Simulation results (credit to Chris)

B super-efficient

Frequency Task 1 vs Replicate

Line
- A (red)
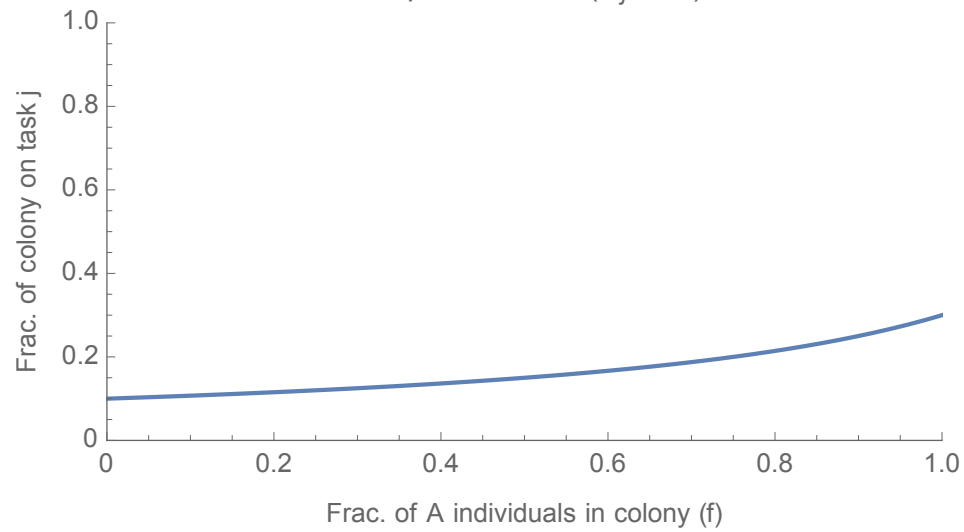- B (blue)

B inefficient

Frequency Task 1 vs Replicate

Line
- A (red)
- B (blue)
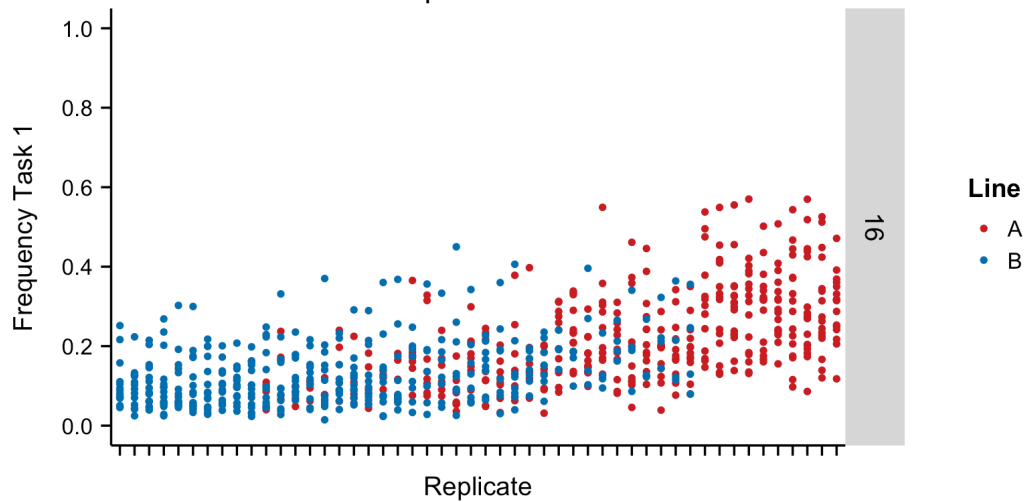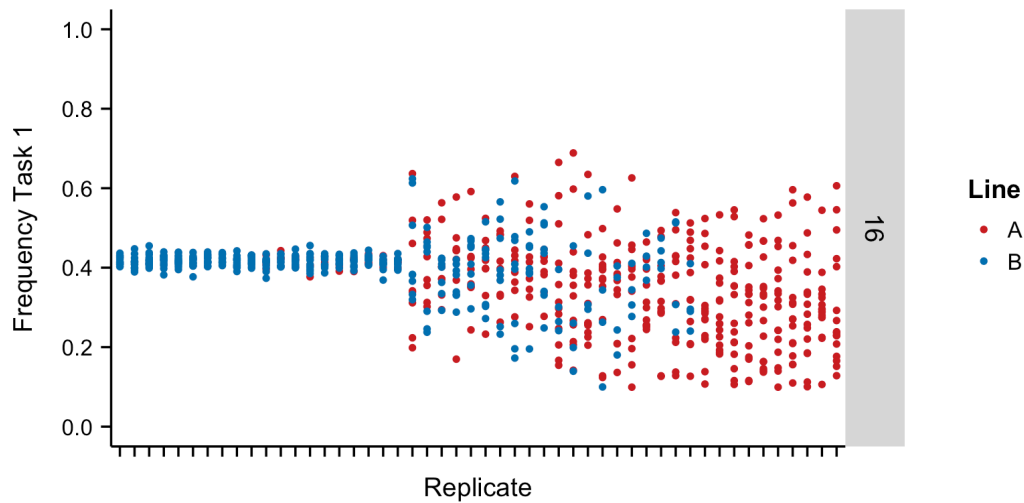
Predictions

B super−efficient ($\alpha_j^B = 6$)

Frac. of colony on task j vs Frac. of A individuals in colony (f)

B inefficient ($\alpha_j^B = 1$)

Frac. of colony on task j vs Frac. of A individuals in colony (f)