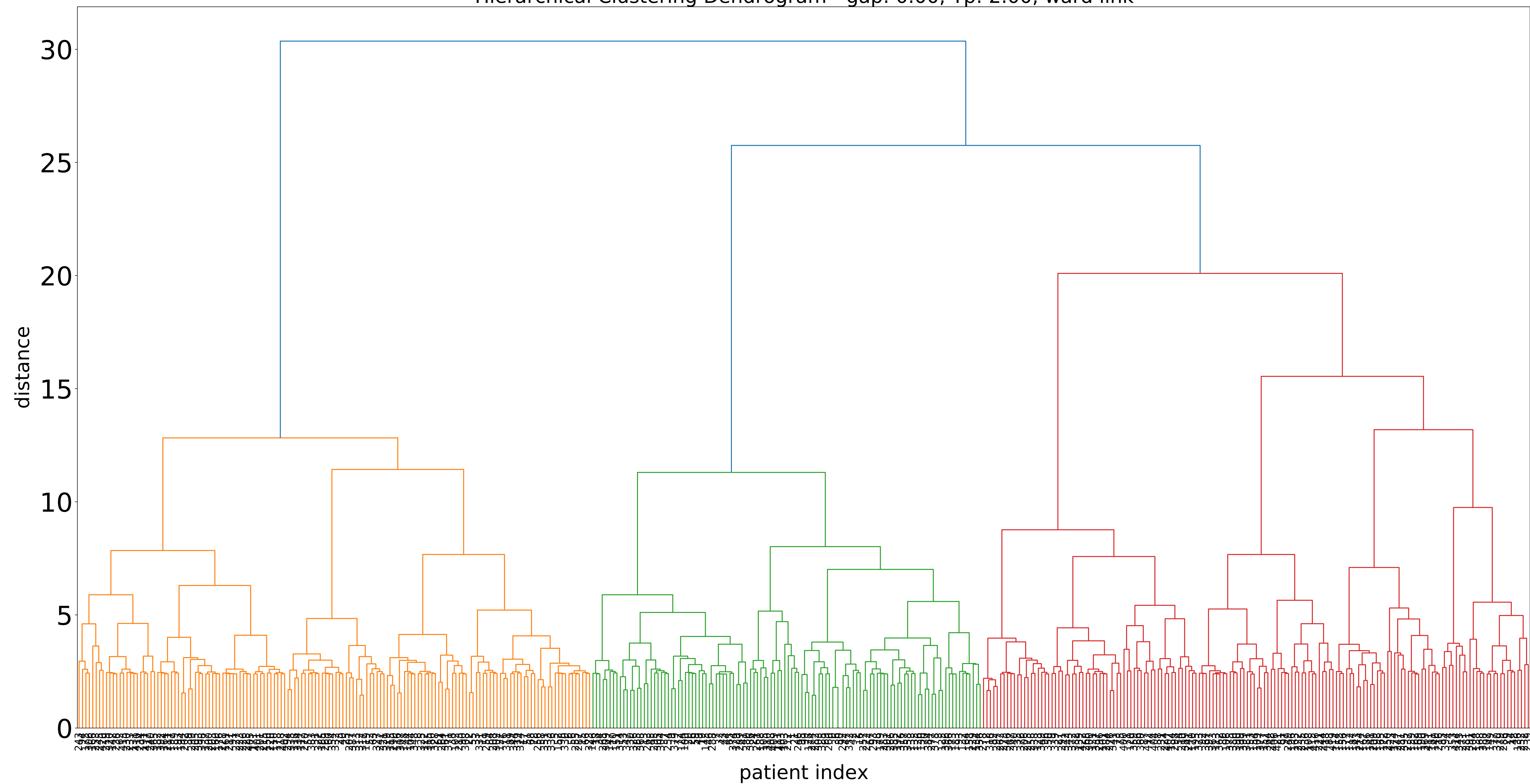


Hierarchical Clustering Dendrogram - gap: 0.00, Tp: 2.00, ward link

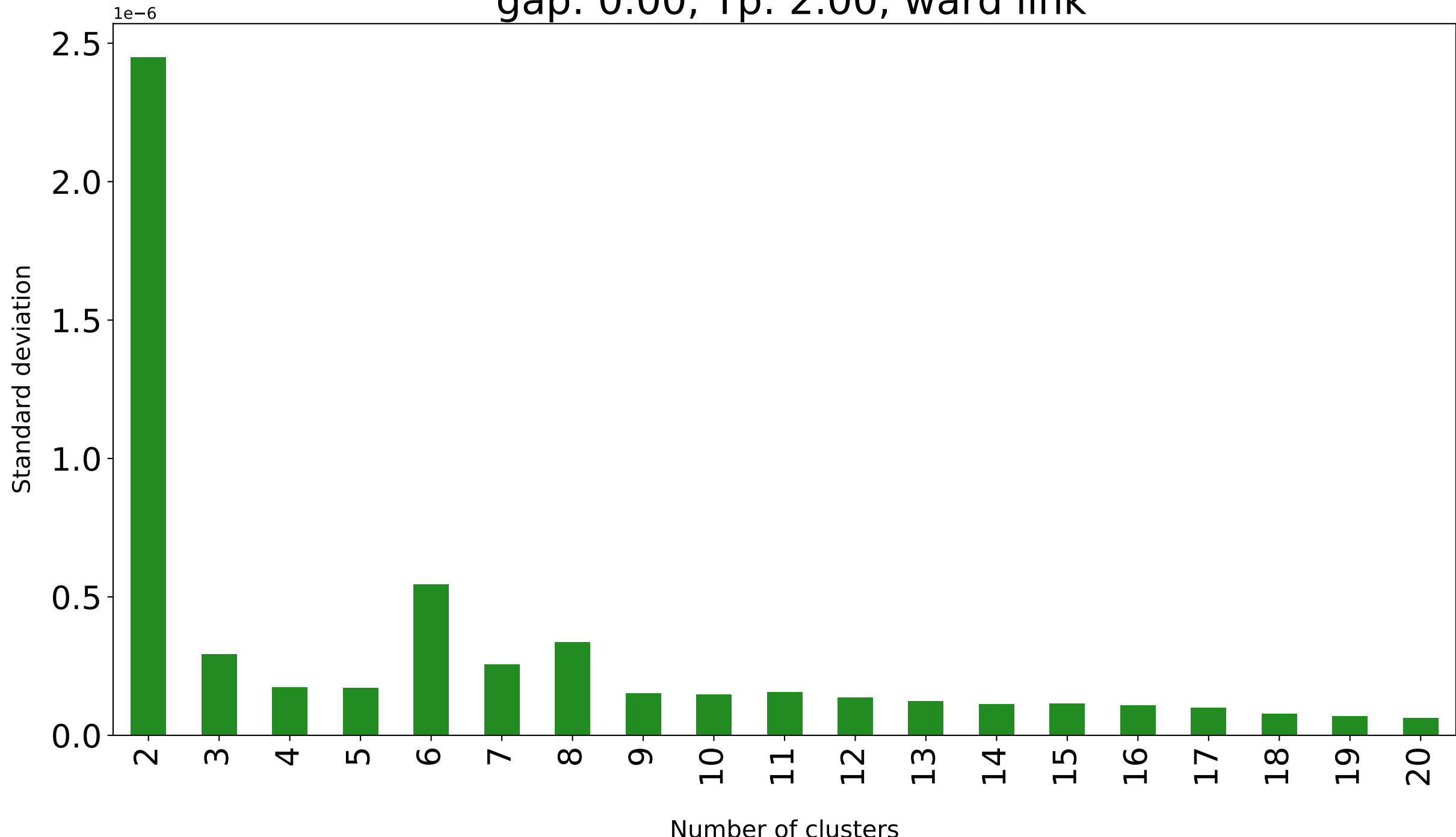


Cophenetic Correlation Coefficient: 0.7542879279105159

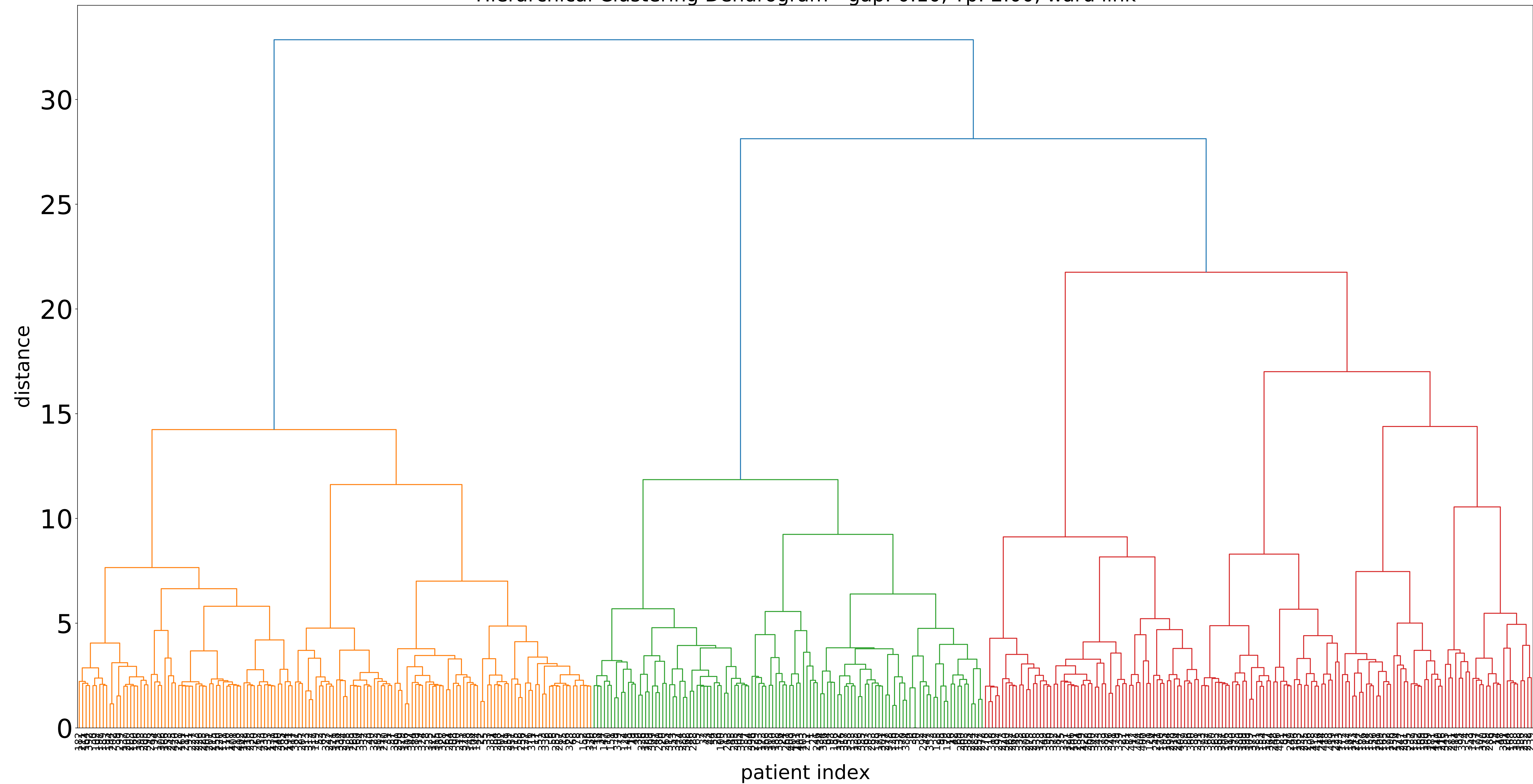
Average values of five clustering indices gap: 0.00, Tp: 2.00, ward link

k	AR	FM	J	AW	VD	H	F	VI	K	Phi	RT	SS	CVNN	S	Dunn
2.0	1.0	0.9924	0.98608	0.97983	0.00447	0.98324	0.99239	-0.22035	0.9924	0.00016	0.98498	0.97508	0.0292	0.15347	0.45118
3.0	1.0	0.99179	0.98409	0.98717	0.00394	0.9876	0.99179	-0.90429	0.9918	0.00017	0.98913	0.96999	0.1	0.18013	0.44813
4.0	1.0	0.98961	0.97982	0.98749	0.00572	0.98575	0.9896	-1.76959	0.98962	0.0002	0.98891	0.96184	0.16495	0.19389	0.44813
5.0	1.0	0.9845	0.96999	0.98398	0.01456	0.97944	0.98448	-2.68966	0.98453	0.00021	0.98494	0.94365	0.42105	0.20178	0.44813
6.0	1.0	0.94719	0.90482	0.90521	0.03579	0.93338	0.94523	-3.58808	0.94917	0.00021	0.95549	0.84777	0.67692	0.20654	0.44813
7.0	1.0	0.96238	0.93091	0.95986	0.02548	0.95434	0.96229	-4.88546	0.96246	0.00026	0.97426	0.88033	0.67692	0.16676	0.44813
8.0	1.0	0.93405	0.8852	0.91156	0.03828	0.92242	0.93366	-6.01975	0.93443	0.00028	0.96179	0.81578	0.67692	0.15528	0.44813
9.0	1.0	0.92905	0.87035	0.92649	0.04078	0.91917	0.92881	-7.08455	0.92929	0.00034	0.9659	0.77868	0.73043	0.14149	0.4215
10.0	1.0	0.92224	0.85887	0.90244	0.04425	0.91187	0.92201	-7.95012	0.92248	0.00034	0.96407	0.76138	1.4	0.15621	0.4215
11.0	1.0	0.8977	0.81875	0.87284	0.05637	0.88532	0.89744	-8.94485	0.89795	0.00036	0.95684	0.70387	1.4	0.14957	0.4215
12.0	1.0	0.89093	0.80735	0.86308	0.06281	0.87897	0.89067	-9.67607	0.89119	0.00039	0.9578	0.68634	1.81333	0.14423	0.4215
13.0	1.0	0.84959	0.74237	0.8241	0.08891	0.83472	0.84937	-11.34191	0.84981	0.0004	0.94735	0.59783	1.81333	0.13629	0.4215
14.0	1.0	0.82295	0.70304	0.80771	0.10565	0.80723	0.8228	-12.31225	0.82311	0.00042	0.94392	0.54871	1.81333	0.12484	0.4215
15.0	1.0	0.81941	0.69876	0.79599	0.10608	0.80451	0.8192	-14.29397	0.81962	0.00045	0.94648	0.54505	1.81333	0.12065	0.4215
16.0	1.0	0.82193	0.70253	0.7982	0.10218	0.80835	0.82168	-15.99776	0.82218	0.00048	0.95077	0.54978	1.81333	0.12089	0.4215
17.0	1.0	0.8194	0.69843	0.78417	0.10277	0.80643	0.81888	-18.22358	0.81993	0.00051	0.95258	0.54473	1.9	0.11794	0.4215
18.0	1.0	0.82419	0.70452	0.8084	0.09923	0.81263	0.82406	-18.96638	0.82433	0.00055	0.95752	0.55005	2.0	0.11271	0.35977
19.0	1.0	0.82284	0.70226	0.80921	0.10212	0.81197	0.82273	-20.92813	0.82294	0.00059	0.95989	0.54664	2.0	0.10856	0.35977
20.0	1.0	0.81315	0.68758	0.78813	0.10712	0.80213	0.81288	-23.00835	0.81341	0.0006	0.95917	0.52829	2.0	0.10794	0.35977

