The pfit solution values are

pfit =

7.2382e-01

8.7663e-01

3.8339e-01

BEGIN RESIDUAL ANALYSIS TESTS

Gaussian process models about the data fit should satisfy the conditions

residual mean = -0.068061 approx 0.175 = residual median

residual STD = 3.4321 approx 2.7105 = residual MAD

Randomness test that the ratio of positive to negative res1d = 0.53465 is close to 0.5

No residual trend indicated if the trend threshold = 95 > 0 = autocorrelation

BEGIN BOOTSTRAP ANALYSIS

mean pfit 95% CI delta

7.0481e-01 2.0546e-02

7.0376e-01 7.6091e-02

4.0600e-01 1.5712e-02

Correlation coefficients

1.0000e+00 3.8703e-01 -9.2291e-01

3.8703e-01 1.0000e+00 -6.9486e-01

-9.2291e-01 -6.9486e-01 1.0000e+00

BEGIN LOCAL IDENTIFIABILITY HESSIAN ANALYSIS

Hessian

8.9937e+05 1.0681e+05 1.8578e+06

1.0681e+05 1.3900e+04 2.2341e+05

1.8578e+06 2.2341e+05 3.8655e+06

Fisher information matrix

9.0435e+05 1.0822e+05 1.8720e+06

1.0822e+05 1.3326e+04 2.2677e+05

1.8720e+06 2.2677e+05 3.8952e+06

The norm of the gradient = 29.2106 should be small at the minimium

The condition number of the Hessian = 5185.7074

should be < 18918.6136 for all variables to be structually identifiable

The parameters

'\theta\_2' '\pi\_1' '\pi\_2'

are structually identifiable

The parameters

'\theta\_2' '\pi\_1' '\pi\_2'

are practically identifiable

The vectors 1 2 3 are structually identifiable

The vectors 1 2 3 are practically identifiable

Singular values

4.7725e+06 5.3822e+03 9.2032e+02

The vectors spanning the stuctural identifiable space are

-4.3306e-01 8.9484e-01 -1.0822e-01

-5.1968e-02 -1.4465e-01 -9.8812e-01

-8.9986e-01 -4.2229e-01 1.0915e-01

BEGIN EXTENDED IDENTIFIABILITY PROFILE ANALYSIS

res\_profile

Columns 1 through 5

1.5916e+03 1.4707e+03 1.3734e+03 1.2983e+03 2.4147e+03

1.2384e+03 1.3376e+03 1.4808e+03 1.8287e+03 4.6867e+03

2.5342e+05 2.5342e+05 2.5342e+05 2.5338e+05 2.5341e+05

Columns 6 through 10

5.6239e+03 1.0351e+04 1.6206e+04 2.2939e+04 3.0413e+04

9.9890e+03 1.6947e+04 2.4980e+04 3.3661e+04 4.2684e+04

1.9072e+05 7.9434e+04 1.1937e+04 1.5083e+03 1.2271e+03

Columns 11 through 15

3.8581e+04 4.7468e+04 5.7165e+04 6.7823e+04 7.9659e+04

5.1825e+04 6.0927e+04 6.9878e+04 7.8601e+04 8.7049e+04

1.1817e+03 1.1815e+03 1.1784e+03 1.1785e+03 1.1786e+03

Columns 16 through 20

9.2955e+04 1.0808e+05 1.2553e+05 1.4592e+05 1.7007e+05

9.5185e+04 1.0300e+05 1.1047e+05 1.1761e+05 1.2441e+05

1.1937e+03 1.2510e+03 1.3494e+03 1.4778e+03 1.6719e+03

BEGIN GLOBAL IDENTIFIABILITY ANALYSIS

variance of variables 0.0029694 0.0064807 0.00088909

the nonidentifiable variables are = 1 2 3