

mkaTimeSeries
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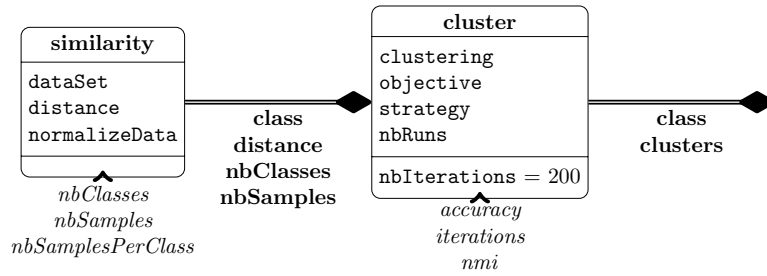


Figure 1: Factors flow graph for the experiment.

Table 1: distance: dtw, normalizeData:

	dataSet	nbClasses	nbSamples	nbSamplesPerClass
1	50words	50.00	905.00	18.10±20.56
2	Adiac	37.00	781.00	21.11±2.25
3	Beef	5.00	60.00	12.00±0.00
4	CBF	3.00	930.00	310.00±0.00
5	ChlorineConcentration	3.00	2000.00	666.67±353.64
6	CinC_ECG_torso	4.00	1420.00	355.00±0.00
7	Coffee	2.00	56.00	28.00±1.41
8	Cricket_X	12.00	780.00	65.00±0.00
9	Cricket_Y	12.00	780.00	65.00±0.00
10	Cricket_Z	12.00	780.00	65.00±0.00
11	DiatomSizeReduction	4.00	322.00	80.50±31.20
12	ECG200	2.00	200.00	100.00±46.67
13	ECGFiveDays	2.00	884.00	442.00±0.00
14	FaceAll	14.00	2000.00	142.86±59.65
15	FaceFour	4.00	112.00	28.00±4.97
16	FacesUCR	14.00	2000.00	142.86±65.65
17	Gun_Point	2.00	200.00	100.00±0.00
18	Haptics	5.00	463.00	92.60±8.99
19	InlineSkate	7.00	650.00	92.86±21.97
20	ItalyPowerDemand	2.00	1096.00	548.00±1.41
21	Lighting2	2.00	121.00	60.50±17.68
22	Lighting7	7.00	143.00	20.43±8.18
23	MALLAT	8.00	2000.00	250.00±6.41
24	MedicalImages	10.00	1141.00	114.10±171.31
25	MoteStrain	2.00	1272.00	636.00±69.30
26	OSULeaf	6.00	442.00	73.67±20.26
27	OliveOil	4.00	60.00	15.00±7.70
28	SonyAIBORobotSurface	2.00	621.00	310.50±54.45
29	SonyAIBORobotSurfaceII	2.00	980.00	490.00±161.22
30	StarLightCurves	3.00	2000.00	666.67±444.38
31	SwedishLeaf	15.00	1125.00	75.00±0.00
32	Symbols	6.00	1020.00	170.00±8.81
33	Trace	4.00	200.00	50.00±0.00
34	TwoLeadECG	2.00	1162.00	581.00±0.00
35	Two_Patterns	4.00	2000.00	500.00±34.90
36	WordsSynonyms	25.00	905.00	36.20±41.31
37	fish	7.00	350.00	50.00±0.00
38	synthetic_control	6.00	600.00	100.00±0.00
39	uWaveGestureLibrary_X	8.00	2000.00	250.00±11.05
40	uWaveGestureLibrary_Y	8.00	2000.00	250.00±11.05
41	uWaveGestureLibrary_Z	8.00	2000.00	250.00±11.05
42	wafer	2.00	2000.00	1000.00±1131.37
43	yoga	2.00	2000.00	1000.00±94.75

Table 2: dataSet: 50words, distance:
dtw, normalizeData: 1, nbRuns: 20

clustering	objective	strategy	accuracy	nmi	iterations	time
kkMeans			0.47±0.02	0.70±0.01	15.10±3.55	3.67
random			0.11±0.00	0.28±0.00	-±-	0.39
kAverages	class	p	0.14±0.00	0.18±0.01	12.30±2.30	159.75
kAverages	class	P	0.17±0.01	0.37±0.01	400.00±0.00	4785.74
kAverages	class	b	0.13±0.00	0.06±0.01	16.15±43.50	200.10
kAverages	class	m	0.13±0.00	0.06±0.01	6.15±2.52	75.88
kAverages	class	M	0.13±0.01	0.07±0.04	45.80±121.14	564.13
kAveragesC++	class	p	0.34±0.02	0.63±0.01	9.80±1.82	2.36
kAveragesC++	class	P	0.32±0.01	0.61±0.01	1198.05±38.47	27.66
kAveragesC++	class	b	0.19±0.04	0.23±0.08	200.00±0.00	74.06
kAveragesC++	class	m	0.23±0.03	0.36±0.05	8.40±3.38	2.41
kAveragesC++	class	M	0.22±0.03	0.34±0.06	424.75±169.02	8.16
kAverages	object	p	0.45±0.02	0.71±0.01	12.05±2.54	149.04
kAverages	object	P	0.21±0.01	0.36±0.01	400.00±0.00	4764.02
kAverages	object	b	0.22±0.14	0.26±0.29	56.65±85.19	693.55
kAverages	object	m	0.22±0.14	0.26±0.29	9.10±5.21	112.10
kAverages	object	M	0.22±0.14	0.25±0.29	163.70±197.95	1958.55
kAveragesC++	object	p	0.41±0.01	0.69±0.01	9.30±2.08	1.56
kAveragesC++	object	P	0.42±0.01	0.69±0.01	1097.95±29.56	20.46
kAveragesC++	object	b	0.42±0.09	0.64±0.15	35.70±56.28	12.40
kAveragesC++	object	m	0.44±0.01	0.69±0.01	7.55±1.39	2.05
kAveragesC++	object	M	0.44±0.01	0.69±0.01	162.45±66.18	5.58
kAverages	raw	p	0.51±0.02	0.72±0.01	59.65±83.17	690.65
kAverages	raw	P	0.21±0.01	0.36±0.01	400.00±0.00	4549.28
kAverages	raw	b	0.13±0.01	0.12±0.00	200.00±0.00	2358.61
kAverages	raw	m	0.51±0.01	0.72±0.01	230.80±57.93	2709.61
kAverages	raw	M	0.13±0.01	0.12±0.00	400.00±0.00	4616.36
kAveragesC++	raw	p	0.48±0.02	0.69±0.01	9.70±1.92	2.25
kAveragesC++	raw	P	0.51±0.01	0.71±0.01	1133.25±37.77	15.56
kAveragesC++	raw	b	0.50±0.02	0.70±0.01	15.90±3.23	2.11
kAveragesC++	raw	m	0.50±0.02	0.70±0.01	6.95±1.61	2.07
kAveragesC++	raw	M	0.50±0.02	0.70±0.01	98.95±33.21	3.16

Table 3: dataSet: Adiac, distance: dtw, normalizeData: 1, nbRuns: 20

clustering	objective	strategy	accuracy	nmi	iterations	time
kkMeans			0.39±0.03	0.62±0.01	15.80±3.79	2.48
random			0.12±0.01	0.24±0.00	-±-	0.25
kAverages	class	p	0.07±0.00	0.19±0.01	10.80±1.70	104.21
kAverages	class	P	0.14±0.01	0.27±0.02	398.95±4.70	5160.11
kAverages	class	b	0.04±0.00	0.04±0.03	10.35±9.77	115.80
kAverages	class	m	0.04±0.00	0.04±0.03	8.90±7.87	112.12
kAverages	class	M	0.05±0.02	0.10±0.09	118.65±170.34	1268.66
kAveragesC++	class	p	0.33±0.02	0.57±0.02	9.05±1.36	1.62
kAveragesC++	class	P	0.27±0.02	0.52±0.01	783.45±17.57	11.64
kAveragesC++	class	b	0.06±0.02	0.14±0.11	200.00±0.00	73.74
kAveragesC++	class	m	0.19±0.04	0.44±0.06	12.35±6.85	2.21
kAveragesC++	class	M	0.17±0.05	0.40±0.09	303.00±171.62	4.73
kAverages	object	p	0.39±0.01	0.60±0.01	200.00±0.00	2544.79
kAverages	object	P	0.13±0.01	0.27±0.01	400.00±0.00	5178.83
kAverages	object	b	0.11±0.09	0.26±0.25	32.80±58.72	296.24
kAverages	object	m	0.12±0.10	0.26±0.25	12.50±12.31	138.13
kAverages	object	M	0.11±0.09	0.24±0.24	174.75±195.19	2653.81
kAveragesC++	object	p	0.42±0.02	0.63±0.01	10.10±1.62	1.42
kAveragesC++	object	P	0.42±0.02	0.63±0.01	1057.70±55.00	16.58
kAveragesC++	object	b	0.09±0.03	0.23±0.13	200.00±0.00	74.92
kAveragesC++	object	m	0.32±0.02	0.58±0.01	12.35±3.62	2.49
kAveragesC++	object	M	0.31±0.03	0.58±0.02	448.80±96.89	8.19
kAverages	raw	p	0.27±0.02	0.58±0.01	104.20±65.21	1675.64
kAverages	raw	P	0.13±0.01	0.26±0.01	400.00±0.00	4838.77
kAverages	raw	b	0.07±0.00	0.10±0.01	200.00±0.00	2656.36
kAverages	raw	m	0.27±0.02	0.59±0.01	282.40±49.58	3712.72
kAverages	raw	M	0.07±0.00	0.10±0.01	400.00±0.00	5481.28
kAveragesC++	raw	p	0.33±0.02	0.60±0.01	12.15±4.79	1.93
kAveragesC++	raw	P	0.36±0.03	0.61±0.01	990.90±57.03	9.29
kAveragesC++	raw	b	0.34±0.02	0.60±0.01	21.15±6.16	1.97
kAveragesC++	raw	m	0.34±0.02	0.60±0.01	10.30±3.40	1.98
kAveragesC++	raw	M	0.34±0.02	0.61±0.01	254.60±182.43	3.82

Table 4: dataSet: Beef, distance: dtw,
normalizeData: 1, nbRuns: 20

clustering	objective	strategy	accuracy	nmi	iterations	time
kkMeans			0.41±0.03	0.29±0.03	5.50±2.52	0.31
random			0.33±0.03	0.09±0.03	-±-	0.03
kAverages	class	p	0.27±0.05	0.16±0.04	5.70±0.98	2.22
kAverages	class	P	0.39±0.05	0.17±0.05	245.75±175.38	63.22
kAverages	class	b	0.24±0.04	0.11±0.10	15.15±43.57	4.97
kAverages	class	m	0.25±0.04	0.14±0.09	5.05±1.82	1.25
kAverages	class	M	0.28±0.05	0.17±0.11	168.05±194.57	35.81
kAveragesC++	class	p	0.42±0.03	0.23±0.04	4.50±0.95	0.06
kAveragesC++	class	P	0.39±0.03	0.23±0.04	41.35±5.22	0.07
kAveragesC++	class	b	0.31±0.05	0.18±0.07	26.15±59.49	0.09
kAveragesC++	class	m	0.32±0.05	0.18±0.07	2.75±1.37	0.07
kAveragesC++	class	M	0.32±0.05	0.18±0.07	8.45±7.55	0.07
kAverages	object	p	0.43±0.03	0.32±0.02	5.45±1.10	2.37
kAverages	object	P	0.37±0.03	0.19±0.06	382.45±78.49	121.52
kAverages	object	b	0.41±0.06	0.29±0.08	25.80±59.62	8.28
kAverages	object	m	0.41±0.06	0.29±0.08	5.95±1.50	1.98
kAverages	object	M	0.41±0.06	0.28±0.07	261.65±193.44	79.62
kAveragesC++	object	p	0.44±0.02	0.30±0.03	4.05±0.94	0.06
kAveragesC++	object	P	0.45±0.02	0.30±0.03	46.15±5.58	0.06
kAveragesC++	object	b	0.42±0.06	0.28±0.05	25.20±59.79	0.11
kAveragesC++	object	m	0.44±0.04	0.30±0.04	2.85±1.27	0.06
kAveragesC++	object	M	0.44±0.04	0.30±0.04	6.70±7.18	0.06
kAverages	raw	p	0.42±0.06	0.31±0.04	4.60±0.75	1.81
kAverages	raw	P	0.38±0.05	0.21±0.05	400.00±0.00	83.45
kAverages	raw	b	0.34±0.03	0.20±0.04	180.55±59.87	52.17
kAverages	raw	m	0.40±0.06	0.32±0.05	185.60±61.29	57.67
kAverages	raw	M	0.35±0.03	0.23±0.04	400.00±0.00	118.93
kAveragesC++	raw	p	0.40±0.05	0.29±0.04	4.75±1.59	0.04
kAveragesC++	raw	P	0.43±0.04	0.32±0.03	51.10±6.79	0.04
kAveragesC++	raw	b	0.37±0.05	0.28±0.02	5.70±1.66	0.04
kAveragesC++	raw	m	0.37±0.05	0.28±0.02	2.40±1.39	0.05
kAveragesC++	raw	M	0.37±0.05	0.28±0.02	3.60±4.56	0.06

Table 5: dataSet: CBF, distance: dtw,
normalizeData: 1, nbRuns: 20

clustering	objective	strategy	accuracy	nmi	iterations	time
kkMeans			0.72±0.04	0.51±0.04	11.35±4.97	0.79
random			0.35±0.01	0.00±0.00	-±-	0.08
kAverages	class	p	0.36±0.07	0.05±0.09	16.70±4.59	43.91
kAverages	class	P	0.51±0.04	0.12±0.05	400.00±0.00	991.16
kAverages	class	b	0.41±0.12	0.11±0.15	32.70±40.58	122.35
kAverages	class	m	0.41±0.11	0.12±0.15	15.25±5.27	64.02
kAverages	class	M	0.73±0.09	0.49±0.09	387.85±35.85	1012.09
kAveragesC++	class	p	0.70±0.03	0.52±0.07	7.05±1.15	1.19
kAveragesC++	class	P	0.55±0.05	0.34±0.04	660.25±21.72	2.01
kAveragesC++	class	b	0.49±0.15	0.24±0.22	18.60±6.37	1.20
kAveragesC++	class	m	0.57±0.10	0.36±0.14	8.20±3.75	1.23
kAveragesC++	class	M	0.57±0.10	0.35±0.14	181.40±109.90	1.43
kAverages	object	p	0.71±0.05	0.51±0.03	6.90±1.94	33.26
kAverages	object	P	0.52±0.04	0.11±0.03	400.00±0.00	1023.11
kAverages	object	b	0.70±0.05	0.52±0.03	12.40±3.57	47.70
kAverages	object	m	0.70±0.05	0.52±0.03	8.50±1.88	35.30
kAverages	object	M	0.72±0.07	0.47±0.09	400.00±0.00	1426.63
kAveragesC++	object	p	0.69±0.04	0.50±0.03	5.80±1.24	1.17
kAveragesC++	object	P	0.68±0.02	0.50±0.01	669.45±59.24	2.08
kAveragesC++	object	b	0.71±0.05	0.52±0.03	13.10±5.03	1.07
kAveragesC++	object	m	0.71±0.05	0.52±0.03	5.95±2.39	1.09
kAveragesC++	object	M	0.71±0.05	0.52±0.03	113.65±72.65	1.23
kAverages	raw	p	0.68±0.08	0.42±0.12	5.35±1.27	15.37
kAverages	raw	P	0.51±0.04	0.10±0.03	400.00±0.00	1075.25
kAverages	raw	b	0.70±0.08	0.44±0.12	10.00±4.04	21.94
kAverages	raw	m	0.70±0.08	0.44±0.12	7.80±2.50	18.37
kAverages	raw	M	0.68±0.06	0.41±0.08	380.65±86.54	822.07
kAveragesC++	raw	p	0.67±0.07	0.40±0.12	5.60±1.88	1.12
kAveragesC++	raw	P	0.65±0.04	0.38±0.10	708.50±56.58	1.80
kAveragesC++	raw	b	0.69±0.07	0.43±0.11	10.00±4.88	1.04
kAveragesC++	raw	m	0.69±0.07	0.43±0.11	4.80±2.55	1.02
kAveragesC++	raw	M	0.69±0.07	0.43±0.12	66.75±58.11	1.11