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



Hierarchical Clustering Dendrogram - gap: 0.10, Tp: 2.00, ward link

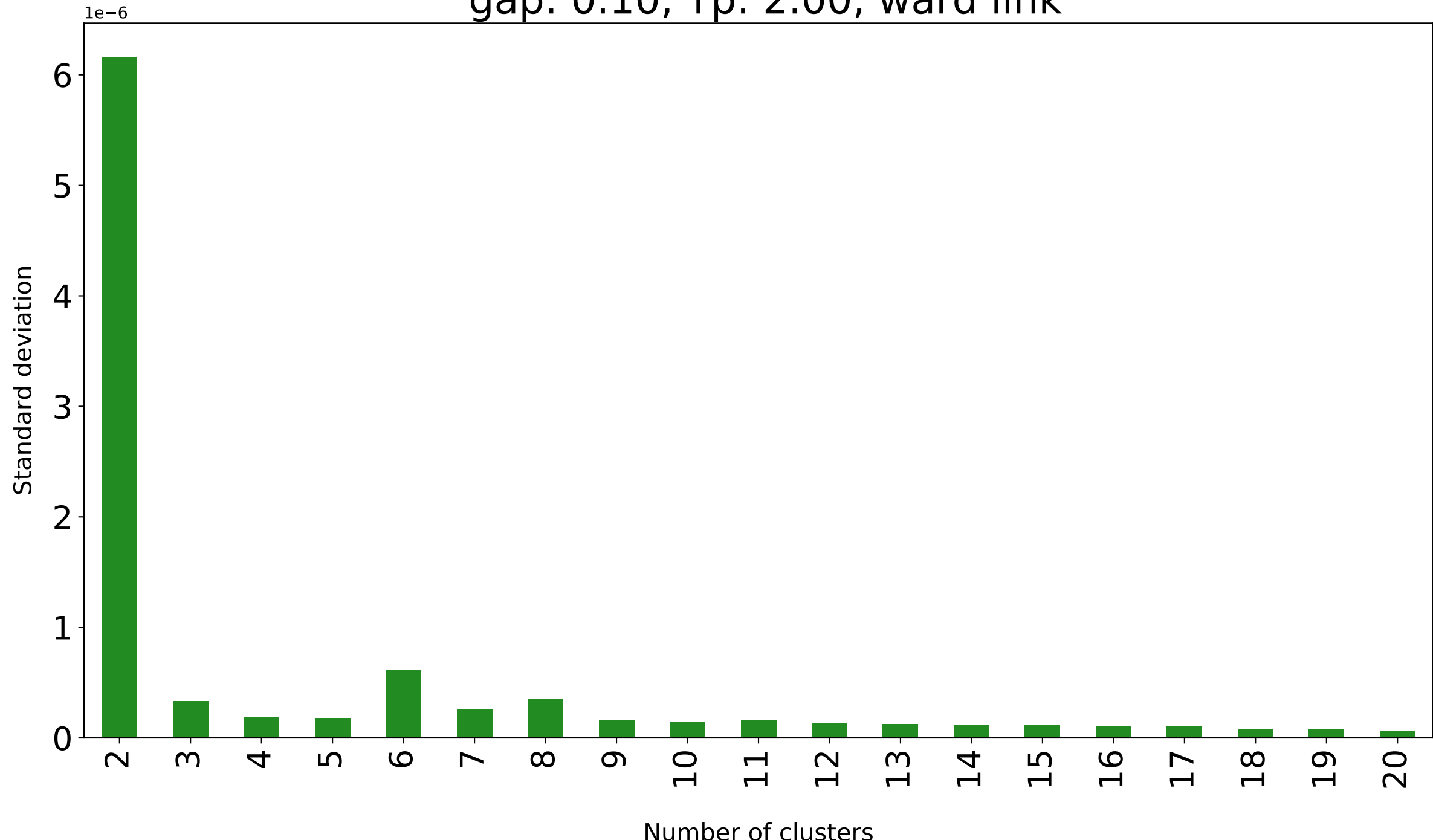


Cophenetic Correlation Coefficient: 0.7482430148601317

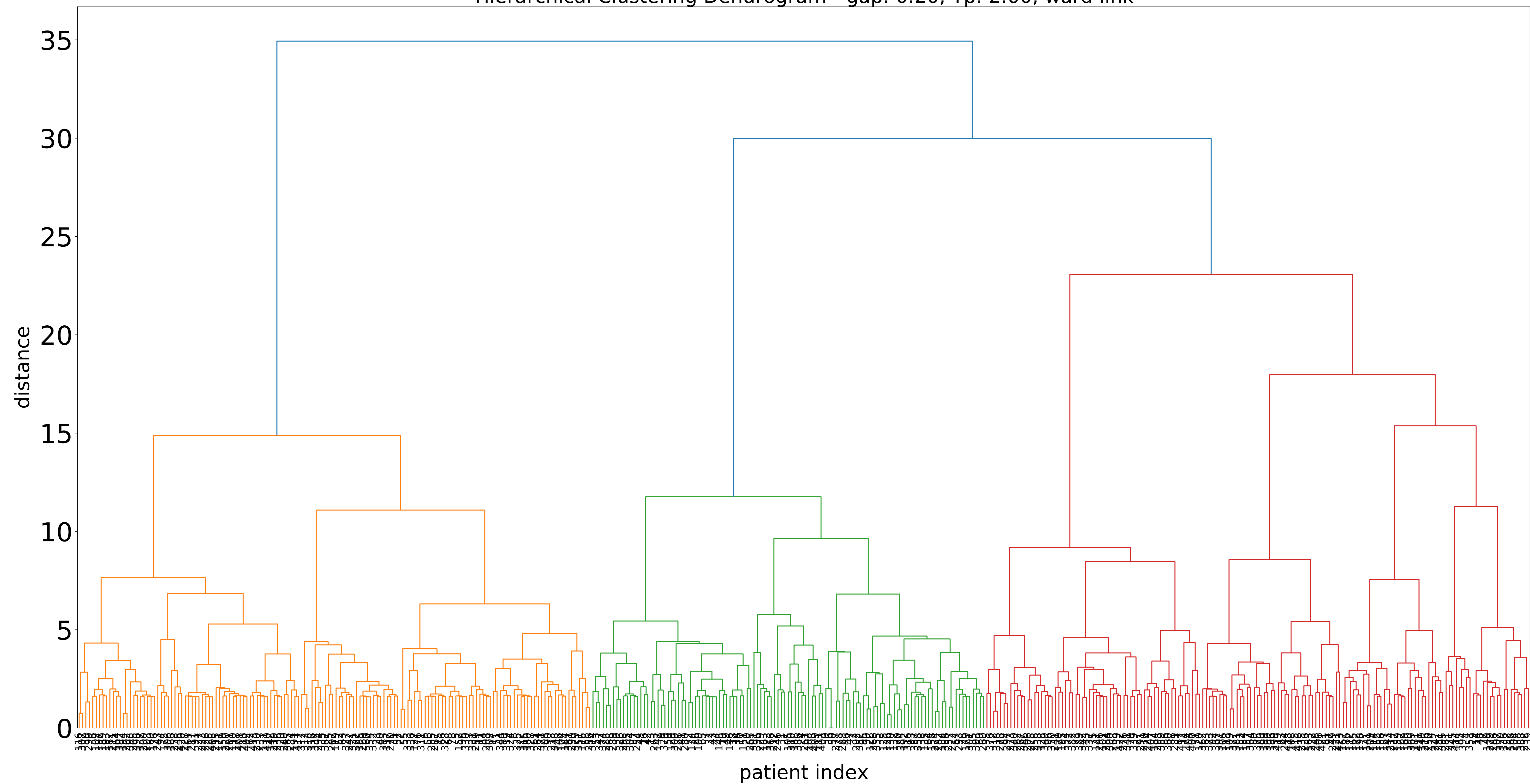
Average values of five clustering indices
gap: 0.10, Tp: 2.00, ward link

k	AR	FM	J	AW	VD	H	F	VI	K	Phi	RT	SS	CVNN	S	Dunn
2.0	1.0	0.97798	0.96588	0.94671	0.01542	0.94958	0.97796	-0.20001	0.978	0.00015	0.96284	0.95018	0.05839	0.18292	0.3969
3.0	1.0	0.99032	0.98129	0.98488	0.00468	0.98538	0.99032	-0.90063	0.99032	0.00017	0.98722	0.96491	0.1	0.21456	0.36136
4.0	1.0	0.98917	0.97899	0.98743	0.00571	0.98513	0.98916	-1.76803	0.98918	0.0002	0.98841	0.96039	0.16495	0.23161	0.36136
5.0	1.0	0.98574	0.97244	0.98669	0.01239	0.98106	0.98571	-2.70161	0.98577	0.00021	0.98609	0.94848	0.28571	0.24322	0.36136
6.0	1.0	0.92552	0.86729	0.86025	0.04809	0.90636	0.92264	-3.55262	0.92842	0.0002	0.93813	0.79247	1.23077	0.25197	0.36136
7.0	1.0	0.97707	0.95589	0.97952	0.01393	0.97219	0.97699	-4.93724	0.97716	0.00026	0.98403	0.91811	1.23077	0.20745	0.36136
8.0	1.0	0.86514	0.77068	0.8731	0.07054	0.84208	0.86441	-5.50211	0.86588	0.00027	0.92439	0.64688	1.23077	0.17683	0.34893
9.0	1.0	0.93256	0.87569	0.9378	0.03779	0.92306	0.932	-7.07717	0.93312	0.00034	0.96688	0.78639	1.23077	0.17522	0.34893
10.0	1.0	0.9387	0.88669	0.92381	0.03287	0.93051	0.93855	-8.04168	0.93886	0.00035	0.97152	0.80283	2.0	0.19311	0.38003
11.0	1.0	0.89576	0.81493	0.87939	0.05692	0.88312	0.89563	-8.56288	0.89588	0.00036	0.95604	0.69668	2.0	0.18585	0.38003
12.0	1.0	0.9121	0.84153	0.90358	0.05073	0.90242	0.91202	-9.87961	0.91219	0.0004	0.9658	0.73386	2.0	0.17925	0.38003
13.0	1.0	0.88939	0.80405	0.87093	0.06662	0.878	0.88919	-11.66855	0.88959	0.00041	0.95953	0.67982	2.0	0.16867	0.38003
14.0	1.0	0.88156	0.79151	0.85599	0.06876	0.87023	0.8812	-13.30423	0.88192	0.00043	0.95937	0.66295	2.0	0.1672	0.38003
15.0	1.0	0.86503	0.76544	0.85623	0.07931	0.85335	0.86484	-14.8499	0.86521	0.00046	0.95792	0.62675	2.0	0.15722	0.38003
16.0	1.0	0.85089	0.74436	0.82378	0.0865	0.83876	0.8505	-16.9679	0.85127	0.00047	0.95603	0.60084	2.0	0.15574	0.38003
17.0	1.0	0.83166	0.7164	0.82653	0.09279	0.81931	0.83146	-18.06609	0.83187	0.00051	0.95501	0.56628	2.0	0.14594	0.38003
18.0	1.0	0.82944	0.71221	0.80914	0.09519	0.81777	0.82919	-20.21177	0.82968	0.00054	0.95723	0.5598	2.0	0.14418	0.38003
19.0	1.0	0.82861	0.71064	0.82535	0.09816	0.81789	0.8284	-20.98119	0.82882	0.00058	0.9604	0.55688	2.0	0.13619	0.32687
20.0	1.0	0.8163	0.69204	0.81727	0.10946	0.80543	0.81602	-22.93348	0.81658	0.0006	0.95967	0.53341	2.0	0.13093	0.32687

