

Validation process for SAN JOSE DEL GUAVIARE

The epidemiology research group, EAFIT

06-Apr-2022

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Chapter 1. Extension number1

1.1. Basic information

The extension to be validated consists of the time series from the data1 to the 10. The status of the validation is: COMPLETED.

The number of estimations needed to perform the validation was 1000.

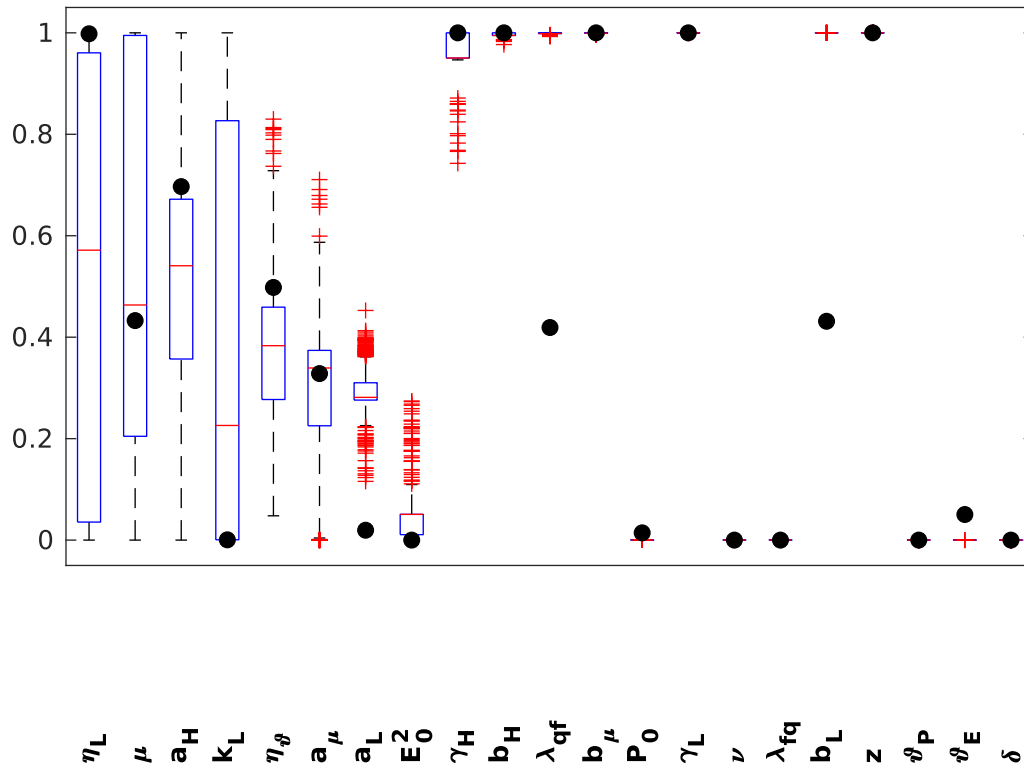
1.2. Estimated parameters with their intervals

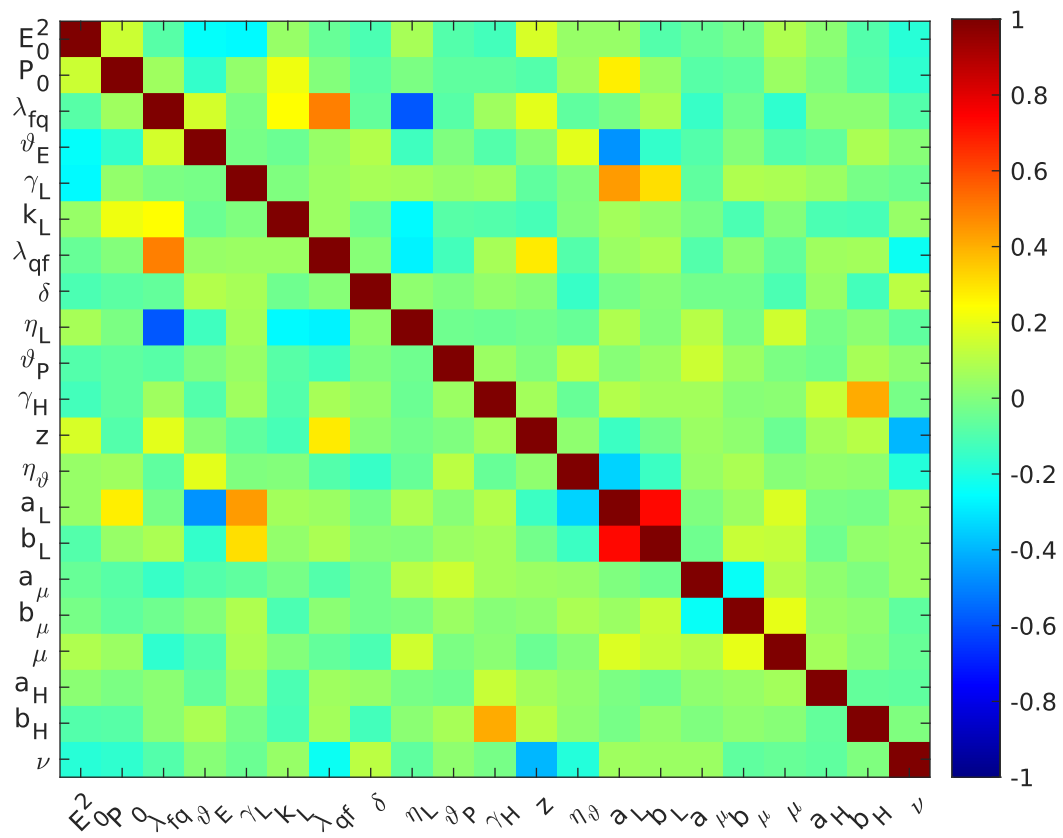
It was necessary to fix 0 parameters of 11 that could be fixed to complete validation.

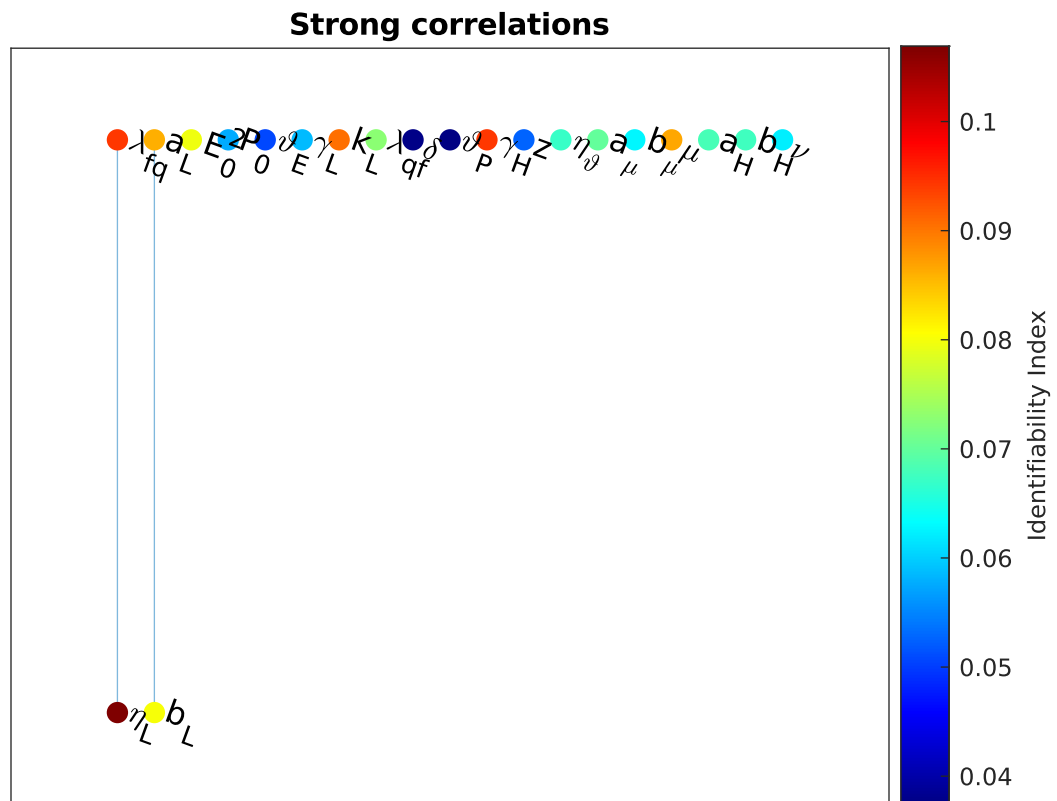
Due to a deviation from the median the CSB method was activated to obtain the parameter intervals.

