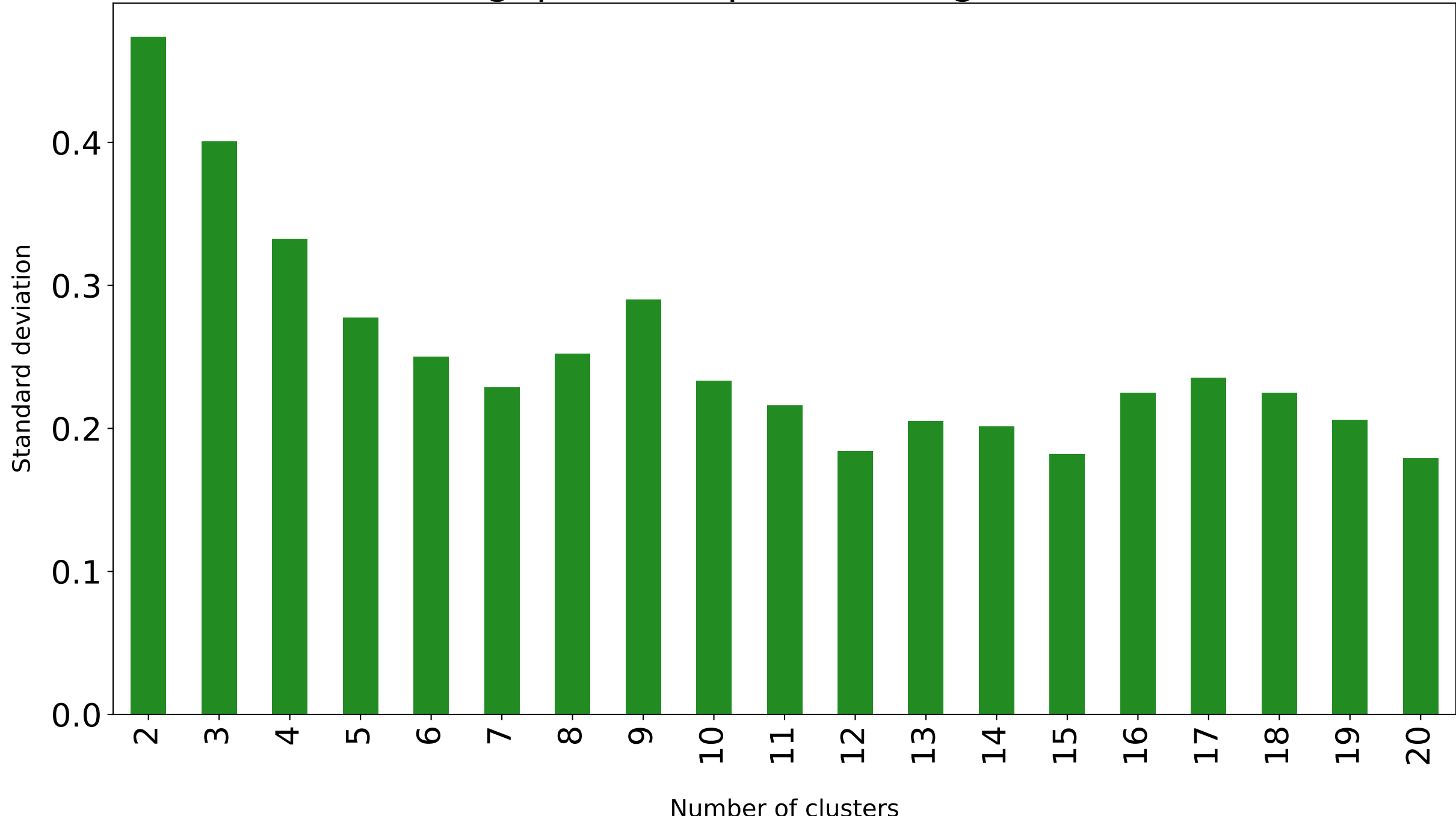
Cophenetic Correlation Coefficient: 0.3433176478048687

