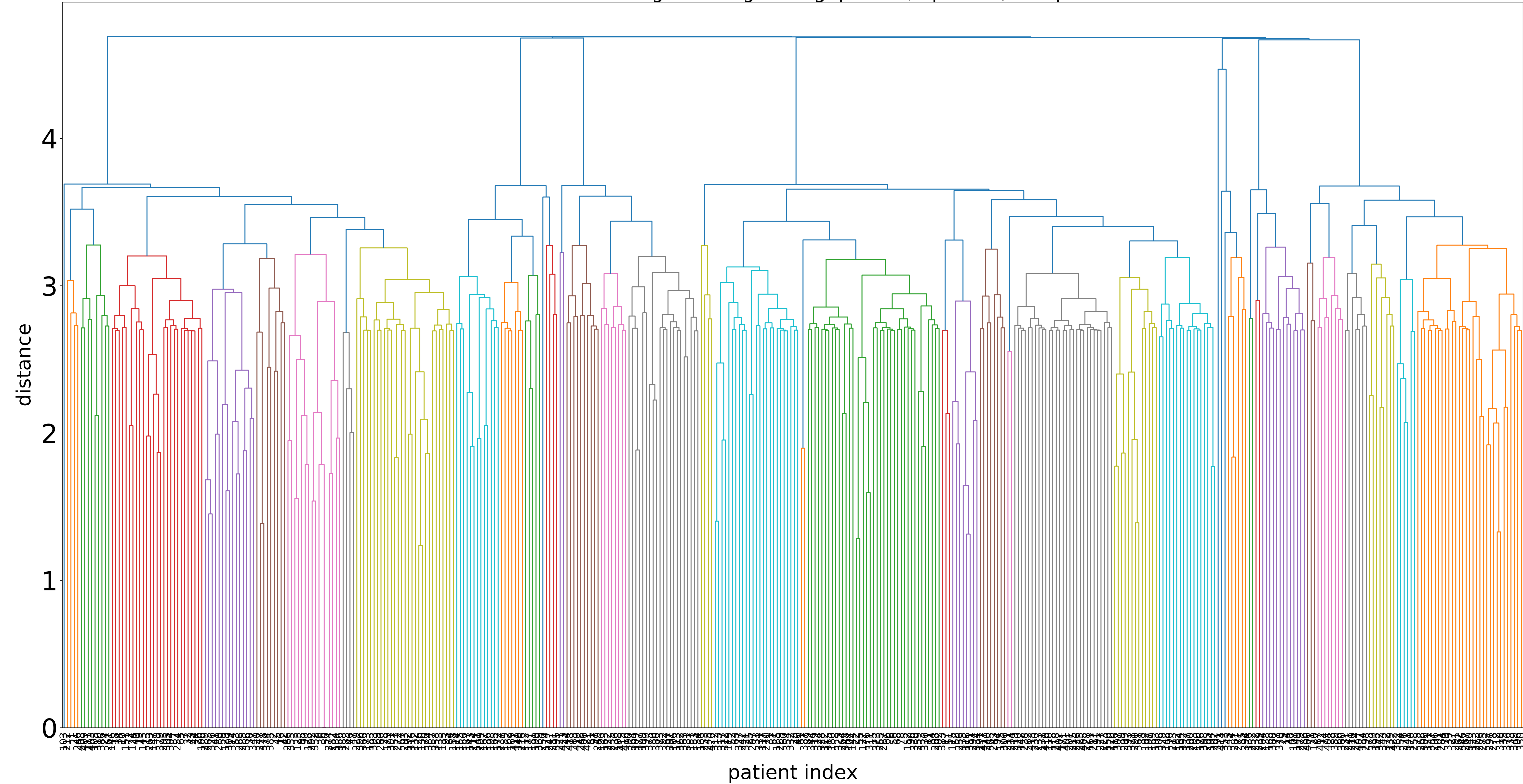


Hierarchical Clustering Dendrogram - gap: 0.00, Tp: 1.00, complete link

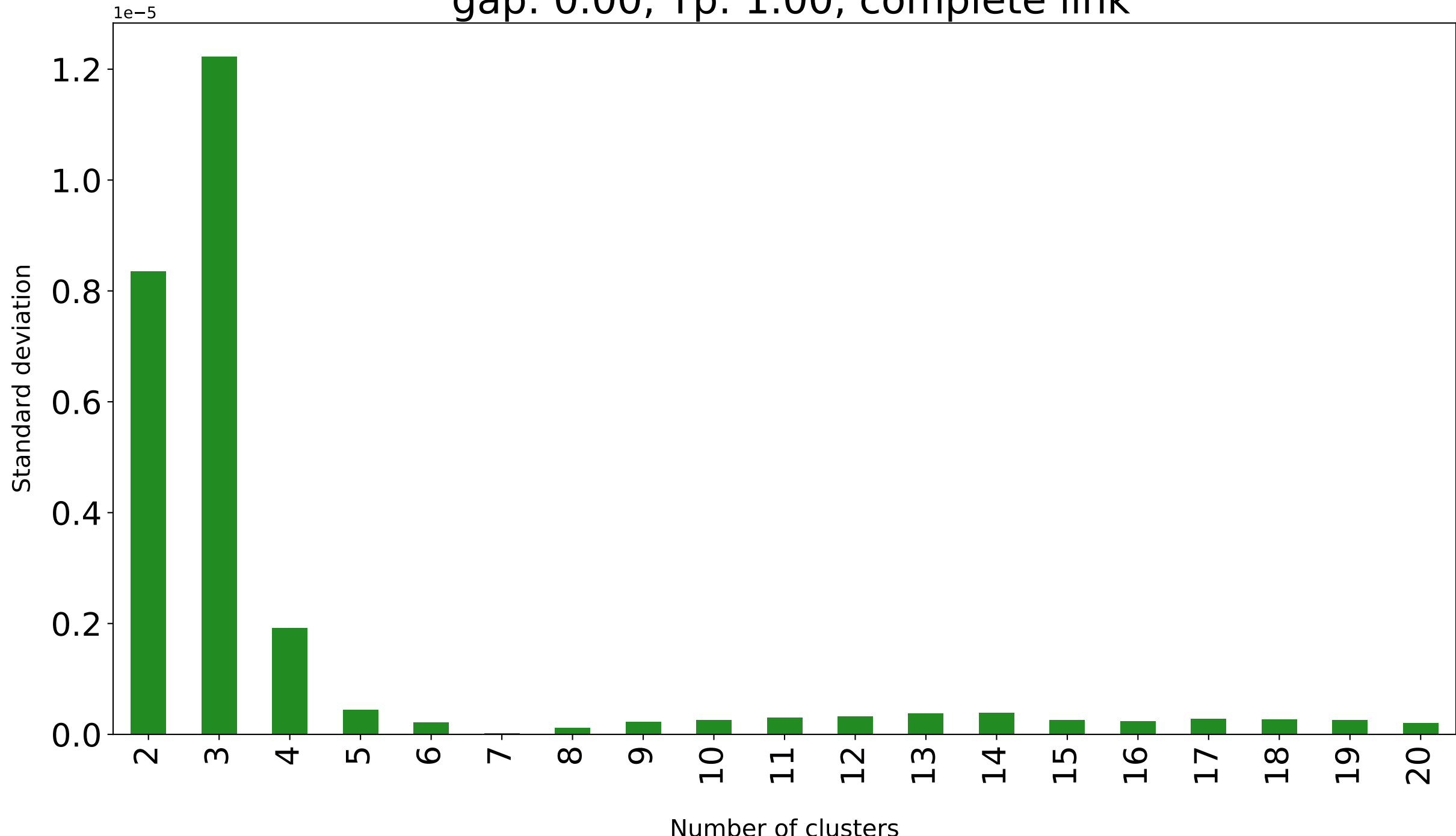


Cophenetic Correlation Coefficient: 0.8398792508489002

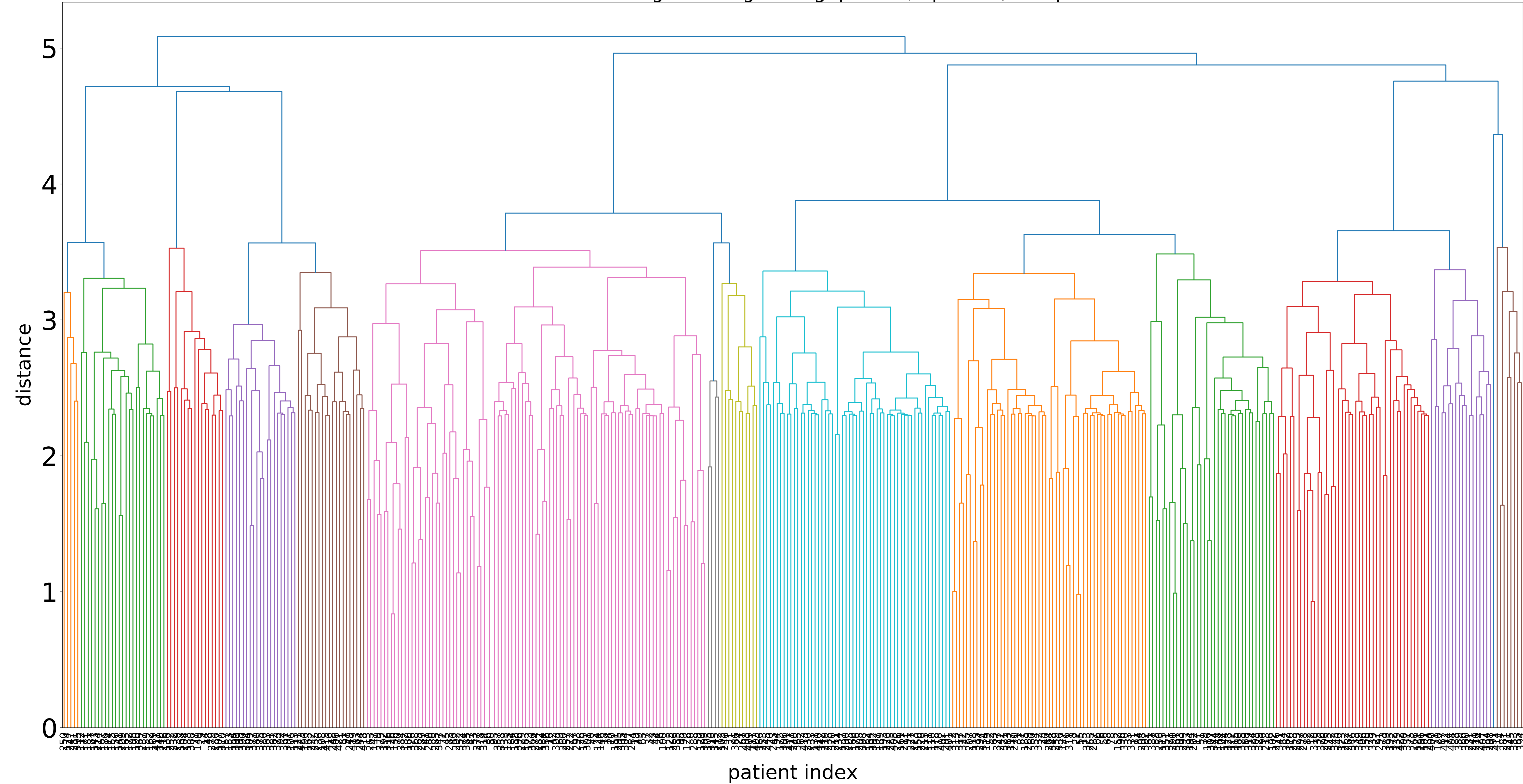
Average values of five clustering indices
gap: 0.00, Tp: 1.00, complete link

k	AR	FM	J	AW	VD	H	F	VI	K	Phi	RT	SS	CVNN	S	Dunn
2.0	0.99999	0.87152	0.80289	0.6049	0.07833	0.62822	0.86992	-0.06907	0.87313	0.0001	0.76261	0.73262	0.01548	0.1657	0.40407
3.0	1.00001	0.8796	0.81124	0.82756	0.08018	0.78954	0.87762	-0.60269	0.88162	0.00013	0.83031	0.73605	0.02176	0.15855	0.40433
4.0	1.0	0.90501	0.83381	0.94037	0.06908	0.86519	0.90104	-1.44833	0.90904	0.00017	0.89036	0.7458	0.06742	0.17787	0.40473
5.0	1.0	0.96903	0.94213	0.96409	0.02296	0.95828	0.96888	-2.7427	0.96918	0.0002	0.96901	0.89798	0.06742	0.21051	0.40518
6.0	1.0	0.97545	0.95289	0.96116	0.02055	0.96752	0.97539	-3.36621	0.97551	0.00021	0.97645	0.91314	0.22222	0.20717	0.40582
7.0	1.0	0.99932	0.99865	0.99851	0.00077	0.99912	0.99932	-4.60939	0.99933	0.00022	0.99937	0.99733	0.22222	0.22078	0.42388
8.0	1.0	0.99523	0.99068	0.98819	0.00277	0.99389	0.99512	-5.98594	0.99534	0.00022	0.99572	0.98277	2.0	0.3139	0.51343
9.0	1.0	0.97844	0.9582	0.94824	0.01026	0.9726	0.9778	-7.21492	0.97908	0.00022	0.981	0.92452	2.0	0.38127	0.51395
10.0	1.0	0.96919	0.9409	0.93281	0.01674	0.9612	0.96828	-8.61615	0.97011	0.00022	0.97385	0.89501	2.0	0.34958	0.51466
11.0	1.0	0.95934	0.92252	0.90753	0.0243	0.94915	0.95783	-10.03654	0.96086	0.00022	0.96607	0.86516	2.0	0.3199	0.51508
12.0	1.0	0.9432	0.8927	0.87299	0.03592	0.92934	0.94085	-11.4403	0.94558	0.00022	0.95341	0.81681	2.0	0.29241	0.51532
13.0	1.0	0.91903	0.8498	0.82925	0.04959	0.90071	0.91497	-12.65306	0.92316	0.00022	0.93686	0.75304	2.0	0.2718	0.5165
14.0	1.0	0.90348	0.82355	0.80645	0.05768	0.88382	0.89829	-13.81918	0.90874	0.00023	0.93057	0.71833	2.0	0.25746	0.51829
15.0	1.0	0.84556	0.73254	0.85147	0.09481	0.81864	0.8433	-15.0321	0.84785	0.00026	0.90992	0.58428	2.0	0.2403	0.4618
16.0	1.0	0.84874	0.73893	0.82557	0.09437	0.82334	0.84743	-16.7516	0.85005	0.00026	0.91552	0.59247	2.0	0.23697	0.46253
17.0	1.0	0.84504	0.73564	0.83227	0.09808	0.82062	0.84369	-18.07487	0.8464	0.00027	0.91812	0.59192	2.0	0.22638	0.46294
18.0	1.0	0.83126	0.7155	0.79348	0.10609	0.80566	0.82975	-19.81308	0.83277	0.00028	0.91396	0.56728	2.0	0.26758	0.4673
19.0	1.0	0.81045	0.68508	0.75435	0.11309	0.78344	0.80802	-21.55521	0.81291	0.00028	0.90796	0.53167	2.0	0.25901	0.46769
20.0	1.0	0.74239	0.59191	0.72152	0.14328	0.71042	0.74042	-22.36704	0.74437	0.00028	0.8909	0.42516	2.0	0.24548	0.46806

Standard deviation of Adjusted Rand versus number of clusters
gap: 0.00, Tp: 1.00, complete link



