

| Dataset      | 25% CS |             |
|--------------|--------|-------------|
|              | PCCC   | PCCC-N2-S   |
| n300-k10-s10 | 8.8    | <b>1.0</b>  |
| n300-k10-s20 | 10.6   | <b>1.1</b>  |
| n300-k10-s30 | 12.7   | <b>1.6</b>  |
| n300-k10-s40 | 30.7   | <b>2.4</b>  |
| n300-k10-s50 | 49.4   | <b>2.5</b>  |
| n300-k20-s10 | 32.3   | <b>1.3</b>  |
| n300-k20-s20 | 39.2   | <b>1.4</b>  |
| n300-k20-s30 | 38.3   | <b>1.5</b>  |
| n300-k20-s40 | 45.5   | <b>1.3</b>  |
| n300-k20-s50 | 48.2   | <b>1.9</b>  |
| n300-k50-s10 | 53.5   | <b>0.7</b>  |
| n300-k50-s20 | 64.8   | <b>1.2</b>  |
| n300-k50-s30 | 63.5   | <b>1.3</b>  |
| n300-k50-s40 | 71.1   | <b>1.1</b>  |
| n300-k50-s50 | 67.1   | <b>1.0</b>  |
| Sum          | 635.8  | <b>21.3</b> |

Table W41: Average running times (in seconds) of the PCCC and the PCCC-N2-S algorithms for the constraint sets of size 25% CS. The lowest values are stated in bold. The column KMEANS reports the average running time of the unconstrained k-means algorithm. The hyphen indicates that the respective algorithm returned no solution within the time limit of 3,600 seconds.