

# Report

|                             | A_STAR     | HipMer      | marmgCAMI2 | Megahit     | metaSPAdes  | Miniasm    | OPERA_MS_inhouse | SPAdes     |
|-----------------------------|------------|-------------|------------|-------------|-------------|------------|------------------|------------|
| # contigs (>= 1000 bp)      | 8          | 11          | 1          | 13          | 13          | 3          | 4                | 2          |
| # contigs (>= 5000 bp)      | 8          | 11          | 1          | 11          | 13          | 3          | 4                | 0          |
| # contigs (>= 10000 bp)     | 8          | 9           | 1          | 8           | 13          | 3          | 4                | 0          |
| # contigs (>= 25000 bp)     | 6          | 7           | 1          | 5           | 3           | 1          | 1                | 0          |
| # contigs (>= 50000 bp)     | 2          | 2           | 1          | 4           | 3           | 1          | 0                | 0          |
| Total length (>= 1000 bp)   | 270066     | 393210      | 1595975    | 436339      | 352463      | 142720     | 90829            | 4099       |
| Total length (>= 5000 bp)   | 270066     | 393210      | 1595975    | 429692      | 352463      | 142720     | 90829            | 0          |
| Total length (>= 10000 bp)  | 270066     | 377478      | 1595975    | 407749      | 352463      | 142720     | 90829            | 0          |
| Total length (>= 25000 bp)  | 226182     | 339613      | 1595975    | 348329      | 203734      | 108667     | 37923            | 0          |
| Total length (>= 50000 bp)  | 101484     | 122467      | 1595975    | 307639      | 203734      | 108667     | 0                | 0          |
| # contigs                   | 10         | 11          | 1          | 13          | 13          | 3          | 4                | 8          |
| Largest contig              | 50742      | 72353       | 1595975    | 114356      | 71834       | 108667     | 37923            | 2717       |
| Total length                | 272000     | 393210      | 1595975    | 436339      | 352463      | 142720     | 90829            | 8648       |
| Reference length            | 4642       | 4642        | 4642       | 4642        | 4642        | 4642       | 4642             | 4642       |
| GC (%)                      | 54.83      | 56.97       | 56.73      | 55.68       | 56.45       | 55.37      | 56.07            | 50.87      |
| Reference GC (%)            | 49.33      | 49.33       | 49.33      | 49.33       | 49.33       | 49.33      | 49.33            | 49.33      |
| N50                         | 31879      | 48472       | 1595975    | 56467       | 60066       | 108667     | 21739            | 976        |
| NG50                        | 50742      | 72353       | 1595975    | 114356      | 71834       | 108667     | 37923            | 2717       |
| N75                         | 30470      | 46255       | 1595975    | 40690       | 18615       | 108667     | 15970            | 896        |
| NG75                        | 50742      | 72353       | 1595975    | 114356      | 71834       | 108667     | 37923            | 1382       |
| L50                         | 4          | 4           | 1          | 3           | 3           | 1          | 2                | 3          |
| LG50                        | 1          | 1           | 1          | 1           | 1           | 1          | 1                | 1          |
| L75                         | 6          | 6           | 1          | 5           | 7           | 1          | 3                | 5          |
| LG75                        | 1          | 1           | 1          | 1           | 1           | 1          | 1                | 2          |
| # misassemblies             | 0          | 0           | 0          | 0           | 0           | 0          | 0                | 0          |
| # misassembled contigs      | 0          | 0           | 0          | 0           | 0           | 0          | 0                | 0          |
| Misassembled contigs length | 0          | 0           | 0          | 0           | 0           | 0          | 0                | 0          |
| # local misassemblies       | 0          | 0           | 0          | 0           | 0           | 0          | 0                | 0          |
| # scaffold gap ext. mis.    | 0          | 0           | 0          | 0           | 0           | 0          | 0                | 0          |
| # scaffold gap loc. mis.    | 0          | 0           | 0          | 0           | 0           | 0          | 0                | 0          |
| # unaligned mis. contigs    | 2          | 0           | 1          | 1           | 0           | 1          | 0                | 0          |
| # unaligned contigs         | 0 + 8 part | 0 + 11 part | 0 + 1 part | 0 + 13 part | 0 + 13 part | 0 + 3 part | 0 + 4 part       | 0 + 3 part |
| Unaligned length            | 262876     | 384147      | 1591548    | 422154      | 338417      | 138078     | 86189            | 4216       |
| Genome fraction (%)         | 98.040     | 99.698      | 95.368     | 100.000     | 100.000     | 100.000    | 99.957           | 78.479     |
| Duplication ratio           | 2.005      | 1.958       | 1.000      | 3.056       | 3.026       | 1.000      | 1.000            | 1.217      |
| # N's per 100 kbp           | 0.00       | 0.00        | 0.00       | 0.00        | 0.00        | 0.00       | 0.00             | 0.00       |
| # mismatches per 100 kbp    | 395.52     | 0.00        | 0.00       | 775.53      | 43.08       | 21.54      | 129.31           | 713.70     |
| # indels per 100 kbp        | 0.00       | 0.00        | 0.00       | 0.00        | 0.00        | 0.00       | 0.00             | 0.00       |
| Largest alignment           | 1199       | 1953        | 2188       | 2188        | 2188        | 2188       | 2188             | 907        |
| Total aligned length        | 9200       | 9063        | 4427       | 14185       | 14046       | 4642       | 4640             | 3995       |
| NGA50                       | 1199       | 1947        | 1199       | 2188        | 2188        | 1199       | 1199             | 727        |
| NGA75                       | 1040       | 1947        | 1040       | 2188        | 2188        | 1040       | 1040             | 215        |
| LGA50                       | 2          | 2           | 2          | 2           | 2           | 2          | 2                | 3          |
| LGA75                       | 4          | 2           | 3          | 2           | 2           | 3          | 3                | 6          |

All statistics are based on contigs of size >= 500 bp, unless otherwise noted (e.g., "# contigs (>= 0 bp)" and "Total length (>= 0 bp)" include all contigs).

