# RELAX Combined Report

SRV vs SRV+Double vs SRV+Double+Triple
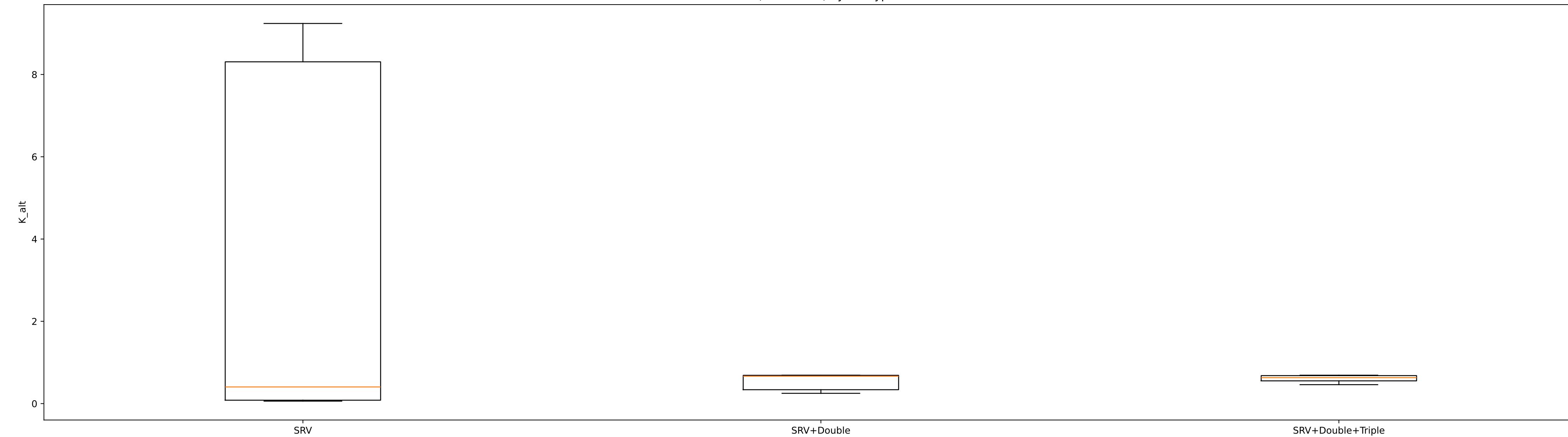
Includes:

- Run-type summary

- Boxplots: K, p-values, 2H/3H

- Full omega/SRV/multihit tables (column-paged)
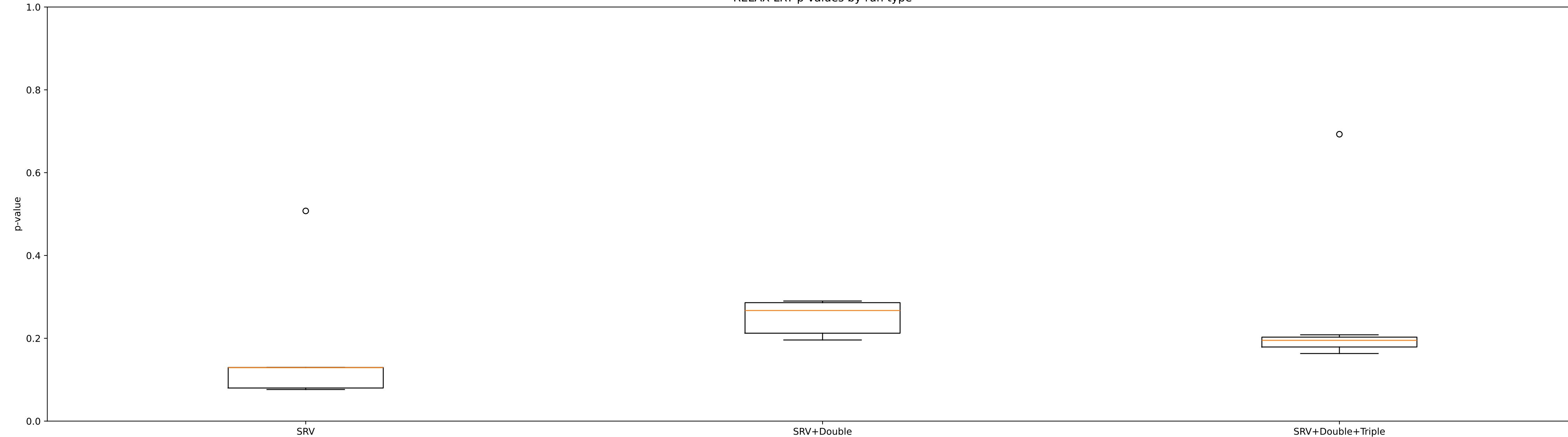
# Run-type summary statistics