	Rango		Nominal	Mejor	Index
E^2_0	'0'	'0'	'101.4941'	'0'	'0.0797'
P_0	'5.069'	'7.0502'	'0.0603'	'5.7266'	'0.0576'
λ_{fq}	'0'	'0'	'0'	'0'	'0.0943'
ϑ_E	'0.0474'	'0.0683'	'0'	'0.0504'	'0.0508'
γ_L	'0.619'	'1'	'0.9999'	'1'	'0.0587'
k_L	'1'	'10'	'3.0339'	'1.0048'	'0.0905'
λ_{qf}	'0'	'0.9429'	'0.9986'	'0.4191'	'0.0728'
δ	'0'	'0'	'0'	'0'	'0.0379'
η_L	'0.04'	'1'	'0.5716'	'0.9981'	'0.1069'
ϑ_P	'0'	'0'	'0'	'0'	'0.0374'
γ_H	'0'	'1'	'0.9502'	'1'	'0.0943'
z	'24.4511'	'30'	'29.9999'	'30'	'0.0528'
η_{ϑ}	'0.1173'	'1'	'0.3833'	'0.4981'	'0.0672'
a_L	'1'	'1.6183'	'4.9385'	'1.2725'	'0.0861'
b_L	'3.0221'	'15'	'14.9994'	'7.0394'	'0.0801'
a_{μ}	'4.9672'	'6.1084'	'5.7518'	'5.5955'	'0.0702'
b_{μ}	'11.7315'	'15'	'14.9882'	'15'	'0.0629'
μ	'0.3687'	'0.7427'	'0.4635'	'0.4327'	'0.0868'
a_H	'6.1878'	'15'	'8.5716'	'10.7556'	'0.0682'
b_H	'1.35'	'15'	'14.9277'	'14.9999'	'0.0678'
ν	'0'	'0.0007'	'0.0232'	'0.0003'	'0.0624'

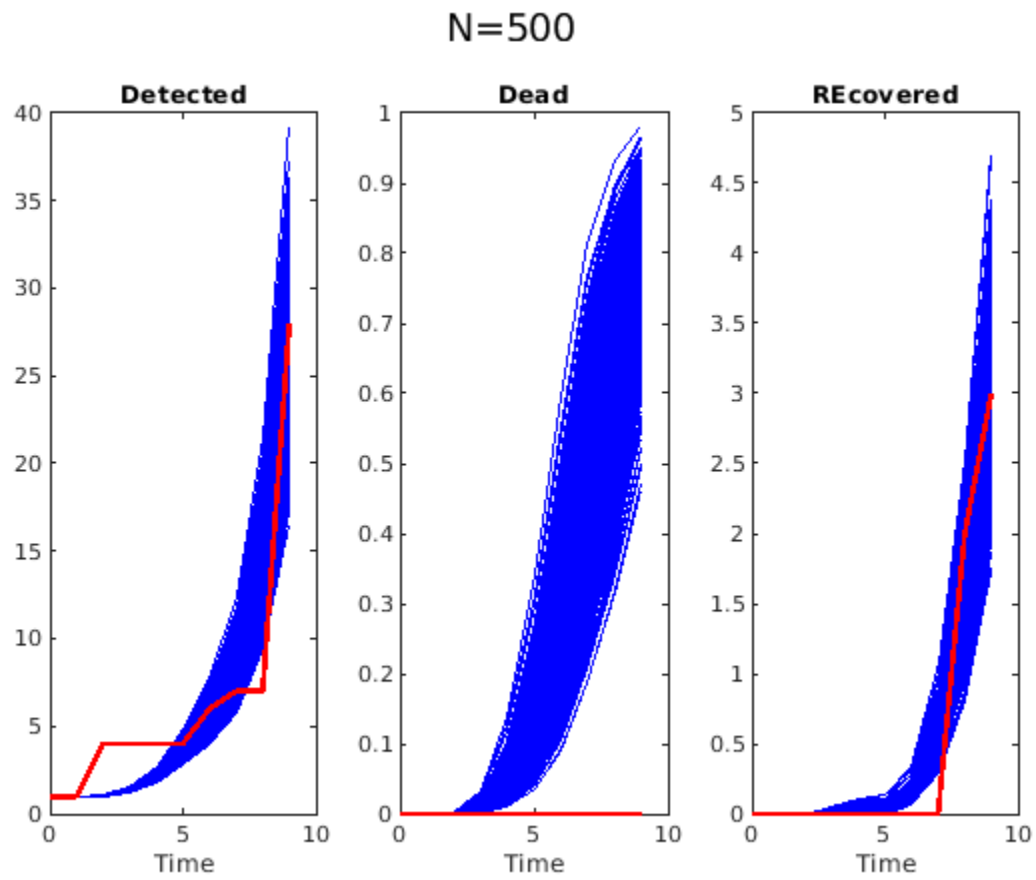
1.3. Identifiability analysis







1.4. Uncertainty analysis



Chapter 2. Extension number2

2.1. Basic information

The extension to be validated consists of the time series from the data10 to the 47. The status of the validation is: COMPLETED.

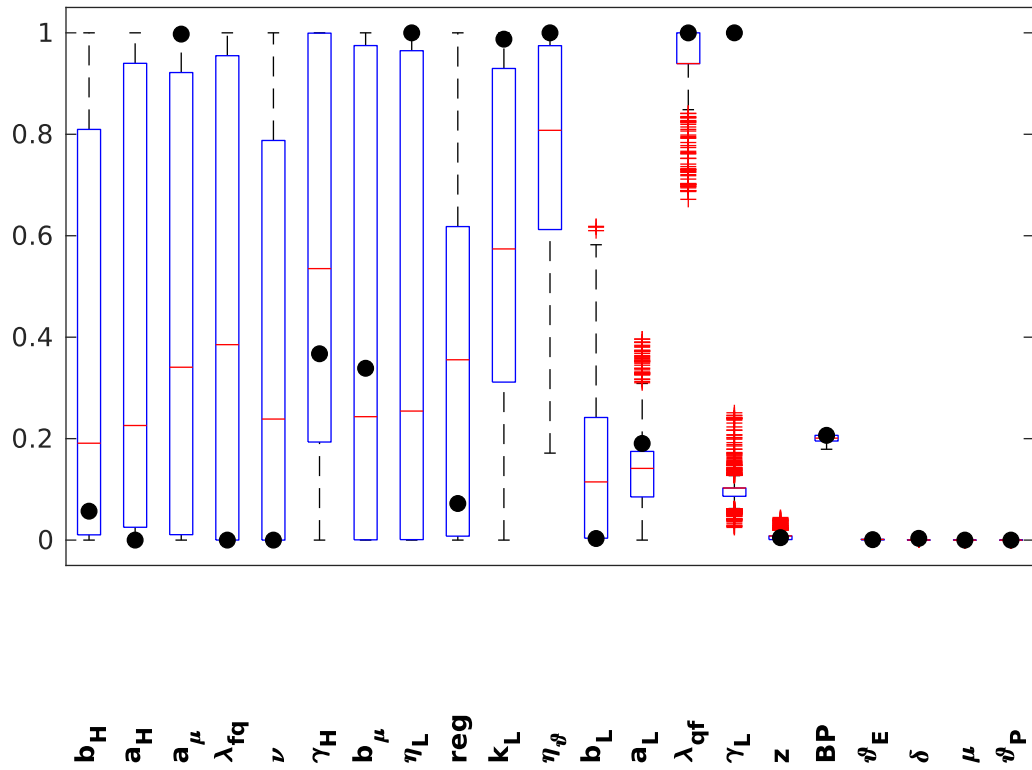
The number of estimations needed to perform the validation was1000.