## Misassemblies report

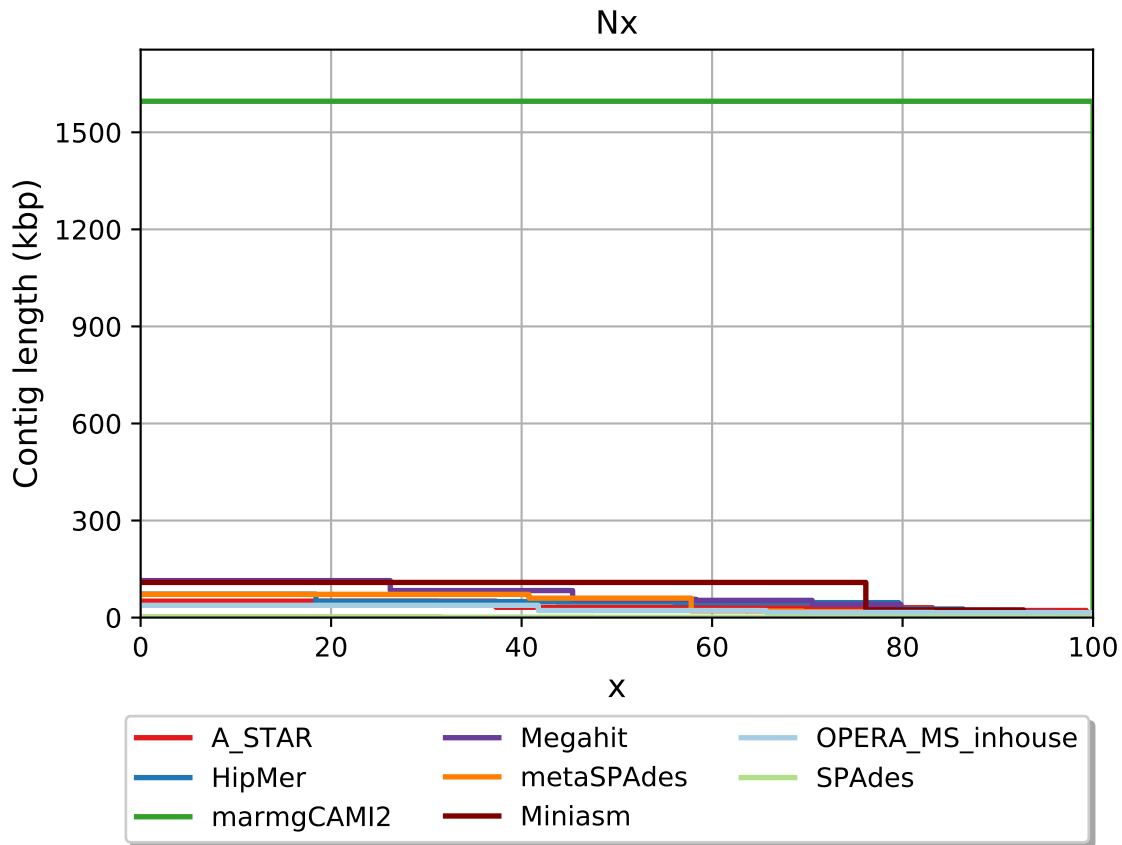
|                                 | A_STAR | HipMer | marmgCAMI2 | Megahit | metaSPAdes | Miniasm | OPERA_MS_inhouse | SPAdes |
|---------------------------------|--------|--------|------------|---------|------------|---------|------------------|--------|
| # misassemblies                 | 0      | 0      | 0          | 0       | 0          | 0       | 0                | 0      |
| # contig misassemblies          | 0      | 0      | 0          | 0       | 0          | 0       | 0                | 0      |
| # c. relocations                | 0      | 0      | 0          | 0       | 0          | 0       | 0                | 0      |
| # c. translocations             | 0      | 0      | 0          | 0       | 0          | 0       | 0                | 0      |
| # c. inversions                 | 0      | 0      | 0          | 0       | 0          | 0       | 0                | 0      |
| # scaffold misassemblies        | 0      | 0      | 0          | 0       | 0          | 0       | 0                | 0      |
| # s. relocations                | 0      | 0      | 0          | 0       | 0          | 0       | 0                | 0      |
| # s. translocations             | 0      | 0      | 0          | 0       | 0          | 0       | 0                | 0      |
| # s. inversions                 | 0      | 0      | 0          | 0       | 0          | 0       | 0                | 0      |
| # misassembled contigs          | 0      | 0      | 0          | 0       | 0          | 0       | 0                | 0      |
| Misassembled contigs length     | 0      | 0      | 0          | 0       | 0          | 0       | 0                | 0      |
| # possibly misassembled contigs | 6      | 11     | 0          | 12      | 13         | 2       | 4                | 3      |
| # possible misassemblies        | 6      | 13     | 0          | 14      | 15         | 2       | 5                | 3      |
| # local misassemblies           | 0      | 0      | 0          | 0       | 0          | 0       | 0                | 0      |
| # scaffold gap ext. mis.        | 0      | 0      | 0          | 0       | 0          | 0       | 0                | 0      |
| # scaffold gap loc. mis.        | 0      | 0      | 0          | 0       | 0          | 0       | 0                | 0      |
| # unaligned mis. contigs        | 2      | 0      | 1          | 1       | 0          | 1       | 0                | 0      |
| # mismatches                    | 18     | 0      | 0          | 36      | 2          | 1       | 6                | 26     |
| # indels                        | 0      | 0      | 0          | 0       | 0          | 0       | 0                | 0      |
| # indels (<= 5 bp)              | 0      | 0      | 0          | 0       | 0          | 0       | 0                | 0      |
| # indels (> 5 bp)               | 0      | 0      | 0          | 0       | 0          | 0       | 0                | 0      |
| Indels length                   | 0      | 0      | 0          | 0       | 0          | 0       | 0                | 0      |

All statistics are based on contigs of size  $\geq 500$  bp, unless otherwise noted (e.g., "# contigs ( $\geq 0$  bp)" and "Total length ( $\geq 0$  bp)" include all contigs).

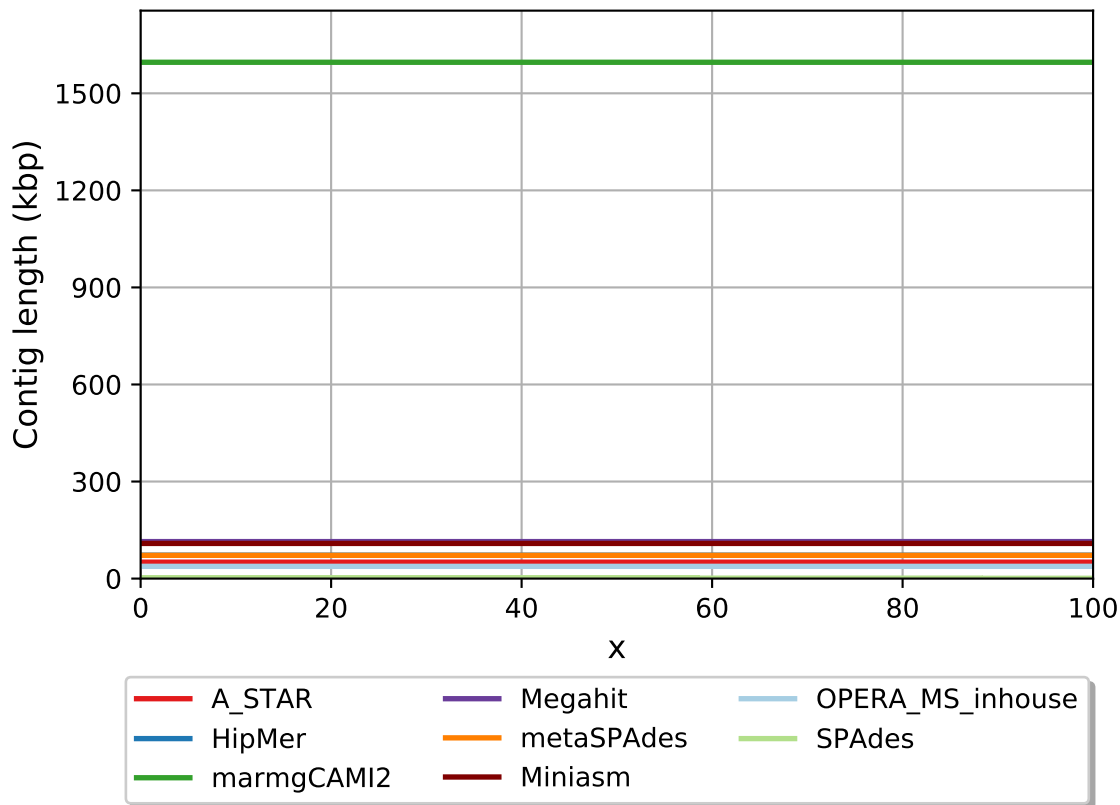
## Unaligned report

|                               | A_STAR | HipMer | marmgCAMI2 | Megahit | metaSPAdes | Miniasm | OPERA_MS_inhouse | SPAdes |
|-------------------------------|--------|--------|------------|---------|------------|---------|------------------|--------|
| # fully unaligned contigs     | 0      | 0      | 0          | 0       | 0          | 0       | 0                | 0      |
| Fully unaligned length        | 0      | 0      | 0          | 0       | 0          | 0       | 0                | 0      |
| # partially unaligned contigs | 8      | 11     | 1          | 13      | 13         | 3       | 4                | 3      |
| Partially unaligned length    | 262876 | 384147 | 1591548    | 422154  | 338417     | 138078  | 86189            | 4216   |
| # N's                         | 0      | 0      | 0          | 0       | 0          | 0       | 0                | 0      |