| p_median | p_min | p_max | K_median | K_min | K_max | omega_ref_median | omega_test_median | warnings_count | 2H_reference_median | 2H_test_median |
|---|---|---|---|---|---|---|---|---|---|---|
| 0.1292 | 0.0763 | 0.5076 | 0.405 | 0.06 | 9.24 | 0.2163 | 0.3712 | 10 | nan | nan |
| 0.2671 | 0.1959 | 0.29 | 0.665 | 0.25 | 0.69 | 0.2163 | 0.3712 | 10 | 0.0 | 0.0792 |
| 0.195 | 0.1632 | 0.6928 | 0.63 | 0.46 | 0.69 | 0.2163 | 0.3712 | 10 | 0.0 | 0.1122 |
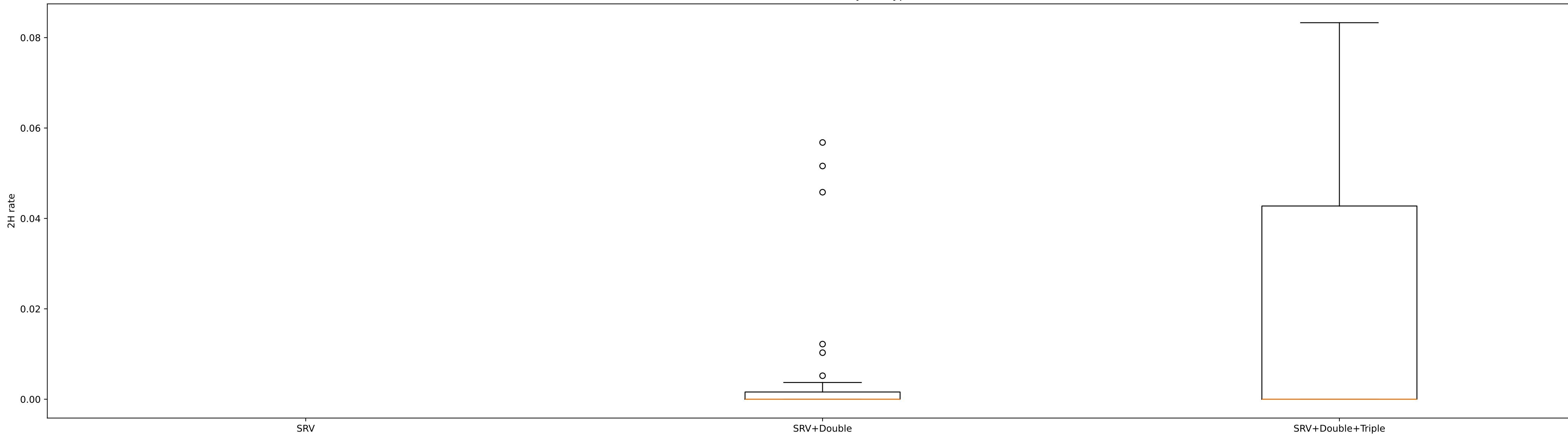
K (alternative) by run type

