Consensus of one performance measure and more than one data set

R supplement of

"Exploratory and Inferential Analysis of Benchmark Experiments"

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benchmark version 0.01

In Section 4.2 – Consensus – we determined the consensus based on the individual benchmark data set results.

Requirements:

```
> Sweave('uci621.Rnw')
> Sweave('uci621-1x21-exp.Rnw')
```

In the latter Rnw-file we calculated the oder relations for each data set; according to the "lmer-path"

```
> rels
```

```
An ensemble of 21 relations of size 6 x 6.
```

and the "fr-path"

```
> rels2
```

```
An ensemble of 21 relations of size 6 x 6.
```

The "lmer-path" consensus:

```
> con1 <- relation_consensus(rels, 'SD/L',
+                            control=list(all=TRUE))
> tsort(con1)
```

```
[[1]]
 svm < lda < rpart < nnet < naiveBayes < knn

[[2]]
 svm < lda < rpart < nnet < knn < naiveBayes
```

The "fr-path" consensus:

```
> con2 <- relation_consensus(rels2, 'SD/L',
+                            control=list(all=TRUE))
> tsort(con2)

[[1]]
 svm < nnet < lda < rpart < naiveBayes < knn

[[2]]
 svm < lda < rpart < nnet < naiveBayes < knn

[[3]]
 svm < lda < nnet < rpart < naiveBayes < knn

[[4]]
 svm < lda < rpart < naiveBayes < nnet < knn

[[5]]
 svm < nnet < lda < rpart < knn < naiveBayes

[[6]]
 svm < lda < rpart < nnet < knn < naiveBayes

[[7]]
 svm < lda < nnet < rpart < knn < naiveBayes
```

References

M. J. A. Eugster, T. Hothorn, and F. Leisch. Exploratory and inferential analysis of benchmark experiments. Technical Report 30, Institut für Statistik, Ludwig-Maximilians-Universität München, Germany, 2008. URL http://epub.ub.uni-muenchen.de/4134/.