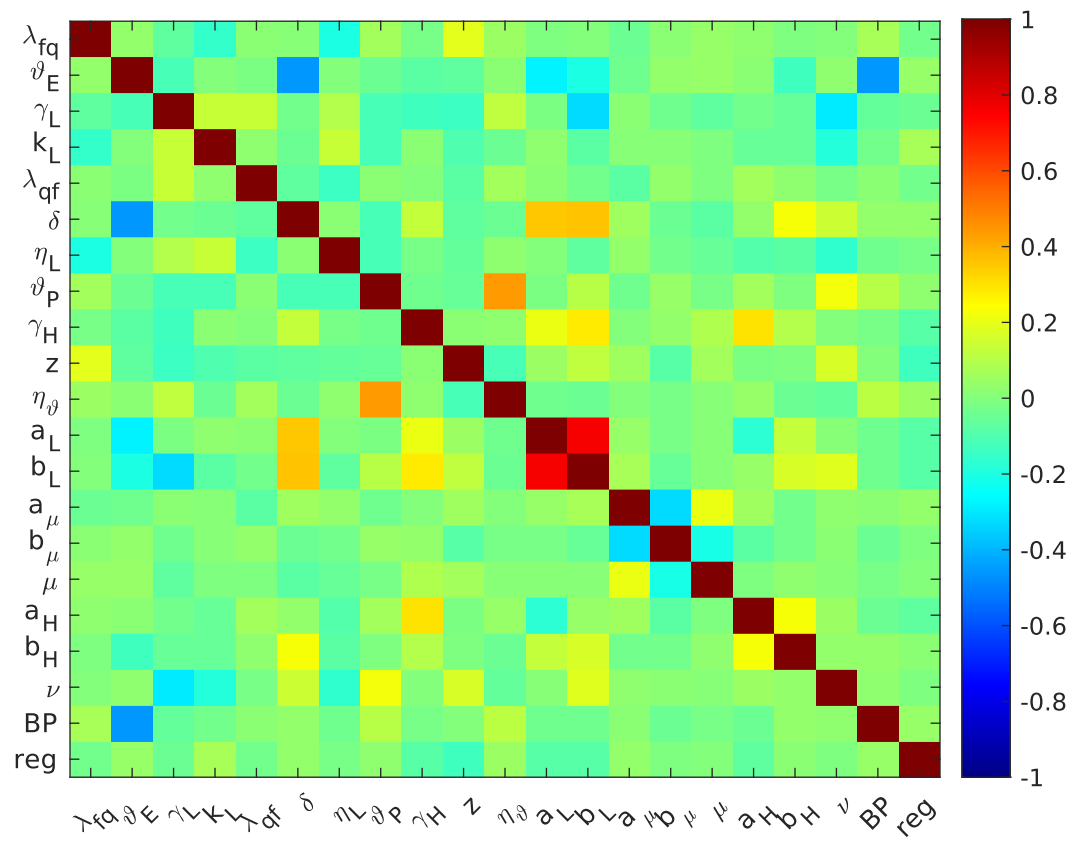
2.2. Estimated parameters with their intervals

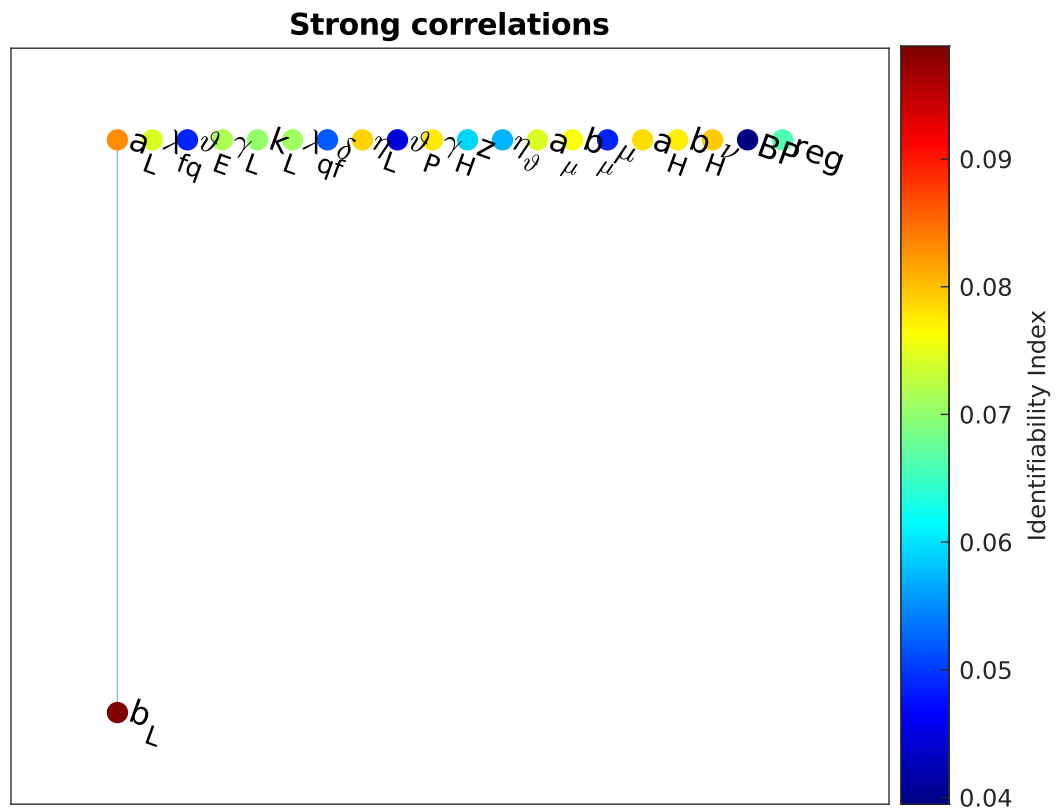
It was necessary to fix 0 parameters of 11 that could be fixed to complete validation.

	Rango		Nominal	Mejor	Index
λ_{fq}	'0.3472'	'0.4234'	'0.3853'	'0'	'0.0744'
ϑ_E	'0.0011'	'0.0014'	'0.0013'	'0.0009'	'0.0488'
γ_L	'0.0789'	'0.1265'	'0.1027'	'1'	'0.0717'
k_L	'5.8866'	'6.4453'	'6.1659'	'9.8874'	'0.0703'
λ_{qf}	'0.9027'	'0.9759'	'0.9393'	'0.9999'	'0.071'
δ	'0'	'0.0001'	'0'	'0.0005'	'0.052'
η_L	'0.2156'	'0.2932'	'0.2544'	'0.9999'	'0.079'
ϑ_P	'0'	'0'	'0'	'0'	'0.0448'
γ_H	'0.5005'	'0.5699'	'0.5352'	'0.3673'	'0.0777'
z	'0'	'1.0206'	'0.2462'	'0.1436'	'0.0593'
η_{ϑ}	'0.7904'	'0.8252'	'0.8078'	'1'	'0.0575'
a_L	'2.6945'	'3.2635'	'2.979'	'3.6671'	'0.0831'
b_L	'2.2275'	'2.9843'	'2.6059'	'1.0439'	'0.0988'
a_{μ}	'5.2606'	'6.2814'	'5.771'	'14.9648'	'0.0744'
b_{μ}	'3.8643'	'4.9479'	'4.4061'	'5.7421'	'0.0763'
μ	'0'	'0.0266'	'0'	'0'	'0.0488'
a_H	'3.6493'	'4.6761'	'4.1627'	'1'	'0.0783'
b_H	'3.1613'	'4.1861'	'3.6737'	'1.7981'	'0.0773'
ν	'101.3433'	'137.2803'	'119.3118'	'0'	'0.0795'
BP	'10.205'	'10.2838'	'10.2444'	'10.4999'	'0.0395'
reg	'0.081'	'0.0967'	'0.0889'	'0.018'	'0.0661'

