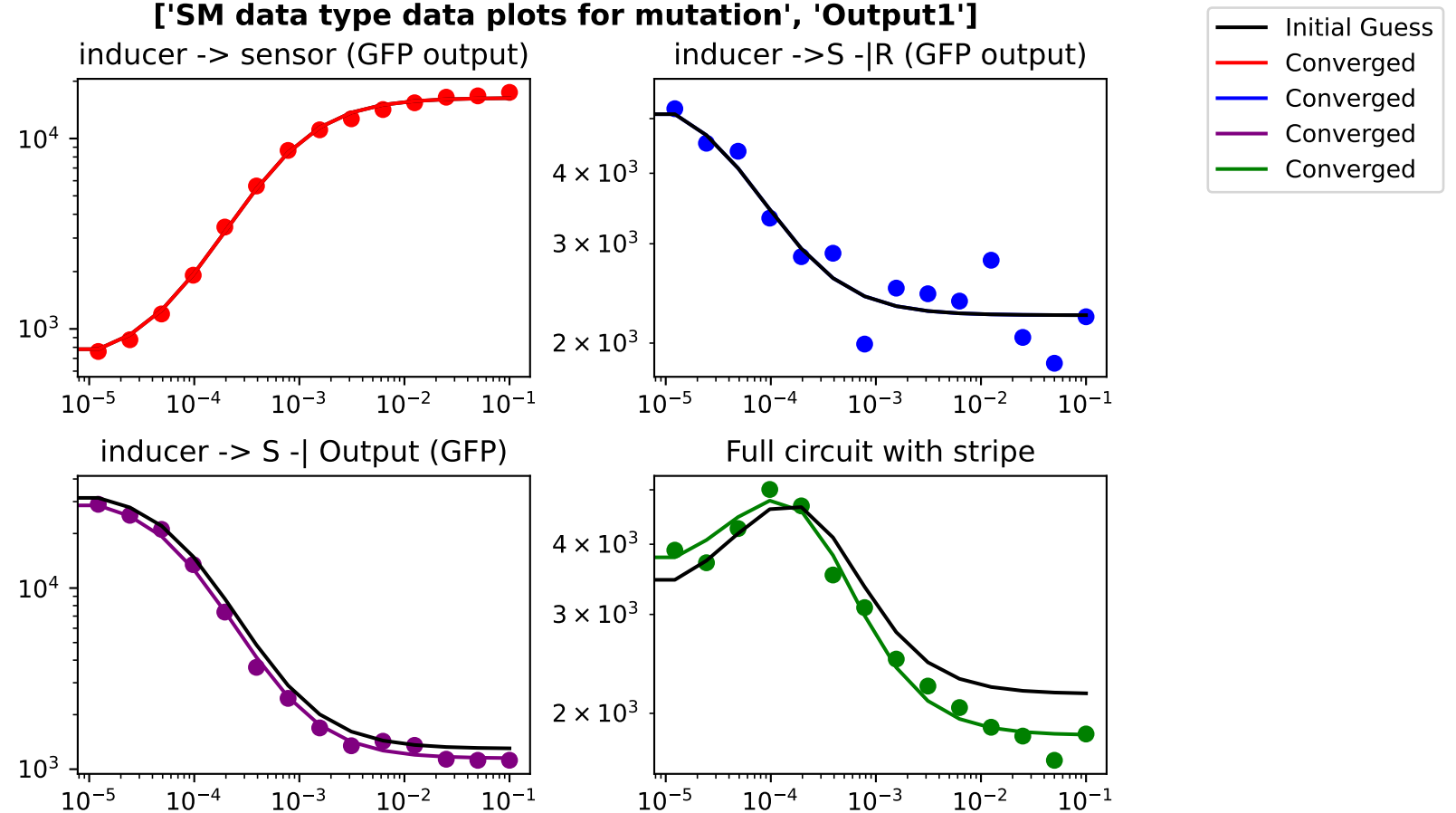


Across all four plots:

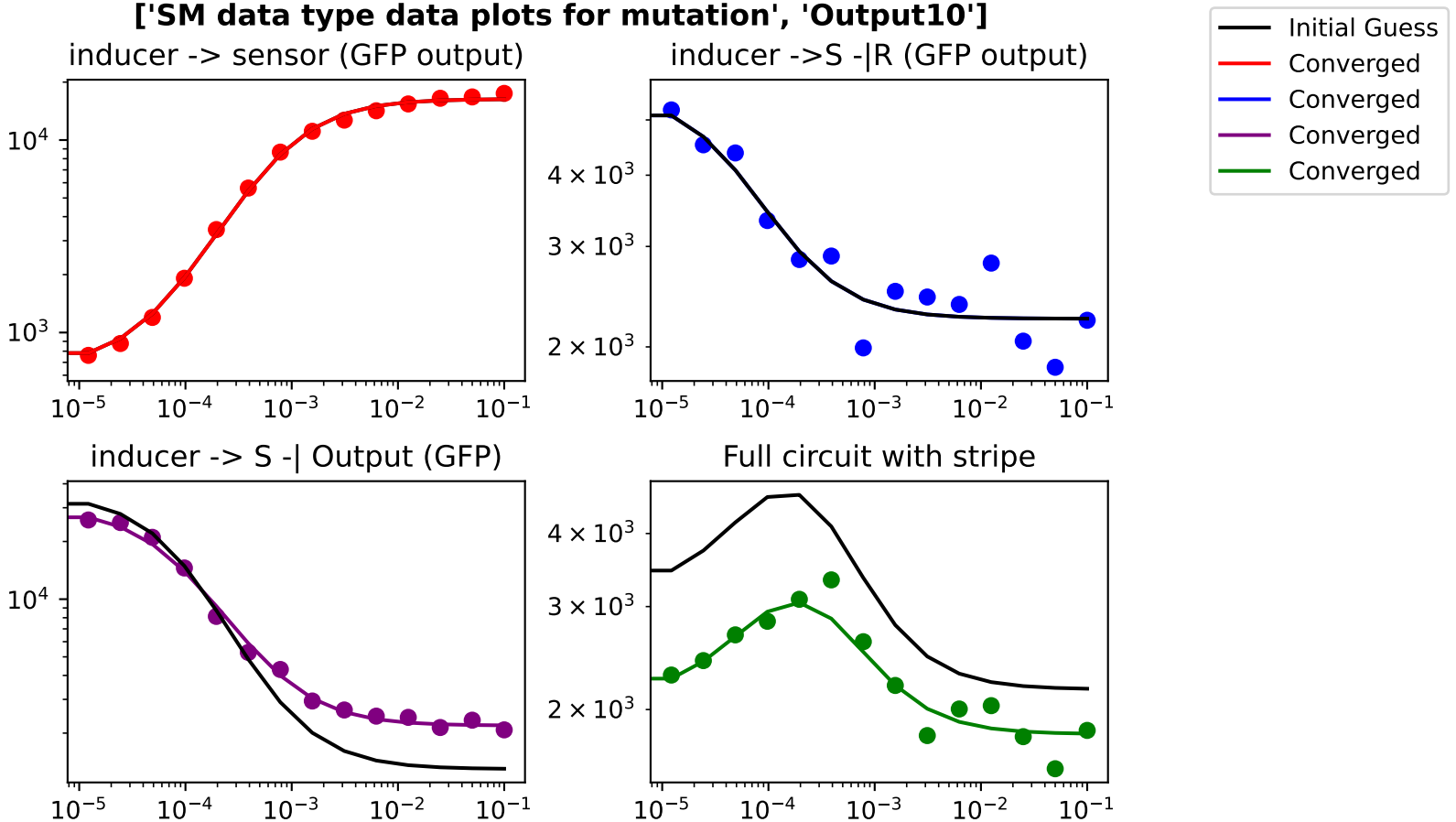
RSS (converged)=0.059

RSS (initial)=0.152

RSS (% reduction)=0.72

	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	0.000000e+00	1.998310e+03	1.998310e+03
B_r	0.000000e+00	2.040009e+11	2.040009e+11
C_r	0.000000e+00	2.771808e+06	2.771808e+06
N_r	0.000000e+00	8.375226e-01	8.375226e-01
A_h	-2.143558e-06	5.477878e-06	3.334320e-06
B_h	9.948474e+03	6.710814e+04	7.705662e+04
C_h	5.669318e-04	1.412943e-03	1.979874e-03
A_o	1.310229e+07	5.414338e+07	6.724566e+07
B_o	-2.829457e-01	2.126439e+00	1.843493e+00
C_o	-8.113806e-01	2.720605e+00	1.909224e+00
N_o	-4.468263e-02	1.250443e+00	1.205760e+00

```
message: Optimization terminated successfully.
success: True
 status: 0
    fun: 0.059413355003730704
      x: [ 6.600e+02  1.635e+04 ...  1.909e+00  1.206e+00]
    nit: 1148
   nfev: 1933
final_simplex: (array([[ 6.600e+02,  1.635e+04, ...,  1.909e+00,
                         1.206e+00],
                       [ 6.600e+02,  1.635e+04, ...,  1.909e+00,
                         1.206e+00],
                       ...,
                       [ 6.600e+02,  1.635e+04, ...,  1.909e+00,
                         1.206e+00],
                       [ 6.600e+02,  1.635e+04, ...,  1.909e+00,
                         1.206e+00]]), array([ 5.941e-02,  5.941e-02, ...,  5.941e-02,  5.941e-02]))
```



Across all four plots:

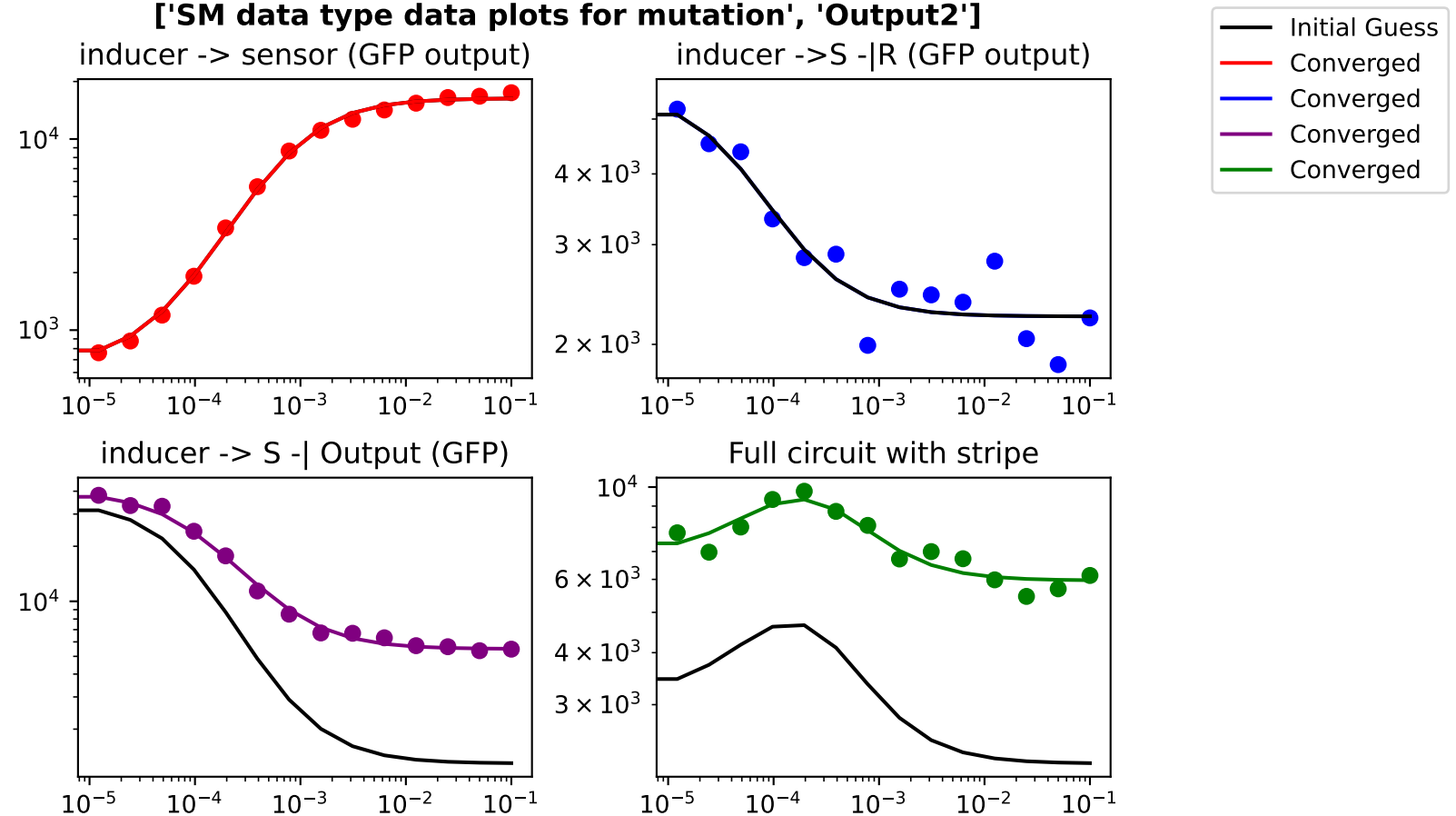
RSS (converged)=0.063

RSS (initial)=0.737

RSS (% reduction)=0.921

	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	0.000000e+00	1.998310e+03	1.998310e+03
B_r	0.000000e+00	2.040009e+11	2.040009e+11
C_r	0.000000e+00	2.771808e+06	2.771808e+06
N_r	0.000000e+00	8.375226e-01	8.375226e-01
A_h	-5.477878e-06	5.477878e-06	9.797691e-19
B_h	1.661621e+04	6.710814e+04	8.372436e+04
C_h	1.442307e-03	1.412943e-03	2.855250e-03
A_o	-5.193054e+07	5.414338e+07	2.212838e+06
B_o	-9.216280e-01	2.126439e+00	1.204811e+00
C_o	9.250514e-01	2.720605e+00	3.645656e+00
N_o	-3.090814e-01	1.250443e+00	9.413617e-01

```
message: Optimization terminated successfully.
success: True
 status: 0
    fun: 0.06339991913061092
      x: [ 6.600e+02  1.635e+04 ...  3.646e+00  9.414e-01]
    nit: 1787
   nfev: 2720
final_simplex: (array([[ 6.600e+02,  1.635e+04, ...,  3.646e+00,
                         9.414e-01],
                       [ 6.600e+02,  1.635e+04, ...,  3.646e+00,
                         9.414e-01],
                       ...,
                       [ 6.600e+02,  1.635e+04, ...,  3.646e+00,
                         9.414e-01],
                       [ 6.600e+02,  1.635e+04, ...,  3.646e+00,
                         9.414e-01]]), array([ 6.340e-02,  6.340e-02, ...,  6.340e-02,  6.340e-02]))
```



Across all four plots:

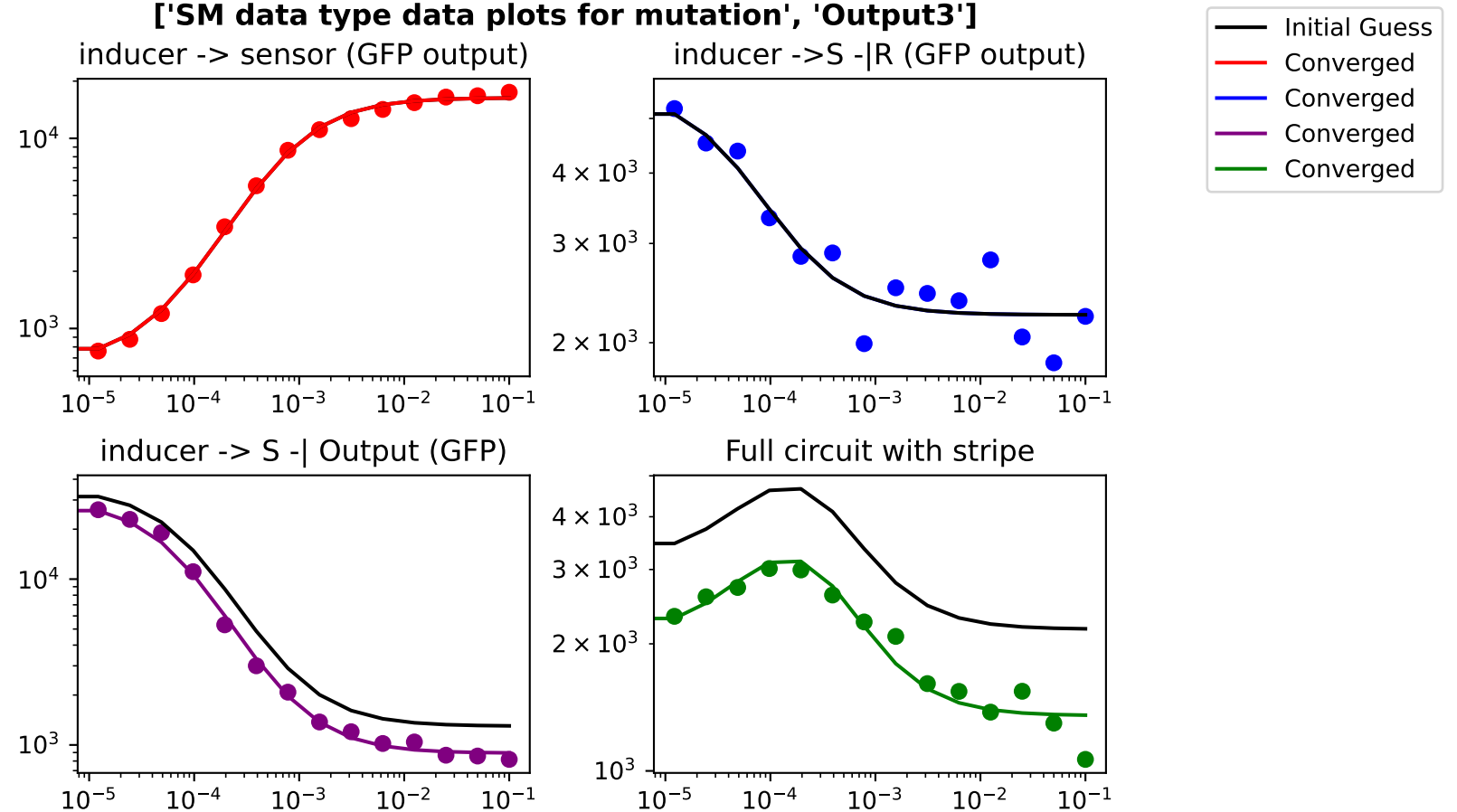
RSS (converged)=0.054

RSS (initial)=5.331

RSS (% reduction)=0.99

	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	0.000000e+00	1.998310e+03	1.998310e+03
B_r	0.000000e+00	2.040009e+11	2.040009e+11
C_r	0.000000e+00	2.771808e+06	2.771808e+06
N_r	0.000000e+00	8.375226e-01	8.375226e-01
A_h	-5.477878e-06	5.477878e-06	2.499208e-18
B_h	9.936470e+03	6.710814e+04	7.704461e+04
C_h	-3.038561e-05	1.412943e-03	1.382557e-03
A_o	-2.042762e+07	5.414338e+07	3.371576e+07
B_o	-6.567192e-01	2.126439e+00	1.469720e+00
C_o	7.655020e-01	2.720605e+00	3.486107e+00
N_o	-4.267742e-01	1.250443e+00	8.236689e-01

```
message: Optimization terminated successfully.
success: True
 status: 0
    fun: 0.05436480380519919
      x: [ 6.600e+02  1.635e+04 ...  3.486e+00  8.237e-01]
    nit: 2254
   nfev: 3367
final_simplex: (array([[ 6.600e+02,  1.635e+04, ...,  3.486e+00,
                         8.237e-01],
                       [ 6.600e+02,  1.635e+04, ...,  3.486e+00,
                         8.237e-01],
                       ...,
                       [ 6.600e+02,  1.635e+04, ...,  3.486e+00,
                         8.237e-01],
                       [ 6.600e+02,  1.635e+04, ...,  3.486e+00,
                         8.237e-01]]), array([ 5.436e-02,  5.436e-02, ...,  5.436e-02,  5.436e-02]))
```



