Table 1. Results of linear mixed-effects models, with the SS - DAT difference as the response variable, a fixed effect intercept, and tree as the random effect, accounting for unequal variances between trees. We present the average mean difference estimate, p-value, and 95% CI semi-parametrically bootstrapped over 500 iterations. We present the intraclass correlation coefficient (ICC) and random effect variance and SD on the original fitted model, before bootstrapping. Stars indicate degree of significance (\*: p < 0.05; \*\*: p < 0.01; \*\*\*: p < 0.001; \*\*\*\*: p < 0.0001)

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Comparison | Estimate  (μmol CO2 m−2·s−1) | | df | p-value | 95% CI of the fixed effect | ICC (if NA, model is singular) | Random Effect Variance | Random Effect standard deviation |
| DAT vs. SS: TPU-Enabled | | | | | | | | |
| Vcmax (n = 27 pairs) | 0.79 | 14 | | 0.20 | -0.42, 1.84 | 0.616 | 2.0 | 1.4 |
| Jmax (n = 27 pairs) | 5.00 | 14 | | < 0.01\*\*\*\* | 3.15, 7.35 | 0 | 0.0 | 0.0 |
| TPU (n = 6 pairs) | 1.94 | 4 | | < 0.01\*\*\*\* | 1.41, 2.5 | 0.419 | 0.0 | 0.0 |
| DAT vs. SS: No TPU | | | | | | | | |
| Vcmax (n = 27 pairs) | 1.53 | 14 | | 0.11 | 0.31, 2.97 | 1 | 1.7 | 1.3 |
| Jmax (n = 27 pairs) | 8.75 | 14 | | 0.01\* | 4.25, 13.80 | NA | 32.3 | 5.7 |
| DAT vs. SS: TPU-Enabled, Only Curves without Overshoot | | | | | | | | |
| Vcmax (n = 19 pairs) | 1.03 | 10 | | 0.05 | -0.10, 2.08 | 0.926 | 1.4 | 1.2 |
| Jmax (n = 19 pairs) | 4.40 | 10 | | < 0.01\*\*\*\* | 2.12, 6.38 | NA | 2.9 | 1.7 |
| DAT vs. SS: No TPU, Only Curves without Overshoot | | | | | | | | |
| Vcmax (n = 19 pairs) | 1.52 | 10 | | 0.05 | 0.24, 2.83 | 0.95 | 1.9 | 1.4 |
| Jmax (n = 19 pairs) | 4.20 | 10 | | < 0.01\*\*\*\* | 1.86, 6.66 | NA | 2.8 | 1.7 |