| List of averaged improvements | Instance            | Instance 2    |        |               |               |         | Instance 3 |               |       |
|-------------------------------|---------------------|---------------|--------|---------------|---------------|---------|------------|---------------|-------|
|                               | $\lambda - 1$       | $t_n$         |        | $\lambda - 1$ | 1             | $t_n$   |            | $\lambda - 1$ | $t_n$ |
| (a)                           | 42                  | 0.11          | (a)    | 2800          | 0             | 0.12    | (a)        | 9             | 0.1   |
| (c)                           | 40.66               | 1.69          | (b)    | 2750          | 0             | 1.5     | (e)        | 8             | 2.0   |
| (d)                           | 39.66               | 1.98          |        |               |               |         | (f)        | 4             | 3     |
|                               | (a)                 | (1            | b)     | (c)           | (             | d)      | (e)        | (f)           |       |
|                               | $t_n  \boxed{0.12}$ |               | .5     | 1.69          | 1             | .98     | 2.0        | 3             |       |
| Insta                         | ance 1 42           | 42            | 2      | 40.66         | 39.           | 66      | 39.66      | 39.66         |       |
| Instance 2 28000              |                     | 275           | 00     | 27500         | 275           | 600     | 27500      | 27500         |       |
| Insta                         | ance 3 9            | 9             |        | 9             | 6             | )       | 8          | 4             |       |
| $geoMean(s_1,s_2)$            | $(s_2, s_3)$ 219.5  | 218           | 5.2    | 215.9         | 214           | 4.1     | 205.9      | 163.4         |       |
|                               | <b>V</b>            | $\downarrow$  |        | $\downarrow$  |               | 7       | V          | ₩             |       |
| Result lis                    | st:                 | (218.2)       | , 1.5) |               | (214.1)       | , 1.98) |            | (163.4, 3)    |       |
|                               |                     | (219.5, 0.12) |        |               | (215.9, 1.69) |         |            |               |       |