

# RELAX Combined Report

SRV vs SRV+Double vs SRV+Double+Triple

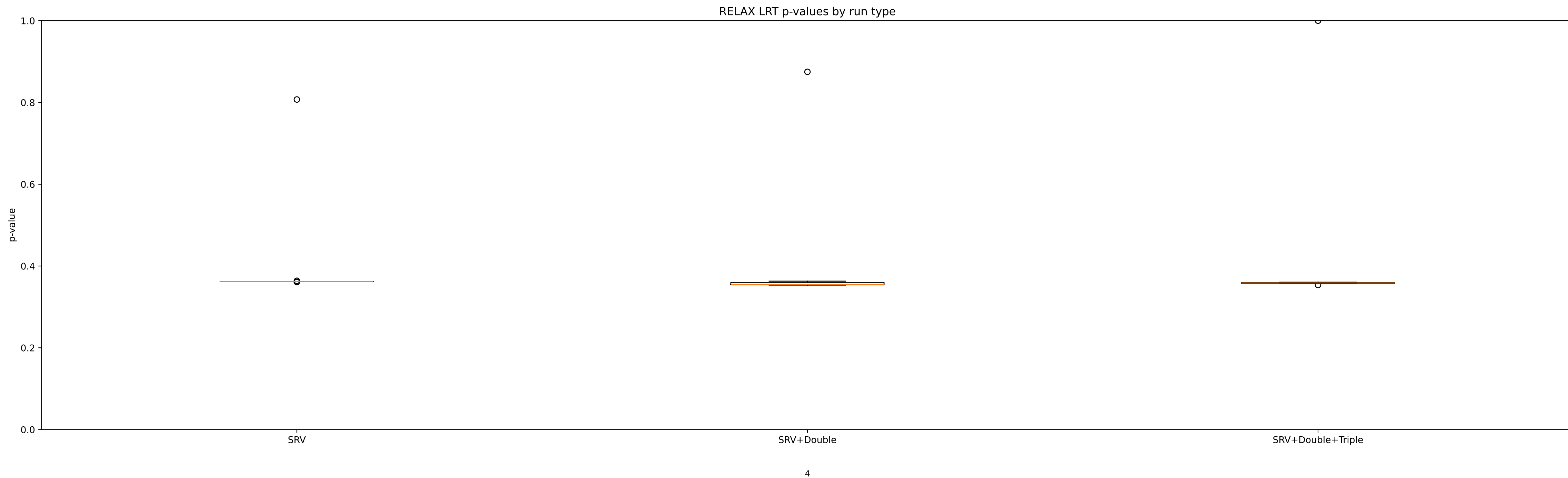
Includes:

- Run-type summary
- Boxplots: K, p-values, 2H/3H
- Full omega/SRV/multihit tables (column-paged)

