| | 20% CS | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Dataset | PCCC | PCCC-N2-S | PCCC-N5-S | PCCC-N2-S-RD | COPKM | CSC | DILS | LCC | KMEANS | GT |
| n500-k2 | **449.7** | **449.7** | **449.7** | **449.7** | **449.7** | **449.7** | **449.7** | **449.7** | 448.6 | 449.7 |
| n500-k5 | **34.4** | **34.4** | **34.4** | **34.4** | **34.4** | 97.5 | 106.5 | **34.4** | 30.9 | 34.4 |
| n500–k10 | **33.5** | **33.5** | **33.5** | **33.5** | 34.2 | 840.5 | 350.3 | 42.8 | 31.6 | 33.6 |
| n500-k20 | 38.6 | **38.4** | 38.6 | 38.6 | – | 886.8 | 628.2 | 50.5 | 29.8 | 42.2 |
| n500-k50 | 19.3 | 20.0 | 19.3 | **18.9** | 24.2 | 804.3 | 660.8 | 20.7 | 13.3 | 27.7 |
| n500-k100 | 10.2 | 10.0 | 10.2 | **9.9** | 12.1 | 647.1 | 579.7 | 11.7 | 6.9 | 25.1 |
| n1000-k2 | **911.7** | **911.7** | **911.7** | **911.7** | **911.7** | **911.7** | **911.7** | – | 910.7 | 911.7 |
| n1000-k5 | **69.6** | **69.6** | **69.6** | **69.6** | **69.6** | 87.5 | 541.8 | **69.6** | 62.8 | 69.6 |
| n1000-k10 | **66.7** | **66.7** | **66.7** | **66.7** | **66.7** | 988.0 | 1,283.5 | 69.0 | 71.2 | 67.0 |
| n1000-k20 | 80.5 | **79.3** | 80.5 | 80.5 | – | 1,861.8 | 1,758.2 | 122.4 | 63.1 | 82.4 |
| n1000-k50 | 51.6 | **47.2** | 49.4 | 47.9 | – | 1,702.9 | 1,643.1 | 56.1 | 29.7 | 56.1 |
| n1000-k100 | 1,663.1 | 28.5 | **28.1** | 28.2 | 35.5 | 1,648.8 | 1,559.7 | 32.2 | 15.8 | 53.8 |
| n2000-k2 | **1,770.4** | **1,770.4** | **1,770.4** | **1,770.4** | – | **1,770.4** | **1,770.4** | – | 1,763.0 | 1,770.4 |
| n2000-k5 | **140.7** | **140.7** | **140.7** | **140.7** | **140.7** | 179.6 | 2,574.0 | – | 124.4 | 140.7 |
| n2000-k10 | **131.5** | **131.5** | **131.5** | **131.5** | **131.5** | 374.3 | 3,611.9 | **131.5** | 123.2 | 131.5 |
| n2000-k20 | **162.7** | 184.0 | **162.7** | **162.7** | 163.5 | 3,227.7 | 3,839.5 | 324.6 | 126.4 | 162.9 |
| n2000-k50 | **108.7** | 113.2 | **108.7** | 109.1 | – | 3,182.2 | 3,769.0 | 161.2 | 63.9 | 114.7 |
| n2000-k100 | 105.5 | **82.5** | 84.0 | 85.0 | 129.2 | 3,335.9 | 3,605.1 | 90.5 | 35.7 | 113.0 |
| n5000-k2 | **4,493.8** | **4,493.8** | **4,493.8** | **4,493.8** | – | **4,493.8** | 7,662.3 | – | 4,485.9 | 4,493.8 |
| n5000-k5 | **353.2** | **353.2** | **353.2** | **353.2** | – | **353.2** | 9,753.7 | – | 314.3 | 353.2 |
| n5000-k10 | **336.3** | **336.3** | **336.3** | **336.3** | – | 1,065.5 | 9,906.4 | – | 312.8 | 336.3 |
| n5000-k20 | **414.5** | 452.3 | **414.5** | **414.5** | – | 3,592.4 | 9,899.8 | – | 303.4 | 414.5 |
| n5000-k50 | **291.2** | 298.4 | **291.2** | **291.2** | 296.6 | 8,934.8 | 9,841.6 | – | 163.3 | 291.9 |
| n5000-k100 | 298.6 | **267.2** | 276.8 | 280.0 | – | 8,732.7 | 9,742.5 | – | 95.0 | 294.7 |
| Mean | 501.5 | 433.9 | **431.5** | 431.6 | – | 2,090.4 | 3,602.1 | – | 401.1 | 436.3 |

Table W84: Minimum Inertia values of the versions of the PCCC algorithm and the four state-of-the-art algorithms (COPKM, CSC, DILS, LCC) for the constraint sets of size 20% CS. Lower values indicate more coherent clusters. The lowest values are stated in bold. The column KMEANS reports the minimum inertia value obtained with the k-means algorithm. The hyphen indicates that the respective algorithm returned no solution within the time limit of 3,600 seconds.