Parallel all papers PLS for corn data

Hongwei Peng

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1 A Partial Least Squares-Based Consensus Regression Method for the Analysis of Near-Infrared Complex Spectral Data of Plant Samples

60-20 10

1~mp6 0.159

```
## 0.1298055 0.1513447 0.1728839
```

```
##    user  system elapsed
##   0.005   0.001   8.860
```

1 A Partial Least Squares-Based Consensus Regression Method for the Analysis of Near-Infrared Complex Spectral Data of Plant Samples

60-20 10

2~mp6 0.107

```
## 0.08033235 0.09553563 0.1107389
```

```
##    user  system elapsed
##   0.002   0.000   8.137
```

1 A Partial Least Squares-Based Consensus Regression Method for the Analysis of Near-Infrared Complex Spectral Data of Plant Samples

60-20 10

3~mp6 0.150

```
## 0.1270938 0.1486455 0.1701972
```

```
##    user  system elapsed
##   0.002   0.000   7.995
```

1 A Partial Least Squares-Based Consensus Regression Method for the Analysis of Near-Infrared Complex Spectral Data of Plant Samples

60-20 10

4~mp6 0.370

```
## 0.2909894 0.350073 0.4091566
```

```
##    user  system elapsed
##   0.003   0.000   7.700
```

2 A strategy that iteratively retains informative variables for selecting optimal variable subset in multivariate calibration

64-16 10

1~m5 RMSEC = 0.0149; RMSEP = 0.0201

```
## 0.01982164 0.02066542 0.0215092
## 0.01500999 0.01803533 0.02106068
```

```
##    user  system elapsed
##   0.003   0.000   7.622
```

3 Cross-validation for the selection of spectral variables using the successive projections algorithm

60-20 SavitzkyGolay filler (in)

1~m5 0.040

```
## 0.03495124 0.04139448 0.04783773
```

```
##    user  system elapsed
##   0.003   0.001   5.637
```

3 Cross-validation for the selection of spectral variables using the successive projections algorithm

60-20 SavitzkyGolay filler (in)

2~m5 0.029

```
## 0.03316002 0.04188739 0.05061476
```

```
##    user  system elapsed
##   0.003   0.000   9.179
```

3 Cross-validation for the selection of spectral variables using the successive projections algorithm

60-20 SavitzkyGolay filler (in)

3~m5 0.119

```
## 0.08461812 0.1071009 0.1295838
```

```
##    user  system elapsed
##   0.003   0.000   5.623
```

3 Cross-validation for the selection of spectral variables using the successive projections algorithm

60-20 SavitzkyGolay filler (in)

4~m5 0.196

```
## 0.1844572 0.2345311 0.284605
```

```
##    user  system elapsed
##   0.002   0.000   5.781
```

4 Reduced PCR/PLSR models by subspace projections

40-40 Scale 4

1~m5 0.36

```
## 0.2719932 0.3726551 0.473317
```

```
##    user  system elapsed
##   0.003   0.001   7.789
```

4 Reduced PCR/PLSR models by subspace projections

40-40 Scale 4

2~m5 0.97

```
## 0.6491264 0.7066035 0.7640807
```

```
##    user  system elapsed
##   0.002   0.000   8.032
```

4 Reduced PCR/PLSR models by subspace projections

40-40 Scale 4

3~m5 0.44

```
## 0.5134891 0.6043182 0.6951473
```

```
##    user  system elapsed
##   0.002   0.000   7.591
```

4 Reduced PCR/PLSR models by subspace projections

40-40 Scale 4

4~m5 0.49

```
## 0.6637126 0.826263 0.9888133
```

```
##    user  system elapsed
##   0.003   0.000   7.525
```

5 Stability competitive adaptive reweighted sampling (SCARS) and its applications to multivariate calibration of NIR spectra

40-40 Scale 10

1~mp5 0.357

```
## 0.3606093 0.40496 0.4493107
```

```
##    user  system elapsed
##   0.002   0.000   9.575
```

6 Pretreating near infrared spectra with fractional order Savitzky–Golay differentiation (FOSGD)

64-16 None 10

2~m5 RMSECV=0.0363; RMSECP=0.04

```
## 0.05070206 0.06281742 0.07493278
```

```
##    user  system elapsed
##   0.002   0.001   8.498
```

6 Pretreating near infrared spectra with fractional order Savitzky–Golay differentiation (FOSGD)

64-16 None 10

4~m5 RMSECV=0.24; RMSECP=0.219

```
## 0.2119954 0.2655884 0.3191814
```

```
##    user  system elapsed
##   0.002   0.001   8.512
```

7 A variable elimination method to improve the parsimony of MLR models using the successive projections algorithm

60-20 None (in)

1~m5 0.045(06)

```
## 0.03454279 0.04081897 0.04709516
```

```
##    user  system elapsed
##   0.003   0.000   5.628
```

7 A variable elimination method to improve the parsimony of MLR models using the successive projections algorithm

60-20 None (in)

2~m5 0.028(10)

```
## 0.04199988 0.05396266 0.06592544
```

```
##    user  system elapsed
##   0.003   0.001   8.409
```

7 A variable elimination method to improve the parsimony of MLR models using the successive projections algorithm

60-20 None (in)

3~m5 0.110(07)

```
## 0.08262389 0.1021709 0.1217178
```

```
##    user  system elapsed
##   0.003   0.001   6.251
```

7 A variable elimination method to improve the parsimony of MLR models using the successive projections algorithm

60-20 None (in)

4~m5 0.228(05)

```
## 0.2050461 0.2513159 0.2975858
```

```
##    user  system elapsed
##   0.003   0.000   5.276
```

8 Using consensus interval partial least square in near infrared spectra analysis

52-26 Delete 75 , 77; 10

1~m5 RMSECV=0.0124; RMSEP=0.0157

```
## 0.01999566 0.02154834 0.02310101
## 0.01687485 0.01931495 0.02175505
```

```
##    user  system elapsed
##   0.003   0.000   6.150
```

8 Using consensus interval partial least square in near infrared spectra analysis

52-26 Delete 75 , 77 10

2~m5 RMSECV=0.0613; RMSEP=0.0673

```
## 0.06550716 0.07017852 0.07484988
## 0.05605757 0.06520903 0.07436048
```

```
##    user  system elapsed
##   0.003   0.001   6.137
```

8 Using consensus interval partial least square in near infrared spectra analysis

52-26 Delete 75 , 77 10

3~m5 RMSECV=0.1080; RMSEP=0.1353

```
## 0.1226193 0.135661 0.1487027
## 0.1110986 0.1293352 0.1475719
```

```
##    user  system elapsed
##   0.003   0.000   6.077
```

8 Using consensus interval partial least square in near infrared spectra analysis

52-26 Delete 75 , 77 10

4~m5 RMSECV=0.2579; RMSEP=0.2356

```
## 0.2627741 0.2899106 0.3170472
## 0.2412588 0.2792302 0.3172017
```

```
##    user  system elapsed
##   0.003   0.000   6.124
```