4×10^{3} Converged 3×10^{3} 10³ 2×10^{3} time elapsed for this fit --- 48.4815878868103 seconds --- 10^{-3} 10^{-1} 10^{-2} 10^{-2} 10^{-4} 10^{-5} 10^{-4} 10^{-3} 10^{-1} inducer -> S -| Output (GFP) Full circuit with stripe 6×10^3 10^{4} 4×10^{3} 3×10^3 10⁻⁵ 10⁻³ 10^{-2} 10^{-1} 10⁻⁵ 10^{-3} 10^{-2} 10^{-4} 10^{-4} 10^{-1} Across all four plots: RSS (converged)=0.058 RSS (initial)=1.108 RSS (% reduction)=0.95 epsilon Initial guesses Converged message: Optimization terminated successfully. A_s 28.152936 650.714912 678.867848 success: True 82.838877 16259.979950 16342.818827 status: 0 -30.073645 1296.448889 1266.375244 fun: 0.058189644356363 0.032747 1.154067 1.186814 x: [6.789e+02 1.634e+04 ... 1.467e+00 4.107e+01] Αr 0.000000 2020.019216 2020.019216 nit: 15538 Βr 0.000000 23688.809187 23688.809187 nfev: 20343 0.000000 0.010358 0.010358 final simplex: (array([[6.789e+02, 1.634e+04, ..., 1.467e+00, 0.000000 0.910072 0.910072 4.107e+011, 143.802212 804.205156 660.402944 [6.789e+02, 1.634e+04, ..., 1.467e+00,B_h -3788.557319 50238.271408 46449.714089 4.107e+01], -0.000299 0.000929 0.000630 -1.645307 1.673894 0.028587 Αо [6.789e+02, 1.634e+04, ..., 1.467e+00, -0.828563 0.895342 0.066779 4.107e+01], [6.789e+02, 1.634e+04, ..., 1.467e+00, 0.305372 2.657699 Со 2.963071 0.087260 1.379953 1.467212 4.107e+01]]), array([5.819e-02, 5.819e-02, ..., 5.819e-02, 5.819e-02])) 38.707386 2.361284 41.068670

inducer -> S - IR (GFP output)

Initial Guess

ConvergedConvergedConverged

['SM data type data plots for mutation', 'Output7', 'using model:', 'model']

inducer -> sensor (GFP output)

 10^{4}