Hierarchical Clustering Dendrogram - gap: 0.10, Tp: 1.00, complete link

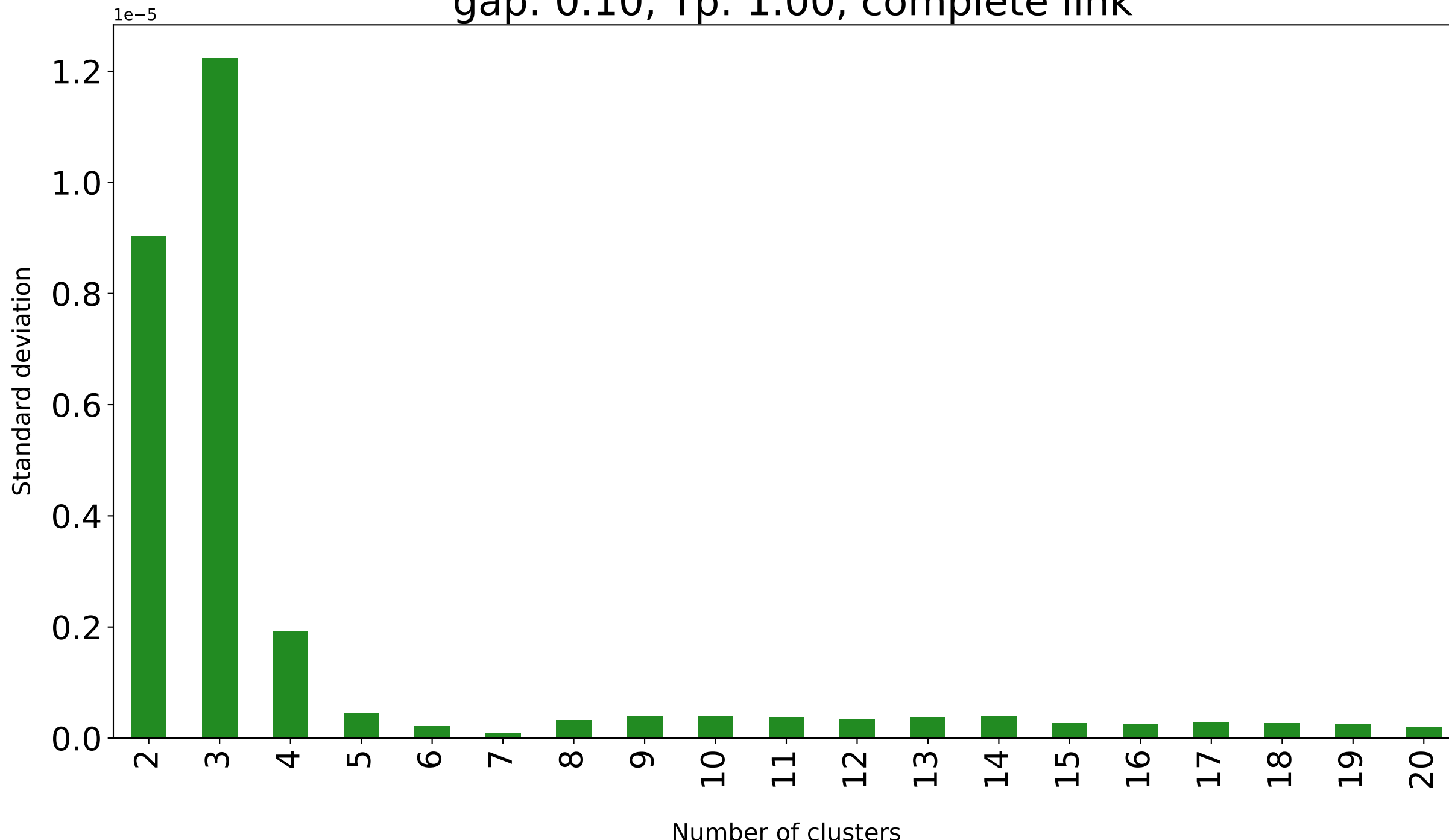


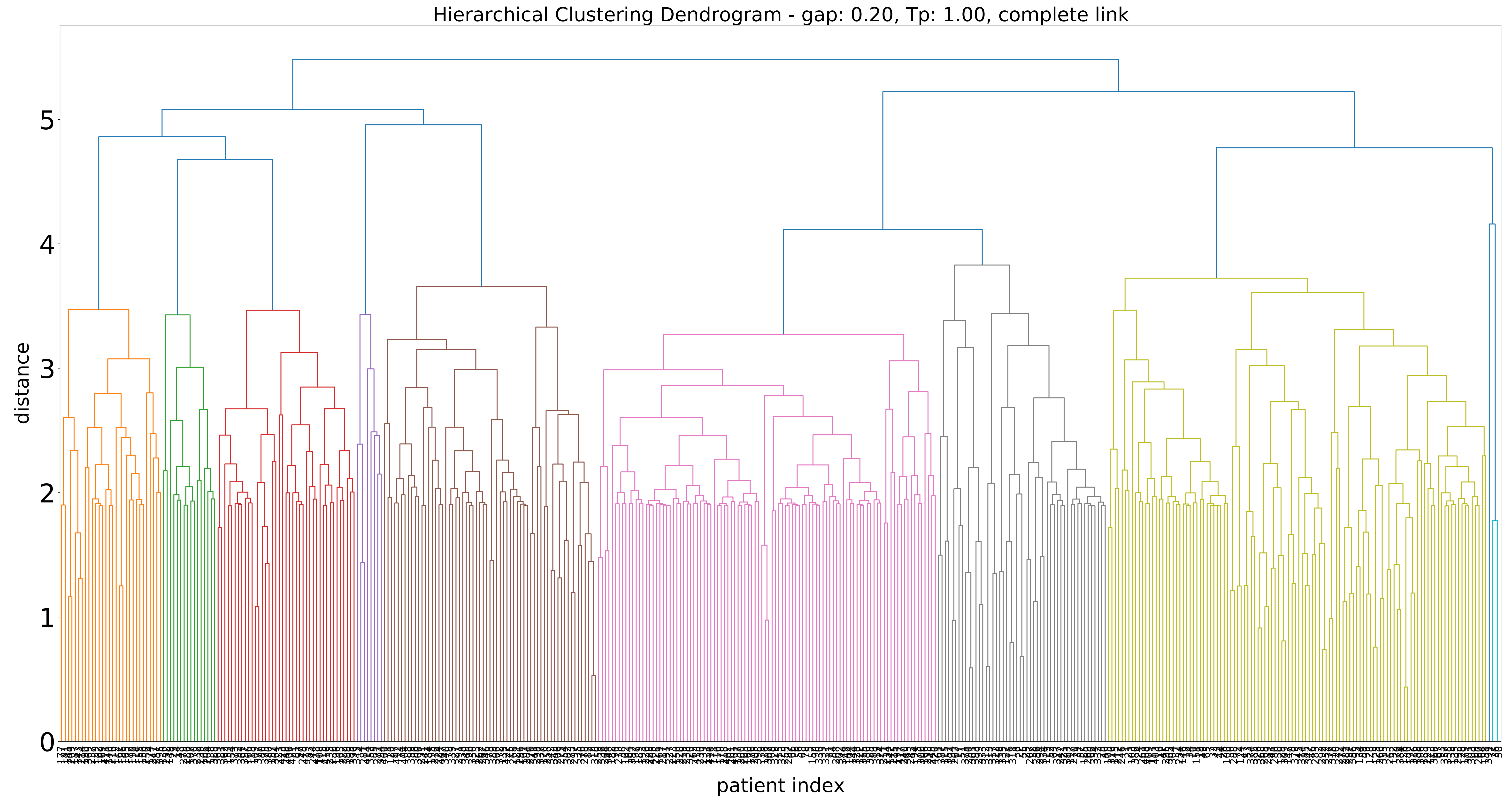
Cophenetic Correlation Coefficient: 0.8584020352113543

Average values of five clustering indices
gap: 0.10, Tp: 1.00, complete link

k	AR	FM	J	AW	VD	H	F	VI	K	Phi	RT	SS	CVNN	S	Dunn
2.0	0.99999	0.83143	0.73366	0.54092	0.12095	0.58228	0.82827	0.12533	0.83462	0.0001	0.69224	0.62822	0.01364	0.11741	0.36166
3.0	1.00001	0.83531	0.74527	0.73122	0.10258	0.72865	0.83436	-0.55279	0.83626	0.00012	0.78967	0.64719	0.01818	0.18253	0.36567
4.0	1.0	0.96982	0.94367	0.96849	0.02008	0.95842	0.96961	-1.63093	0.97004	0.00019	0.96789	0.90071	0.02778	0.22094	0.37482
5.0	1.0	0.96484	0.93311	0.93785	0.03025	0.95273	0.96469	-2.15154	0.96499	0.0002	0.96468	0.87884	0.22222	0.22932	0.37797
6.0	1.0	0.97183	0.94586	0.96527	0.03023	0.9628	0.97179	-3.30733	0.97188	0.00021	0.9731	0.89975	0.22222	0.24669	0.381
7.0	1.0	0.99427	0.98876	0.99335	0.0063	0.99252	0.99426	-4.54311	0.99428	0.00022	0.99466	0.9784	0.22222	0.26735	0.40861
8.0	1.0	0.97882	0.95989	0.95062	0.01183	0.97349	0.97771	-5.95597	0.97994	0.00022	0.98186	0.93247	2.0	0.3546	0.45974
9.0	1.0	0.85714	0.75096	0.87809	0.07804	0.82531	0.8543	-6.76316	0.86	0.00022	0.8977	0.61243	2.0	0.30685	0.47097
10.0	1.0	0.83459	0.72047	0.83359	0.09283	0.8022	0.83266	-7.49568	0.83653	0.00023	0.89573	0.5764	2.0	0.27215	0.48767
11.0	1.0	0.82292	0.70401	0.81028	0.1017	0.79104	0.82104	-8.75865	0.82481	0.00024	0.89621	0.55653	2.0	0.2468	0.49123
12.0	1.0	0.80952	0.68391	0.83075	0.12184	0.78037	0.80688	-9.80077	0.81219	0.00027	0.90159	0.53067	2.0	0.22387	0.39599
13.0	1.0	0.81277	0.68898	0.81427	0.12603	0.78525	0.81121	-11.6034	0.81433	0.00028	0.90742	0.53521	2.0	0.20405	0.39656
14.0	1.0	0.80501	0.67925	0.78315	0.13215	0.77747	0.80383	-13.1388	0.80621	0.00028	0.90735	0.52465	2.0	0.19775	0.39659
15.0	1.0	0.78514	0.6529	0.75677	0.1406	0.75643	0.78379	-14.74248	0.78649	0.00028	0.903	0.49599	2.0	0.18585	0.40022
16.0	1.0	0.76336	0.62272	0.70508	0.14836	0.73304	0.76137	-16.52755	0.76535	0.00028	0.89683	0.46269	2.0	0.23249	0.4008
17.0	1.0	0.75156	0.6042	0.67134	0.15225	0.7209	0.74838	-18.33668	0.75477	0.00029	0.89419	0.4408	2.0	0.22932	0.40294
18.0	1.0	0.71784	0.56288	0.70543	0.1723	0.68794	0.71627	-19.20443	0.71942	0.00031	0.89644	0.39714	2.0	0.21846	0.40577
19.0	1.0	0.71768	0.5632	0.68838	0.17439	0.68923	0.71655	-20.66825	0.71883	0.00033	0.90114	0.39742	2.0	0.21417	0.41737
20.0	1.0	0.70129	0.54221	0.69643	0.18359	0.67404	0.69997	-21.6318	0.70262	0.00035	0.90411	0.37578	2.0	0.20604	0.4198

Standard deviation of Adjusted Rand versus number of clusters
gap: 0.10, Tp: 1.00, complete link

