

Results: Mutation Extents, Feature Weighting and Information Pruning

Legend

| Label | Comment |
|--------------------|---|
| _0.25, ... | Mutation Extent of 0.25 |
| _0.25+w, ... | Mutation 0.25 and Feature Weighting |
| _0.25+w+iP(x), ... | Mutation 0.25, Feature Weighting, Information Prune (top x% chosen) |

| Rank | Treatment | Median | IQR | |
|------|---------------------|--------|------|-----|
| 1 | ant_0.75+w+iP | 0.14 | 0.16 | ●— |
| 2 | ant_0.75+w+iP(0.5) | 0.38 | 0.08 | —● |
| 3 | ant_0.75+w+iP(0.75) | 0.53 | 0.08 | —● |
| 3 | ant_0.5 | 0.56 | 0.09 | —● |
| 3 | ant_0.25 | 0.61 | 0.19 | —●— |
| 4 | ant_0.75 | 0.77 | 0.08 | —● |
| 4 | ant_0.5+w | 0.81 | 0.07 | —● |
| 4 | ant_0.25+w | 0.81 | 0.06 | —● |
| 5 | ant_0.75+w | 0.93 | 0.09 | —● |

| Rank | Treatment | Median | IQR | |
|------|-----------------------|--------|------|-----|
| 1 | camel_0.75+w+iP(0.5) | 0.28 | 0.07 | —● |
| 1 | camel_0.75+w+iP | 0.31 | 0.13 | —● |
| 2 | camel_0.75+w+iP(0.75) | 0.44 | 0.1 | —● |
| 3 | camel_0.25 | 0.47 | 0.13 | —●— |
| 3 | camel_0.5 | 0.48 | 0.08 | —● |
| 4 | camel_0.75 | 0.71 | 0.2 | —● |
| 5 | camel_0.25+w | 0.91 | 0.02 | ● |
| 5 | camel_0.5+w | 0.93 | 0.06 | —● |
| 6 | camel_0.75+w | 0.95 | 0.03 | ● |

| Rank | Treatment | Median | IQR | |
|------|---------------------|--------|------|----|
| 1 | ivy_0.75+w+iP | 0.19 | 0.05 | •— |
| 2 | ivy_0.25 | 0.35 | 0.08 | •— |
| 2 | ivy_0.5 | 0.41 | 0.14 | —• |
| 2 | ivy_0.75+w+iP(0.75) | 0.43 | 0.05 | • |
| 2 | ivy_0.75+w+iP(0.5) | 0.46 | 0.19 | —• |
| 2 | ivy_0.75 | 0.47 | 0.1 | •— |
| 3 | ivy_0.25+w | 0.7 | 0.02 | • |
| 4 | ivy_0.75+w | 0.76 | 0.13 | •— |
| 4 | ivy_0.5+w | 0.8 | 0.06 | • |

| Rank | Treatment | Median | IQR | |
|------|-----------------------|--------|------|-----|
| 1 | jedit_0.75+w+iP | 0.3 | 0.11 | —•— |
| 2 | jedit_0.5 | 0.45 | 0.13 | —•— |
| 2 | jedit_0.25 | 0.47 | 0.05 | • |
| 2 | jedit_0.75+w+iP(0.5) | 0.53 | 0.09 | —• |
| 3 | jedit_0.75 | 0.59 | 0.19 | —•— |
| 3 | jedit_0.75+w+iP(0.75) | 0.65 | 0.16 | —•— |
| 4 | jedit_0.25+w | 0.72 | 0.07 | •— |
| 5 | jedit_0.75+w | 0.79 | 0.07 | —• |
| 5 | jedit_0.5+w | 0.82 | 0.07 | —• |

| Rank | Treatment | Median | IQR | |
|------|-----------------------|--------|------|-----|
| 1 | log4j_0.75+w+iP | 0.27 | 0.06 | —•— |
| 1 | log4j_0.25+w | 0.28 | 0.12 | —•— |
| 1 | log4j_0.25 | 0.32 | 0.2 | —•— |
| 1 | log4j_0.5 | 0.33 | 0.11 | —•— |
| 1 | log4j_0.75+w+iP(0.75) | 0.34 | 0.04 | •— |
| 2 | log4j_0.75+w+iP(0.5) | 0.41 | 0.06 | —•— |
| 2 | log4j_0.75+w | 0.42 | 0.03 | —• |
| 2 | log4j_0.75 | 0.42 | 0.17 | —•— |
| 2 | log4j_0.5+w | 0.41 | 0.1 | —•— |