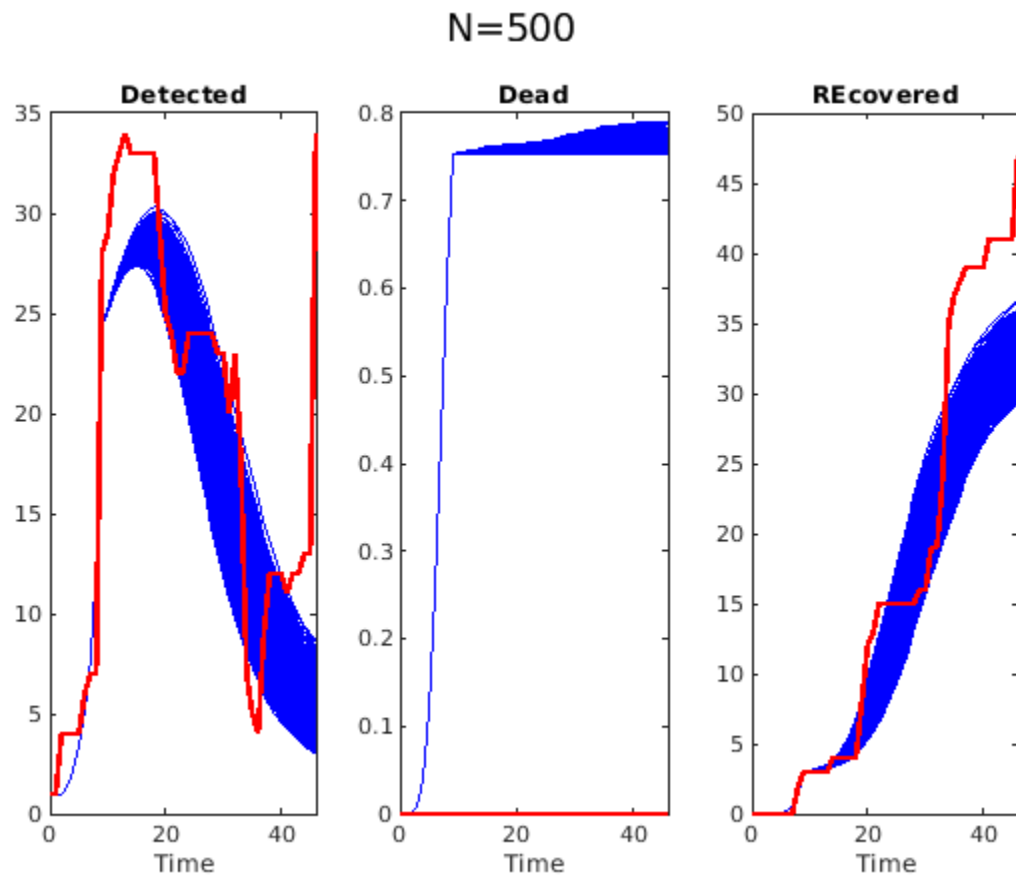
2.3. Identifiability analysis







2.4. Uncertainty analysys



Chapter 3. Extension number3

3.1. Basic information

The extension to be validated consists of the time series from the data47 to the 83. The status of the validation is: COMPLETED.

The number of estimations needed to perform the validation was1000.

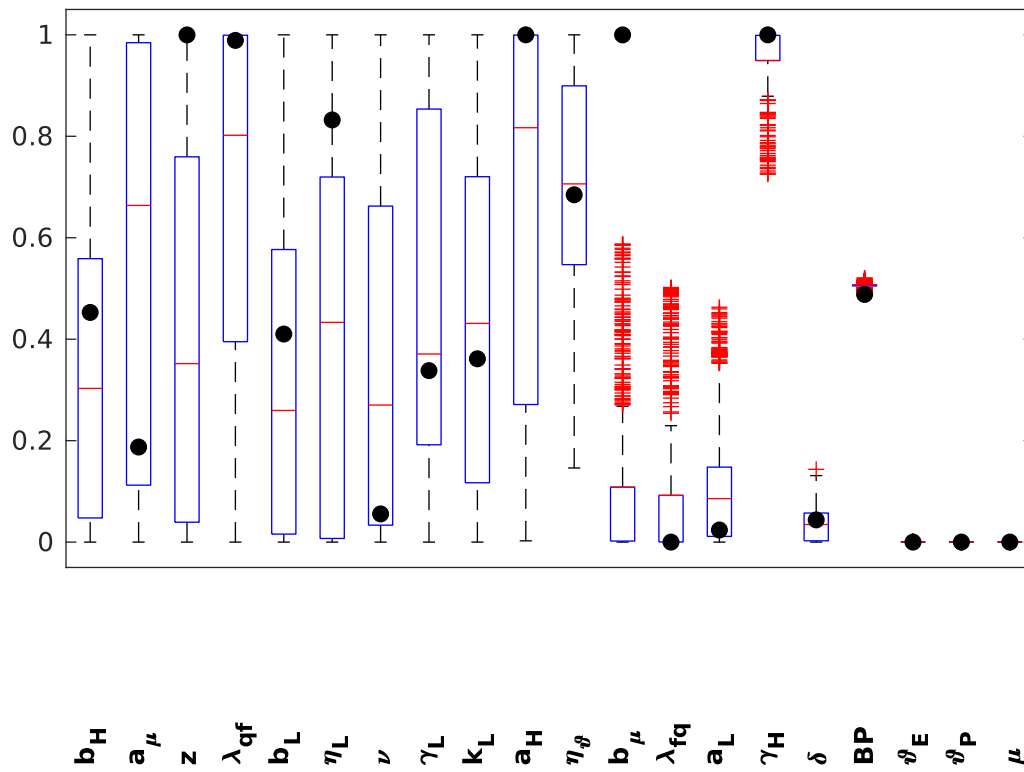
3.2. Estimated parameters with their intervals

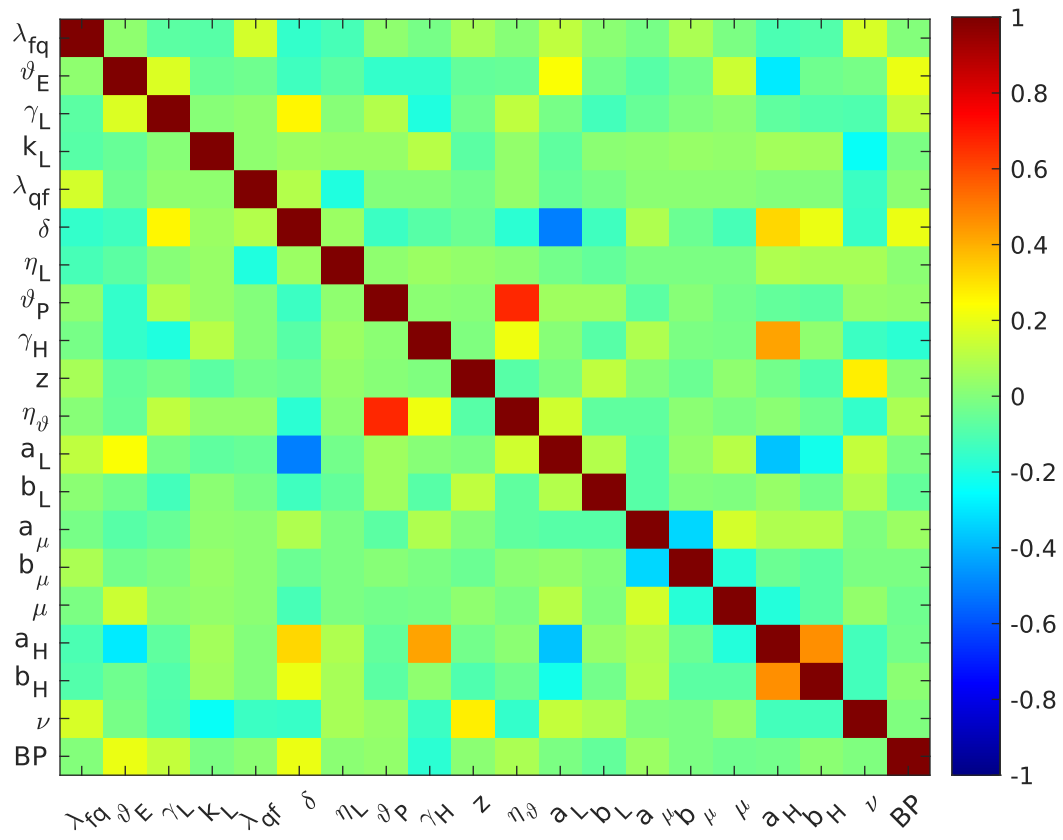
It was necessary to fix 0 parameters of 10 that could be fixed to complete validation.