Average values of five clustering indices
gap: 0.70, Tp: 0.25, single link

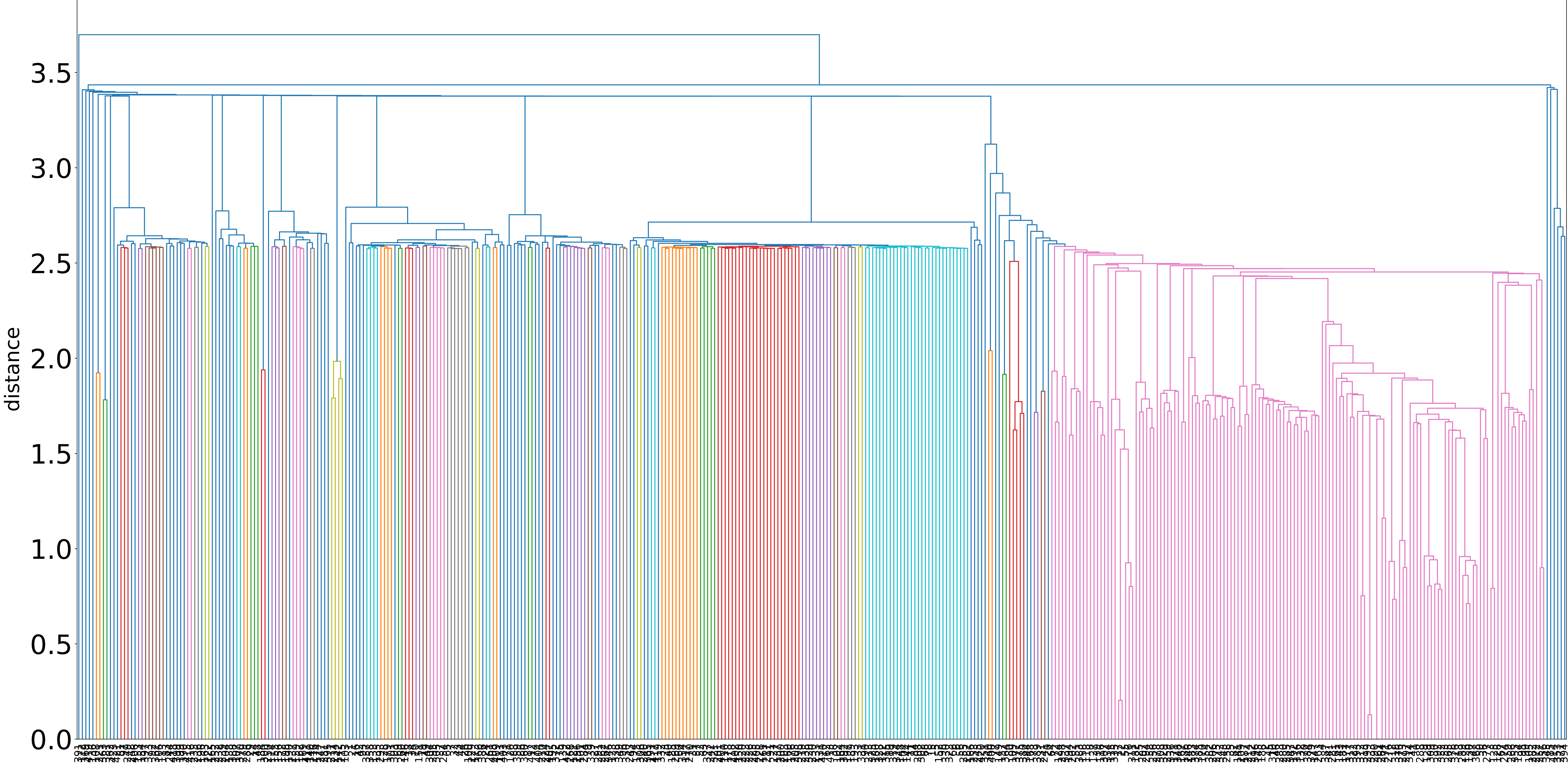| k	AR	FM	J	AW	VD	H	F	VI	K	Phi	RT	SS	CVNN	S	Dunn
2.0	1.0	0.99269	0.98574	0.66382	0.00375	0.66371	0.99251	0.03259	0.99286	0.00418	0.97383	0.97383	2.0	0.54014	0.39446
3.0	1.0	0.97653	0.95525	0.59518	0.01214	0.60064	0.97607	0.10104	0.97699	0.00093	0.92112	0.92041	2.0	0.48971	0.36405
4.0	1.0	0.96548	0.9343	0.48584	0.01816	0.59974	0.96441	0.14351	0.96656	0.00076	0.88736	0.88549	2.0	0.55615	0.36301
5.0	1.0	0.95955	0.92306	0.47347	0.02102	0.60466	0.95809	0.16628	0.96103	0.00062	0.86995	0.86687	2.0	0.63347	0.36205
6.0	1.0	0.95289	0.91027	0.44485	0.0243	0.59413	0.95099	0.1914	0.95482	0.00051	0.84983	0.84547	2.0	0.69348	0.36173
7.0	1.0	0.94466	0.89449	0.39339	0.02842	0.56778	0.94233	0.2231	0.94701	0.0004	0.82455	0.81867	2.0	0.72929	0.36132
8.0	1.0	0.93131	0.86941	0.34475	0.03546	0.52963	0.92825	0.27711	0.9344	0.0003	0.78651	0.77759	2.0	0.70316	0.36008
9.0	1.0	0.9437	0.89534	0.66405	0.02865	0.69573	0.94278	0.23601	0.94462	0.00018	0.83807	0.82004	2.0	0.63929	0.35978
10.0	1.0	0.94297	0.89299	0.64861	0.02845	0.7302	0.9418	0.24141	0.94414	0.00018	0.83817	0.81456	2.0	0.6745	0.35966
11.0	1.0	0.95036	0.90639	0.76813	0.02418	0.80534	0.94953	0.20883	0.9512	0.00017	0.86475	0.83575	2.0	0.63403	0.35958
12.0	1.0	0.94731	0.90034	0.74517	0.0253	0.81811	0.94598	0.21558	0.94865	0.00017	0.86098	0.82591	2.0	0.62421	0.35948
13.0	0.99999	0.95976	0.92437	0.88899	0.0198	0.88052	0.9584	0.16635	0.96119	0.00016	0.90088	0.86922	2.0	0.58872	0.37149
14.0	1.0	0.95324	0.91311	0.83989	0.02217	0.87708	0.95072	0.17552	0.95591	0.00016	0.89193	0.85458	2.0	0.58039	0.37132
15.0	1.0	0.92864	0.87054	0.77283	0.03333	0.84131	0.92299	0.22835	0.93469	0.00015	0.8515	0.79644	2.0	0.56691	0.37123
16.0	1.0	0.86789	0.76872	0.60609	0.06228	0.7435	0.8532	0.36989	0.88399	0.00013	0.75168	0.66229	2.0	0.59403	0.37119
17.0	0.99999	0.80576	0.66898	0.59983	0.08732	0.66351	0.78824	0.46344	0.82456	0.00011	0.69457	0.52951	2.0	0.57463	0.37117
18.0	1.0	0.80944	0.6691	0.64614	0.08626	0.71642	0.78928	0.37661	0.83048	0.00013	0.74645	0.53391	2.0	0.55302	0.37117
19.0	1.0	0.90412	0.84087	0.94423	0.04377	0.86573	0.89384	0.20919	0.91528	0.00019	0.88562	0.77987	2.0	0.53005	0.37113
20.0	1.0	0.94308	0.90282	0.94623	0.02445	0.92187	0.93807	0.13663	0.94848	0.00021	0.93631	0.85545	2.0	0.55336	0.36654

Standard deviation of Adjusted Rand versus number of clusters
gap: 0.70, Tp: 0.25, single link

Standard deviation of Huberts index versus number of clusters
gap: 0.70, Tp: 0.25, single link