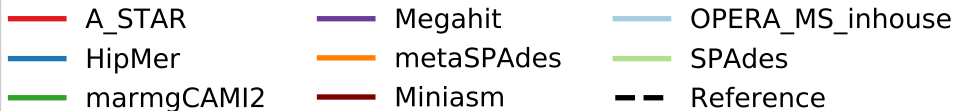
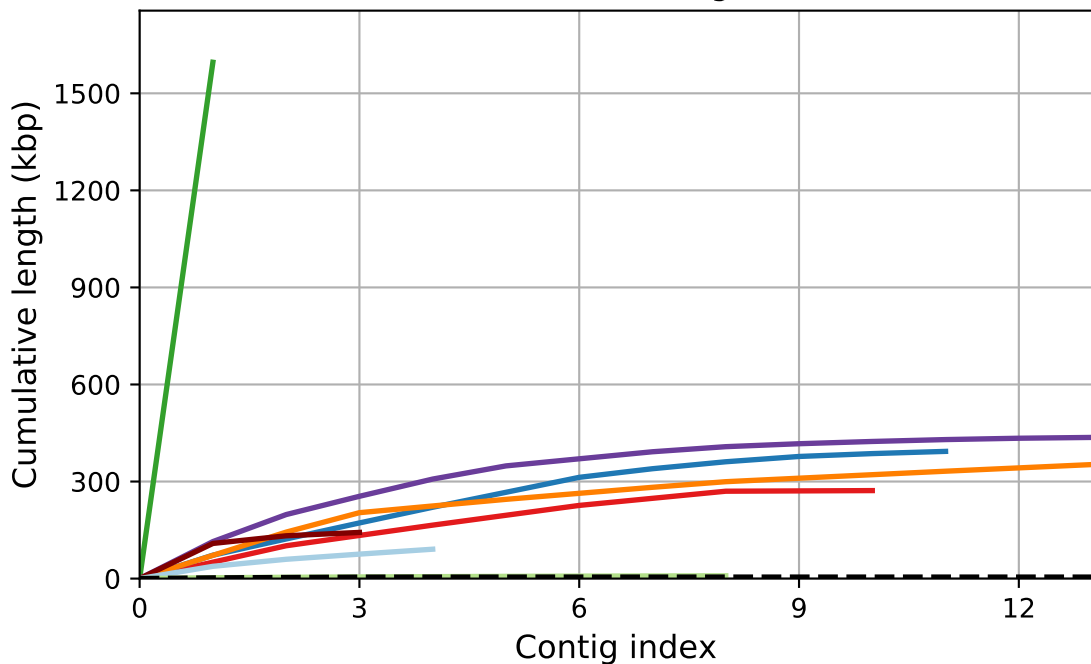
All statistics are based on contigs of size  $\geq 500$  bp, unless otherwise noted (e.g., "# contigs ( $\geq 0$  bp)" and "Total length ( $\geq 0$  bp)" include all contigs).



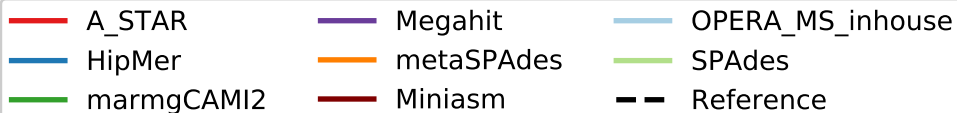
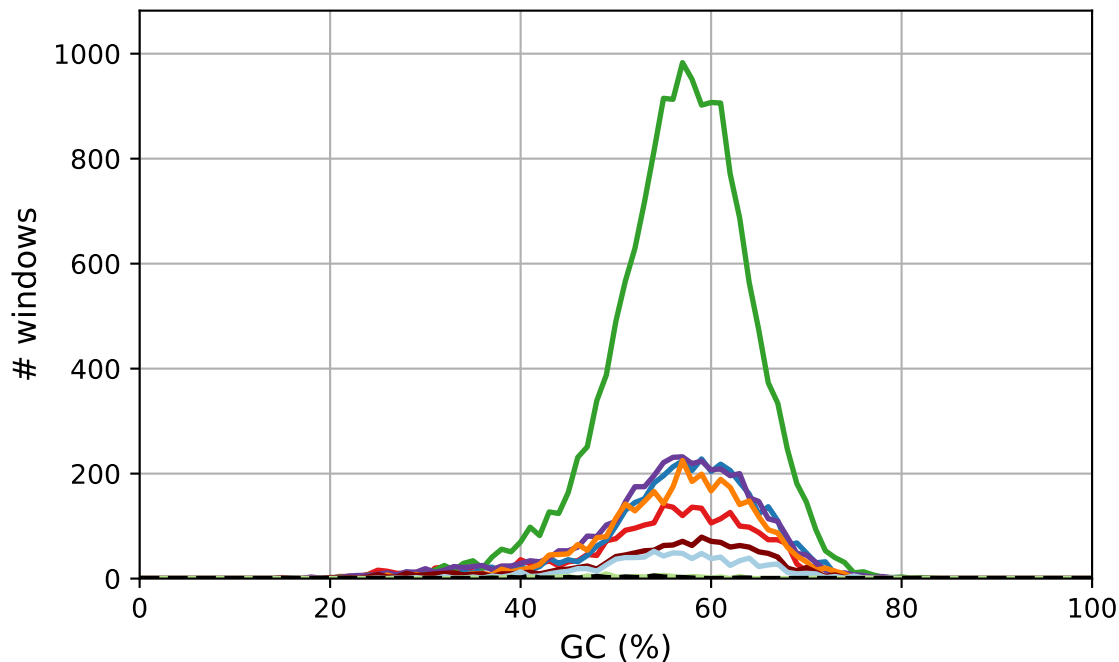
## NGx