Across all four plots:

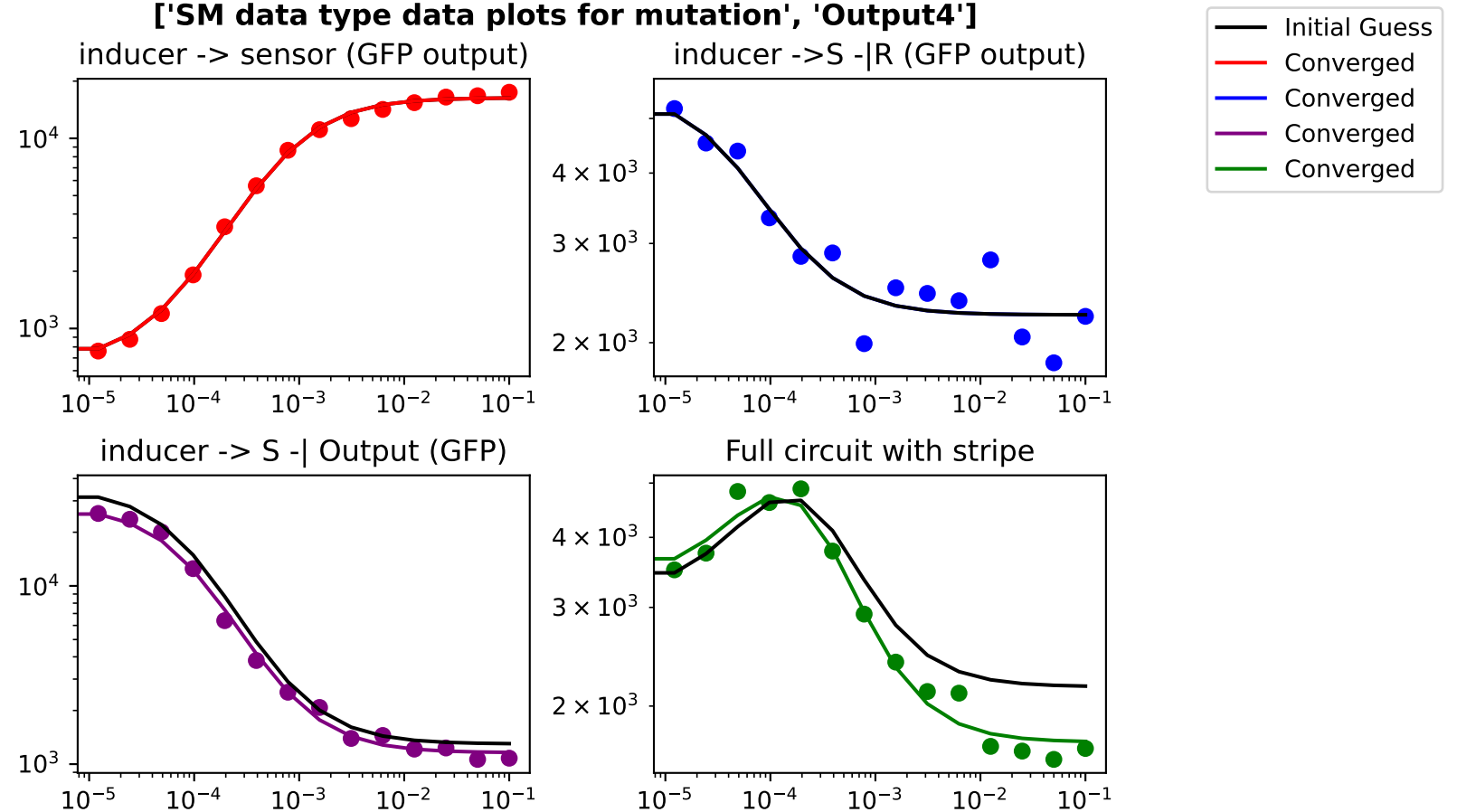
RSS (converged)=0.076

RSS (initial)=0.934

RSS (% reduction)=0.925

	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	0.000000e+00	1.998310e+03	1.998310e+03
B_r	0.000000e+00	2.040009e+11	2.040009e+11
C_r	0.000000e+00	2.771808e+06	2.771808e+06
N_r	0.000000e+00	8.375226e-01	8.375226e-01
A_h	-5.477878e-06	5.477878e-06	0.000000e+00
B_h	2.361125e+04	6.710814e+04	9.071940e+04
C_h	1.308816e-03	1.412943e-03	2.721759e-03
A_o	-4.695291e+07	5.414338e+07	7.190463e+06
B_o	7.948146e-02	2.126439e+00	2.205920e+00
C_o	-5.093774e-02	2.720605e+00	2.669667e+00
N_o	-3.523465e-02	1.250443e+00	1.215208e+00


```
message: Optimization terminated successfully.
success: True
 status: 0
    fun: 0.07593959009958896
      x: [ 6.600e+02  1.635e+04 ...  2.670e+00  1.215e+00]
    nit: 2248
   nfev: 3473
final_simplex: (array([[ 6.600e+02,  1.635e+04, ...,  2.670e+00,
                         1.215e+00],
                       [ 6.600e+02,  1.635e+04, ...,  2.670e+00,
                         1.215e+00],
                       ...,
                       [ 6.600e+02,  1.635e+04, ...,  2.670e+00,
                         1.215e+00],
                       [ 6.600e+02,  1.635e+04, ...,  2.670e+00,
                         1.215e+00]]), array([ 7.594e-02,  7.594e-02, ...,  7.594e-02,  7.594e-02]))
```



Across all four plots:

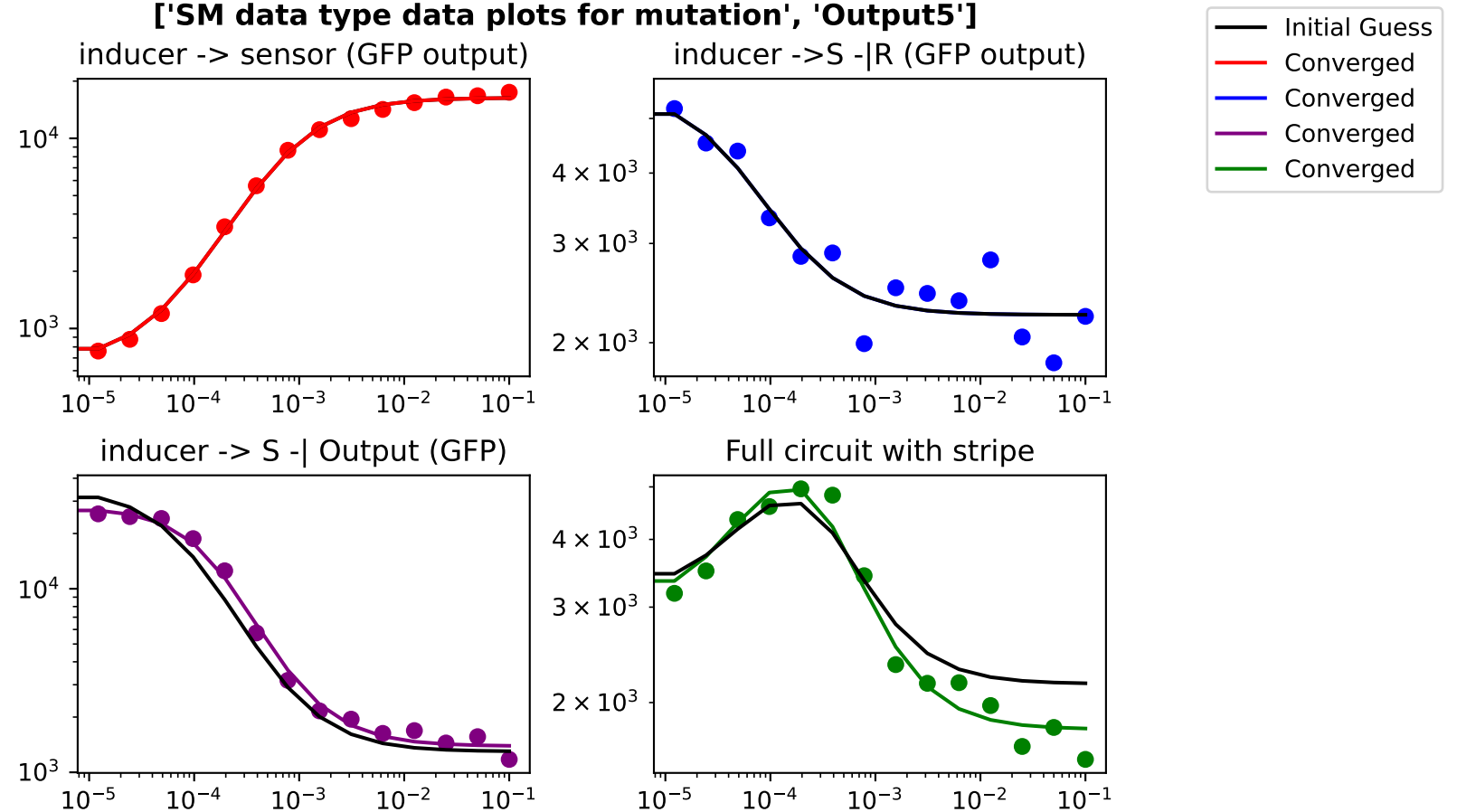
RSS (converged)=0.068

RSS (initial)=0.211

RSS (% reduction)=0.756

	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	0.000000e+00	1.998310e+03	1.998310e+03
B_r	0.000000e+00	2.040009e+11	2.040009e+11
C_r	0.000000e+00	2.771808e+06	2.771808e+06
N_r	0.000000e+00	8.375226e-01	8.375226e-01
A_h	4.134552e-06	5.477878e-06	9.612430e-06
B_h	-1.346460e+04	6.710814e+04	5.364354e+04
C_h	-8.395580e-06	1.412943e-03	1.404547e-03
A_o	-5.414338e+07	5.414338e+07	9.292377e-07
B_o	-1.353364e-01	2.126439e+00	1.991102e+00
C_o	-7.013500e-01	2.720605e+00	2.019255e+00
N_o	-3.376980e-02	1.250443e+00	1.216673e+00

```
message: Optimization terminated successfully.
success: True
 status: 0
    fun: 0.0678910078857535
      x: [ 6.600e+02  1.635e+04 ...  2.019e+00  1.217e+00]
    nit: 1809
   nfev: 2535
final_simplex: (array([[ 6.600e+02,  1.635e+04, ...,  2.019e+00,
                         1.217e+00],
                       [ 6.600e+02,  1.635e+04, ...,  2.019e+00,
                         1.217e+00],
                       ...,
                       [ 6.600e+02,  1.635e+04, ...,  2.019e+00,
                         1.217e+00],
                       [ 6.600e+02,  1.635e+04, ...,  2.019e+00,
                         1.217e+00]]), array([ 6.789e-02,  6.789e-02, ...,  6.789e-02,  6.789e-02]))
```



Across all four plots:

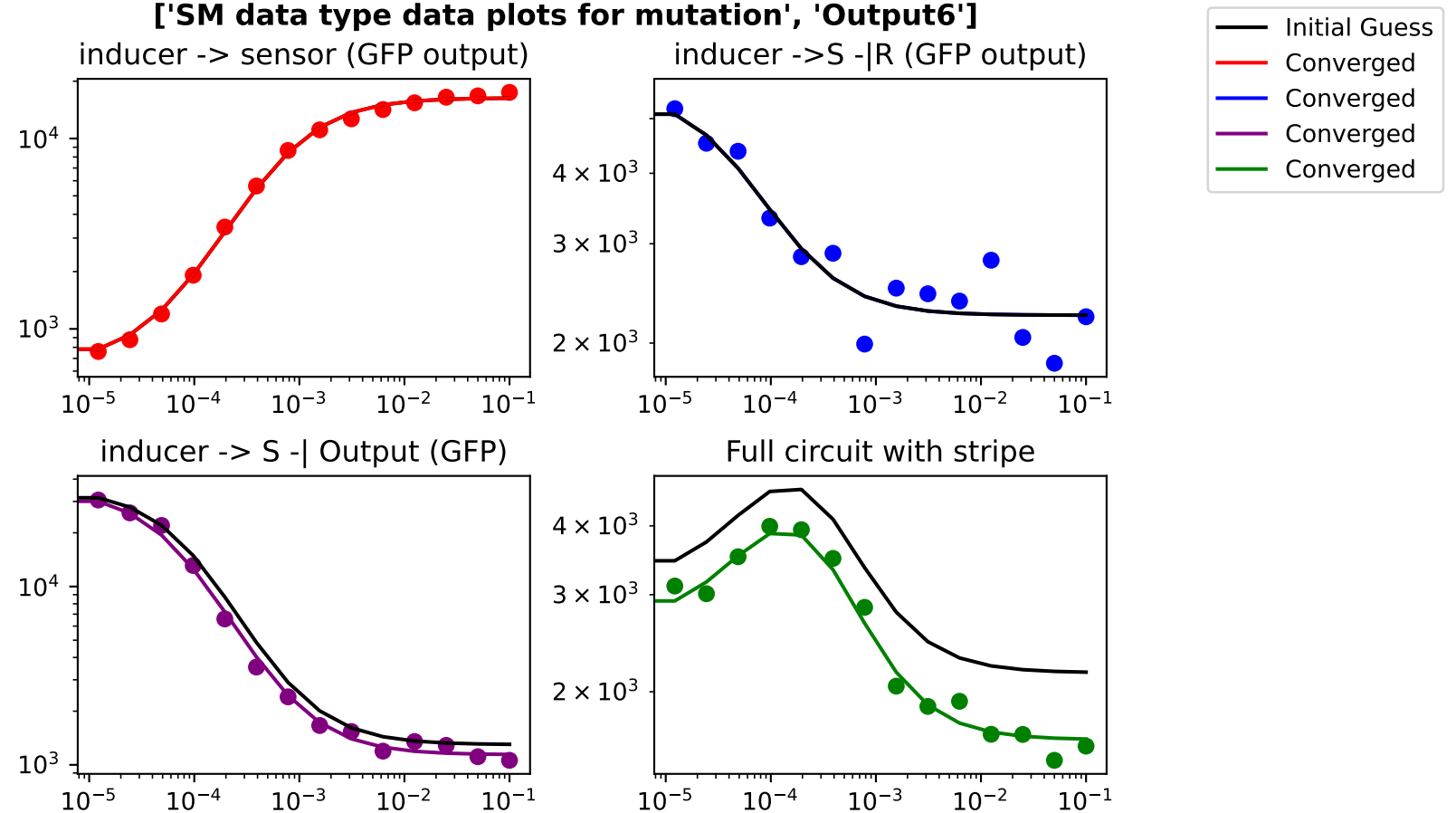
RSS (converged)=0.076

RSS (initial)=0.194

RSS (% reduction)=0.718

	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	0.000000e+00	1.998310e+03	1.998310e+03
B_r	0.000000e+00	2.040009e+11	2.040009e+11
C_r	0.000000e+00	2.771808e+06	2.771808e+06
N_r	0.000000e+00	8.375226e-01	8.375226e-01
A_h	-4.887021e-06	5.477878e-06	5.908574e-07
B_h	-3.514805e+04	6.710814e+04	3.196010e+04
C_h	-9.645285e-04	1.412943e-03	4.484140e-04
A_o	-5.414338e+07	5.414338e+07	0.000000e+00
B_o	-5.118813e-02	2.126439e+00	2.075251e+00
C_o	2.312460e-02	2.720605e+00	2.743729e+00
N_o	3.020002e-01	1.250443e+00	1.552443e+00

message: Optimization terminated successfully.
success: True
status: 0
fun: 0.07617626882265843
x: [6.600e+02 1.635e+04 ... 2.744e+00 1.552e+00]
nit: 1340
nfev: 2011
final_simplex: (array([[6.600e+02, 1.635e+04, ..., 2.744e+00,
1.552e+00],
[6.600e+02, 1.635e+04, ..., 2.744e+00,
1.552e+00],
...,
[6.600e+02, 1.635e+04, ..., 2.744e+00,
1.552e+00],
[6.600e+02, 1.635e+04, ..., 2.744e+00,
1.552e+00]]), array([7.618e-02, 7.618e-02, ..., 7.618e-02, 7.618e-02]))



Across all four plots:

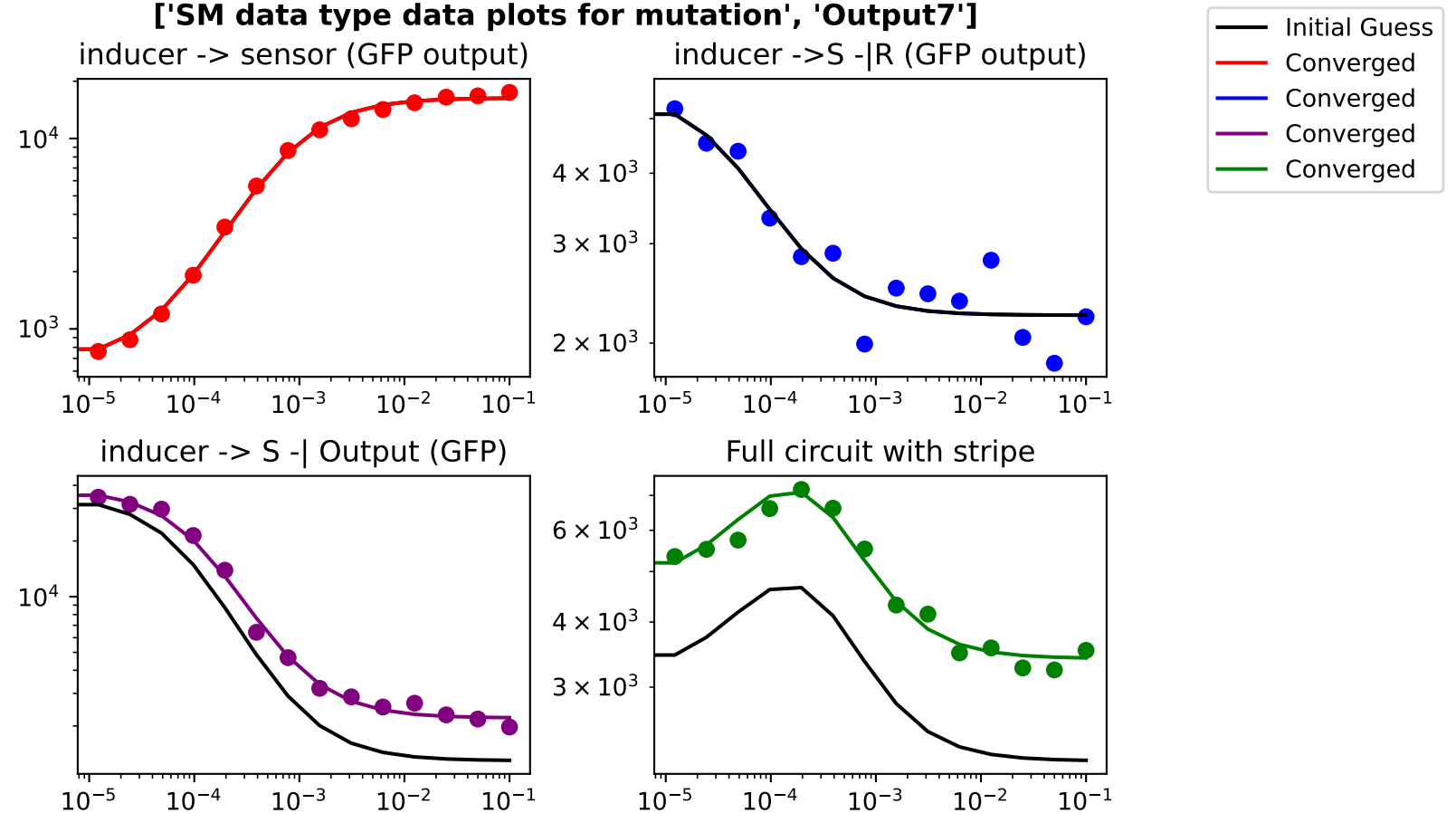
RSS (converged)=0.063

RSS (initial)=0.27

RSS (% reduction)=0.81

	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	0.000000e+00	1.998310e+03	1.998310e+03
B_r	0.000000e+00	2.040009e+11	2.040009e+11
C_r	0.000000e+00	2.771808e+06	2.771808e+06
N_r	0.000000e+00	8.375226e-01	8.375226e-01
A_h	-4.619189e-06	5.477878e-06	8.586890e-07
B_h	4.981418e+04	6.710814e+04	1.169223e+05
C_h	1.750176e-03	1.412943e-03	3.163119e-03
A_o	-5.414338e+07	5.414338e+07	1.572583e-06
B_o	-1.165049e-01	2.126439e+00	2.009934e+00
C_o	-2.730788e-01	2.720605e+00	2.447526e+00
N_o	-7.926494e-02	1.250443e+00	1.171178e+00

```
message: Optimization terminated successfully.
success: True
 status: 0
    fun: 0.06344188623514439
      x: [ 6.600e+02  1.635e+04 ...  2.448e+00  1.171e+00]
    nit: 1257
   nfev: 1895
final_simplex: (array([[ 6.600e+02,  1.635e+04, ...,  2.448e+00,
                         1.171e+00],
                       [ 6.600e+02,  1.635e+04, ...,  2.448e+00,
                         1.171e+00],
                       ...,
                       [ 6.600e+02,  1.635e+04, ...,  2.448e+00,
                         1.171e+00],
                       [ 6.600e+02,  1.635e+04, ...,  2.448e+00,
                         1.171e+00]]), array([ 6.344e-02,  6.344e-02, ...,  6.344e-02,  6.344e-02]))
```



Across all four plots:

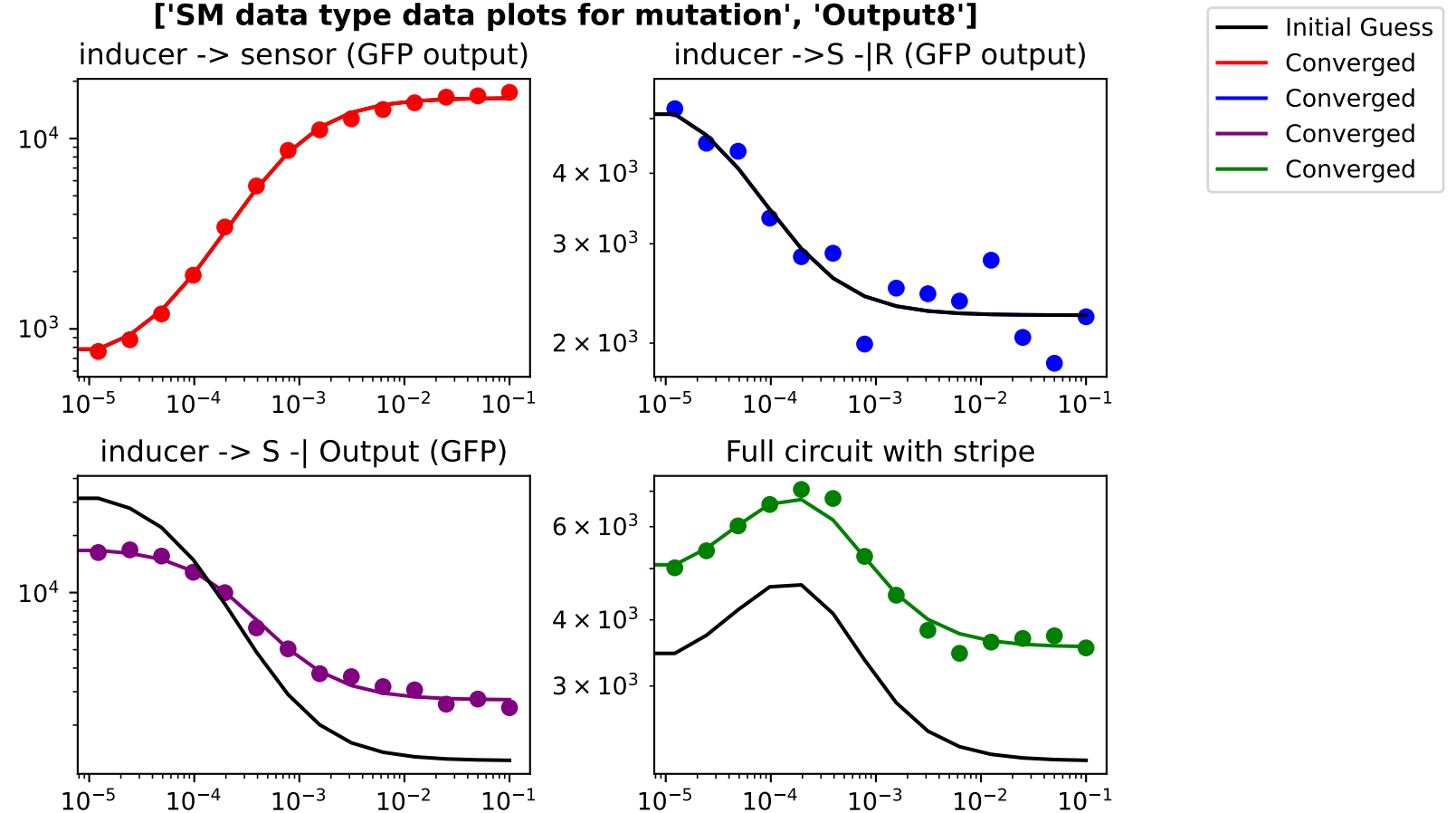
RSS (converged)=0.062

RSS (initial)=1.111

RSS (% reduction)=0.947

	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	0.000000e+00	1.998310e+03	1.998310e+03
B_r	0.000000e+00	2.040009e+11	2.040009e+11
C_r	0.000000e+00	2.771808e+06	2.771808e+06
N_r	0.000000e+00	8.375226e-01	8.375226e-01
A_h	2.203523e-07	5.477878e-06	5.698230e-06
B_h	-1.106046e+04	6.710814e+04	5.604768e+04
C_h	-5.866364e-04	1.412943e-03	8.263062e-04
A_o	-6.117341e+06	5.414338e+07	4.802603e+07
B_o	-1.339066e-02	2.126439e+00	2.113048e+00
C_o	1.938970e-01	2.720605e+00	2.914502e+00
N_o	-2.357677e-02	1.250443e+00	1.226866e+00

```
message: Optimization terminated successfully.
success: True
 status: 0
    fun: 0.06158072559151501
      x: [ 6.600e+02  1.635e+04 ...  2.915e+00  1.227e+00]
    nit: 1625
   nfev: 2538
final_simplex: (array([[ 6.600e+02,  1.635e+04, ...,  2.915e+00,
                         1.227e+00],
                       [ 6.600e+02,  1.635e+04, ...,  2.915e+00,
                         1.227e+00],
                       ...,
                       [ 6.600e+02,  1.635e+04, ...,  2.915e+00,
                         1.227e+00],
                       [ 6.600e+02,  1.635e+04, ...,  2.915e+00,
                         1.227e+00]]), array([ 6.158e-02,  6.158e-02, ...,  6.158e-02,  6.158e-02]))
```



Across all four plots:

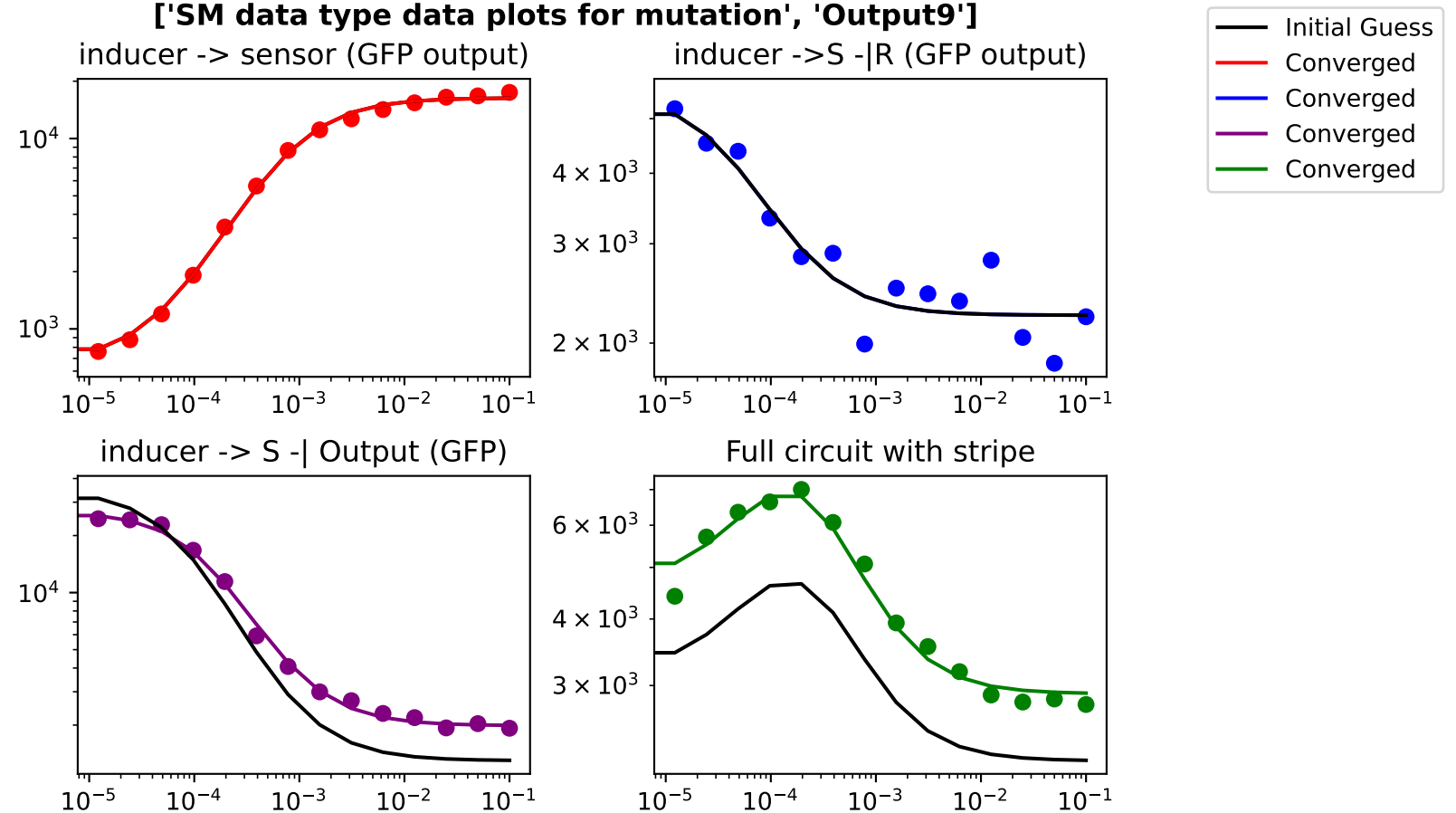
RSS (converged)=0.053

RSS (initial)=1.624

RSS (% reduction)=0.969

	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	0.000000e+00	1.998310e+03	1.998310e+03
B_r	0.000000e+00	2.040009e+11	2.040009e+11
C_r	0.000000e+00	2.771808e+06	2.771808e+06
N_r	0.000000e+00	8.375226e-01	8.375226e-01
A_h	4.883485e-06	5.477878e-06	1.036136e-05
B_h	-4.733570e+04	6.710814e+04	1.977244e+04
C_h	-1.114615e-03	1.412943e-03	2.983280e-04
A_o	-5.414338e+07	5.414338e+07	7.441380e-07
B_o	-2.507738e-01	2.126439e+00	1.875665e+00
C_o	3.416837e-01	2.720605e+00	3.062288e+00
N_o	-9.033727e-02	1.250443e+00	1.160106e+00

```
message: Optimization terminated successfully.
success: True
 status: 0
    fun: 0.05253844428619535
      x: [ 6.600e+02  1.635e+04 ...  3.062e+00  1.160e+00]
    nit: 3022
   nfev: 4097
final_simplex: (array([[ 6.600e+02,  1.635e+04, ...,  3.062e+00,
                         1.160e+00],
                       [ 6.600e+02,  1.635e+04, ...,  3.062e+00,
                         1.160e+00],
                       ...,
                       [ 6.600e+02,  1.635e+04, ...,  3.062e+00,
                         1.160e+00],
                       [ 6.600e+02,  1.635e+04, ...,  3.062e+00,
                         1.160e+00]]), array([ 5.254e-02,  5.254e-02, ...,  5.254e-02,  5.254e-02]))
```



Across all four plots:

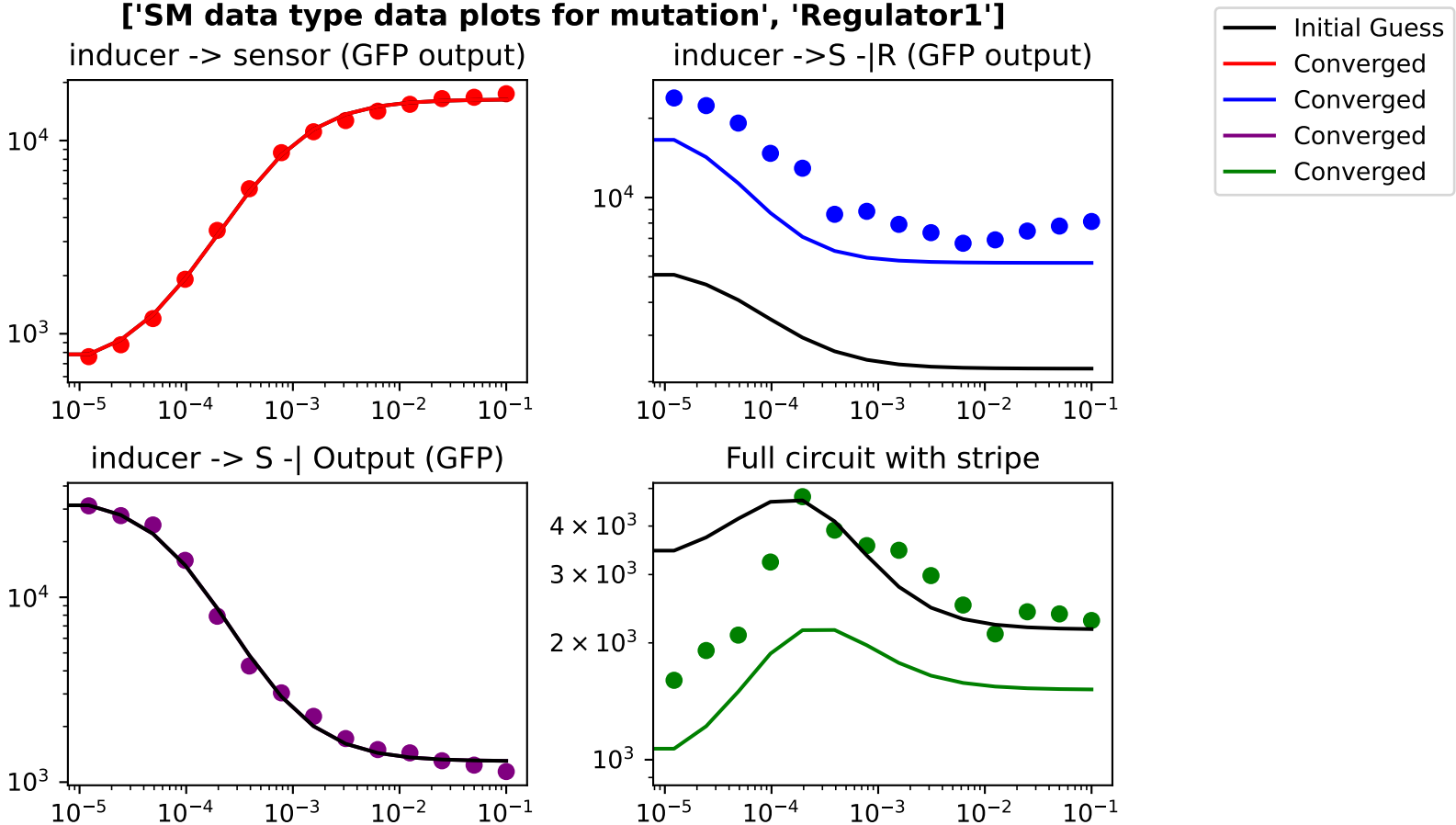
RSS (converged)=0.055

RSS (initial)=0.717

RSS (% reduction)=0.928

	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	0.000000e+00	1.998310e+03	1.998310e+03
B_r	0.000000e+00	2.040009e+11	2.040009e+11
C_r	0.000000e+00	2.771808e+06	2.771808e+06
N_r	0.000000e+00	8.375226e-01	8.375226e-01
A_h	5.156063e-06	5.477878e-06	1.063394e-05
B_h	-3.276503e+04	6.710814e+04	3.434311e+04
C_h	-8.587258e-04	1.412943e-03	5.542168e-04
A_o	-5.414338e+07	5.414338e+07	5.395772e-07
B_o	-3.425112e-02	2.126439e+00	2.092188e+00
C_o	-1.683762e-01	2.720605e+00	2.552228e+00
N_o	1.593974e-02	1.250443e+00	1.266383e+00

```
message: Optimization terminated successfully.
success: True
 status: 0
    fun: 0.05523123842573979
      x: [ 6.600e+02  1.635e+04 ...  2.552e+00  1.266e+00]
    nit: 1847
   nfev: 2629
final_simplex: (array([[ 6.600e+02,  1.635e+04, ...,  2.552e+00,
                         1.266e+00],
                       [ 6.600e+02,  1.635e+04, ...,  2.552e+00,
                         1.266e+00],
                       ...,
                       [ 6.600e+02,  1.635e+04, ...,  2.552e+00,
                         1.266e+00],
                       [ 6.600e+02,  1.635e+04, ...,  2.552e+00,
                         1.266e+00]]), array([ 5.523e-02,  5.523e-02, ...,  5.523e-02,  5.523e-02]))
```