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



Hierarchical Clustering Dendrogram - gap: 0.20, Tp: 2.00, ward link

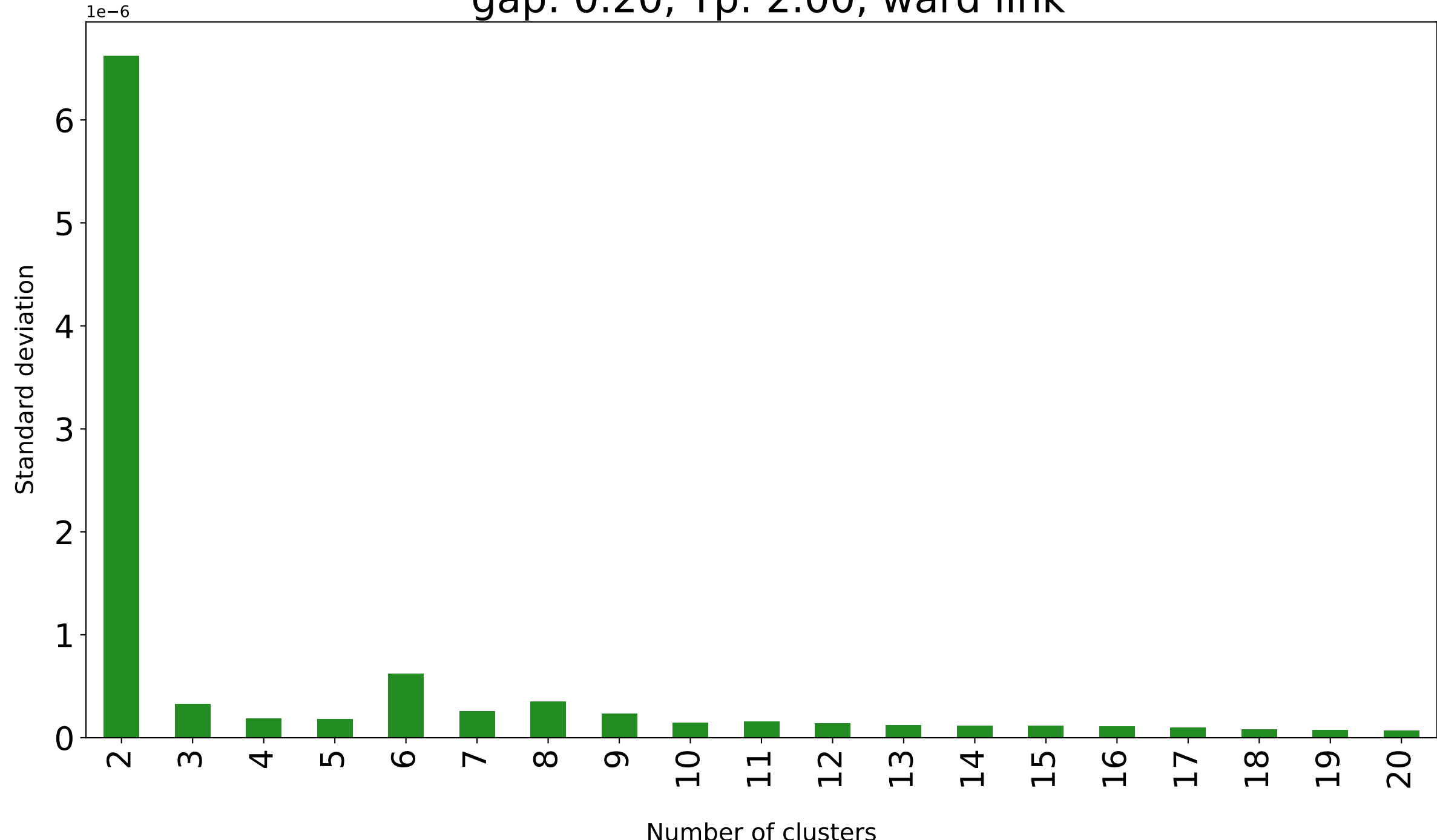


Cophenetic Correlation Coefficient: 0.7268939590765223

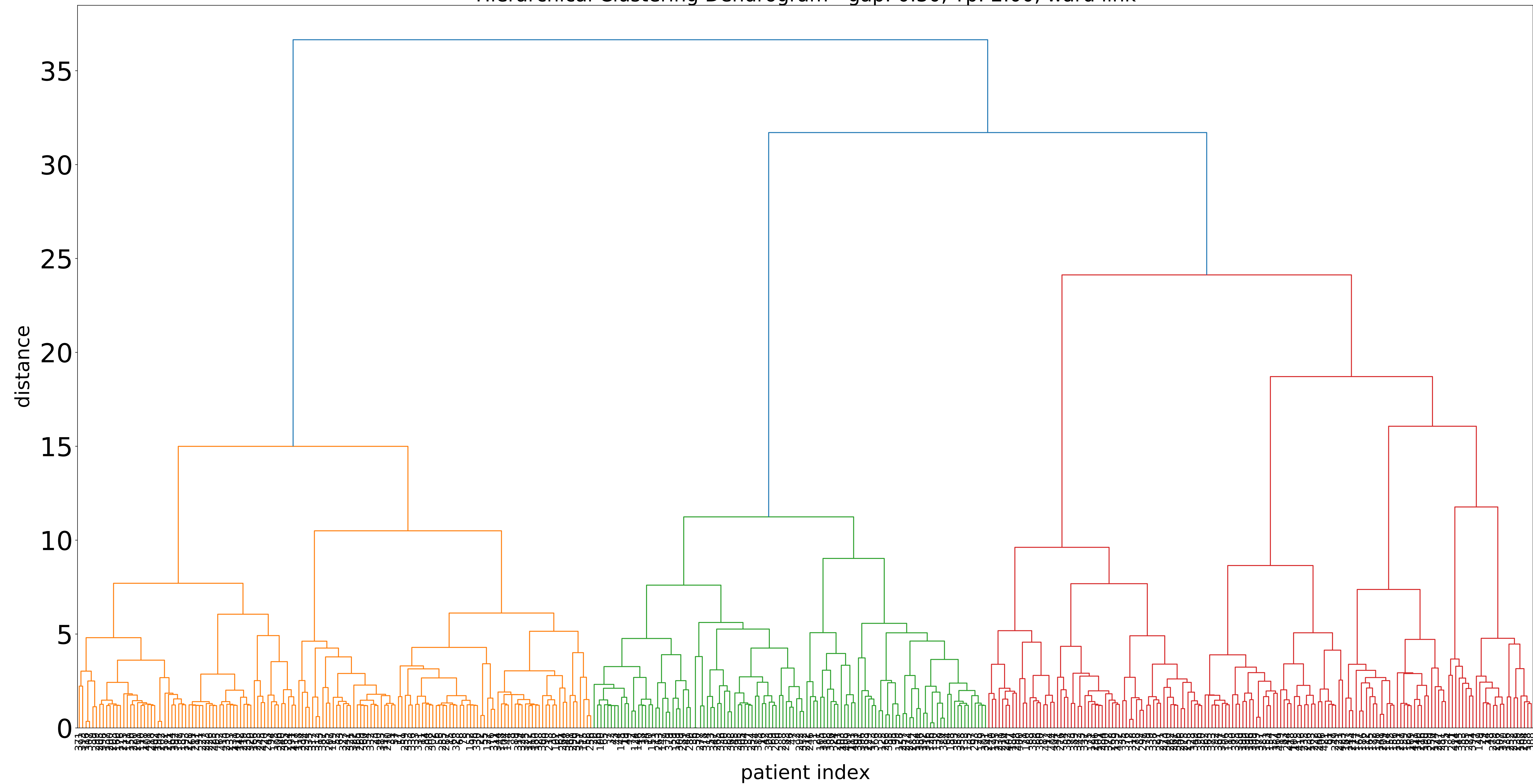
Average values of five clustering indices
gap: 0.20, Tp: 2.00, ward link

k	AR	FM	J	AW	VD	H	F	VI	K	Phi	RT	SS	CVNN	S	Dunn
2.0	1.0	0.97593	0.96361	0.94232	0.01716	0.94451	0.97591	-0.19936	0.97595	0.00015	0.96027	0.94871	0.03504	0.21356	0.35428
3.0	1.0	0.99082	0.98211	0.9866	0.00454	0.98614	0.99082	-0.89216	0.99082	0.00017	0.98782	0.96598	0.10435	0.24845	0.2902
4.0	1.0	0.99079	0.98204	0.98896	0.00479	0.98735	0.99078	-1.76601	0.99079	0.0002	0.99012	0.9658	0.125	0.2695	0.2907
5.0	1.0	0.98439	0.96983	0.9829	0.01512	0.97927	0.98437	-2.68562	0.98441	0.00021	0.98483	0.94355	0.21818	0.28388	0.2907
6.0	1.0	0.92566	0.86753	0.85677	0.04781	0.90656	0.92268	-3.54482	0.92867	0.0002	0.93815	0.79327	0.48	0.29652	0.3011
7.0	1.0	0.96763	0.93803	0.96659	0.01807	0.9607	0.96759	-4.87016	0.96768	0.00026	0.97747	0.88576	0.48	0.24608	0.3011
8.0	1.0	0.87136	0.77685	0.89576	0.06933	0.8493	0.86972	-5.42165	0.87301	0.00027	0.92626	0.64992	0.48	0.20983	0.28954
9.0	1.0	0.8791	0.78723	0.8389	0.0643	0.86034	0.87796	-6.46924	0.88023	0.00029	0.93638	0.65899	1.5	0.23746	0.30274
10.0	1.0	0.92051	0.85524	0.90611	0.0411	0.90976	0.9204	-7.8488	0.92062	0.00034	0.96291	0.75347	1.5	0.22725	0.30274
11.0	1.0	0.8859	0.79945	0.86907	0.06062	0.87201	0.8858	-8.46245	0.886	0.00035	0.95185	0.67521	1.5	0.21743	0.32829
12.0	1.0	0.88376	0.79511	0.87252	0.06619	0.8709	0.8837	-9.67314	0.88382	0.00038	0.95487	0.66678	1.5	0.20894	0.32829
13.0	1.0	0.87089	0.77436	0.85189	0.0743	0.85752	0.87075	-11.48169	0.87102	0.0004	0.95274	0.63787	1.5	0.19769	0.32829
14.0	1.0	0.86851	0.77087	0.84558	0.07117	0.85578	0.86825	-13.13005	0.86877	0.00042	0.95459	0.63423	1.5	0.19724	0.32829
15.0	1.0	0.84461	0.73323	0.84594	0.08801	0.83108	0.84429	-14.70625	0.84492	0.00044	0.95132	0.58351	1.5	0.18403	0.32829
16.0	1.0	0.83962	0.72666	0.8263	0.08912	0.82641	0.83941	-16.81148	0.83983	0.00046	0.95231	0.57639	1.5	0.1829	0.32829
17.0	1.0	0.82154	0.69974	0.79139	0.09895	0.80776	0.82115	-18.70385	0.82192	0.00048	0.94999	0.54316	1.5	0.18129	0.32829
18.0	1.0	0.81066	0.68441	0.77403	0.10609	0.79716	0.81008	-19.20985	0.81125	0.0005	0.95058	0.52589	1.5	0.17894	0.29794
19.0	1.0	0.80837	0.68087	0.80304	0.10903	0.796	0.80808	-20.41704	0.80867	0.00055	0.95447	0.52054	1.5	0.16819	0.29794
20.0	1.0	0.80181	0.67186	0.78289	0.11486	0.78945	0.80154	-22.33818	0.80209	0.00056	0.95445	0.51038	2.0	0.16782	0.34682

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



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



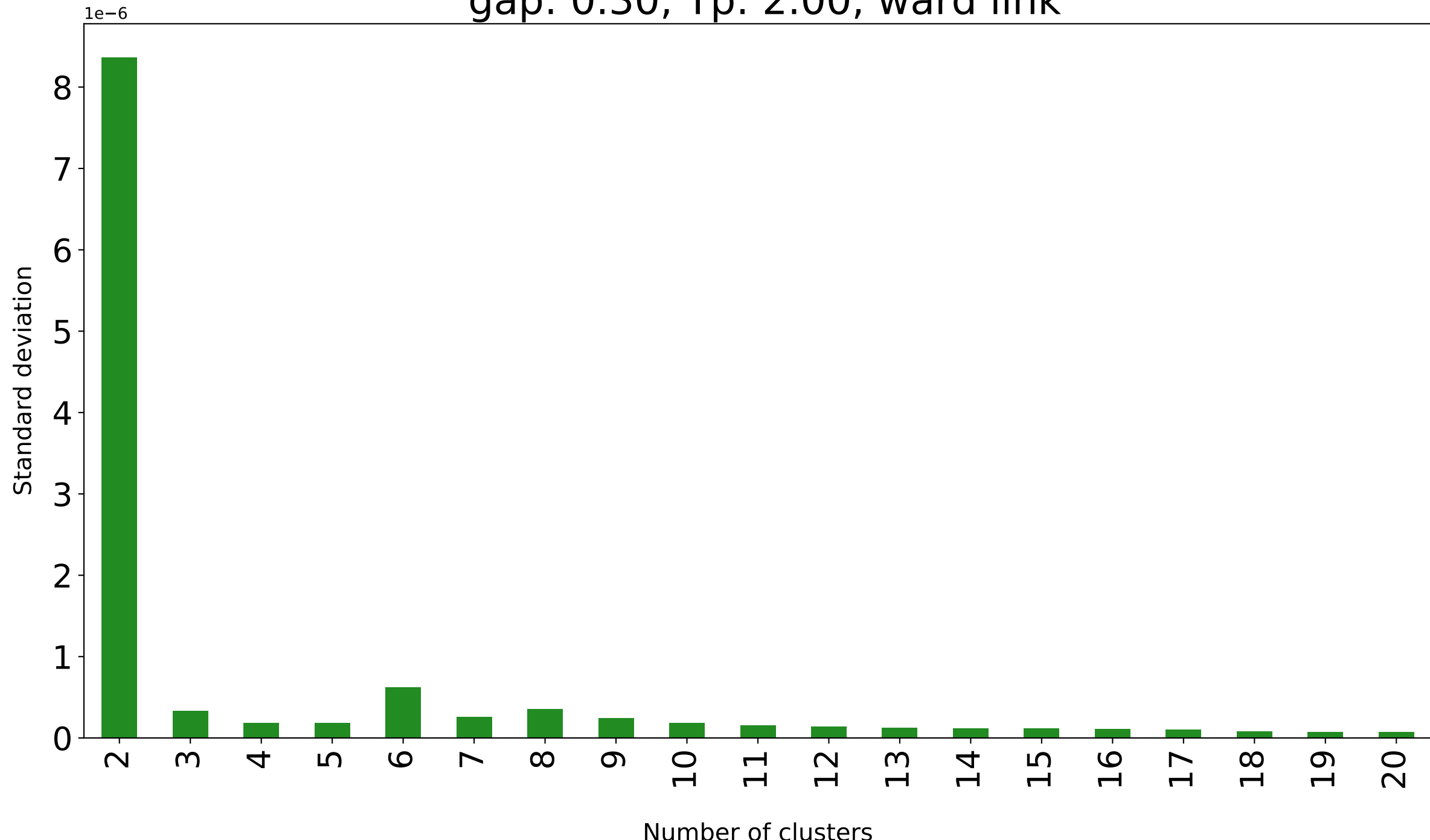
Cophenetic Correlation Coefficient: 0.710517641652284