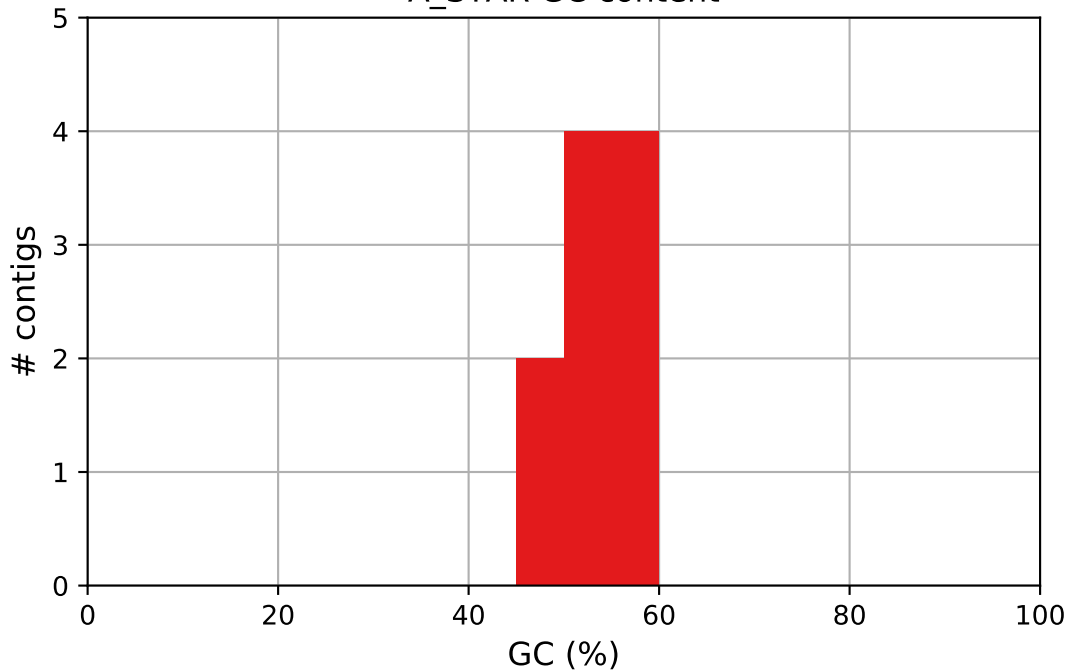
Cumulative length



# GC content



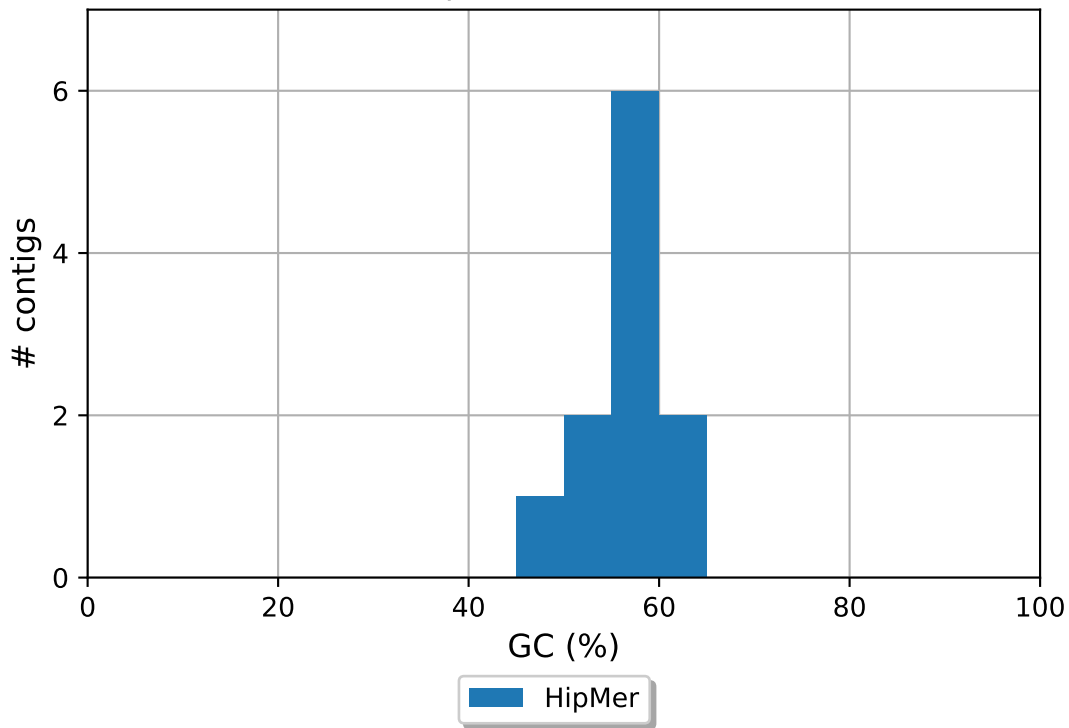
A\_STAR GC content



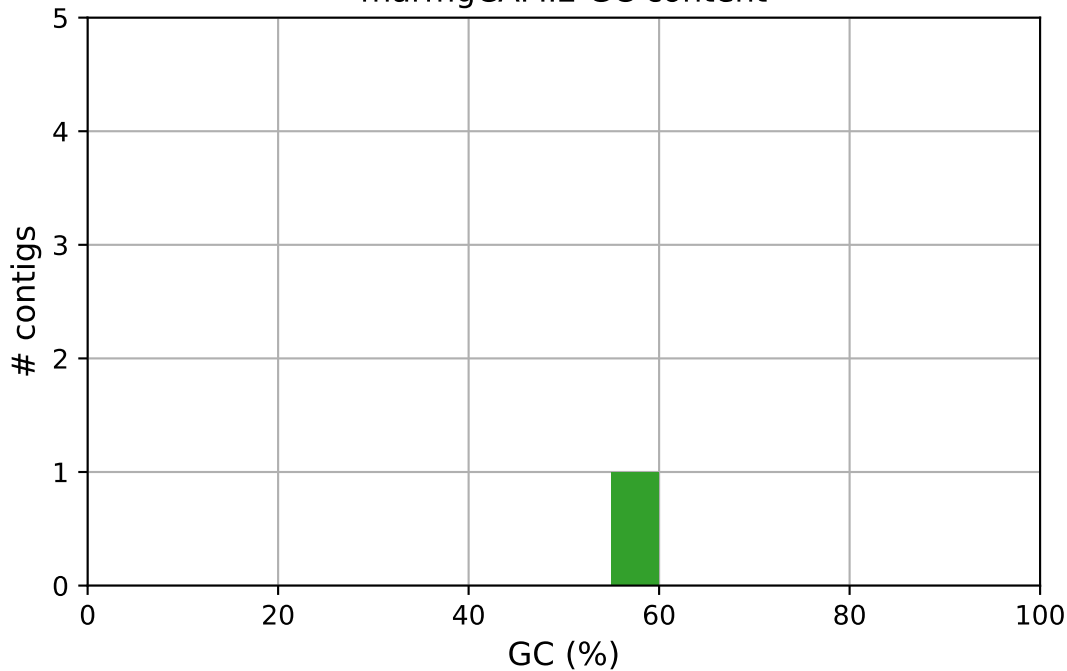
A\_STAR