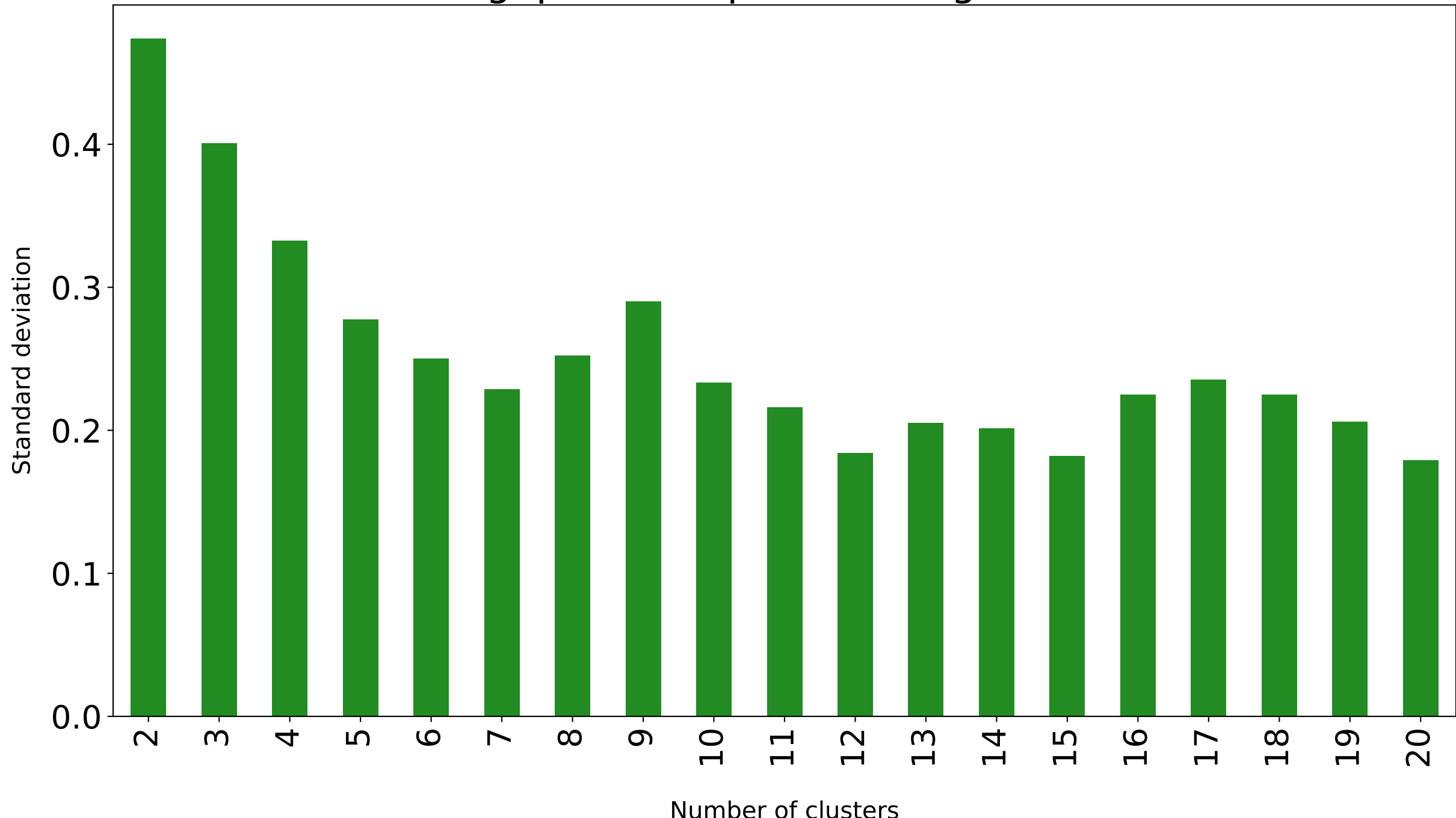Hierarchical Clustering Dendrogram - gap: 0.80, Tp: 0.25, single link

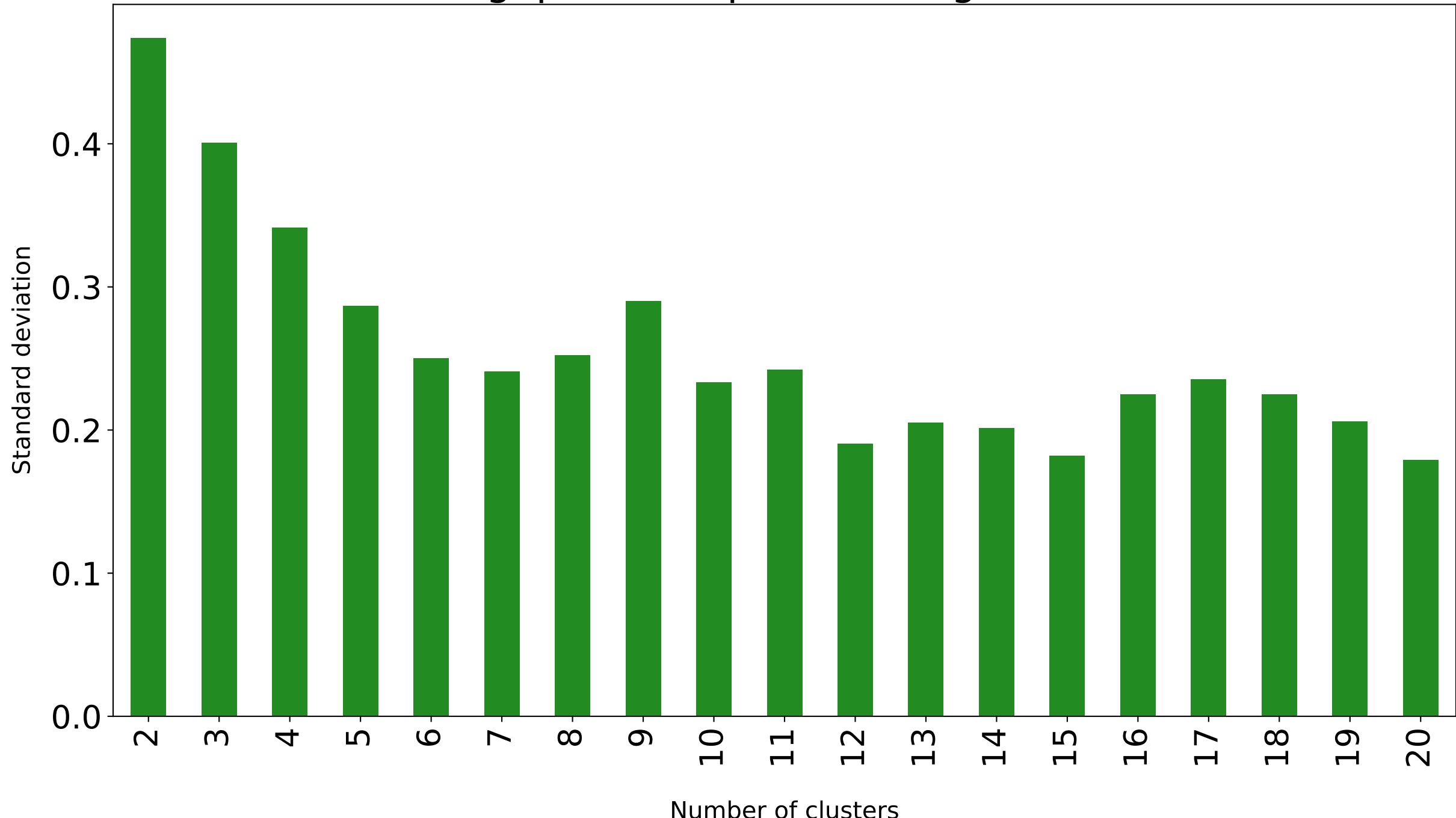Cophenetic Correlation Coefficient: 0.368659329793999