Table 6: dataSet: ChlorineConcentration, distance: dtw, normalizeData: 1, nbKuns: 20						
clustering	objective	strategy	accuracy	nmi	iterations	time
kkMeans			0.38±0.01	0.00±0.00	20.85±8.80	5.99
random			0.35±0.01	0.00±0.00	-±-	0.23
kAverages	class	p	0.54±0.00	0.02±0.00	11.10±1.94	111.23
kAverages	class	P	0.36±0.01	0.00±0.00	400.00±0.00	2655.31
kAverages	class	b	0.54±0.00	0.01±0.00	36.30±56.39	294.73
kAverages	class	m	0.54±0.00	0.01±0.00	11.95±2.65	81.32
kAverages	class	M	0.39±0.04	0.00±0.00	378.70±55.66	2839.09
kAveragesC++	class	p	0.51±0.00	0.00±0.00	15.45±4.77	6.65
kAveragesC++	class	P	0.52±0.00	0.00±0.00	1538.90±46.96	8.71
kAveragesC++	class	b	0.54±0.00	0.02±0.01	16.40±7.68	5.19
kAveragesC++	class	m	0.53±0.01	0.01±0.01	11.85±6.11	5.67
kAveragesC++	class	M	0.52±0.01	0.01±0.01	712.90±358.89	6.31
kAverages	object	p	0.37±0.01	0.00±0.00	11.60±4.41	119.81
kAverages	object	P	0.37±0.01	0.00±0.00	400.00±0.00	2645.19
kAverages	object	b	0.37±0.01	0.00±0.00	32.05±40.79	184.31
kAverages	object	m	0.37±0.01	0.00±0.00	13.90±5.51	74.10
kAverages	object	M	0.37±0.02	0.00±0.00	400.00±0.00	2620.94
kAveragesC++	object	p	0.37±0.01	0.00±0.00	11.90±4.96	3.87
kAveragesC++	object	P	0.38±0.01	0.00±0.00	1666.50±120.90	7.32
kAveragesC++	object	b	0.37±0.01	0.00±0.00	22.65±9.34	3.11
kAveragesC++	object	m	0.37±0.01	0.00±0.00	11.45±4.20	3.23
kAveragesC++	object	M	0.37±0.01	0.00±0.00	246.65±141.61	3.61
kAverages	raw	p	0.40±0.01	0.01±0.01	11.15±3.92	103.10
kAverages	raw	P	0.37±0.01	0.00±0.00	400.00±0.00	2597.12
kAverages	raw	b	0.40±0.01	0.01±0.01	22.95±11.20	190.66
kAverages	raw	m	0.40±0.01	0.01±0.01	14.65±5.64	109.31
kAverages	raw	M	0.39±0.02	0.01±0.01	366.25±103.88	2422.75
kAveragesC++	raw	p	0.40±0.01	0.01±0.01	10.70±4.73	5.20
kAveragesC++	raw	P	0.40±0.00	0.00±0.00	1832.85±308.92	9.55
kAveragesC++	raw	b	0.40±0.01	0.01±0.01	22.25±11.53	4.92
kAveragesC++	raw	m	0.40±0.01	0.01±0.01	11.35±6.00	5.18
kAveragesC++	raw	M	0.40±0.01	0.01±0.01	432.55±300.01	5.24

Table 7: dataSet: CinC_ECG_torso,
distance: dtw, normalizeData: 1,
nbKuns: 20

clustering	objective	strategy	accuracy	nmi	iterations	time
kkMeans			0.52±0.03	0.44±0.08	19.95±6.98	1.87
random			0.27±0.01	0.00±0.00	-±-	0.11
kAverages	class	p	0.25±0.00	0.02±0.00	10.90±1.97	89.27
kAverages	class	P	0.34±0.02	0.05±0.01	400.00±0.00	1896.49
kAverages	class	b	0.25±0.00	0.01±0.01	42.40±68.14	243.73
kAverages	class	m	0.25±0.00	0.02±0.00	13.10±2.36	91.66
kAverages	class	M	0.44±0.04	0.23±0.06	400.00±0.00	1849.56
kAveragesC++	class	p	0.40±0.02	0.25±0.01	7.90±1.17	3.59
kAveragesC++	class	P	0.36±0.02	0.23±0.01	1283.05±86.74	6.49
kAveragesC++	class	b	0.26±0.01	0.04±0.03	14.45±5.04	3.27
kAveragesC++	class	m	0.29±0.02	0.10±0.03	5.30±1.56	3.25
kAveragesC++	class	M	0.29±0.02	0.10±0.03	200.40±192.84	2.44
kAverages	object	p	0.51±0.03	0.41±0.05	9.75±4.19	45.57
kAverages	object	P	0.34±0.01	0.05±0.01	400.00±0.00	1529.48
kAverages	object	b	0.49±0.04	0.40±0.07	29.00±40.59	108.49
kAverages	object	m	0.49±0.04	0.40±0.07	12.85±2.83	52.97
kAverages	object	M	0.51±0.05	0.34±0.09	400.00±0.00	2011.21
kAveragesC++	object	p	0.51±0.02	0.41±0.06	8.00±2.73	2.36
kAveragesC++	object	P	0.49±0.03	0.39±0.05	1185.05±81.89	4.69
kAveragesC++	object	b	0.49±0.04	0.39±0.07	18.65±5.72	1.94
kAveragesC++	object	m	0.49±0.04	0.39±0.07	9.00±3.18	2.54
kAveragesC++	object	M	0.49±0.04	0.38±0.07	287.75±152.67	2.65
kAverages	raw	p	0.52±0.00	0.46±0.00	7.40±1.60	64.06
kAverages	raw	P	0.34±0.01	0.05±0.01	400.00±0.00	2010.05
kAverages	raw	b	0.52±0.01	0.45±0.04	15.90±4.95	99.74
kAverages	raw	m	0.52±0.01	0.45±0.04	11.25±2.36	45.50
kAverages	raw	M	0.53±0.05	0.40±0.08	400.00±0.00	1934.92
kAveragesC++	raw	p	0.52±0.00	0.46±0.00	6.80±1.36	3.21
kAveragesC++	raw	P	0.52±0.00	0.46±0.00	1130.95±83.97	3.43
kAveragesC++	raw	b	0.52±0.00	0.46±0.00	15.30±3.73	2.98
kAveragesC++	raw	m	0.52±0.00	0.46±0.00	6.55±1.82	3.19
kAveragesC++	raw	M	0.52±0.00	0.46±0.00	350.00±217.62	3.75

Table 8: dataSet: Coffee, distance: dtw,
normalizedData: 1, nbRuns: 20

clustering	objective	strategy	accuracy	nmi	iterations	time
kkMeans			0.83±0.16	0.48±0.32	3.95±1.19	0.04
random			0.56±0.04	0.01±0.02	-±-	0.02
kAverages	class	p	0.54±0.02	0.06±0.02	5.80±1.54	0.86
kAverages	class	P	0.71±0.13	0.24±0.21	295.75±164.17	43.49
kAverages	class	b	0.52±0.02	0.04±0.02	9.35±4.33	1.18
kAverages	class	m	0.52±0.02	0.05±0.02	6.80±2.82	1.31
kAverages	class	M	0.71±0.18	0.26±0.28	230.30±193.07	38.45
kAveragesC++	class	p	0.78±0.07	0.38±0.13	3.20±0.41	0.05
kAveragesC++	class	P	0.78±0.04	0.39±0.06	22.30±3.71	0.04
kAveragesC++	class	b	0.71±0.17	0.32±0.26	9.40±5.30	0.05
kAveragesC++	class	m	0.69±0.11	0.26±0.17	2.50±1.05	0.05
kAveragesC++	class	M	0.68±0.11	0.25±0.16	4.45±4.35	0.05
kAverages	object	p	0.85±0.13	0.54±0.26	3.65±0.88	0.96
kAverages	object	P	0.65±0.07	0.13±0.11	400.00±0.00	77.29
kAverages	object	b	0.82±0.14	0.48±0.26	5.60±1.79	1.17
kAverages	object	m	0.82±0.14	0.48±0.26	5.00±1.21	1.09
kAverages	object	M	0.83±0.15	0.47±0.31	320.70±162.72	62.06
kAveragesC++	object	p	0.85±0.14	0.53±0.31	3.05±0.51	0.04
kAveragesC++	object	P	0.85±0.12	0.51±0.25	22.50±3.93	0.05
kAveragesC++	object	b	0.81±0.15	0.45±0.29	3.85±1.09	0.04
kAveragesC++	object	m	0.81±0.15	0.45±0.29	1.45±0.76	0.04
kAveragesC++	object	M	0.81±0.15	0.46±0.30	1.00±2.10	0.04
kAverages	raw	p	0.89±0.16	0.66±0.32	3.85±0.81	0.58
kAverages	raw	P	0.65±0.07	0.13±0.11	400.00±0.00	46.40
kAverages	raw	b	0.82±0.20	0.51±0.37	6.20±1.67	0.77
kAverages	raw	m	0.80±0.20	0.47±0.37	5.75±1.29	0.75
kAverages	raw	M	0.81±0.19	0.46±0.35	380.35±87.88	59.16
kAveragesC++	raw	p	0.86±0.17	0.57±0.33	3.10±1.12	0.04
kAveragesC++	raw	P	0.84±0.17	0.52±0.34	22.75±3.67	0.05
kAveragesC++	raw	b	0.80±0.19	0.45±0.35	5.00±1.62	0.05
kAveragesC++	raw	m	0.80±0.20	0.47±0.36	2.35±1.31	0.05
kAveragesC++	raw	M	0.80±0.19	0.47±0.36	2.70±3.50	0.05

Table 9: dataSet: Cricket_X, distance: dtw, normalizeData: 1, nbRuns: 20

clustering	objective	strategy	accuracy	nmi	iterations	time
kkMeans			0.30±0.01	0.29±0.02	18.15±4.53	1.15
random			0.14±0.01	0.03±0.00	-±-	0.10
kAverages	class	p	0.10±0.01	0.09±0.01	12.80±2.78	54.94
kAverages	class	P	0.19±0.01	0.09±0.01	400.00±0.00	2583.88
kAverages	class	b	0.09±0.00	0.03±0.02	11.50±6.51	81.49
kAverages	class	m	0.09±0.01	0.05±0.03	13.60±6.64	99.45
kAverages	class	M	0.14±0.05	0.09±0.06	224.05±199.61	1471.19
kAverages	object	p	0.31±0.01	0.31±0.01	17.00±5.86	88.08
kAverages	object	P	0.17±0.01	0.09±0.01	400.00±0.00	2153.63
kAverages	object	b	0.29±0.05	0.29±0.07	47.00±53.43	299.76
kAverages	object	m	0.29±0.05	0.29±0.07	17.85±6.24	69.28
kAverages	object	M	0.28±0.05	0.26±0.06	380.20±88.55	1934.34
kAverages	raw	p	0.28±0.01	0.27±0.02	13.15±3.03	98.30
kAverages	raw	P	0.17±0.01	0.09±0.01	400.00±0.00	1995.22
kAverages	raw	b	0.21±0.07	0.19±0.09	166.50±68.81	919.27
kAverages	raw	m	0.30±0.01	0.30±0.02	142.30±95.43	532.90
kAverages	raw	M	0.24±0.04	0.21±0.06	400.00±0.00	2130.67

Table 10: dataSet: Cricket_Y, distance: dtw, normalizeData: 1, nbRuns: 20

clustering	objective	strategy	accuracy	nmi	iterations	time
kkMeans			0.33±0.02	0.35±0.02	18.25±6.70	1.17
random			0.14±0.01	0.03±0.00	-±-	0.11
kAverages	class	p	0.10±0.00	0.08±0.00	16.75±5.31	70.14
kAverages	class	P	0.19±0.01	0.12±0.01	400.00±0.00	1956.83
kAverages	class	b	0.09±0.00	0.03±0.02	10.60±6.14	72.29
kAverages	class	m	0.09±0.01	0.05±0.03	12.90±7.55	50.21
kAverages	class	M	0.13±0.05	0.10±0.08	185.05±199.51	712.44
kAverages	object	p	0.34±0.02	0.35±0.01	12.85±3.72	77.69
kAverages	object	P	0.19±0.01	0.12±0.01	400.00±0.00	2122.65
kAverages	object	b	0.33±0.01	0.35±0.01	75.55±83.71	299.09
kAverages	object	m	0.33±0.01	0.35±0.01	13.85±2.48	53.91
kAverages	object	M	0.32±0.02	0.34±0.02	400.00±0.00	1900.11
kAverages	raw	p	0.32±0.02	0.33±0.01	22.30±42.05	88.79
kAverages	raw	P	0.19±0.01	0.12±0.01	400.00±0.00	2034.22
kAverages	raw	b	0.25±0.07	0.24±0.09	137.00±88.14	695.78
kAverages	raw	m	0.33±0.02	0.34±0.01	132.50±116.66	665.30
kAverages	raw	M	0.27±0.04	0.26±0.05	400.00±0.00	2121.88

Table 11: dataSet: Cricket_Z, distance: dtw, normalizeData: 1, nbRuns: 20

clustering	objective	strategy	accuracy	nmi	iterations	time
kkMeans			0.30±0.01	0.30±0.01	19.30±5.80	1.22
random			0.14±0.00	0.03±0.00	-±-	0.14
kAverages	class	p	0.10±0.00	0.08±0.00	14.55±3.17	117.34
kAverages	class	P	0.18±0.01	0.11±0.01	400.00±0.00	2296.84
kAverages	class	b	0.09±0.00	0.04±0.02	29.80±58.48	202.02
kAverages	class	m	0.09±0.01	0.05±0.03	14.40±8.02	108.30
kAverages	class	M	0.13±0.04	0.08±0.06	223.80±199.88	1034.61
kAveragesC++	class	p	0.28±0.01	0.30±0.01	13.20±2.86	1.58
kAveragesC++	class	P	0.27±0.01	0.29±0.02	1108.25±50.58	6.11
kAveragesC++	class	b	0.14±0.03	0.09±0.03	138.30±86.40	34.28
kAveragesC++	class	m	0.16±0.01	0.17±0.02	7.25±2.29	1.02
kAveragesC++	class	M	0.16±0.02	0.17±0.02	284.20±117.67	1.75
kAverages	object	p	0.31±0.01	0.31±0.01	15.70±7.09	114.22
kAverages	object	P	0.16±0.01	0.09±0.01	400.00±0.00	1772.01
kAverages	object	b	0.30±0.05	0.30±0.07	69.55±77.89	306.15
kAverages	object	m	0.30±0.05	0.30±0.07	17.60±6.61	107.67
kAverages	object	M	0.28±0.05	0.27±0.07	380.25±88.32	2464.00
kAveragesC++	object	p	0.31±0.02	0.31±0.02	12.45±2.52	1.28
kAveragesC++	object	P	0.30±0.02	0.30±0.02	901.40±44.12	4.20
kAveragesC++	object	b	0.31±0.01	0.31±0.02	23.30±8.03	0.82
kAveragesC++	object	m	0.31±0.01	0.31±0.02	10.40±4.69	0.82
kAveragesC++	object	M	0.31±0.02	0.31±0.02	194.65±63.83	1.35
kAverages	raw	p	0.30±0.02	0.28±0.02	14.30±4.14	106.28
kAverages	raw	P	0.16±0.01	0.10±0.01	400.00±0.00	1676.46
kAverages	raw	b	0.23±0.07	0.20±0.09	165.65±70.58	841.76
kAverages	raw	m	0.29±0.02	0.28±0.02	123.25±98.16	855.22
kAverages	raw	M	0.25±0.04	0.22±0.06	400.00±0.00	2214.10
kAveragesC++	raw	p	0.28±0.01	0.26±0.02	10.75±3.61	1.42
kAveragesC++	raw	P	0.29±0.02	0.28±0.02	964.35±79.74	3.68
kAveragesC++	raw	b	0.28±0.02	0.26±0.02	18.40±5.45	1.22
kAveragesC++	raw	m	0.28±0.02	0.26±0.02	8.20±2.86	1.22
kAveragesC++	raw	M	0.28±0.02	0.26±0.02	116.55±35.93	1.48

Table 12: dataSet: DiatomSizeReduction, distance: dtw, normalizeData: 1, nbKuns: 20						
clustering	objective	strategy	accuracy	nmi	iterations	time
kkMeans			0.83±0.12	0.81±0.10	8.95±4.75	0.16
random			0.29±0.01	0.01±0.01	-±-	0.06
kAverages	class	p	0.31±0.01	0.05±0.00	6.25±1.33	11.50
kAverages	class	P	0.38±0.06	0.10±0.08	339.65±112.91	471.31
kAverages	class	b	0.36±0.10	0.11±0.17	43.50±80.29	44.70
kAverages	class	m	0.31±0.00	0.03±0.02	44.50±82.35	62.78
kAverages	class	M	0.31±0.00	0.04±0.03	222.15±201.73	319.81
kAveragesC++	class	p	0.48±0.03	0.35±0.02	9.10±2.20	0.25
kAveragesC++	class	P	0.45±0.03	0.34±0.04	222.40±9.45	0.34
kAveragesC++	class	b	0.31±0.00	0.06±0.03	4.15±1.39	0.21
kAveragesC++	class	m	0.36±0.08	0.13±0.14	2.65±2.23	0.20
kAveragesC++	class	M	0.33±0.04	0.10±0.10	7.00±12.68	0.19
kAverages	object	p	0.76±0.13	0.65±0.10	103.35±99.17	168.66
kAverages	object	P	0.36±0.04	0.05±0.03	400.00±0.00	563.09
kAverages	object	b	0.39±0.09	0.21±0.20	53.35±86.90	59.32
kAverages	object	m	0.39±0.09	0.21±0.19	103.00±175.93	138.43
kAverages	object	M	0.38±0.10	0.18±0.21	169.40±182.22	142.38
kAveragesC++	object	p	0.84±0.04	0.74±0.04	6.10±1.83	0.27
kAveragesC++	object	P	0.75±0.15	0.72±0.07	380.10±99.04	0.52
kAveragesC++	object	b	0.49±0.15	0.42±0.24	57.45±84.57	3.20
kAveragesC++	object	m	0.74±0.13	0.73±0.12	6.20±3.72	0.26
kAveragesC++	object	M	0.66±0.15	0.66±0.13	129.90±94.71	0.31
kAverages	raw	p	0.54±0.12	0.57±0.16	4.80±1.74	9.12
kAverages	raw	P	0.33±0.02	0.02±0.01	400.00±0.00	456.86
kAverages	raw	b	0.43±0.13	0.32±0.27	114.80±96.69	150.01
kAverages	raw	m	0.54±0.14	0.53±0.24	68.60±92.14	75.03
kAverages	raw	M	0.41±0.13	0.28±0.24	322.65±158.82	431.31
kAveragesC++	raw	p	0.43±0.13	0.32±0.22	3.85±1.31	0.23
kAveragesC++	raw	P	0.60±0.12	0.68±0.14	287.30±34.38	0.31
kAveragesC++	raw	b	0.48±0.16	0.42±0.26	5.55±2.46	0.21
kAveragesC++	raw	m	0.48±0.16	0.42±0.26	2.65±1.35	0.21
kAveragesC++	raw	M	0.48±0.16	0.42±0.26	37.75±67.78	0.22