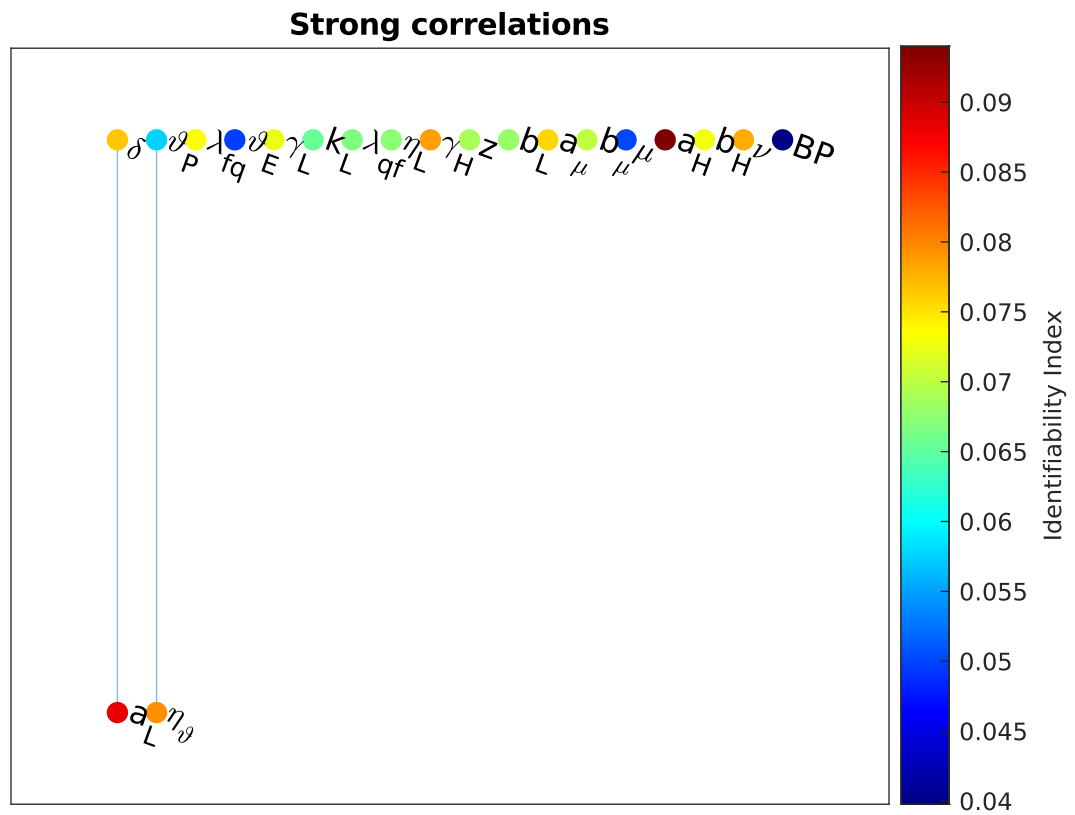
Due to a deviation from the median the CSB method was activated to obtain the parameter intervals.

	Rango		Nominal	Mejor	Index
λ_{fq}	'0'	'0'	'0.0921'	'0'	'0.0733'
ϑ_E	'0'	'0'	'0.0001'	'0'	'0.0498'
γ_L	'0.2006'	'0.3493'	'0.3708'	'0.338'	'0.0725'
k_L	'1.171'	'9.55'	'4.8797'	'4.2522'	'0.0655'
λ_{qf}	'0'	'1'	'0.802'	'0.9891'	'0.0668'
δ	'0.0063'	'0.0089'	'0.0052'	'0.0066'	'0.0765'
η_L	'0'	'1'	'0.4332'	'0.8322'	'0.0674'
ϑ_P	'0'	'0'	'0'	'0'	'0.0577'
γ_H	'0.1529'	'1'	'0.9493'	'0.9999'	'0.0787'
z	'0.75'	'30'	'10.555'	'29.9955'	'0.0689'
η_{ϑ}	'0.6791'	'0.7336'	'0.7061'	'0.6847'	'0.0795'
a_L	'1.2641'	'2.1618'	'2.2'	'1.334'	'0.0885'
b_L	'5.5442'	'9.4496'	'4.6329'	'6.742'	'0.068'
a_{μ}	'1'	'15'	'10.2919'	'3.624'	'0.0756'
b_{μ}	'1.28'	'15'	'2.5165'	'14.9981'	'0.0703'
μ	'0'	'0'	'0'	'0'	'0.0502'
a_H	'8.8811'	'15'	'12.4363'	'14.9997'	'0.094'
b_H	'2.8605'	'7.6095'	'5.2416'	'7.3384'	'0.0729'
ν	'24.8295'	'500'	'135.0994'	'27.7869'	'0.0781'
BP	'45.5394'	'50.4416'	'46.9907'	'45.6412'	'0.0398'

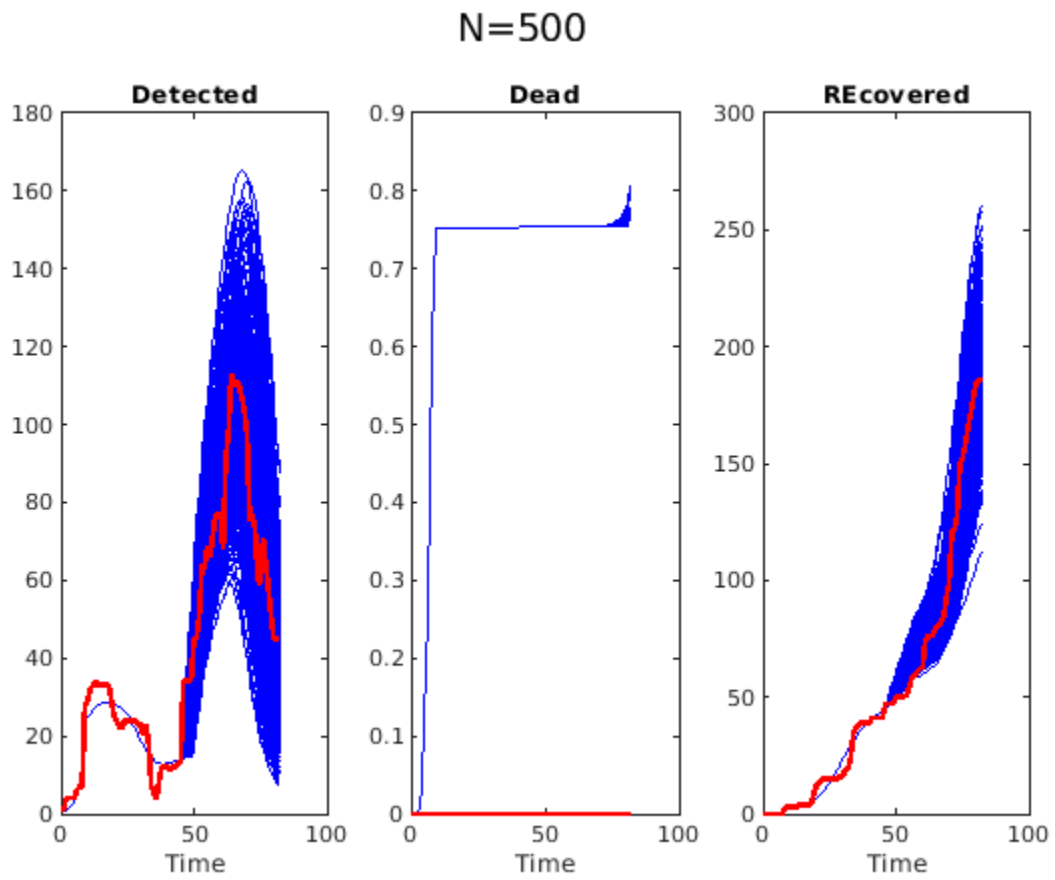
3.3. Identifiability analysis







3.4. Uncertainty analysis



Chapter 4. Extension number4

4.1. Basic information

The extension to be validated consists of the time series from the data83 to the 114. The status of the validation is: COMPLETED.