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

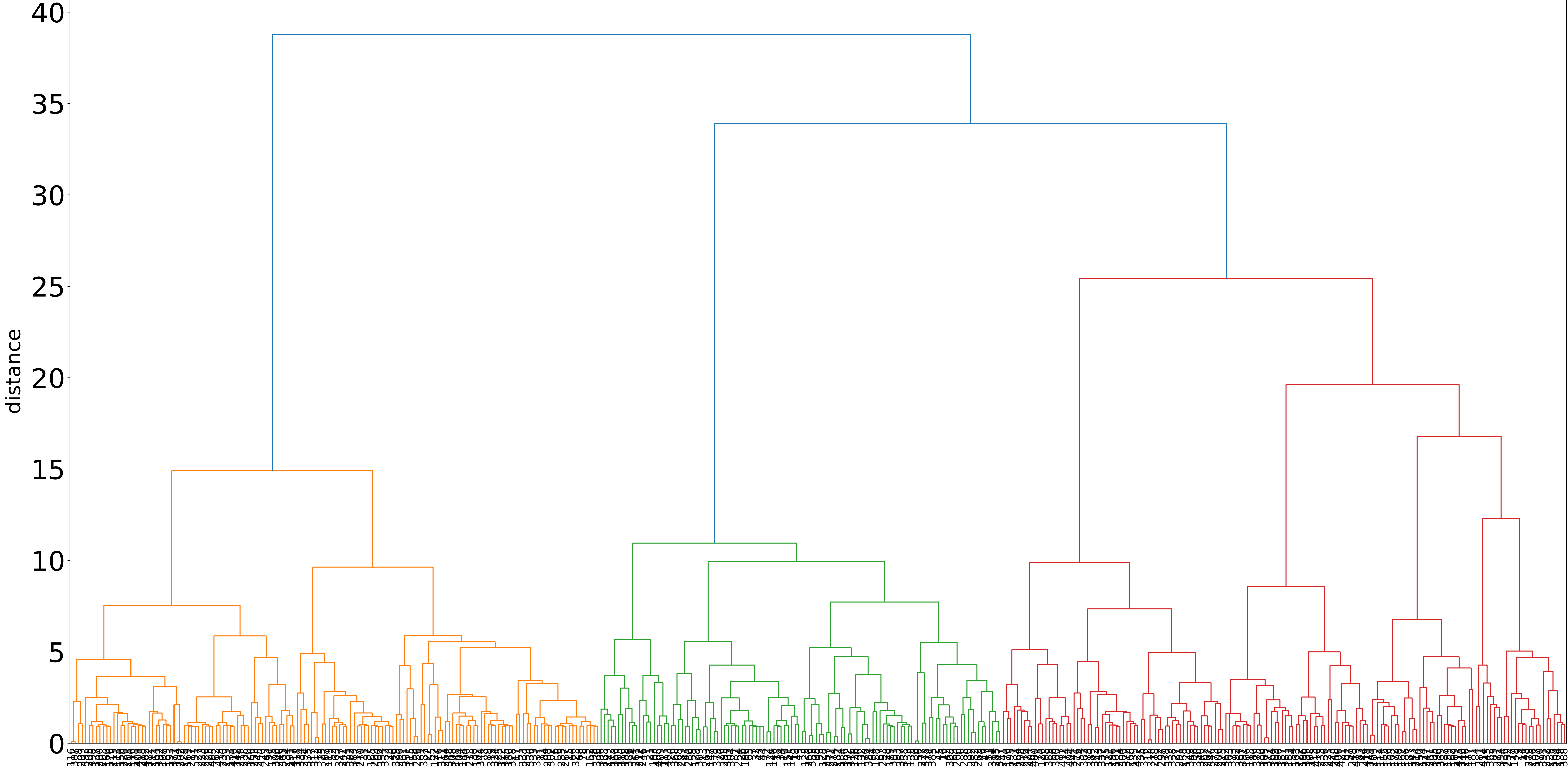
k	AR	FM	J	AW	VD	H	F	VI	K	Phi	RT	SS	CVNN	S	Dunn
2.0	1.0	0.9663	0.95092	0.9209	0.025	0.92196	0.96628	-0.18843	0.96633	0.00015	0.94631	0.93487	0.04672	0.24612	0.31624
3.0	1.0	0.99273	0.98579	0.98937	0.00366	0.98902	0.99273	-0.89774	0.99273	0.00017	0.99033	0.97278	0.13913	0.28607	0.23204
4.0	1.0	0.99253	0.98539	0.99071	0.00392	0.98976	0.99253	-1.77222	0.99254	0.0002	0.99201	0.97198	0.16667	0.31103	0.23843
5.0	1.0	0.98447	0.96997	0.98198	0.01694	0.97937	0.98446	-2.68526	0.98449	0.00021	0.98489	0.94366	0.29091	0.32782	0.23843
6.0	1.0	0.95945	0.92722	0.92341	0.02606	0.94888	0.9579	-3.61727	0.96102	0.00021	0.96588	0.88457	0.64	0.34375	0.2445
7.0	1.0	0.96142	0.92658	0.95887	0.02138	0.95315	0.96138	-4.84759	0.96146	0.00026	0.9732	0.86593	0.64	0.28774	0.23765
8.0	1.0	0.92043	0.85486	0.86979	0.04465	0.90523	0.91876	-5.58897	0.92211	0.00026	0.94868	0.75857	2.0	0.31838	0.25174
9.0	1.0	0.85936	0.75743	0.84276	0.07742	0.83679	0.85874	-6.26234	0.85997	0.00028	0.925	0.6188	2.0	0.27548	0.24437
10.0	1.0	0.85303	0.747	0.84577	0.08032	0.83277	0.85266	-7.46599	0.8534	0.00031	0.93119	0.60309	2.0	0.25937	0.25381
11.0	1.0	0.82223	0.70143	0.80314	0.10127	0.80032	0.82204	-8.75241	0.82242	0.00032	0.92501	0.54587	2.0	0.24487	0.25381
12.0	1.0	0.83369	0.71773	0.80332	0.09843	0.81489	0.83356	-9.59913	0.83382	0.00035	0.93474	0.56476	2.0	0.24036	0.26731
13.0	1.0	0.82025	0.69828	0.78418	0.10488	0.80113	0.81999	-11.30242	0.82051	0.00036	0.93318	0.54157	2.0	0.23223	0.26731
14.0	1.0	0.7707	0.62917	0.75569	0.13342	0.74871	0.77052	-12.7312	0.77088	0.00037	0.92283	0.46229	2.0	0.21813	0.26731
15.0	1.0	0.77534	0.63526	0.76142	0.12518	0.75526	0.77507	-14.1369	0.77561	0.00039	0.9288	0.46886	2.0	0.21425	0.26731
16.0	1.0	0.7611	0.61524	0.77579	0.14026	0.74208	0.76019	-14.77378	0.76201	0.00043	0.93141	0.44688	2.0	0.2045	0.26731
17.0	1.0	0.76738	0.62479	0.7698	0.13023	0.74985	0.76689	-16.95451	0.76786	0.00045	0.93665	0.45809	2.0	0.20315	0.26731
18.0	1.0	0.73425	0.58013	0.76194	0.14658	0.7164	0.73276	-17.92509	0.73574	0.00048	0.93449	0.41073	2.0	0.19144	0.26761
19.0	1.0	0.74108	0.5887	0.76524	0.14195	0.72466	0.73984	-19.94009	0.74233	0.00051	0.93944	0.41897	2.0	0.18658	0.26761
20.0	1.0	0.74433	0.59361	0.75636	0.14361	0.72873	0.74358	-21.29028	0.74509	0.00053	0.94252	0.42417	2.0	0.18971	0.26044

Standard deviation of Adjusted Rand versus number of clusters

gap: 0.30, Tp: 2.00, ward link



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



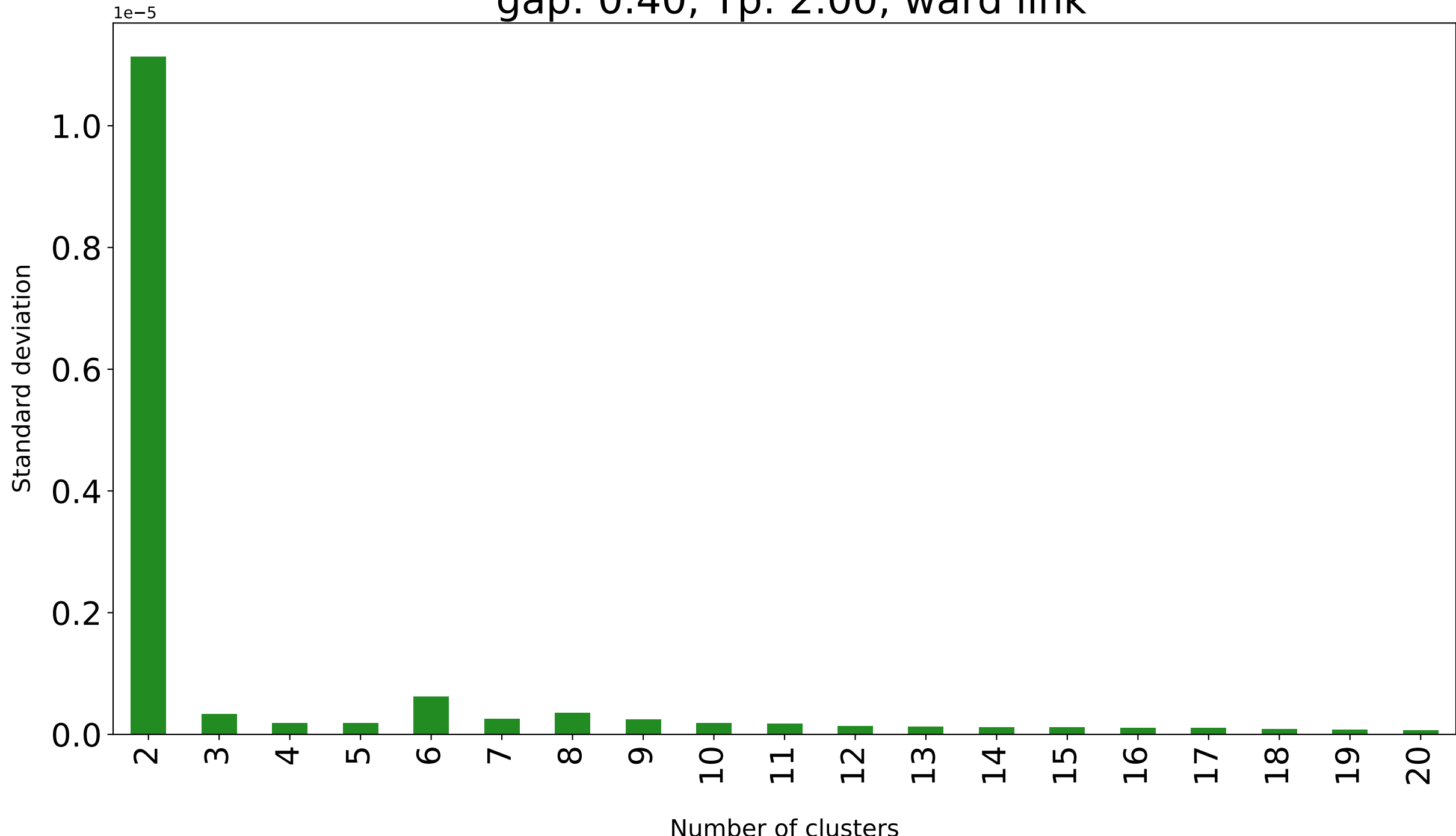
patient index

Cophenetic Correlation Coefficient: 0.7030468635959852

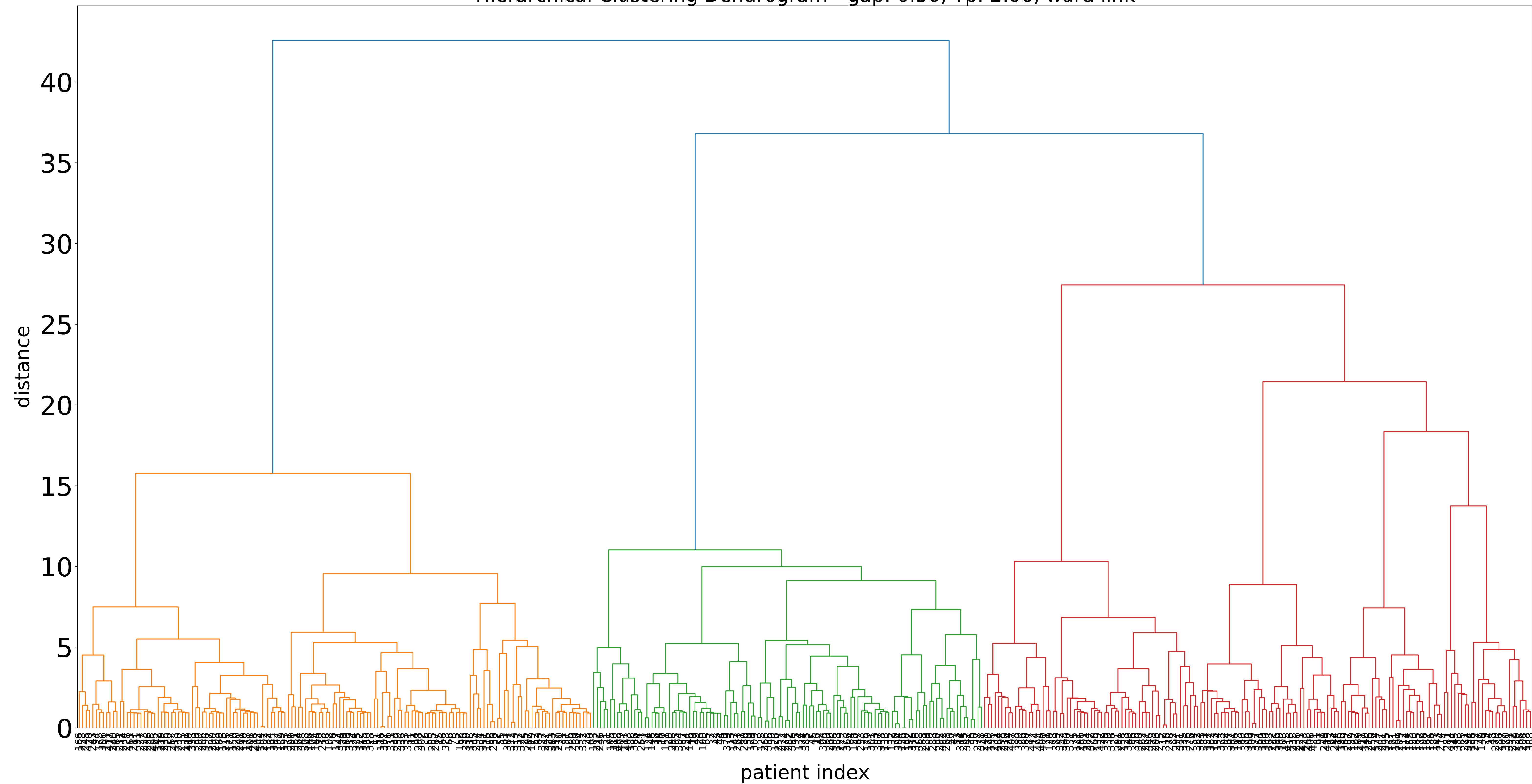
Average values of five clustering indices
gap: 0.40, Tp: 2.00, ward link

k	AR	FM	J	AW	VD	H	F	VI	K	Phi	RT	SS	CVNN	S	Dunn
2.0	1.0	0.93766	0.91074	0.85483	0.04694	0.85506	0.93759	-0.14594	0.93773	0.00014	0.90218	0.88518	0.0	0.27303	0.27232
3.0	1.0	0.99614	0.99237	0.99373	0.0019	0.99417	0.99614	-0.91392	0.99614	0.00017	0.99482	0.98507	0.0	0.31908	0.19837
4.0	1.0	0.99576	0.99162	0.99485	0.00224	0.99418	0.99576	-1.796	0.99576	0.0002	0.99543	0.98361	0.0	0.34684	0.21135
5.0	1.0	0.98808	0.97696	0.98661	0.01408	0.98418	0.98808	-2.7229	0.98809	0.00021	0.98844	0.9568	0.0	0.36501	0.21135
6.0	1.0	0.99557	0.99132	0.99636	0.00355	0.99422	0.99553	-3.71674	0.9956	0.00022	0.99586	0.98341	0.42308	0.38184	0.21135
7.0	1.0	0.96301	0.92924	0.96233	0.02047	0.95515	0.96294	-4.87625	0.96308	0.00026	0.97439	0.86995	0.42308	0.3201	0.17237
8.0	1.0	0.95089	0.90804	0.93587	0.02705	0.94101	0.95045	-5.67755	0.95134	0.00026	0.96735	0.83785	0.61111	0.35041	0.17939
9.0	1.0	0.89008	0.80629	0.8538	0.06108	0.87123	0.88949	-6.30708	0.89068	0.00027	0.9375	0.68714	1.1	0.3175	0.17939
10.0	1.0	0.81688	0.69267	0.79556	0.10176	0.78995	0.81639	-6.78749	0.81736	0.00028	0.91009	0.53458	1.1	0.29255	0.11662
11.0	1.0	0.79352	0.66088	0.75546	0.11113	0.7663	0.79297	-8.17992	0.79408	0.00029	0.90803	0.49964	1.1	0.27695	0.11662
12.0	1.0	0.83229	0.71528	0.82089	0.09377	0.81334	0.83205	-9.57723	0.83252	0.00035	0.93413	0.56133	1.1	0.26772	0.13104
13.0	1.0	0.82643	0.70662	0.80564	0.09521	0.80814	0.82627	-11.35507	0.82659	0.00037	0.93594	0.55049	1.1	0.25652	0.13104
14.0	1.0	0.81458	0.68987	0.8031	0.10608	0.79684	0.81438	-11.91511	0.81478	0.00039	0.93726	0.5311	1.1	0.24392	0.13104
15.0	1.0	0.77564	0.63459	0.79272	0.1315	0.75653	0.77468	-13.46515	0.7766	0.00041	0.93144	0.46784	1.1	0.23006	0.13104
16.0	1.0	0.76928	0.6258	0.78988	0.13276	0.75098	0.76815	-14.82445	0.7704	0.00043	0.93379	0.45827	1.1	0.22531	0.13104
17.0	1.0	0.77304	0.63169	0.78433	0.12758	0.75596	0.7723	-16.98279	0.77378	0.00046	0.93805	0.46512	1.1	0.22058	0.13104
18.0	1.0	0.76285	0.61806	0.77236	0.13154	0.74614	0.76211	-18.48506	0.76359	0.00048	0.93908	0.45031	1.57143	0.213	0.13104
19.0	1.0	0.75877	0.61258	0.76211	0.133	0.7427	0.7582	-20.42295	0.75934	0.0005	0.94126	0.44398	1.57143	0.2074	0.13104
20.0	1.0	0.75186	0.6041	0.73976	0.14217	0.73598	0.75152	-21.35185	0.7522	0.00051	0.94189	0.43535	2.0	0.20796	0.13104