Table 13: dataSet: ECG200, distance:
dtw, normalizedData: 1, nbRuns: 20

clustering	objective	strategy	accuracy	nmi	iterations	time
kkMeans			0.75±0.03	0.14±0.03	5.55±1.10	0.09
random			0.53±0.02	0.00±0.01	-±-	0.05
kAverages	class	p	0.68±0.02	0.07±0.05	7.90±2.73	6.67
kAverages	class	P	0.63±0.07	0.05±0.04	351.85±87.92	237.80
kAverages	class	b	0.66±0.00	0.00±0.01	13.75±6.42	9.50
kAverages	class	m	0.67±0.02	0.05±0.05	8.90±3.39	6.71
kAverages	class	M	0.69±0.04	0.06±0.05	152.05±172.21	102.40
kAveragesC++	class	p	0.65±0.10	0.09±0.01	5.40±0.88	0.11
kAveragesC++	class	P	0.56±0.04	0.06±0.02	92.80±5.91	0.11
kAveragesC++	class	b	0.70±0.03	0.06±0.03	19.75±11.85	0.13
kAveragesC++	class	m	0.70±0.07	0.11±0.07	3.60±1.64	0.11
kAveragesC++	class	M	0.70±0.07	0.12±0.07	32.70±31.02	0.11
kAverages	object	p	0.76±0.00	0.15±0.00	4.15±0.37	3.71
kAverages	object	P	0.68±0.00	0.04±0.00	231.60±143.53	157.53
kAverages	object	b	0.76±0.00	0.15±0.00	6.55±1.73	4.59
kAverages	object	m	0.76±0.00	0.15±0.00	5.75±1.02	4.31
kAverages	object	M	0.74±0.02	0.13±0.03	283.30±182.90	191.64
kAveragesC++	object	p	0.76±0.00	0.15±0.00	4.20±0.52	0.10
kAveragesC++	object	P	0.75±0.00	0.15±0.01	93.35±5.77	0.11
kAveragesC++	object	b	0.76±0.00	0.15±0.00	5.50±1.36	0.09
kAveragesC++	object	m	0.76±0.00	0.15±0.00	2.40±0.99	0.09
kAveragesC++	object	M	0.76±0.00	0.15±0.00	14.75±17.76	0.09
kAverages	raw	p	0.72±0.03	0.10±0.05	3.50±0.69	3.17
kAverages	raw	P	0.68±0.00	0.04±0.01	283.45±147.48	189.68
kAverages	raw	b	0.72±0.03	0.10±0.05	5.55±1.00	3.88
kAverages	raw	m	0.72±0.03	0.10±0.05	4.70±0.66	3.48
kAverages	raw	M	0.72±0.03	0.10±0.05	281.75±185.33	190.89
kAveragesC++	raw	p	0.72±0.03	0.10±0.05	3.60±0.88	0.10
kAveragesC++	raw	P	0.74±0.00	0.13±0.00	94.60±6.25	0.10
kAveragesC++	raw	b	0.72±0.03	0.10±0.05	6.15±1.31	0.09
kAveragesC++	raw	m	0.72±0.03	0.10±0.05	2.60±0.82	0.09
kAveragesC++	raw	M	0.72±0.03	0.10±0.05	8.75±12.40	0.09

Table 14: dataSet: ECGFiveDays,
distance: dtw, normalizeData: 1,
nbKuns: 20

clustering	objective	strategy	accuracy	nmi	iterations	time
kkMeans			0.58±0.03	0.02±0.02	15.25±5.86	0.79
random			0.51±0.01	0.00±0.00	-+-	0.07
kAverages	class	p	0.50±0.00	0.01±0.00	8.30±1.92	32.85
kAverages	class	P	0.51±0.01	0.01±0.01	400.00±0.00	1158.69
kAverages	class	b	0.51±0.03	0.01±0.01	22.90±41.91	72.13
kAverages	class	m	0.51±0.03	0.01±0.01	9.55±2.19	33.34
kAverages	class	M	0.61±0.06	0.05±0.04	378.55±68.35	1004.01
kAveragesC++	class	p	0.59±0.03	0.12±0.06	9.20±2.28	1.03
kAveragesC++	class	P	0.59±0.00	0.14±0.00	429.00±11.48	1.21
kAveragesC++	class	b	0.51±0.03	0.01±0.01	12.25±4.49	0.95
kAveragesC++	class	m	0.55±0.03	0.08±0.04	6.45±3.35	0.98
kAveragesC++	class	M	0.54±0.03	0.08±0.03	154.55±117.36	1.06
kAverages	object	p	0.59±0.05	0.04±0.06	7.05±1.57	16.22
kAverages	object	P	0.55±0.01	0.03±0.01	400.00±0.00	882.32
kAverages	object	b	0.61±0.07	0.09±0.12	12.70±3.88	38.03
kAverages	object	m	0.61±0.07	0.09±0.12	8.80±1.82	29.19
kAverages	object	M	0.58±0.03	0.04±0.02	391.50±30.78	1106.63
kAveragesC++	object	p	0.59±0.05	0.04±0.06	7.25±2.59	0.93
kAveragesC++	object	P	0.58±0.03	0.02±0.02	444.60±29.87	1.26
kAveragesC++	object	b	0.61±0.07	0.09±0.11	12.85±4.50	0.81
kAveragesC++	object	m	0.61±0.07	0.09±0.11	5.90±2.10	0.84
kAveragesC++	object	M	0.61±0.07	0.09±0.11	101.10±52.98	0.92
kAverages	raw	p	0.61±0.02	0.05±0.02	10.70±6.16	30.59
kAverages	raw	P	0.55±0.01	0.03±0.01	400.00±0.00	1024.45
kAverages	raw	b	0.61±0.01	0.05±0.02	23.75±11.44	54.62
kAverages	raw	m	0.61±0.01	0.05±0.02	14.20±5.63	28.76
kAverages	raw	M	0.59±0.05	0.04±0.04	377.80±70.54	812.50
kAveragesC++	raw	p	0.61±0.01	0.04±0.00	13.20±7.22	0.83
kAveragesC++	raw	P	0.61±0.00	0.04±0.00	543.40±114.05	0.95
kAveragesC++	raw	b	0.61±0.01	0.05±0.02	24.95±12.94	0.71
kAveragesC++	raw	m	0.61±0.01	0.05±0.02	11.85±6.28	0.78
kAveragesC++	raw	M	0.61±0.01	0.05±0.02	286.90±174.57	0.88

Table 15: dataSet: FaceAll, distance: dtw, normalizeData: 1, nbRuns: 20

clustering	objective	strategy	accuracy	nmi	iterations	time
kkMeans			0.74±0.05	0.79±0.02	18.55±6.93	8.05
random			0.11±0.00	0.02±0.00	-±-	0.25
kAverages	class	p	0.14±0.00	0.05±0.00	11.25±2.12	225.67
kAverages	class	P	0.15±0.01	0.08±0.01	400.00±0.00	5674.20
kAverages	class	b	0.14±0.00	0.02±0.01	17.35±43.21	322.86
kAverages	class	m	0.14±0.00	0.02±0.02	8.75±5.17	165.45
kAverages	class	M	0.18±0.05	0.13±0.13	183.25±201.17	2500.94
kAveragesC++	class	p	0.34±0.02	0.47±0.01	8.75±2.24	7.09
kAveragesC++	class	P	0.32±0.02	0.46±0.01	2301.80±44.86	36.01
kAveragesC++	class	b	0.16±0.03	0.10±0.09	154.50±80.97	312.21
kAveragesC++	class	m	0.20±0.04	0.25±0.07	7.75±3.55	7.58
kAveragesC++	class	M	0.19±0.03	0.22±0.06	800.70±479.67	13.65
kAverages	object	p	0.66±0.04	0.75±0.01	10.80±4.01	133.83
kAverages	object	P	0.18±0.00	0.11±0.00	400.00±0.00	6855.46
kAverages	object	b	0.66±0.04	0.75±0.02	37.05±56.10	399.95
kAverages	object	m	0.66±0.05	0.74±0.02	31.70±86.75	352.54
kAverages	object	M	0.68±0.05	0.71±0.03	400.00±0.00	6178.73
kAveragesC++	object	p	0.66±0.05	0.75±0.01	10.10±3.51	5.17
kAveragesC++	object	P	0.65±0.05	0.74±0.02	2264.45±95.39	36.75
kAveragesC++	object	b	0.66±0.05	0.74±0.03	21.65±8.86	6.30
kAveragesC++	object	m	0.66±0.05	0.74±0.03	10.40±5.29	5.30
kAveragesC++	object	M	0.67±0.05	0.75±0.03	418.85±183.20	8.34
kAverages	raw	p	0.65±0.04	0.72±0.02	15.10±4.85	304.63
kAverages	raw	P	0.18±0.00	0.11±0.00	400.00±0.00	6356.99
kAverages	raw	b	0.46±0.16	0.52±0.20	132.50±85.20	2481.79
kAverages	raw	m	0.61±0.05	0.70±0.02	133.50±114.43	2191.32
kAverages	raw	M	0.47±0.13	0.52±0.16	400.00±0.00	6350.32
kAveragesC++	raw	p	0.64±0.04	0.71±0.02	11.80±4.49	8.02
kAveragesC++	raw	P	0.52±0.04	0.67±0.03	2533.60±127.18	21.49
kAveragesC++	raw	b	0.59±0.07	0.68±0.04	20.95±8.24	5.07
kAveragesC++	raw	m	0.59±0.07	0.68±0.04	9.55±3.39	7.00
kAveragesC++	raw	M	0.59±0.06	0.68±0.03	363.80±200.31	9.16

Table 16: dataSet: FaceFour, distance: dtw, normalizedData: 1, nbRuns: 20

clustering	objective	strategy	accuracy	nmi	iterations	time
kkMeans			0.74±0.09	0.67±0.09	5.10±1.33	0.08
random			0.33±0.02	0.03±0.01	-±-	0.05
kAverages	class	p	0.35±0.04	0.15±0.04	6.90±1.62	2.47
kAverages	class	P	0.41±0.06	0.14±0.09	377.45±76.68	109.27
kAverages	class	b	0.33±0.03	0.08±0.07	28.05±58.86	8.28
kAverages	class	m	0.33±0.04	0.11±0.07	8.20±2.12	2.57
kAverages	class	M	0.45±0.14	0.24±0.19	252.35±189.85	78.30
kAveragesC++	class	p	0.67±0.09	0.56±0.05	4.65±1.27	0.05
kAveragesC++	class	P	0.66±0.08	0.53±0.04	79.30±6.23	0.06
kAveragesC++	class	b	0.37±0.06	0.19±0.09	8.05±1.79	0.07
kAveragesC++	class	m	0.43±0.06	0.29±0.10	2.65±0.93	0.08
kAveragesC++	class	M	0.43±0.06	0.29±0.10	13.45±12.81	0.08
kAverages	object	p	0.79±0.14	0.72±0.10	4.70±1.84	1.84
kAverages	object	P	0.38±0.05	0.14±0.07	400.00±0.00	121.40
kAverages	object	b	0.80±0.12	0.73±0.07	16.20±43.29	4.85
kAverages	object	m	0.80±0.12	0.73±0.07	6.15±1.57	1.93
kAverages	object	M	0.76±0.12	0.68±0.10	340.70±144.83	99.91
kAveragesC++	object	p	0.81±0.11	0.72±0.09	3.90±0.97	0.06
kAveragesC++	object	P	0.83±0.08	0.71±0.06	78.55±7.23	0.08
kAveragesC++	object	b	0.79±0.11	0.71±0.08	5.50±1.99	0.06
kAveragesC++	object	m	0.80±0.11	0.71±0.08	2.40±1.50	0.07
kAveragesC++	object	M	0.79±0.11	0.71±0.09	4.40±5.49	0.37
kAverages	raw	p	0.68±0.01	0.63±0.03	4.05±1.19	1.47
kAverages	raw	P	0.39±0.06	0.16±0.08	400.00±0.00	113.11
kAverages	raw	b	0.70±0.06	0.65±0.07	6.55±2.86	1.93
kAverages	raw	m	0.70±0.06	0.65±0.07	5.85±1.79	1.78
kAverages	raw	M	0.66±0.09	0.59±0.13	261.45±193.72	73.90
kAveragesC++	raw	p	0.68±0.01	0.62±0.01	3.70±0.86	0.05
kAveragesC++	raw	P	0.71±0.07	0.64±0.08	80.35±6.42	0.05
kAveragesC++	raw	b	0.67±0.04	0.62±0.05	6.25±3.13	0.05
kAveragesC++	raw	m	0.68±0.06	0.62±0.05	2.30±1.45	0.05
kAveragesC++	raw	M	0.67±0.04	0.62±0.05	11.90±18.90	0.05

Table 17: dataSet: FacesUCR, distance: dtw, normalizeData: 1, nbRuns: 20

clustering	objective	strategy	accuracy	nmi	iterations	time
kkMeans			0.70±0.05	0.78±0.03	17.55±6.57	7.13
random			0.11±0.00	0.02±0.00	-±-	0.18
kAverages	class	p	0.15±0.00	0.06±0.00	11.80±2.42	151.97
kAverages	class	P	0.16±0.01	0.09±0.01	400.00±0.00	5708.71
kAverages	class	b	0.15±0.00	0.01±0.01	7.55±5.99	87.43
kAverages	class	m	0.15±0.00	0.02±0.02	7.80±5.94	90.67
kAverages	class	M	0.17±0.04	0.07±0.12	110.15±173.95	1744.63
kAveragesC++	class	p	0.37±0.02	0.49±0.01	8.20±2.35	5.84
kAveragesC++	class	P	0.34±0.01	0.46±0.01	2327.85±67.49	27.38
kAveragesC++	class	b	0.19±0.05	0.15±0.11	126.25±92.70	207.24
kAveragesC++	class	m	0.20±0.03	0.22±0.05	7.20±3.25	7.85
kAveragesC++	class	M	0.18±0.02	0.18±0.05	485.60±360.89	10.70
kAverages	object	p	0.69±0.04	0.77±0.01	10.10±4.63	217.44
kAverages	object	P	0.16±0.01	0.09±0.01	400.00±0.00	6274.01
kAverages	object	b	0.66±0.05	0.76±0.02	64.55±80.36	835.69
kAverages	object	m	0.66±0.05	0.76±0.02	12.95±4.31	181.19
kAverages	object	M	0.63±0.06	0.69±0.03	400.00±0.00	6465.87
kAveragesC++	object	p	0.69±0.04	0.77±0.02	8.40±2.91	5.31
kAveragesC++	object	P	0.66±0.05	0.76±0.02	2184.60±67.44	25.86
kAveragesC++	object	b	0.64±0.08	0.74±0.03	19.60±8.07	4.58
kAveragesC++	object	m	0.64±0.07	0.75±0.03	9.05±3.63	4.73
kAveragesC++	object	M	0.64±0.08	0.74±0.03	345.05±159.35	7.65
kAverages	raw	p	0.60±0.04	0.70±0.03	11.15±3.48	147.16
kAverages	raw	P	0.16±0.00	0.10±0.01	400.00±0.00	5872.59
kAverages	raw	b	0.45±0.15	0.52±0.19	156.65±77.58	2707.12
kAverages	raw	m	0.57±0.04	0.69±0.03	142.25±93.87	2759.12
kAverages	raw	M	0.47±0.11	0.54±0.14	400.00±0.00	5886.86
kAveragesC++	raw	p	0.58±0.05	0.69±0.03	11.00±3.73	8.52
kAveragesC++	raw	P	0.53±0.04	0.67±0.03	2509.50±238.08	20.54
kAveragesC++	raw	b	0.60±0.03	0.70±0.03	19.20±6.57	5.40
kAveragesC++	raw	m	0.60±0.04	0.70±0.03	8.10±3.26	5.53
kAveragesC++	raw	M	0.60±0.04	0.70±0.03	397.85±274.62	7.40