Average values of five clustering indices
gap: 0.80, Tp: 0.25, single link

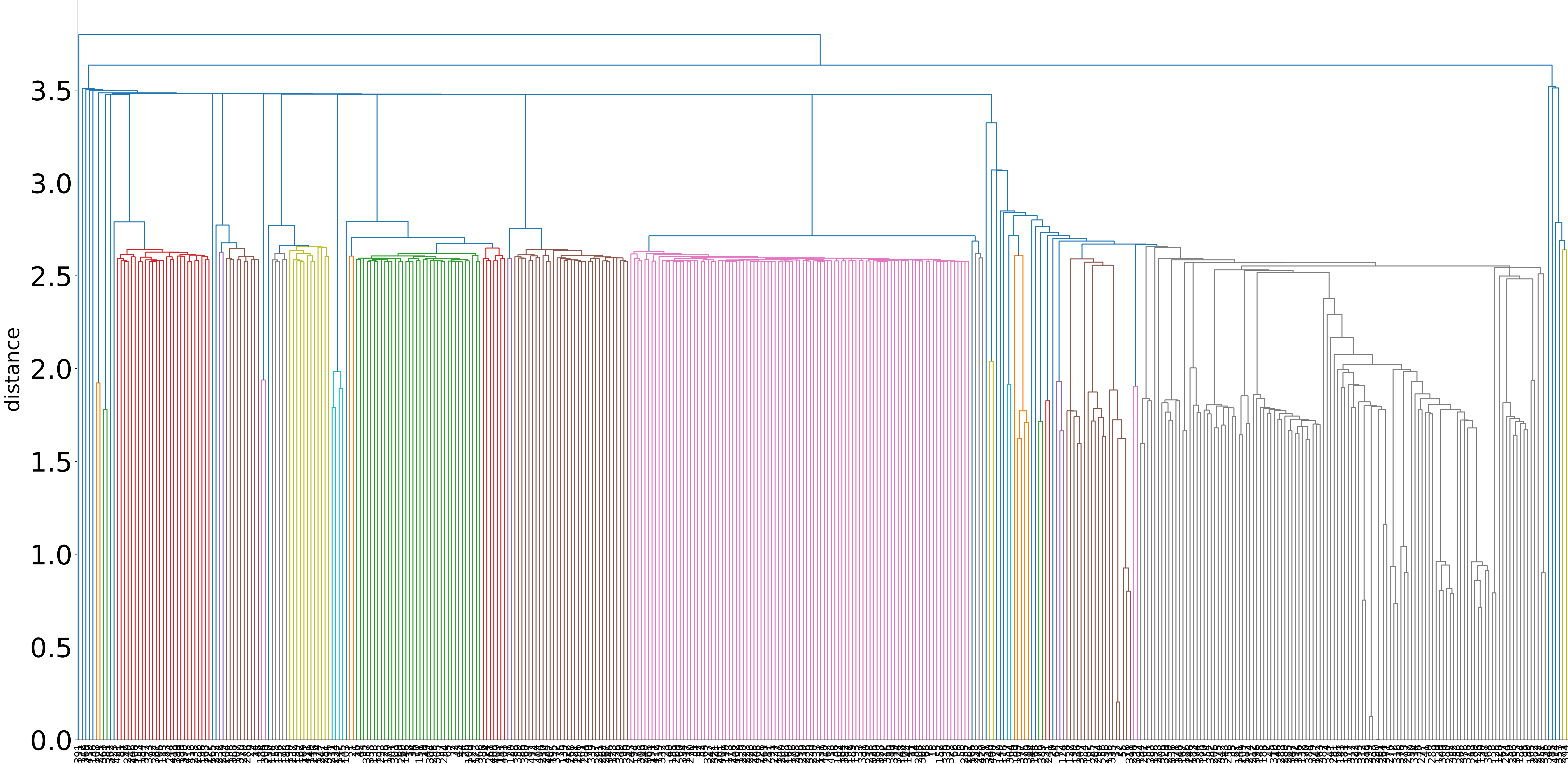| k	AR	FM	J	AW	VD	H	F	VI	K	Phi	RT	SS	CVNN	S	Dunn
2.0	1.0	0.99364	0.98758	0.70382	0.00326	0.70373	0.99349	0.02861	0.99378	0.00443	0.97711	0.97711	2.0	0.53586	0.3804
3.0	1.0	0.97307	0.94877	0.57688	0.01387	0.55918	0.97256	0.11474	0.97357	0.00075	0.90995	0.90909	2.0	0.47706	0.3533
4.0	1.0	0.9649	0.93334	0.51079	0.01856	0.60431	0.96383	0.14684	0.96597	0.00066	0.88607	0.88393	2.0	0.54501	0.35187
5.0	1.0	0.96288	0.92922	0.49213	0.01974	0.63763	0.96155	0.155	0.96422	0.00064	0.87988	0.87698	2.0	0.6399	0.35089
6.0	1.0	0.95998	0.92367	0.48984	0.02084	0.63123	0.95846	0.16794	0.96151	0.00055	0.8714	0.86763	2.0	0.69702	0.35066
7.0	1.0	0.95521	0.91454	0.46765	0.02298	0.62022	0.95349	0.18553	0.95693	0.00047	0.85677	0.85197	2.0	0.74018	0.34999
8.0	1.0	0.94921	0.90301	0.4383	0.02595	0.60939	0.94717	0.20739	0.95127	0.0004	0.83859	0.8324	2.0	0.77172	0.3497
9.0	1.0	0.93661	0.87925	0.37203	0.03228	0.56554	0.93383	0.25454	0.93941	0.00032	0.80189	0.79345	2.0	0.7914	0.3493
10.0	1.0	0.92225	0.85232	0.31286	0.0396	0.52182	0.91867	0.31151	0.92586	0.00024	0.76162	0.74946	2.0	0.76423	0.34815
11.0	1.0	0.94036	0.88867	0.63686	0.02956	0.71892	0.93927	0.24599	0.94145	0.00017	0.83223	0.80796	2.0	0.70924	0.34787
12.0	1.0	0.94002	0.88678	0.63159	0.02923	0.74787	0.93858	0.24987	0.94147	0.00017	0.83265	0.80315	2.0	0.73261	0.34776
13.0	1.0	0.94976	0.90499	0.75794	0.02395	0.81967	0.94883	0.20726	0.95069	0.00017	0.86588	0.83289	2.0	0.69572	0.34767
14.0	1.0	0.94206	0.89061	0.72513	0.0275	0.81743	0.94008	0.22756	0.94408	0.00016	0.85206	0.81146	2.0	0.68298	0.34759
15.0	1.0	0.9537	0.91371	0.8607	0.02253	0.8783	0.95138	0.17738	0.95611	0.00016	0.89288	0.85526	2.0	0.65078	0.36622
16.0	1.0	0.93345	0.88022	0.78655	0.03168	0.85257	0.9277	0.22069	0.93974	0.00015	0.86236	0.8123	2.0	0.64091	0.36606
17.0	0.99999	0.89689	0.81874	0.69792	0.04882	0.79555	0.88602	0.30152	0.90888	0.00014	0.80408	0.73027	2.0	0.62669	0.36598
18.0	0.99999	0.83753	0.72225	0.55711	0.07776	0.70789	0.81661	0.43718	0.86084	0.00012	0.7147	0.61098	2.0	0.64764	0.36594
19.0	0.99988	0.78841	0.64086	0.56016	0.09591	0.65363	0.7661	0.48738	0.81249	0.00011	0.68295	0.49957	2.0	0.62841	0.36592
20.0	1.0	0.79728	0.64742	0.60922	0.09145	0.70685	0.77473	0.39051	0.82087	0.00013	0.73952	0.50554	2.0	0.60756	0.36591