# HipMer GC content

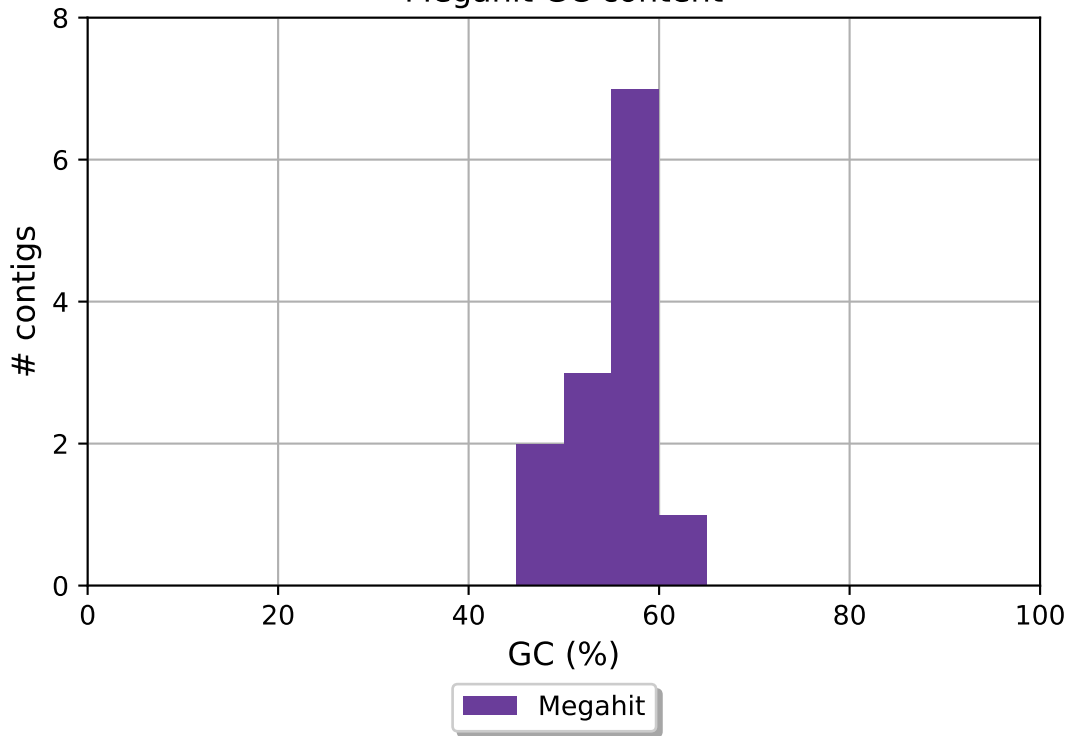


marmgCAMI2 GC content

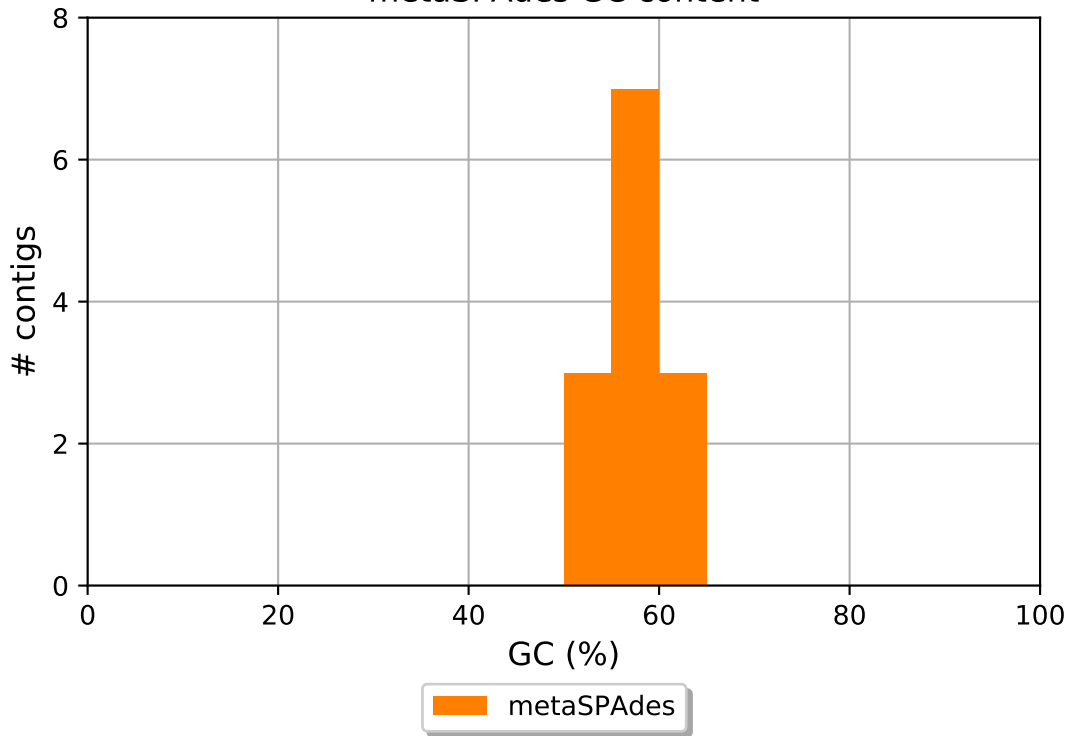


marmgCAMI2

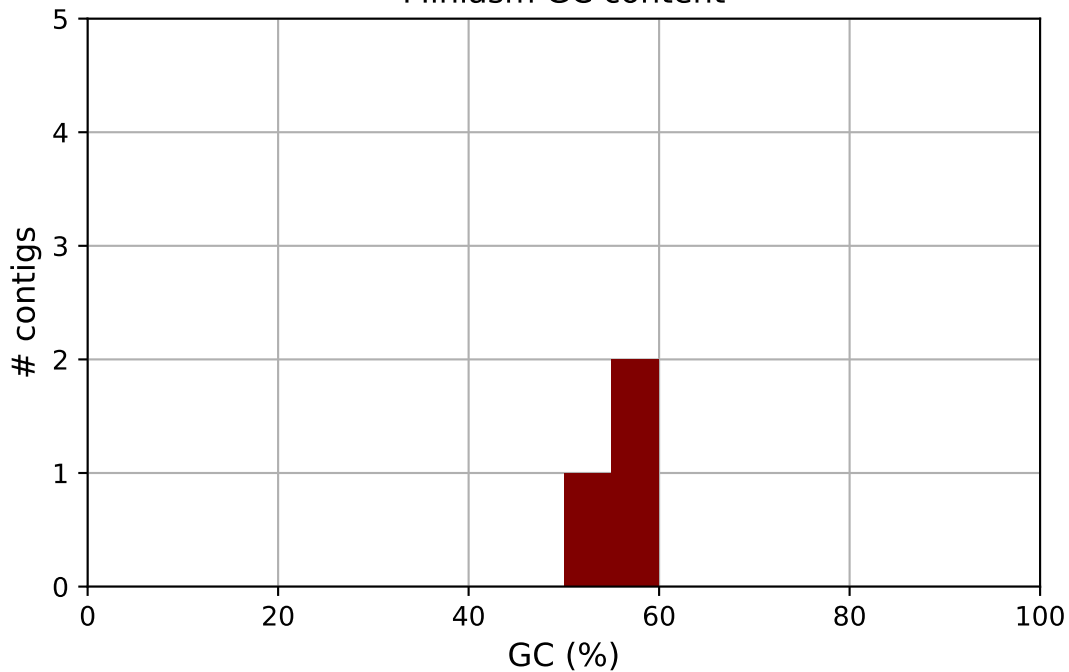
Megahit GC content



metaSPAdes GC content