Table 18: dataSet: Gun_Point, distance: dtw, normalizeData: 1, nbRuns: 20

clustering	objective	strategy	accuracy	nmi	iterations	time
kkMeans			0.50±0.00	0.00±0.00	3.80±1.61	0.07
random			0.53±0.02	0.00±0.00	-±-	0.06
kAverages	class	p	0.50±0.00	0.00±0.01	2.70±0.80	2.01
kAverages	class	P	0.54±0.05	0.01±0.03	333.10±105.35	136.94
kAverages	class	b	0.50±0.01	0.01±0.02	4.10±1.94	1.75
kAverages	class	m	0.50±0.01	0.01±0.02	3.80±1.20	1.69
kAverages	class	M	0.51±0.01	0.00±0.01	93.60±159.26	56.27
kAveragesC++	class	p	0.51±0.04	0.02±0.06	2.80±0.77	0.09
kAveragesC++	class	P	0.51±0.04	0.02±0.05	107.95±25.10	0.11
kAveragesC++	class	b	0.50±0.01	0.01±0.02	4.10±1.77	0.08
kAveragesC++	class	m	0.50±0.01	0.01±0.03	1.65±0.93	0.08
kAveragesC++	class	M	0.50±0.01	0.01±0.03	3.80±7.45	0.08
kAverages	object	p	0.50±0.00	0.00±0.00	2.40±0.50	2.29
kAverages	object	P	0.54±0.03	0.01±0.01	362.45±93.47	247.68
kAverages	object	b	0.50±0.00	0.00±0.00	2.95±0.83	2.19
kAverages	object	m	0.50±0.00	0.00±0.00	2.95±0.83	2.24
kAverages	object	M	0.50±0.01	0.00±0.00	43.15±122.05	29.95
kAveragesC++	object	p	0.50±0.00	0.00±0.00	2.45±0.51	0.09
kAveragesC++	object	P	0.50±0.00	0.00±0.00	93.30±3.81	0.11
kAveragesC++	object	b	0.50±0.00	0.00±0.00	3.15±1.14	0.08
kAveragesC++	object	m	0.50±0.00	0.00±0.00	1.25±0.55	0.07
kAveragesC++	object	M	0.50±0.00	0.00±0.00	2.50±9.37	0.07
kAverages	raw	p	0.57±0.00	0.01±0.00	4.70±0.66	3.89
kAverages	raw	P	0.54±0.03	0.01±0.01	384.80±67.98	244.02
kAverages	raw	b	0.57±0.00	0.01±0.00	6.75±1.12	4.88
kAverages	raw	m	0.57±0.00	0.01±0.00	5.70±1.03	4.36
kAverages	raw	M	0.55±0.02	0.01±0.01	304.55±169.72	203.02
kAveragesC++	raw	p	0.57±0.00	0.01±0.00	5.15±1.09	0.09
kAveragesC++	raw	P	0.57±0.00	0.01±0.00	95.70±7.40	0.11
kAveragesC++	raw	b	0.57±0.00	0.01±0.00	8.50±1.91	0.09
kAveragesC++	raw	m	0.57±0.00	0.01±0.00	3.75±0.85	0.08
kAveragesC++	raw	M	0.57±0.00	0.01±0.00	13.65±9.84	0.09

Table 19: dataSet: Haptics, distance: dtw, normalizedData: 1, nbRuns: 20

clustering	objective	strategy	accuracy	nmi	iterations	time
kkMeans			0.35±0.01	0.09±0.01	17.45±7.33	0.42
random			0.24±0.01	0.01±0.00	-±-	0.07
kAverages	class	p	0.22±0.00	0.05±0.01	8.05±1.76	23.31
kAverages	class	P	0.32±0.03	0.07±0.02	400.00±0.00	865.01
kAverages	class	b	0.22±0.00	0.02±0.02	38.55±69.71	77.53
kAverages	class	m	0.22±0.00	0.03±0.01	8.90±2.86	21.91
kAverages	class	M	0.29±0.06	0.06±0.03	268.20±176.78	616.32
kAveragesC++	class	p	0.31±0.02	0.10±0.01	7.65±1.35	0.44
kAveragesC++	class	P	0.30±0.01	0.10±0.02	385.55±15.80	0.79
kAveragesC++	class	b	0.24±0.03	0.05±0.02	25.60±42.07	1.74
kAveragesC++	class	m	0.25±0.02	0.07±0.02	5.70±3.28	0.51
kAveragesC++	class	M	0.25±0.02	0.06±0.02	84.10±86.10	0.52
kAverages	object	p	0.35±0.03	0.10±0.01	9.05±3.94	25.07
kAverages	object	P	0.30±0.01	0.07±0.01	400.00±0.00	784.56
kAverages	object	b	0.34±0.03	0.09±0.02	23.85±41.81	31.63
kAverages	object	m	0.34±0.04	0.09±0.02	10.75±3.88	15.21
kAverages	object	M	0.35±0.04	0.10±0.03	374.50±89.08	671.16
kAveragesC++	object	p	0.35±0.02	0.09±0.01	7.40±2.64	0.39
kAveragesC++	object	P	0.36±0.02	0.09±0.01	403.05±21.28	0.86
kAveragesC++	object	b	0.35±0.02	0.10±0.01	14.75±6.13	0.35
kAveragesC++	object	m	0.35±0.02	0.10±0.01	6.50±2.54	0.37
kAveragesC++	object	M	0.35±0.02	0.10±0.01	87.00±55.87	0.49
kAverages	raw	p	0.33±0.01	0.08±0.01	11.30±3.59	30.90
kAverages	raw	P	0.30±0.01	0.07±0.01	400.00±0.00	860.78
kAverages	raw	b	0.33±0.01	0.08±0.01	28.65±40.78	48.17
kAverages	raw	m	0.33±0.01	0.08±0.01	14.00±5.46	27.56
kAverages	raw	M	0.34±0.02	0.09±0.01	400.00±0.00	814.63
kAveragesC++	raw	p	0.33±0.01	0.08±0.01	10.35±4.20	0.35
kAveragesC++	raw	P	0.34±0.01	0.09±0.01	549.30±68.02	0.58
kAveragesC++	raw	b	0.34±0.01	0.08±0.01	16.35±7.08	0.33
kAveragesC++	raw	m	0.34±0.01	0.08±0.01	7.15±3.80	0.38
kAveragesC++	raw	M	0.34±0.01	0.08±0.01	90.55±67.42	0.44

Table 20: dataSet: InlineSkate, distance: dtw, normalizeData: 1, nbRuns: 20

clustering	objective	strategy	accuracy	nmi	iterations	time
kkMeans			0.21±0.01	0.05±0.01	18.05±8.15	0.80
random			0.19±0.01	0.01±0.00	-±-	0.08
kAverages	class	p	0.18±0.00	0.05±0.01	9.65±2.48	25.92
kAverages	class	P	0.20±0.01	0.04±0.01	400.00±0.00	1151.93
kAverages	class	b	0.18±0.00	0.03±0.02	38.70±69.71	102.90
kAverages	class	m	0.18±0.00	0.04±0.02	10.75±4.98	26.00
kAverages	class	M	0.20±0.02	0.04±0.02	301.25±175.49	708.93
kAveragesC++	class	p	0.21±0.01	0.07±0.01	7.80±2.09	0.65
kAveragesC++	class	P	0.21±0.01	0.07±0.01	607.45±23.85	1.70
kAveragesC++	class	b	0.19±0.01	0.05±0.01	45.50±67.15	6.19
kAveragesC++	class	m	0.19±0.01	0.05±0.02	6.15±2.78	0.64
kAveragesC++	class	M	0.19±0.01	0.05±0.02	110.60±91.28	0.75
kAverages	object	p	0.21±0.01	0.05±0.00	9.85±2.89	34.97
kAverages	object	P	0.20±0.01	0.04±0.01	400.00±0.00	1192.94
kAverages	object	b	0.21±0.00	0.05±0.00	34.05±39.80	79.13
kAverages	object	m	0.21±0.00	0.05±0.01	15.45±4.31	36.56
kAverages	object	M	0.22±0.01	0.05±0.01	372.95±62.01	881.52
kAveragesC++	object	p	0.21±0.00	0.05±0.01	10.65±3.38	0.73
kAveragesC++	object	P	0.21±0.00	0.05±0.00	686.05±73.89	1.66
kAveragesC++	object	b	0.21±0.01	0.05±0.00	20.70±8.78	0.52
kAveragesC++	object	m	0.21±0.01	0.05±0.00	9.85±4.49	0.53
kAveragesC++	object	M	0.21±0.01	0.05±0.00	149.75±80.81	0.72
kAverages	raw	p	0.21±0.01	0.05±0.01	10.20±3.38	46.75
kAverages	raw	P	0.20±0.01	0.04±0.01	400.00±0.00	972.40
kAverages	raw	b	0.21±0.01	0.05±0.01	90.80±91.66	276.64
kAverages	raw	m	0.22±0.01	0.06±0.01	81.40±95.14	256.96
kAverages	raw	M	0.22±0.01	0.05±0.01	400.00±0.00	989.64
kAveragesC++	raw	p	0.22±0.01	0.06±0.01	9.65±3.38	0.99
kAveragesC++	raw	P	0.22±0.01	0.06±0.00	819.00±107.05	1.89
kAveragesC++	raw	b	0.22±0.01	0.06±0.01	15.70±8.34	0.54
kAveragesC++	raw	m	0.22±0.01	0.06±0.01	6.85±4.21	0.55
kAveragesC++	raw	M	0.22±0.01	0.06±0.01	79.70±50.14	0.59

Table 21: dataSet: ItalyPowerDemand,
distance: dtw, normalizeData: 1,
nbRuns: 20

clustering	objective	strategy	accuracy	nmi	iterations	time
kkMeans			0.54±0.00	0.01±0.00	10.20±1.32	0.81
random			0.51±0.01	0.00±0.00	-±-	0.10
kAverages	class	p	0.50±0.00	0.01±0.00	6.15±0.37	31.29
kAverages	class	P	0.62±0.04	0.16±0.06	400.00±0.00	1220.15
kAverages	class	b	0.51±0.01	0.01±0.01	29.95±58.41	68.09
kAverages	class	m	0.51±0.01	0.01±0.00	7.55±3.22	19.02
kAverages	class	M	0.60±0.11	0.07±0.09	265.40±168.27	921.82
kAveragesC++	class	p	0.60±0.00	0.15±0.00	6.15±0.88	1.62
kAveragesC++	class	P	0.58±0.00	0.13±0.00	535.35±11.55	1.82
kAveragesC++	class	b	0.51±0.02	0.01±0.00	10.60±6.75	1.34
kAveragesC++	class	m	0.53±0.02	0.06±0.04	5.45±3.76	1.35
kAveragesC++	class	M	0.53±0.02	0.06±0.04	131.95±170.68	1.48
kAverages	object	p	0.53±0.00	0.00±0.00	5.00±0.56	25.61
kAverages	object	P	0.57±0.02	0.03±0.02	400.00±0.00	1158.18
kAverages	object	b	0.53±0.03	0.01±0.05	10.20±4.32	40.01
kAverages	object	m	0.53±0.03	0.01±0.05	7.60±2.30	32.06
kAverages	object	M	0.53±0.02	0.01±0.01	341.20±79.72	1145.08
kAveragesC++	object	p	0.53±0.00	0.00±0.00	5.20±0.41	1.34
kAveragesC++	object	P	0.53±0.00	0.00±0.00	559.30±13.81	1.91
kAveragesC++	object	b	0.53±0.03	0.01±0.05	9.45±4.73	1.14
kAveragesC++	object	m	0.53±0.03	0.01±0.05	5.00±2.43	1.21
kAveragesC++	object	M	0.53±0.03	0.01±0.05	132.35±128.48	1.34
kAverages	raw	p	0.53±0.00	0.01±0.00	3.35±0.49	17.08
kAverages	raw	P	0.57±0.02	0.04±0.03	400.00±0.00	1364.33
kAverages	raw	b	0.53±0.00	0.01±0.00	4.90±0.55	19.30
kAverages	raw	m	0.53±0.00	0.01±0.00	4.80±0.52	19.72
kAverages	raw	M	0.53±0.00	0.01±0.00	149.75±188.49	521.55
kAveragesC++	raw	p	0.53±0.00	0.01±0.00	3.40±0.50	1.26
kAveragesC++	raw	P	0.53±0.00	0.01±0.00	538.40±21.15	1.63
kAveragesC++	raw	b	0.53±0.00	0.01±0.00	5.50±0.76	1.03
kAveragesC++	raw	m	0.53±0.00	0.01±0.00	2.85±0.67	1.04
kAveragesC++	raw	M	0.53±0.00	0.01±0.00	17.85±10.83	1.05

Table 22: dataSet: Lighting2, distance: dtw, normalizeData: 1, nbRuns: 20

clustering	objective	strategy	accuracy	nmi	iterations	time
kkMeans			0.55±0.00	0.01±0.00	7.90±4.20	0.10
random			0.53±0.02	0.00±0.01	-±-	0.05
kAverages	class	p	0.59±0.01	0.03±0.01	5.95±0.60	1.85
kAverages	class	P	0.59±0.05	0.04±0.04	386.15±61.94	101.25
kAverages	class	b	0.60±0.01	0.02±0.01	8.85±1.98	2.28
kAverages	class	m	0.59±0.01	0.03±0.01	6.80±1.06	1.89
kAverages	class	M	0.60±0.06	0.05±0.04	373.95±80.23	137.41
kAveragesC++	class	p	0.53±0.03	0.04±0.05	4.35±1.23	0.05
kAveragesC++	class	P	0.53±0.02	0.03±0.04	53.75±5.63	0.05
kAveragesC++	class	b	0.59±0.01	0.03±0.01	8.25±2.05	0.04
kAveragesC++	class	m	0.55±0.04	0.05±0.04	3.45±1.47	0.04
kAveragesC++	class	M	0.55±0.04	0.05±0.04	16.05±9.83	0.05
kAverages	object	p	0.53±0.00	0.01±0.00	4.60±0.88	2.47
kAverages	object	P	0.60±0.03	0.06±0.03	400.00±0.00	155.25
kAverages	object	b	0.53±0.00	0.01±0.00	8.10±3.08	3.54
kAverages	object	m	0.53±0.00	0.01±0.00	6.55±1.61	3.07
kAverages	object	M	0.56±0.06	0.02±0.04	369.75±93.42	155.44
kAveragesC++	object	p	0.52±0.00	0.01±0.00	4.60±1.50	0.05
kAveragesC++	object	P	0.52±0.00	0.01±0.00	58.45±7.07	0.05
kAveragesC++	object	b	0.53±0.00	0.01±0.00	9.60±3.93	0.04
kAveragesC++	object	m	0.53±0.00	0.01±0.00	4.95±1.79	0.04
kAveragesC++	object	M	0.53±0.00	0.01±0.00	19.35±15.98	0.05
kAverages	raw	p	0.59±0.07	0.03±0.04	4.40±1.35	1.36
kAverages	raw	P	0.60±0.03	0.06±0.03	400.00±0.00	97.82
kAverages	raw	b	0.61±0.08	0.04±0.04	6.95±3.55	1.77
kAverages	raw	m	0.61±0.07	0.04±0.04	6.15±2.43	1.67
kAverages	raw	M	0.63±0.09	0.06±0.06	340.50±145.32	83.23
kAveragesC++	raw	p	0.59±0.07	0.03±0.04	4.70±2.66	0.05
kAveragesC++	raw	P	0.58±0.06	0.02±0.02	55.40±7.32	0.05
kAveragesC++	raw	b	0.62±0.07	0.04±0.03	7.75±5.16	0.04
kAveragesC++	raw	m	0.62±0.07	0.04±0.03	3.80±3.37	0.04
kAveragesC++	raw	M	0.62±0.07	0.04±0.03	13.15±16.71	0.04