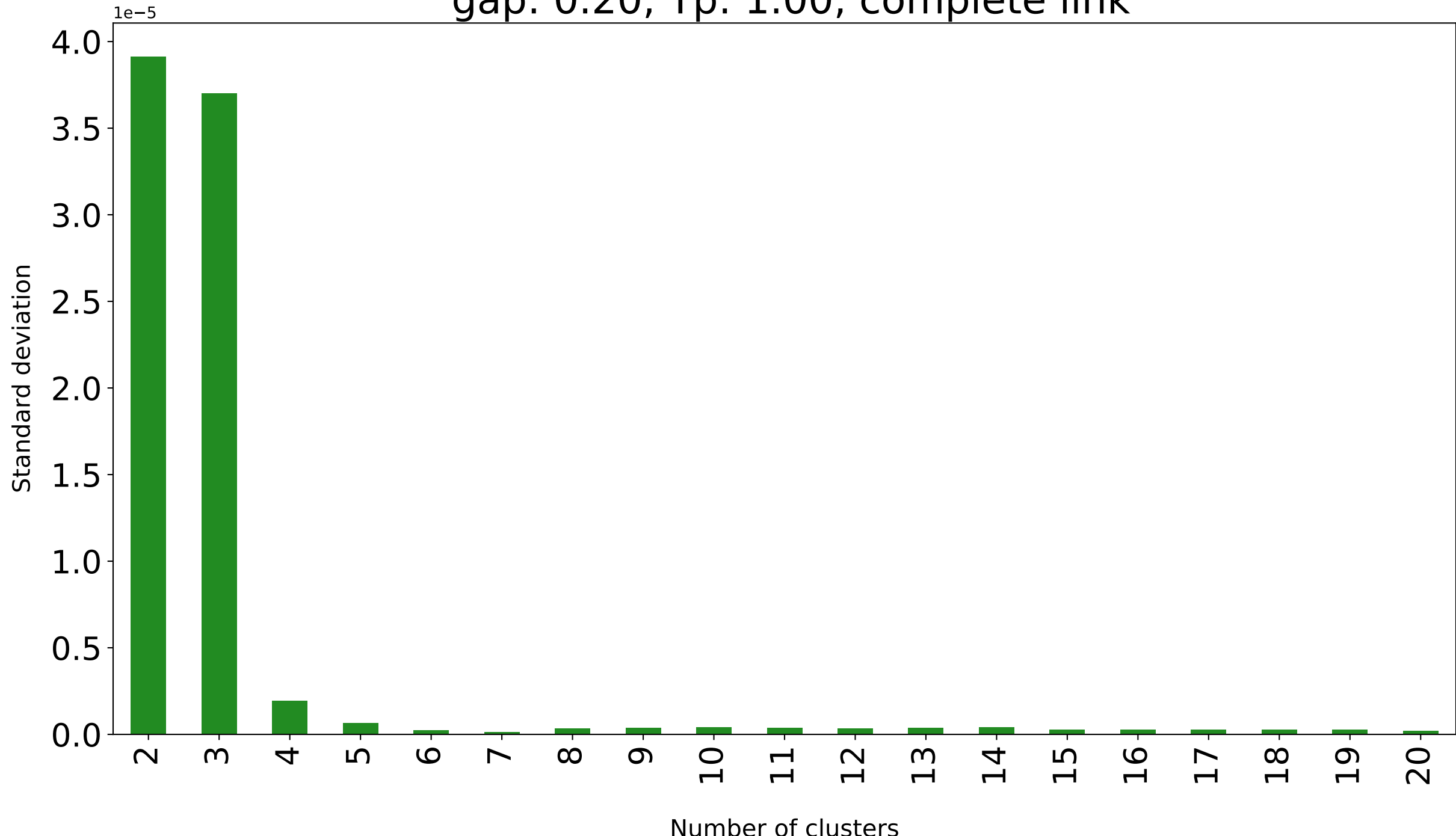


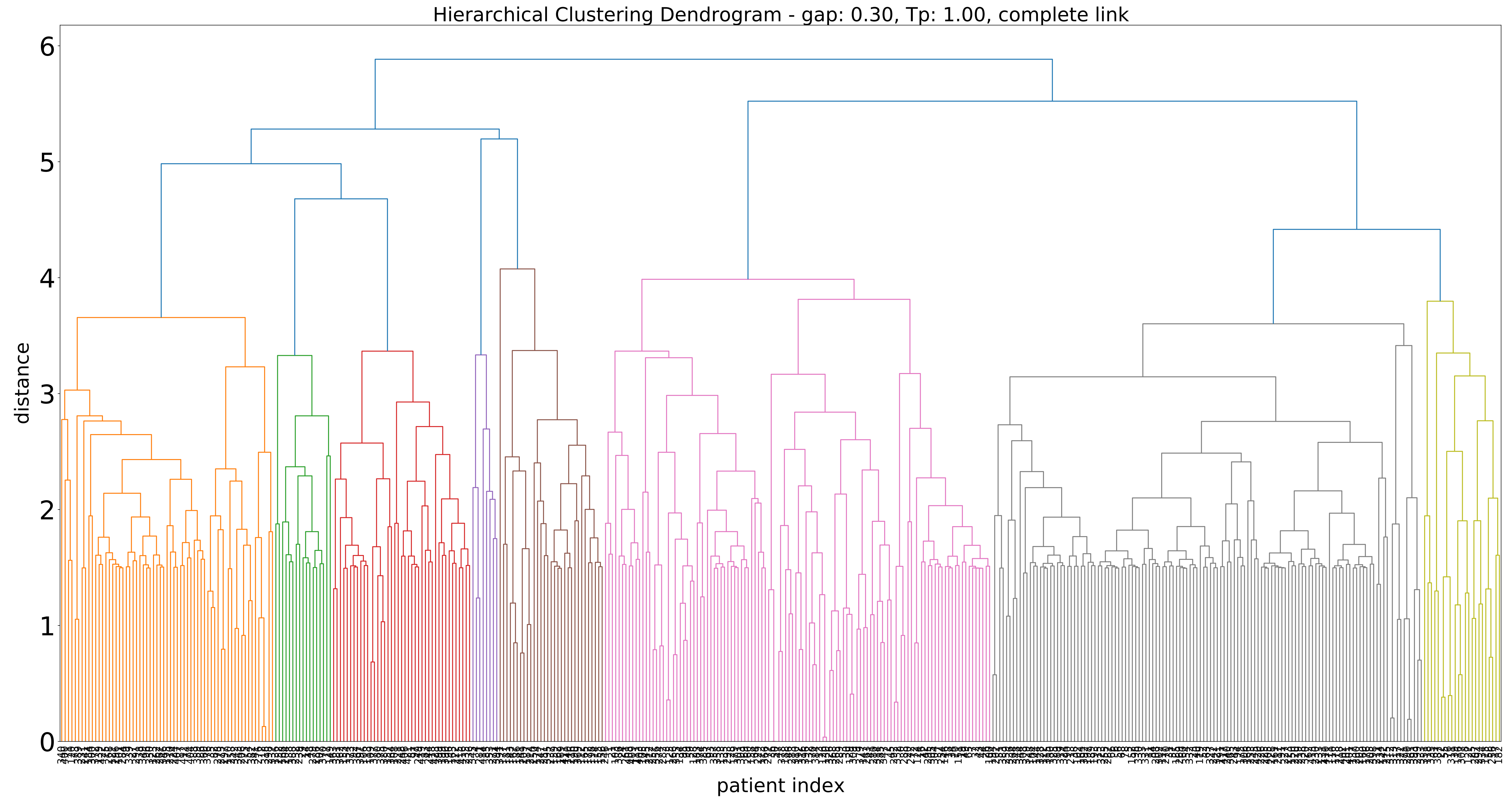


Average values of five clustering indices
gap: 0.20, Tp: 1.00, complete link

k	AR	FM	J	AW	VD	H	F	VI	K	Phi	RT	SS	CVNN	S	Dunn
2.0	0.99998	0.87153	0.80946	0.7188	0.09769	0.71234	0.87046	-0.02044	0.87263	0.00011	0.79501	0.74509	0.01266	0.13532	0.30313
3.0	1.00001	0.84397	0.75457	0.80011	0.10823	0.75018	0.84133	-0.54311	0.84664	0.00013	0.80279	0.65841	0.01266	0.24253	0.31151
4.0	1.0	0.96773	0.94085	0.96857	0.01924	0.95484	0.96695	-1.60851	0.96853	0.00019	0.96397	0.89935	0.02299	0.25608	0.31935
5.0	1.0	0.95959	0.92396	0.93134	0.03101	0.94528	0.95927	-2.09114	0.95991	0.00019	0.95878	0.86411	0.02299	0.27911	0.32568
6.0	1.0	0.96775	0.93852	0.95465	0.02993	0.95739	0.9677	-3.26153	0.9678	0.0002	0.96929	0.88753	0.06667	0.29737	0.33173
7.0	1.0	0.97527	0.95198	0.95615	0.02726	0.96765	0.9752	-4.53299	0.97534	0.00021	0.97693	0.90962	0.5	0.27109	0.19297
8.0	1.0	0.98049	0.96254	0.96167	0.01127	0.97513	0.98002	-5.60347	0.98096	0.00022	0.98285	0.93285	0.5	0.2883	0.21711
9.0	1.0	0.93526	0.87829	0.85616	0.03076	0.91893	0.93234	-6.96528	0.93821	0.00021	0.94531	0.79554	2.0	0.39751	0.21938
10.0	1.0	0.83102	0.71237	0.82066	0.08901	0.79471	0.82917	-7.73716	0.83288	0.00021	0.88534	0.56017	2.0	0.34619	0.23581
11.0	1.0	0.79284	0.65848	0.74783	0.11164	0.75135	0.7909	-8.79397	0.79479	0.00021	0.86898	0.49735	2.0	0.32733	0.24247
12.0	1.0	0.73804	0.58451	0.72821	0.163	0.69419	0.73557	-9.27333	0.74053	0.00022	0.85771	0.41613	2.0	0.29153	0.247
13.0	1.0	0.71122	0.55308	0.68046	0.1812	0.66816	0.70907	-10.29632	0.71338	0.00023	0.85867	0.38629	2.0	0.26535	0.25017
14.0	1.0	0.68709	0.52457	0.67325	0.20382	0.64563	0.68468	-10.73974	0.68952	0.00024	0.86148	0.35958	2.0	0.25143	0.26014
15.0	1.0	0.67195	0.50791	0.64331	0.21612	0.63009	0.67	-12.41915	0.67392	0.00025	0.86024	0.34439	2.0	0.23541	0.26053
16.0	1.0	0.66653	0.50185	0.63087	0.22014	0.62509	0.66459	-13.92224	0.66849	0.00025	0.8612	0.33895	2.0	0.23469	0.26054
17.0	1.0	0.65999	0.49448	0.62963	0.22126	0.61945	0.65789	-15.52124	0.6621	0.00025	0.86331	0.33244	2.0	0.21903	0.26249
18.0	1.0	0.65701	0.49132	0.6149	0.22375	0.61757	0.6549	-17.29402	0.65914	0.00026	0.8663	0.32977	2.0	0.22108	0.263
19.0	1.0	0.65526	0.48924	0.59467	0.22545	0.61695	0.6528	-18.70845	0.65774	0.00027	0.86926	0.3282	2.0	0.21578	0.26339
20.0	1.0	0.6521	0.48529	0.57901	0.22731	0.61452	0.64902	-20.50815	0.65521	0.00027	0.87075	0.32494	2.0	0.21261	0.26676

Standard deviation of Adjusted Rand versus number of clusters
gap: 0.20, Tp: 1.00, complete link

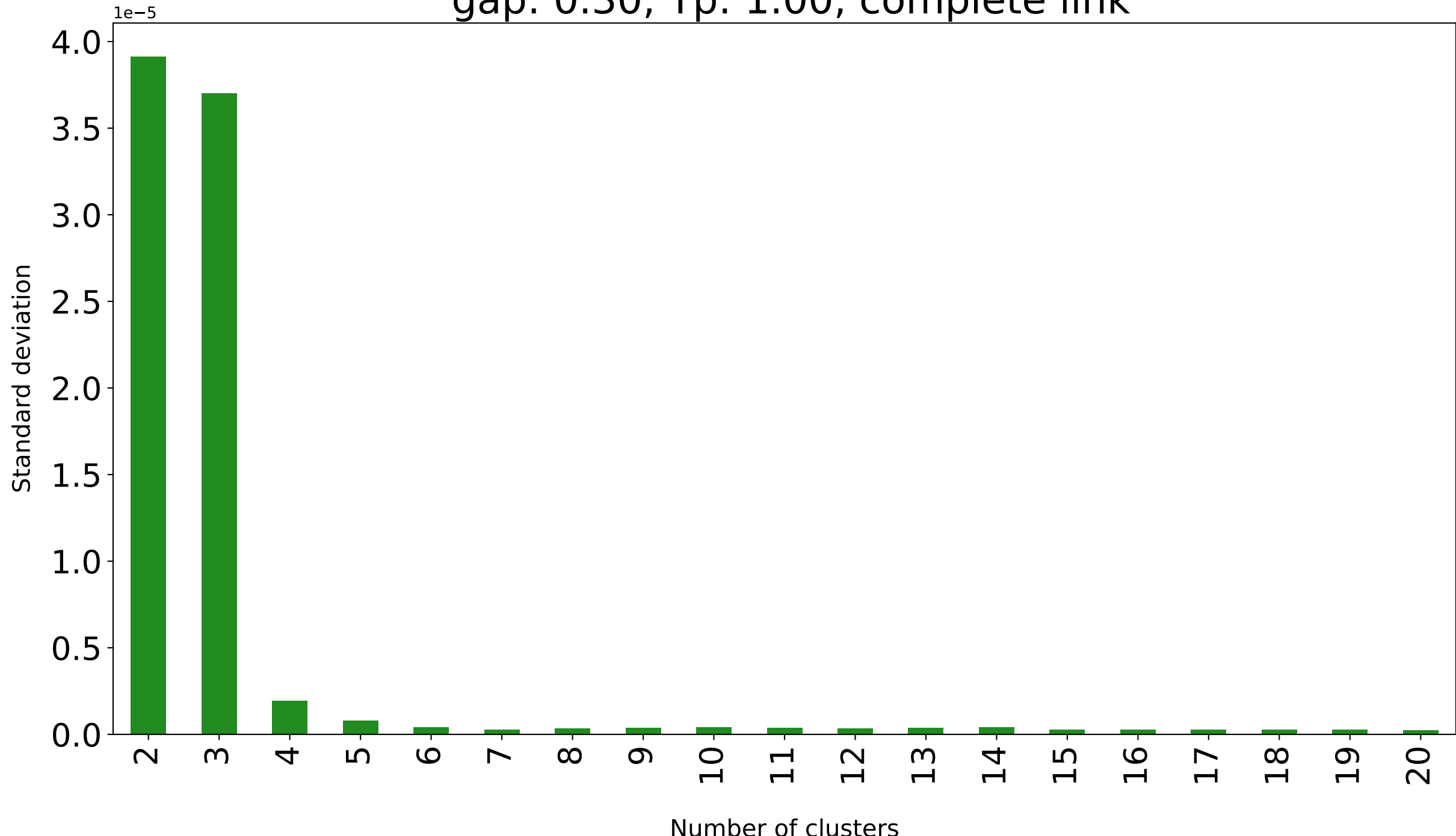




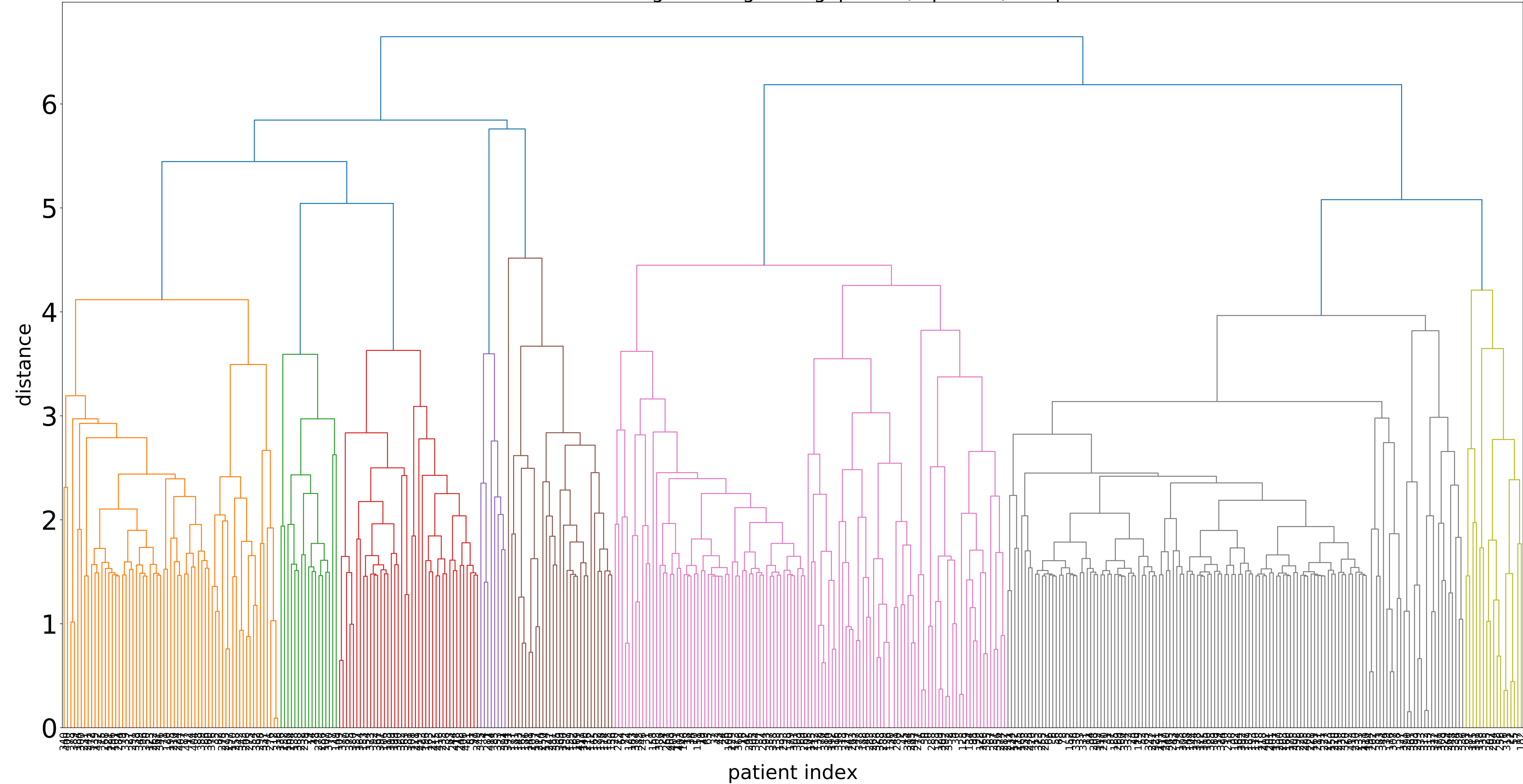
Average values of five clustering indices
gap: 0.30, Tp: 1.00, complete link