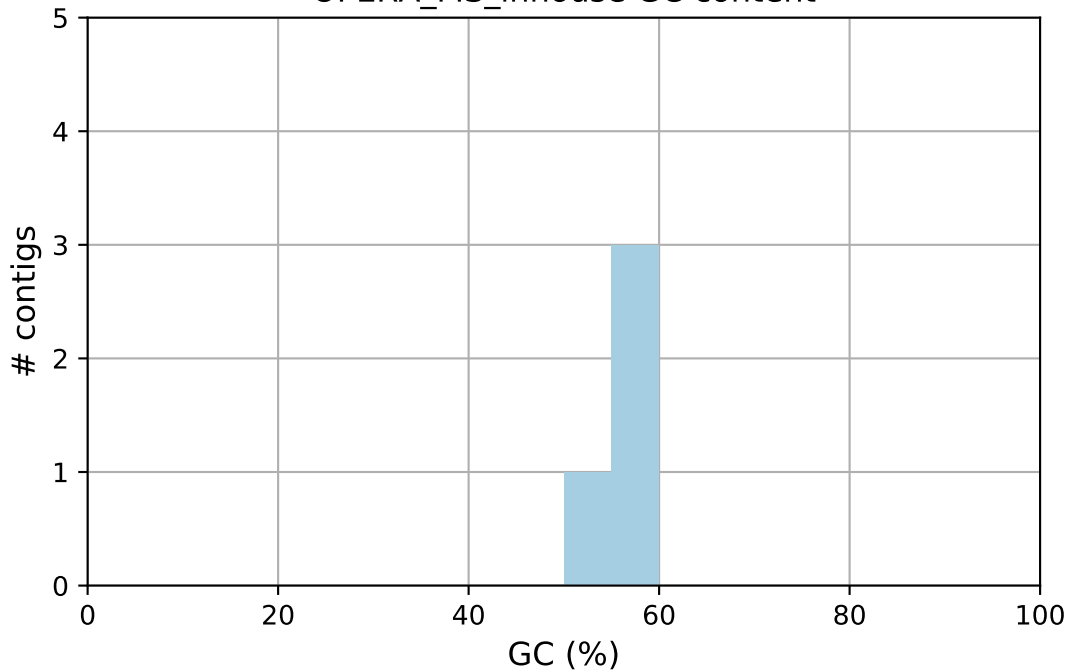


Miniasm GC content



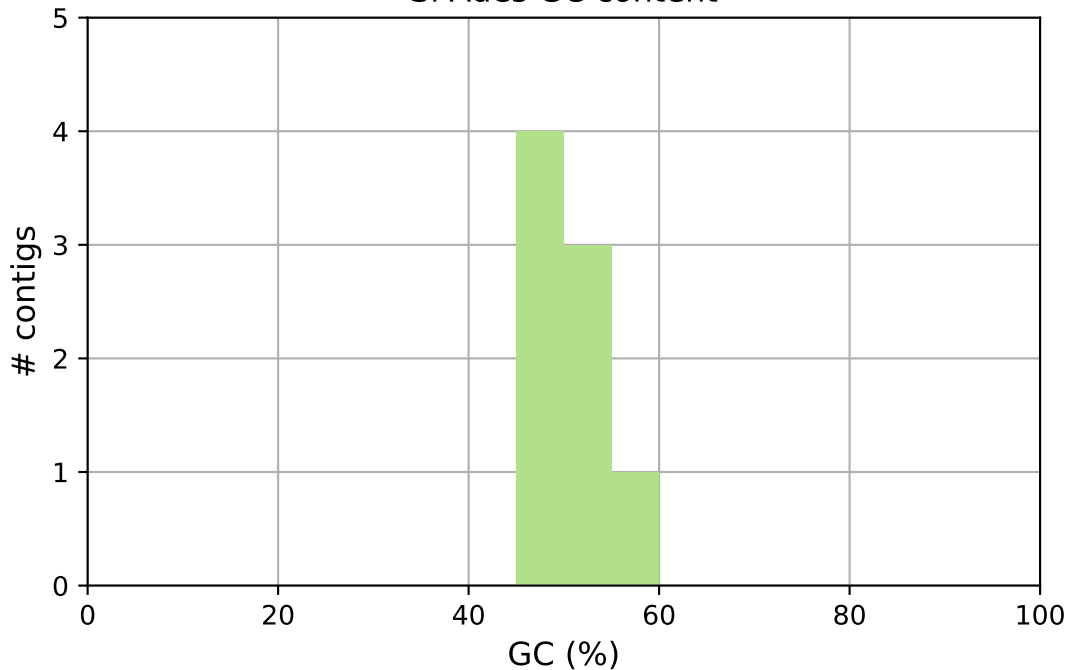
Miniasm

OPERA\_MS\_inhouse GC content



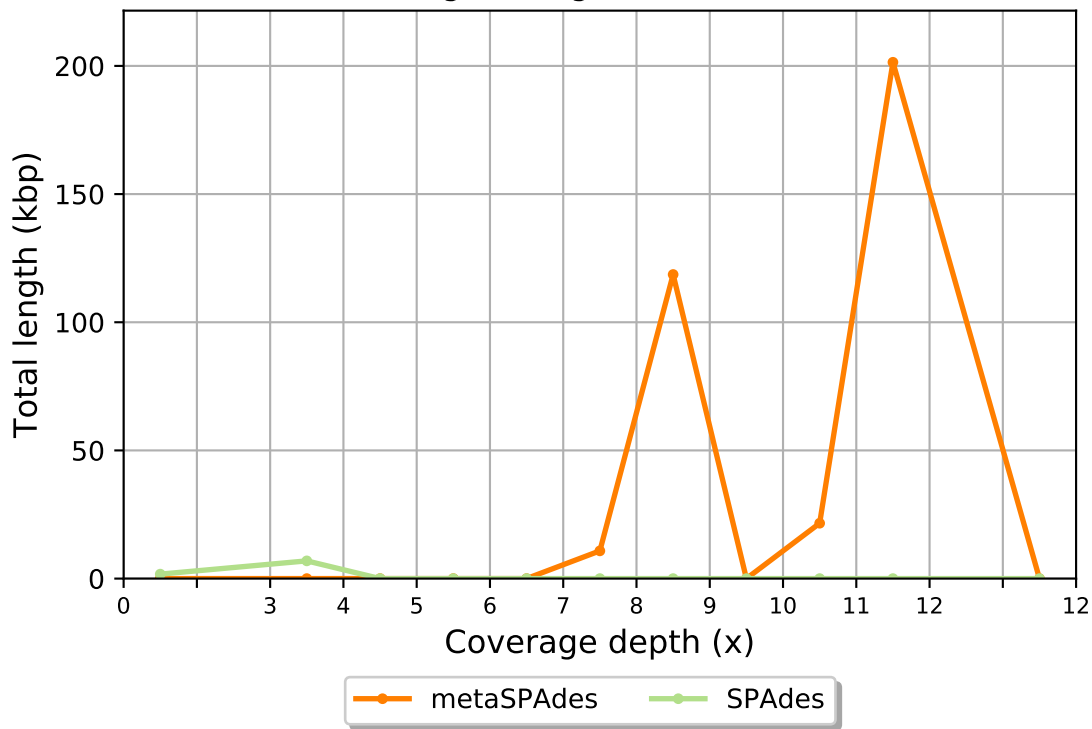
OPERA\_MS\_inhouse

SPAdes GC content