Table 23: dataSet: Lighting7, distance: dtw, normalizeData: 1, nbRuns: 20

clustering	objective	strategy	accuracy	nmi	iterations	time
kkMeans			0.52±0.05	0.51±0.04	8.05±2.39	0.13
random			0.24±0.02	0.07±0.02	-±-	0.06
kAverages	class	p	0.26±0.02	0.13±0.01	9.50±1.93	9.94
kAverages	class	P	0.31±0.04	0.15±0.06	366.80±88.44	249.10
kAverages	class	b	0.27±0.02	0.06±0.06	18.65±42.99	9.27
kAverages	class	m	0.27±0.01	0.07±0.05	8.70±4.24	6.30
kAverages	class	M	0.34±0.09	0.19±0.18	203.15±201.97	181.33
kAveragesC++	class	p	0.41±0.05	0.38±0.04	5.25±0.97	0.10
kAveragesC++	class	P	0.40±0.04	0.37±0.04	121.70±8.12	0.16
kAveragesC++	class	b	0.31±0.06	0.22±0.09	31.85±57.64	0.39
kAveragesC++	class	m	0.34±0.07	0.27±0.09	4.00±1.59	0.12
kAveragesC++	class	M	0.34±0.07	0.28±0.09	33.00±21.93	0.13
kAverages	object	p	0.50±0.02	0.50±0.02	5.60±1.43	6.04
kAverages	object	P	0.30±0.05	0.17±0.07	374.95±77.39	317.44
kAverages	object	b	0.47±0.08	0.44±0.15	37.60±70.06	32.22
kAverages	object	m	0.47±0.08	0.44±0.15	7.35±2.06	6.59
kAverages	object	M	0.47±0.07	0.43±0.15	360.40±121.89	302.28
kAveragesC++	object	p	0.49±0.02	0.49±0.02	5.10±1.55	0.09
kAveragesC++	object	P	0.49±0.03	0.49±0.02	122.90±8.08	0.16
kAveragesC++	object	b	0.50±0.03	0.50±0.03	9.45±3.09	0.10
kAveragesC++	object	m	0.49±0.03	0.49±0.03	4.10±1.25	0.10
kAveragesC++	object	M	0.49±0.03	0.50±0.03	20.50±11.51	0.10
kAverages	raw	p	0.57±0.04	0.54±0.01	6.00±1.34	6.21
kAverages	raw	P	0.29±0.03	0.13±0.05	400.00±0.00	275.04
kAverages	raw	b	0.44±0.11	0.37±0.15	142.50±90.12	107.72
kAverages	raw	m	0.55±0.03	0.54±0.00	146.25±93.32	73.88
kAverages	raw	M	0.54±0.04	0.50±0.05	380.25±88.32	212.53
kAveragesC++	raw	p	0.56±0.02	0.53±0.03	5.70±1.69	0.10
kAveragesC++	raw	P	0.54±0.03	0.53±0.02	140.50±9.80	0.14
kAveragesC++	raw	b	0.55±0.04	0.52±0.04	10.75±4.29	0.10
kAveragesC++	raw	m	0.56±0.02	0.53±0.03	4.95±2.21	0.10
kAveragesC++	raw	M	0.56±0.03	0.53±0.03	24.35±18.83	0.10

Table 24: dataSet: MALLAT, distance: dtw, normalizedData: 1, nbRuns: 20

clustering	objective	strategy	accuracy	nmi	iterations	time
kkMeans			0.78±0.12	0.90±0.04	10.00±3.54	3.22
random			0.15±0.00	0.01±0.00	-±-	0.23
kAverages	class	p	0.47±0.14	0.72±0.17	16.60±5.45	234.46
kAverages	class	P	0.22±0.01	0.10±0.01	400.00±0.00	3631.54
kAverages	class	b	0.27±0.23	0.25±0.38	41.80±68.78	515.81
kAverages	class	m	0.39±0.20	0.53±0.36	14.50±6.90	142.54
kAverages	class	M	0.56±0.24	0.63±0.33	295.75±173.12	3513.45
kAveragesC++	class	p	0.63±0.06	0.77±0.04	15.75±2.43	6.81
kAveragesC++	class	P	0.57±0.09	0.72±0.07	2124.20±167.65	24.08
kAveragesC++	class	b	0.35±0.20	0.48±0.34	87.65±84.78	188.84
kAveragesC++	class	m	0.44±0.16	0.60±0.23	10.05±4.82	4.90
kAveragesC++	class	M	0.40±0.15	0.54±0.24	483.40±275.57	6.95
kAverages	object	p	0.83±0.07	0.91±0.03	5.95±1.39	111.72
kAverages	object	P	0.21±0.01	0.10±0.01	400.00±0.00	4438.52
kAverages	object	b	0.79±0.12	0.90±0.04	10.70±3.91	82.17
kAverages	object	m	0.79±0.12	0.90±0.04	7.90±1.89	90.07
kAverages	object	M	0.76±0.11	0.87±0.05	380.85±85.64	3717.29
kAveragesC++	object	p	0.80±0.04	0.90±0.02	5.95±0.83	5.15
kAveragesC++	object	P	0.81±0.10	0.91±0.03	2002.55±41.45	16.18
kAveragesC++	object	b	0.79±0.17	0.87±0.16	21.85±42.27	27.20
kAveragesC++	object	m	0.82±0.10	0.91±0.04	6.20±3.14	5.54
kAveragesC++	object	M	0.82±0.10	0.91±0.03	270.00±237.13	7.53
kAverages	raw	p	0.78±0.08	0.90±0.04	8.75±2.84	112.62
kAverages	raw	P	0.21±0.01	0.10±0.01	400.00±0.00	3107.45
kAverages	raw	b	0.49±0.19	0.53±0.23	173.05±65.99	1452.37
kAverages	raw	m	0.80±0.10	0.90±0.04	179.30±71.24	2030.94
kAverages	raw	M	0.54±0.17	0.58±0.21	400.00±0.00	4635.91
kAveragesC++	raw	p	0.78±0.09	0.89±0.04	6.30±1.53	7.94
kAveragesC++	raw	P	0.63±0.07	0.82±0.03	2085.85±165.50	15.84
kAveragesC++	raw	b	0.77±0.12	0.89±0.04	13.10±6.00	5.60
kAveragesC++	raw	m	0.77±0.12	0.89±0.04	5.25±1.92	5.78
kAveragesC++	raw	M	0.77±0.12	0.89±0.04	192.10±147.91	6.63

Table 25: dataSet: MedicalImages, distance: dtw, normalizeData: 1, nbRuns: 20

clustering	objective	strategy	accuracy	nmi	iterations	time
kkMeans			0.34±0.01	0.32±0.01	25.00±11.22	3.10
random			0.14±0.00	0.02±0.00	-±-	0.13
kAverages	class	p	0.52±0.00	0.04±0.01	10.90±1.89	63.28
kAverages	class	P	0.26±0.01	0.07±0.01	400.00±0.00	2789.36
kAverages	class	b	0.52±0.00	0.01±0.01	20.75±42.73	162.36
kAverages	class	m	0.52±0.00	0.02±0.02	12.55±6.28	116.28
kAverages	class	M	0.45±0.07	0.07±0.05	243.05±197.23	1767.24
kAveragesC++	class	p	0.38±0.03	0.17±0.01	11.70±3.20	2.69
kAveragesC++	class	P	0.38±0.02	0.14±0.01	1214.95±54.87	9.81
kAveragesC++	class	b	0.45±0.07	0.07±0.04	101.15±91.88	72.24
kAveragesC++	class	m	0.44±0.03	0.11±0.03	9.60±5.65	2.86
kAveragesC++	class	M	0.46±0.03	0.10±0.04	322.20±211.65	3.56
kAverages	object	p	0.31±0.02	0.30±0.02	17.70±6.05	172.96
kAverages	object	P	0.25±0.01	0.06±0.01	400.00±0.00	2739.45
kAverages	object	b	0.32±0.05	0.28±0.07	62.10±61.84	532.10
kAverages	object	m	0.32±0.05	0.28±0.07	23.70±10.75	124.21
kAverages	object	M	0.31±0.05	0.25±0.06	380.20±88.55	2265.69
kAveragesC++	object	p	0.31±0.02	0.30±0.02	14.50±6.00	2.39
kAveragesC++	object	P	0.31±0.01	0.28±0.02	1403.60±114.67	10.45
kAveragesC++	object	b	0.30±0.02	0.29±0.02	27.40±9.93	2.05
kAveragesC++	object	m	0.30±0.02	0.29±0.02	12.95±4.73	2.29
kAveragesC++	object	M	0.30±0.02	0.29±0.02	350.35±151.62	4.27
kAverages	raw	p	0.38±0.02	0.31±0.02	14.25±5.86	77.03
kAverages	raw	P	0.25±0.01	0.06±0.01	400.00±0.00	1882.23
kAverages	raw	b	0.37±0.02	0.25±0.08	100.15±84.17	607.20
kAverages	raw	m	0.38±0.02	0.30±0.02	75.25±90.95	667.73
kAverages	raw	M	0.35±0.05	0.26±0.05	400.00±0.00	2461.68
kAveragesC++	raw	p	0.38±0.02	0.30±0.02	10.95±3.68	2.82
kAveragesC++	raw	P	0.40±0.02	0.34±0.02	1516.65±137.48	7.41
kAveragesC++	raw	b	0.39±0.02	0.31±0.03	24.35±8.11	2.35
kAveragesC++	raw	m	0.39±0.02	0.31±0.02	12.00±5.27	2.44
kAveragesC++	raw	M	0.39±0.02	0.31±0.03	306.35±141.93	3.29

Table 26: dataSet: MoteStrain, distance: dtw, normalizeData: 1, nbRuns: 20

clustering	objective	strategy	accuracy	nmi	iterations	time
kkMeans			0.89±0.00	0.52±0.00	11.15±3.22	0.71
random			0.51±0.01	0.00±0.00	-±-	0.08
kAverages	class	p	0.54±0.00	0.01±0.00	6.95±0.39	24.43
kAverages	class	P	0.60±0.01	0.09±0.02	400.00±0.00	1414.57
kAverages	class	b	0.54±0.00	0.00±0.00	10.95±2.50	29.63
kAverages	class	m	0.54±0.00	0.01±0.00	8.85±1.63	39.31
kAverages	class	M	0.61±0.08	0.06±0.11	384.90±67.53	1674.40
kAveragesC++	class	p	0.55±0.02	0.12±0.00	7.70±0.86	2.15
kAveragesC++	class	P	0.53±0.00	0.11±0.00	621.65±11.21	2.45
kAveragesC++	class	b	0.54±0.00	0.01±0.00	9.55±2.37	1.89
kAveragesC++	class	m	0.53±0.03	0.05±0.02	3.95±1.50	1.90
kAveragesC++	class	M	0.53±0.02	0.05±0.02	130.60±131.59	2.14
kAverages	object	p	0.81±0.00	0.41±0.00	7.65±1.09	43.31
kAverages	object	P	0.53±0.01	0.01±0.01	400.00±0.00	1700.72
kAverages	object	b	0.81±0.00	0.41±0.00	13.00±2.85	59.42
kAverages	object	m	0.81±0.00	0.41±0.00	9.45±1.79	46.69
kAverages	object	M	0.70±0.07	0.16±0.13	400.00±0.00	1386.60
kAveragesC++	object	p	0.81±0.00	0.41±0.00	8.45±1.23	1.91
kAveragesC++	object	P	0.81±0.00	0.41±0.00	626.85±17.52	2.51
kAveragesC++	object	b	0.81±0.00	0.40±0.00	13.30±3.63	1.80
kAveragesC++	object	m	0.81±0.00	0.40±0.00	5.95±1.93	1.86
kAveragesC++	object	M	0.81±0.00	0.40±0.00	153.35±123.83	2.03
kAverages	raw	p	0.80±0.00	0.36±0.01	12.30±4.71	38.45
kAverages	raw	P	0.53±0.01	0.01±0.01	400.00±0.00	1365.90
kAverages	raw	b	0.81±0.00	0.36±0.01	22.05±8.19	66.36
kAverages	raw	m	0.81±0.00	0.36±0.01	14.75±4.60	45.89
kAverages	raw	M	0.78±0.12	0.34±0.21	394.60±24.15	1117.75
kAveragesC++	raw	p	0.77±0.08	0.31±0.13	7.05±1.32	1.81
kAveragesC++	raw	P	0.81±0.01	0.37±0.01	655.30±46.32	2.27
kAveragesC++	raw	b	0.78±0.08	0.31±0.13	13.25±3.01	1.75
kAveragesC++	raw	m	0.78±0.08	0.31±0.13	6.45±1.61	1.70
kAveragesC++	raw	M	0.78±0.08	0.31±0.13	117.30±92.47	1.68

Table 27: dataSet: OSULeaf, distance:

dtw, normalizedData: 1, nbRuns: 20

clustering	objective	strategy	accuracy	nmi	iterations	time
kkMeans			0.40±0.02	0.23±0.03	17.20±6.86	0.37
random			0.22±0.01	0.02±0.00	-±-	0.07
kAverages	class	p	0.22±0.00	0.06±0.01	10.50±2.26	17.56
kAverages	class	P	0.33±0.02	0.14±0.02	400.00±0.00	786.46
kAverages	class	b	0.22±0.00	0.02±0.02	10.85±3.48	23.70
kAverages	class	m	0.22±0.00	0.04±0.02	13.10±3.82	27.42
kAverages	class	M	0.27±0.04	0.10±0.06	321.75±160.57	477.23
kAveragesC++	class	p	0.33±0.01	0.23±0.02	8.00±1.56	0.45
kAveragesC++	class	P	0.31±0.01	0.22±0.02	493.15±22.93	1.04
kAveragesC++	class	b	0.22±0.01	0.08±0.03	14.20±2.71	0.46
kAveragesC++	class	m	0.23±0.02	0.13±0.03	4.60±1.47	0.45
kAveragesC++	class	M	0.23±0.01	0.13±0.03	85.70±64.32	0.54
kAverages	object	p	0.41±0.02	0.25±0.02	8.95±2.74	14.97
kAverages	object	P	0.30±0.02	0.11±0.02	400.00±0.00	570.72
kAverages	object	b	0.41±0.03	0.24±0.02	27.55±40.85	38.10
kAverages	object	m	0.41±0.03	0.25±0.02	13.20±3.24	19.45
kAverages	object	M	0.36±0.02	0.18±0.02	400.00±0.00	837.81
kAveragesC++	object	p	0.42±0.02	0.24±0.02	9.75±3.23	0.40
kAveragesC++	object	P	0.41±0.03	0.24±0.03	434.00±29.24	0.96
kAveragesC++	object	b	0.41±0.03	0.25±0.03	17.75±5.63	0.38
kAveragesC++	object	m	0.41±0.03	0.25±0.03	7.60±2.56	0.37
kAveragesC++	object	M	0.40±0.03	0.24±0.03	115.55±38.59	0.53
kAverages	raw	p	0.35±0.01	0.21±0.01	9.35±2.94	26.69
kAverages	raw	P	0.29±0.02	0.11±0.02	400.00±0.00	932.20
kAverages	raw	b	0.35±0.02	0.21±0.02	72.15±85.94	157.54
kAverages	raw	m	0.35±0.02	0.21±0.02	12.00±3.06	29.37
kAverages	raw	M	0.34±0.03	0.18±0.03	400.00±0.00	889.60
kAveragesC++	raw	p	0.35±0.02	0.21±0.02	7.50±1.99	0.39
kAveragesC++	raw	P	0.35±0.01	0.21±0.01	410.70±19.08	0.66
kAveragesC++	raw	b	0.35±0.02	0.21±0.03	14.15±4.22	0.36
kAveragesC++	raw	m	0.35±0.03	0.20±0.03	6.45±2.14	0.36
kAveragesC++	raw	M	0.35±0.03	0.20±0.03	82.65±34.23	0.45

Table 28: dataSet: OliveOil, distance: dtw, normalizedData: 1, nbRuns: 20

clustering	objective	strategy	accuracy	nmi	iterations	time
kkMeans			0.73±0.12	0.59±0.09	5.10±1.59	0.06
random			0.35±0.03	0.06±0.03	-±-	0.04
kAverages	class	p	0.45±0.09	0.22±0.13	6.45±1.50	2.29
kAverages	class	P	0.49±0.07	0.28±0.11	359.00±103.17	101.35
kAverages	class	b	0.52±0.09	0.28±0.17	36.75±70.44	10.40
kAverages	class	m	0.54±0.08	0.32±0.13	6.25±2.15	1.89
kAverages	class	M	0.62±0.09	0.43±0.15	281.80±185.25	47.30
kAveragesC++	class	p	0.54±0.07	0.48±0.05	3.50±0.76	0.06
kAveragesC++	class	P	0.54±0.07	0.48±0.05	3.50±0.76	0.07
kAveragesC++	class	b	0.54±0.07	0.48±0.05	3.50±0.76	0.07
kAveragesC++	class	m	0.54±0.07	0.48±0.05	3.50±0.76	0.06
kAveragesC++	class	M	0.54±0.07	0.48±0.05	3.50±0.76	0.06
kAverages	object	p	0.70±0.10	0.61±0.07	4.20±1.36	0.84
kAverages	object	P	0.51±0.06	0.29±0.10	400.00±0.00	81.53
kAverages	object	b	0.68±0.13	0.53±0.19	16.00±43.37	4.68
kAverages	object	m	0.69±0.13	0.53±0.20	5.75±1.62	1.77
kAverages	object	M	0.71±0.13	0.54±0.20	301.05±175.84	83.58
kAveragesC++	object	p	0.69±0.09	0.57±0.08	5.20±1.20	0.06
kAveragesC++	object	P	0.69±0.09	0.57±0.08	5.20±1.20	0.05
kAveragesC++	object	b	0.69±0.09	0.57±0.08	5.20±1.20	0.06
kAveragesC++	object	m	0.69±0.09	0.57±0.08	5.20±1.20	0.06
kAveragesC++	object	M	0.69±0.09	0.57±0.08	5.20±1.20	0.06
kAverages	raw	p	0.87±0.04	0.72±0.03	5.30±1.38	1.87
kAverages	raw	P	0.52±0.09	0.28±0.11	400.00±0.00	112.22
kAverages	raw	b	0.86±0.09	0.70±0.11	25.65±45.81	7.45
kAverages	raw	m	0.87±0.04	0.72±0.04	23.45±47.63	6.91
kAverages	raw	M	0.78±0.10	0.62±0.09	380.20±88.55	107.40
kAveragesC++	raw	p	0.80±0.07	0.64±0.06	4.25±1.16	0.04
kAveragesC++	raw	P	0.80±0.07	0.64±0.06	4.25±1.16	0.05
kAveragesC++	raw	b	0.80±0.07	0.64±0.06	4.25±1.16	0.05
kAveragesC++	raw	m	0.80±0.07	0.64±0.06	4.25±1.16	0.06
kAveragesC++	raw	M	0.80±0.07	0.64±0.06	4.25±1.16	0.05