k	AR	FM	J	AW	VD	H	F	VI	K	Phi	RT	SS	CVNN	S	Dunn
2.0	0.99999	0.90973	0.86172	0.79424	0.06599	0.78501	0.90807	-0.0948	0.91145	0.00012	0.84645	0.81115	0.025	0.15802	0.25045
3.0	1.0	0.90283	0.84446	0.88073	0.06413	0.8434	0.90057	-0.69971	0.90513	0.00015	0.87364	0.7798	0.025	0.2803	0.26185
4.0	1.0	0.88447	0.79946	0.83451	0.10113	0.83728	0.88319	-1.234	0.88577	0.00016	0.87584	0.68296	0.05128	0.27626	0.26615
5.0	1.0	0.90825	0.83492	0.83162	0.08065	0.87448	0.90723	-2.12887	0.90927	0.00017	0.90559	0.7276	0.06452	0.32032	0.27757
6.0	1.0	0.97073	0.94523	0.96634	0.028	0.96118	0.97062	-3.32888	0.97084	0.00021	0.97204	0.90226	0.06452	0.33719	0.29553
7.0	1.0	0.9843	0.97037	0.9783	0.01323	0.97956	0.98422	-4.50558	0.98438	0.00022	0.98573	0.94656	0.11765	0.36656	0.31315
8.0	1.0	0.93039	0.86939	0.9558	0.03526	0.91236	0.92923	-5.25279	0.93156	0.00022	0.94268	0.77306	0.11765	0.31513	0.31024
9.0	1.0	0.91858	0.8515	0.90795	0.0435	0.89847	0.91761	-6.74451	0.91956	0.00022	0.93668	0.75	2.0	0.38385	0.3172
10.0	1.0	0.83686	0.71837	0.86128	0.10603	0.80282	0.83436	-7.01673	0.83937	0.00022	0.89024	0.56464	2.0	0.33175	0.24456
11.0	1.0	0.82417	0.7015	0.84684	0.11614	0.79052	0.82176	-7.50642	0.82658	0.00023	0.89049	0.54642	2.0	0.3128	0.118
12.0	1.0	0.8079	0.67989	0.79329	0.12702	0.77269	0.80639	-9.09917	0.80942	0.00023	0.88639	0.52119	2.0	0.30388	0.12254
13.0	1.0	0.79037	0.656	0.76357	0.13062	0.75545	0.7888	-10.33244	0.79194	0.00024	0.88582	0.49438	2.0	0.2811	0.12438
14.0	1.0	0.8001	0.67044	0.7822	0.13694	0.77034	0.79864	-12.09072	0.80157	0.00027	0.90043	0.51163	2.0	0.28022	0.13122
15.0	1.0	0.79787	0.66787	0.75505	0.14204	0.76893	0.79635	-13.95455	0.79939	0.00027	0.90262	0.50945	2.0	0.29027	0.13289
16.0	1.0	0.79021	0.65747	0.73832	0.15235	0.76113	0.78845	-15.66922	0.79198	0.00028	0.90163	0.49801	2.0	0.27465	0.13309
17.0	1.0	0.78826	0.65572	0.7393	0.15716	0.76005	0.78657	-16.31704	0.78997	0.00028	0.90409	0.49708	2.0	0.26742	0.1331
18.0	1.0	0.78619	0.65367	0.74437	0.15765	0.75877	0.78459	-18.03332	0.78781	0.00029	0.90636	0.4954	2.0	0.2507	0.13374
19.0	1.0	0.78727	0.65502	0.73516	0.15701	0.76058	0.78531	-19.58254	0.78924	0.0003	0.90821	0.49736	2.0	0.25129	0.13439
20.0	1.0	0.78058	0.6461	0.71464	0.15911	0.75385	0.7779	-21.01609	0.78329	0.0003	0.90721	0.48866	2.0	0.24956	0.1346

Standard deviation of Adjusted Rand versus number of clusters
gap: 0.30, Tp: 1.00, complete link



Hierarchical Clustering Dendrogram - gap: 0.40, Tp: 1.00, complete link

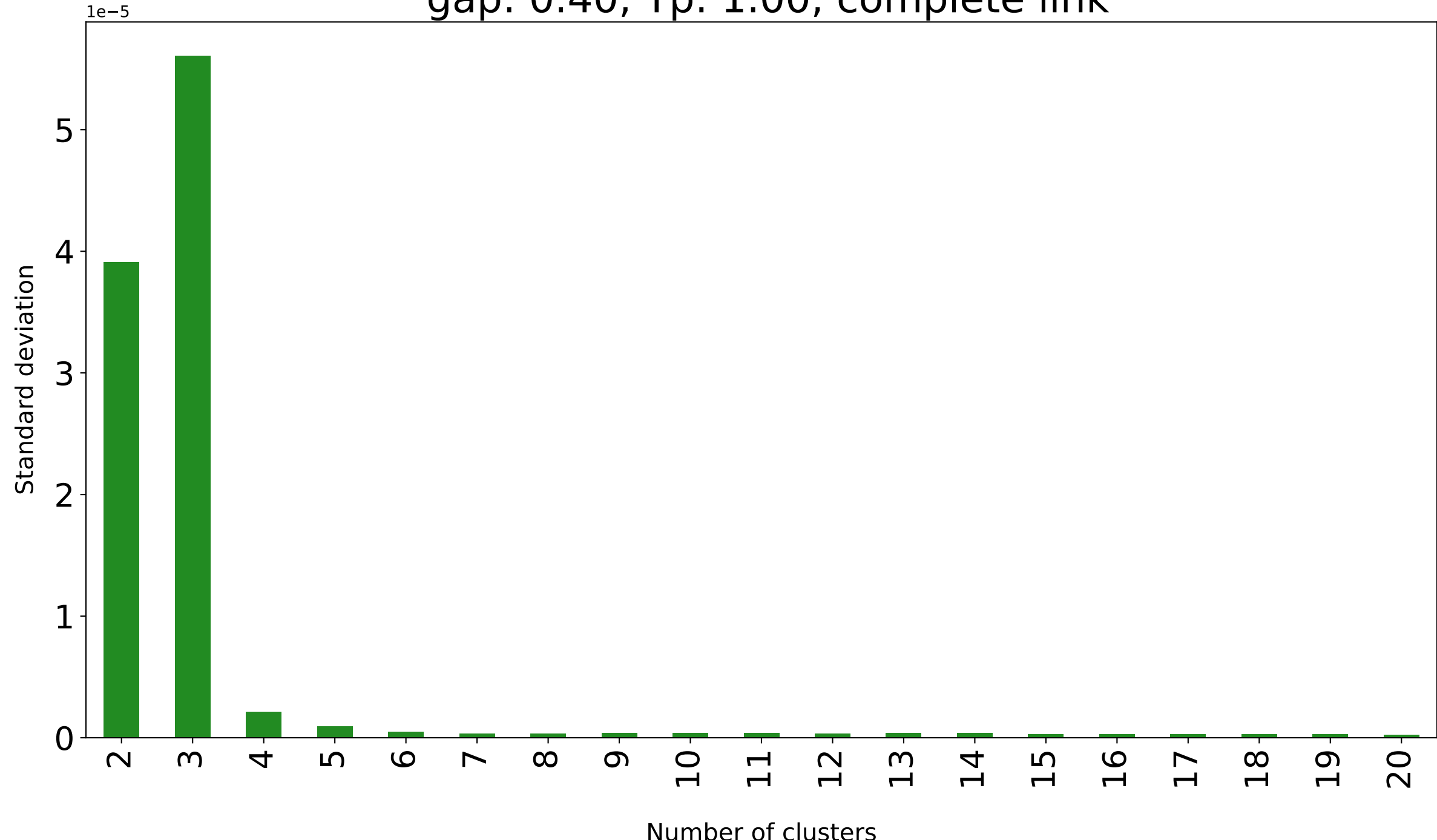


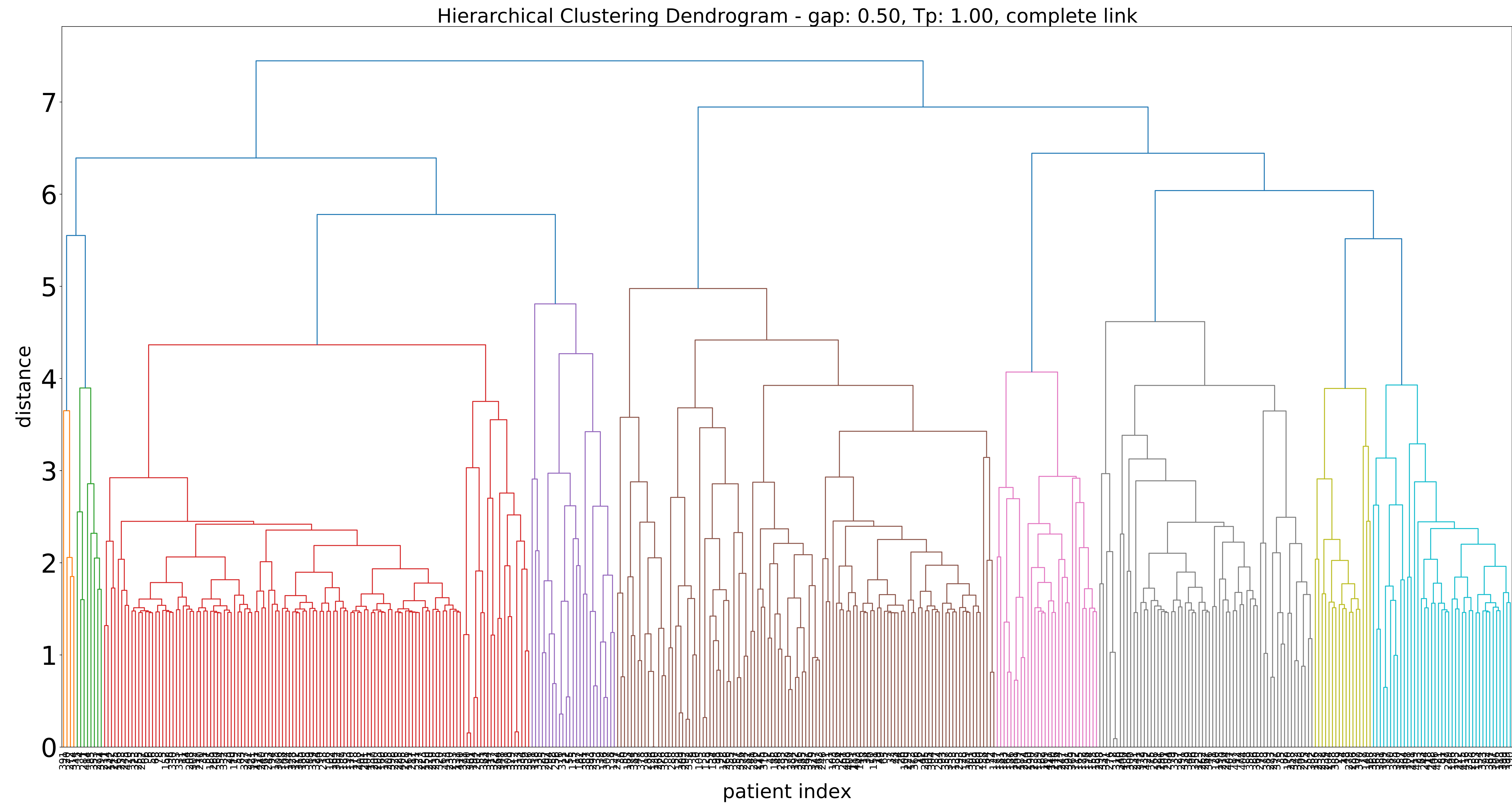
Cophenetic Correlation Coefficient: 0.8017789716899641

Average values of five clustering indices
gap: 0.40, Tp: 1.00, complete link

k	AR	FM	J	AW	VD	H	F	VI	K	Phi	RT	SS	CVNN	S	Dunn
2.0	0.99998	0.87768	0.81333	0.7172	0.0897	0.70606	0.87519	-0.03847	0.88025	0.00011	0.79168	0.7481	0.025	0.16531	0.24995
3.0	1.00001	0.8956	0.83144	0.88046	0.06921	0.83115	0.89242	-0.68483	0.89887	0.00015	0.86139	0.76124	0.025	0.2876	0.26451
4.0	1.0	0.8707	0.77832	0.81911	0.11079	0.81697	0.86913	-1.20005	0.87231	0.00016	0.86057	0.65473	0.05128	0.28304	0.26843
5.0	1.0	0.89578	0.81386	0.80978	0.08926	0.85723	0.89448	-2.07764	0.89709	0.00017	0.89279	0.69585	0.06452	0.32865	0.2839
6.0	1.0	0.95969	0.92537	0.9458	0.0311	0.94682	0.95942	-3.28283	0.95997	0.0002	0.96215	0.86964	0.06452	0.34606	0.30436
7.0	1.0	0.93065	0.8713	0.93849	0.04464	0.9109	0.93011	-4.37644	0.9312	0.00021	0.93986	0.77663	0.06452	0.3052	0.24756
8.0	1.0	0.94943	0.90459	0.95563	0.0285	0.93586	0.94898	-5.50778	0.94988	0.00022	0.95768	0.83043	0.11765	0.33992	0.27638
9.0	1.0	0.93459	0.87877	0.90077	0.03673	0.91821	0.93368	-7.0118	0.93551	0.00022	0.9481	0.79173	2.0	0.40532	0.28061
10.0	1.0	0.87557	0.77924	0.89167	0.08303	0.84861	0.87399	-7.46581	0.87715	0.00023	0.91337	0.64453	2.0	0.36166	0.234
11.0	1.0	0.86653	0.76555	0.88203	0.09133	0.83951	0.86497	-7.85816	0.8681	0.00023	0.91238	0.62664	2.0	0.35013	0.2256
12.0	1.0	0.85028	0.74177	0.83033	0.10158	0.82118	0.84929	-9.14638	0.85128	0.00024	0.90634	0.59613	2.0	0.33231	0.23066
13.0	1.0	0.83567	0.72066	0.80279	0.10282	0.80651	0.83473	-10.27978	0.83662	0.00025	0.90503	0.5705	2.0	0.30983	0.23949
14.0	1.0	0.86295	0.75973	0.8802	0.10004	0.8418	0.86143	-12.06828	0.86447	0.00028	0.92795	0.61814	2.0	0.29984	0.24839
15.0	1.0	0.87047	0.77276	0.87066	0.09716	0.85098	0.86954	-13.61079	0.87139	0.00029	0.93382	0.63623	2.0	0.31795	0.24866
16.0	1.0	0.87375	0.77786	0.8595	0.09848	0.85526	0.87297	-15.59671	0.87453	0.0003	0.93701	0.64254	2.0	0.3145	0.25876
17.0	1.0	0.87286	0.77623	0.85167	0.10314	0.85479	0.87204	-17.4715	0.87368	0.00031	0.93812	0.64012	2.0	0.30021	0.26036
18.0	1.0	0.87375	0.77747	0.84207	0.10461	0.85612	0.87285	-19.26692	0.87466	0.00031	0.93935	0.64174	2.0	0.28481	0.23398
19.0	1.0	0.87467	0.77929	0.85065	0.10505	0.85777	0.87389	-21.06186	0.87545	0.00032	0.94168	0.6445	2.0	0.26766	0.23456
20.0	1.0	0.88172	0.79072	0.85877	0.10285	0.86626	0.88095	-22.54763	0.88249	0.00033	0.9463	0.66055	2.0	0.25984	0.23608

Standard deviation of Adjusted Rand versus number of clusters
gap: 0.40, Tp: 1.00, complete link