The number of estimations needed to perform the validation was1000.

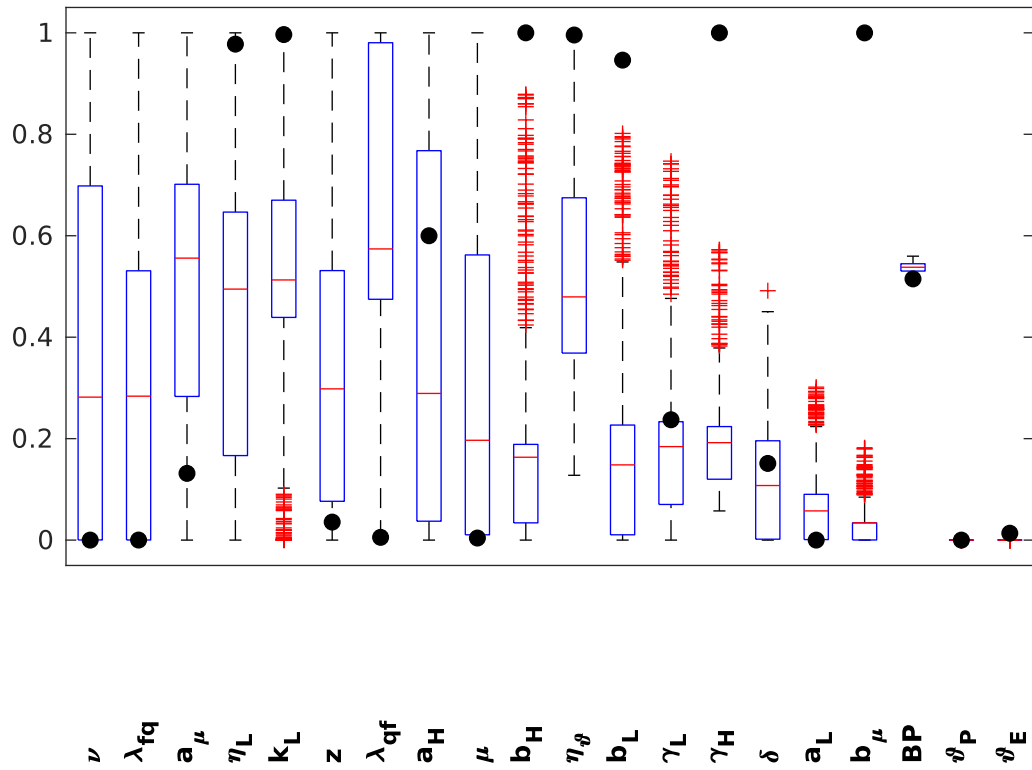
4.2. Estimated parameters with their intervals

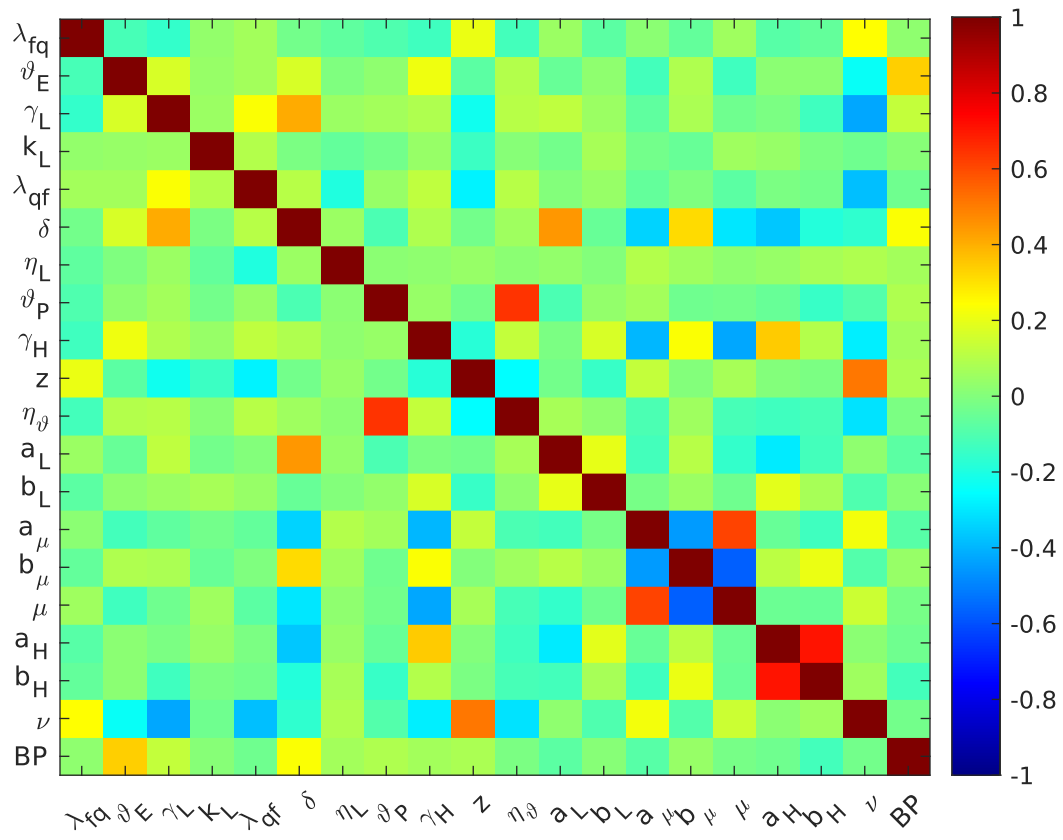
It was necessary to fix 0 parameters of 10 that could be fixed to complete validation.

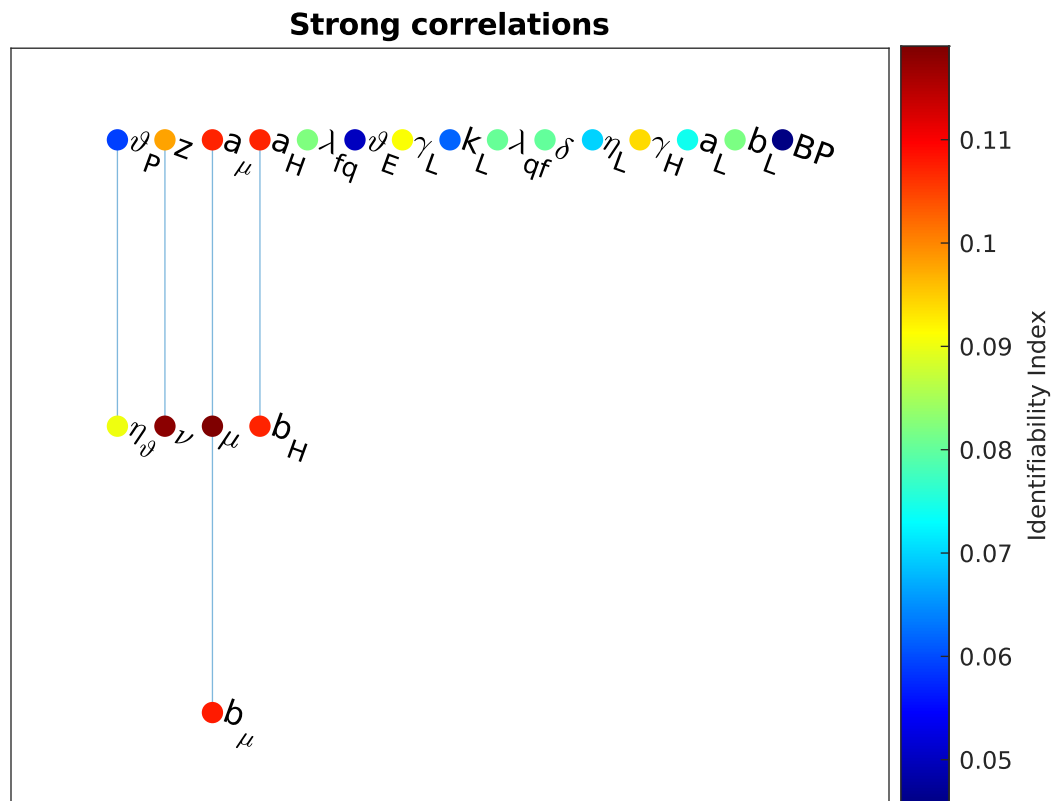
Due to a deviation from the median the CSB method was activated to obtain the parameter intervals.