Table 29: dataSet: SonyAIBORobotSur-
face, distance: dtw, normalizeData: 1,
nbKuns: 20

clustering	objective	strategy	accuracy	nmi	iterations	time
kkMeans			0.96±0.00	0.78±0.00	6.90±2.43	0.17
random			0.52±0.01	0.00±0.00	-±-	0.04
kAverages	class	p	0.56±0.00	0.02±0.00	6.00±0.32	10.08
kAverages	class	P	0.64±0.02	0.18±0.02	400.00±0.00	785.57
kAverages	class	b	0.56±0.00	0.01±0.01	38.45±69.66	59.05
kAverages	class	m	0.56±0.00	0.02±0.00	7.55±0.89	11.71
kAverages	class	M	0.74±0.01	0.27±0.01	400.00±0.00	540.56
kAveragesC++	class	p	0.68±0.00	0.22±0.00	5.35±1.23	0.48
kAveragesC++	class	P	0.66±0.00	0.19±0.00	301.75±10.12	0.44
kAveragesC++	class	b	0.57±0.00	0.02±0.00	7.75±0.97	0.44
kAveragesC++	class	m	0.59±0.02	0.07±0.03	2.25±0.72	0.48
kAveragesC++	class	M	0.59±0.02	0.07±0.03	28.95±65.59	0.46
kAverages	object	p	0.94±0.00	0.72±0.01	5.20±1.24	11.23
kAverages	object	P	0.69±0.01	0.26±0.01	400.00±0.00	554.99
kAverages	object	b	0.94±0.00	0.72±0.01	19.10±42.68	30.54
kAverages	object	m	0.94±0.00	0.72±0.01	7.00±1.65	12.22
kAverages	object	M	0.70±0.03	0.28±0.06	391.20±39.35	674.82
kAveragesC++	object	p	0.94±0.00	0.73±0.01	6.20±1.51	0.36
kAveragesC++	object	P	0.94±0.00	0.73±0.01	298.90±10.62	0.44
kAveragesC++	object	b	0.94±0.00	0.72±0.01	11.05±4.35	0.31
kAveragesC++	object	m	0.94±0.00	0.72±0.01	5.05±1.82	0.32
kAveragesC++	object	M	0.94±0.00	0.72±0.01	53.80±73.56	0.34
kAverages	raw	p	0.64±0.00	0.21±0.00	7.50±2.91	19.53
kAverages	raw	P	0.70±0.01	0.26±0.01	400.00±0.00	849.57
kAverages	raw	b	0.64±0.00	0.21±0.00	24.10±41.69	52.09
kAverages	raw	m	0.64±0.00	0.21±0.00	9.95±3.14	23.25
kAverages	raw	M	0.67±0.07	0.25±0.11	400.00±0.00	587.68
kAveragesC++	raw	p	0.67±0.05	0.25±0.06	6.10±2.29	0.35
kAveragesC++	raw	P	0.67±0.03	0.25±0.04	311.15±19.67	0.52
kAveragesC++	raw	b	0.67±0.05	0.25±0.07	10.00±2.64	0.43
kAveragesC++	raw	m	0.68±0.06	0.26±0.08	4.80±1.61	0.43
kAveragesC++	raw	M	0.68±0.06	0.26±0.08	53.20±42.94	0.45

Table 30: dataSet: SonyAIBORobotSur-
faceII, distance: dtw, normalizeData: 1,
nbKuns: 20

clustering	objective	strategy	accuracy	nmi	iterations	time
kkMeans			0.77±0.00	0.21±0.00	4.30±0.66	0.26
random			0.52±0.01	0.00±0.00	-±-	0.06
kAverages	class	p	0.61±0.00	0.01±0.00	7.15±0.37	32.68
kAverages	class	P	0.60±0.05	0.04±0.03	400.00±0.00	1043.78
kAverages	class	b	0.64±0.06	0.03±0.08	9.85±2.78	34.16
kAverages	class	m	0.64±0.06	0.04±0.08	8.00±1.81	28.11
kAverages	class	M	0.67±0.09	0.12±0.12	372.00±94.04	853.33
kAveragesC++	class	p	0.51±0.00	0.12±0.00	7.20±1.01	1.29
kAveragesC++	class	P	0.53±0.00	0.10±0.00	480.15±12.54	1.42
kAveragesC++	class	b	0.64±0.06	0.04±0.08	9.05±2.50	1.08
kAveragesC++	class	m	0.61±0.08	0.08±0.06	4.25±1.94	0.82
kAveragesC++	class	M	0.61±0.08	0.08±0.06	122.25±126.77	0.98
kAverages	object	p	0.77±0.00	0.22±0.00	3.40±0.50	10.38
kAverages	object	P	0.62±0.07	0.06±0.06	400.00±0.00	1207.85
kAverages	object	b	0.77±0.00	0.22±0.00	4.90±1.29	17.50
kAverages	object	m	0.77±0.00	0.22±0.00	4.70±1.13	17.57
kAverages	object	M	0.77±0.01	0.21±0.01	243.10±197.28	681.81
kAveragesC++	object	p	0.77±0.00	0.22±0.00	3.35±0.49	0.99
kAveragesC++	object	P	0.77±0.00	0.22±0.00	475.20±12.40	1.44
kAveragesC++	object	b	0.77±0.00	0.22±0.00	5.00±1.30	0.89
kAveragesC++	object	m	0.77±0.00	0.22±0.00	2.35±1.14	0.90
kAveragesC++	object	M	0.77±0.00	0.22±0.00	29.80±36.68	0.93
kAverages	raw	p	0.74±0.00	0.15±0.00	3.35±0.49	15.99
kAverages	raw	P	0.62±0.07	0.06±0.06	400.00±0.00	962.52
kAverages	raw	b	0.74±0.00	0.15±0.00	5.60±0.94	11.63
kAverages	raw	m	0.74±0.00	0.15±0.00	5.20±0.83	11.40
kAverages	raw	M	0.73±0.01	0.14±0.01	301.45±175.13	879.40
kAveragesC++	raw	p	0.74±0.00	0.15±0.00	3.40±0.60	0.82
kAveragesC++	raw	P	0.74±0.00	0.15±0.00	474.55±13.76	1.28
kAveragesC++	raw	b	0.74±0.00	0.15±0.00	5.10±0.79	0.90
kAveragesC++	raw	m	0.74±0.00	0.15±0.00	2.40±0.68	0.91
kAveragesC++	raw	M	0.74±0.00	0.15±0.00	16.75±15.47	0.92

Table 31: dataSet: StarLightCurves,
distance: dtw, normalizeData: 1,
nRuns: 20

clustering	objective	strategy	accuracy	nmi	iterations	time
kkMeans			0.75±0.00	0.60±0.02	9.25±1.65	2.80
random			0.35±0.01	0.00±0.00	-±-	0.21
kAverages	class	p	0.73±0.11	0.43±0.31	17.00±8.37	148.60
kAverages	class	P	0.47±0.02	0.06±0.04	400.00±0.00	2768.74
kAverages	class	b	0.65±0.09	0.22±0.29	42.55±68.22	337.50
kAverages	class	m	0.66±0.10	0.26±0.30	10.85±3.94	75.19
kAverages	class	M	0.67±0.09	0.43±0.15	302.95±142.58	2058.21
kAveragesC++	class	p	0.68±0.11	0.44±0.23	15.35±6.31	5.92
kAveragesC++	class	P	0.45±0.00	0.11±0.00	1680.95±137.82	7.18
kAveragesC++	class	b	0.67±0.10	0.30±0.30	17.80±14.91	4.30
kAveragesC++	class	m	0.65±0.11	0.31±0.25	7.85±3.84	4.56
kAveragesC++	class	M	0.65±0.11	0.31±0.25	463.90±352.98	6.14
kAverages	object	p	0.75±0.00	0.60±0.00	6.60±0.82	44.88
kAverages	object	P	0.49±0.01	0.07±0.04	400.00±0.00	2604.88
kAverages	object	b	0.75±0.00	0.60±0.02	11.60±2.89	97.02
kAverages	object	m	0.75±0.00	0.60±0.02	8.90±1.65	80.18
kAverages	object	M	0.75±0.01	0.59±0.04	303.85±157.55	2278.87
kAveragesC++	object	p	0.75±0.00	0.60±0.00	4.80±0.70	4.62
kAveragesC++	object	P	0.75±0.00	0.60±0.00	1327.35±18.94	8.85
kAveragesC++	object	b	0.75±0.00	0.60±0.02	11.95±3.07	4.07
kAveragesC++	object	m	0.75±0.00	0.60±0.02	5.75±1.41	4.04
kAveragesC++	object	M	0.75±0.00	0.60±0.02	145.35±196.41	4.51
kAverages	raw	p	0.76±0.00	0.60±0.00	5.40±0.60	61.19
kAverages	raw	P	0.49±0.01	0.08±0.04	400.00±0.00	2874.83
kAverages	raw	b	0.76±0.00	0.60±0.00	11.65±4.75	98.94
kAverages	raw	m	0.76±0.00	0.60±0.00	8.35±2.23	75.53
kAverages	raw	M	0.76±0.02	0.60±0.01	271.60±179.65	2015.74
kAveragesC++	raw	p	0.76±0.00	0.60±0.00	5.80±1.20	4.77
kAveragesC++	raw	P	0.76±0.00	0.60±0.00	1342.90±19.75	7.25
kAveragesC++	raw	b	0.76±0.00	0.60±0.00	15.20±5.69	4.18
kAveragesC++	raw	m	0.76±0.00	0.60±0.00	6.60±2.66	4.23
kAveragesC++	raw	M	0.76±0.00	0.60±0.00	115.45±202.73	4.33

Table 32: dataSet: SwedishLeaf, distance: dtw, normalizeData: 1, nbRuns: 20

clustering	objective	strategy	accuracy	nmi	iterations	time
kkMeans			0.52±0.04	0.66±0.03	20.15±4.37	3.08
random			0.12±0.00	0.03±0.00	-±-	0.15
kAverages	class	p	0.08±0.00	0.08±0.00	8.75±1.07	64.46
kAverages	class	P	0.18±0.02	0.13±0.03	400.00±0.00	3854.27
kAverages	class	b	0.07±0.00	0.02±0.02	18.05±43.08	183.84
kAverages	class	m	0.07±0.00	0.02±0.01	8.10±4.17	92.53
kAverages	class	M	0.11±0.05	0.13±0.14	183.40±201.02	1681.84
kAveragesC++	class	p	0.30±0.01	0.47±0.01	11.20±2.65	2.12
kAveragesC++	class	P	0.23±0.01	0.43±0.01	1153.10±27.24	8.69
kAveragesC++	class	b	0.10±0.04	0.12±0.10	200.00±0.00	142.69
kAveragesC++	class	m	0.19±0.04	0.31±0.05	8.65±2.11	4.21
kAveragesC++	class	M	0.16±0.04	0.25±0.05	303.60±212.37	5.68
kAverages	object	p	0.57±0.03	0.67±0.02	26.25±41.09	257.95
kAverages	object	P	0.14±0.01	0.12±0.01	400.00±0.00	3650.43
kAverages	object	b	0.35±0.24	0.40±0.33	35.50±59.09	297.97
kAverages	object	m	0.35±0.24	0.40±0.33	11.60±7.53	137.55
kAverages	object	M	0.31±0.21	0.34±0.27	241.90±198.66	2244.54
kAveragesC++	object	p	0.55±0.03	0.65±0.02	11.60±3.99	2.69
kAveragesC++	object	P	0.48±0.03	0.64±0.01	1309.20±88.58	14.18
kAveragesC++	object	b	0.32±0.23	0.40±0.26	119.60±91.24	83.95
kAveragesC++	object	m	0.56±0.03	0.68±0.02	10.65±3.82	3.03
kAveragesC++	object	M	0.56±0.04	0.67±0.02	555.10±208.78	8.24
kAverages	raw	p	0.33±0.02	0.56±0.02	14.15±3.63	97.83
kAverages	raw	P	0.14±0.01	0.13±0.01	400.00±0.00	3659.77
kAverages	raw	b	0.13±0.05	0.10±0.12	200.00±0.00	1547.75
kAverages	raw	m	0.34±0.02	0.57±0.02	231.85±57.63	1997.67
kAverages	raw	M	0.13±0.04	0.10±0.12	400.00±0.00	3434.71
kAveragesC++	raw	p	0.34±0.03	0.56±0.02	8.30±1.56	3.09
kAveragesC++	raw	P	0.36±0.02	0.58±0.02	1679.45±250.39	8.08
kAveragesC++	raw	b	0.33±0.04	0.55±0.02	14.60±5.59	1.95
kAveragesC++	raw	m	0.33±0.04	0.55±0.02	7.05±2.50	1.98
kAveragesC++	raw	M	0.33±0.04	0.55±0.03	266.65±182.55	2.75

Table 33: dataSet: Symbols, distance: dtw, normalizeData: 1, nbRuns: 20

clustering	objective	strategy	accuracy	nmi	iterations	time
kkMeans			0.69±0.08	0.79±0.04	13.95±4.47	1.21
random			0.20±0.01	0.01±0.00	-±-	0.10
kAverages	class	p	0.59±0.18	0.68±0.27	8.05±1.64	57.66
kAverages	class	P	0.37±0.02	0.29±0.04	400.00±0.00	1923.69
kAverages	class	b	0.41±0.22	0.42±0.38	58.10±84.15	185.99
kAverages	class	m	0.45±0.22	0.50±0.36	9.10±3.32	31.85
kAverages	class	M	0.61±0.17	0.67±0.24	328.70±134.67	1324.63
kAveragesC++	class	p	0.67±0.13	0.75±0.10	8.90±3.32	1.32
kAveragesC++	class	P	0.56±0.16	0.65±0.15	991.90±79.02	3.14
kAveragesC++	class	b	0.45±0.21	0.50±0.32	34.85±57.27	11.28
kAveragesC++	class	m	0.52±0.17	0.61±0.22	7.75±3.74	1.52
kAveragesC++	class	M	0.52±0.17	0.61±0.22	179.00±168.50	1.39
kAverages	object	p	0.72±0.07	0.80±0.01	9.55±2.68	62.81
kAverages	object	P	0.38±0.02	0.29±0.04	400.00±0.00	1769.11
kAverages	object	b	0.69±0.14	0.77±0.18	22.50±42.13	126.58
kAverages	object	m	0.69±0.14	0.77±0.18	9.20±3.12	56.66
kAverages	object	M	0.68±0.14	0.75±0.18	316.90±142.04	1315.60
kAveragesC++	object	p	0.81±0.10	0.82±0.02	8.50±1.96	1.42
kAveragesC++	object	P	0.76±0.09	0.84±0.02	953.60±46.44	3.12
kAveragesC++	object	b	0.73±0.08	0.80±0.02	14.50±4.02	1.03
kAveragesC++	object	m	0.73±0.08	0.80±0.02	7.05±2.46	1.05
kAveragesC++	object	M	0.73±0.08	0.80±0.02	121.45±94.06	1.52
kAverages	raw	p	0.65±0.09	0.77±0.05	9.60±3.00	65.51
kAverages	raw	P	0.39±0.02	0.29±0.04	400.00±0.00	1737.67
kAverages	raw	b	0.59±0.14	0.68±0.17	62.30±81.72	366.36
kAverages	raw	m	0.63±0.10	0.75±0.06	60.60±87.13	359.96
kAverages	raw	M	0.62±0.10	0.71±0.10	381.90±80.95	1958.82
kAveragesC++	raw	p	0.61±0.09	0.74±0.06	8.70±1.98	1.34
kAveragesC++	raw	P	0.69±0.13	0.78±0.06	1005.45±79.86	2.37
kAveragesC++	raw	b	0.65±0.08	0.76±0.05	12.80±5.20	1.01
kAveragesC++	raw	m	0.65±0.08	0.76±0.05	6.60±2.37	1.03
kAveragesC++	raw	M	0.65±0.08	0.76±0.05	86.00±98.01	1.11