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



Hierarchical Clustering Dendrogram - gap: 0.50, Tp: 2.00, ward link

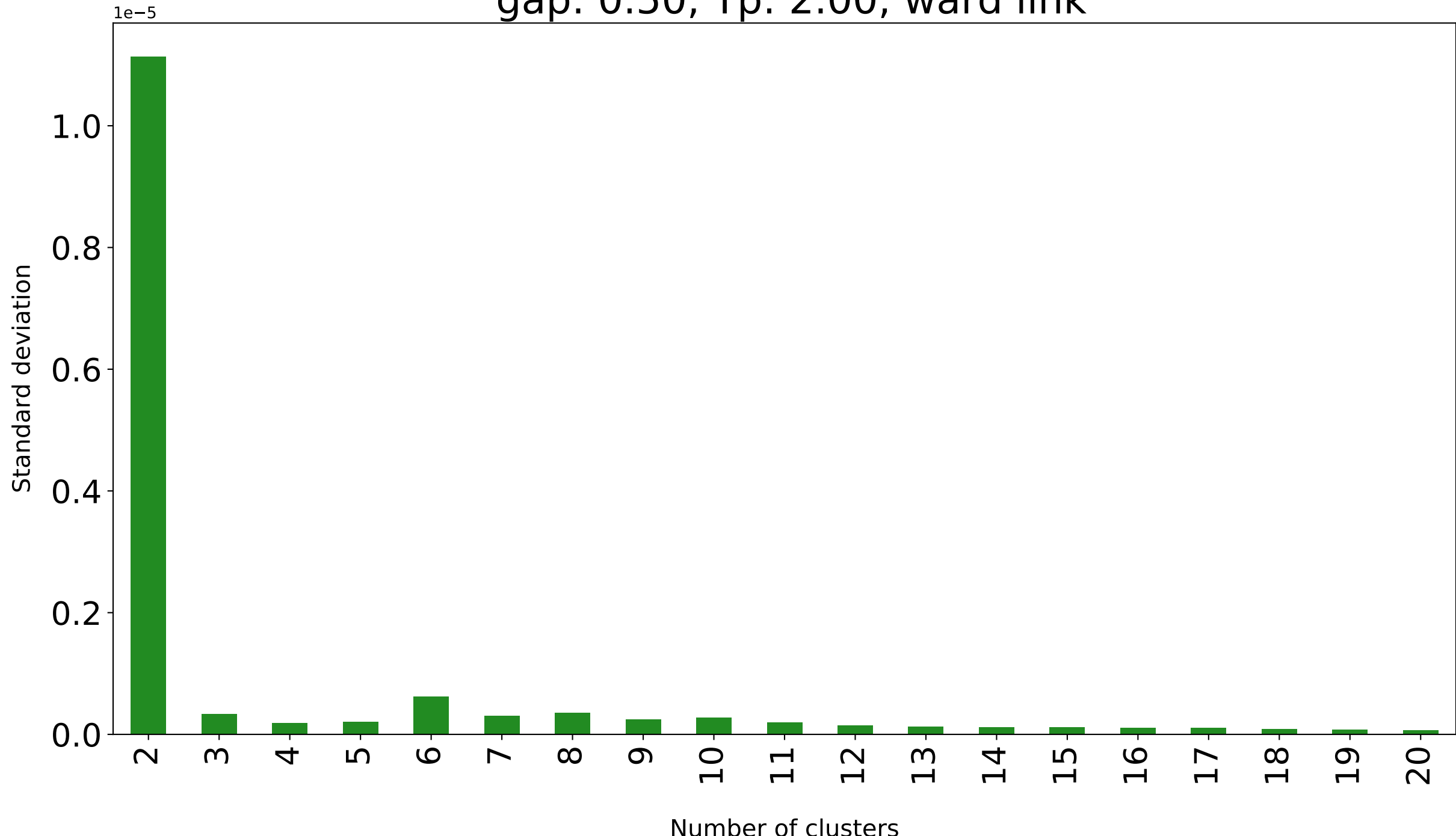


Cophenetic Correlation Coefficient: 0.6971030576889141

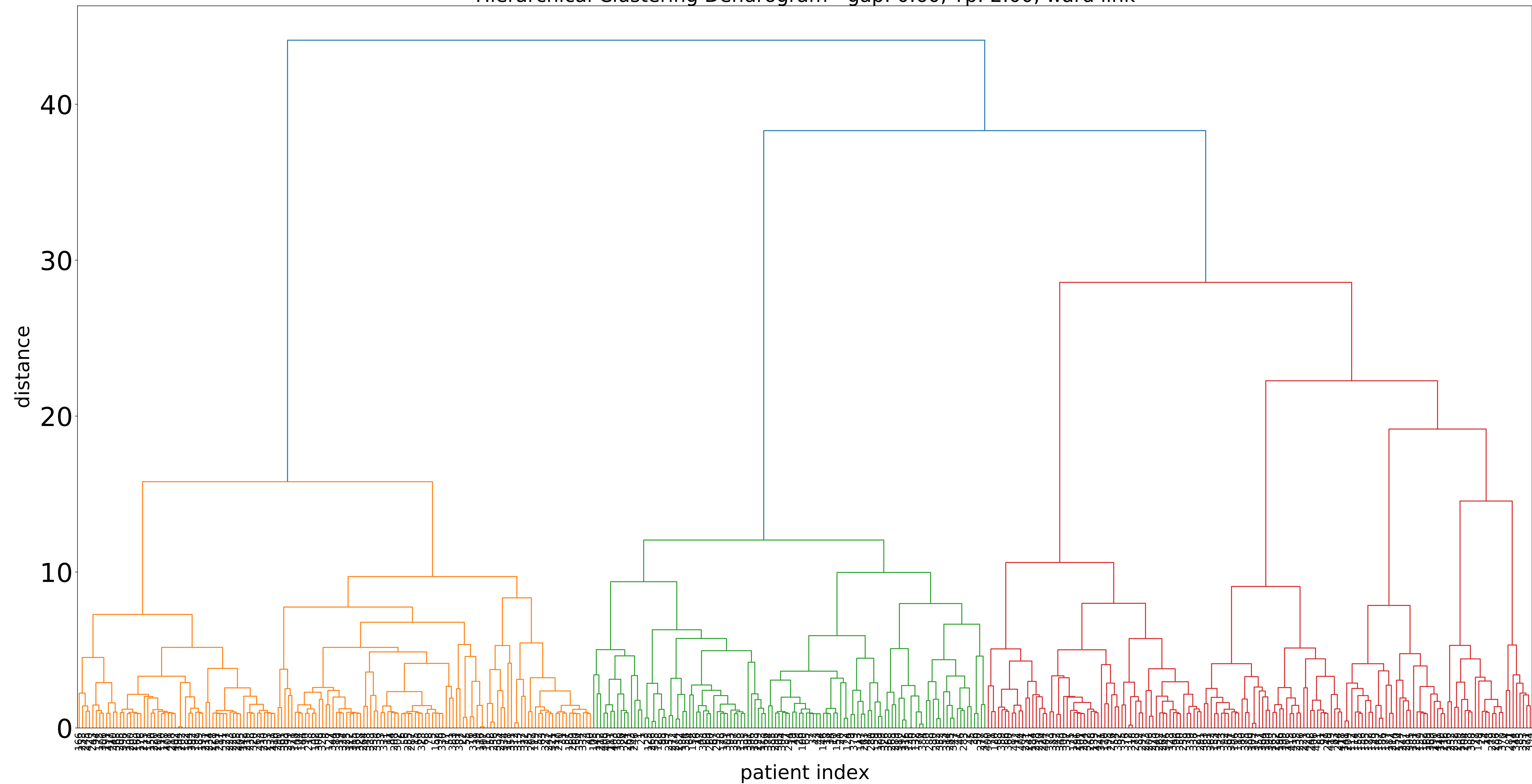
Average values of five clustering indices gap: 0.50, Tp: 2.00, ward link

k	AR	FM	J	AW	VD	H	F	VI	K	Phi	RT	SS	CVNN	S	Dunn
2.0	1.0	0.96288	0.94595	0.91272	0.02753	0.91392	0.96285	-0.1812	0.96292	0.00014	0.94083	0.92824	0.0	0.28454	0.26607
3.0	1.0	0.99511	0.99035	0.99217	0.00236	0.99261	0.99511	-0.91066	0.99511	0.00017	0.99344	0.98119	0.0	0.33042	0.20186
4.0	1.0	0.99349	0.98726	0.99198	0.00385	0.99106	0.99349	-1.78499	0.99349	0.0002	0.99301	0.97552	0.0	0.35893	0.20931
5.0	1.0	0.97902	0.95968	0.97661	0.02601	0.97219	0.979	-2.6634	0.97903	0.00021	0.97978	0.92522	0.0	0.37832	0.20931
6.0	1.0	0.99315	0.9868	0.9935	0.0052	0.99113	0.99305	-3.69194	0.99325	0.00022	0.99374	0.97555	0.23077	0.39548	0.20931
7.0	1.0	0.95707	0.91907	0.97073	0.02501	0.94759	0.95607	-4.8368	0.95807	0.00025	0.96834	0.85863	0.23077	0.33257	0.14783
8.0	1.0	0.965	0.93345	0.95864	0.01962	0.95774	0.96482	-5.72867	0.96519	0.00026	0.97616	0.87927	0.33333	0.36502	0.16165
9.0	1.0	0.90651	0.83244	0.86524	0.05109	0.88996	0.90575	-6.29455	0.90727	0.00027	0.9449	0.72384	0.8	0.33392	0.16165
10.0	1.0	0.85335	0.74911	0.78321	0.08116	0.8302	0.8516	-7.44317	0.85512	0.00027	0.92184	0.6129	0.8	0.3088	0.16165
11.0	1.0	0.79415	0.66233	0.74416	0.11354	0.76624	0.79343	-8.0771	0.79487	0.00029	0.90599	0.50239	0.8	0.28808	0.16165
12.0	1.0	0.80891	0.68223	0.79175	0.10858	0.78701	0.80863	-9.3298	0.80919	0.00034	0.92436	0.52307	0.8	0.26571	0.16165
13.0	1.0	0.81033	0.68383	0.81421	0.11438	0.79094	0.80988	-9.93987	0.81078	0.00037	0.93187	0.52452	0.8	0.25008	0.16165
14.0	1.0	0.82041	0.69854	0.8225	0.10477	0.80322	0.82004	-11.85202	0.82077	0.0004	0.93908	0.54217	0.8	0.2407	0.16165
15.0	1.0	0.812	0.68676	0.80052	0.11185	0.79489	0.81176	-13.44165	0.81225	0.00041	0.93915	0.52826	0.8	0.23365	0.202
16.0	1.0	0.77884	0.64017	0.77589	0.12711	0.76019	0.77846	-15.17114	0.77921	0.00042	0.93338	0.47456	0.8	0.2296	0.202
17.0	1.0	0.77324	0.63283	0.75875	0.1297	0.75512	0.77292	-17.26943	0.77357	0.00043	0.93496	0.46667	0.8	0.22455	0.202
18.0	1.0	0.77684	0.63768	0.74979	0.12681	0.75984	0.77644	-18.63605	0.77724	0.00045	0.93862	0.47223	0.8	0.22703	0.15049
19.0	1.0	0.78394	0.64709	0.76165	0.1219	0.76856	0.78357	-20.16947	0.78431	0.00049	0.94406	0.48229	0.8	0.2198	0.15049
20.0	1.0	0.78513	0.64793	0.75174	0.12336	0.7705	0.78452	-22.40333	0.78574	0.00051	0.94641	0.4826	2.0	0.22704	0.15049

