inducer -> sensor (GFP output) inducer -> S - IR (GFP output) Converged Converged Converged 10^{4} 4×10^3 Converged 3×10^{3} 10^{3} 2×10^{3} time elapsed for this fit --- 10.111695051193237 seconds --- 10^{-4} 10^{-3} 10⁻² 10^{-3} 10^{-2} 10^{-1} 10^{-5} 10^{-4} 10^{-1} inducer -> S -| Output (GFP) Full circuit with stripe 4×10^3 10^{4} 3×10^{3} 2×10^{3} 10^{-5} 10^{-4} 10⁻³ 10^{-2} 10⁻⁵ 10^{-2} 10^{-1} 10^{-1} 10^{-4} 10^{-3} Across all four plots: RSS (converged)=0.063 RSS (initial)=0.735RSS (% reduction)=0.921 epsilon Initial guesses Converged message: Optimization terminated successfully. 7.018094 650.714912 6.577330e+02 A_s success: True -97.967161 16259.979950 1.616201e+04 status: 0 40.262563 1296.448889 1.336711e+03 fun: 0.06294499394528036 0.034405 1.154067 1.188472e+00 x: [6.577e+02 1.616e+04 ... 9.572e-01 7.492e-01] Αr 0.000000 2020.019216 2.020019e+03 nit: 3385 Βr 0.000000 23688.809187 2.368881e+04 nfev: 4557 C r 0.000000 0.010358 1.035760e-02 final simplex: (array([[6.577e+02, 1.616e+04, ..., 9.572e-01, 0.000000 0.910072 9.100723e-01 7.492e-011, -143.802212 143.802212 3.457881e-12 [6.577e+02, 1.616e+04, ..., 9.572e-01, B h 24106.454139 50238.271408 7.434473e+04 7.492e-01], C h 0.001434 0.000929 2.363492e-03 1.473082 1.673894 3.146977e+00 [6.577e+02, 1.616e+04, ..., 9.572e-01, Αо 0.718893 0.895342 1.614234e+00 Во 7.492e-01], Со 0.972755 2.657699 3.630453e+00 [6.577e+02, 1.616e+04, ..., 9.572e-01, -0.4227411.379953 9.572119e-01 7.492e-01]]), array([6.294e-02, 6.294e-02, ..., 6.294e-02, 6.294e-02])) -1.612058 2.361284 7.492255e-01

Initial Guess

['SM data type data plots for mutation', 'Output10', 'using model:', 'model']