Standard deviation of Adjusted Rand versus number of clusters
gap: 0.80, Tp: 0.25, single link

Standard deviation of Huberts index versus number of clusters
gap: 0.80, Tp: 0.25, single link

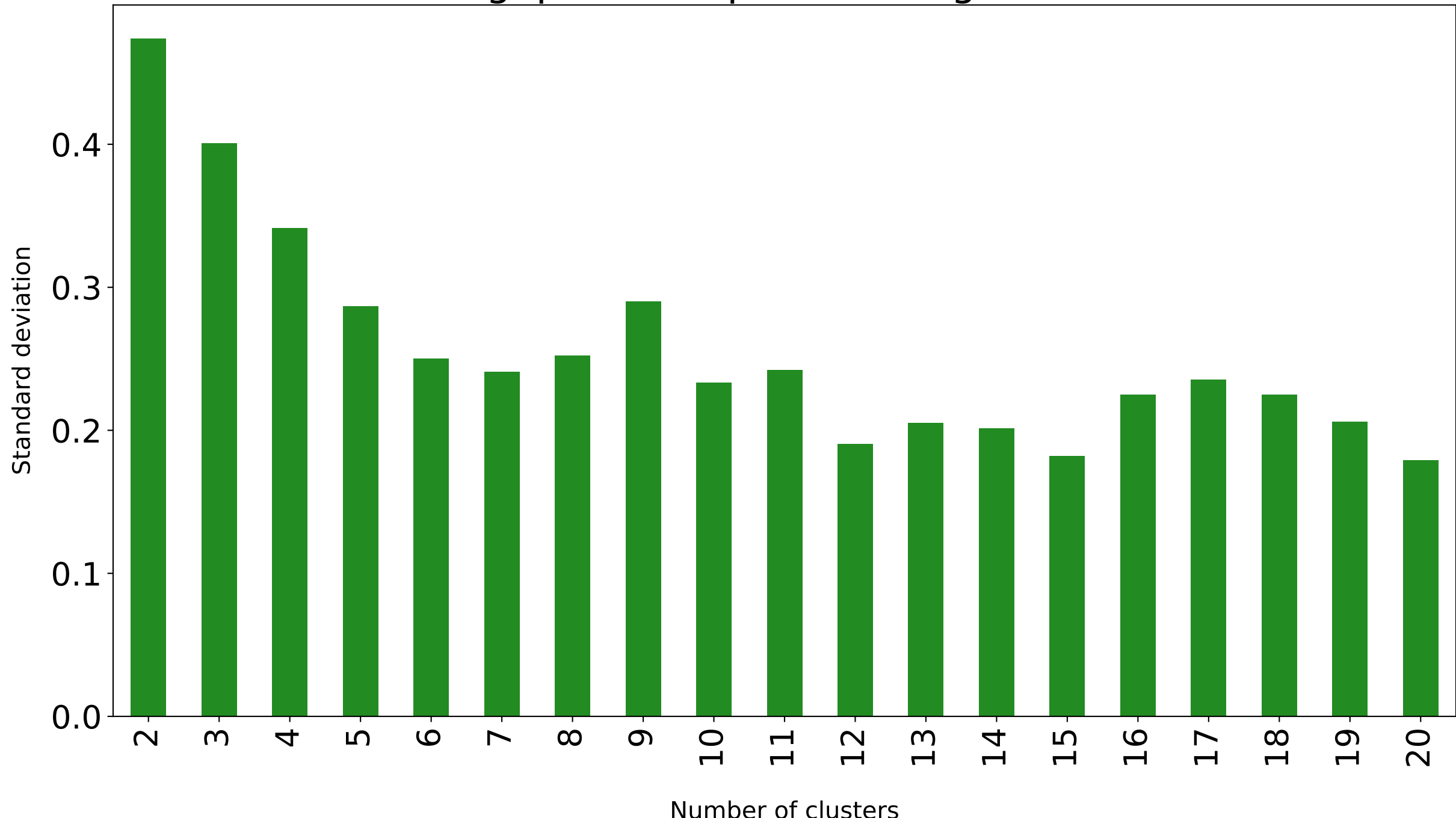Hierarchical Clustering Dendrogram - gap: 0.90, Tp: 0.25, single link