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



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

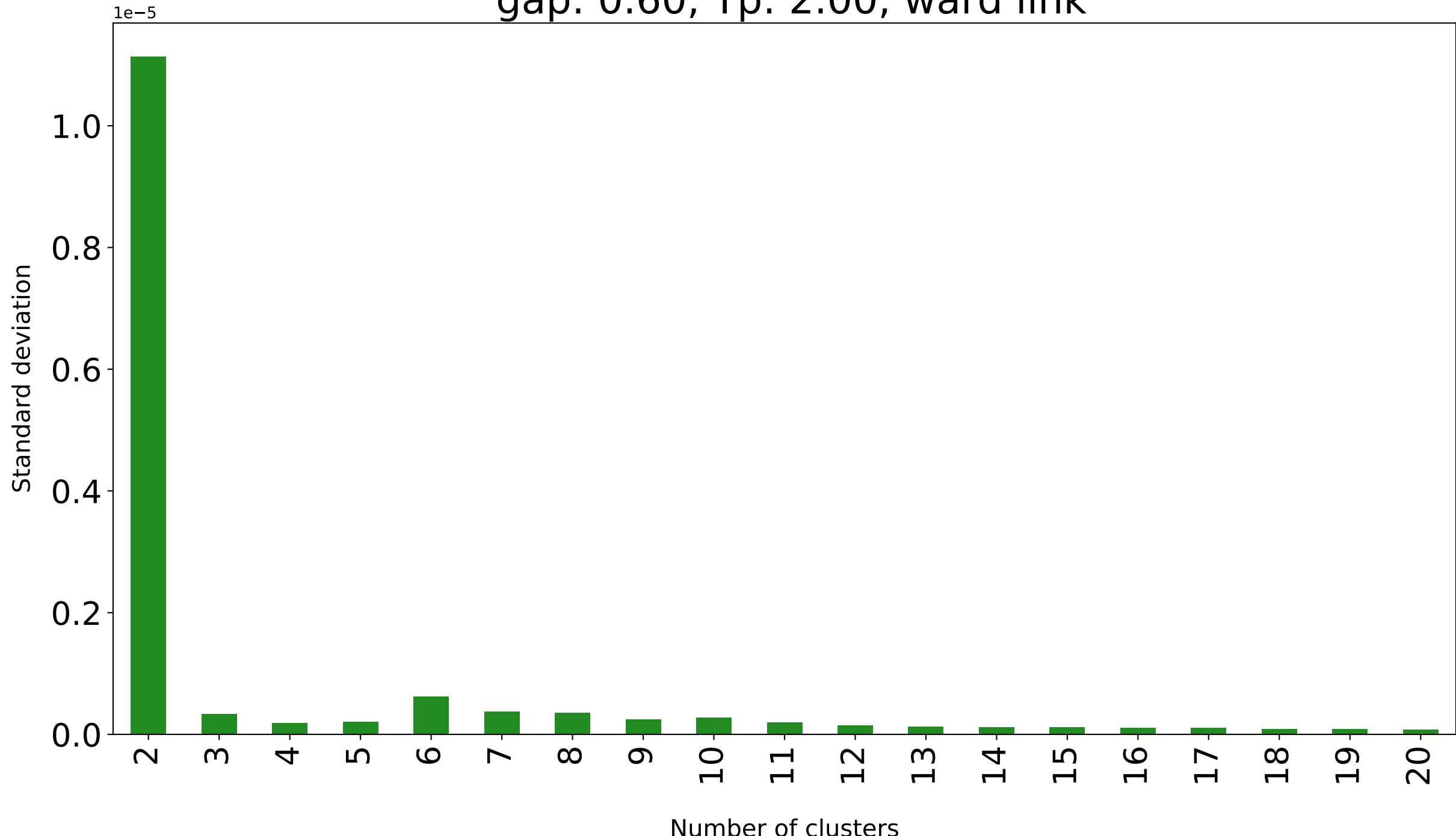


Cophenetic Correlation Coefficient: 0.6774117708646596

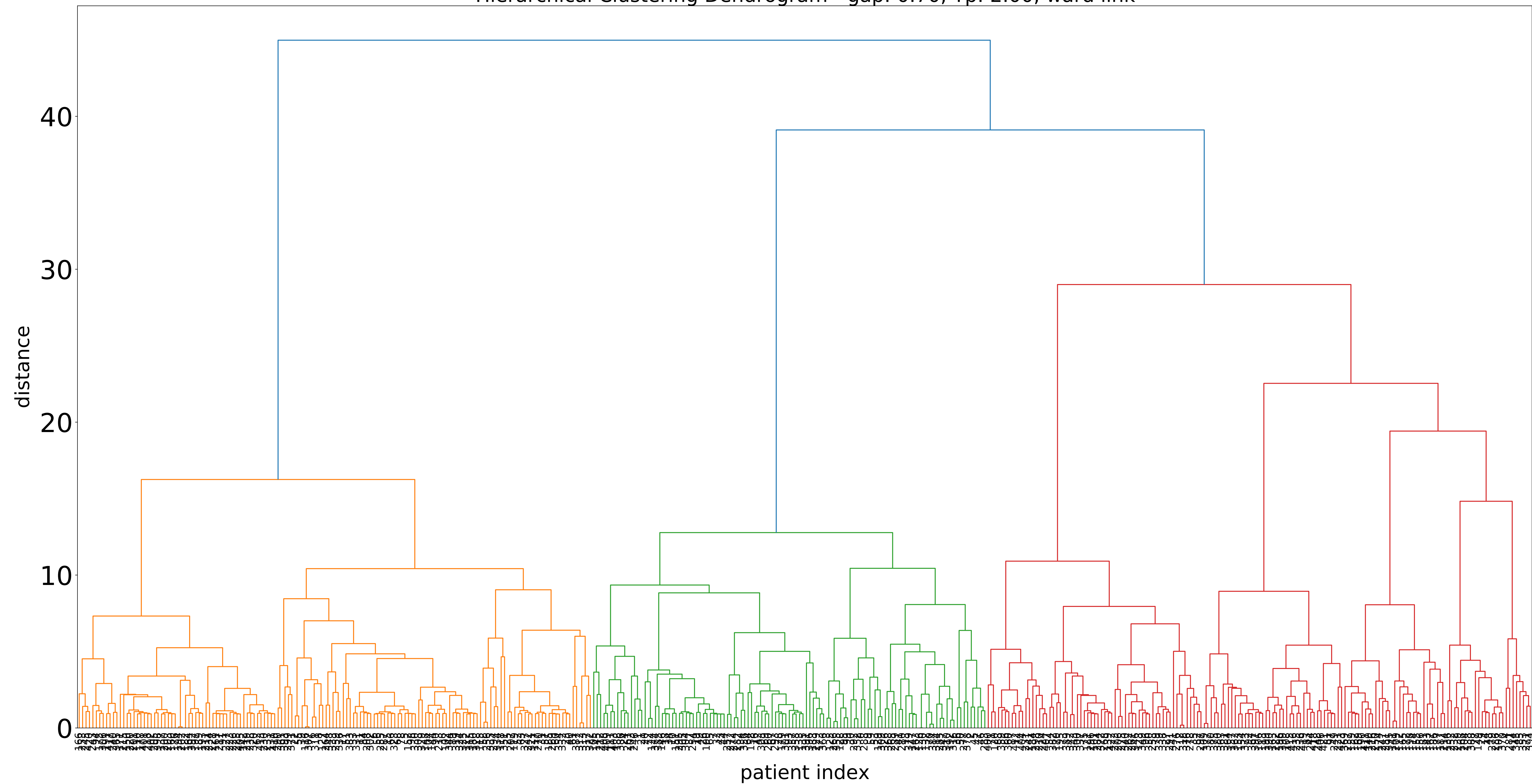
Average values of five clustering indices
gap: 0.60, Tp: 2.00, ward link

k	AR	FM	J	AW	VD	H	F	VI	K	Phi	RT	SS	CVNN	S	Dunn
2.0	1.0	0.93889	0.9124	0.85669	0.04547	0.85727	0.93883	-0.14654	0.93894	0.00014	0.90379	0.88695	0.0	0.28263	0.25899
3.0	1.0	0.99443	0.98898	0.9922	0.00293	0.99159	0.99443	-0.89752	0.99443	0.00017	0.99253	0.97839	0.02899	0.3269	0.20174
4.0	1.0	0.99298	0.98615	0.99042	0.00382	0.99039	0.99298	-1.76976	0.99298	0.0002	0.99248	0.97304	0.02899	0.35711	0.2087
5.0	1.0	0.97786	0.95744	0.97284	0.02661	0.97065	0.97785	-2.64433	0.97787	0.00021	0.97865	0.92097	0.02899	0.37742	0.2087
6.0	1.0	0.99376	0.98764	0.99237	0.00408	0.99182	0.99375	-3.68368	0.99376	0.00022	0.9941	0.97581	0.02899	0.39723	0.2087
7.0	1.0	0.94642	0.89989	0.9669	0.02999	0.93428	0.94476	-4.78316	0.94809	0.00025	0.95931	0.8296	0.03623	0.32928	0.13814
8.0	1.0	0.9644	0.93311	0.95253	0.01915	0.95698	0.96421	-5.72012	0.96459	0.00026	0.97579	0.88057	0.03623	0.3659	0.15013
9.0	1.0	0.88076	0.79071	0.88601	0.06935	0.86086	0.8802	-6.27058	0.88132	0.00028	0.93389	0.66328	0.26144	0.31255	0.15013
10.0	1.0	0.82394	0.70509	0.79713	0.09847	0.79776	0.82339	-7.44629	0.82449	0.00028	0.91276	0.55323	0.26144	0.29044	0.15013
11.0	1.0	0.79353	0.66151	0.75431	0.11679	0.76623	0.79304	-8.03253	0.79403	0.00029	0.90788	0.50091	0.26144	0.27387	0.15013
12.0	1.0	0.80512	0.67558	0.80932	0.11502	0.78329	0.80446	-9.21564	0.80579	0.00034	0.92404	0.51406	0.26144	0.2582	0.15013
13.0	1.0	0.81319	0.68719	0.81512	0.11277	0.79383	0.81264	-10.00783	0.81375	0.00037	0.93192	0.52768	0.66667	0.25216	0.15013
14.0	1.0	0.81054	0.68342	0.80977	0.11361	0.7921	0.81006	-11.84138	0.81103	0.00039	0.93472	0.52303	0.66667	0.24226	0.15013
15.0	1.0	0.81633	0.69211	0.80025	0.10983	0.79928	0.81604	-13.32484	0.81662	0.0004	0.93939	0.53346	0.66667	0.23573	0.17564
16.0	1.0	0.78545	0.64906	0.77153	0.12763	0.76689	0.78516	-14.49674	0.78574	0.00041	0.93386	0.48413	0.66667	0.22967	0.17564
17.0	1.0	0.78492	0.64843	0.76024	0.12692	0.76721	0.78462	-15.8098	0.78522	0.00043	0.93652	0.48362	0.66667	0.23051	0.14752
18.0	1.0	0.78048	0.64197	0.74658	0.12597	0.76327	0.78001	-17.97125	0.78095	0.00045	0.93795	0.47617	0.66667	0.226	0.14752
19.0	1.0	0.78412	0.64697	0.74461	0.12421	0.76811	0.78345	-20.0696	0.78478	0.00047	0.94184	0.48221	2.0	0.22468	0.14752
20.0	1.0	0.77595	0.6362	0.75198	0.12528	0.76053	0.77562	-22.03775	0.77627	0.0005	0.94383	0.47	2.0	0.21987	0.14752

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



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

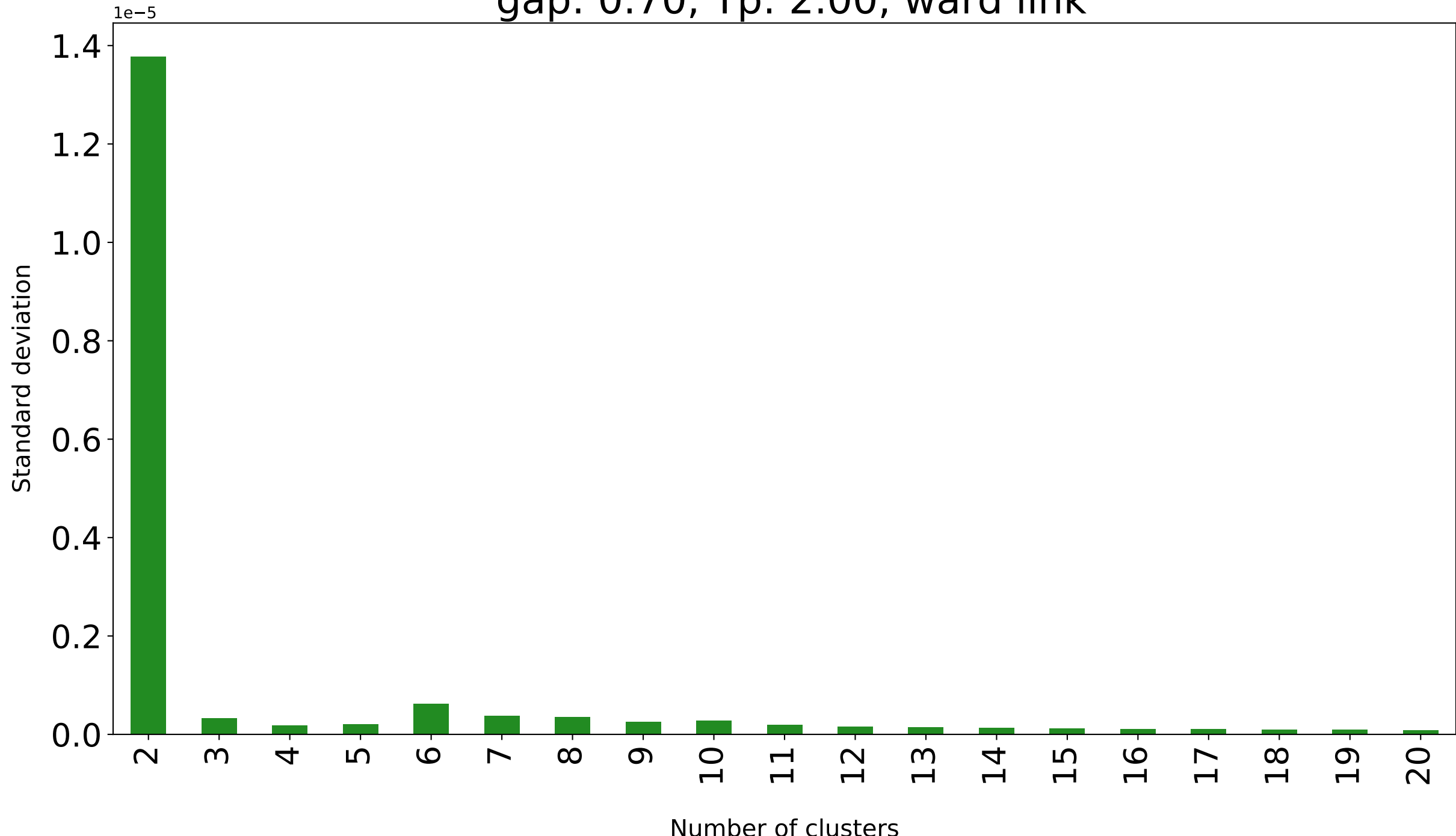


Cophenetic Correlation Coefficient: 0.6452722976984332

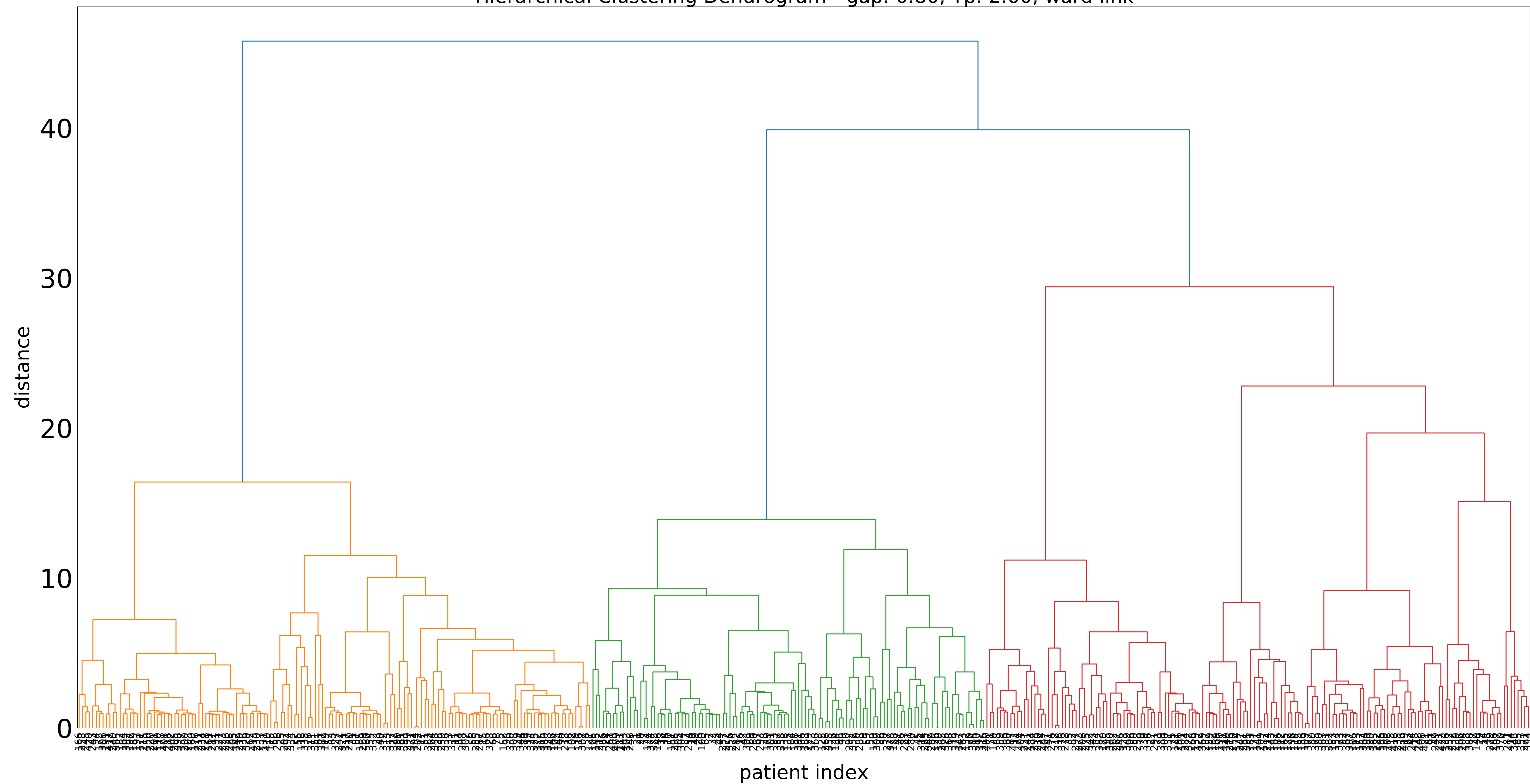
Average values of five clustering indices gap: 0.70, Tp: 2.00, ward link