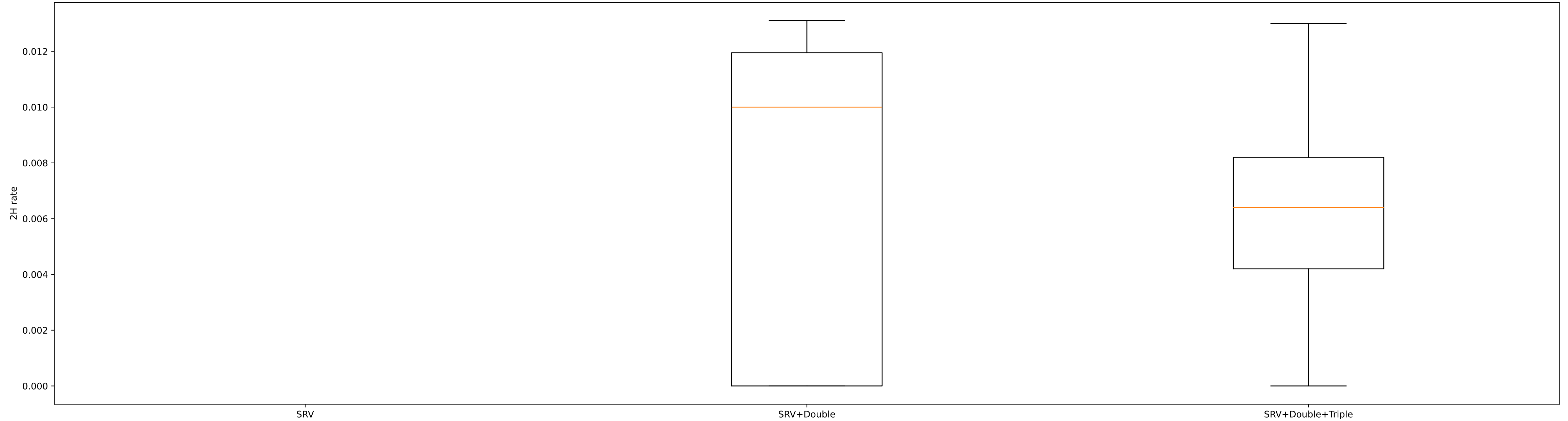
Run-type summary statistics

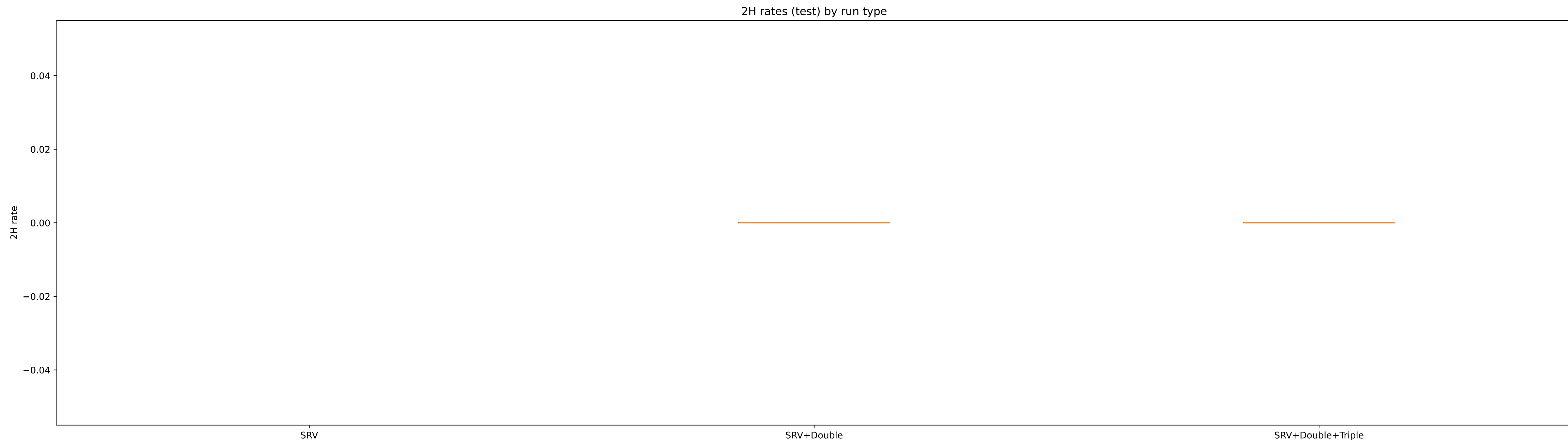
| p_median | p_min  | p_max  | K_median | K_min | K_max | omega_ref_med<br>ian | omega_test_med<br>ian | warnings_count | 2H_reference_m<br>edian | 2H_test_median |
|----------|--------|--------|----------|-------|-------|----------------------|-----------------------|----------------|-------------------------|----------------|
| 0.362    | 0.3608 | 0.8073 | 0.77     | 0.65  | 0.77  | 0.1721               | 0.2511                | 10             | nan                     | nan            |
| 0.3552   | 0.3533 | 0.875  | 0.77     | 0.74  | 0.78  | 0.1721               | 0.2511                | 10             | 0.01                    | 0.0            |
| 0.3586   | 0.3537 | 1.0    | 0.77     | 0.68  | 0.78  | 0.1721               | 0.2511                | 10             | 0.0064                  | 0.0            |