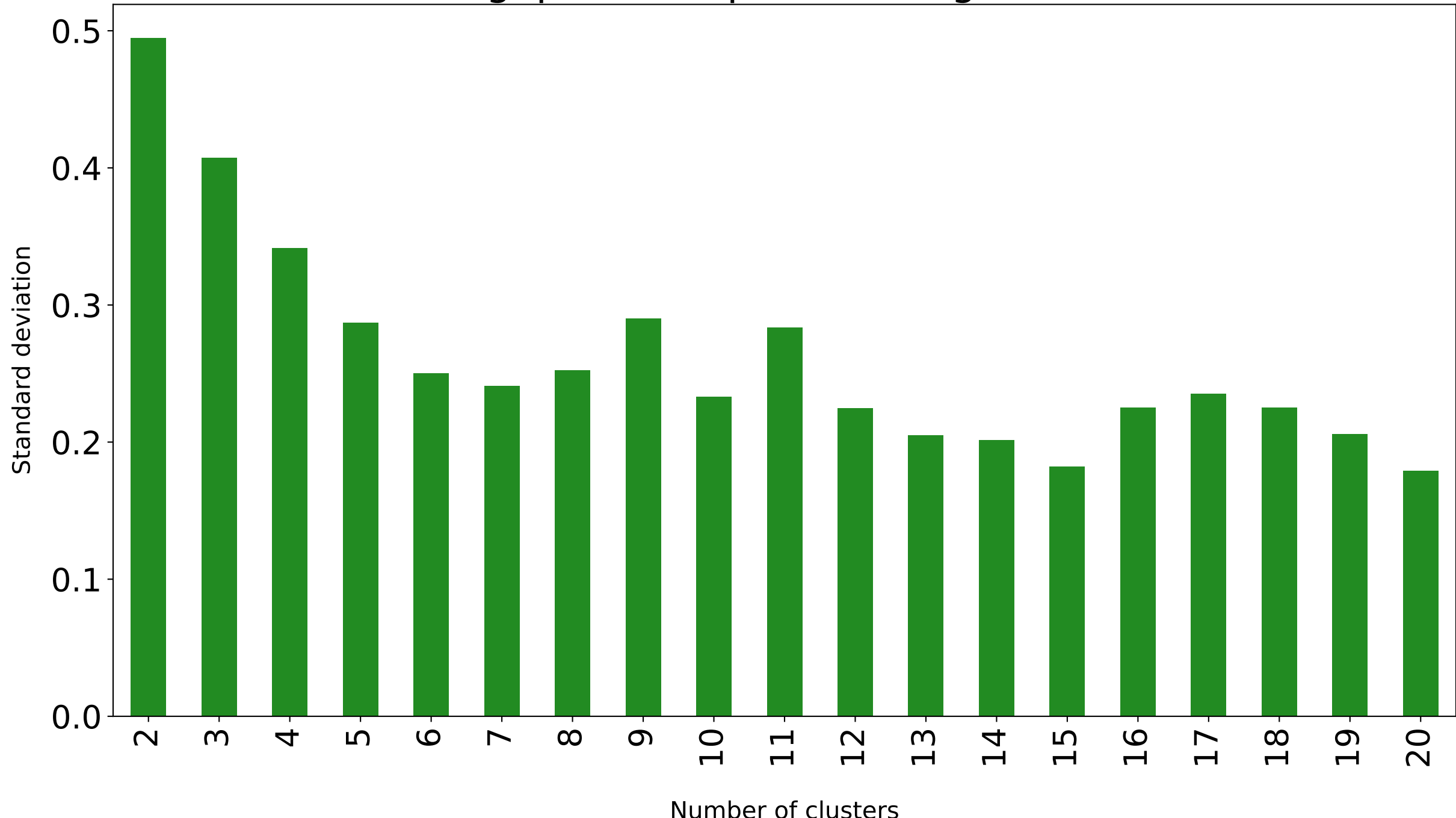Cophenetic Correlation Coefficient: 0.3917847895577801