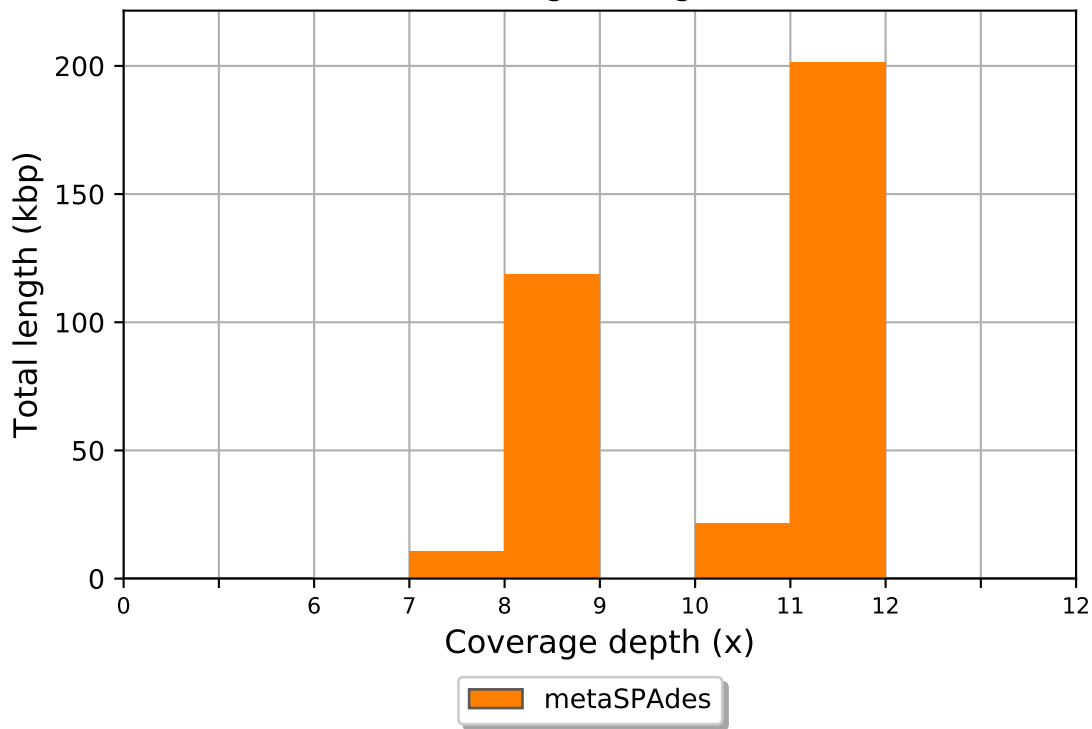
SPAdes

Coverage histogram (bin size: 1x)

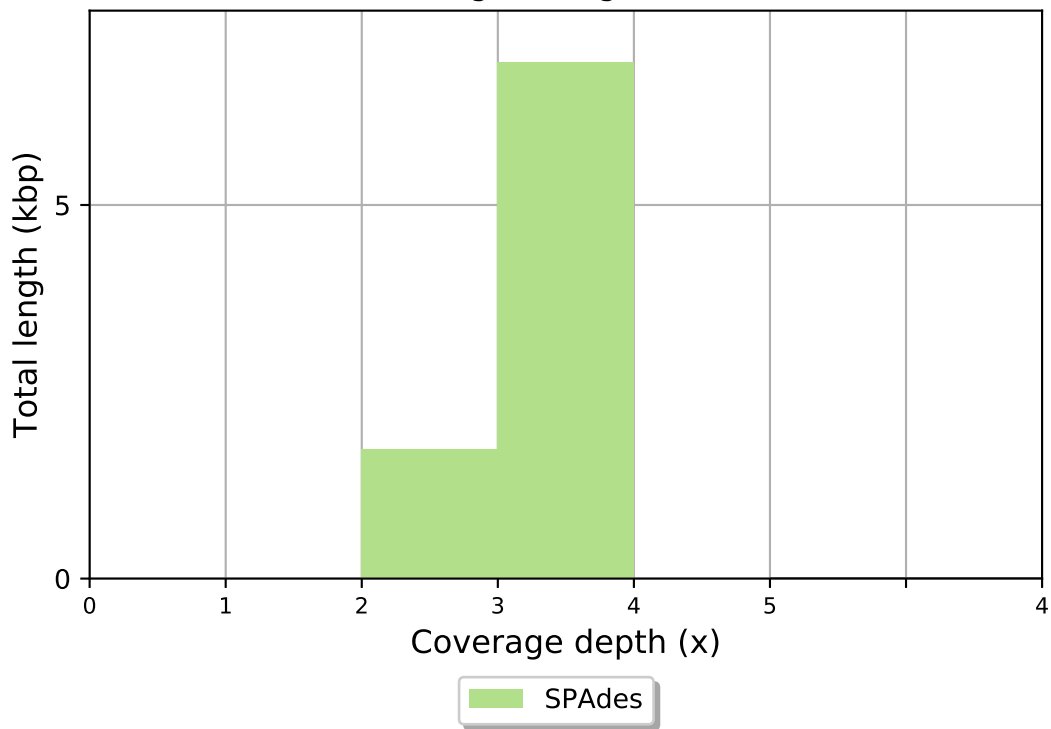




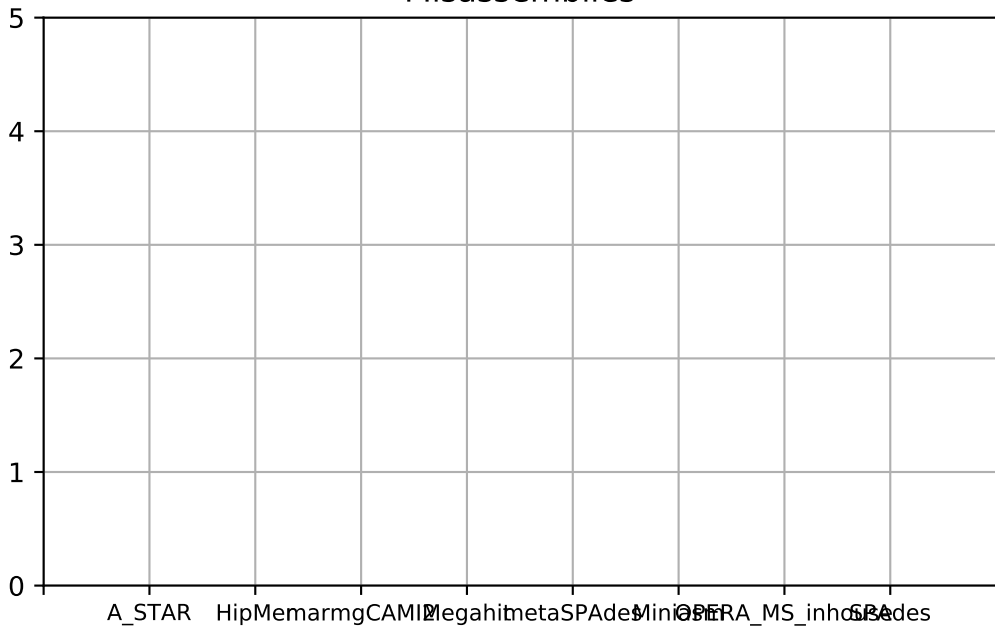
metaSPAdes coverage histogram (bin size: 1x)



