

Dataset statistics of single label

Dataset	Patterns	Features		# of Classes	Average Patterns per Class $\pm$ Standard Deviation	Domain
		Size	Type			
DEAM	1802	888	Numeric	141	12.780 $\pm$ 31.074	Emotion
GTZAN	1000	888	Numeric	10	100.000 $\pm$ 0.000	Genre
HOMBURG	1886	888	Numeric	9	209.556 $\pm$ 134.866	Genre
FMA_SMALL	7996	888	Numeric	8	999.500 $\pm$ 0.500	Genre
IRMAS	6700		Numeric	5	1340.000 $\pm$ 904.055	Instrument
MER500	493	888	Numeric	5	98.600 $\pm$ 2.332	Emotion
emoMusic	1000	888	Numeric	8	125.000 $\pm$ 0.000	Emotion
Soundtracks	470	884	Numeric	9	52.222 $\pm$ 19.876	Emotion
emotifymusic	400	888	Numeric	4	100.000 $\pm$ 0.000	Genre
ballroom	698	888	Numeric	8	87.250 $\pm$ 17.555	Genre
SeyerlehnerUnique	3115		Numeric	10	311.500 $\pm$ 248.349	Genre
MIREX-like_mood	903	884	Numeric	28	32.250 $\pm$ 4.778	Mood
Medley-solos	20303		Numeric	8	2537.875 $\pm$ 2016.080	Instrument
ISMIR04	727		Numeric	6	121.167 $\pm$ 95.602	Genre
good-sounds	2747		Numeric	5	549.400 $\pm$ 198.697	Instrument
MICM	1137	888	Numeric	7	162.429 $\pm$ 119.717	Modal System
Tropical Genres	1500	888	Numeric	5	300.000 $\pm$ 0.000	Genre
PCMIR	2410	886	Numeric	6	401.667 $\pm$ 46.241	Instrument
extendedBallroom	4180		Numeric	13	321.538 $\pm$ 195.702	Genre
giantsteps	664		Numeric	23	28.870 $\pm$ 31.872	Tempo
giantsteps	604		Numeric	24	25.167 $\pm$ 20.418	Key
GMD	1042	888	Numeric	18	57.889 $\pm$ 70.069	Genre
FMA_MEDIUM	24984		Numeric	16	1561.500 $\pm$ 2069.356	Genre
MagnaTagATune	25860	888	Numeric	17	-	Emotion
MagnaTagATune	25860	888	Numeric	58	-	Genre
MagnaTagATune	25860	888	Numeric	45	-	Instrument
MagnaTagATune	25860	888	Numeric	9	-	Tempo
CAL500	498	1277	Numeric	27	-	Emotion
CAL500	482	888	Numeric	14	-	Instrument&Vocal
CAL500	449	888	Numeric	12	-	Genre

Experimental settings(KNN/NB)

Dataset	Avg. of the results(KNN)	Avg. of the results(NB+laim)
DEAM	0.9927 ± 0.0005	0.9928 ± 0.0008
GTZAN	0.8564 ± 0.0095	0.8552 ± 0.0128
HOMBURG	0.7610 ± 0.0129	0.6846 ± 0.0106
FMA_SMALL	0.8341 ± 0.0039	0.8366 ± 0.0033
IRMAS	-	-
MER500	0.7131 ± 0.0158	0.6873 ± 0.0265
emoMusic	0.8619 ± 0.0049	0.8487 ± 0.0069
Soundtracks	0.9012 ± 0.0114	0.9022 ± 0.0122
emotifymusic	0.6375 ± 0.0255	0.6203 ± 0.0094
ballroom	0.7698 ± 0.0225	0.7671 ± 0.0155
SeyerlehnerUnique	-	-
MIREX-like_mood	0.9638 ± 0.0025	0.9626 ± 0.0033
Medley-solos	-	-
ISMIR04	-	-
good-sounds	-	-
MICM	0.8295 ± 0.0100	0.8092 ± 0.0067
Tropical Genres	0.7080 ± 0.0115	0.6704 ± 0.0153
PCMIR	0.7630 ± 0.0070	0.7487 ± 0.0144
extendedBallroom	-	-
giantstepstempo	-	-
giantstepskey	-	-
GMD	0.9337 ± 0.0041	0.9157 ± 0.0076
FMA_MEDIUM	-	-
MagnaTagATune	-	-
MagnaTagATune	-	-
MagnaTagATune	-	-
MagnaTagATune	-	-
CAL500	-	-
CAL500	-	-
CAL500	-	-

- Overall Settings
 - 8:2 hold-out cross validation
 - “NaN” values were treated by KNN Imputer
 - Datasets consists of 900 under features
- KNN settings
 - KNN classifier (k=3)
- NB settings
 - Numeric type of datasets were dicretized by using laim discretization algorithm