| Rank | Treatment | Median | IQR | |
|------|------------------------|--------|------|-----|
| 1 | lucene_0.75+w+iP | 0.14 | 0.06 | •— |
| 2 | lucene_0.75+w+iP(0.5) | 0.26 | 0.07 | —• |
| 2 | lucene_0.75+w+iP(0.75) | 0.32 | 0.05 | •— |
| 3 | lucene_0.25 | 0.43 | 0.05 | —• |
| 3 | lucene_0.5 | 0.46 | 0.2 | —•— |
| 3 | lucene_0.75 | 0.54 | 0.14 | —•— |
| 4 | lucene_0.25+w | 0.56 | 0.0 | • |
| 4 | lucene_0.75+w | 0.6 | 0.03 | • |
| 4 | lucene_0.5+w | 0.61 | 0.02 | • |

| Rank | Treatment | Median | IQR | |
|------|------------------------|--------|------|--|
| 1 | pbeans_0.25+w | 0.67 | 0.42 | |
| 1 | pbeans_0.5+w | 0.67 | 0.3 | |
| 1 | pbeans_0.5 | 0.8 | 1.0 | |
| 1 | pbeans_0.75+w+iP(0.5) | 0.8 | 0.4 | |
| 1 | pbeans_0.25 | 0.8 | 0.2 | |
| 1 | pbeans_0.75+w+iP(0.75) | 0.8 | 0.13 | |
| 1 | pbeans_0.75+w+iP | 0.8 | 0.5 | |
| 1 | pbeans_0.75+w | 0.8 | 0.5 | |
| 2 | pbeans_0.75 | 1.0 | 0.0 | |

| Rank | Treatment | Median | IQR | |
|------|---------------------|--------|------|--|
| 1 | poi_0.75+w+iP(0.5) | 0.24 | 0.05 | |
| 1 | poi_0.75+w+iP | 0.28 | 0.06 | |
| 1 | poi_0.75+w+iP(0.75) | 0.31 | 0.23 | |
| 2 | poi_0.5 | 0.37 | 0.09 | |
| 2 | poi_0.25 | 0.52 | 0.04 | |
| 2 | poi_0.75 | 0.62 | 0.24 | |
| 3 | poi_0.5+w | 0.69 | 0.1 | |
| 3 | poi_0.75+w | 0.77 | 0.09 | |
| 3 | poi_0.25+w | 0.79 | 0.03 | |

| Rank | Treatment | Median | IQR | |
|------|--------------------------|--------|------|--|
| 1 | velocity_0.75+w+iP | 0.06 | 0.04 | |
| 2 | velocity_0.75+w+iP(0.5) | 0.26 | 0.24 | |
| 2 | velocity_0.75+w+iP(0.75) | 0.31 | 0.07 | |
| 3 | velocity_0.25 | 0.48 | 0.06 | |
| 3 | velocity_0.5 | 0.52 | 0.08 | |
| 3 | velocity_0.25+w | 0.52 | 0.05 | |
| 4 | velocity_0.5+w | 0.59 | 0.08 | |
| 4 | velocity_0.75+w | 0.62 | 0.12 | |
| 4 | velocity_0.75 | 0.66 | 0.07 | |

| Rank | Treatment | Median | IQR | |
|------|-----------------------|--------|------|--|
| 1 | xalan_0.75+w+iP | 0.18 | 0.08 | |
| 2 | xalan_0.75+w+iP(0.75) | 0.27 | 0.12 | |
| 2 | xalan_0.75+w+iP(0.5) | 0.35 | 0.1 | |
| 3 | xalan_0.5 | 0.36 | 0.22 | |
| 3 | xalan_0.25 | 0.44 | 0.16 | |
| 3 | xalan_0.75 | 0.53 | 0.1 | |
| 4 | xalan_0.5+w | 0.73 | 0.03 | |
| 4 | xalan_0.25+w | 0.76 | 0.04 | |
| 4 | xalan_0.75+w | 0.77 | 0.05 | |

| Rank | Treatment | Median | IQR | |
|------|------------------------|--------|------|--|
| 1 | xerces_0.75+w+iP | 0.35 | 0.17 | |
| 2 | xerces_0.5 | 0.38 | 0.07 | |
| 2 | xerces_0.75+w+iP(0.5) | 0.39 | 0.1 | |
| 2 | xerces_0.75+w+iP(0.75) | 0.44 | 0.16 | |
| 2 | xerces_0.25 | 0.45 | 0.11 | |
| 2 | xerces_0.75 | 0.48 | 0.1 | |
| 3 | xerces_0.75+w | 0.71 | 0.11 | |
| 3 | xerces_0.5+w | 0.75 | 0.03 | |
| 3 | xerces_0.25+w | 0.78 | 0.05 | |