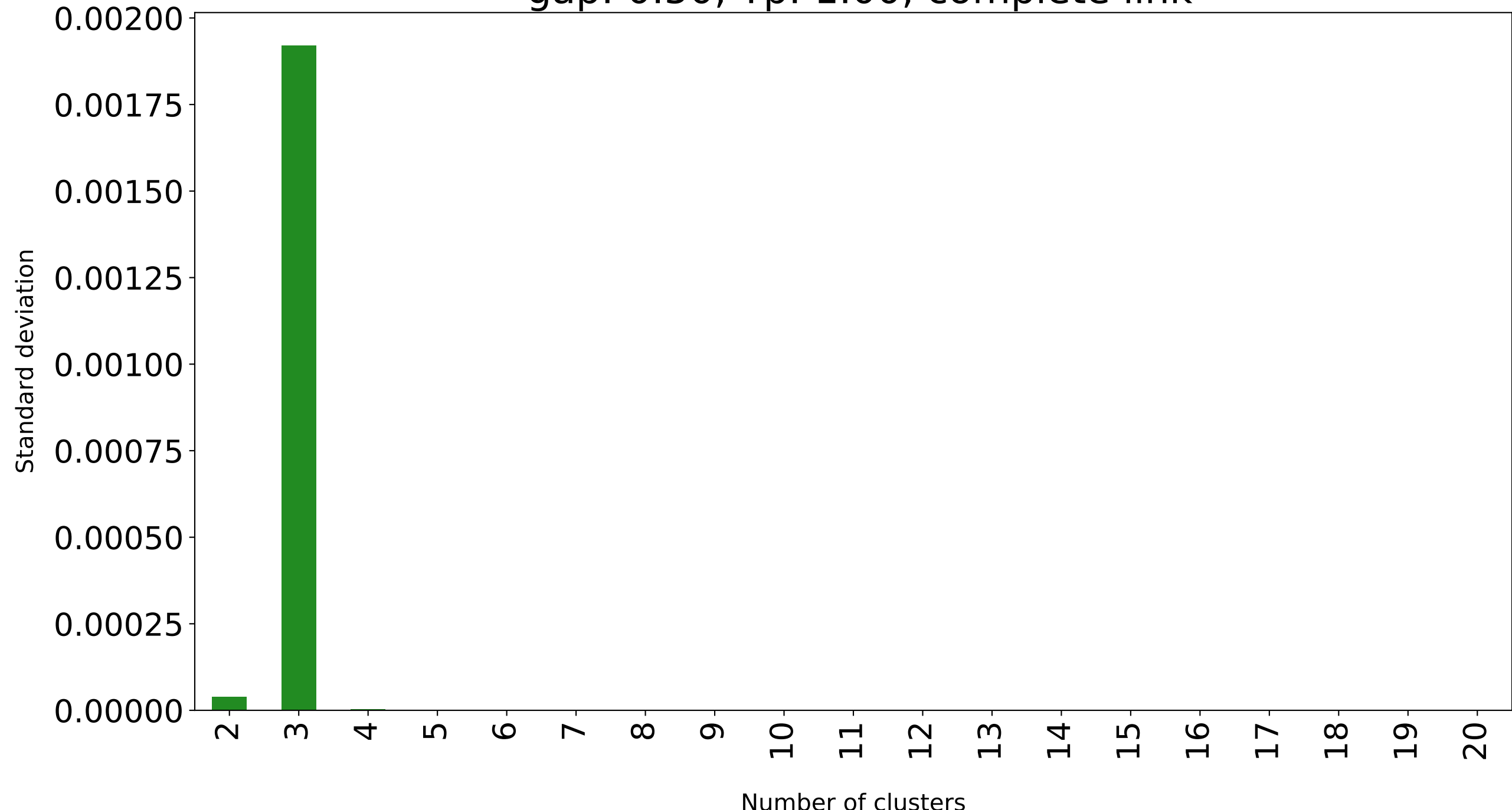


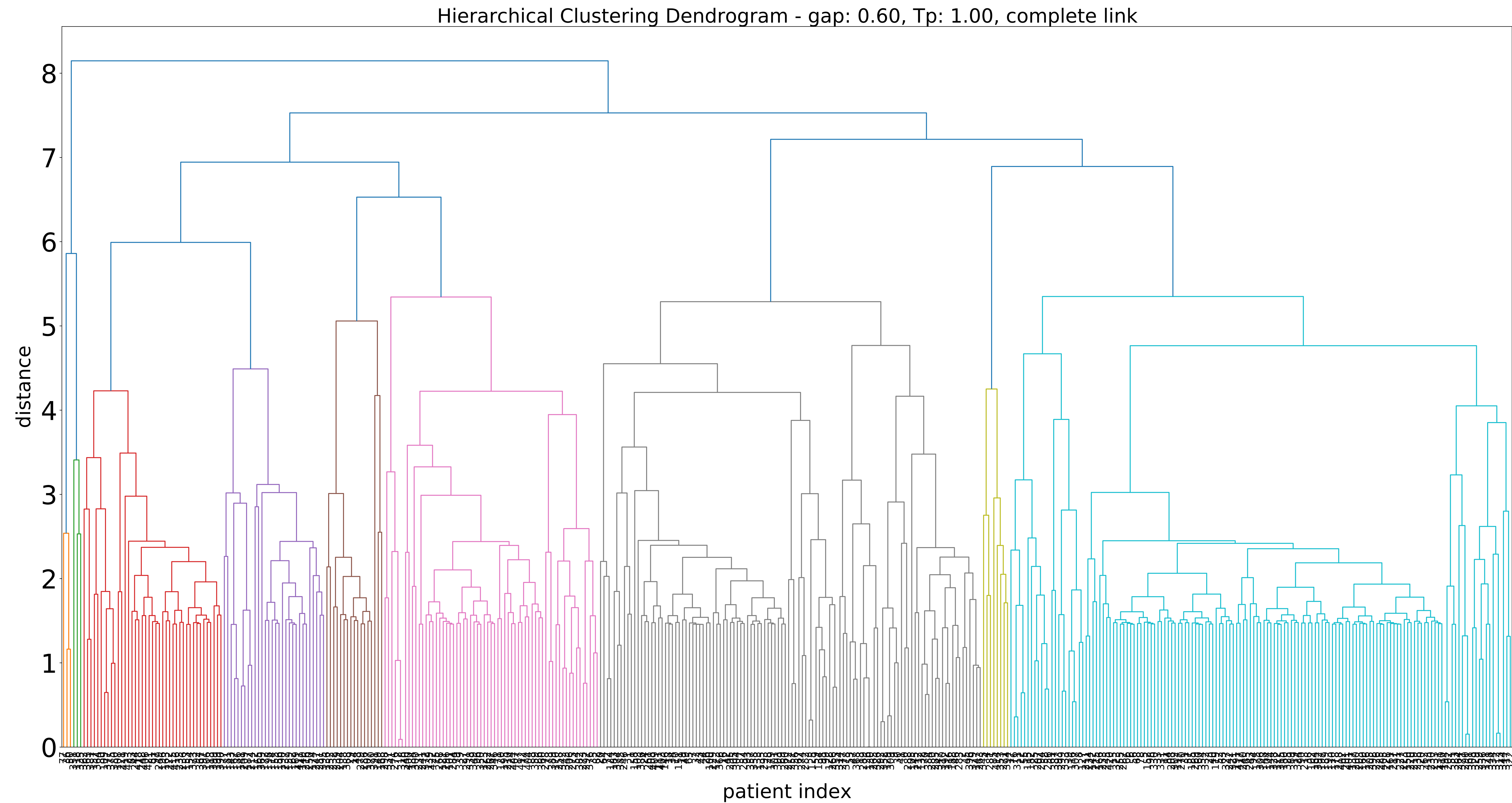


Average values of five clustering indices
gap: 0.50, Tp: 1.00, complete link

k	AR	FM	J	AW	VD	H	F	VI	K	Phi	RT	SS	CVNN	S	Dunn
2.0	0.99996	0.70145	0.55712	0.32731	0.21673	0.31246	0.69748	0.26612	0.70557	5e-05	0.51807	0.41829	0.05556	0.21687	0.15773
3.0	0.99988	0.84642	0.7497	0.80817	0.09919	0.75175	0.84229	-0.53474	0.85065	0.00013	0.7969	0.63556	0.05556	0.27598	0.17001
4.0	1.0	0.83558	0.72521	0.7504	0.12166	0.7645	0.83388	-1.34677	0.83729	0.00015	0.82172	0.58538	0.05556	0.31846	0.17137
5.0	1.0	0.86806	0.77374	0.78985	0.10662	0.81784	0.86687	-1.94818	0.86925	0.00016	0.86602	0.64644	0.83333	0.27653	0.18141
6.0	1.0	0.93389	0.88023	0.92497	0.05127	0.91278	0.93331	-3.15089	0.93447	0.0002	0.93841	0.798	0.83333	0.30452	0.18955
7.0	1.0	0.90272	0.82171	0.94248	0.06262	0.87643	0.90095	-3.92053	0.9045	0.0002	0.91796	0.7018	0.83333	0.25549	0.19733
8.0	1.0	0.9078	0.83176	0.92142	0.05748	0.88345	0.90693	-5.223	0.90867	0.00021	0.92481	0.71669	2.0	0.25446	0.19858
9.0	1.0	0.91488	0.84432	0.91682	0.04655	0.89399	0.91409	-6.37704	0.91566	0.00022	0.93431	0.73666	2.0	0.29332	0.22016
10.0	1.0	0.8934	0.8088	0.90219	0.06169	0.8696	0.89231	-7.39555	0.8945	0.00023	0.92399	0.68596	2.0	0.28688	0.22779
11.0	1.0	0.87553	0.78108	0.84491	0.07556	0.84899	0.87475	-8.88005	0.87631	0.00023	0.91568	0.64821	2.0	0.27322	0.20558
12.0	1.0	0.85009	0.74069	0.79042	0.09171	0.82004	0.84878	-9.25482	0.8514	0.00023	0.90349	0.59421	2.0	0.26162	0.21486
13.0	1.0	0.84044	0.72653	0.80189	0.10425	0.81179	0.83944	-9.94336	0.84143	0.00025	0.9066	0.57612	2.0	0.25548	0.21744
14.0	1.0	0.85761	0.75213	0.86689	0.10318	0.8352	0.85646	-11.52601	0.85877	0.00028	0.92446	0.60874	2.0	0.24257	0.22233
15.0	1.0	0.8664	0.76589	0.8605	0.10015	0.84604	0.86569	-12.68177	0.86712	0.00029	0.93123	0.62591	2.0	0.24227	0.23321
16.0	1.0	0.86338	0.7613	0.8479	0.10678	0.84315	0.8628	-14.53278	0.86397	0.0003	0.93155	0.61965	2.0	0.23245	0.24156
17.0	1.0	0.85054	0.74148	0.82868	0.11828	0.8292	0.85004	-16.14686	0.85105	0.0003	0.92771	0.59338	2.0	0.21135	0.24184
18.0	1.0	0.87622	0.77991	0.89271	0.10609	0.85981	0.87527	-17.67658	0.87718	0.00033	0.94289	0.64261	2.0	0.20128	0.24185
19.0	1.0	0.89627	0.81115	0.93942	0.09664	0.88332	0.8945	-19.53537	0.89806	0.00035	0.95347	0.68655	2.0	0.19444	0.24357
20.0	1.0	0.90284	0.82266	0.93663	0.09357	0.89081	0.90157	-21.04239	0.90412	0.00036	0.95704	0.70291	2.0	0.20044	0.24389

Standard deviation of Adjusted Rand versus number of clusters
gap: 0.50, Tp: 1.00, complete link