3
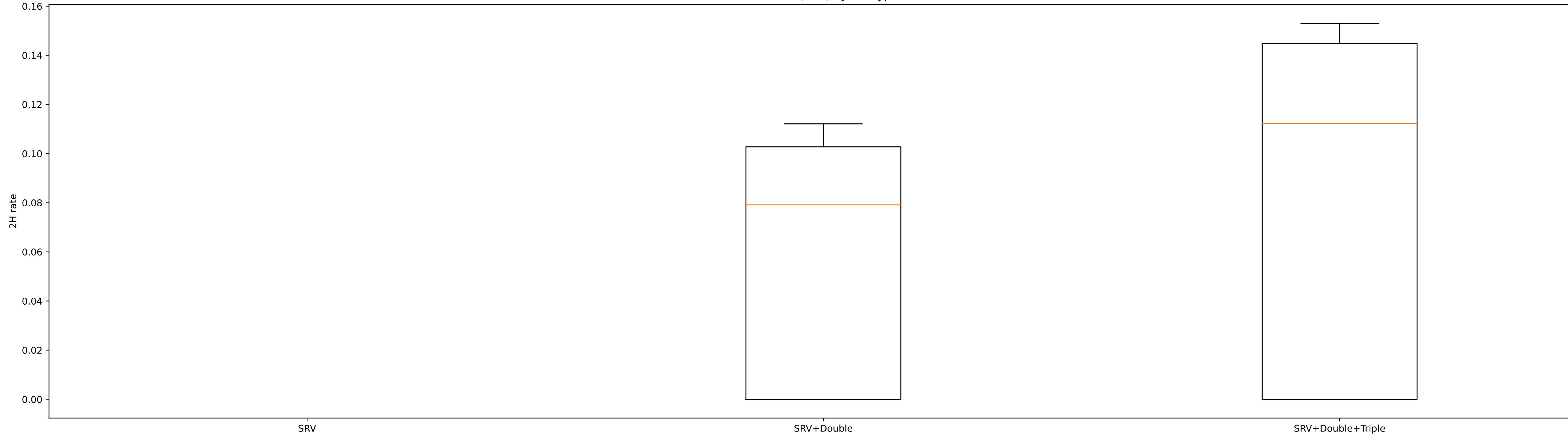
RELAX LRT p-values by run type
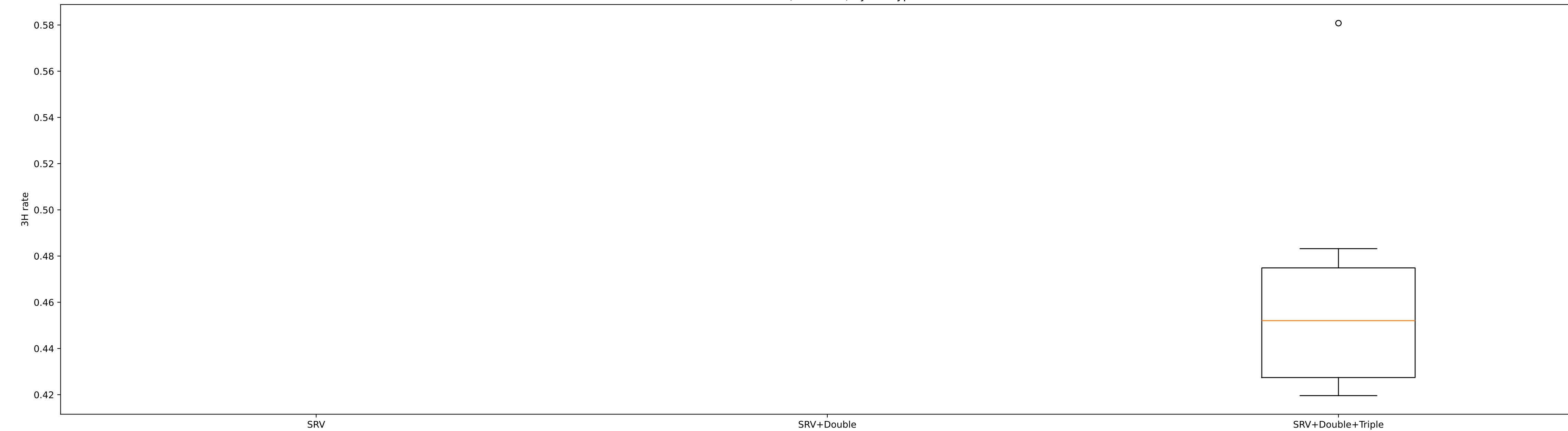
2H rates (reference) by run type
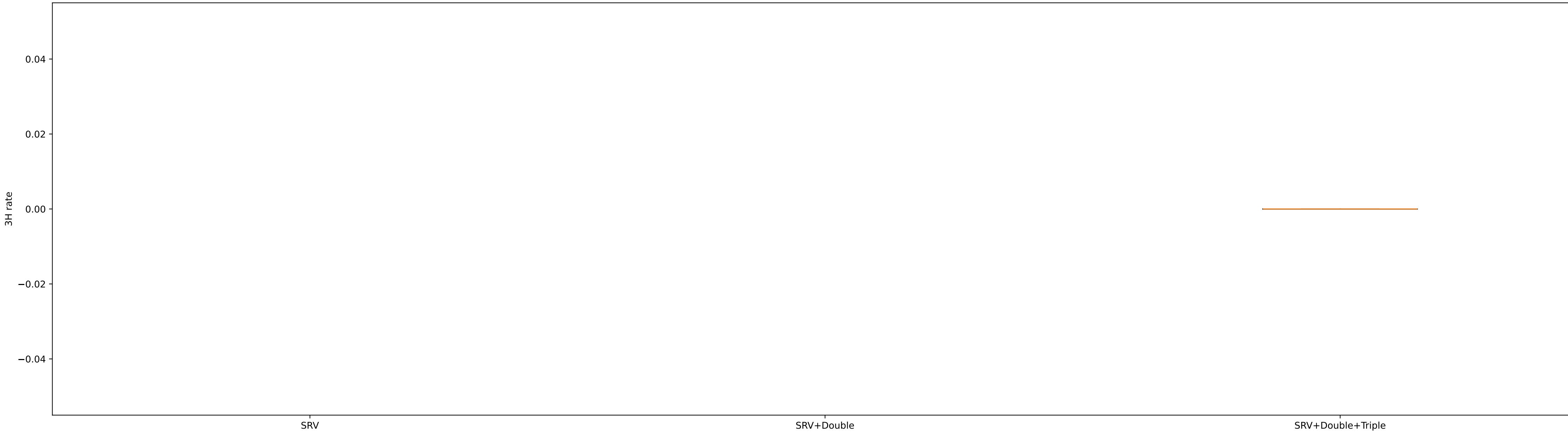
2H rates (test) by run type