Average values of five clustering indices
gap: 0.90, Tp: 0.25, single link

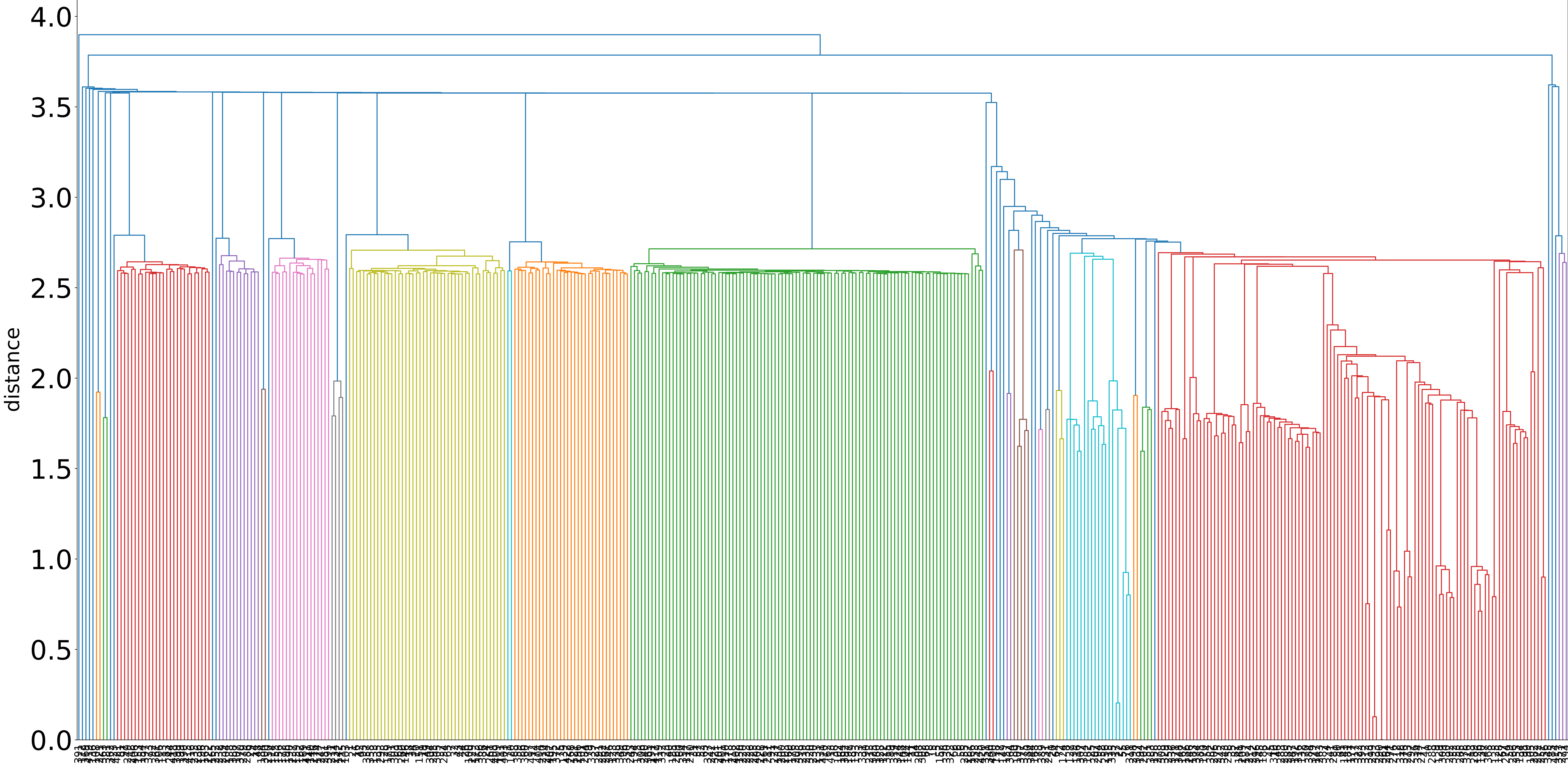| k	AR	FM	J	AW	VD	H	F	VI	K	Phi	RT	SS	CVNN	S	Dunn
2.0	1.0	0.99184	0.9841	0.58355	0.00419	0.58348	0.99164	0.03682	0.99204	0.00368	0.97086	0.97086	2.0	0.53162	0.36798
3.0	1.0	0.97139	0.946	0.57916	0.01468	0.58356	0.97073	0.11792	0.97204	0.00079	0.90676	0.9058	2.0	0.47202	0.35214
4.0	1.0	0.96198	0.92744	0.47498	0.02011	0.5987	0.96071	0.15561	0.96325	0.00064	0.87619	0.87336	2.0	0.54559	0.34111
5.0	1.0	0.95432	0.91281	0.42209	0.02438	0.59024	0.95246	0.18683	0.95619	0.00056	0.85328	0.8494	2.0	0.64334	0.34018
6.0	1.0	0.94875	0.90241	0.40569	0.02691	0.57287	0.94657	0.21102	0.95094	0.00048	0.83736	0.83245	2.0	0.70007	0.34002
7.0	1.0	0.94412	0.89375	0.39255	0.02891	0.56465	0.94167	0.22892	0.9466	0.00041	0.82427	0.81832	2.0	0.7428	0.33934
8.0	1.0	0.93787	0.88197	0.36713	0.03184	0.55054	0.93505	0.25321	0.94071	0.00035	0.8063	0.79894	2.0	0.77391	0.33906
9.0	1.0	0.9303	0.86795	0.34564	0.03559	0.53954	0.92695	0.28312	0.93369	0.0003	0.78591	0.77695	2.0	0.79386	0.33869
10.0	1.0	0.91713	0.84353	0.30527	0.04236	0.50603	0.91302	0.33531	0.92128	0.00024	0.75028	0.73798	2.0	0.76638	0.3376
11.0	1.0	0.92589	0.86442	0.57925	0.0368	0.64885	0.92466	0.30053	0.92712	0.00016	0.79742	0.77241	2.0	0.7138	0.33734
12.0	1.0	0.929	0.86783	0.5867	0.03481	0.70183	0.9273	0.29383	0.9307	0.00016	0.80613	0.77486	2.0	0.73661	0.33723
13.0	1.0	0.93786	0.88385	0.70016	0.02977	0.77187	0.93673	0.25409	0.93899	0.00016	0.83604	0.79917	2.0	0.70114	0.33715
14.0	1.0	0.93504	0.87787	0.68412	0.03074	0.78453	0.93335	0.26001	0.93673	0.00015	0.83261	0.78938	2.0	0.68794	0.33707
15.0	1.0	0.95799	0.9204	0.85913	0.02055	0.88011	0.95674	0.17774	0.95927	0.00016	0.8975	0.86109	2.0	0.65772	0.36139
16.0	1.0	0.93843	0.88632	0.77931	0.02914	0.8515	0.9345	0.22178	0.9426	0.00015	0.8641	0.81391	2.0	0.64864	0.36124
17.0	1.0	0.90075	0.82313	0.69458	0.04646	0.79544	0.89137	0.3059	0.91091	0.00014	0.80518	0.73164	2.0	0.63517	0.36116
18.0	1.0	0.83914	0.72689	0.56874	0.07789	0.71279	0.81778	0.4405	0.86306	0.00012	0.72033	0.62093	2.0	0.65582	0.36112
19.0	0.99995	0.78835	0.64032	0.5714	0.09584	0.645	0.76716	0.50167	0.81118	0.00011	0.67658	0.49548	2.0	0.63704	0.3611
20.0	0.99999	0.78593	0.6293	0.61445	0.0956	0.68021	0.76377	0.43503	0.80907	0.00012	0.71572	0.47825	2.0	0.61693	0.3611

Standard deviation of Adjusted Rand versus number of clusters
gap: 0.90, Tp: 0.25, single link

Standard deviation of Huberts index versus number of clusters
gap: 0.90, Tp: 0.25, single link