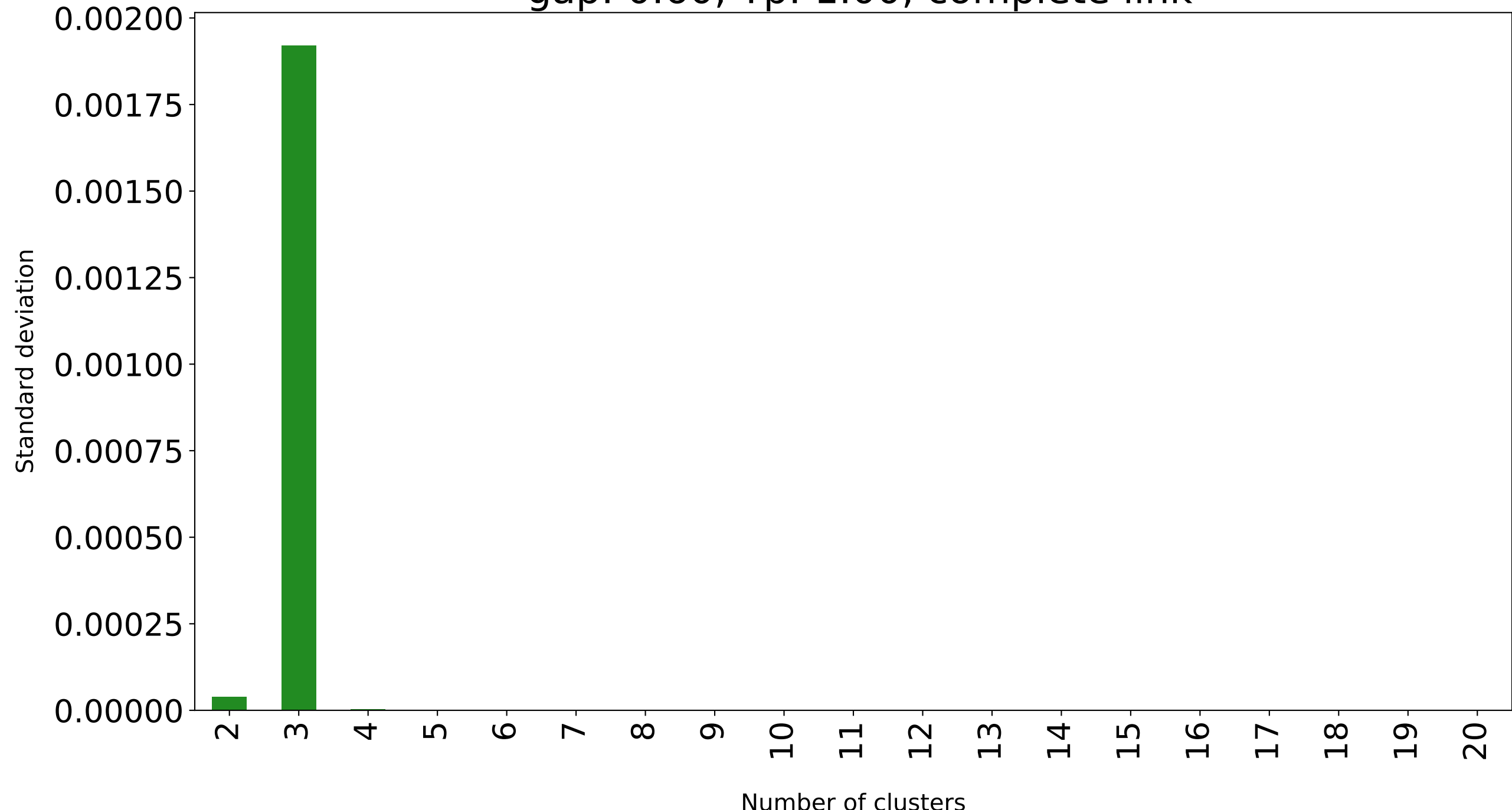




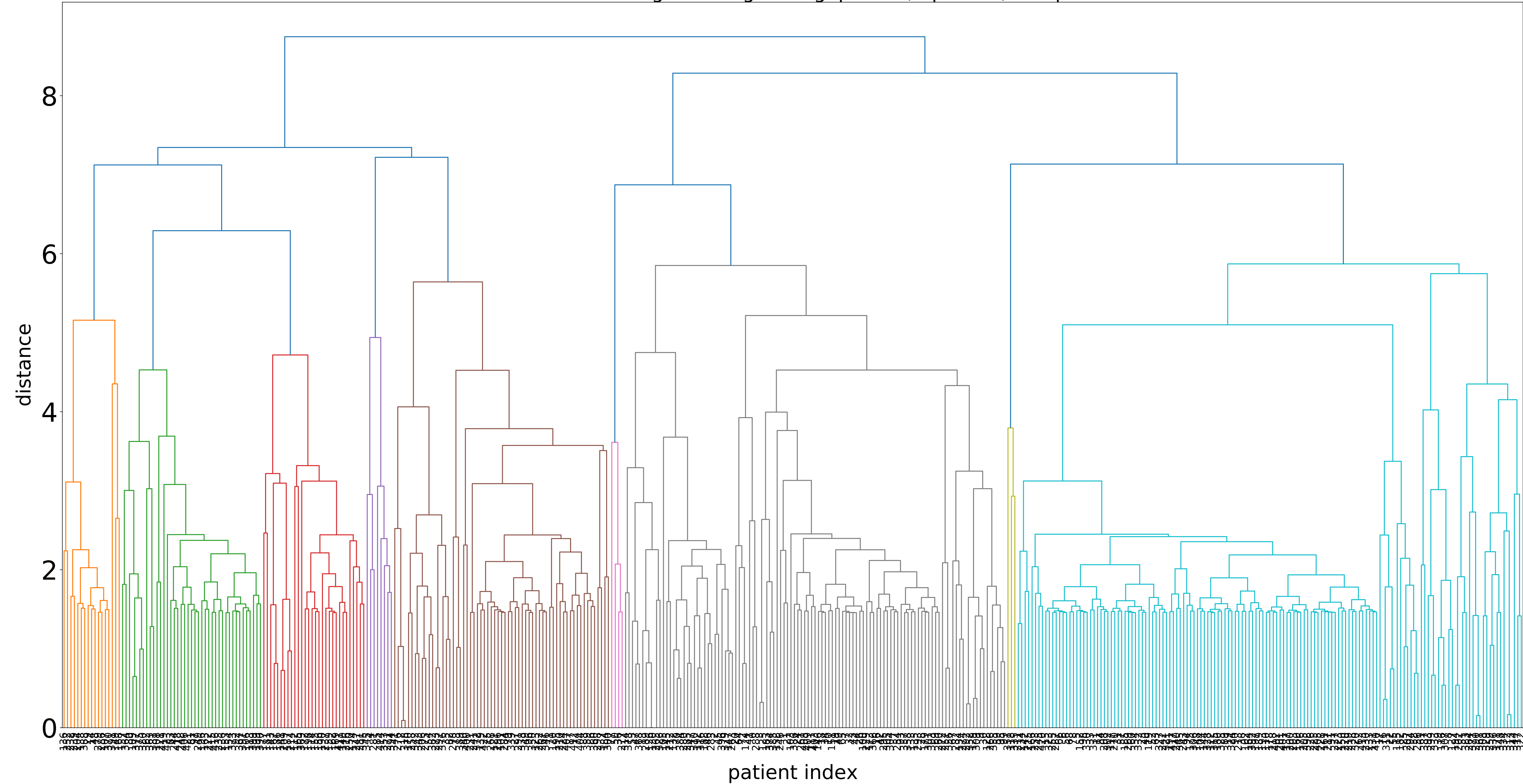
Average values of five clustering indices
gap: 0.60, Tp: 1.00, complete link

k	AR	FM	J	AW	VD	H	F	VI	K	Phi	RT	SS	CVNN	S	Dunn
2.0	1.0	0.85192	0.74532	0.2874	0.10064	0.33719	0.83629	0.17674	0.86824	0.0004	0.64742	0.64379	1.07143	0.24865	0.13936
3.0	0.99997	0.66778	0.50157	0.26701	0.24091	0.34119	0.65978	-0.04044	0.67597	6e-05	0.50724	0.34547	1.07143	0.16859	0.14541
4.0	1.0	0.79523	0.66519	0.67798	0.13613	0.69369	0.7924	-1.31443	0.79807	0.00013	0.76177	0.51194	1.07143	0.23104	0.15109
5.0	1.0	0.87293	0.78128	0.83736	0.08605	0.82477	0.87162	-2.24649	0.87425	0.00017	0.87055	0.6567	1.07143	0.25453	0.15221
6.0	1.0	0.90775	0.83605	0.86521	0.07223	0.87673	0.90701	-2.91105	0.9085	0.00018	0.91206	0.73056	1.07143	0.27411	0.1607
7.0	1.0	0.93989	0.88943	0.90089	0.04975	0.92162	0.93928	-4.14802	0.94049	0.0002	0.94541	0.81047	1.07143	0.29921	0.17511
8.0	1.0	0.95064	0.90796	0.91787	0.03255	0.93678	0.95012	-5.46921	0.95116	0.00021	0.95742	0.83936	1.07143	0.33579	0.17904
9.0	1.0	0.94756	0.90027	0.88594	0.02884	0.93378	0.94617	-6.92781	0.94895	0.00022	0.95547	0.82529	1.71429	0.3722	0.19613
10.0	1.0	0.90682	0.83145	0.88629	0.05136	0.88442	0.90608	-7.81581	0.90756	0.00022	0.92974	0.71881	1.71429	0.31678	0.19635
11.0	1.0	0.87706	0.78331	0.82618	0.07023	0.84917	0.87597	-8.5254	0.87815	0.00022	0.91219	0.65177	1.71429	0.3011	0.19841
12.0	1.0	0.83991	0.72582	0.83634	0.0998	0.80882	0.83866	-9.15052	0.84116	0.00023	0.89996	0.57598	1.71429	0.28273	0.20741
13.0	1.0	0.83401	0.71757	0.7968	0.10496	0.80312	0.8331	-10.80393	0.83493	0.00024	0.90041	0.56566	2.0	0.24561	0.22005
14.0	1.0	0.83452	0.71696	0.77369	0.10424	0.80566	0.83313	-11.91069	0.83592	0.00025	0.90517	0.56379	2.0	0.23226	0.22017
15.0	1.0	0.87437	0.77809	0.87311	0.09735	0.85492	0.87355	-13.67525	0.87519	0.00029	0.93422	0.64175	2.0	0.22045	0.2247
16.0	1.0	0.88079	0.78835	0.86934	0.09416	0.8628	0.88011	-14.84229	0.88146	0.0003	0.93893	0.65556	2.0	0.22239	0.23052
17.0	1.0	0.88299	0.79199	0.87066	0.09634	0.86585	0.88236	-16.09778	0.88362	0.00031	0.94152	0.6607	2.0	0.22838	0.23368
18.0	1.0	0.87775	0.78359	0.8597	0.10231	0.86028	0.87718	-17.93141	0.87832	0.00031	0.94032	0.64889	2.0	0.22313	0.24679
19.0	1.0	0.87124	0.77306	0.83846	0.10606	0.85318	0.87061	-19.24089	0.87186	0.00031	0.9382	0.63433	2.0	0.2295	0.24807
20.0	1.0	0.86607	0.76488	0.83284	0.10877	0.84785	0.8655	-20.97608	0.86664	0.00032	0.93749	0.62306	2.0	0.2127	0.24835

Standard deviation of Adjusted Rand versus number of clusters
gap: 0.60, Tp: 1.00, complete link



Hierarchical Clustering Dendrogram - gap: 0.70, Tp: 1.00, complete link

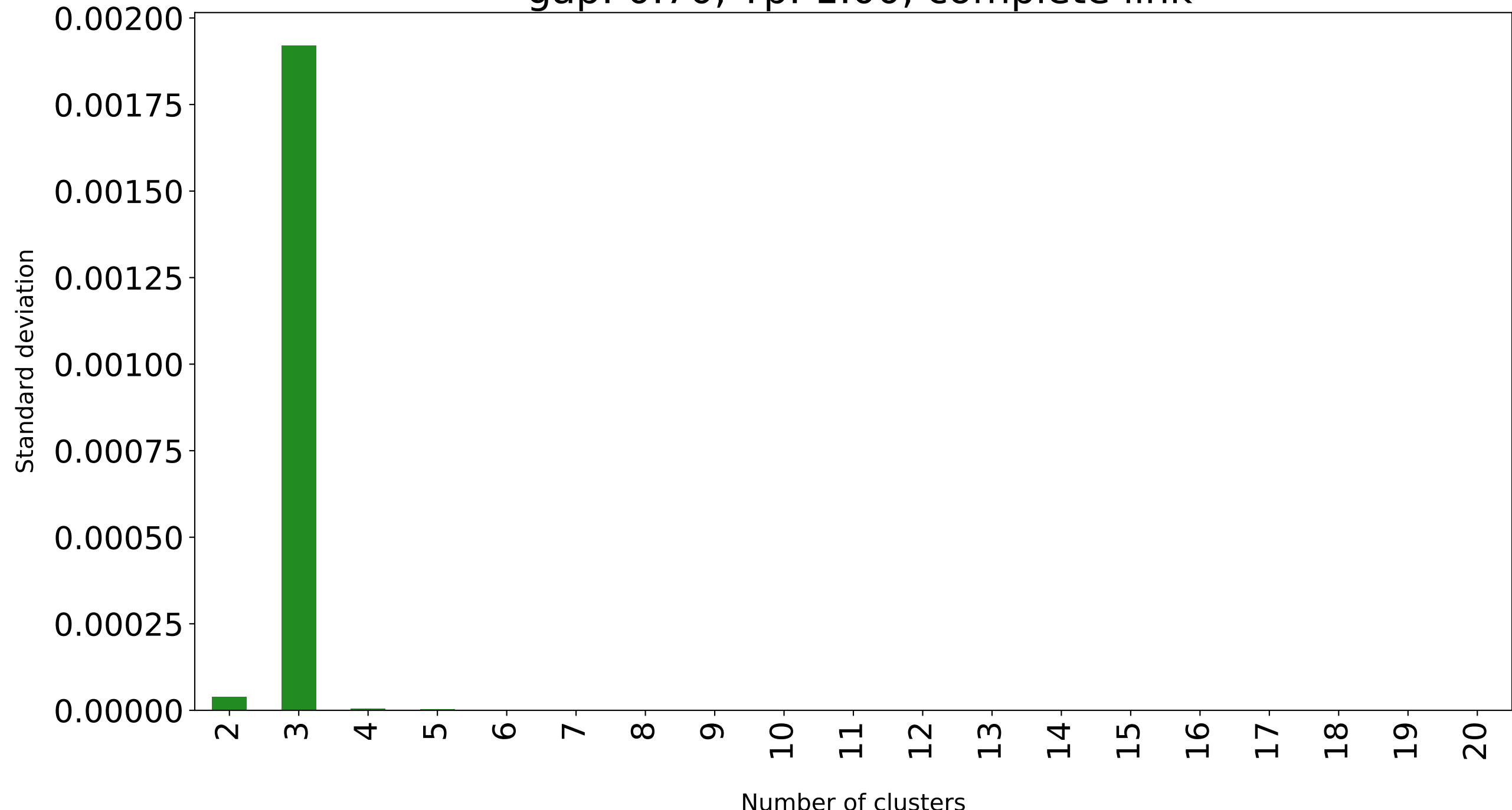


Cophenetic Correlation Coefficient: 0.7418306069198484

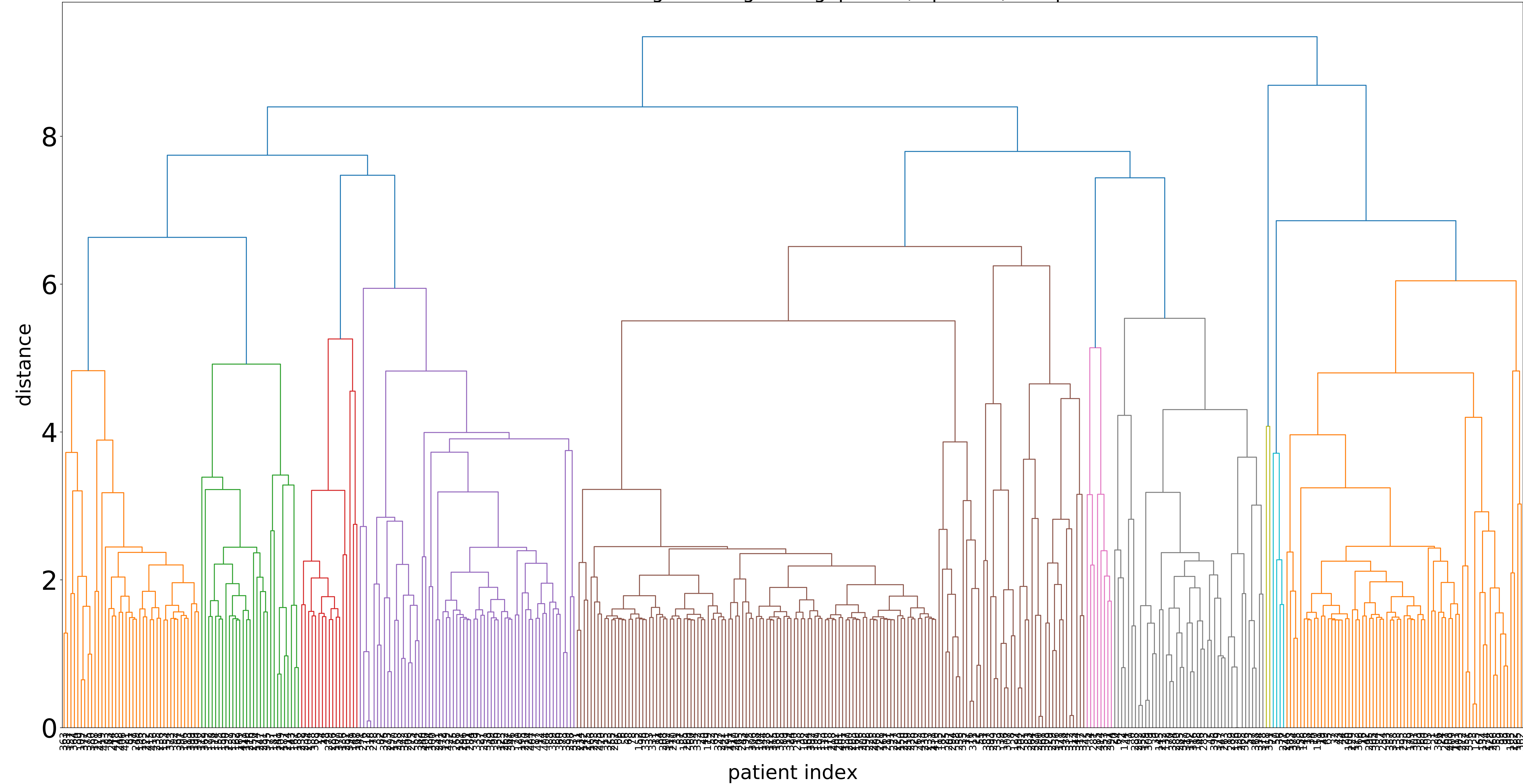
Average values of five clustering indices
gap: 0.70, Tp: 1.00, complete link