3H rates (reference) by run type

# 3H rates (test) by run type

| replicate | p_value | K_alt | global_dNdS_reference | global_dNdS_test | |
|---|---|---|---|---|---|
| 1 | 0.0783 | 8.36 | 0.2163 | 0.3712 | |
| 2 | 0.0798 | 8.21 | 0.2163 | 0.3712 | |
| 3 | 0.0803 | 8.34 | 0.2163 | 0.3712 | |
| 4 | 0.1291 | 0.08 | 0.2163 | 0.3712 | |
| 5 | 0.5076 | 0.72 | 0.2163 | 0.3712 | |
| 6 | 0.1294 | 0.09 | 0.2163 | 0.3712 | |
| 7 | 0.1296 | 0.08 | 0.2163 | 0.3712 | |
| 8 | 0.1294 | 0.09 | 0.2163 | 0.3712 | |
| 9 | 0.0763 | 9.24 | 0.2163 | 0.3712 | |
| 10 | 0.1295 | 0.06 | 0.2163 | 0.3712 | |

| | replicate | p_value | K_alt | global_dNdS_reference | global_dNdS_test | |
|---|---|---|---|---|---|---|
| | 1 | 0.2848 | 0.68 | 0.2163 | 0.3712 | |
| | 2 | 0.29 | 0.69 | 0.2163 | 0.3712 | |
| | 3 | 0.2578 | 0.57 | 0.2163 | 0.3712 | |
| | 4 | 0.2764 | 0.65 | 0.2163 | 0.3712 | |
| | 5 | 0.2865 | 0.69 | 0.2163 | 0.3712 | |
| | 6 | 0.2551 | 0.68 | 0.2163 | 0.3712 | |
| | 7 | 0.1977 | 0.26 | 0.2163 | 0.3712 | |
| | 8 | 0.198 | 0.26 | 0.2163 | 0.3712 | |
| | 9 | 0.2887 | 0.69 | 0.2163 | 0.3712 | |
| | 10 | 0.1959 | 0.25 | 0.2163 | 0.3712 | |

| replicate | p_value | K_alt | global_dNdS_reference | global_dNdS_test | |
|---|---|---|---|---|---|
| 1 | 0.203 | 0.69 | 0.2163 | 0.3712 | |
| 2 | 0.1758 | 0.53 | 0.2163 | 0.3712 | |
| 3 | 0.2021 | 0.68 | 0.2163 | 0.3712 | |
| 4 | 0.1632 | 0.46 | 0.2163 | 0.3712 | |
| 5 | 0.6928 | 0.69 | 0.2163 | 0.3712 | |
| 6 | 0.1785 | 0.55 | 0.2163 | 0.3712 | |
| 7 | 0.2084 | 0.68 | 0.2163 | 0.3712 | |
| 8 | 0.1996 | 0.65 | 0.2163 | 0.3712 | |
| 9 | 0.1905 | 0.61 | 0.2163 | 0.3712 | |
| 10 | 0.1805 | 0.56 | 0.2163 | 0.3712 | |

