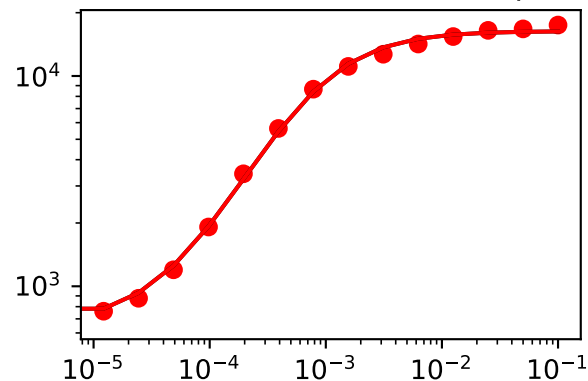
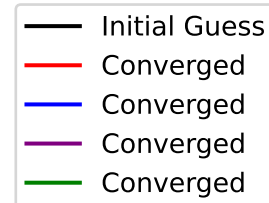
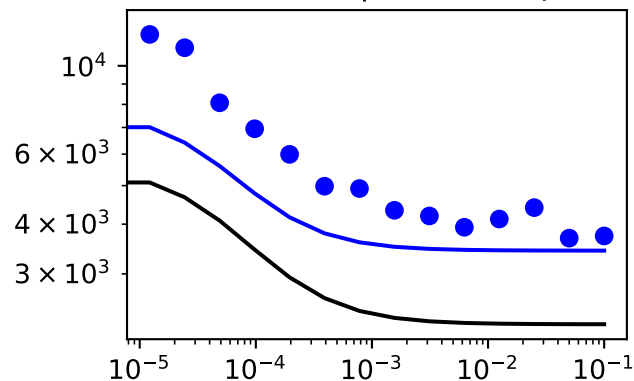


# ['SM data type data plots for mutation', 'Regulator4']

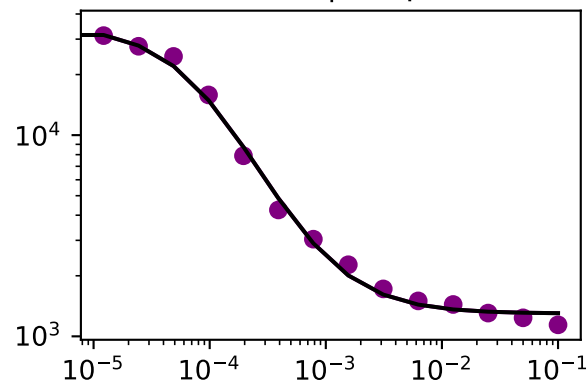
inducer -> sensor (GFP output)



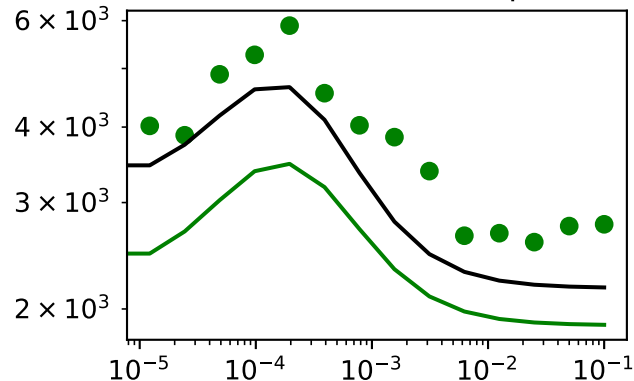
inducer -> S -| R (GFP output)



inducer -> S -| Output (GFP)



Full circuit with stripe



Across all four plots:

RSS (converged)=0.833

RSS (initial)=1.443

RSS (% reduction)=0.634

	epsilon	Initial_guesses	Converged
A_s	0.000000e+00	6.599635e+02	6.599635e+02
B_s	0.000000e+00	1.634714e+04	1.634714e+04
C_s	0.000000e+00	1.259256e+03	1.259256e+03
N_s	0.000000e+00	1.160440e+00	1.160440e+00
A_r	1.252146e+03	1.998310e+03	3.250456e+03
B_r	1.268003e+307	2.040009e+11	1.268003e+307
C_r	1.786184e+301	2.771808e+06	1.786184e+301
N_r	1.604475e-01	8.375226e-01	9.979701e-01
A_h	0.000000e+00	5.477878e-06	5.477878e-06
B_h	0.000000e+00	6.710814e+04	6.710814e+04
C_h	0.000000e+00	1.412943e-03	1.412943e-03
A_o	0.000000e+00	5.414338e+07	5.414338e+07
B_o	0.000000e+00	2.126439e+00	2.126439e+00
C_o	0.000000e+00	2.720605e+00	2.720605e+00
N_o	0.000000e+00	1.250443e+00	1.250443e+00

message: Optimization terminated successfully.

success: True

status: 0

fun: 0.8331442890900637

x: [ 6.600e+02 1.635e+04 ... 2.721e+00 1.250e+00]

nit: 78918

nfev: 102996

final\_simplex: (array([[ 6.600e+02, 1.635e+04, ..., 2.721e+00,  
1.250e+00],  
[ 6.600e+02, 1.635e+04, ..., 2.721e+00,  
1.250e+00],  
...,  
[ 6.600e+02, 1.635e+04, ..., 2.721e+00,  
1.250e+00],  
[ 6.600e+02, 1.635e+04, ..., 2.721e+00,  
1.250e+00]]), array([ 8.331e-01, 8.331e-01, ..., 8.331e-01, 8.331e-01]))