k	AR	FM	J	AW	VD	H	F	VI	K	Phi	RT	SS	CVNN	S	Dunn
2.0	0.99997	0.70859	0.55238	0.15731	0.20989	0.19944	0.69641	0.25807	0.72128	3e-05	0.47071	0.41174	0.01348	0.16659	0.22281
3.0	1.00002	0.79518	0.6655	0.83418	0.13852	0.65366	0.78106	-0.47315	0.80984	0.00011	0.69769	0.54131	0.01348	0.28212	0.25134
4.0	1.0	0.81759	0.69928	0.85709	0.11271	0.73646	0.80986	-1.20828	0.82553	0.00014	0.79078	0.56977	0.02435	0.3001	0.25568
5.0	1.0	0.87306	0.78537	0.85214	0.07852	0.82376	0.87086	-1.84541	0.8753	0.00017	0.86885	0.67247	0.02435	0.32062	0.25874
6.0	1.0	0.90381	0.83108	0.84698	0.0646	0.8707	0.90272	-3.07758	0.90491	0.00018	0.90715	0.72684	1.71429	0.3137	0.16131
7.0	1.0	0.91485	0.84793	0.8583	0.06272	0.88845	0.91405	-4.20862	0.91564	0.00019	0.92295	0.74852	1.71429	0.32841	0.16722
8.0	1.0	0.91035	0.83852	0.83496	0.06911	0.88429	0.90896	-5.31642	0.91175	0.0002	0.92147	0.73265	1.71429	0.32878	0.18265
9.0	1.0	0.92279	0.8592	0.85276	0.04529	0.90228	0.92121	-6.76389	0.92438	0.00021	0.93585	0.76488	1.71429	0.35734	0.19573
10.0	1.0	0.88075	0.79076	0.86534	0.06728	0.85332	0.87997	-7.75337	0.88153	0.00022	0.91436	0.66455	1.71429	0.30672	0.1964
11.0	1.0	0.85057	0.74138	0.86992	0.09108	0.82099	0.84898	-8.42343	0.85216	0.00023	0.90437	0.59594	1.71429	0.28404	0.19994
12.0	1.0	0.85068	0.74249	0.84584	0.09333	0.82235	0.84973	-9.56793	0.85164	0.00024	0.90845	0.5971	1.71429	0.26842	0.20363
13.0	1.0	0.84256	0.72968	0.8383	0.09866	0.81468	0.84148	-10.65089	0.84365	0.00025	0.90869	0.58022	1.71429	0.26292	0.22025
14.0	1.0	0.84565	0.73398	0.83465	0.10022	0.81987	0.84483	-11.14701	0.84647	0.00026	0.91476	0.58433	1.71429	0.26023	0.22277
15.0	1.0	0.84499	0.73281	0.81171	0.10133	0.8199	0.84431	-12.95384	0.84568	0.00027	0.91672	0.58219	2.0	0.23076	0.22532
16.0	1.0	0.87904	0.78561	0.88357	0.09396	0.86102	0.87826	-14.62247	0.87982	0.0003	0.9386	0.65228	2.0	0.22692	0.23264
17.0	1.0	0.87735	0.78321	0.86969	0.09597	0.85933	0.87676	-15.99705	0.87796	0.0003	0.93869	0.64897	2.0	0.23526	0.24197
18.0	1.0	0.87751	0.78318	0.86544	0.0957	0.86004	0.87695	-17.09919	0.87807	0.00031	0.94031	0.64825	2.0	0.22636	0.24355
19.0	1.0	0.87837	0.78446	0.85853	0.09627	0.86153	0.87786	-19.06616	0.87888	0.00032	0.94224	0.64963	2.0	0.2236	0.25372
20.0	1.0	0.8776	0.78306	0.8576	0.09619	0.86122	0.87716	-20.89405	0.87805	0.00033	0.94358	0.64715	2.0	0.20793	0.25381

Standard deviation of Adjusted Rand versus number of clusters
gap: 0.70, Tp: 1.00, complete link



Hierarchical Clustering Dendrogram - gap: 0.80, Tp: 1.00, complete link

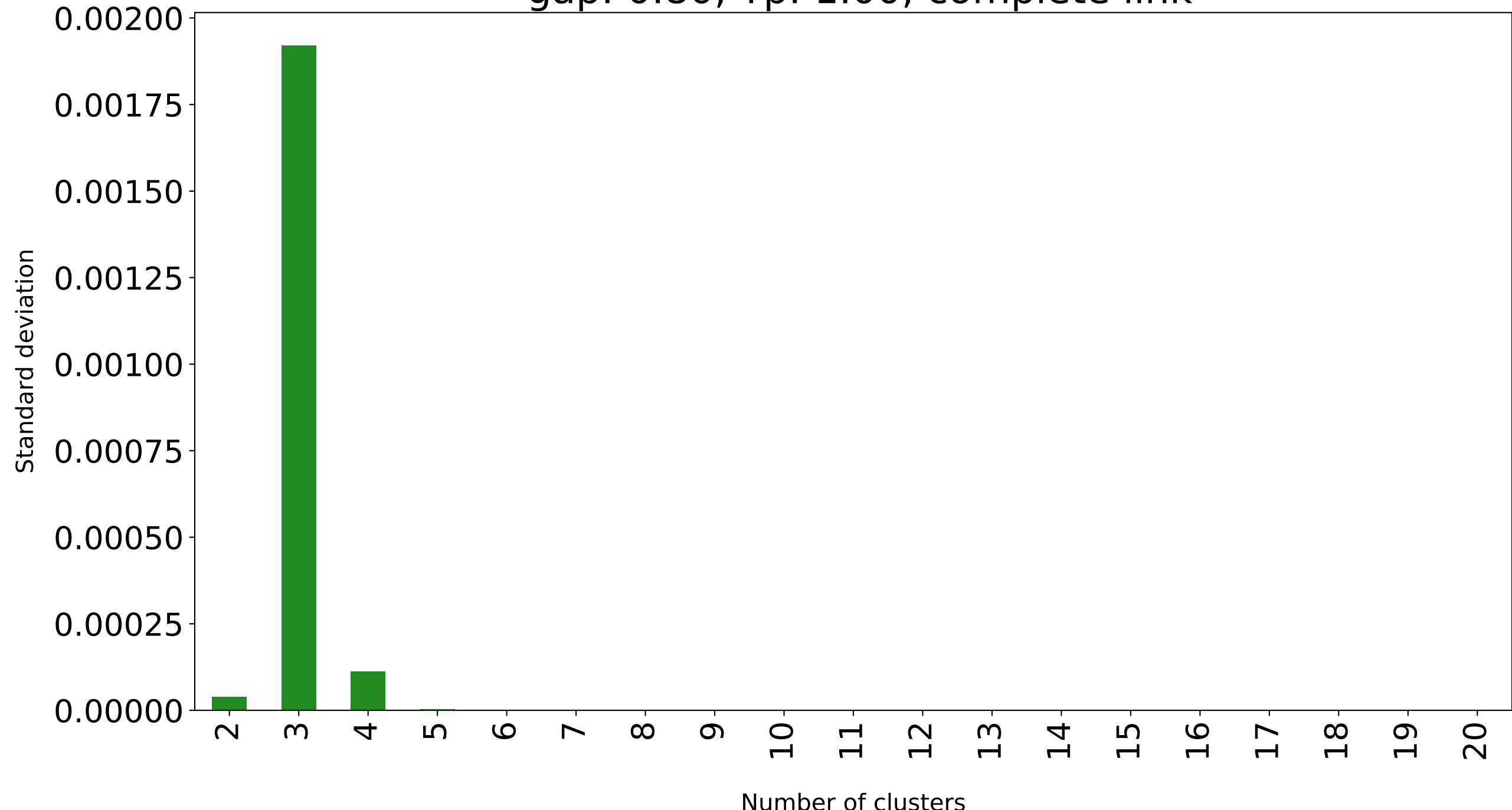


Cophenetic Correlation Coefficient: 0.6727003867708636

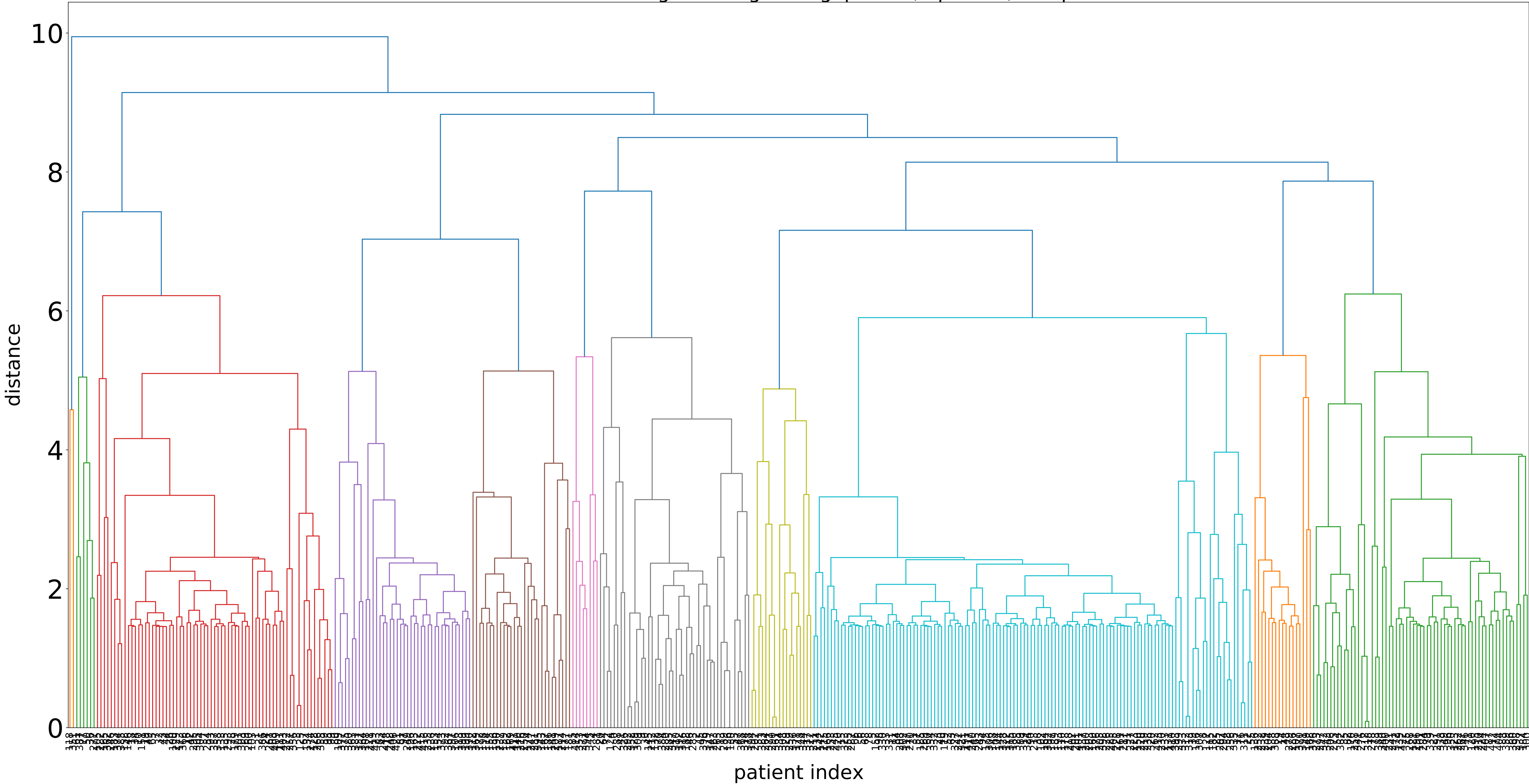
Average values of five clustering indices
gap: 0.80, Tp: 1.00, complete link

k	AR	FM	J	AW	VD	H	F	VI	K	Phi	RT	SS	CVNN	S	Dunn
2.0	0.99999	0.76718	0.62122	0.19181	0.14682	0.08675	0.76028	0.29451	0.77415	3e-05	0.48985	0.45939	0.11429	0.21397	0.18006
3.0	0.99997	0.71997	0.55909	0.22113	0.19341	0.31796	0.70729	0.18128	0.73321	6e-05	0.4931	0.40071	1.92857	0.28396	0.18633
4.0	1.00001	0.61997	0.45373	0.3796	0.26366	0.38986	0.6171	-0.30406	0.62287	7e-05	0.5578	0.29986	1.92857	0.24338	0.20073
5.0	1.0	0.68586	0.52891	0.55032	0.21921	0.55388	0.68364	-1.17556	0.6881	0.00011	0.68959	0.36867	1.92857	0.22094	0.20205
6.0	1.0	0.75569	0.6152	0.72635	0.16823	0.6771	0.75319	-2.32462	0.75824	0.00015	0.78759	0.4567	1.92857	0.24082	0.20938
7.0	1.0	0.78922	0.66116	0.76691	0.14241	0.72739	0.78768	-3.52274	0.79076	0.00017	0.82679	0.50801	1.92857	0.27936	0.21036
8.0	1.0	0.80115	0.67745	0.76301	0.13472	0.74628	0.80018	-4.21682	0.80212	0.00017	0.84327	0.52579	1.92857	0.29241	0.22816
9.0	1.0	0.79956	0.67334	0.74086	0.13625	0.74717	0.79874	-5.36453	0.80037	0.00018	0.84776	0.51838	1.92857	0.29058	0.23591
10.0	1.0	0.82181	0.70423	0.76598	0.10456	0.77929	0.82094	-6.90446	0.82268	0.0002	0.87219	0.55464	1.92857	0.31947	0.2404
11.0	1.0	0.81191	0.68453	0.83561	0.11479	0.77463	0.80956	-8.09215	0.81426	0.00022	0.88054	0.52697	1.92857	0.27902	0.25045
12.0	1.0	0.81878	0.69539	0.81946	0.11037	0.78438	0.81732	-9.26613	0.82024	0.00023	0.88955	0.53963	1.92857	0.26638	0.25499
13.0	1.0	0.82694	0.70702	0.80706	0.10942	0.79576	0.82602	-10.91715	0.82785	0.00024	0.89908	0.55221	1.92857	0.23918	0.21653
14.0	1.0	0.83647	0.72045	0.79883	0.1076	0.80837	0.83565	-11.94386	0.8373	0.00026	0.90796	0.56753	1.92857	0.25311	0.2324
15.0	1.0	0.84497	0.73274	0.79662	0.10448	0.81945	0.84417	-12.59033	0.84578	0.00027	0.91547	0.5823	1.92857	0.25281	0.23385
16.0	1.0	0.88761	0.79993	0.88553	0.0938	0.87057	0.88705	-14.27797	0.88817	0.0003	0.94219	0.67267	1.92857	0.2504	0.24474
17.0	1.0	0.88735	0.7997	0.87571	0.09734	0.87053	0.88688	-16.07553	0.88782	0.0003	0.94291	0.67236	2.0	0.22714	0.2504
18.0	1.0	0.88263	0.79203	0.85941	0.10129	0.86536	0.88211	-17.4137	0.88314	0.00031	0.94132	0.66167	2.0	0.23737	0.26166
19.0	1.0	0.87698	0.78298	0.84573	0.10486	0.85941	0.87643	-19.26315	0.87753	0.00031	0.94006	0.64918	2.0	0.23461	0.26648
20.0	1.0	0.87034	0.77226	0.83639	0.10903	0.85238	0.86977	-20.95307	0.87091	0.00032	0.93855	0.63423	2.0	0.22163	0.2667

Standard deviation of Adjusted Rand versus number of clusters
gap: 0.80, Tp: 1.00, complete link