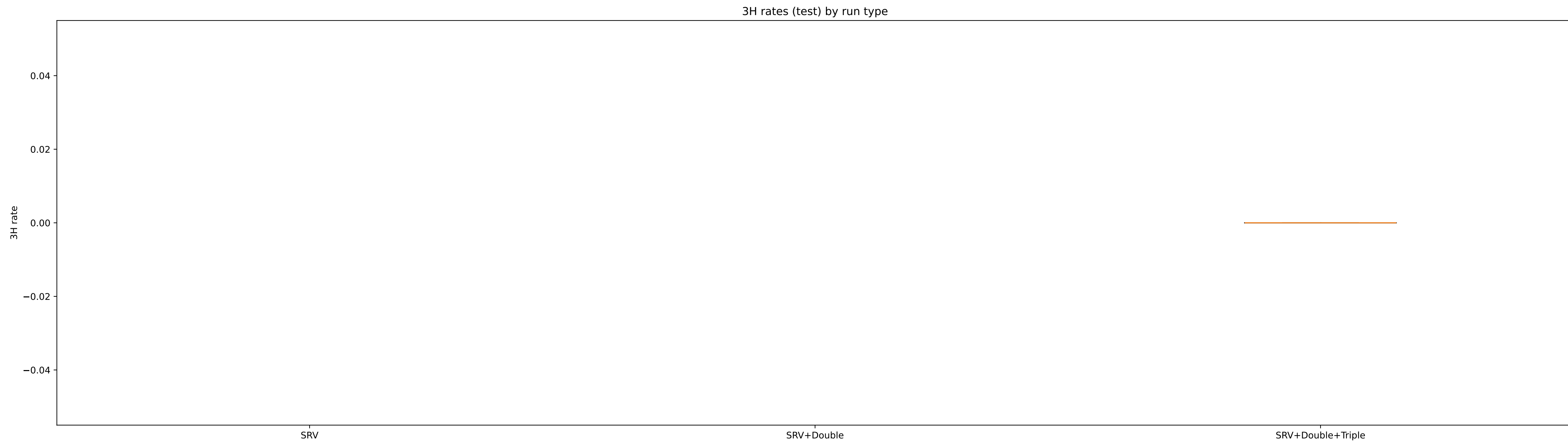
2H rates (reference) by run type





3H rates (reference) by run type







|  | replicate | p_value | K_alt | global_dNdS_reference | global_dNdS_test |  |
|--|-----------|---------|-------|-----------------------|------------------|--|
|  | 1         | 0.362   | 0.76  | 0.172                 | 0.2507           |  |
|  | 2         | 0.8073  | 0.65  | 0.1721                | 0.2511           |  |
|  | 3         | 0.3619  | 0.77  | 0.1721                | 0.2511           |  |
|  | 4         | 0.362   | 0.77  | 0.1721                | 0.2511           |  |
|  | 5         | 0.3608  | 0.77  | 0.1721                | 0.2511           |  |
|  | 6         | 0.362   | 0.77  | 0.1721                | 0.2511           |  |
|  | 7         | 0.3619  | 0.77  | 0.1721                | 0.2511           |  |
|  | 8         | 0.3639  | 0.76  | 0.1721                | 0.2511           |  |
|  | 9         | 0.3619  | 0.77  | 0.1721                | 0.2511           |  |
|  | 10        | 0.3613  | 0.77  | 0.1721                | 0.2511           |  |

|  | replicate | p_value | K_alt | global_dNdS_reference | global_dNdS_test |  |
|--|-----------|---------|-------|-----------------------|------------------|--|
|  | 1         | 0.3533  | 0.78  | 0.1721                | 0.2511           |  |
|  | 2         | 0.358   | 0.77  | 0.1721                | 0.2511           |  |
|  | 3         | 0.363   | 0.76  | 0.1721                | 0.2511           |  |
|  | 4         | 0.875   | 0.74  | 0.1721                | 0.2511           |  |
|  | 5         | 0.3539  | 0.78  | 0.1721                | 0.2511           |  |
|  | 6         | 0.3534  | 0.78  | 0.1721                | 0.2511           |  |
|  | 7         | 0.3549  | 0.77  | 0.172                 | 0.2506           |  |
|  | 8         | 0.3607  | 0.76  | 0.1721                | 0.2511           |  |
|  | 9         | 0.3555  | 0.77  | 0.1721                | 0.2511           |  |
|  | 10        | 0.3545  | 0.77  | 0.1721                | 0.2511           |  |