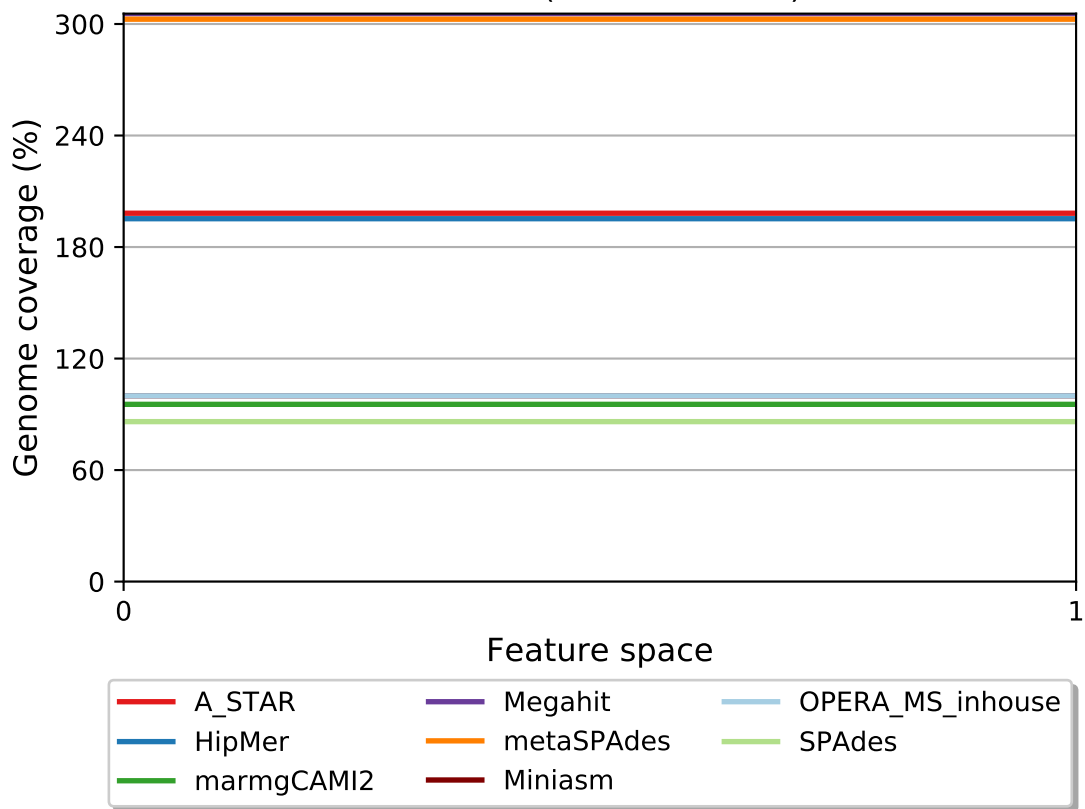
SPAdes coverage histogram (bin size: 1x)



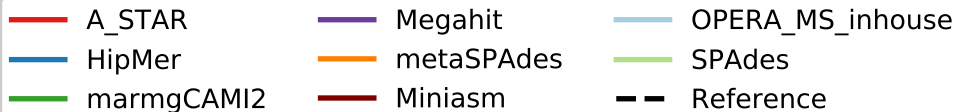
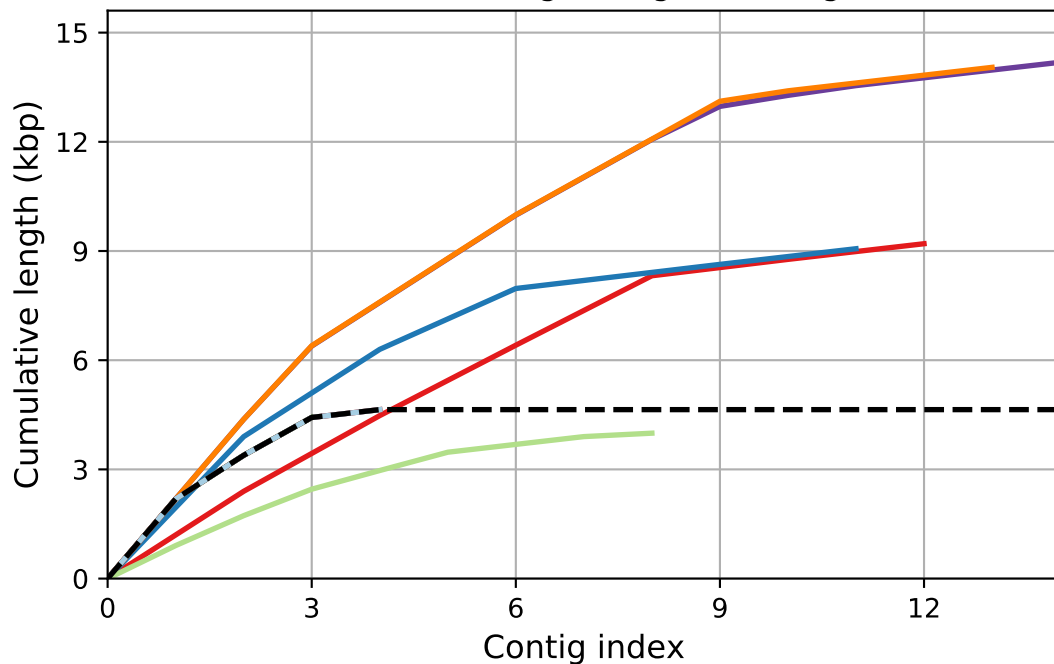
## Misassemblies



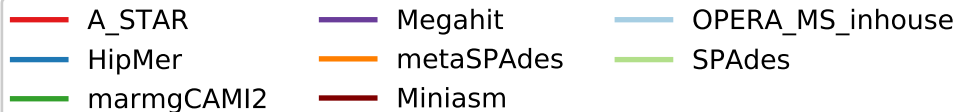
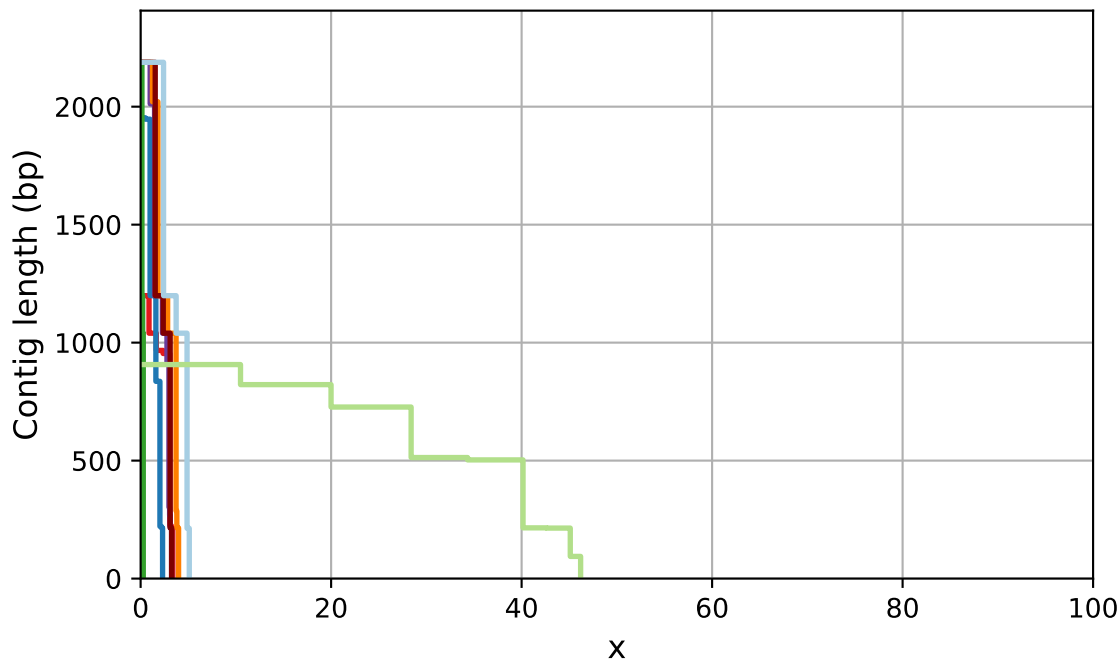
# FRCurve (misassemblies)



Cumulative length (aligned contigs)



# NAx



# NGAx