	Rango		Nominal	Mejor	Index
λ_{fq}	'0'	'0.0002'	'0.2838'	'0.0001'	'0.0821'
ϑ_E	'0.0051'	'0.0138'	'0'	'0.0136'	'0.0503'
γ_L	'0.0974'	'0.3321'	'0.1843'	'0.2372'	'0.0912'
k_L	'1.9'	'10'	'5.6156'	'9.9692'	'0.0619'
λ_{qf}	'0'	'0.0106'	'0.574'	'0.0054'	'0.0806'
δ	'0.0169'	'0.0234'	'0.0161'	'0.0227'	'0.0803'
η_L	'0.3562'	'1'	'0.4948'	'0.9777'	'0.07'
ϑ_P	'0'	'0'	'0'	'0'	'0.0593'
γ_H	'0.4242'	'1'	'0.1921'	'1'	'0.0939'
z	'0.9017'	'1.4743'	'8.9445'	'1.0652'	'0.098'
η_{ϑ}	'0.4329'	'1'	'0.4794'	'0.9957'	'0.0902'
a_L	'1'	'4.5928'	'1.8059'	'1.0004'	'0.0742'
b_L	'2.9889'	'15'	'3.0758'	'14.2467'	'0.082'
a_{μ}	'1.3932'	'4.5608'	'8.782'	'2.8416'	'0.1071'
b_{μ}	'6.2587'	'15'	'1.4766'	'14.9982'	'0.1078'
μ	'0.0038'	'0.0053'	'0.1968'	'0.004'	'0.119'
a_H	'8.0593'	'13.6702'	'5.0478'	'9.3998'	'0.1072'
b_H	'8.6185'	'15'	'3.2868'	'14.9999'	'0.1071'
ν	'0'	'0'	'140.9142'	'0'	'0.1181'
BP	'79.7896'	'83.3406'	'83.0395'	'81.5'	'0.0457'

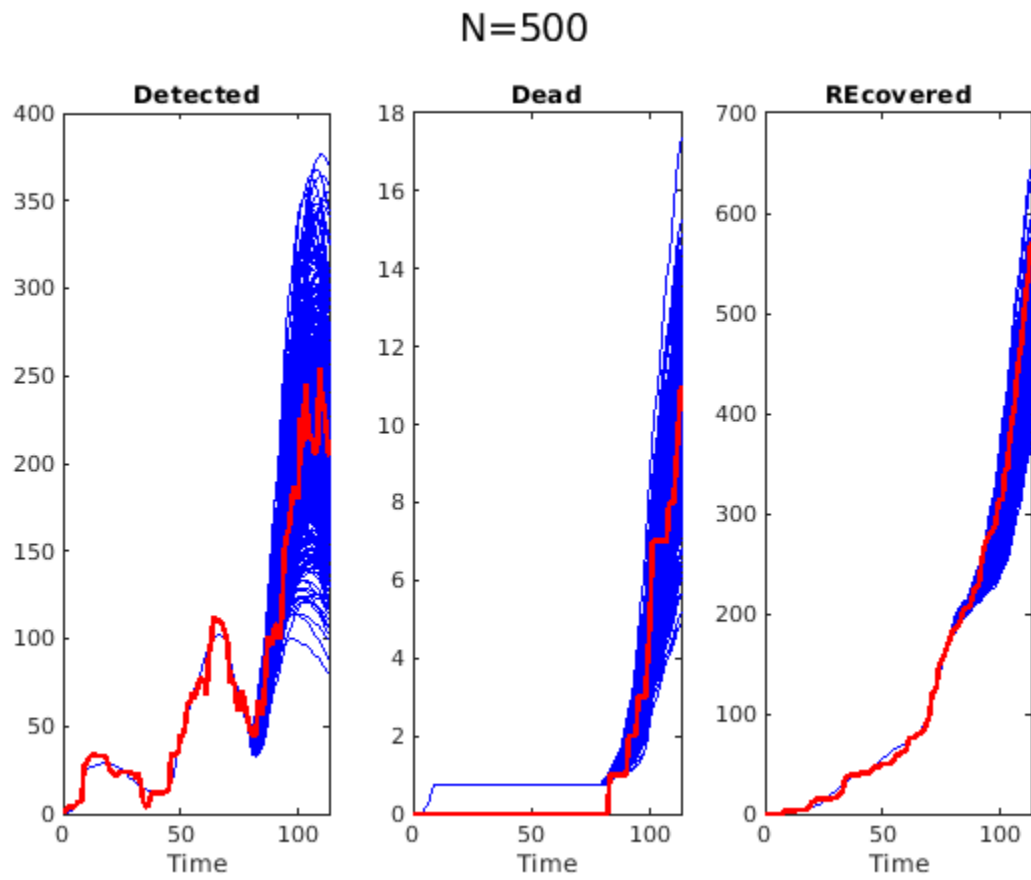
4.3. Identifiability analysis







4.4. Uncertainty analysys



Chapter 5. Extension number5

5.1. Basic information

The extension to be validated consists of the time series from the data114 to the 142. The status of the validation is: COMPLETED.

The number of estimations needed to perform the validation was1000.

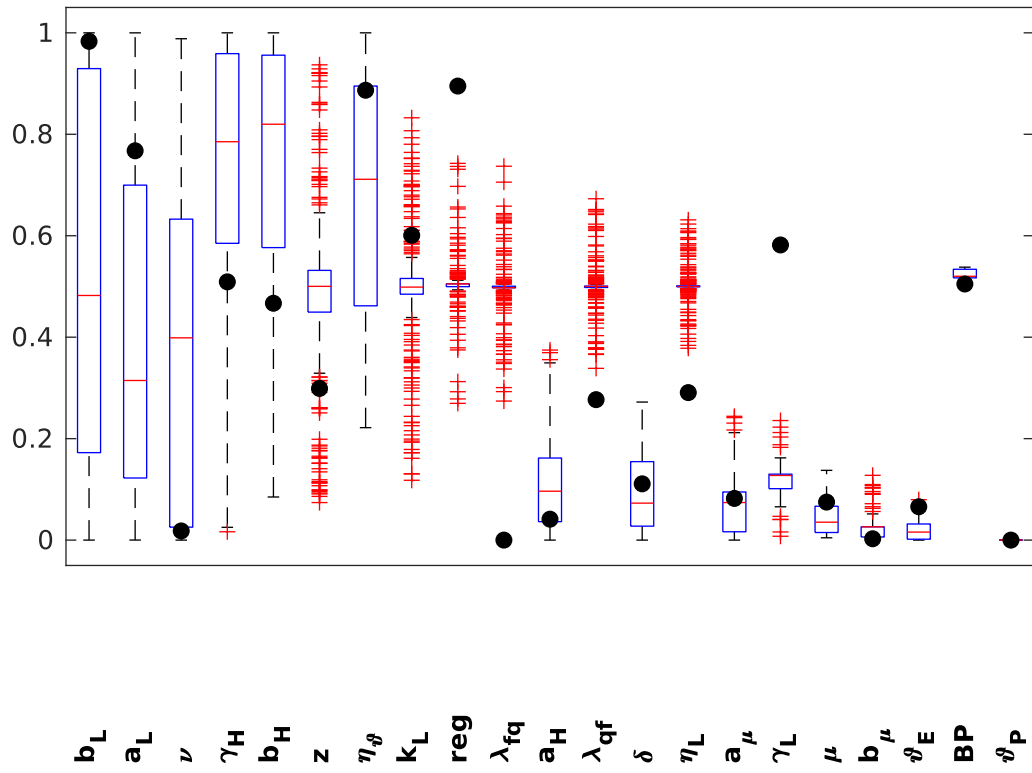
5.2. Estimated parameters with their intervals