Across all four plots:

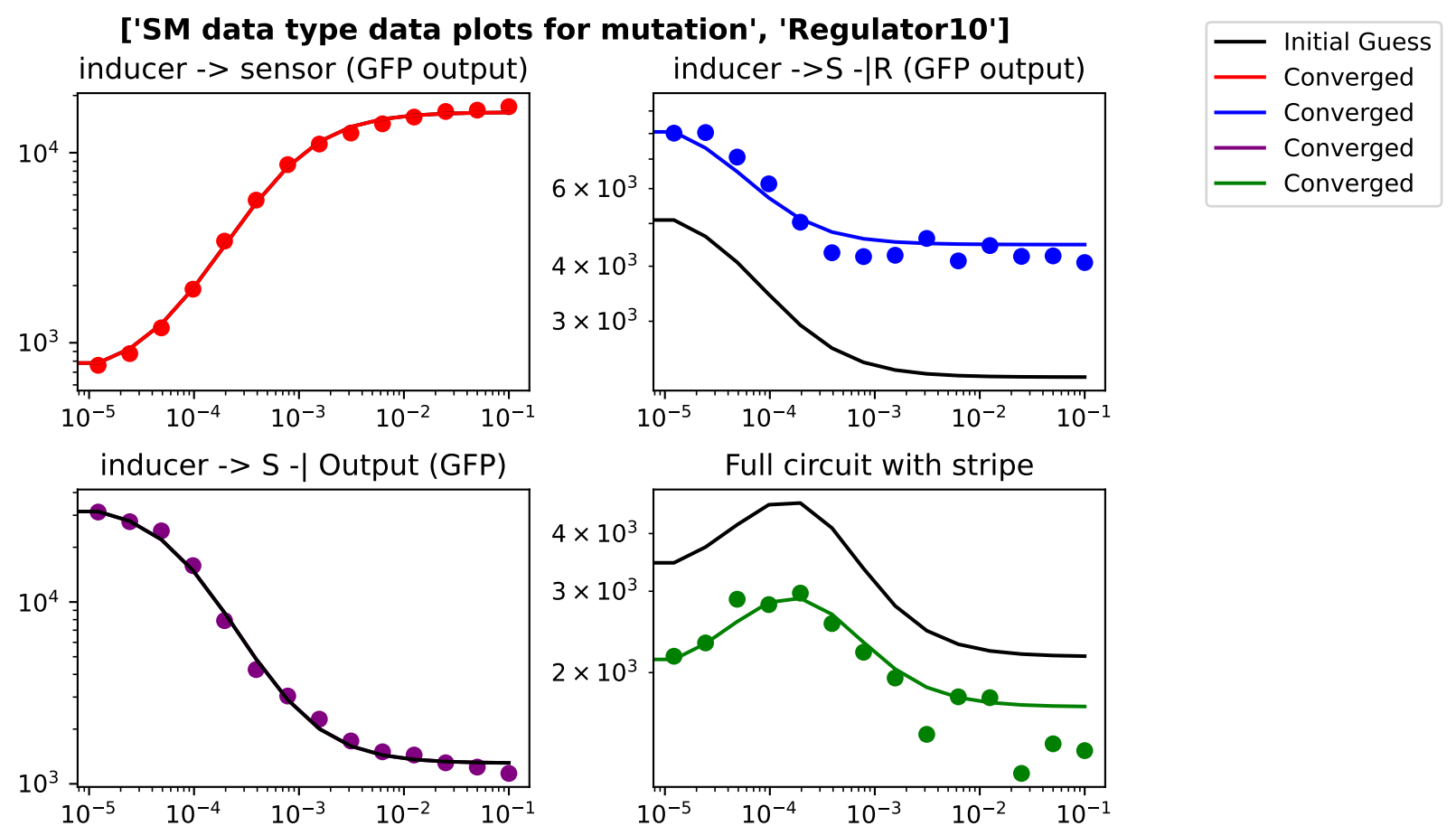
RSS (converged)=1.173

RSS (initial)=5.536

RSS (% reduction)=0.825

	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	3.469093e+03	1.998310e+03	5.467403e+03
B_r	2.092737e+11	2.040009e+11	4.132745e+11
C_r	-2.771307e+06	2.771808e+06	5.008570e+02
N_r	5.161354e-01	8.375226e-01	1.353658e+00
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: 1.1728925134796135
      x: [ 6.600e+02  1.635e+04 ...  2.721e+00  1.250e+00]
    nit: 2535
   nfev: 4055
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([ 1.173e+00,  1.173e+00, ...,  1.173e+00,  1.173e+00]))
```



Across all four plots:

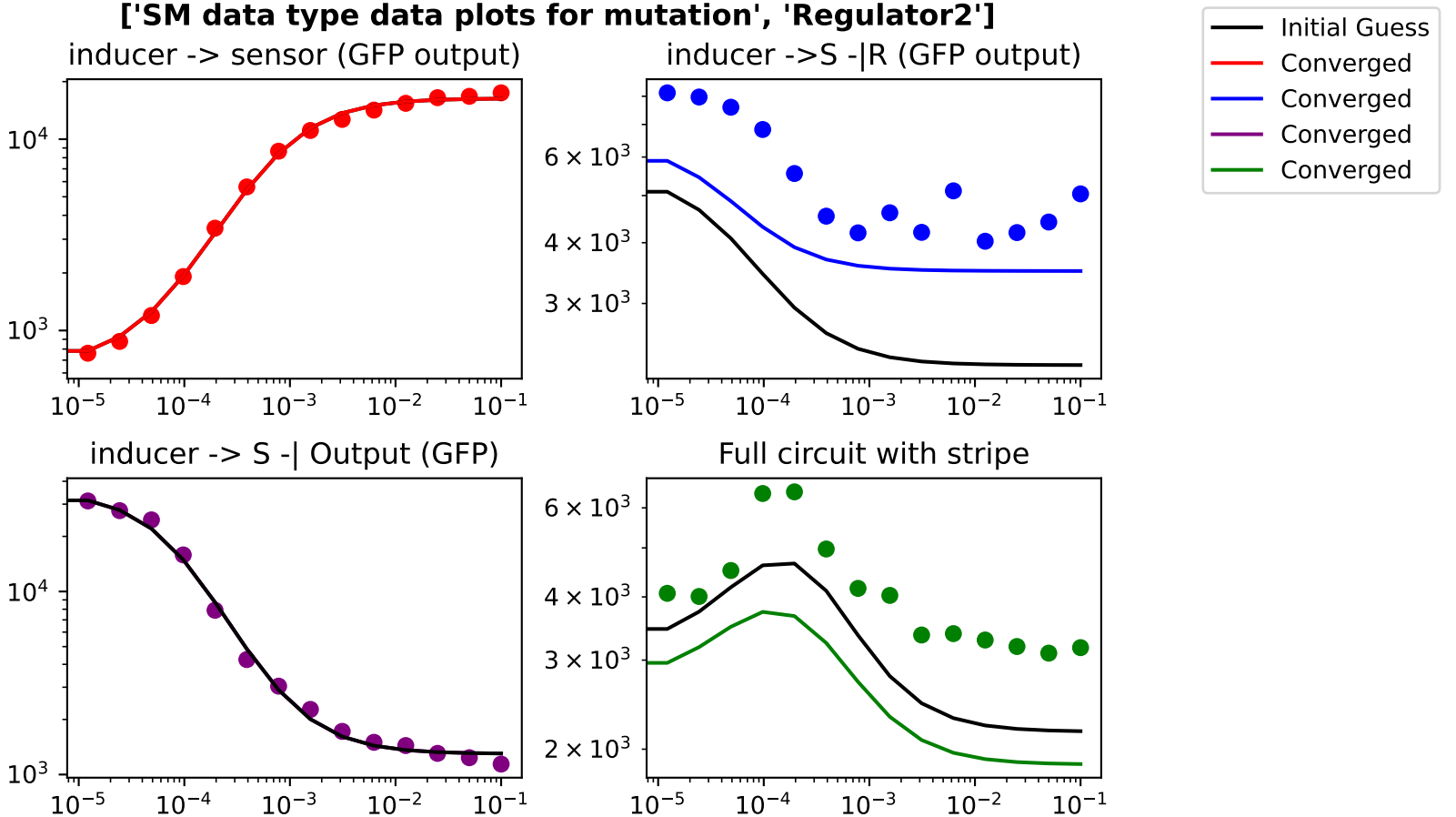
RSS (converged)=0.09

RSS (initial)=1.527

RSS (% reduction)=0.944

	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	2.352515e+03	1.998310e+03	4.350825e+03
B_r	5.969791e+10	2.040009e+11	2.636988e+11
C_r	-2.756820e+06	2.771808e+06	1.498810e+04
N_r	2.730421e-01	8.375226e-01	1.110565e+00
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: 0.09034363604000119
      x: [ 6.600e+02  1.635e+04 ...  2.721e+00  1.250e+00]
    nit: 2503
   nfev: 3922
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([ 9.034e-02,  9.034e-02, ...,  9.034e-02,  9.034e-02]))
```



Across all four plots:

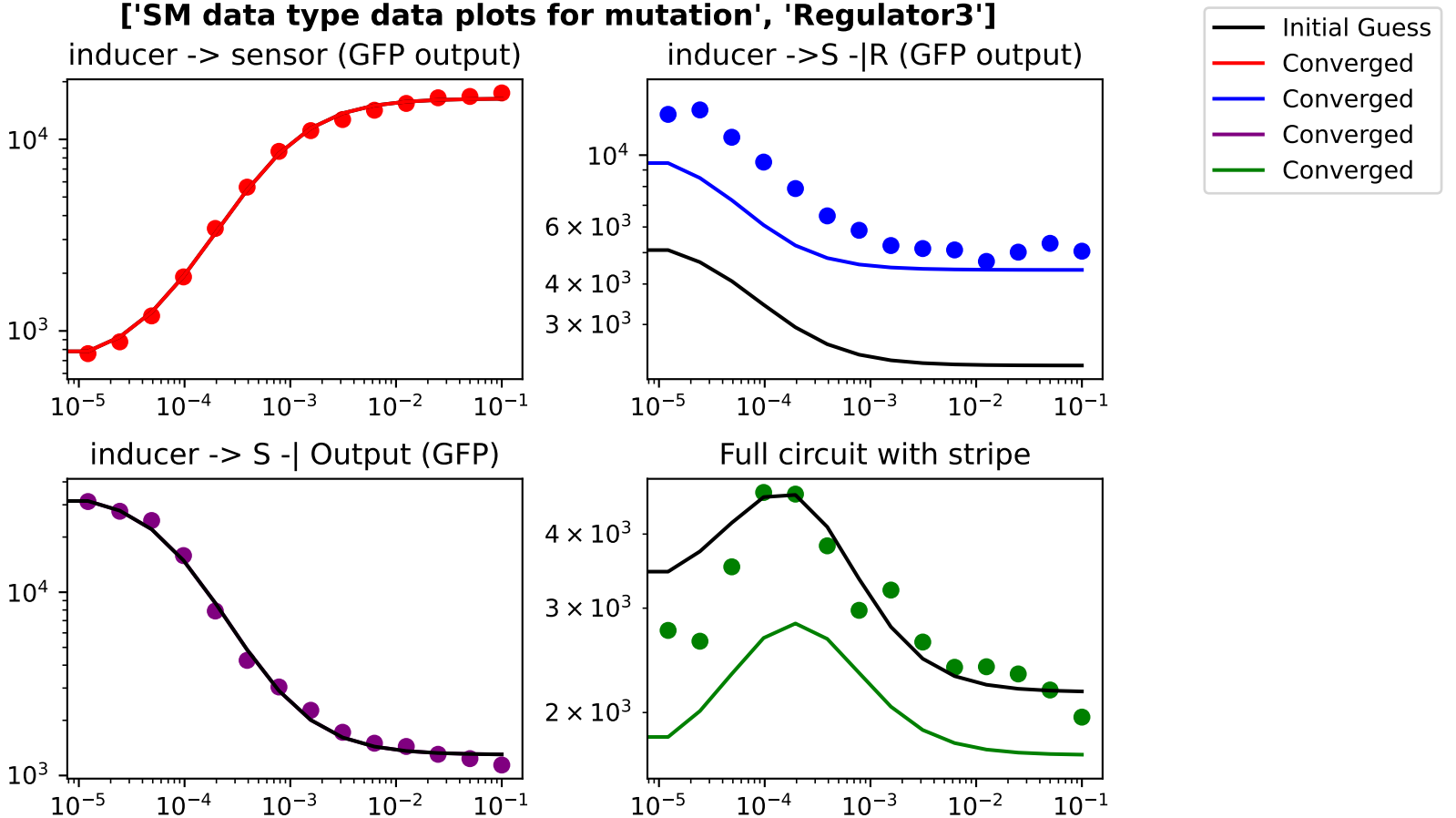
RSS (converged)=0.897

RSS (initial)=1.376

RSS (% reduction)=0.605

	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	1.420581e+03	1.998310e+03	3.418891e+03
B_r	3.791201e+11	2.040009e+11	5.831209e+11
C_r	-2.740125e+06	2.771808e+06	3.168299e+04
N_r	2.947622e-01	8.375226e-01	1.132285e+00
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: Maximum number of iterations has been exceeded.
success: False
 status: 2
    fun: 0.8966611975416376
      x: [ 6.600e+02  1.635e+04 ...  2.721e+00  1.250e+00]
    nit: 100000
   nfev: 1670893
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([ 8.967e-01,  8.967e-01, ...,  8.967e-01,  8.967e-01]))
```



Across all four plots:

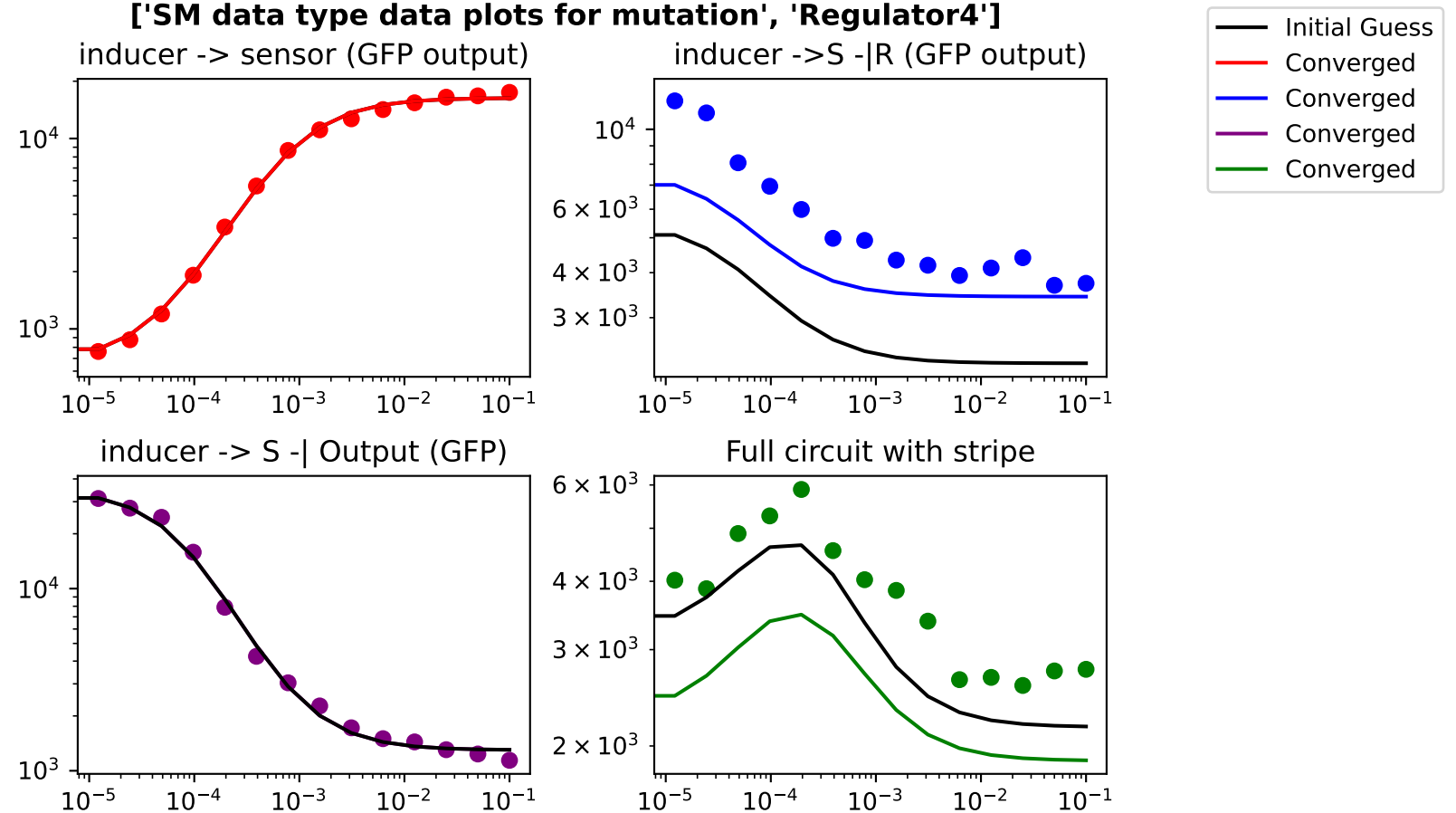
RSS (converged)=0.671

RSS (initial)=2.424

RSS (% reduction)=0.783

	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	2.273766e+03	1.998310e+03	4.272076e+03
B_r	7.690672e+10	2.040009e+11	2.809076e+11
C_r	-2.766350e+06	2.771808e+06	5.457842e+03
N_r	3.289799e-01	8.375226e-01	1.166503e+00
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: 0.67130574949341
      x: [ 6.600e+02  1.635e+04 ...  2.721e+00  1.250e+00]
    nit: 2637
   nfev: 4101
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([ 6.713e-01,  6.713e-01, ...,  6.713e-01,  6.713e-01]))
```



Across all four plots:

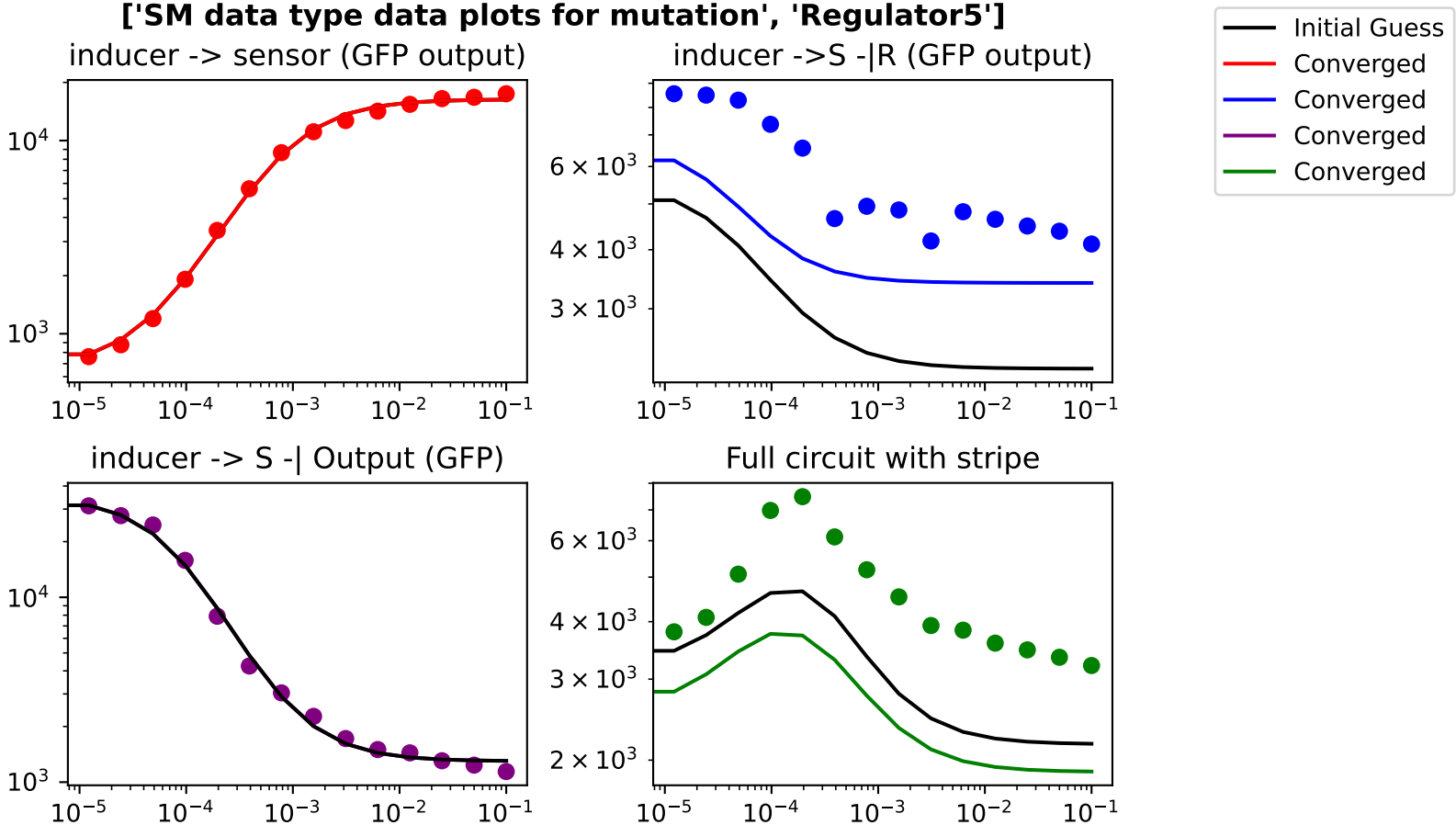
RSS (converged)=0.833

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]))
```



Across all four plots:

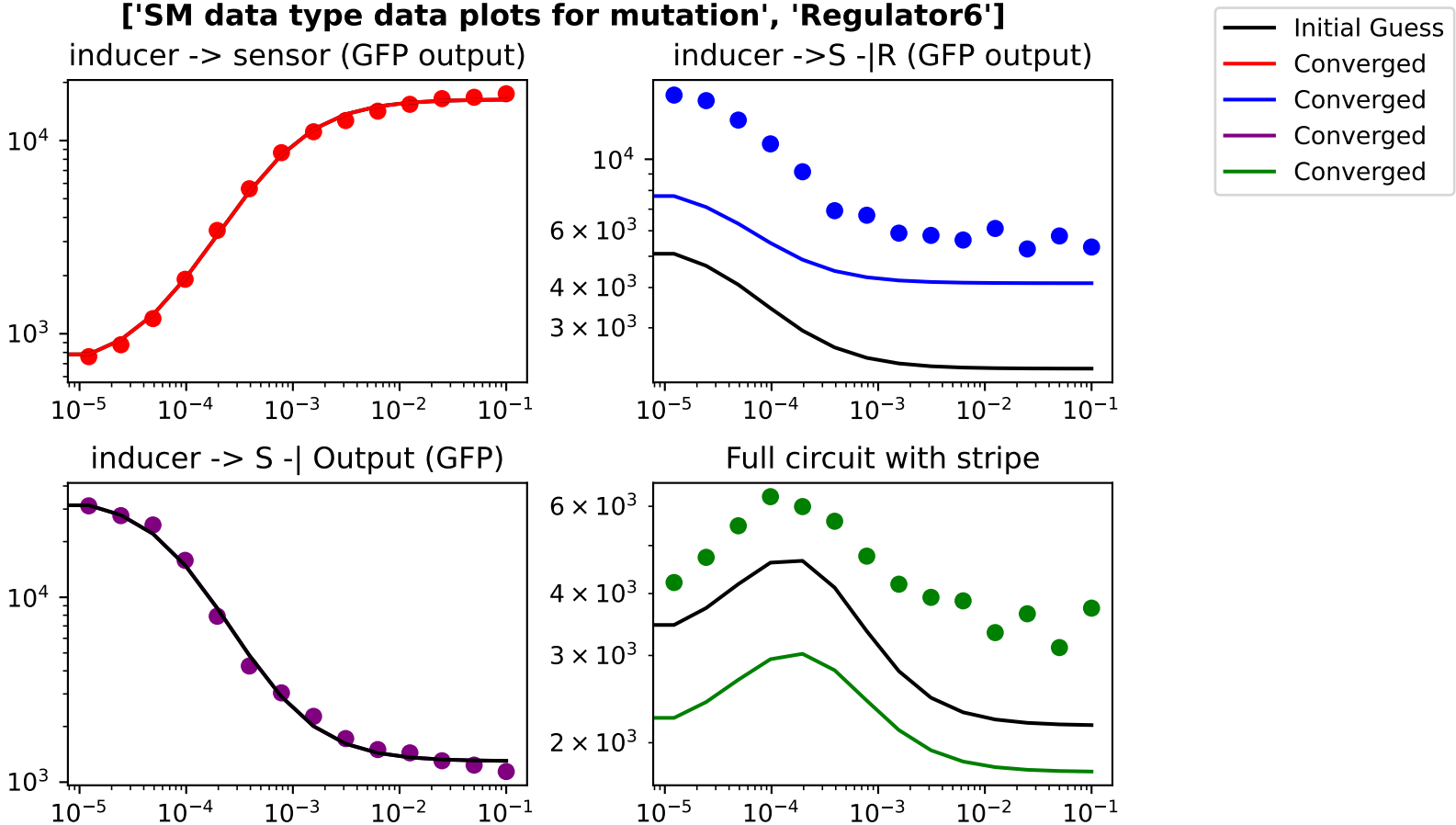
RSS (converged)=1.259

RSS (initial)=1.711

RSS (% reduction)=0.576

	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	1.334855e+03	1.998310e+03	3.333166e+03
B_r	-1.571553e+10	2.040009e+11	1.882853e+11
C_r	-2.768685e+06	2.771808e+06	3.122760e+03
N_r	3.866977e-01	8.375226e-01	1.224220e+00
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: 1.258685361943542
      x: [ 6.600e+02  1.635e+04 ...  2.721e+00  1.250e+00]
    nit: 2798
   nfev: 4359
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([ 1.259e+00,  1.259e+00, ...,  1.259e+00,  1.259e+00]))
```



Across all four plots:

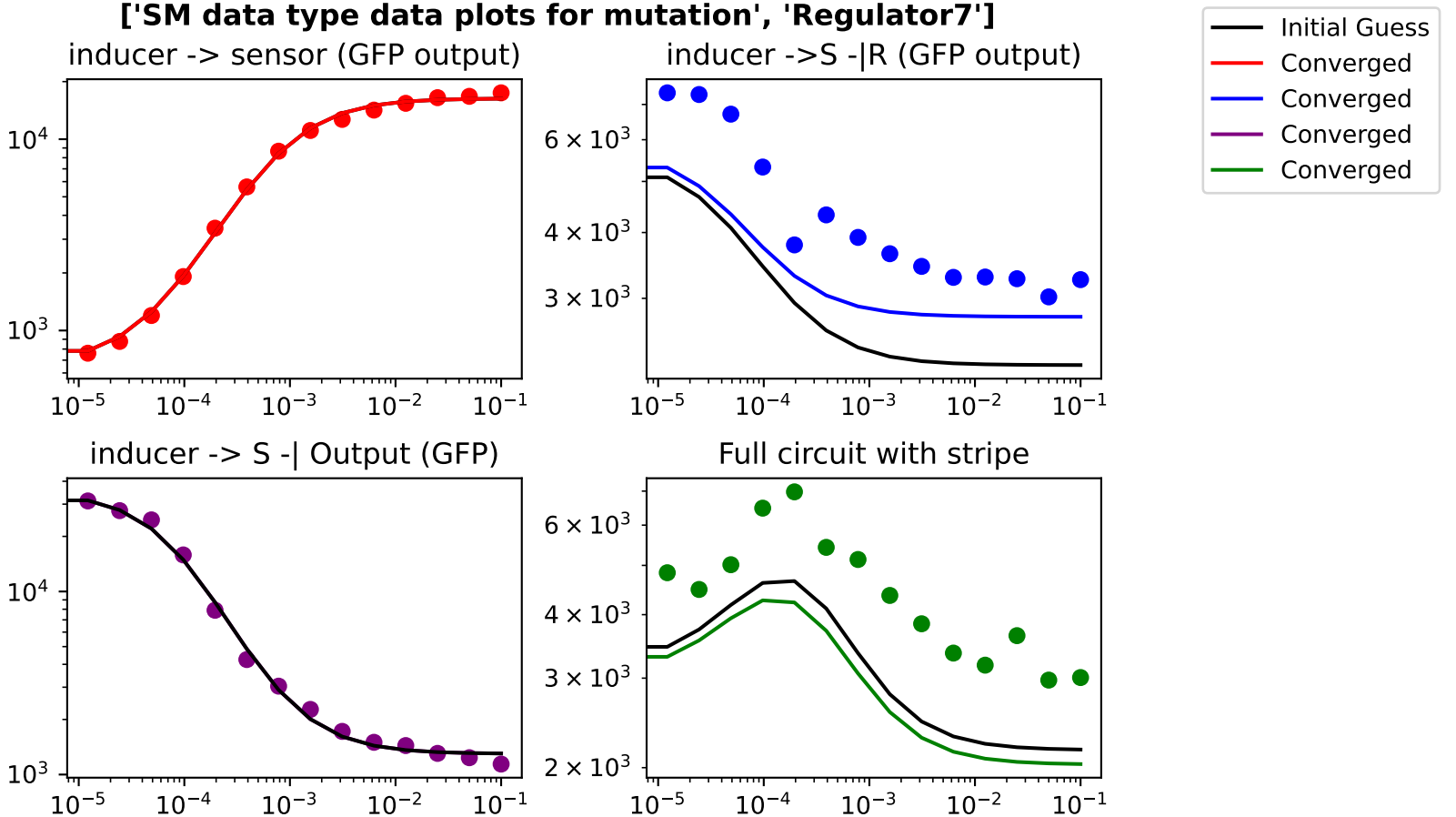
RSS (converged)=2.148

RSS (initial)=3.4

RSS (% reduction)=0.613

	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	1.927240e+03	1.998310e+03	3.925550e+03
B_r	1.905272e+11	2.040009e+11	3.945281e+11
C_r	-2.518377e+06	2.771808e+06	2.534310e+05
N_r	1.291415e-01	8.375226e-01	9.666640e-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: 2.147649872437454
      x: [ 6.600e+02  1.635e+04 ...  2.721e+00  1.250e+00]
    nit: 1703
   nfev: 2920
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([ 2.148e+00,  2.148e+00, ...,  2.148e+00,  2.148e+00]))
```



Across all four plots:

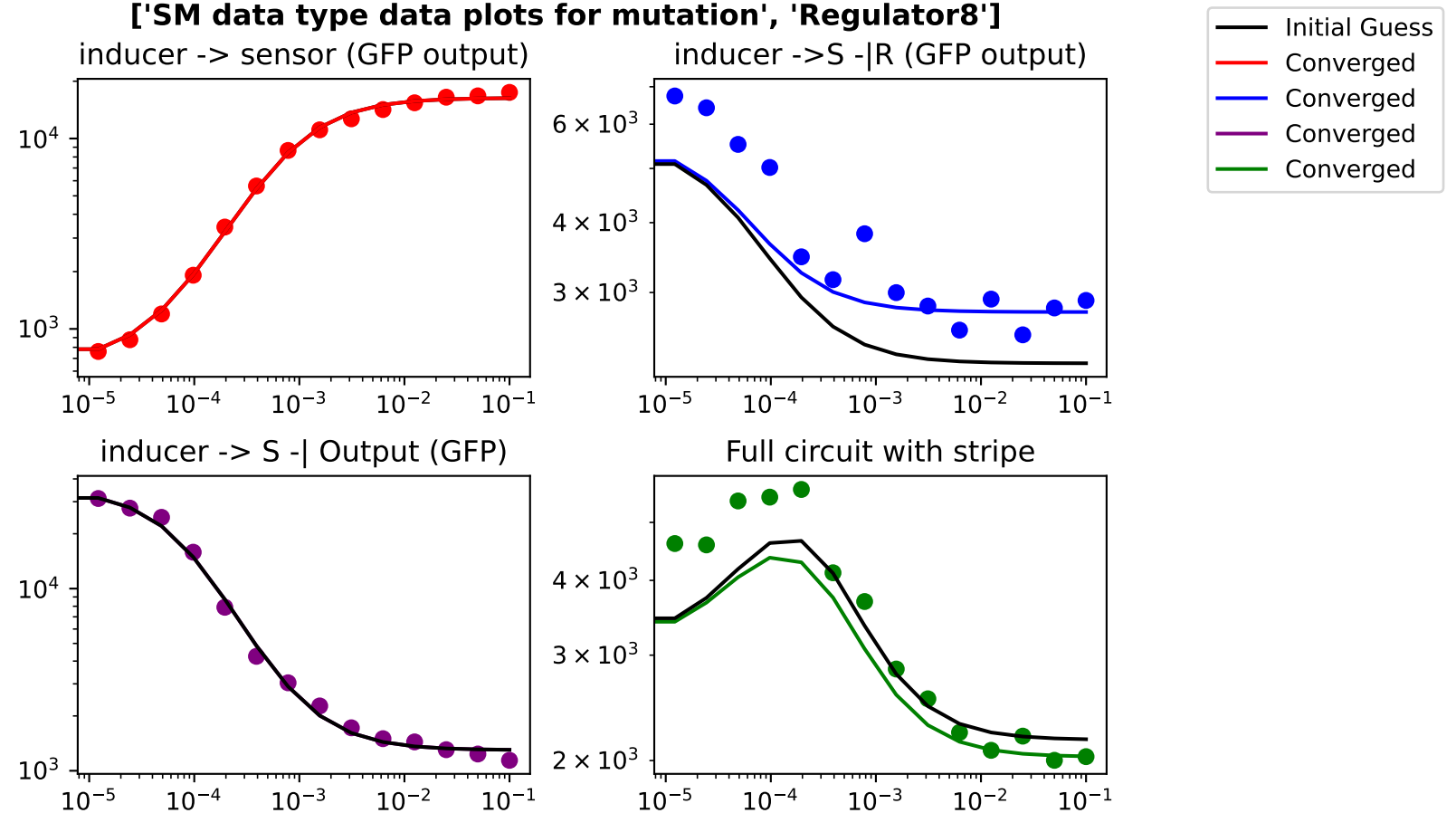
RSS (converged)=0.748

RSS (initial)=0.842

RSS (% reduction)=0.53

	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	6.250056e+02	1.998310e+03	2.623316e+03
B_r	6.691171e+11	2.040009e+11	8.731179e+11
C_r	-1.890938e+06	2.771808e+06	8.808698e+05
N_r	1.254717e-01	8.375226e-01	9.629943e-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: 0.747527988934567
      x: [ 6.600e+02  1.635e+04 ...  2.721e+00  1.250e+00]
    nit: 1013
   nfev: 2041
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([ 7.475e-01,  7.475e-01, ...,  7.475e-01,  7.475e-01]))
```



Across all four plots:

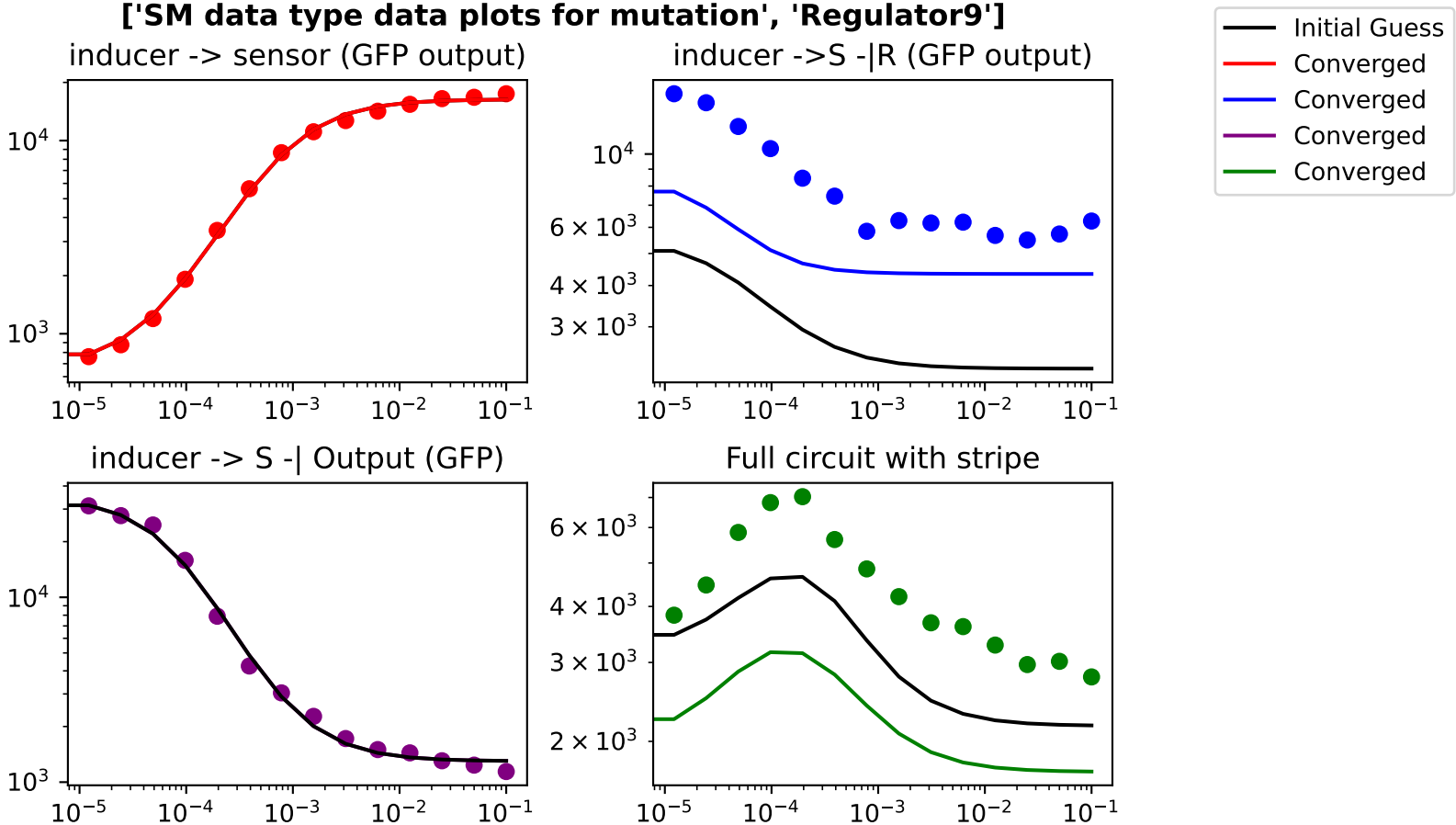
RSS (converged)=0.202

RSS (initial)=0.284

RSS (% reduction)=0.584

	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	6.506761e+02	1.998310e+03	2.648986e+03
B_r	2.834330e+11	2.040009e+11	4.874338e+11
C_r	-2.536475e+06	2.771808e+06	2.353324e+05
N_r	1.653481e-01	8.375226e-01	1.002871e+00
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: 0.2024524421214259
      x: [ 6.600e+02  1.635e+04 ...  2.721e+00  1.250e+00]
    nit: 1717
   nfev: 2946
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([ 2.025e-01,  2.025e-01, ...,  2.025e-01,  2.025e-01]))
```



Across all four plots:

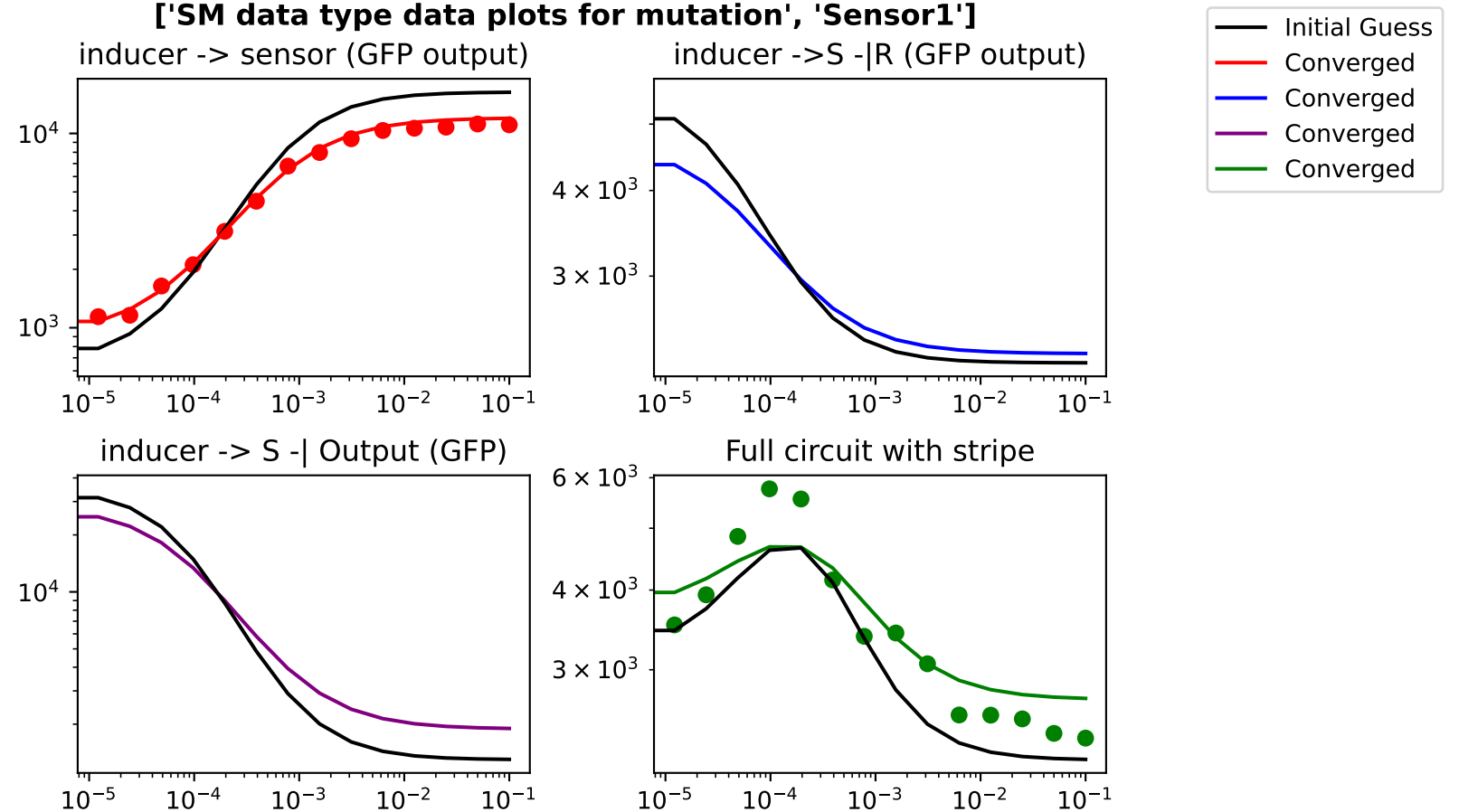
RSS (converged)=1.951

RSS (initial)=3.253

RSS (% reduction)=0.625

	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	2.309387e+03	1.998310e+03	4.307697e+03
B_r	4.988193e+11	2.040009e+11	7.028201e+11
C_r	-2.771583e+06	2.771808e+06	2.246829e+02
N_r	7.481116e-01	8.375226e-01	1.585634e+00
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: 1.9510759911241236
      x: [ 6.600e+02  1.635e+04 ...  2.721e+00  1.250e+00]
    nit: 2835
   nfev: 4457
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([ 1.951e+00,  1.951e+00, ...,  1.951e+00,  1.951e+00]))
```



Across all four plots:

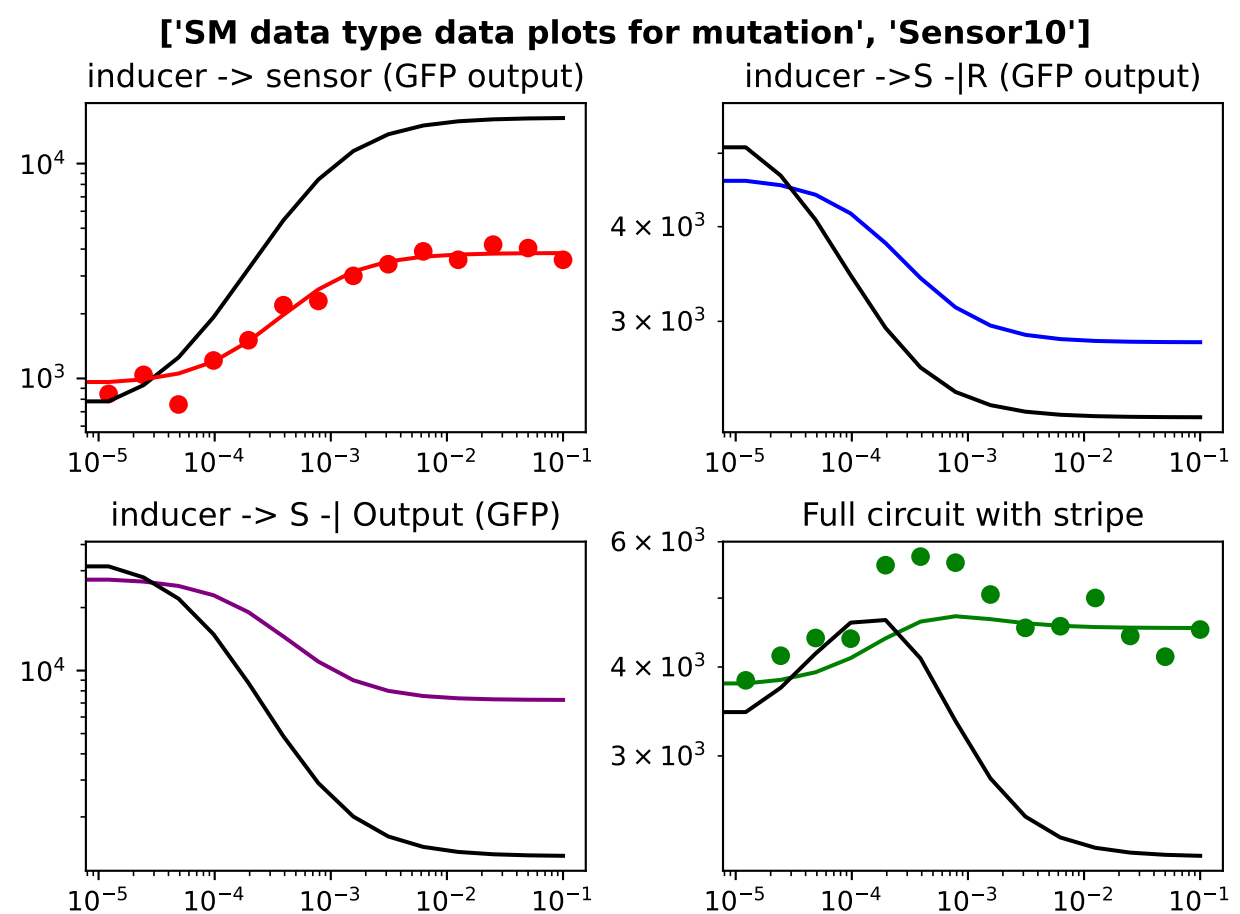
RSS (converged)=0.044

RSS (initial)=0.333

RSS (% reduction)=0.884

	epsilon	Initial_guesses	Converged
A_s	249.164864	6.599635e+02	9.091283e+02
B_s	-4295.359778	1.634714e+04	1.205178e+04
C_s	38.983898	1.259256e+03	1.298240e+03
N_s	-0.153206	1.160440e+00	1.007233e+00
A_r	0.000000	1.998310e+03	1.998310e+03
B_r	0.000000	2.040009e+11	2.040009e+11
C_r	0.000000	2.771808e+06	2.771808e+06
N_r	0.000000	8.375226e-01	8.375226e-01
A_h	0.000000	5.477878e-06	5.477878e-06
B_h	0.000000	6.710814e+04	6.710814e+04
C_h	0.000000	1.412943e-03	1.412943e-03
A_o	0.000000	5.414338e+07	5.414338e+07
B_o	0.000000	2.126439e+00	2.126439e+00
C_o	0.000000	2.720605e+00	2.720605e+00
N_o	0.000000	1.250443e+00	1.250443e+00


```
message: Optimization terminated successfully.
success: True
 status: 0
    fun: 0.043582206337717665
      x: [ 9.091e+02  1.205e+04 ...  2.721e+00  1.250e+00]
    nit: 597
   nfev: 1000
final_simplex: (array([[ 9.091e+02,  1.205e+04, ...,  2.721e+00,
                         1.250e+00],
                       [ 9.091e+02,  1.205e+04, ...,  2.721e+00,
                         1.250e+00],
                       ...,
                       [ 9.091e+02,  1.205e+04, ...,  2.721e+00,
                         1.250e+00],
                       [ 9.091e+02,  1.205e+04, ...,  2.721e+00,
                         1.250e+00]]), array([ 4.358e-02,  4.358e-02, ...,  4.358e-02,  4.358e-02]))
```



Across all four plots:

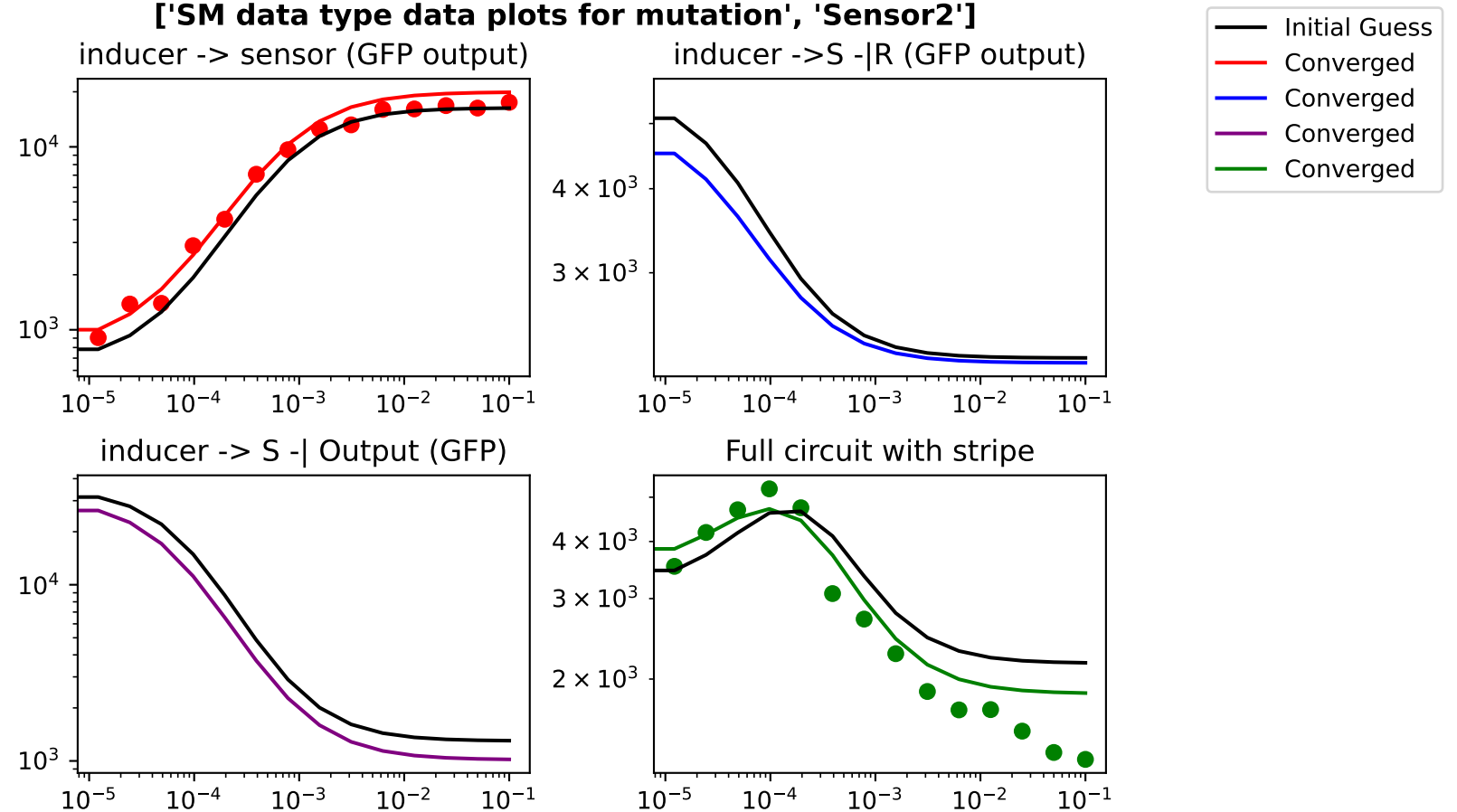
RSS (converged)=0.077

RSS (initial)=4.047

RSS (% reduction)=0.981

	epsilon	Initial_guesses	Converged
A_s	282.625842	6.599635e+02	9.425893e+02
B_s	-12510.294117	1.634714e+04	3.836845e+03
C_s	349.049857	1.259256e+03	1.608306e+03
N_s	0.102865	1.160440e+00	1.263305e+00
A_r	0.000000	1.998310e+03	1.998310e+03
B_r	0.000000	2.040009e+11	2.040009e+11
C_r	0.000000	2.771808e+06	2.771808e+06
N_r	0.000000	8.375226e-01	8.375226e-01
A_h	0.000000	5.477878e-06	5.477878e-06
B_h	0.000000	6.710814e+04	6.710814e+04
C_h	0.000000	1.412943e-03	1.412943e-03
A_o	0.000000	5.414338e+07	5.414338e+07
B_o	0.000000	2.126439e+00	2.126439e+00
C_o	0.000000	2.720605e+00	2.720605e+00
N_o	0.000000	1.250443e+00	1.250443e+00


```
message: Optimization terminated successfully.
success: True
 status: 0
    fun: 0.07687123533750058
      x: [ 9.426e+02  3.837e+03 ...  2.721e+00  1.250e+00]
    nit: 749
   nfev: 1198
final_simplex: (array([[ 9.426e+02,  3.837e+03, ...,  2.721e+00,
                         1.250e+00],
                       [ 9.426e+02,  3.837e+03, ...,  2.721e+00,
                         1.250e+00],
                       ...,
                       [ 9.426e+02,  3.837e+03, ...,  2.721e+00,
                         1.250e+00],
                       [ 9.426e+02,  3.837e+03, ...,  2.721e+00,
                         1.250e+00]]), array([ 7.687e-02,  7.687e-02, ...,  7.687e-02,  7.687e-02]))
```



Across all four plots:

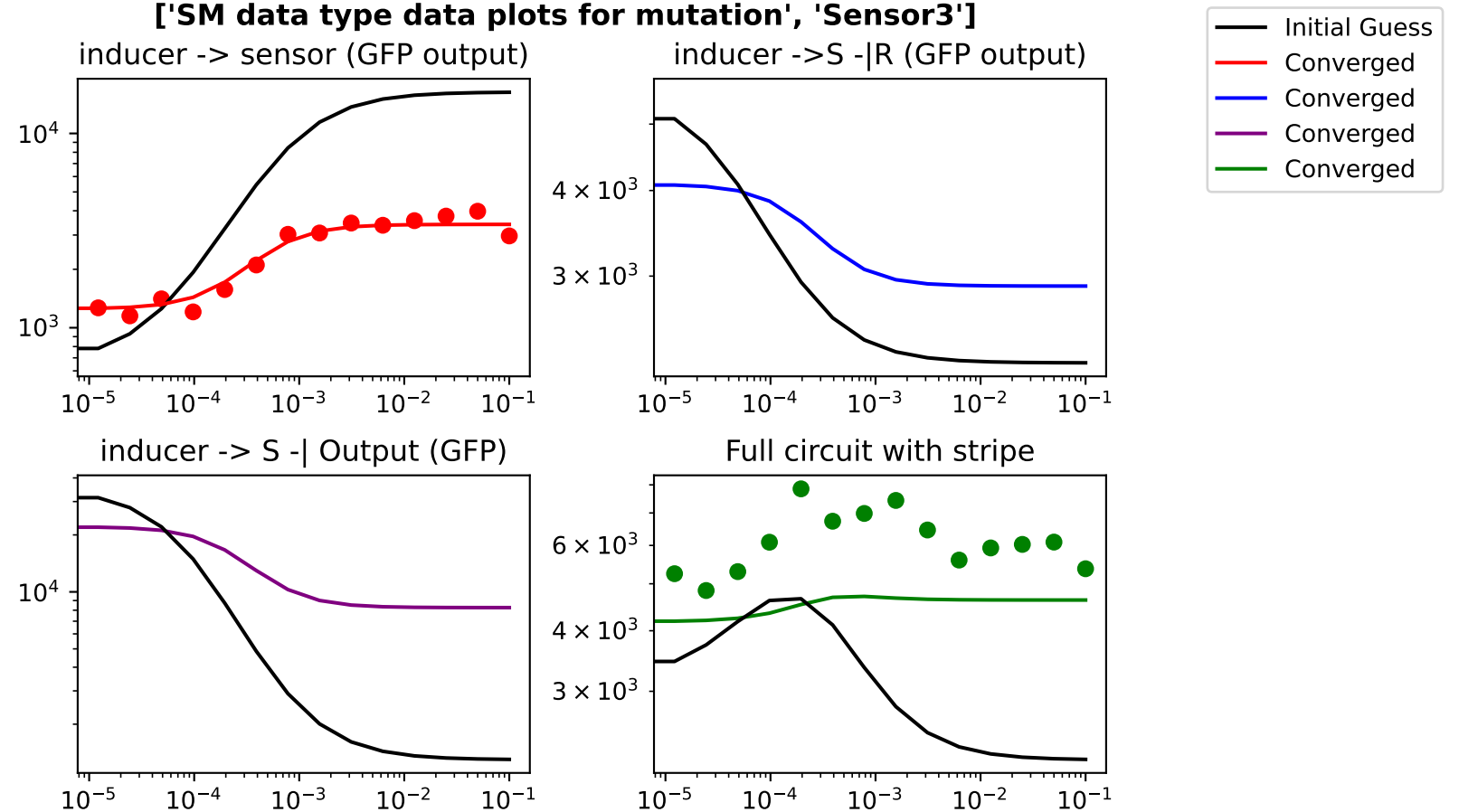
RSS (converged)=0.122

RSS (initial)=0.304

RSS (% reduction)=0.713

	epsilon	Initial_guesses	Converged
A_s	145.725257	6.599635e+02	8.056887e+02
B_s	3627.627518	1.634714e+04	1.997477e+04
C_s	4.534196	1.259256e+03	1.263790e+03
N_s	-0.063909	1.160440e+00	1.096530e+00
A_r	0.000000	1.998310e+03	1.998310e+03
B_r	0.000000	2.040009e+11	2.040009e+11
C_r	0.000000	2.771808e+06	2.771808e+06
N_r	0.000000	8.375226e-01	8.375226e-01
A_h	0.000000	5.477878e-06	5.477878e-06
B_h	0.000000	6.710814e+04	6.710814e+04
C_h	0.000000	1.412943e-03	1.412943e-03
A_o	0.000000	5.414338e+07	5.414338e+07
B_o	0.000000	2.126439e+00	2.126439e+00
C_o	0.000000	2.720605e+00	2.720605e+00
N_o	0.000000	1.250443e+00	1.250443e+00

```
      message: Optimization terminated successfully.
      success: True
       status: 0
          fun: 0.12196830000315256
            x: [ 8.057e+02  1.997e+04 ...  2.721e+00  1.250e+00]
          nit: 540
         nfev: 944
final_simplex: (array([[ 8.057e+02,  1.997e+04, ...,  2.721e+00,
                         1.250e+00],
                       [ 8.057e+02,  1.997e+04, ...,  2.721e+00,
                         1.250e+00],
                       ...,
                       [ 8.057e+02,  1.997e+04, ...,  2.721e+00,
                         1.250e+00],
                       [ 8.057e+02,  1.997e+04, ...,  2.721e+00,
                         1.250e+00]]), array([ 1.220e-01,  1.220e-01, ...,  1.220e-01,  1.220e-01]))
```



Across all four plots:

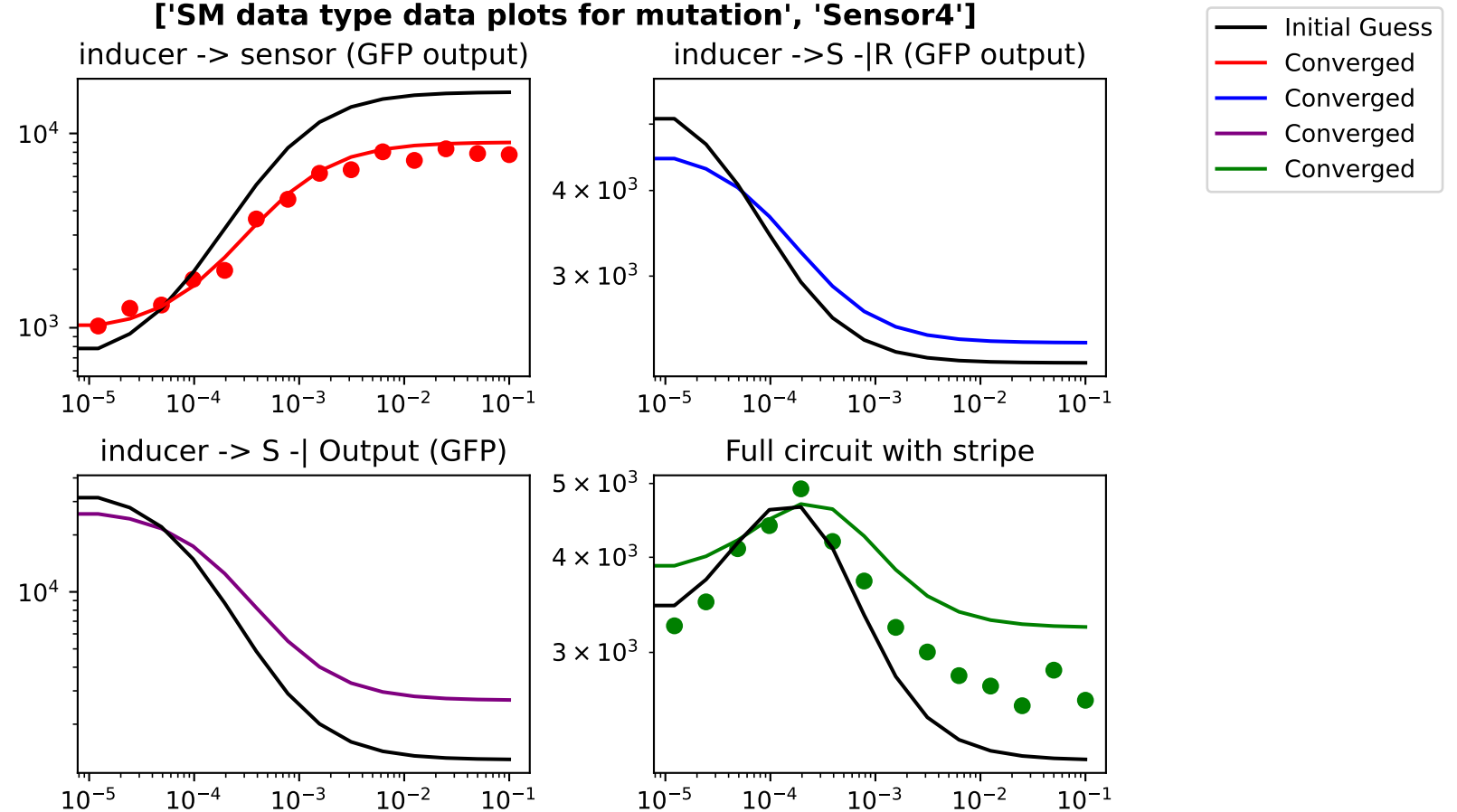
RSS (converged)=0.308

RSS (initial)=5.001

RSS (% reduction)=0.942

	epsilon	Initial_guesses	Converged
A_s	592.013241	6.599635e+02	1.251977e+03
B_s	-12943.466542	1.634714e+04	3.403673e+03
C_s	995.055804	1.259256e+03	2.254312e+03
N_s	0.413037	1.160440e+00	1.573476e+00
A_r	0.000000	1.998310e+03	1.998310e+03
B_r	0.000000	2.040009e+11	2.040009e+11
C_r	0.000000	2.771808e+06	2.771808e+06
N_r	0.000000	8.375226e-01	8.375226e-01
A_h	0.000000	5.477878e-06	5.477878e-06
B_h	0.000000	6.710814e+04	6.710814e+04
C_h	0.000000	1.412943e-03	1.412943e-03
A_o	0.000000	5.414338e+07	5.414338e+07
B_o	0.000000	2.126439e+00	2.126439e+00
C_o	0.000000	2.720605e+00	2.720605e+00
N_o	0.000000	1.250443e+00	1.250443e+00

```
message: Optimization terminated successfully.
success: True
 status: 0
    fun: 0.3079602657800569
      x: [ 1.252e+03  3.404e+03 ...  2.721e+00  1.250e+00]
    nit: 819
   nfev: 1302
final_simplex: (array([[ 1.252e+03,  3.404e+03, ...,  2.721e+00,
                         1.250e+00],
                       [ 1.252e+03,  3.404e+03, ...,  2.721e+00,
                         1.250e+00],
                       ...,
                       [ 1.252e+03,  3.404e+03, ...,  2.721e+00,
                         1.250e+00],
                       [ 1.252e+03,  3.404e+03, ...,  2.721e+00,
                         1.250e+00]]), array([ 3.080e-01,  3.080e-01, ...,  3.080e-01,  3.080e-01]))
```



Across all four plots:

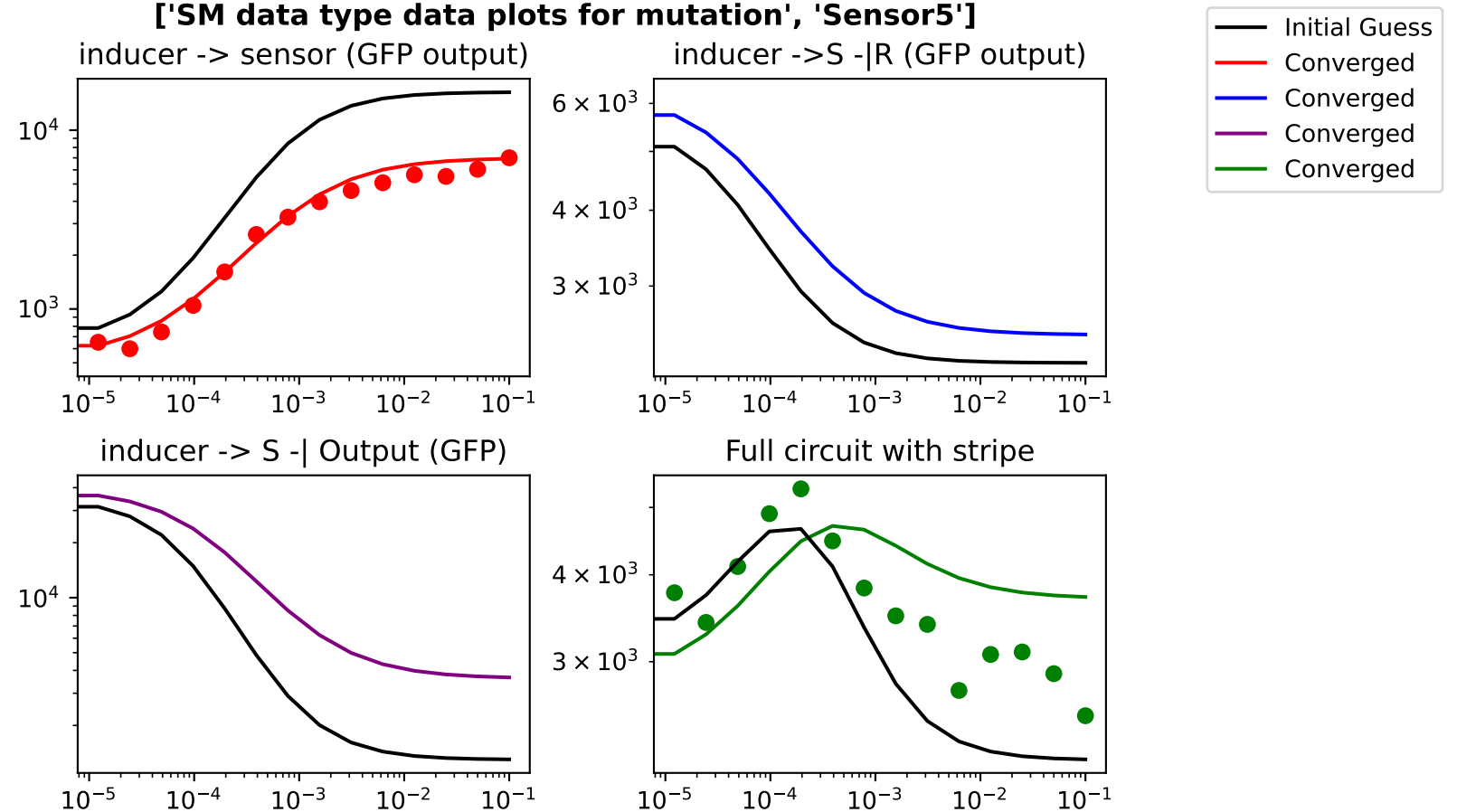
RSS (converged)=0.105

RSS (initial)=0.918

RSS (% reduction)=0.898

	epsilon	Initial_guesses	Converged
A_s	300.961001	6.599635e+02	9.609245e+02
B_s	-7328.429318	1.634714e+04	9.018710e+03
C_s	-32.688309	1.259256e+03	1.226568e+03
N_s	-0.032794	1.160440e+00	1.127646e+00
A_r	0.000000	1.998310e+03	1.998310e+03
B_r	0.000000	2.040009e+11	2.040009e+11
C_r	0.000000	2.771808e+06	2.771808e+06
N_r	0.000000	8.375226e-01	8.375226e-01
A_h	0.000000	5.477878e-06	5.477878e-06
B_h	0.000000	6.710814e+04	6.710814e+04
C_h	0.000000	1.412943e-03	1.412943e-03
A_o	0.000000	5.414338e+07	5.414338e+07
B_o	0.000000	2.126439e+00	2.126439e+00
C_o	0.000000	2.720605e+00	2.720605e+00
N_o	0.000000	1.250443e+00	1.250443e+00


```
message: Optimization terminated successfully.
success: True
 status: 0
    fun: 0.1048587857539783
      x: [ 9.609e+02  9.019e+03 ...  2.721e+00  1.250e+00]
    nit: 667
   nfev: 1098
final_simplex: (array([[ 9.609e+02,  9.019e+03, ...,  2.721e+00,
                         1.250e+00],
                       [ 9.609e+02,  9.019e+03, ...,  2.721e+00,
                         1.250e+00],
                       ...,
                       [ 9.609e+02,  9.019e+03, ...,  2.721e+00,
                         1.250e+00],
                       [ 9.609e+02,  9.019e+03, ...,  2.721e+00,
                         1.250e+00]]), array([ 1.049e-01,  1.049e-01, ...,  1.049e-01,  1.049e-01]))
```



Across all four plots:

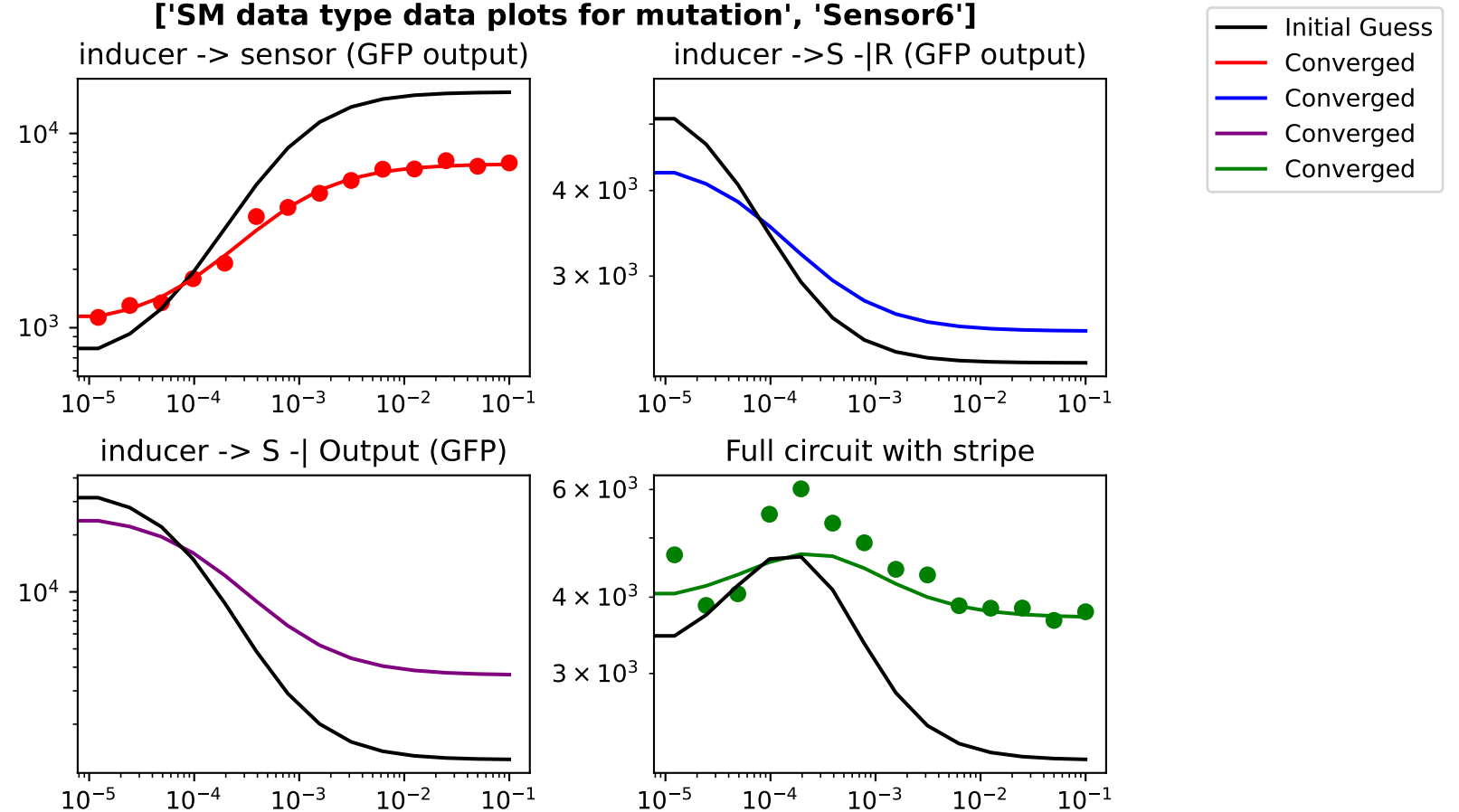
RSS (converged)=0.175

RSS (initial)=2.039

RSS (% reduction)=0.921

	epsilon	Initial_guesses	Converged
A_s	-126.262216	6.599635e+02	5.337012e+02
B_s	-9338.830437	1.634714e+04	7.008309e+03
C_s	-310.209066	1.259256e+03	9.490468e+02
N_s	-0.202880	1.160440e+00	9.575593e-01
A_r	0.000000	1.998310e+03	1.998310e+03
B_r	0.000000	2.040009e+11	2.040009e+11
C_r	0.000000	2.771808e+06	2.771808e+06
N_r	0.000000	8.375226e-01	8.375226e-01
A_h	0.000000	5.477878e-06	5.477878e-06
B_h	0.000000	6.710814e+04	6.710814e+04
C_h	0.000000	1.412943e-03	1.412943e-03
A_o	0.000000	5.414338e+07	5.414338e+07
B_o	0.000000	2.126439e+00	2.126439e+00
C_o	0.000000	2.720605e+00	2.720605e+00
N_o	0.000000	1.250443e+00	1.250443e+00

```
      message: Optimization terminated successfully.
      success: True
       status: 0
          fun: 0.1749358226989263
            x: [ 5.337e+02  7.008e+03 ...  2.721e+00  1.250e+00]
          nit: 836
         nfev: 1297
final_simplex: (array([[ 5.337e+02,  7.008e+03, ...,  2.721e+00,
                         1.250e+00],
                       [ 5.337e+02,  7.008e+03, ...,  2.721e+00,
                         1.250e+00],
                       ...,
                       [ 5.337e+02,  7.008e+03, ...,  2.721e+00,
                         1.250e+00],
                       [ 5.337e+02,  7.008e+03, ...,  2.721e+00,
                         1.250e+00]]), array([ 1.749e-01,  1.749e-01, ...,  1.749e-01,  1.749e-01]))
```