Ω-class distributions (all) (cols 1-7/7)

| | | | | |
|---|---|---|---|---|
| test | Negative selection | 0.0 | 20.961 | SRV+Double |
| test | Negative selection | 0.147 | 65.654 | SRV+Double |
| test | Neutral evolution | 1.0 | 13.385 | SRV+Double |
| test | Neutral evolution | 1.0 | 13.385 | SRV+Double |
| reference | Diversifying selection | 0.045 | 14.582 | SRV+Double |
| reference | Negative selection | 0.0 | 23.634 | SRV+Double |
| reference | Negative selection | 0.149 | 61.784 | SRV+Double |
| test | Diversifying selection | 1.007 | 14.582 | SRV+Double |
| test | Negative selection | 0.0 | 23.634 | SRV+Double |
| test | Negative selection | 0.149 | 61.784 | SRV+Double |
| reference | Negative selection | 0.0 | 0.0 | SRV+Double |
| reference | Negative selection | 0.108 | 86.318 | SRV+Double |
| reference | Neutral evolution | 1.0 | 13.682 | SRV+Double |
| test | Negative selection | 0.001 | 0.0 | SRV+Double |
| test | Negative selection | 0.213 | 86.318 | SRV+Double |
| test | Negative selection | 0.0 | 0.0 | SRV+Double |
| test | Negative selection | 0.108 | 86.318 | SRV+Double |
| test | Neutral evolution | 1.0 | 13.682 | SRV+Double |
| test | Neutral evolution | 1.0 | 13.682 | SRV+Double |
| reference | Diversifying selection | 1.021 | 14.673 | SRV+Double |
| reference | Negative selection | 0.0 | 0.373 | SRV+Double |
| reference | Negative selection | 0.105 | 84.954 | SRV+Double |
| test | Diversifying selection | 1.021 | 14.673 | SRV+Double |
| test | Negative selection | 0.0 | 0.373 | SRV+Double |
| test | Negative selection | 0.105 | 84.954 | SRV+Double |
| reference | Negative selection | 0.108 | 86.587 | SRV+Double |
| reference | Negative selection | 0.97 | 0.374 | SRV+Double |
| reference | Neutral evolution | 1.0 | 13.039 | SRV+Double |
| test | Negative selection | 0.222 | 86.587 | SRV+Double |
| test | Negative selection | 0.98 | 0.374 | SRV+Double |
| test | Negative selection | 0.108 | 86.587 | SRV+Double |
| test | Negative selection | 0.97 | 0.374 | SRV+Double |
| test | Neutral evolution | 1.0 | 13.039 | SRV+Double |
| test | Neutral evolution | 1.0 | 13.039 | SRV+Double |
| reference | Diversifying selection | 1.038 | 12.093 | SRV+Double |
| reference | Negative selection | 0.106 | 85.702 | SRV+Double |
| reference | Neutral evolution | 1.0 | 2.205 | SRV+Double |
| test | Diversifying selection | 1.038 | 12.093 | SRV+Double |
| test | Negative selection | 0.106 | 85.702 | SRV+Double |
| test | Neutral evolution | 1.0 | 2.205 | SRV+Double |
| reference | Negative selection | 0.0 | 58.385 | SRV+Double |
| reference | Negative selection | 0.49 | 36.769 | SRV+Double |
| reference | Neutral evolution | 1.0 | 4.845 | SRV+Double |
| test | Negative selection | 0.0 | 58.385 | SRV+Double |
| test | Negative selection | 0.828 | 36.769 | SRV+Double |
| test | Negative selection | 0.0 | 58.385 | SRV+Double |
| test | Negative selection | 0.49 | 36.769 | SRV+Double |
| test | Neutral evolution | 1.0 | 4.845 | SRV+Double |
| test | Neutral evolution | 1.0 | 4.845 | SRV+Double |
| reference | Negative selection | 0.0 | 59.087 | SRV+Double |