Table 34: dataSet: Trace, distance: dtw, normalizeData: 1, nbRuns: 20

clustering	objective	strategy	accuracy	nmi	iterations	time
kkMeans			0.50±0.02	0.58±0.07	5.60±2.60	0.12
random			0.32±0.02	0.02±0.01	-±-	0.04
kAverages	class	p	0.51±0.01	0.53±0.04	5.25±2.20	6.03
kAverages	class	P	0.50±0.04	0.58±0.05	400.00±0.00	368.98
kAverages	class	b	0.49±0.08	0.54±0.20	25.35±59.81	23.29
kAverages	class	m	0.49±0.08	0.54±0.20	5.05±2.01	4.93
kAverages	class	M	0.48±0.08	0.54±0.19	222.30±201.57	202.22
kAveragesC++	class	p	0.51±0.02	0.52±0.03	4.80±1.40	0.11
kAveragesC++	class	P	0.52±0.02	0.51±0.02	164.30±12.32	0.17
kAveragesC++	class	b	0.52±0.02	0.56±0.04	18.35±42.96	0.14
kAveragesC++	class	m	0.52±0.03	0.56±0.04	3.65±1.76	0.11
kAveragesC++	class	M	0.52±0.03	0.56±0.04	15.85±21.92	0.11
kAverages	object	p	0.49±0.02	0.53±0.03	5.15±1.09	5.83
kAverages	object	P	0.49±0.04	0.57±0.04	400.00±0.00	263.34
kAverages	object	b	0.50±0.02	0.56±0.06	7.90±4.23	5.06
kAverages	object	m	0.50±0.02	0.56±0.06	6.05±2.35	4.81
kAverages	object	M	0.51±0.02	0.57±0.06	283.25±183.19	244.81
kAveragesC++	object	p	0.49±0.02	0.53±0.03	4.15±0.59	0.09
kAveragesC++	object	P	0.47±0.04	0.52±0.01	165.65±6.69	0.18
kAveragesC++	object	b	0.50±0.02	0.53±0.03	9.15±4.49	0.11
kAveragesC++	object	m	0.50±0.02	0.53±0.03	3.95±2.16	0.11
kAveragesC++	object	M	0.50±0.02	0.53±0.03	23.25±15.01	0.12
kAverages	raw	p	0.50±0.03	0.52±0.02	6.20±2.17	3.88
kAverages	raw	P	0.50±0.03	0.57±0.04	400.00±0.00	201.41
kAverages	raw	b	0.46±0.05	0.43±0.15	103.70±98.83	62.57
kAverages	raw	m	0.49±0.03	0.52±0.04	105.75±101.83	91.67
kAverages	raw	M	0.49±0.03	0.54±0.04	380.35±87.88	341.07
kAveragesC++	raw	p	0.51±0.02	0.55±0.04	4.55±1.32	0.12
kAveragesC++	raw	P	0.46±0.04	0.52±0.02	170.60±10.02	0.16
kAveragesC++	raw	b	0.50±0.02	0.56±0.06	6.35±2.80	0.11
kAveragesC++	raw	m	0.50±0.02	0.56±0.06	2.65±1.35	0.11
kAveragesC++	raw	M	0.50±0.02	0.56±0.06	10.80±11.54	0.11

Table 35: dataSet: TwoLeadECG, distance: dtw, normalizeData: 1, nbKuns: 20

clustering	objective	strategy	accuracy	nmi	iterations	time
kkMeans			0.65±0.00	0.07±0.00	11.20±2.78	0.68
random			0.51±0.01	0.00±0.00	-±-	0.08
kAverages	class	p	0.57±0.07	0.03±0.03	5.55±2.70	29.77
kAverages	class	P	0.62±0.09	0.07±0.10	400.00±0.00	1038.25
kAverages	class	b	0.56±0.07	0.03±0.03	23.40±42.14	56.91
kAverages	class	m	0.56±0.07	0.03±0.03	9.45±3.71	25.33
kAverages	class	M	0.60±0.05	0.05±0.03	171.70±162.66	585.98
kAveragesC++	class	p	0.62±0.03	0.09±0.04	6.55±3.65	1.22
kAveragesC++	class	P	0.57±0.00	0.12±0.00	575.60±28.65	1.49
kAveragesC++	class	b	0.56±0.07	0.04±0.03	12.15±5.94	1.26
kAveragesC++	class	m	0.58±0.06	0.08±0.03	6.35±4.07	1.29
kAveragesC++	class	M	0.57±0.06	0.07±0.02	76.50±93.10	1.19
kAverages	object	p	0.65±0.00	0.07±0.00	7.05±0.39	21.30
kAverages	object	P	0.59±0.06	0.03±0.04	400.00±0.00	1296.72
kAverages	object	b	0.65±0.00	0.07±0.00	12.60±3.56	51.34
kAverages	object	m	0.65±0.00	0.07±0.00	8.95±2.04	38.81
kAverages	object	M	0.64±0.02	0.06±0.02	380.80±85.87	1490.45
kAveragesC++	object	p	0.66±0.00	0.07±0.00	9.00±0.32	1.16
kAveragesC++	object	P	0.65±0.00	0.07±0.00	572.45±11.19	1.56
kAveragesC++	object	b	0.66±0.00	0.07±0.00	12.80±3.93	1.04
kAveragesC++	object	m	0.66±0.00	0.07±0.00	6.70±2.30	1.05
kAveragesC++	object	M	0.66±0.00	0.07±0.00	65.45±49.08	1.09
kAverages	raw	p	0.66±0.00	0.08±0.00	5.75±1.07	18.08
kAverages	raw	P	0.62±0.07	0.06±0.06	400.00±0.00	1184.85
kAverages	raw	b	0.66±0.00	0.08±0.00	12.10±2.40	29.20
kAverages	raw	m	0.66±0.00	0.08±0.00	8.40±1.60	22.31
kAverages	raw	M	0.64±0.03	0.08±0.04	400.00±0.00	1457.46
kAveragesC++	raw	p	0.66±0.00	0.08±0.00	6.55±1.32	1.34
kAveragesC++	raw	P	0.66±0.00	0.08±0.00	571.00±11.69	1.70
kAveragesC++	raw	b	0.66±0.00	0.08±0.00	12.30±2.49	1.09
kAveragesC++	raw	m	0.66±0.00	0.08±0.00	5.80±1.40	1.16
kAveragesC++	raw	M	0.66±0.00	0.08±0.00	176.50±152.26	1.24

Table 36: dataSet: Two_Patterns, distance: dtw, normalizeData: 1, nbKuns: 20

clustering	objective	strategy	accuracy	nmi	iterations	time
kkMeans			0.34±0.06	0.13±0.12	26.55±13.63	5.00
random			0.27±0.00	0.00±0.00	-±-	0.15
kAverages	class	p	0.27±0.00	0.02±0.00	11.85±2.30	114.33
kAverages	class	P	0.29±0.01	0.01±0.00	400.00±0.00	3255.83
kAverages	class	b	0.27±0.00	0.01±0.01	56.60±73.91	367.42
kAverages	class	m	0.27±0.00	0.02±0.00	15.40±3.14	96.80
kAverages	class	M	0.35±0.03	0.11±0.04	400.00±0.00	3392.10
kAveragesC++	class	p	0.37±0.02	0.22±0.01	16.40±4.51	5.95
kAveragesC++	class	P	0.37±0.02	0.21±0.01	2052.50±131.26	9.84
kAveragesC++	class	b	0.27±0.00	0.02±0.01	14.20±3.11	4.41
kAveragesC++	class	m	0.30±0.02	0.12±0.03	6.95±3.15	4.65
kAveragesC++	class	M	0.30±0.02	0.11±0.03	447.35±363.18	5.50
kAverages	object	p	0.34±0.04	0.14±0.08	12.95±3.22	96.67
kAverages	object	P	0.28±0.01	0.01±0.00	400.00±0.00	2852.44
kAverages	object	b	0.35±0.05	0.15±0.10	58.80±72.82	528.80
kAverages	object	m	0.35±0.05	0.15±0.10	15.10±4.48	122.63
kAverages	object	M	0.35±0.04	0.11±0.08	400.00±0.00	2862.00
kAveragesC++	object	p	0.35±0.05	0.16±0.09	13.80±4.51	5.11
kAveragesC++	object	P	0.36±0.05	0.18±0.10	1797.60±135.21	12.92
kAveragesC++	object	b	0.35±0.05	0.16±0.10	24.40±10.12	5.27
kAveragesC++	object	m	0.35±0.05	0.16±0.10	11.75±5.29	5.24
kAveragesC++	object	M	0.35±0.05	0.16±0.10	490.60±216.30	7.51
kAverages	raw	p	0.29±0.04	0.04±0.08	17.50±8.32	111.19
kAverages	raw	P	0.28±0.01	0.01±0.00	400.00±0.00	2406.50
kAverages	raw	b	0.31±0.06	0.07±0.10	36.70±40.98	303.40
kAverages	raw	m	0.31±0.06	0.07±0.10	17.60±7.16	177.50
kAverages	raw	M	0.33±0.04	0.07±0.07	400.00±0.00	2626.81
kAveragesC++	raw	p	0.29±0.04	0.04±0.08	18.30±9.27	4.98
kAveragesC++	raw	P	0.29±0.03	0.03±0.06	1785.70±135.79	7.39
kAveragesC++	raw	b	0.31±0.06	0.07±0.09	31.00±13.76	4.14
kAveragesC++	raw	m	0.31±0.06	0.07±0.09	15.20±7.85	4.48
kAveragesC++	raw	M	0.31±0.06	0.07±0.09	557.90±313.86	5.19

Table 37: dataSet: WordsSynonyms,
distance: dtw, normalizeData: 1,
nbKuns: 20

clustering	objective	strategy	accuracy	nmi	iterations	time
kkMeans			0.33±0.01	0.51±0.01	19.55±5.80	2.64
random			0.11±0.00	0.12±0.01	-±-	0.17
kAverages	class	p	0.22±0.00	0.10±0.01	12.70±1.92	195.30
kAverages	class	P	0.16±0.01	0.20±0.01	400.00±0.00	4088.03
kAverages	class	b	0.22±0.00	0.04±0.02	17.55±43.32	249.58
kAverages	class	m	0.22±0.00	0.04±0.02	8.40±6.12	118.84
kAverages	class	M	0.22±0.02	0.07±0.07	106.00±174.25	1449.27
kAveragesC++	class	p	0.24±0.01	0.44±0.01	10.25±2.90	1.54
kAveragesC++	class	P	0.23±0.01	0.43±0.01	1314.50±50.03	11.38
kAveragesC++	class	b	0.24±0.04	0.18±0.06	128.95±89.34	43.95
kAveragesC++	class	m	0.21±0.03	0.22±0.03	6.95±2.09	1.67
kAveragesC++	class	M	0.22±0.03	0.22±0.03	304.65±147.24	3.69
kAverages	object	p	0.32±0.01	0.51±0.01	22.45±41.93	332.71
kAverages	object	P	0.23±0.01	0.18±0.01	400.00±0.00	4690.81
kAverages	object	b	0.27±0.05	0.30±0.25	44.60±68.49	597.70
kAverages	object	m	0.27±0.05	0.30±0.25	11.40±7.46	130.32
kAverages	object	M	0.28±0.05	0.29±0.24	241.65±198.98	2954.00
kAveragesC++	object	p	0.31±0.01	0.50±0.01	10.60±2.62	1.87
kAveragesC++	object	P	0.32±0.01	0.51±0.01	1123.75±44.76	15.91
kAveragesC++	object	b	0.32±0.02	0.50±0.01	19.20±5.11	1.72
kAveragesC++	object	m	0.32±0.02	0.50±0.01	9.00±2.68	1.68
kAveragesC++	object	M	0.32±0.02	0.50±0.01	189.35±62.88	4.03
kAverages	raw	p	0.35±0.01	0.51±0.01	42.05±68.18	620.58
kAverages	raw	P	0.23±0.01	0.18±0.01	400.00±0.00	2909.44
kAverages	raw	b	0.21±0.06	0.16±0.16	183.00±52.36	1397.32
kAverages	raw	m	0.35±0.01	0.51±0.01	212.10±88.03	1752.99
kAverages	raw	M	0.21±0.06	0.17±0.16	400.00±0.00	3273.39
kAveragesC++	raw	p	0.34±0.01	0.50±0.01	10.70±2.43	1.46
kAveragesC++	raw	P	0.36±0.02	0.51±0.01	1202.15±61.78	6.29
kAveragesC++	raw	b	0.35±0.01	0.50±0.01	20.40±6.64	1.31
kAveragesC++	raw	m	0.35±0.01	0.50±0.01	8.70±2.66	1.30
kAveragesC++	raw	M	0.35±0.01	0.50±0.01	166.10±50.05	1.91

Table 38: dataSet: fish, distance: dtw,
normalizeData: 1, nbRuns: 20

clustering	objective	strategy	accuracy	nmi	iterations	time
kkMeans			0.50±0.04	0.42±0.02	16.40±5.33	0.33
random			0.20±0.01	0.03±0.01	-±-	0.07
kAverages	class	p	0.17±0.02	0.09±0.01	14.30±2.77	33.45
kAverages	class	P	0.37±0.06	0.21±0.05	394.50±16.93	789.64
kAverages	class	b	0.15±0.03	0.02±0.03	15.35±12.80	35.14
kAverages	class	m	0.17±0.04	0.05±0.03	11.55±5.01	22.83
kAverages	class	M	0.28±0.08	0.14±0.08	231.25±175.06	423.68
kAveragesC++	class	p	0.48±0.03	0.37±0.02	8.10±3.19	0.21
kAveragesC++	class	P	0.41±0.06	0.34±0.02	309.45±15.90	0.43
kAveragesC++	class	b	0.18±0.05	0.07±0.05	162.45±77.11	9.78
kAveragesC++	class	m	0.31±0.07	0.25±0.08	7.10±3.37	0.29
kAveragesC++	class	M	0.27±0.04	0.24±0.07	104.10±68.78	0.33
kAverages	object	p	0.56±0.02	0.42±0.02	9.90±2.92	24.86
kAverages	object	P	0.26±0.02	0.22±0.03	400.00±0.00	813.87
kAverages	object	b	0.51±0.09	0.38±0.10	56.40±74.10	125.12
kAverages	object	m	0.51±0.09	0.38±0.10	13.10±4.71	29.36
kAverages	object	M	0.47±0.09	0.34±0.09	358.05±101.04	718.00
kAveragesC++	object	p	0.55±0.03	0.41±0.03	8.75±2.20	0.21
kAveragesC++	object	P	0.55±0.03	0.41±0.03	342.65±28.80	0.47
kAveragesC++	object	b	0.48±0.13	0.37±0.13	45.45±66.77	1.77
kAveragesC++	object	m	0.51±0.06	0.41±0.04	7.60±2.37	0.21
kAveragesC++	object	M	0.50±0.07	0.40±0.06	93.45±39.35	0.27
kAverages	raw	p	0.46±0.02	0.40±0.02	30.10±58.30	38.13
kAverages	raw	P	0.27±0.03	0.22±0.03	400.00±0.00	509.45
kAverages	raw	b	0.29±0.05	0.17±0.08	190.85±40.92	219.74
kAverages	raw	m	0.47±0.03	0.40±0.01	220.45±75.76	389.59
kAverages	raw	M	0.37±0.07	0.29±0.10	400.00±0.00	740.33
kAveragesC++	raw	p	0.45±0.03	0.39±0.03	9.40±3.89	0.25
kAveragesC++	raw	P	0.46±0.03	0.41±0.03	433.00±32.87	0.42
kAveragesC++	raw	b	0.45±0.03	0.38±0.03	15.20±4.67	0.22
kAveragesC++	raw	m	0.44±0.03	0.38±0.03	6.75±2.86	0.22
kAveragesC++	raw	M	0.45±0.03	0.39±0.03	82.40±56.79	0.26

Table 39: dataSet: synthetic_control,
distance: dtw, normalizeData: 1,
nbKuns: 20

clustering	objective	strategy	accuracy	nmi	iterations	time
kkMeans			0.69±0.14	0.84±0.04	8.70±4.45	0.35
random			0.21±0.01	0.01±0.00	-±-	0.07
kAverages	class	p	0.50±0.00	0.73±0.02	9.65±2.23	21.65
kAverages	class	P	0.48±0.04	0.51±0.04	400.00±0.00	1036.51
kAverages	class	b	0.29±0.17	0.28±0.35	38.50±69.79	73.47
kAverages	class	m	0.39±0.13	0.55±0.29	9.10±4.05	18.37
kAverages	class	M	0.54±0.21	0.63±0.33	295.80±167.99	837.81
kAveragesC++	class	p	0.67±0.06	0.79±0.02	6.55±3.05	0.67
kAveragesC++	class	P	0.67±0.04	0.67±0.04	659.10±30.22	2.03
kAveragesC++	class	b	0.38±0.16	0.49±0.32	88.00±93.94	16.25
kAveragesC++	class	m	0.49±0.10	0.66±0.13	4.05±1.88	0.56
kAveragesC++	class	M	0.49±0.11	0.66±0.15	60.90±42.78	0.60
kAverages	object	p	0.75±0.11	0.87±0.05	7.20±2.35	29.17
kAverages	object	P	0.48±0.05	0.50±0.05	400.00±0.00	872.55
kAverages	object	b	0.69±0.14	0.84±0.05	39.55±69.22	74.43
kAverages	object	m	0.69±0.14	0.84±0.05	8.20±1.36	16.32
kAverages	object	M	0.67±0.13	0.82±0.04	400.00±0.00	1009.64
kAveragesC++	object	p	0.74±0.08	0.87±0.03	6.45±2.28	0.52
kAveragesC++	object	P	0.78±0.10	0.87±0.04	572.40±26.03	1.25
kAveragesC++	object	b	0.69±0.14	0.84±0.04	9.20±3.38	0.41
kAveragesC++	object	m	0.69±0.14	0.84±0.04	4.45±1.79	0.41
kAveragesC++	object	M	0.69±0.13	0.84±0.04	35.95±34.61	0.45
kAverages	raw	p	0.75±0.02	0.87±0.01	6.10±2.00	24.39
kAverages	raw	P	0.48±0.05	0.51±0.05	400.00±0.00	1174.17
kAverages	raw	b	0.58±0.19	0.65±0.26	143.60±88.41	328.49
kAverages	raw	m	0.70±0.10	0.85±0.03	135.85±96.05	256.60
kAverages	raw	M	0.64±0.13	0.75±0.13	400.00±0.00	1091.91
kAveragesC++	raw	p	0.75±0.04	0.86±0.02	4.95±1.36	0.64
kAveragesC++	raw	P	0.76±0.08	0.87±0.02	571.30±42.64	1.13
kAveragesC++	raw	b	0.73±0.10	0.84±0.03	10.30±4.35	0.52
kAveragesC++	raw	m	0.73±0.10	0.85±0.04	4.65±2.23	0.53
kAveragesC++	raw	M	0.73±0.10	0.85±0.03	41.70±39.93	0.56

