Consistent assimilation of multiple data streams in a carbon cycle data assimilation system

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Supplementary material

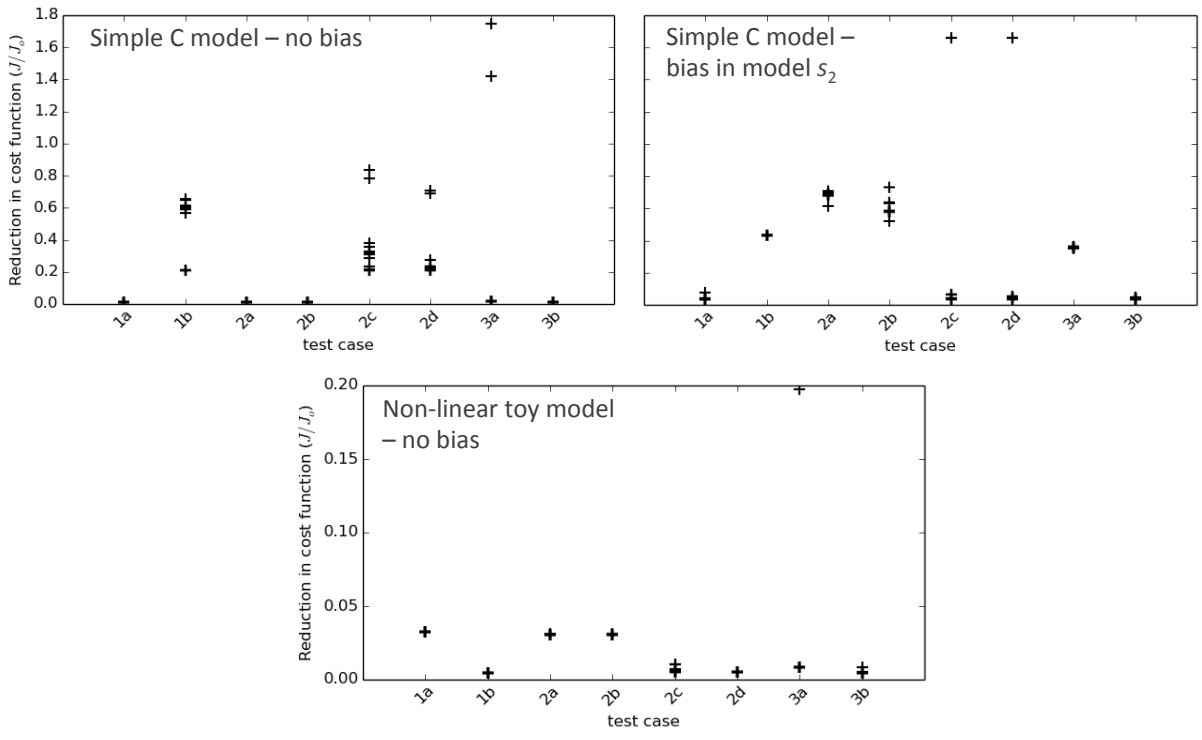

Figure S1: Reduction in the cost function (J/J_o) for each model and each test for all 20 assimilations with different random "first guess" points in the parameter space (i.e. each cross

represents the 20 random "first guess" tests). Top panel – simple C model without bias (left) and with bias added to the simulated s_2 variable (right). Bottom panel – non-linear toy model with no added bias. Note that the majority of the random "first guess" assimilations achieve the same reduction in the cost function even though the final value is different for each test, which is to be expected as each test (for each model) has a different cost function.