|  | replicate | p_value | K_alt | global_dNdS_reference | global_dNdS_test |  |
|--|-----------|---------|-------|-----------------------|------------------|--|
|  | 1         | 0.3586  | 0.77  | 0.1721                | 0.2511           |  |
|  | 2         | 0.3586  | 0.77  | 0.1721                | 0.2511           |  |
|  | 3         | 0.3605  | 0.76  | 0.1721                | 0.2511           |  |
|  | 4         | 1.0     | 0.68  | 0.1721                | 0.2511           |  |
|  | 5         | 0.359   | 0.76  | 0.1721                | 0.2511           |  |
|  | 6         | 0.3584  | 0.77  | 0.1721                | 0.2511           |  |
|  | 7         | 0.3567  | 0.77  | 0.1721                | 0.2511           |  |
|  | 8         | 0.3577  | 0.77  | 0.1721                | 0.2511           |  |
|  | 9         | 0.3592  | 0.76  | 0.1721                | 0.2511           |  |
|  | 10        | 0.3537  | 0.78  | 0.1721                | 0.2511           |  |

|  |           |                                |  |        |            |            |
|--|-----------|--------------------------------|--|--------|------------|------------|
|  | test      | Negative s<br>election         | 0.228                                    | 6.018  | SRV+Double |            |
|  | test      | Negative s<br>election         | 0.246                                    | 93.982 | SRV+Double |            |
|  | test      | Negative s<br>election         | 0.15                                     | 93.982 | SRV+Double |            |
|  | test      | Negative s<br>election         | 0.387                                    | 6.018  | SRV+Double |            |
|  | reference | Diversifyi<br>ng selecti<br>on | Ω-class distributions (all) (cols 1-7/7) | 0.0    | SRV+Double |            |
|  | reference | Negative s<br>election         |  | 0.154  | 84.917     | SRV+Double |
|  | reference | Negative s<br>election         |  | 0.221  | 15.083     | SRV+Double |
|  | test      | Diversifyi<br>ng selecti<br>on |  | 1.877  | 0.0        | SRV+Double |
|  | test      | Negative s<br>election         |  | 0.154  | 84.917     | SRV+Double |
|  | test      | Negative s<br>election         |  | 0.221  | 15.083     | SRV+Double |
|  | reference | Diversifyi<br>ng selecti<br>on |  | 4.875  | 0.0        | SRV+Double |
|  | reference | Negative s<br>election         |  | 0.041  | 3.263      | SRV+Double |
|  | reference | Negative s<br>election         |  | 0.168  | 96.737     | SRV+Double |
|  | test      | Diversifyi<br>ng selecti<br>on |  | 3.424  | 0.0        | SRV+Double |
|  | test      | Diversifyi<br>ng selecti<br>on |  | 4.875  | 0.0        | SRV+Double |
|  | test      | Negative s<br>election         |  | 0.084  | 3.263      | SRV+Double |
|  | test      | Negative s<br>election         | 0.251                                    | 96.737 | SRV+Double |            |
|  | test      | Negative s<br>election         | 0.041                                    | 3.263  | SRV+Double |            |
|  | test      | Negative s<br>election         | 0.168                                    | 96.737 | SRV+Double |            |
|  | reference | Diversifyi<br>ng selecti<br>on | 1.775                                    | 0.0    | SRV+Double |            |
|  | reference | Negative s<br>election         | 0.045                                    | 4.04   | SRV+Double |            |
|  | reference | Negative s<br>election         | 0.172                                    | 95.96  | SRV+Double |            |
|  | test      | Diversifyi<br>ng selecti<br>on | 1.775                                    | 0.0    | SRV+Double |            |
|  | test      | Negative s<br>election         | 0.045                                    | 4.04   | SRV+Double |            |
|  | test      | Negative s<br>election         | 0.172                                    | 95.96  | SRV+Double |            |
|  | reference | Diversifyi<br>ng selecti<br>on | 1.043                                    | 0.0    | SRV+Double |            |
|  | reference | Negative s<br>election         | 0.161                                    | 0.0    | SRV+Double |            |
|  | reference | Negative s<br>election         | 0.164                                    | 100.0  | SRV+Double |            |
|  | test      | Diversifyi<br>ng selecti<br>on | 1.033                                    | 0.0    | SRV+Double |            |
|  | test      | Diversifyi<br>ng selecti<br>on | 1.043                                    | 0.0    | SRV+Double |            |
|  | test      | Negative s<br>election         | 0.241                                    | 0.0    | SRV+Double |            |
|  | test      | Negative s<br>election         | 0.245                                    | 100.0  | SRV+Double |            |
|  | test      | Negative s<br>election         | 0.161                                    | 0.0    | SRV+Double |            |
|  | test      | Negative s<br>election         | 0.164                                    | 100.0  | SRV+Double |            |
|  | reference | Diversifyi<br>ng selecti<br>on | 2.078                                    | 0.0    | SRV+Double |            |
|  | reference | Negative s<br>election         | 0.161                                    | 19.954 | SRV+Double |            |
|  | reference | Negative s<br>election         | 0.169                                    | 80.046 | SRV+Double |            |
|  | test      | Diversifyi<br>ng selecti<br>on | 2.078                                    | 0.0    | SRV+Double |            |
|  | test      | Negative s<br>election         | 0.161                                    | 19.954 | SRV+Double |            |
|  | test      | Negative s<br>election         | 0.169                                    | 80.046 | SRV+Double |            |
|  | reference | Diversifyi<br>ng selecti<br>on | 1.287                                    | 0.0    | SRV+Double |            |
|  | reference | Negative s<br>election         | 0.025                                    | 5.54   | SRV+Double |            |
|  | reference | Negative s<br>election         | 0.173                                    | 94.46  | SRV+Double |            |
|  | test      | Diversifyi<br>ng selecti<br>on | 1.216                                    | 0.0    | SRV+Double |            |
|  | test      | Diversifyi<br>ng selecti<br>on | 1.287                                    | 0.0    | SRV+Double |            |
|  | test      | Negative s<br>election         | 0.057                                    | 5.54   | SRV+Double |            |
|  | test      | Negative s<br>election         | 0.257                                    | 94.46  | SRV+Double |            |
|  | test      | Negative s<br>election         | 0.025                                    | 5.54   | SRV+Double |            |
|  | test      | Negative s<br>election         | 0.173                                    | 94.46  | SRV+Double |            |
|  | reference | Diversifyi<br>ng selecti<br>on | 2.686                                    | 0.0    | SRV+Double |            |

