

mkaTimeSeriesPaper

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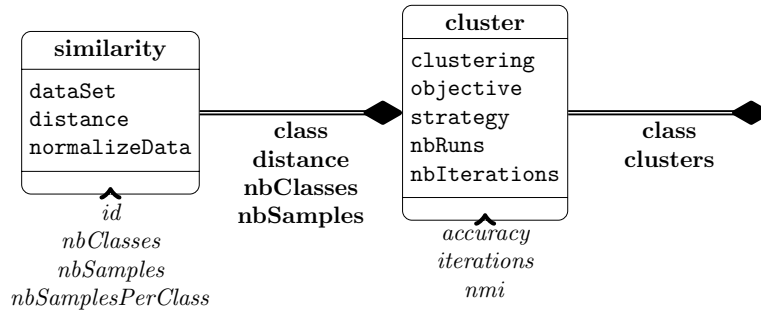


Figure 1: Factors flow graph for the experiment.

References

dataSet	id
5owords	1
Adiac	2
Beef	3
CBF	4
ChlorineConcentration	5
CinC_ECG_torso	6
Coffee	7
Cricket_X	8
Cricket_Y	9
Cricket_Z	10
DiatomSizeReduction	11
ECG200	12
ECGFiveDays	13
FaceAll	14
FaceFour	15
FacesUCR	16
Gun_Point	17
Haptics	18
InlineSkate	19
ItalyPowerDemand	20
Lighting2	21
Lighting7	22
MALLAT	23
MedicalImages	24
MoteStrain	25
OSULeaf	26
OliveOil	27
SonyAIBORobotSurface	28
SonyAIBORobotSurfaceII	29
StarLightCurves	30
SwedishLeaf	31
Symbols	32
Trace	33
TwoLeadECG	34
Two_Patterns	35
WordsSynonyms	36
fish	37
synthetic_control	38
uWaveGestureLibrary_X	39
uWaveGestureLibrary_Y	40
uWaveGestureLibrary_Z	41
wafer	42
yoga	43

Table 1: normalizeData: 1

id nbClasses nbSamplesPerClass

7	2	28±1
12	2	100±47
13	2	442±0
17	2	100±0
20	2	548±1
21	2	60±18
25	2	636±69
28	2	310±54
29	2	490±161
34	2	581±0
42	2	3582±3988
43	2	1650±170

Table 2: Morphology of the datasets

Table 3: nbIterations: 200, distance: 1, nbRuns: 20
kMeans kkMeans kAverages kAverages kAverages kAverages

id	nbClasses	nbSamplesPerClass	object			raw	object	raw
			p	p	p	p	b	b
7	2	28±1	48±12	48±32	54±26	66±32	48±26	51±37
12	2	100±47	12±2	14±3	15±0	10±5	15±0	10±5
13	2	442±0	0±0	2±2	4±6	5±2	9±12	5±2
17	2	100±0	0	0	0	1	0	1
20	2	548±1	0±0	1±0	0±0	1±0	1±5	1±0
21	2	60±18	3±0	1±0	1±0	3±4	1±0	4±4
25	2	636±69	30±0	52±0	41±0	36±1	41±0	36±1
28	2	310±54	55±21	78±0	72±1	21±0	72±1	21±0
29	2	490±161	24	21	22	15	22	15
34	2	581±0	0±0	7±0	7±0	8±0	7±0	8±0
42	2	3582±3988	0	0	0	0	0	0
43	2	1650±170	0±0	0±0	0±0	0±0	0±0	0±0

id nbClasses nbSamplesPerClass

3	5	12±0
4	3	310±0
5	3	1436±755
6	4	355±0
11	4	80±31
15	4	28±5
18	5	93±9
19	7	93±22
22	7	20±8
26	6	74±20
27	4	15±8
30	3	3079±2045
32	6	170±9
33	4	50±0
35	4	1250±43
37	7	50±0
38	6	100±0

Table 4: Morphology of the datasets

Table 5: nbIterations: 200, distance: dW and dM, normalizeData: 1, nbRuns: 20

id	nbClasses	nbSamplesPerClass	kMeans		kAverages		kAverages		kAverages	
			kkMeans	kAverages	object p	raw p	object b	raw b	object b	raw b
3	5	12±0	30±4	29±3	32±2	31±4	29±8	20±4		
4	3	310±0	36±1	51±4	51±3	42±12	52±3	44±12		
5	3	1436±755	0±0	0±0	0±0	0±0	0±0	1±1		
6	4	355±0	23±3	44±8	41±5	46±0	40±7	45±4		
11	4	80±31	83±3	81±10	65±10	57±16	21±20	32±27		
15	4	28±5	45±4	67±9	72±10	63±3	73±7	65±7		
18	5	93±9	9±0	9±1	10±1	8±1	9±2	8±1		
19	7	93±22	5±1	5±1	5±0	5±1	5±0	5±1		
22	7	20±8	44±2	51±4	50±2	54±1	44±15	37±15		
26	6	74±20	22±3	23±3	25±2	21±1	24±2	21±2		
27	4	15±8	66±4	59±9	61±7	72±3	53±19	70±11		
30	3	3079±2045	60±0	61±4	60±0	61±0	60±0	61±0		
32	6	170±9	76±6	79±4	80±1	77±5	77±18	68±17		
33	4	50±0	53±2	58±7	53±3	52±2	56±6	43±15		
35	4	1250±43	2±0	15±13	11±8	12±13	16±7	13±12		
37	7	50±0	31±2	42±2	42±2	40±2	38±10	17±8		
38	6	100±0	79±3	84±4	87±5	87±1	84±5	65±26		

id nbClasses nbSamplesPerClass

1	50	18±21
2	37	21±2
8	12	65±0
9	12	65±0
10	12	65±0
14	14	161±73
16	14	161±73
23	8	300±0
24	10	114±171
31	15	75±0
36	25	36±41
39	8	560±0
40	8	560±0
41	8	560±0

Table 6: Morphology of the datasets

Table 7: nbIterations: 200, distance: $d_{\text{Haversine}}$, nbClasses: 1, nbRuns: 20

id	nbClasses	nbSamplesPerClass	kMeans		kAverages		kAverages	
			object	raw	object	raw	object	raw
			p	p	b	b		
1	50	18±21	64±1	70±1	71±1	72±1	26±29	12±0
2	37	21±2	58±1	62±1	60±1	58±1	26±25	10±1
8	12	65±0	26±1	29±2	31±1	27±2	29±7	19±9
9	12	65±0	30±1	35±2	35±1	33±1	35±1	24±9
10	12	65±0	25±1	30±1	31±1	28±2	30±7	20±9
14	14	161±73	37±2	77±3	74±1	67±3	74±2	57±17
16	14	161±73	37±2	77±3	77±2	70±3	72±17	52±21
23	8	300±0	87±5	88±5	87±3	90±4	75±33	45±26
24	10	114±171	25±1	32±1	30±2	31±2	28±7	25±8
31	15	75±0	54±2	66±3	67±2	56±2	40±33	10±12
36	25	36±41	42±1	51±1	51±1	51±1	30±25	16±16
39	8	560±0	44±1	46±1	46±0	46±1	46±1	45±5
40	8	560±0	44±0	45±0	44±0	45±1	44±0	44±5
41	8	560±0	0±0	43±1	44±1	42±1	44±0	42±0