Hierarchical Clustering Dendrogram - gap: 0.90, Tp: 1.00, complete link

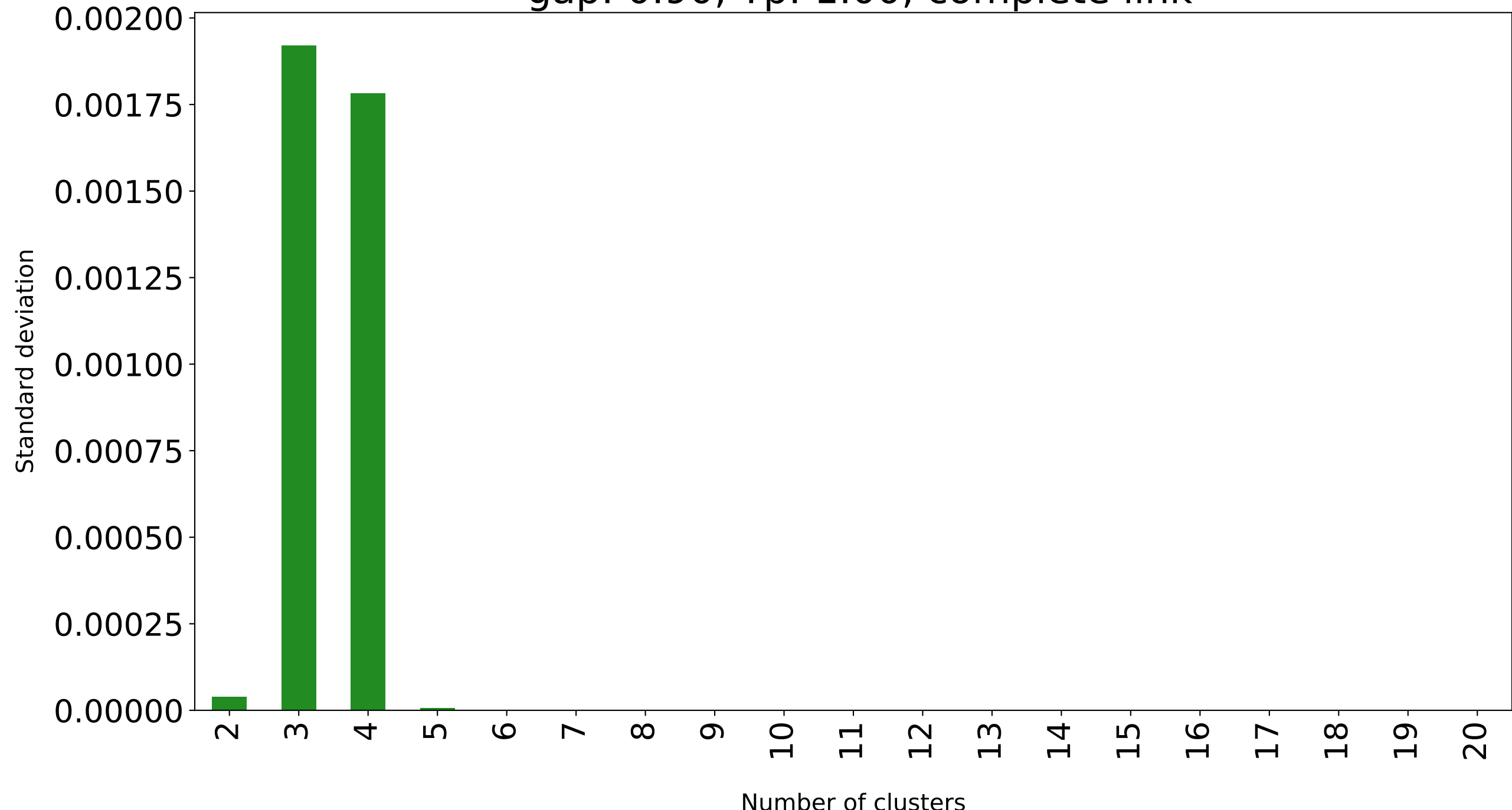


Cophenetic Correlation Coefficient: 0.6805834355420981

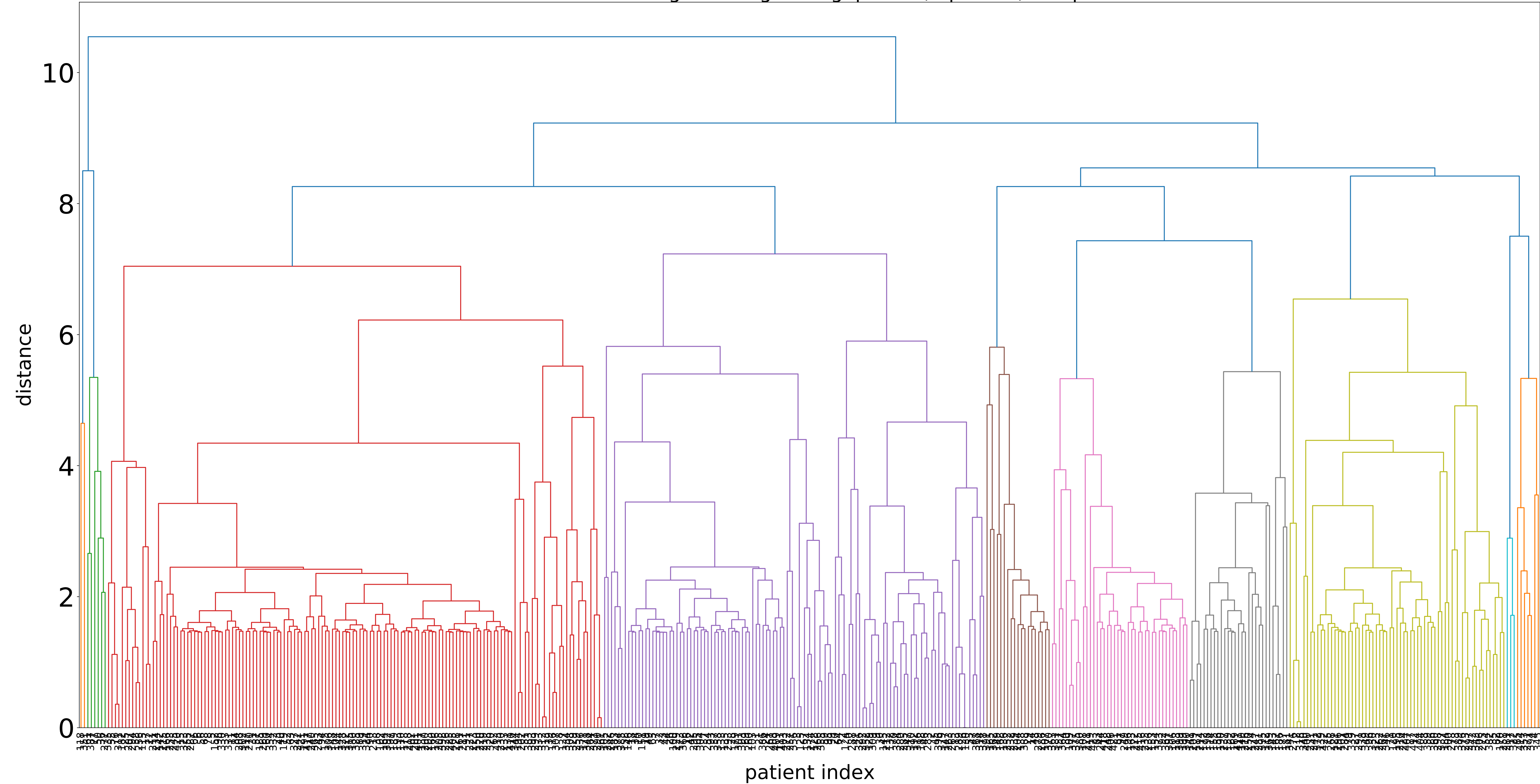
Average values of five clustering indices
gap: 0.90, Tp: 1.00, complete link

k	AR	FM	J	AW	VD	H	F	VI	K	Phi	RT	SS	CVNN	S	Dunn
2.0	1.0	0.91851	0.85224	0.18864	0.05154	0.3406	0.91151	0.11255	0.92578	0.00072	0.77245	0.77119	1.92857	0.39602	0.36111
3.0	0.99998	0.72762	0.56814	0.21665	0.18572	0.31392	0.71758	0.19915	0.73799	5e-05	0.4967	0.40584	1.92857	0.26468	0.18854
4.0	0.99989	0.59473	0.42297	0.23028	0.25619	0.28988	0.58706	-0.09359	0.60259	5e-05	0.47848	0.27426	1.92857	0.25109	0.19594
5.0	1.00001	0.62201	0.45369	0.3823	0.23424	0.43691	0.61721	-0.91814	0.62689	8e-05	0.60028	0.29983	1.92857	0.21116	0.20449
6.0	1.0	0.72429	0.57626	0.68807	0.18553	0.63424	0.72115	-2.19028	0.72749	0.00014	0.76088	0.41789	1.92857	0.23626	0.21158
7.0	1.0	0.75995	0.62275	0.73018	0.15886	0.68894	0.75782	-3.36423	0.76211	0.00016	0.8035	0.46702	1.92857	0.27488	0.21552
8.0	1.0	0.76406	0.6273	0.71657	0.15304	0.69822	0.76271	-4.04294	0.76542	0.00016	0.81488	0.46983	1.92857	0.28693	0.22415
9.0	1.0	0.77241	0.63771	0.71281	0.15017	0.71225	0.77121	-5.25147	0.77363	0.00017	0.82759	0.48034	1.92857	0.26318	0.2325
10.0	1.0	0.76669	0.62612	0.74598	0.1501	0.71304	0.76518	-6.46951	0.7682	0.00019	0.83892	0.46403	1.92857	0.23207	0.23341
11.0	1.0	0.80155	0.67375	0.798	0.11439	0.75976	0.79995	-8.13073	0.80316	0.00021	0.87	0.51908	1.92857	0.26311	0.26292
12.0	1.0	0.79517	0.66406	0.78021	0.11905	0.75546	0.79388	-9.16638	0.79646	0.00022	0.87462	0.50579	1.92857	0.26175	0.26392
13.0	1.0	0.80082	0.67129	0.76373	0.11566	0.76416	0.79988	-10.81214	0.80176	0.00023	0.88305	0.51242	1.92857	0.23571	0.23494
14.0	1.0	0.85748	0.75089	0.89732	0.10392	0.83513	0.85513	-12.71944	0.85985	0.00028	0.92336	0.60838	1.92857	0.22027	0.2444
15.0	1.0	0.87125	0.7732	0.89791	0.09508	0.85163	0.8697	-14.02078	0.87282	0.00029	0.9328	0.63754	1.92857	0.23313	0.247
16.0	1.0	0.88458	0.79446	0.90809	0.09121	0.86763	0.8834	-14.73372	0.88576	0.00031	0.94162	0.66587	1.92857	0.2328	0.21925
17.0	1.0	0.88902	0.8021	0.89955	0.09183	0.87299	0.88823	-16.67462	0.88982	0.00031	0.94494	0.67625	2.0	0.21199	0.22003
18.0	1.0	0.88927	0.80271	0.88549	0.09313	0.87355	0.88873	-18.13868	0.88981	0.00032	0.94612	0.6767	2.0	0.22367	0.22881
19.0	1.0	0.88965	0.80324	0.87816	0.09557	0.87442	0.88919	-20.11794	0.89011	0.00032	0.94764	0.67694	2.0	0.22315	0.22905
20.0	1.0	0.89254	0.8079	0.88133	0.09387	0.87816	0.89214	-21.93844	0.89295	0.00033	0.95033	0.68325	2.0	0.21237	0.22927

Standard deviation of Adjusted Rand versus number of clusters
gap: 0.90, Tp: 1.00, complete link



Hierarchical Clustering Dendrogram - gap: 1.00, Tp: 1.00, complete link



Cophenetic Correlation Coefficient: 0.7120187419925529

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

k	AR	FM	J	AW	VD	H	F	VI	K	Phi	RT	SS	CVNN	S	Dunn
2.0	1.0	0.9412	0.89302	0.44851	0.03909	0.44995	0.93779	0.09474	0.94474	0.0005	0.82993	0.82728	1.04651	0.30181	0.20623
3.0	0.99992	0.66027	0.50628	0.27088	0.2525	0.25667	0.65551	0.14016	0.66516	4e-05	0.47749	0.3654	1.04651	0.17324	0.21604
4.0	0.99999	0.62136	0.46657	0.32626	0.25235	0.34559	0.61799	-0.32292	0.62477	6e-05	0.52934	0.32783	1.04651	0.21011	0.21716
5.0	1.00001	0.63703	0.47052	0.33692	0.23637	0.42467	0.62635	-1.14244	0.64803	7e-05	0.5704	0.32451	1.88372	0.23472	0.21924
6.0	1.00001	0.62338	0.4412	0.30476	0.24067	0.43602	0.60488	-1.63919	0.64261	8e-05	0.57175	0.29001	1.88372	0.23381	0.22349
7.0	1.0	0.81476	0.70056	0.73127	0.12371	0.75255	0.81282	-3.80064	0.81671	0.00016	0.83303	0.5619	1.88372	0.25437	0.22349
8.0	1.0	0.82483	0.71483	0.74633	0.11897	0.77111	0.82303	-4.80598	0.82664	0.00017	0.85087	0.57919	1.88372	0.26121	0.24606
9.0	1.0	0.81488	0.69784	0.70929	0.12565	0.76109	0.81206	-6.02909	0.81772	0.00018	0.84689	0.55638	1.88372	0.29338	0.24837
10.0	1.0	0.82723	0.71603	0.72699	0.10001	0.78088	0.82432	-7.53107	0.83015	0.00019	0.86417	0.57968	1.88372	0.31791	0.25526
11.0	1.0	0.81097	0.69133	0.75357	0.11153	0.76698	0.80951	-8.33862	0.81245	0.0002	0.86771	0.54395	1.88372	0.29865	0.25054
12.0	1.0	0.82734	0.71165	0.79319	0.10595	0.79194	0.82634	-9.83926	0.82836	0.00022	0.88914	0.56413	1.88372	0.29351	0.2697
13.0	1.0	0.82918	0.71214	0.7704	0.10353	0.79626	0.82777	-10.63731	0.83059	0.00023	0.89471	0.56276	1.88372	0.30529	0.27029
14.0	1.0	0.87364	0.77855	0.88001	0.09429	0.85221	0.87242	-12.40577	0.87486	0.00027	0.92845	0.6467	1.88372	0.28442	0.28501
15.0	1.0	0.88554	0.79742	0.8834	0.09034	0.86691	0.88465	-13.11479	0.88644	0.00028	0.93734	0.67161	1.88372	0.28207	0.21904
16.0	1.0	0.89099	0.80593	0.87518	0.09055	0.87378	0.89023	-14.87911	0.89176	0.00029	0.94182	0.68262	1.88372	0.28646	0.21949
17.0	1.0	0.8927	0.80815	0.86001	0.09242	0.87625	0.89199	-16.82065	0.89341	0.0003	0.94409	0.68466	2.0	0.26438	0.23099
18.0	1.0	0.88984	0.80275	0.84461	0.09456	0.87346	0.88899	-18.16923	0.89069	0.0003	0.94393	0.676	2.0	0.26474	0.23458
19.0	1.0	0.88685	0.79734	0.83334	0.09701	0.87045	0.88578	-20.01206	0.88792	0.00031	0.94344	0.66783	2.0	0.26687	0.23501
20.0	1.0	0.90091	0.82104	0.86511	0.08914	0.88717	0.90035	-21.91288	0.90148	0.00033	0.95252	0.70141	2.0	0.25953	0.23611

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