SRV rate classes (all) (cols 1-6/6)

|  | class_id | syn_rate | proportion_per cent | run_type |  |
|--|----------|----------|---------------------|----------|--|
|  | 1        | 0.278    | 26.966              | SRV      |  |
|  | 2        | 0.435    | 29.993              | SRV      |  |
|  | 3        | 1.846    | 43.041              | SRV      |  |
|  | 1        | 0.288    | 31.964              | SRV      |  |
|  | 2        | 0.45     | 24.814              | SRV      |  |
|  | 3        | 1.843    | 43.222              | SRV      |  |
|  | 1        | 0.274    | 30.239              | SRV      |  |
|  | 2        | 0.467    | 26.97               | SRV      |  |
|  | 3        | 1.849    | 42.792              | SRV      |  |
|  | 1        | 0.262    | 29.264              | SRV      |  |
|  | 2        | 0.481    | 28.196              | SRV      |  |
|  | 3        | 1.852    | 42.54               | SRV      |  |
|  | 1        | 0.337    | 40.761              | SRV      |  |
|  | 2        | 0.386    | 15.54               | SRV      |  |
|  | 3        | 1.837    | 43.699              | SRV      |  |
|  | 1        | 0.264    | 30.297              | SRV      |  |
|  | 2        | 0.491    | 27.336              | SRV      |  |
|  | 3        | 1.855    | 42.367              | SRV      |  |
|  | 1        | 0.267    | 29.241              | SRV      |  |
|  | 2        | 0.472    | 28.086              | SRV      |  |
|  | 3        | 1.85     | 42.672              | SRV      |  |
|  | 1        | 0.277    | 28.303              | SRV      |  |
|  | 2        | 0.444    | 28.664              | SRV      |  |
|  | 3        | 1.846    | 43.033              | SRV      |  |
|  | 1        | 0.281    | 29.595              | SRV      |  |
|  | 2        | 0.447    | 27.318              | SRV      |  |
|  | 3        | 1.844    | 43.088              | SRV      |  |
|  | 1        | 0.329    | 34.888              | SRV      |  |
|  | 2        | 0.388    | 21.472              | SRV      |  |
|  | 3        | 1.838    | 43.64               | SRV      |  |