k	AR	FM	J	AW	VD	H	F	VI	K	Phi	RT	SS	CVNN	S	Dunn
2.0	0.99999	0.88805	0.84011	0.73955	0.08465	0.73942	0.8879	-0.06884	0.8882	0.00012	0.82465	0.79539	0.0	0.27753	0.24178
3.0	1.0	0.99443	0.98898	0.9922	0.00292	0.99159	0.99443	-0.89938	0.99443	0.00017	0.99253	0.97844	0.02899	0.31931	0.18974
4.0	1.0	0.99295	0.98611	0.99072	0.00371	0.99034	0.99295	-1.77303	0.99295	0.0002	0.99243	0.973	0.02899	0.34872	0.19731
5.0	1.0	0.97381	0.94975	0.96849	0.03228	0.96527	0.9738	-2.6251	0.97382	0.0002	0.97476	0.90701	0.02899	0.36846	0.19731
6.0	1.0	0.99356	0.98726	0.9926	0.00376	0.99157	0.99356	-3.68289	0.99357	0.00022	0.99393	0.97509	0.02899	0.38802	0.19731
7.0	1.0	0.94869	0.90391	0.96778	0.02826	0.93703	0.94714	-4.79329	0.95026	0.00025	0.96095	0.83557	0.03623	0.32096	0.13059
8.0	1.0	0.95496	0.9162	0.93425	0.02358	0.94585	0.95436	-5.69705	0.95556	0.00026	0.96979	0.85422	0.03623	0.3562	0.14015
9.0	1.0	0.88907	0.80298	0.88451	0.06632	0.87075	0.88883	-6.23341	0.88932	0.00028	0.93906	0.67702	0.2451	0.30492	0.12422
10.0	1.0	0.8301	0.71384	0.79875	0.09647	0.80486	0.82973	-7.36629	0.83047	0.00028	0.91586	0.56297	0.2451	0.28442	0.12422
11.0	1.0	0.81088	0.68494	0.75642	0.10713	0.78506	0.80997	-7.77579	0.81178	0.00029	0.91257	0.52741	0.58824	0.28036	0.12422
12.0	1.0	0.7897	0.65496	0.7757	0.12217	0.765	0.78915	-8.845	0.79026	0.00032	0.91509	0.49145	0.58824	0.26156	0.12422
13.0	1.0	0.79336	0.66009	0.78743	0.12796	0.77123	0.79284	-9.38683	0.79388	0.00035	0.9229	0.49726	0.66667	0.24831	0.12422
14.0	1.0	0.78572	0.64968	0.76293	0.13545	0.76384	0.78532	-10.74454	0.78612	0.00036	0.9235	0.48547	0.66667	0.24004	0.15065
15.0	1.0	0.77743	0.63847	0.74837	0.13967	0.75617	0.77707	-12.56337	0.7778	0.00037	0.92516	0.47297	0.66667	0.22884	0.15065
16.0	1.0	0.79585	0.66372	0.78563	0.12655	0.77785	0.7955	-13.99073	0.7962	0.00041	0.93587	0.50119	0.66667	0.21751	0.15065
17.0	1.0	0.79825	0.66681	0.78089	0.12772	0.7814	0.79797	-16.01909	0.79852	0.00043	0.93962	0.50427	2.0	0.21623	0.15065
18.0	1.0	0.79469	0.6616	0.76753	0.13087	0.77831	0.79431	-16.8428	0.79507	0.00045	0.94098	0.49814	2.0	0.21206	0.15065
19.0	1.0	0.78912	0.65413	0.75569	0.12919	0.77307	0.7886	-19.00222	0.78965	0.00046	0.94184	0.49024	2.0	0.20835	0.15065
20.0	1.0	0.77706	0.63784	0.75452	0.13747	0.76122	0.7767	-20.24313	0.77743	0.00048	0.94243	0.47196	2.0	0.20187	0.15065

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



Hierarchical Clustering Dendrogram - gap: 0.80, Tp: 2.00, ward link

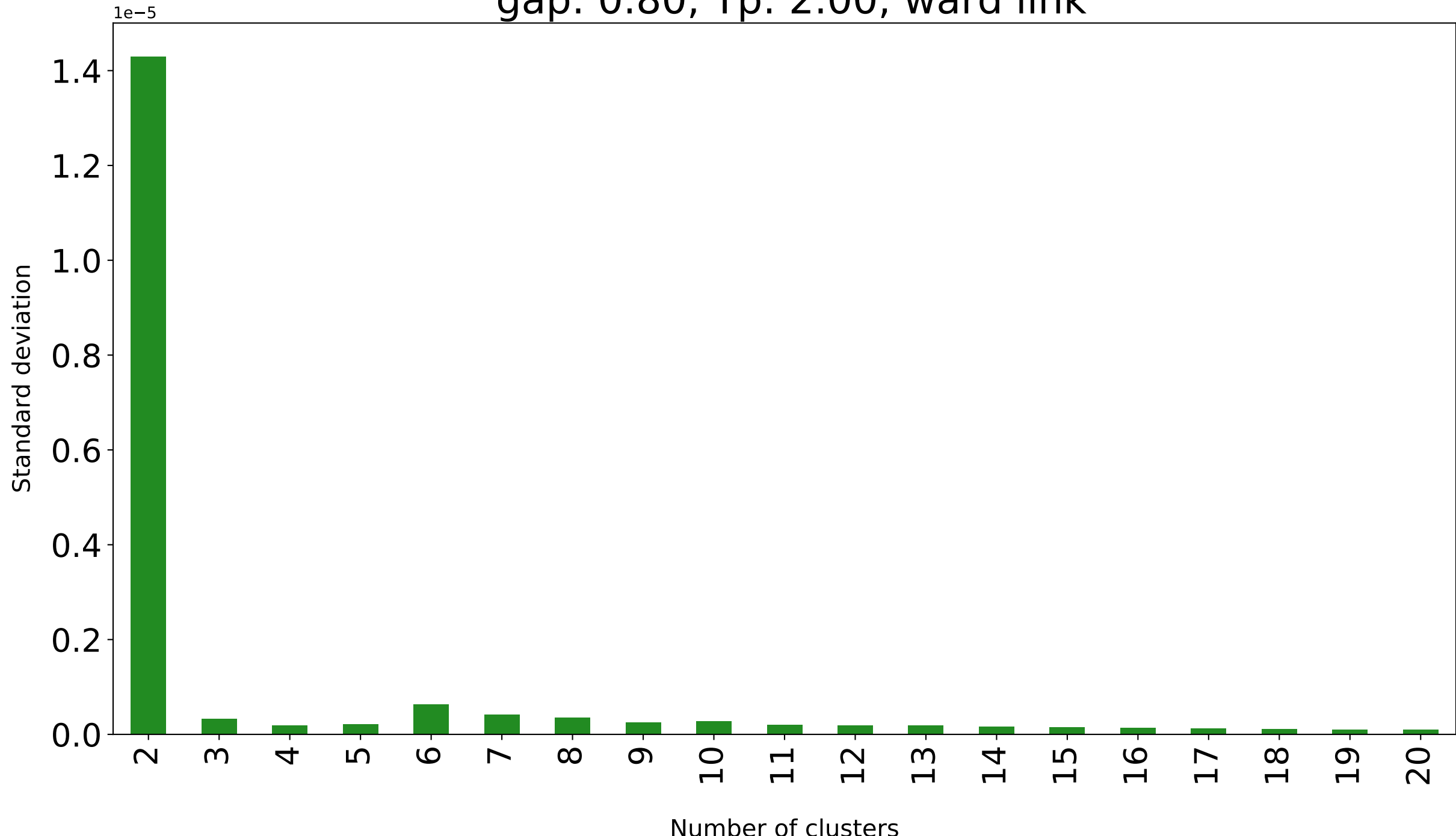


Cophenetic Correlation Coefficient: 0.6151390827715464

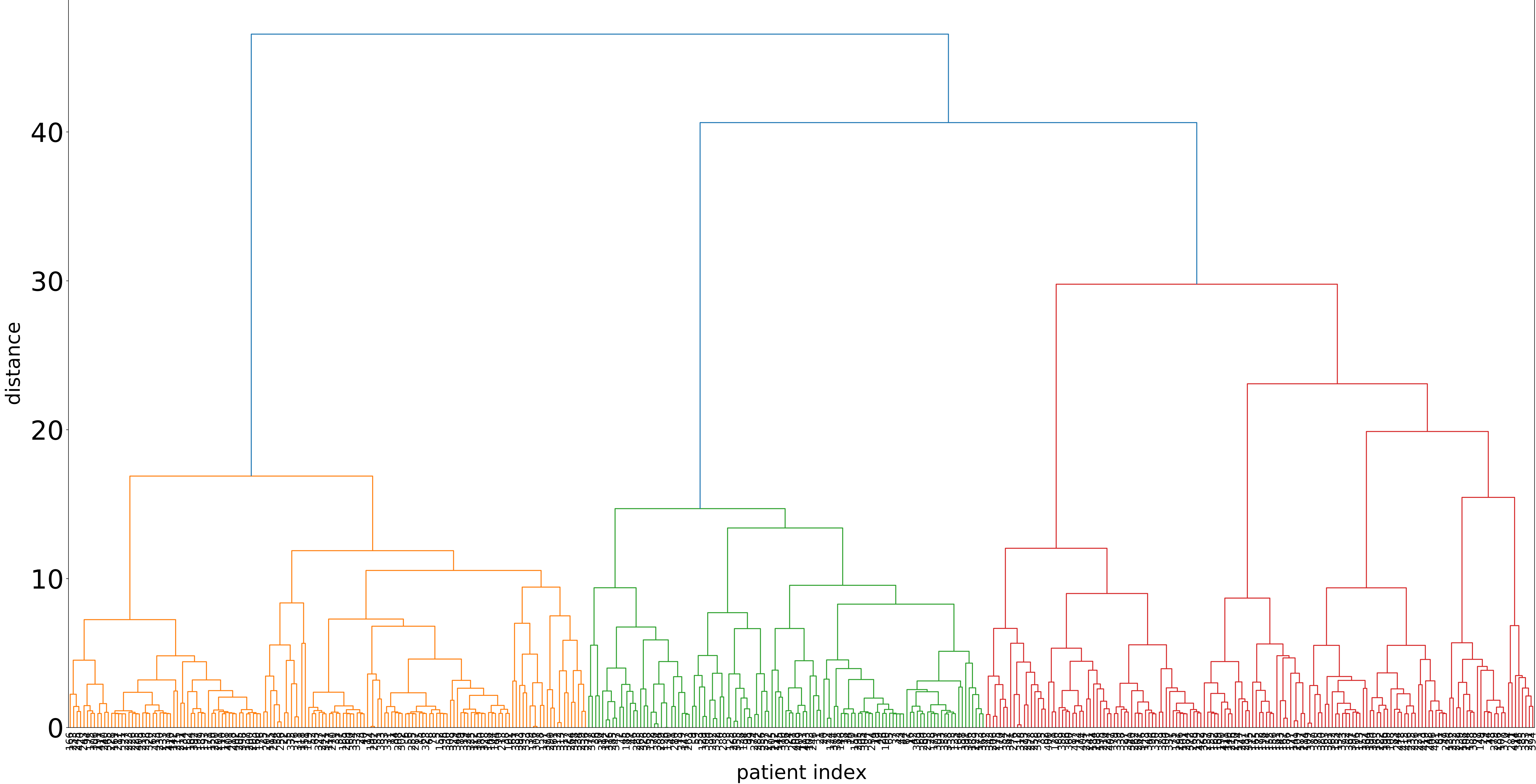
Average values of five clustering indices gap: 0.80, Tp: 2.00, ward link

k	AR	FM	J	AW	VD	H	F	VI	K	Phi	RT	SS	CVNN	S	Dunn
2.0	0.99999	0.87619	0.82294	0.71268	0.09372	0.71247	0.87602	-0.05001	0.87636	0.00011	0.80604	0.77304	0.0	0.27261	0.22671
3.0	1.0	0.99132	0.98298	0.98739	0.00447	0.98689	0.99132	-0.88635	0.99132	0.00017	0.98844	0.96724	0.04348	0.31168	0.17907
4.0	1.0	0.98992	0.98027	0.98697	0.00532	0.98618	0.98992	-1.75431	0.98993	0.0002	0.9892	0.96211	0.04348	0.34055	0.19023
5.0	1.0	0.96913	0.9409	0.95502	0.03614	0.95901	0.9691	-2.67197	0.96915	0.0002	0.97015	0.89118	0.04348	0.36764	0.19023
6.0	1.0	0.98919	0.97909	0.98663	0.00677	0.98593	0.98908	-3.65132	0.98931	0.00021	0.98996	0.96097	0.04348	0.37908	0.19023
7.0	1.0	0.94491	0.89883	0.95901	0.02982	0.93231	0.94357	-4.76772	0.94626	0.00025	0.95866	0.8296	0.04348	0.31104	0.12591
8.0	1.0	0.93507	0.88188	0.89434	0.03346	0.92221	0.93379	-5.63429	0.93636	0.00026	0.95712	0.8031	0.04348	0.34499	0.13141
9.0	1.0	0.90261	0.82456	0.89804	0.05668	0.88652	0.90232	-6.32859	0.9029	0.00029	0.94618	0.70706	0.30303	0.29786	0.13141
10.0	1.0	0.86517	0.76483	0.83415	0.07583	0.84465	0.86482	-6.6537	0.86551	0.00029	0.93113	0.62496	0.83333	0.29315	0.13141
11.0	1.0	0.82785	0.70894	0.80567	0.09857	0.80437	0.82747	-7.75347	0.82822	0.0003	0.92056	0.55451	0.83333	0.26809	0.14301
12.0	1.0	0.81261	0.68837	0.78785	0.10795	0.78925	0.81216	-9.0671	0.81306	0.00031	0.92015	0.53206	0.83333	0.25635	0.14301
13.0	1.0	0.78087	0.64523	0.77749	0.12804	0.75636	0.78018	-10.14476	0.78155	0.00033	0.91537	0.48442	0.83333	0.24694	0.14301
14.0	1.0	0.77322	0.63359	0.77981	0.13692	0.74994	0.77233	-10.64864	0.77411	0.00035	0.91855	0.46987	0.83333	0.23612	0.14301
15.0	1.0	0.7593	0.61524	0.7619	0.14623	0.7361	0.75854	-12.45447	0.76006	0.00036	0.91846	0.44971	0.83333	0.22562	0.14301
16.0	1.0	0.76919	0.62722	0.78884	0.13882	0.74872	0.76794	-13.81303	0.77044	0.00039	0.92684	0.46192	0.83333	0.21417	0.14301
17.0	1.0	0.7801	0.64188	0.79372	0.13624	0.76158	0.77911	-15.86705	0.78109	0.00042	0.93342	0.47755	2.0	0.2127	0.14301
18.0	1.0	0.78375	0.64693	0.78176	0.13531	0.76621	0.7832	-17.32277	0.7843	0.00044	0.93693	0.4825	2.0	0.21623	0.14301
19.0	1.0	0.78768	0.65227	0.78673	0.13386	0.77139	0.78717	-18.27613	0.78818	0.00046	0.94107	0.48842	2.0	0.21385	0.14301
20.0	1.0	0.79281	0.65964	0.78734	0.12845	0.77764	0.79235	-20.55849	0.79327	0.00048	0.94486	0.49708	2.0	0.21072	0.14301