Across all four plots:

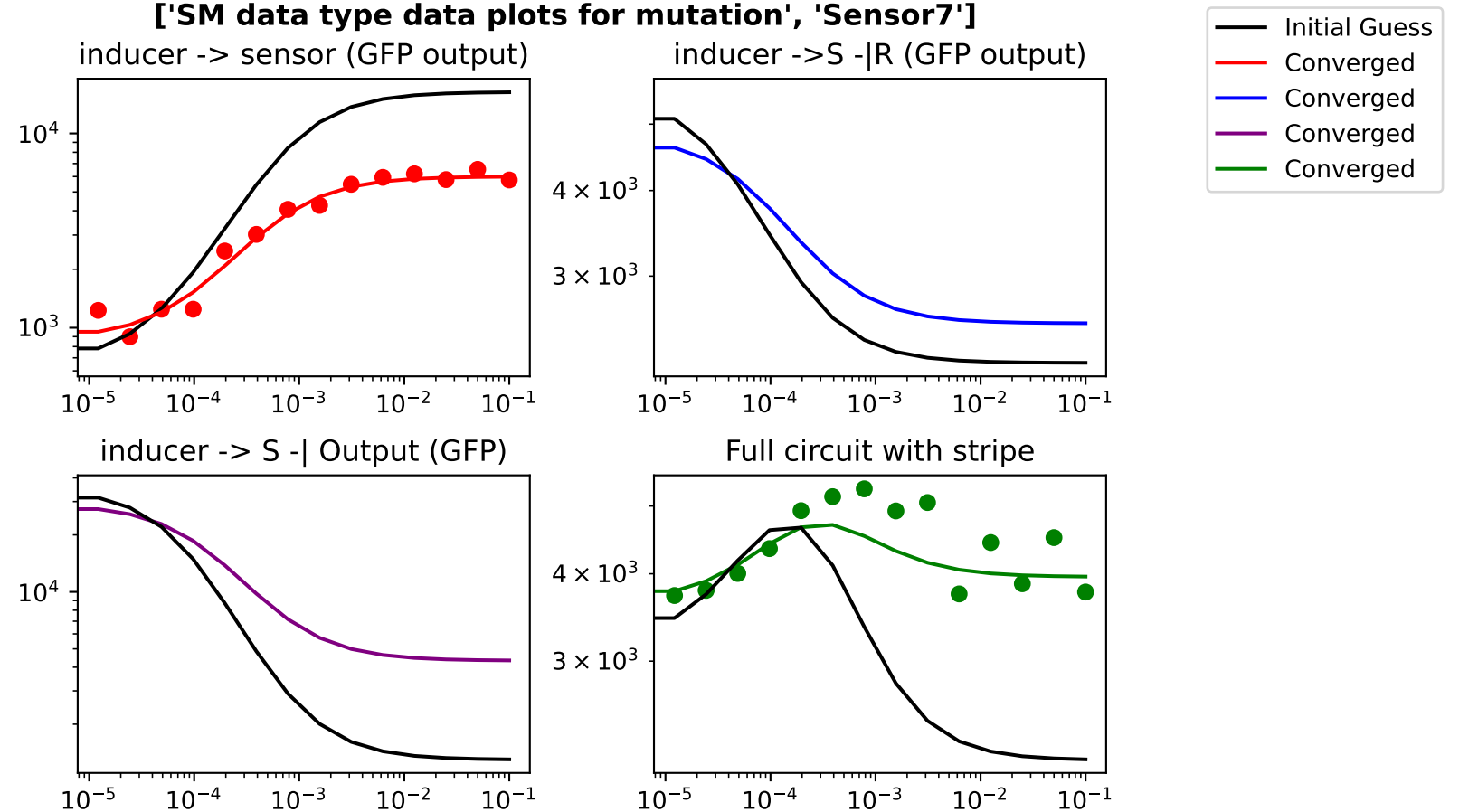
RSS (converged)=0.04

RSS (initial)=1.646

RSS (% reduction)=0.976

	epsilon	Initial_guesses	Converged
A_s	374.780254	6.599635e+02	1.034744e+03
B_s	-9365.469066	1.634714e+04	6.981670e+03
C_s	156.498341	1.259256e+03	1.415754e+03
N_s	-0.182142	1.160440e+00	9.782974e-01
A_r	0.000000	1.998310e+03	1.998310e+03
B_r	0.000000	2.040009e+11	2.040009e+11
C_r	0.000000	2.771808e+06	2.771808e+06
N_r	0.000000	8.375226e-01	8.375226e-01
A_h	0.000000	5.477878e-06	5.477878e-06
B_h	0.000000	6.710814e+04	6.710814e+04
C_h	0.000000	1.412943e-03	1.412943e-03
A_o	0.000000	5.414338e+07	5.414338e+07
B_o	0.000000	2.126439e+00	2.126439e+00
C_o	0.000000	2.720605e+00	2.720605e+00
N_o	0.000000	1.250443e+00	1.250443e+00

```
      message: Optimization terminated successfully.
      success: True
       status: 0
          fun: 0.04003058029379139
            x: [ 1.035e+03  6.982e+03 ...  2.721e+00  1.250e+00]
          nit: 833
         nfev: 1297
final_simplex: (array([[ 1.035e+03,  6.982e+03, ...,  2.721e+00,
                         1.250e+00],
                       [ 1.035e+03,  6.982e+03, ...,  2.721e+00,
                         1.250e+00],
                       ...,
                       [ 1.035e+03,  6.982e+03, ...,  2.721e+00,
                         1.250e+00],
                       [ 1.035e+03,  6.982e+03, ...,  2.721e+00,
                         1.250e+00]]), array([ 4.003e-02,  4.003e-02, ...,  4.003e-02,  4.003e-02]))
```



Across all four plots:

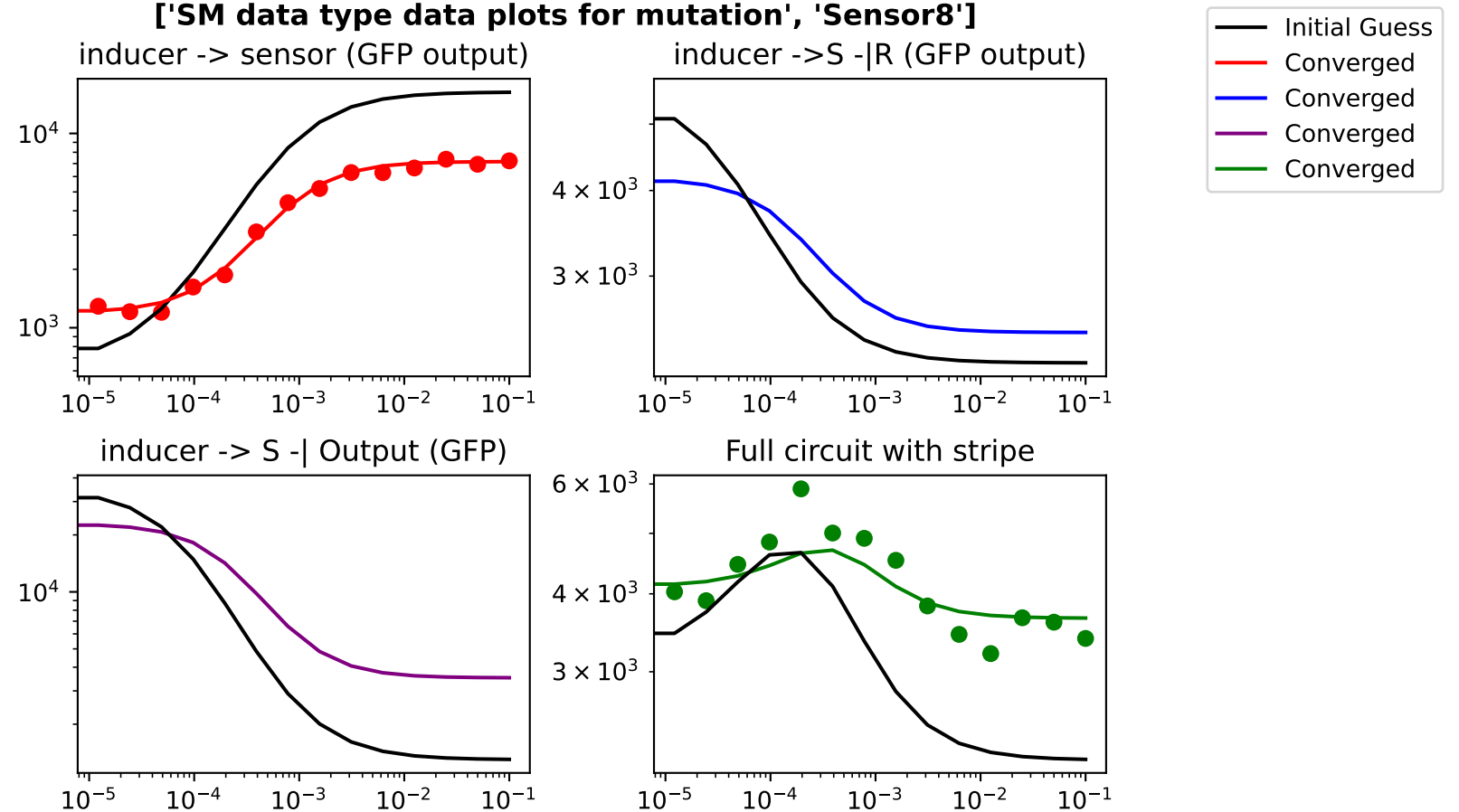
RSS (converged)=0.062

RSS (initial)=2.052

RSS (% reduction)=0.971

	epsilon	Initial_guesses	Converged
A_s	219.328611	6.599635e+02	8.792921e+02
B_s	-10339.484841	1.634714e+04	6.007655e+03
C_s	480.427484	1.259256e+03	1.739683e+03
N_s	-0.063985	1.160440e+00	1.096454e+00
A_r	0.000000	1.998310e+03	1.998310e+03
B_r	0.000000	2.040009e+11	2.040009e+11
C_r	0.000000	2.771808e+06	2.771808e+06
N_r	0.000000	8.375226e-01	8.375226e-01
A_h	0.000000	5.477878e-06	5.477878e-06
B_h	0.000000	6.710814e+04	6.710814e+04
C_h	0.000000	1.412943e-03	1.412943e-03
A_o	0.000000	5.414338e+07	5.414338e+07
B_o	0.000000	2.126439e+00	2.126439e+00
C_o	0.000000	2.720605e+00	2.720605e+00
N_o	0.000000	1.250443e+00	1.250443e+00

```
      message: Optimization terminated successfully.
      success: True
       status: 0
          fun: 0.06179897927884914
            x: [ 8.793e+02  6.008e+03 ...  2.721e+00  1.250e+00]
          nit: 702
         nfev: 1150
final_simplex: (array([[ 8.793e+02,  6.008e+03, ...,  2.721e+00,
                         1.250e+00],
                       [ 8.793e+02,  6.008e+03, ...,  2.721e+00,
                         1.250e+00],
                       ...,
                       [ 8.793e+02,  6.008e+03, ...,  2.721e+00,
                         1.250e+00],
                       [ 8.793e+02,  6.008e+03, ...,  2.721e+00,
                         1.250e+00]]), array([ 6.180e-02,  6.180e-02, ...,  6.180e-02,  6.180e-02]))
```



Across all four plots:

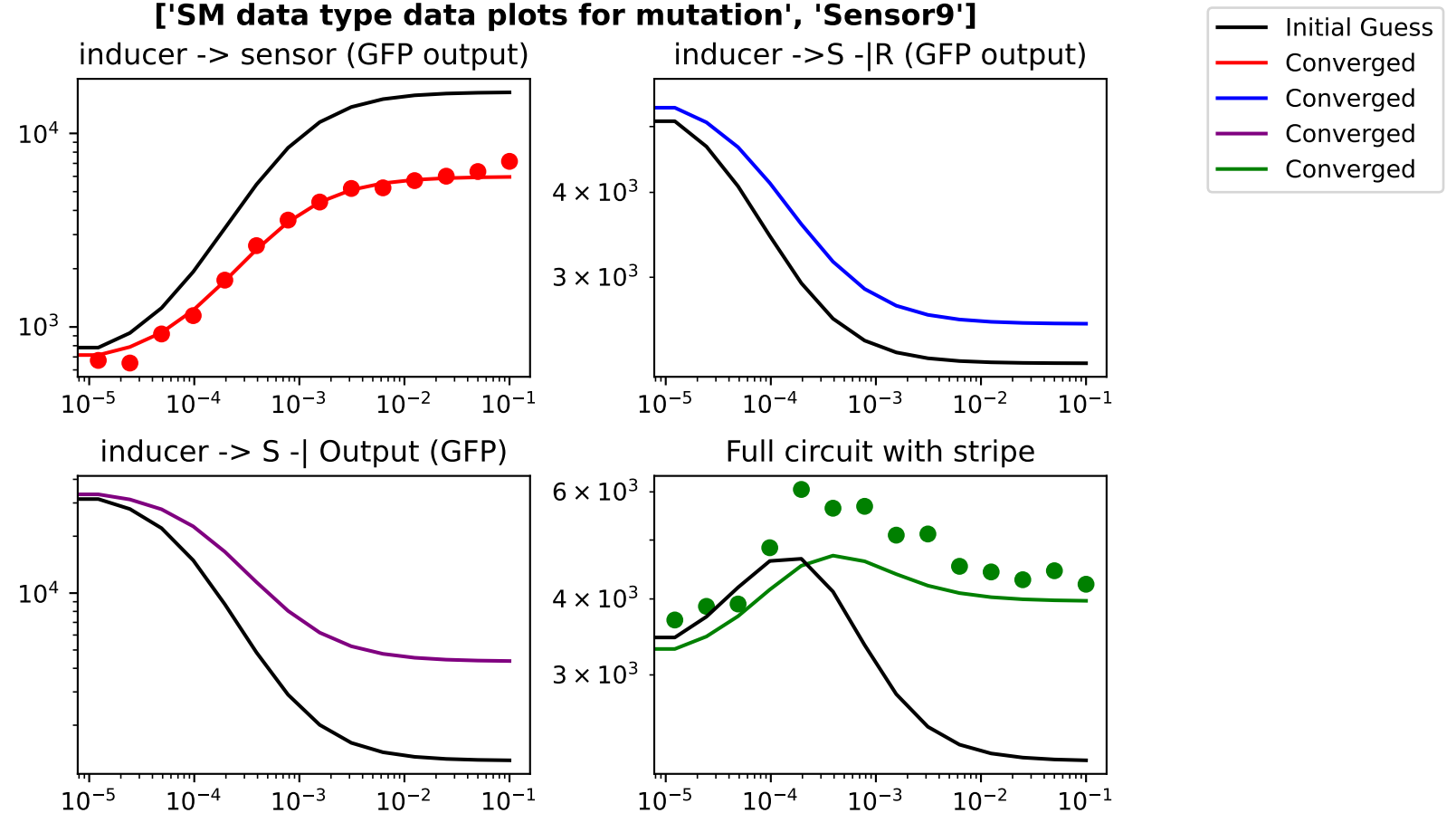
RSS (converged)=0.04

RSS (initial)=1.572

RSS (% reduction)=0.975

	epsilon	Initial_guesses	Converged
A_s	537.513478	6.599635e+02	1.197477e+03
B_s	-9175.590685	1.634714e+04	7.171549e+03
C_s	17.082716	1.259256e+03	1.276339e+03
N_s	0.157601	1.160440e+00	1.318041e+00
A_r	0.000000	1.998310e+03	1.998310e+03
B_r	0.000000	2.040009e+11	2.040009e+11
C_r	0.000000	2.771808e+06	2.771808e+06
N_r	0.000000	8.375226e-01	8.375226e-01
A_h	0.000000	5.477878e-06	5.477878e-06
B_h	0.000000	6.710814e+04	6.710814e+04
C_h	0.000000	1.412943e-03	1.412943e-03
A_o	0.000000	5.414338e+07	5.414338e+07
B_o	0.000000	2.126439e+00	2.126439e+00
C_o	0.000000	2.720605e+00	2.720605e+00
N_o	0.000000	1.250443e+00	1.250443e+00


```
      message: Optimization terminated successfully.
      success: True
       status: 0
          fun: 0.04009579248094687
            x: [ 1.197e+03  7.172e+03 ...  2.721e+00  1.250e+00]
          nit: 695
         nfev: 1095
final_simplex: (array([[ 1.197e+03,  7.172e+03, ...,  2.721e+00,
                         1.250e+00],
                       [ 1.197e+03,  7.172e+03, ...,  2.721e+00,
                         1.250e+00],
                       ...,
                       [ 1.197e+03,  7.172e+03, ...,  2.721e+00,
                         1.250e+00],
                       [ 1.197e+03,  7.172e+03, ...,  2.721e+00,
                         1.250e+00]]), array([ 4.010e-02,  4.010e-02, ...,  4.010e-02,  4.010e-02]))
```



Across all four plots:

RSS (converged)=0.081

RSS (initial)=2.337

RSS (% reduction)=0.966

	epsilon	Initial_guesses	Converged
A_s	-10.674477	6.599635e+02	6.492890e+02
B_s	-10364.635225	1.634714e+04	5.982504e+03
C_s	179.404474	1.259256e+03	1.438660e+03
N_s	-0.079490	1.160440e+00	1.080949e+00
A_r	0.000000	1.998310e+03	1.998310e+03
B_r	0.000000	2.040009e+11	2.040009e+11
C_r	0.000000	2.771808e+06	2.771808e+06
N_r	0.000000	8.375226e-01	8.375226e-01
A_h	0.000000	5.477878e-06	5.477878e-06
B_h	0.000000	6.710814e+04	6.710814e+04
C_h	0.000000	1.412943e-03	1.412943e-03
A_o	0.000000	5.414338e+07	5.414338e+07
B_o	0.000000	2.126439e+00	2.126439e+00
C_o	0.000000	2.720605e+00	2.720605e+00
N_o	0.000000	1.250443e+00	1.250443e+00

```
      message: Optimization terminated successfully.
      success: True
       status: 0
          fun: 0.08141078365349727
            x: [ 6.493e+02  5.983e+03 ...  2.721e+00  1.250e+00]
          nit: 695
         nfev: 1132
final_simplex: (array([[ 6.493e+02,  5.983e+03, ...,  2.721e+00,
                         1.250e+00],
                       [ 6.493e+02,  5.983e+03, ...,  2.721e+00,
                         1.250e+00],
                       ...,
                       [ 6.493e+02,  5.983e+03, ...,  2.721e+00,
                         1.250e+00],
                       [ 6.493e+02,  5.983e+03, ...,  2.721e+00,
                         1.250e+00]]), array([ 8.141e-02,  8.141e-02, ...,  8.141e-02,  8.141e-02]))
```