| class_id | syn_rate | proportion_percent | run_type |
|---|---|---|---|
| 1 | 0.0 | 7.421 | SRV |
| 2 | 1.08 | 87.178 | SRV |
| 3 | 1.08 | 5.4 | SRV |
| 1 | 0.0 | 7.424 | SRV |
| 2 | 1.08 | 88.032 | SRV |
| 3 | 1.08 | 4.544 | SRV |
| 1 | 0.0 | 7.436 | SRV |
| 2 | 1.08 | 77.778 | SRV |
| 3 | 1.08 | 14.786 | SRV |
| 1 | 0.0 | 0.065 | SRV |
| 2 | 0.0 | 7.4 | SRV |
| 3 | 1.081 | 92.535 | SRV |
| 1 | 0.0 | 6.962 | SRV |
| 2 | 1.046 | 92.876 | SRV |
| 3 | 17.304 | 0.162 | SRV |
| 1 | 0.0 | 0.707 | SRV |
| 2 | 0.0 | 6.753 | SRV |
| 3 | 1.081 | 92.54 | SRV |
| 1 | 0.0 | 7.461 | SRV |
| 2 | 0.0 | 0.0 | SRV |
| 3 | 1.081 | 92.539 | SRV |
| 1 | 0.0 | 0.283 | SRV |
| 2 | 0.0 | 7.184 | SRV |
| 3 | 1.081 | 92.533 | SRV |
| 1 | 0.0 | 7.427 | SRV |
| 2 | 1.08 | 7.175 | SRV |
| 3 | 1.08 | 85.398 | SRV |
| 1 | 0.0 | 7.431 | SRV |
| 2 | 1.076 | 92.504 | SRV |
| 3 | 7.142 | 0.065 | SRV |

Multihit (2H/3H) rates (all) (cols 1-6/6)

| | | | |
|---|---|---|---|
| reference | 2H | 0.0 | SRV+Double+Triple |
| reference | 3H | 0.431 | SRV+Double+Triple |
| reference | 3H | 0.4747 | SRV+Double+Triple |
| test | 2H | 0.1482 | SRV+Double+Triple |
| test | 2H | 0.0 | SRV+Double+Triple |
| test | 3H | 0.0 | SRV+Double+Triple |
| reference | 2H | 0.0235 | SRV+Double+Triple |
| reference | 2H | 0.0 | SRV+Double+Triple |
| reference | 3H | 0.4196 | SRV+Double+Triple |
| reference | 3H | 0.4522 | SRV+Double+Triple |
| test | 2H | 0.0951 | SRV+Double+Triple |
| test | 3H | 0.0 | SRV+Double+Triple |
| reference | 2H | 0.0 | SRV+Double+Triple |
| reference | 3H | 0.4271 | SRV+Double+Triple |
| reference | 3H | 0.477 | SRV+Double+Triple |
| test | 2H | 0.1513 | SRV+Double+Triple |
| test | 2H | 0.0 | SRV+Double+Triple |
| test | 3H | 0.0 | SRV+Double+Triple |
| reference | 2H | 0.0454 | SRV+Double+Triple |
| reference | 2H | 0.0 | SRV+Double+Triple |
| reference | 3H | 0.4371 | SRV+Double+Triple |
| reference | 3H | 0.4647 | SRV+Double+Triple |
| test | 2H | 0.122 | SRV+Double+Triple |
| test | 3H | 0.0 | SRV+Double+Triple |
| reference | 2H | 0.0 | SRV+Double+Triple |
| reference | 3H | 0.4275 | SRV+Double+Triple |
| reference | 3H | 0.4754 | SRV+Double+Triple |
| test | 2H | 0.1492 | SRV+Double+Triple |
| test | 2H | 0.0 | SRV+Double+Triple |
| test | 3H | 0.0 | SRV+Double+Triple |
| reference | 2H | 0.0526 | SRV+Double+Triple |
| reference | 2H | 0.0 | SRV+Double+Triple |
| reference | 3H | 0.4471 | SRV+Double+Triple |
| reference | 3H | 0.4462 | SRV+Double+Triple |
| test | 2H | 0.0836 | SRV+Double+Triple |
| test | 3H | 0.0 | SRV+Double+Triple |
| reference | 2H | 0.0 | SRV+Double+Triple |
| reference | 3H | 0.4254 | SRV+Double+Triple |
| reference | 3H | 0.4678 | SRV+Double+Triple |
| test | 2H | 0.153 | SRV+Double+Triple |
| test | 2H | 0.0 | SRV+Double+Triple |
| test | 3H | 0.0 | SRV+Double+Triple |
| reference | 2H | 0.0832 | SRV+Double+Triple |
| reference | 2H | 0.0402 | SRV+Double+Triple |
| reference | 3H | 0.4788 | SRV+Double+Triple |
| reference | 3H | 0.5808 | SRV+Double+Triple |
| test | 2H | 0.1399 | SRV+Double+Triple |
| test | 3H | 0.0 | SRV+Double+Triple |
| reference | 2H | 0.0 | SRV+Double+Triple |