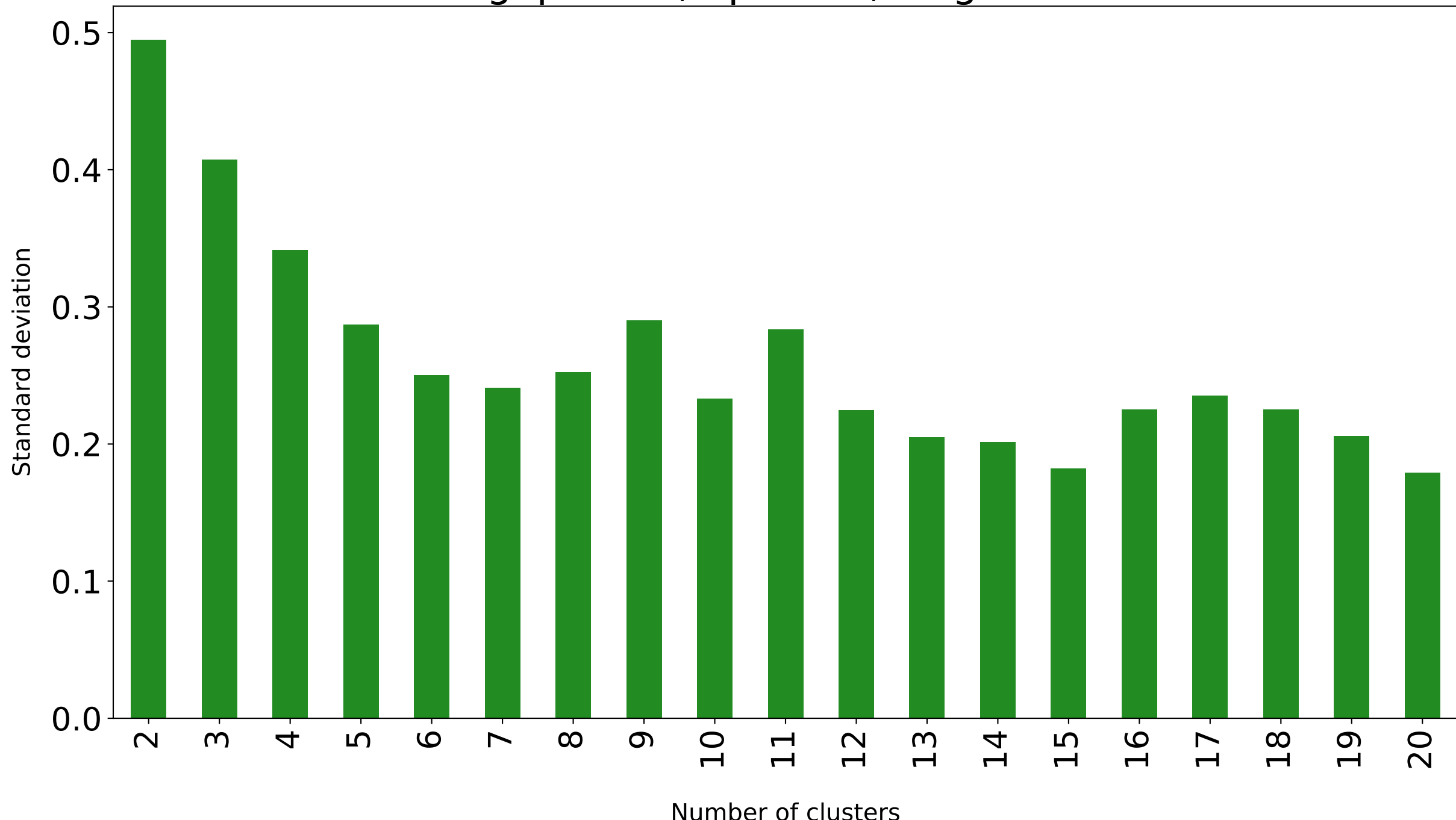Hierarchical Clustering Dendrogram - gap: 1.00, Tp: 0.25, single link

distance

patient index

Cophenetic Correlation Coefficient: 0.4055809499175132

Average values of five clustering indices
gap: 1.00, Tp: 0.25, single link

k	AR	FM	J	AW	VD	H	F	VI	K	Phi	RT	SS	CVNN	S	Dunn
2.0	1.0	0.99515	0.99039	0.56337	0.00243	0.56326	0.99512	0.02682	0.99518	0.00355	0.98135	0.98135	2.0	0.52743	0.35692
3.0	1.0	0.98135	0.96405	0.64286	0.00952	0.63876	0.98096	0.08175	0.98174	0.00082	0.93592	0.93499	2.0	0.46696	0.3466
4.0	1.0	0.96928	0.94081	0.51182	0.01644	0.63996	0.96826	0.12874	0.97031	0.00067	0.89776	0.89502	2.0	0.54597	0.33153
5.0	1.0	0.95549	0.91503	0.4461	0.02414	0.61812	0.95352	0.18048	0.95747	0.00058	0.85805	0.85397	2.0	0.6465	0.33065
6.0	1.0	0.94567	0.89692	0.40892	0.02869	0.57716	0.94314	0.21856	0.94823	0.00048	0.83037	0.82506	2.0	0.70289	0.3305
7.0	1.0	0.94011	0.88657	0.38757	0.03109	0.55841	0.93733	0.24147	0.94292	0.0004	0.81439	0.80801	2.0	0.74521	0.32985
8.0	1.0	0.93512	0.87715	0.37628	0.03342	0.55393	0.93202	0.26161	0.93825	0.00035	0.80036	0.79267	2.0	0.77592	0.32959
9.0	1.0	0.92597	0.85994	0.33328	0.03794	0.52819	0.92233	0.29669	0.92963	0.00029	0.77415	0.76453	2.0	0.79614	0.32924
10.0	1.0	0.91545	0.84032	0.29665	0.04354	0.504	0.91125	0.34233	0.91969	0.00023	0.74553	0.73258	2.0	0.76839	0.32821
11.0	1.0	0.92982	0.87073	0.59788	0.03534	0.66719	0.92856	0.29033	0.93108	0.00016	0.80633	0.78131	2.0	0.71802	0.32796
12.0	1.0	0.93202	0.87322	0.59891	0.03374	0.70743	0.93048	0.28544	0.93356	0.00016	0.81291	0.78299	2.0	0.74029	0.32786
13.0	1.0	0.93834	0.88485	0.717	0.02974	0.77381	0.93728	0.25382	0.93939	0.00016	0.83751	0.80108	2.0	0.70611	0.32779
14.0	1.0	0.93411	0.87653	0.69392	0.0313	0.7798	0.93242	0.26456	0.93582	0.00015	0.83075	0.78785	2.0	0.69248	0.32771
15.0	1.0	0.94994	0.90639	0.84811	0.02428	0.86092	0.94799	0.19997	0.95196	0.00015	0.88136	0.84067	2.0	0.66413	0.35389
16.0	0.99999	0.9296	0.87182	0.76939	0.0333	0.83393	0.92452	0.24464	0.93509	0.00015	0.84893	0.79447	2.0	0.65581	0.35374
17.0	0.99999	0.89641	0.8171	0.69339	0.04904	0.78877	0.88619	0.31685	0.90765	0.00014	0.79999	0.72475	2.0	0.64288	0.35367
18.0	1.0	0.84048	0.72721	0.56536	0.07667	0.71087	0.8202	0.44183	0.8631	0.00012	0.71881	0.61675	2.0	0.66329	0.35363
19.0	1.00017	0.78107	0.62871	0.56384	0.09923	0.63329	0.75884	0.51824	0.80507	0.00011	0.66666	0.48187	2.0	0.64498	0.35361
20.0	0.99999	0.78756	0.63345	0.61959	0.0953	0.68126	0.76537	0.43531	0.81075	0.00012	0.71808	0.48702	2.0	0.62559	0.35361

Standard deviation of Adjusted Rand versus number of clusters
gap: 1.00, Tp: 0.25, single link

Standard deviation of Huberts index versus number of clusters
gap: 1.00, Tp: 0.25, single link