**Calibration of Iterated Greedy Tournament for Large Instances**

|  |  |
| --- | --- |
| Parameter |  |
| Fine Local search : 2LS | Yes-No |
| Destruction size : d | 1-2-3-4 |
| Loop Size: VNS Loop | 100-200-300 |
| Tournament size : T | 2-3-4-5 |

We have 96 combinations \* 5 replications for each instance \*144 Instances

**Analysis of**

**Variance for RDI -**

**Type III Sums of**

**Squares**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| *Source* | *Sum of Squares* | *Df* | *Mean Square* | *F-Ratio* | *P-Value* |
| MAIN EFFECTS |  |  |  |  |  |
| A:2LS | 208453. | 1 | 208453. | 548.08 | 0.0000 |
| B:d | 6.08227E6 | 3 | 2.02742E6 | 5330.65 | 0.0000 |
| C:VNSloop | 195916. | 2 | 97957.9 | 257.56 | 0.0000 |
| D:TourSize | 1074.47 | 3 | 358.155 | 0.94 | 0.4194 |
| INTERACTIONS |  |  |  |  |  |
| AB | 103645. | 3 | 34548.5 | 90.84 | 0.0000 |
| AC | 3921.11 | 2 | 1960.55 | 5.15 | 0.0058 |
| AD | 468.02 | 3 | 156.007 | 0.41 | 0.7457 |
| BC | 21870.6 | 6 | 3645.1 | 9.58 | 0.0000 |
| BD | 4889.39 | 9 | 543.266 | 1.43 | 0.1693 |
| CD | 1177.29 | 6 | 196.215 | 0.52 | 0.7968 |
| RESIDUAL | 2.62738E7 | 69081 | 380.333 |  |  |
| TOTAL (CORRECTED) | 3.28975E7 | 69119 |  |  |  |

All F-ratios are

based on the

residual mean

square error.

1. **d**

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We remove 1 from the destruction construction and we repeat

**Analysis of Variance**

**for RDI - Type III**

**Sums of Squares**

**Analysis of**

**Variance for RDI -**

**Type III Sums of**

**Squares**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| *Source* | *Sum of Squares* | *Df* | *Mean Square* | *F-Ratio* | *P-Value* |
| MAIN EFFECTS |  |  |  |  |  |
| A:2LS | 61033.6 | 1 | 61033.6 | 172.42 | 0.0000 |
| B:d | 84719.0 | 2 | 42359.5 | 119.66 | 0.0000 |
| C:VNSloop | 196763. | 2 | 98381.3 | 277.92 | 0.0000 |
| D:TourSize | 1221.5 | 3 | 407.168 | 1.15 | 0.3272 |
| INTERACTIONS |  |  |  |  |  |
| AB | 15616.3 | 2 | 7808.15 | 22.06 | 0.0000 |
| AC | 1280.67 | 2 | 640.333 | 1.81 | 0.1638 |
| AD | 506.551 | 3 | 168.85 | 0.48 | 0.6983 |
| BC | 7017.02 | 4 | 1754.26 | 4.96 | 0.0005 |
| BD | 4055.8 | 6 | 675.967 | 1.91 | 0.0752 |
| CD | 1885.06 | 6 | 314.177 | 0.89 | 0.5028 |
| RESIDUAL | 1.83395E7 | 51808 | 353.989 |  |  |
| TOTAL (CORRECTED) | 1.87136E7 | 51839 |  |  |  |

All F-ratios are

based on the

residual mean

square error.

1. **VNSloop**



300 is the better value

1. **2LS**



It is clear that we should consider 2LS

1. **Destruction:**

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We choose d= 2

1. **Tournament Size**

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It is not very significant but we can set it 3

2LS: 1

LoopSize: 300

d : 2

Ts: 3