timbralSimilaritySolPerceptualProjectionSlides

Mathieu Lagrange

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The first table compares the plain and joint scattering without any reprojection.

1. median: use median renormalization for scattering features

2. compress: use log compression for scattering features

3. standardize: standardize features at the end

Use of all post processing give best performance. The second table show the results of using some projection. separateJudgment results can be seen as upper bound results.

1. averageJudgment: use cluster ensemble techniques http://strehl.com/soft.html to obtain one clustering. thus only one projection is computed

2. separateJudgment: can be seen as an oracle method where each projection is evaluated using the clustering it has considered and average performance

Factors flow graph
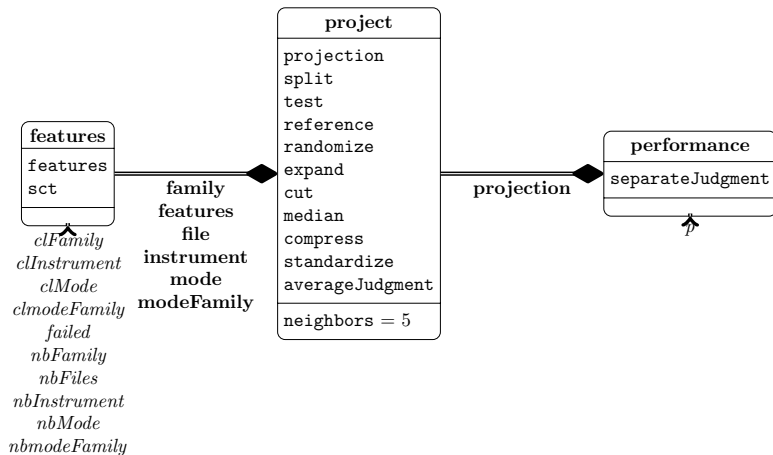
features: tfscat, sct: 25, projection: none, split: none,
reference: judgments, randomize: 0

median	compress	standardize	p (%)	p (%)
0	0	0	69.25 ±9.67	74.80 ±8.67
0	0	1	76.65 ±8.09	85.61 ±5.56
0	1	0	81.92 ±7.03	**89.49 ±4.30**
0	1	1	81.49 ±7.24	**89.95 ±4.08**
1	0	0	76.99 ±8.14	86.43 ±5.36
1	0	1	76.65 ±8.09	85.61 ±5.56
1	1	0	**85.70 ±6.30**	**91.08 ±3.83**
1	1	1	**86.39 ±6.13**	**91.12 ±3.80**

features: tfscat, sct: 25, split: none, reference: judgments,
randomize: 0, median: 1, compress: 1, standardize: 1

pro	avejud	sepjud	p (%)	p (%)
none	1	0	86.39 $\pm$6.13	91.12 $\pm$3.80
lmnn	0	0	91.59 $\pm$4.66	**96.20 $\pm$2.27**
lmnn	0	1	**95.22 $\pm$3.23**	**96.89 $\pm$2.08**
lmnn	1	0	93.19 $\pm$3.84	95.60 $\pm$2.32
lda	1	0	82.40 $\pm$7.64	81.31 $\pm$8.51
lda	1	1	82.40 $\pm$7.64	81.31 $\pm$8.51