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



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

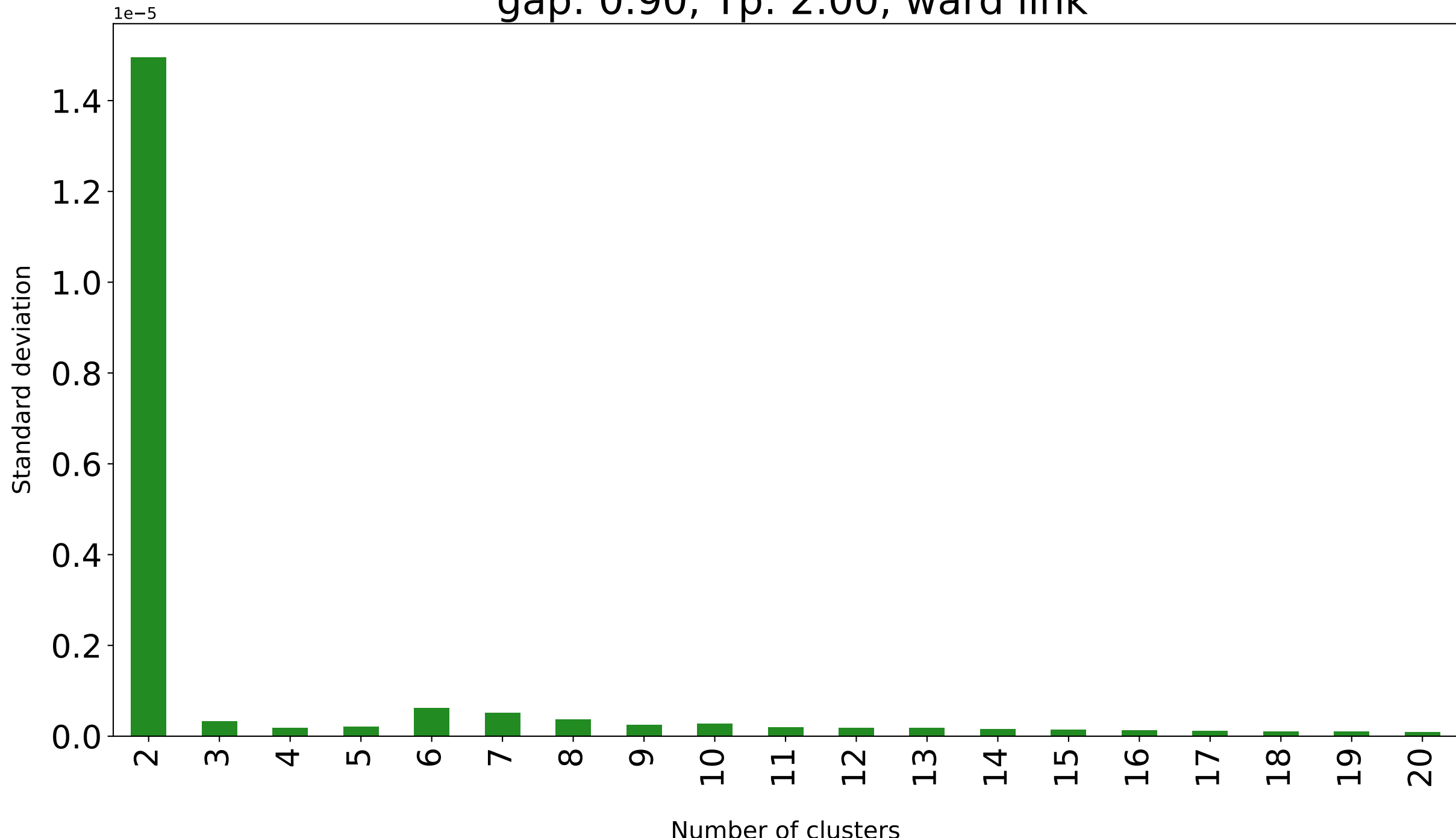


Cophenetic Correlation Coefficient: 0.5877249385905324

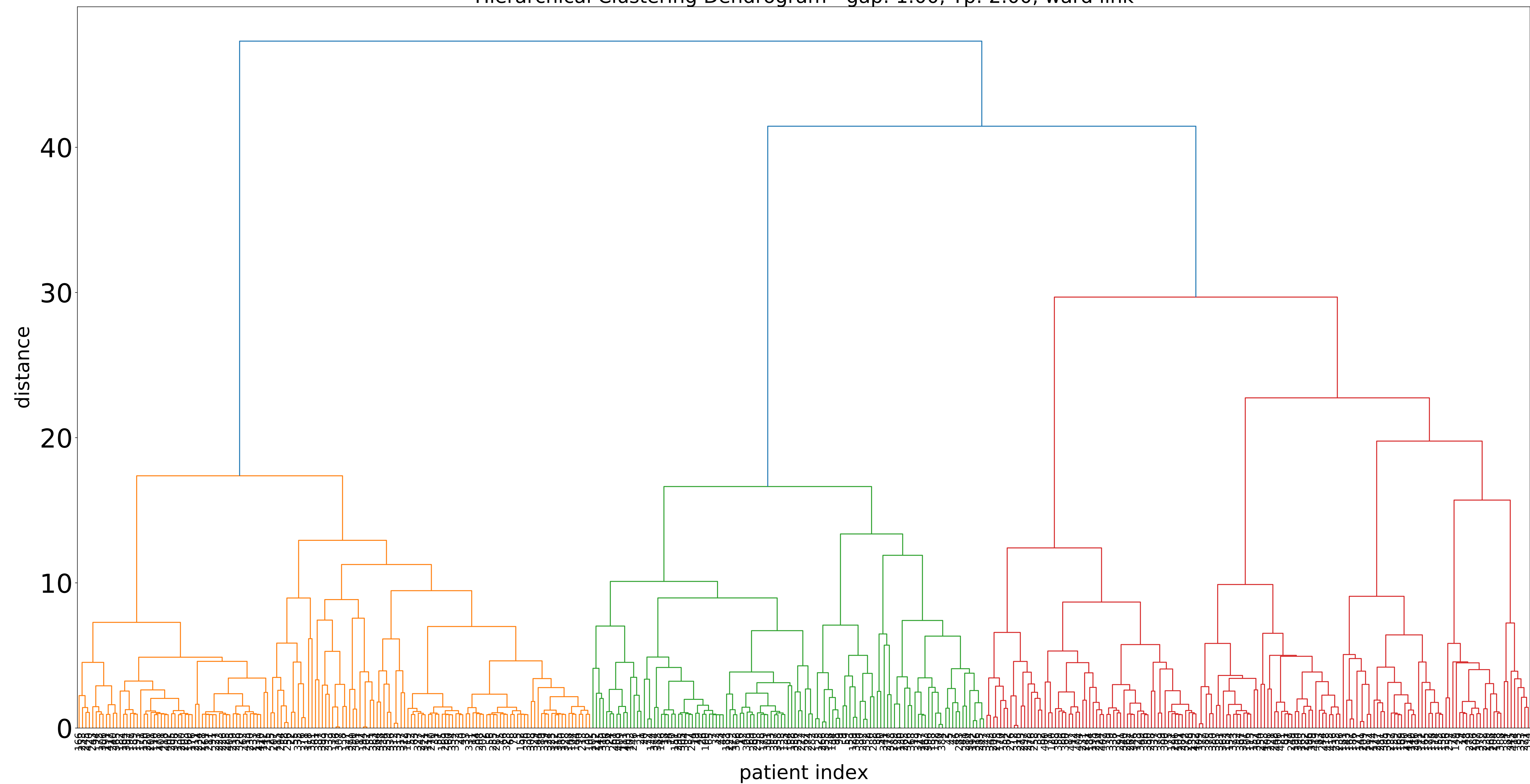
Average values of five clustering indices gap: 0.90, Tp: 2.00, ward link

k	AR	FM	J	AW	VD	H	F	VI	K	Phi	RT	SS	CVNN	S	Dunn
2.0	0.99999	0.84333	0.77651	0.63564	0.11816	0.63491	0.84312	0.00017	0.84355	0.0001	0.75477	0.71469	0.0	0.2679	0.21341
3.0	1.0	0.99015	0.98066	0.98545	0.00511	0.98513	0.99015	-0.87825	0.99015	0.00017	0.98686	0.96263	0.01799	0.30436	0.16953
4.0	1.0	0.98925	0.9789	0.98634	0.00555	0.98528	0.98925	-1.74929	0.98925	0.0002	0.98851	0.95929	0.01799	0.33272	0.17441
5.0	1.0	0.96938	0.94138	0.95566	0.03473	0.95937	0.96936	-2.67073	0.9694	0.0002	0.97045	0.89197	0.01799	0.35938	0.17441
6.0	1.0	0.98752	0.97586	0.98368	0.00738	0.98377	0.9874	-3.64196	0.98764	0.00022	0.9885	0.95492	0.01799	0.37036	0.17441
7.0	1.0	0.92781	0.87289	0.93656	0.03782	0.91132	0.92666	-4.72058	0.92897	0.00024	0.94755	0.79518	0.01799	0.30288	0.11544
8.0	1.0	0.9104	0.83942	0.85304	0.04708	0.89284	0.90832	-5.55506	0.91249	0.00025	0.94134	0.73982	0.01799	0.336	0.1237
9.0	1.0	0.90402	0.8279	0.87181	0.05354	0.88766	0.90358	-6.36535	0.90445	0.00028	0.94556	0.71383	0.1217	0.29879	0.1237
10.0	1.0	0.86718	0.7679	0.84461	0.07288	0.84717	0.86685	-6.73687	0.86752	0.00029	0.9327	0.62891	0.17991	0.28382	0.1237
11.0	1.0	0.83048	0.71274	0.80085	0.09158	0.80707	0.83015	-7.66789	0.83081	0.0003	0.92091	0.55883	0.17991	0.26867	0.1237
12.0	1.0	0.82622	0.70658	0.81178	0.09916	0.80432	0.82588	-8.79793	0.82655	0.00032	0.92505	0.55157	0.17991	0.25364	0.13564
13.0	1.0	0.81224	0.68532	0.83042	0.11595	0.79126	0.81114	-9.86129	0.81335	0.00034	0.92651	0.5259	0.17991	0.21925	0.13564
14.0	1.0	0.79678	0.66288	0.82428	0.12936	0.77589	0.79529	-10.35018	0.79828	0.00036	0.92596	0.49958	0.27586	0.20797	0.13564
15.0	1.0	0.79278	0.6587	0.79977	0.13768	0.77231	0.79201	-12.07762	0.79356	0.00037	0.92771	0.4954	0.41379	0.19934	0.13564
16.0	1.0	0.78594	0.64987	0.77376	0.14514	0.76558	0.78547	-13.45172	0.78642	0.00038	0.9281	0.48573	0.51724	0.20153	0.13564
17.0	1.0	0.78041	0.64248	0.76964	0.14728	0.76073	0.7799	-15.29839	0.78092	0.0004	0.93008	0.47772	0.51724	0.19535	0.13564
18.0	1.0	0.77629	0.63663	0.77336	0.14713	0.75756	0.77563	-16.93756	0.77695	0.00042	0.93288	0.47122	0.51724	0.19066	0.13564
19.0	1.0	0.77251	0.63192	0.76087	0.14877	0.7544	0.7719	-19.09175	0.77312	0.00043	0.9348	0.46638	0.51724	0.18902	0.13564
20.0	1.0	0.77515	0.63526	0.74373	0.14567	0.75779	0.77447	-21.18332	0.77583	0.00045	0.93726	0.4699	2.0	0.18491	0.17895

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



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



Cophenetic Correlation Coefficient: 0.5599421703704721

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

k	AR	FM	J	AW	VD	H	F	VI	K	Phi	RT	SS	CVNN	S	Dunn
2.0	0.99999	0.83436	0.76308	0.61555	0.12537	0.61487	0.8341	0.01532	0.83462	0.0001	0.74031	0.69631	0.0	0.2634	0.20167
3.0	1.0	0.9841	0.96904	0.97594	0.00808	0.97599	0.9841	-0.85489	0.9841	0.00017	0.9789	0.94108	0.01799	0.29637	0.16737
4.0	1.0	0.98412	0.96906	0.97958	0.00858	0.97821	0.98412	-1.72075	0.98413	0.00019	0.983	0.94112	0.01799	0.32436	0.16737
5.0	1.0	0.96445	0.93216	0.95931	0.03839	0.9528	0.96442	-2.53626	0.96448	0.0002	0.96568	0.8757	0.04926	0.33719	0.16737
6.0	1.0	0.97265	0.94861	0.96076	0.0186	0.96469	0.97222	-3.56374	0.97308	0.00021	0.97544	0.90915	0.04926	0.35337	0.16737
7.0	1.0	0.86922	0.77913	0.8767	0.06911	0.83902	0.86789	-4.49649	0.87055	0.00022	0.90679	0.66279	0.04926	0.28812	0.11078
8.0	1.0	0.84878	0.74085	0.88321	0.08462	0.82166	0.84588	-5.11601	0.85171	0.00025	0.90947	0.60159	0.09549	0.24903	0.11684
9.0	1.0	0.86225	0.76348	0.8579	0.07495	0.8389	0.86133	-6.16028	0.86316	0.00027	0.92304	0.62955	0.09549	0.28286	0.11684
10.0	1.0	0.85516	0.75006	0.82591	0.07845	0.83285	0.85458	-6.65167	0.85574	0.00029	0.92539	0.60679	0.34483	0.27835	0.11684
11.0	1.0	0.8403	0.72658	0.81679	0.08921	0.81809	0.83983	-7.85142	0.84078	0.0003	0.92472	0.57498	0.34483	0.26179	0.12649
12.0	1.0	0.8318	0.7135	0.80968	0.09255	0.81027	0.83141	-8.78426	0.83218	0.00032	0.92627	0.55789	0.34483	0.25286	0.12649
13.0	1.0	0.83048	0.71118	0.79041	0.09511	0.80967	0.82984	-10.08249	0.83112	0.00033	0.92812	0.555	0.82759	0.24156	0.129
14.0	1.0	0.82952	0.71072	0.81995	0.1083	0.81054	0.82908	-11.18641	0.82997	0.00035	0.93373	0.5555	0.82759	0.21531	0.129
15.0	1.0	0.80556	0.67606	0.80902	0.12572	0.78557	0.80491	-11.55428	0.80621	0.00036	0.92967	0.51435	0.82759	0.20742	0.129
16.0	1.0	0.78906	0.65325	0.79318	0.13838	0.76859	0.78833	-13.35773	0.78978	0.00037	0.92767	0.48869	0.82759	0.19997	0.129
17.0	1.0	0.79104	0.65617	0.80168	0.14111	0.77206	0.79013	-15.23956	0.79195	0.0004	0.93223	0.4926	0.82759	0.18463	0.129
18.0	1.0	0.7796	0.64095	0.77867	0.15037	0.7604	0.77899	-17.30329	0.78021	0.0004	0.93148	0.47562	0.82759	0.18372	0.129
19.0	1.0	0.77861	0.63923	0.79636	0.15182	0.76079	0.77753	-18.57762	0.77969	0.00043	0.93556	0.47402	0.82759	0.17631	0.129
20.0	1.0	0.77733	0.63819	0.77603	0.15301	0.75986	0.77679	-20.69466	0.77787	0.00044	0.93702	0.47286	2.0	0.17245	0.13279

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