Table 40: dataSet: uWaveGestureLibrary_X, distance: dtw, normalizeData: 1, nbRuns: 20

clustering	objective	strategy	accuracy	nmi	iterations	time
kkMeans			0.57±0.01	0.45±0.01	31.45±12.38	9.30
random			0.15±0.00	0.01±0.00	-±-	0.23
kAverages	class	p	0.14±0.00	0.04±0.00	13.05±2.63	225.79
kAverages	class	P	0.25±0.01	0.09±0.01	400.00±0.00	4106.69
kAverages	class	b	0.13±0.00	0.01±0.01	14.50±5.33	123.09
kAverages	class	m	0.14±0.00	0.03±0.01	16.10±3.93	141.90
kAverages	class	M	0.25±0.06	0.23±0.09	341.80±142.15	4091.62
kAveragesC++	class	p	0.34±0.02	0.34±0.02	12.70±3.63	8.74
kAveragesC++	class	P	0.32±0.02	0.32±0.01	2906.60±105.66	29.91
kAveragesC++	class	b	0.17±0.02	0.12±0.05	29.10±10.65	9.75
kAveragesC++	class	m	0.19±0.03	0.16±0.04	8.05±3.43	7.83
kAveragesC++	class	M	0.20±0.03	0.17±0.04	737.10±430.23	12.83
kAverages	object	p	0.56±0.02	0.46±0.01	26.60±18.00	238.73
kAverages	object	P	0.25±0.01	0.09±0.01	400.00±0.00	4704.97
kAverages	object	b	0.57±0.03	0.46±0.01	39.00±39.15	500.59
kAverages	object	m	0.56±0.03	0.46±0.01	20.20±8.55	151.66
kAverages	object	M	0.51±0.05	0.41±0.03	400.00±0.00	2829.42
kAveragesC++	object	p	0.57±0.02	0.46±0.01	14.50±3.55	7.80
kAveragesC++	object	P	0.56±0.03	0.45±0.01	2406.10±197.95	28.50
kAveragesC++	object	b	0.56±0.03	0.45±0.02	30.40±14.74	6.25
kAveragesC++	object	m	0.56±0.03	0.45±0.02	14.20±7.24	6.81
kAveragesC++	object	M	0.56±0.04	0.45±0.02	552.35±248.81	11.59
kAverages	raw	p	0.57±0.01	0.46±0.01	16.05±5.22	239.77
kAverages	raw	P	0.24±0.01	0.09±0.01	400.00±0.00	4197.20
kAverages	raw	b	0.57±0.01	0.45±0.01	60.60±61.31	667.37
kAverages	raw	m	0.57±0.01	0.45±0.01	22.60±8.61	262.78
kAverages	raw	M	0.50±0.04	0.41±0.02	400.00±0.00	3998.97
kAveragesC++	raw	p	0.57±0.02	0.45±0.02	15.35±6.36	8.35
kAveragesC++	raw	P	0.57±0.02	0.46±0.02	2719.80±268.73	21.43
kAveragesC++	raw	b	0.57±0.01	0.45±0.01	28.05±11.20	6.56
kAveragesC++	raw	m	0.57±0.01	0.45±0.01	13.65±6.38	6.77
kAveragesC++	raw	M	0.56±0.02	0.45±0.01	576.95±247.00	8.97

Table 41: dataSet: uWaveGestureLi-

brary_Y, distance: dtw, normalizeData:

1, nbRuns: 20

clustering	objective	strategy	accuracy	nmi	iterations	time
kkMeans			0.50±0.02	0.45±0.01	33.00±17.77	9.81
random			0.15±0.00	0.01±0.00	-±-	0.23
kAverages	class	p	0.14±0.00	0.04±0.00	18.35±3.87	166.93
kAverages	class	P	0.21±0.01	0.08±0.01	400.00±0.00	2877.30
kAverages	class	b	0.13±0.00	0.01±0.01	14.70±7.70	111.91
kAverages	class	m	0.13±0.00	0.03±0.01	18.00±4.28	148.73
kAverages	class	M	0.37±0.11	0.32±0.11	341.90±141.92	2477.53
kAveragesC++	class	p	0.30±0.02	0.29±0.01	17.25±3.95	7.54
kAveragesC++	class	P	0.28±0.02	0.28±0.01	3103.45±173.19	23.14
kAveragesC++	class	b	0.18±0.05	0.11±0.06	65.35±69.69	76.24
kAveragesC++	class	m	0.21±0.02	0.19±0.02	12.90±4.75	5.86
kAveragesC++	class	M	0.22±0.04	0.20±0.05	1185.40±332.91	11.39
kAverages	object	p	0.49±0.02	0.44±0.00	26.40±11.16	219.28
kAverages	object	P	0.22±0.01	0.08±0.01	400.00±0.00	2876.88
kAverages	object	b	0.48±0.01	0.44±0.00	46.35±20.23	334.64
kAverages	object	m	0.48±0.01	0.44±0.00	26.35±10.36	207.21
kAverages	object	M	0.48±0.03	0.43±0.02	400.00±0.00	2883.63
kAveragesC++	object	p	0.49±0.03	0.44±0.01	23.30±9.79	7.68
kAveragesC++	object	P	0.48±0.03	0.43±0.01	2757.05±189.10	27.09
kAveragesC++	object	b	0.48±0.02	0.44±0.01	39.15±17.41	4.69
kAveragesC++	object	m	0.48±0.02	0.44±0.01	19.10±8.45	4.99
kAveragesC++	object	M	0.48±0.02	0.44±0.00	665.30±227.62	8.09
kAverages	raw	p	0.51±0.02	0.45±0.01	16.55±5.83	153.77
kAverages	raw	P	0.22±0.01	0.08±0.01	400.00±0.00	3692.97
kAverages	raw	b	0.48±0.08	0.41±0.09	86.75±76.73	647.90
kAverages	raw	m	0.51±0.01	0.46±0.00	59.80±78.33	466.54
kAverages	raw	M	0.47±0.06	0.41±0.06	400.00±0.00	2820.68
kAveragesC++	raw	p	0.51±0.02	0.45±0.01	17.65±8.76	6.31
kAveragesC++	raw	P	0.51±0.01	0.46±0.01	3038.85±285.52	15.64
kAveragesC++	raw	b	0.51±0.01	0.45±0.01	35.85±13.49	4.54
kAveragesC++	raw	m	0.51±0.01	0.45±0.00	15.60±6.11	4.79
kAveragesC++	raw	M	0.51±0.02	0.45±0.01	494.60±229.02	6.26

Table 42: dataSet: uWaveGestureLibrary_Z, distance: dtw, normalizeData: 1, nbRuns: 20

clustering	objective	strategy	accuracy	nmi	iterations	time
kkMeans			0.51±0.02	0.43±0.01	28.85±10.98	6.93
random			0.15±0.00	0.01±0.00	-±-	0.19
kAverages	class	p	0.14±0.00	0.04±0.00	13.20±2.42	127.57
kAverages	class	P	0.21±0.01	0.06±0.01	400.00±0.00	2924.26
kAverages	class	b	0.13±0.00	0.02±0.01	31.80±57.63	242.68
kAverages	class	m	0.13±0.00	0.03±0.01	15.50±3.63	125.49
kAverages	class	M	0.27±0.09	0.22±0.11	360.75±120.81	2666.48
kAveragesC++	class	p	0.29±0.02	0.31±0.01	12.10±3.39	8.57
kAveragesC++	class	P	0.28±0.02	0.29±0.01	2861.40±132.43	31.46
kAveragesC++	class	b	0.14±0.01	0.06±0.03	19.35±6.73	7.28
kAveragesC++	class	m	0.18±0.02	0.15±0.04	6.95±2.09	7.31
kAveragesC++	class	M	0.18±0.03	0.15±0.04	687.15±431.08	12.54
kAverages	object	p	0.49±0.02	0.44±0.01	22.80±8.45	237.50
kAverages	object	P	0.20±0.01	0.06±0.00	400.00±0.00	3298.66
kAverages	object	b	0.49±0.01	0.43±0.01	55.60±51.18	415.89
kAverages	object	m	0.49±0.01	0.43±0.01	22.40±7.32	181.51
kAverages	object	M	0.48±0.03	0.41±0.02	400.00±0.00	3704.79
kAveragesC++	object	p	0.49±0.02	0.44±0.01	19.90±8.38	6.64
kAveragesC++	object	P	0.49±0.01	0.44±0.01	2455.65±151.55	22.16
kAveragesC++	object	b	0.49±0.01	0.43±0.01	36.85±12.33	6.40
kAveragesC++	object	m	0.49±0.02	0.43±0.01	18.25±5.96	6.85
kAveragesC++	object	M	0.49±0.01	0.43±0.01	623.10±214.62	12.22
kAverages	raw	p	0.51±0.01	0.43±0.01	13.30±4.43	116.75
kAverages	raw	P	0.20±0.01	0.06±0.00	400.00±0.00	2775.30
kAverages	raw	b	0.51±0.02	0.43±0.01	32.75±40.01	231.82
kAverages	raw	m	0.50±0.02	0.43±0.01	16.05±4.38	125.48
kAverages	raw	M	0.48±0.03	0.41±0.02	400.00±0.00	2803.89
kAveragesC++	raw	p	0.51±0.02	0.42±0.01	12.55±4.05	5.93
kAveragesC++	raw	P	0.51±0.01	0.43±0.01	2576.10±176.00	17.00
kAveragesC++	raw	b	0.50±0.02	0.43±0.01	24.75±10.30	6.06
kAveragesC++	raw	m	0.50±0.02	0.43±0.01	12.95±6.68	6.37
kAveragesC++	raw	M	0.50±0.02	0.42±0.01	461.10±252.05	8.42

Table 43: dataSet: wafer, distance: dtw,
normalizeData: 1, nbRuns: 20

clustering	objective	strategy	accuracy	nmi	iterations	time
kkMeans			0.64±0.00	0.00±0.00	3.70±0.86	1.13
random			0.51±0.01	0.00±0.00	-±-	0.20
kAverages	class	p	0.60±0.06	0.07±0.04	8.45±1.90	45.74
kAverages	class	P	0.52±0.02	0.00±0.00	400.00±0.00	2166.02
kAverages	class	b	0.72±0.12	0.02±0.04	23.10±42.00	124.32
kAverages	class	m	0.72±0.12	0.02±0.04	10.10±2.55	79.32
kAverages	class	M	0.64±0.06	0.00±0.01	188.25±134.54	1079.04
kAveragesC++	class	p	0.60±0.06	0.07±0.04	8.15±2.37	3.18
kAveragesC++	class	P	0.83±0.00	0.03±0.00	1010.35±58.09	4.44
kAveragesC++	class	b	0.72±0.12	0.02±0.04	13.30±5.65	2.77
kAveragesC++	class	m	0.71±0.10	0.02±0.04	7.60±2.41	2.89
kAveragesC++	class	M	0.71±0.11	0.02±0.04	207.40±190.54	4.42
kAverages	object	p	0.64±0.00	0.00±0.00	3.00±0.00	20.71
kAverages	object	P	0.51±0.01	0.00±0.00	400.00±0.00	2191.81
kAverages	object	b	0.64±0.00	0.00±0.00	4.35±1.18	22.82
kAverages	object	m	0.64±0.00	0.00±0.00	4.30±1.13	30.95
kAverages	object	M	0.64±0.00	0.00±0.00	24.95±88.31	149.19
kAveragesC++	object	p	0.64±0.00	0.00±0.00	3.00±0.00	4.05
kAveragesC++	object	P	0.64±0.00	0.00±0.00	982.55±13.80	6.23
kAveragesC++	object	b	0.64±0.00	0.00±0.00	4.40±1.14	3.36
kAveragesC++	object	m	0.64±0.00	0.00±0.00	1.85±0.67	3.41
kAveragesC++	object	M	0.64±0.00	0.00±0.00	50.85±121.53	3.92
kAverages	raw	p	0.64±0.00	0.00±0.00	2.55±0.51	18.29
kAverages	raw	P	0.52±0.01	0.00±0.01	400.00±0.00	2433.02
kAverages	raw	b	0.64±0.00	0.00±0.00	3.40±0.68	19.97
kAverages	raw	m	0.64±0.00	0.00±0.00	3.40±0.68	17.77
kAverages	raw	M	0.64±0.00	0.00±0.00	3.45±0.69	16.08
kAveragesC++	raw	p	0.64±0.00	0.00±0.00	2.50±0.51	3.05
kAveragesC++	raw	P	0.64±0.00	0.00±0.00	980.95±13.47	4.16
kAveragesC++	raw	b	0.64±0.00	0.00±0.00	3.35±0.59	2.59
kAveragesC++	raw	m	0.64±0.00	0.00±0.00	1.00±0.00	2.58
kAveragesC++	raw	M	0.64±0.00	0.00±0.00	0.00±0.00	2.58

Table 44: dataSet: yoga, distance: dtw,
normalizeData: 1, nbRuns: 20

clustering	objective	strategy	accuracy	nmi	iterations	time
kkMeans			0.52±0.01	0.00±0.00	11.10±4.20	2.08
random			0.51±0.01	0.00±0.00	-±-	0.16
kAverages	class	p	0.53±0.00	0.01±0.00	11.35±2.60	82.57
kAverages	class	P	0.52±0.01	0.00±0.00	400.00±0.00	2283.14
kAverages	class	b	0.53±0.00	0.01±0.01	17.00±7.09	78.30
kAverages	class	m	0.53±0.00	0.01±0.01	11.20±3.52	53.32
kAverages	class	M	0.53±0.02	0.00±0.00	361.95±115.48	2148.66
kAveragesC++	class	p	0.53±0.04	0.03±0.04	5.75±0.44	4.89
kAveragesC++	class	P	0.52±0.03	0.01±0.03	1036.80±120.45	6.16
kAveragesC++	class	b	0.54±0.01	0.01±0.02	16.55±6.77	4.10
kAveragesC++	class	m	0.52±0.02	0.02±0.02	8.75±4.45	4.16
kAveragesC++	class	M	0.52±0.01	0.02±0.02	286.70±191.43	4.76
kAverages	object	p	0.53±0.01	0.00±0.00	6.55±0.51	38.41
kAverages	object	P	0.52±0.01	0.00±0.00	400.00±0.00	2339.74
kAverages	object	b	0.53±0.01	0.00±0.00	12.00±2.81	60.34
kAverages	object	m	0.53±0.01	0.00±0.00	8.10±1.37	62.95
kAverages	object	M	0.53±0.02	0.00±0.00	373.65±63.58	1915.20
kAveragesC++	object	p	0.53±0.01	0.00±0.00	5.75±0.72	4.48
kAveragesC++	object	P	0.53±0.00	0.00±0.00	1002.00±30.36	4.82
kAveragesC++	object	b	0.53±0.01	0.00±0.00	12.80±3.41	2.96
kAveragesC++	object	m	0.53±0.01	0.00±0.00	5.35±1.09	3.08
kAveragesC++	object	M	0.53±0.01	0.00±0.00	208.45±136.73	3.37
kAverages	raw	p	0.51±0.00	0.00±0.00	3.85±0.88	40.31
kAverages	raw	P	0.52±0.01	0.00±0.00	400.00±0.00	2501.68
kAverages	raw	b	0.51±0.00	0.00±0.00	7.15±2.11	31.73
kAverages	raw	m	0.51±0.00	0.00±0.00	5.65±1.31	28.77
kAverages	raw	M	0.51±0.01	0.00±0.00	254.60±183.02	1430.36
kAveragesC++	raw	p	0.51±0.00	0.00±0.00	3.90±0.85	4.08
kAveragesC++	raw	P	0.51±0.00	0.00±0.00	1110.45±268.23	5.50
kAveragesC++	raw	b	0.51±0.00	0.00±0.00	7.35±2.11	2.99
kAveragesC++	raw	m	0.51±0.00	0.00±0.00	3.65±1.09	3.11
kAveragesC++	raw	M	0.51±0.00	0.00±0.00	187.20±264.02	3.89