|  |           |    |        |                   |  |
|--|-----------|----|--------|-------------------|--|
|  | test      | 2H | 0.0    | SRV+Double        |  |
|  | reference | 2H | 0.0114 | SRV+Double        |  |
|  | reference | 2H | 0.0125 | SRV+Double        |  |
|  | test      | 2H | 0.0    | SRV+Double        |  |
|  | reference | 2H | 0.0    | SRV+Double+Triple |  |
|  | reference | 2H | 0.007  | SRV+Double+Triple |  |
|  | reference | 3H | 0.0    | SRV+Double+Triple |  |
|  | test      | 2H | 0.0    | SRV+Double+Triple |  |
|  | test      | 3H | 0.0    | SRV+Double+Triple |  |
|  | reference | 2H | 0.0061 | SRV+Double+Triple |  |
|  | reference | 2H | 0.008  | SRV+Double+Triple |  |
|  | reference | 3H | 0.0    | SRV+Double+Triple |  |
|  | test      | 2H | 0.0    | SRV+Double+Triple |  |
|  | test      | 3H | 0.0    | SRV+Double+Triple |  |
|  | reference | 2H | 0.0    | SRV+Double+Triple |  |
|  | reference | 2H | 0.0064 | SRV+Double+Triple |  |
|  | reference | 3H | 0.0    | SRV+Double+Triple |  |
|  | test      | 2H | 0.0    | SRV+Double+Triple |  |
|  | test      | 3H | 0.0    | SRV+Double+Triple |  |
|  | reference | 2H | 0.005  | SRV+Double+Triple |  |
|  | reference | 2H | 0.0071 | SRV+Double+Triple |  |
|  | reference | 3H | 0.0    | SRV+Double+Triple |  |
|  | test      | 2H | 0.0    | SRV+Double+Triple |  |
|  | test      | 3H | 0.0    | SRV+Double+Triple |  |
|  | reference | 2H | 0.0    | SRV+Double+Triple |  |
|  | reference | 2H | 0.005  | SRV+Double+Triple |  |
|  | reference | 3H | 0.0    | SRV+Double+Triple |  |
|  | test      | 2H | 0.0    | SRV+Double+Triple |  |
|  | test      | 3H | 0.0    | SRV+Double+Triple |  |
|  | reference | 2H | 0.0042 | SRV+Double+Triple |  |
|  | reference | 2H | 0.0064 | SRV+Double+Triple |  |
|  | reference | 3H | 0.0    | SRV+Double+Triple |  |
|  | test      | 2H | 0.0    | SRV+Double+Triple |  |
|  | test      | 3H | 0.0    | SRV+Double+Triple |  |
|  | reference | 2H | 0.0    | SRV+Double+Triple |  |
|  | reference | 2H | 0.0109 | SRV+Double+Triple |  |
|  | reference | 3H | 0.0    | SRV+Double+Triple |  |
|  | test      | 2H | 0.0    | SRV+Double+Triple |  |
|  | test      | 3H | 0.0    | SRV+Double+Triple |  |
|  | reference | 2H | 0.011  | SRV+Double+Triple |  |
|  | reference | 2H | 0.0111 | SRV+Double+Triple |  |
|  | reference | 2H | 0.0114 | SRV+Double+Triple |  |
|  | reference | 3H | 0.0    | SRV+Double+Triple |  |
|  | test      | 2H | 0.0    | SRV+Double+Triple |  |
|  | test      | 3H | 0.0    | SRV+Double+Triple |  |
|  | reference | 2H | 0.0    | SRV+Double+Triple |  |
|  | reference | 2H | 0.0062 | SRV+Double+Triple |  |
|  | reference | 3H | 0.0    | SRV+Double+Triple |  |
|  | test      | 2H | 0.0    | SRV+Double+Triple |  |
|  | test      | 3H | 0.0    | SRV+Double+Triple |  |