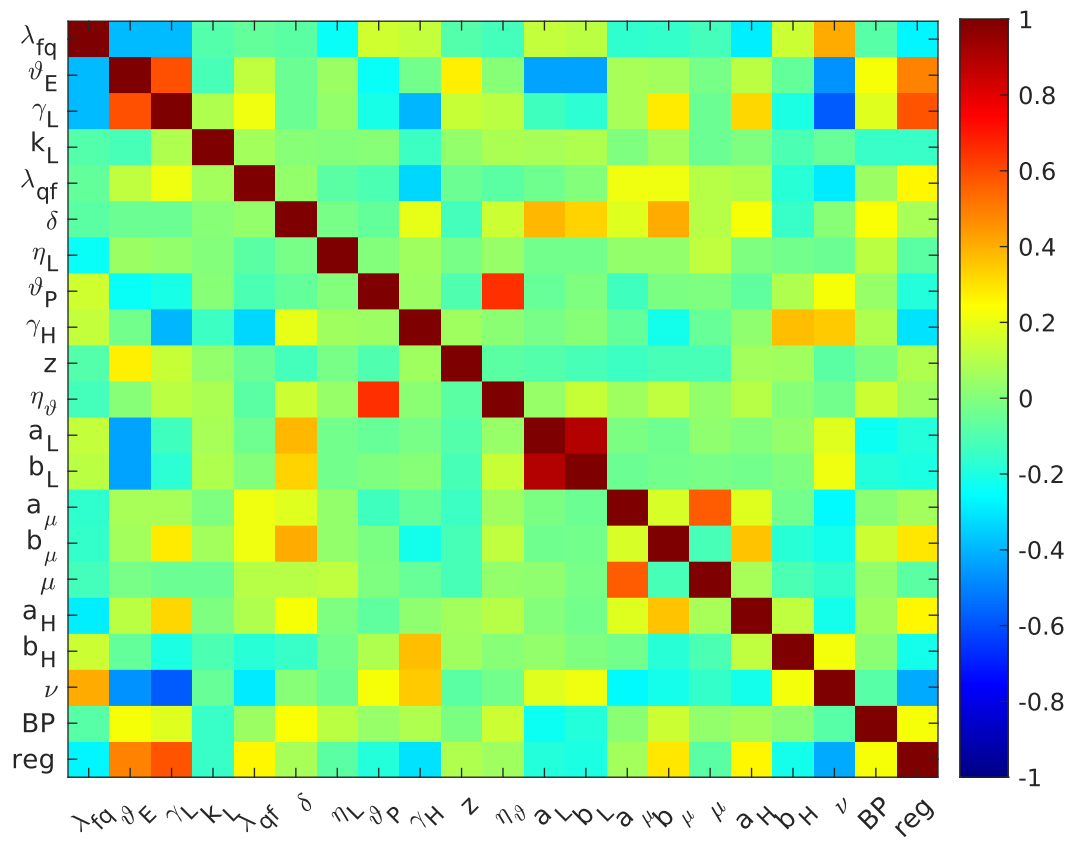
It was necessary to fix 0 parameters of 11 that could be fixed to complete validation.

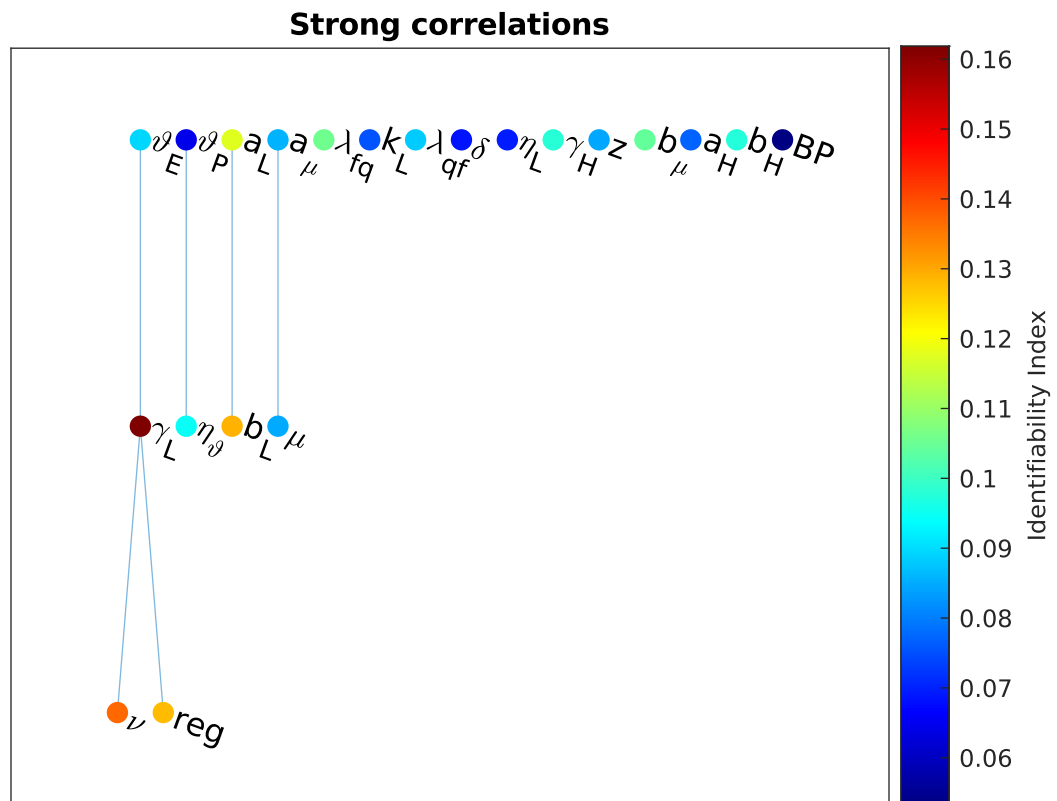
Due to a deviation from the median the CSB method was activated to obtain the parameter intervals.

	Rango		Nominal	Mejor	Index
λ_{fq}	'0'	'0'	'0.4974'	'0'	'0.1059'
ϑ_E	'0.062'	'0.0915'	'0.0158'	'0.0658'	'0.0896'
γ_L	'0.1344'	'0.6159'	'0.1274'	'0.5818'	'0.1619'
k_L	'1'	'10'	'5.4887'	'6.4078'	'0.0758'
λ_{qf}	'0.0459'	'0.6229'	'0.5001'	'0.2769'	'0.0882'
δ	'0.0015'	'0.0374'	'0.0109'	'0.0166'	'0.0688'
η_L	'0'	'0.6542'	'0.5'	'0.2908'	'0.0695'
ϑ_P	'0'	'0'	'0'	'0'	'0.0644'
γ_H	'0.4041'	'0.7869'	'0.7853'	'0.5091'	'0.0981'
z	'0'	'20.181'	'15.0069'	'8.9694'	'0.0843'
η_{ϑ}	'0.5823'	'0.9553'	'0.7113'	'0.8868'	'0.0949'
a_L	'9.6854'	'15'	'5.4051'	'11.7444'	'0.1175'
b_L	'5.4189'	'15'	'7.7513'	'14.7651'	'0.1288'
a_{μ}	'2.1164'	'2.7462'	'2.0366'	'2.1503'	'0.086'
b_{μ}	'1'	'1.6556'	'1.3662'	'1.0371'	'0.1044'
μ	'0.0465'	'0.1489'	'0.0353'	'0.0749'	'0.0849'
a_H	'1.4468'	'3.4686'	'2.3494'	'1.5775'	'0.0773'
b_H	'3.9091'	'9.7642'	'12.4777'	'7.5362'	'0.0975'
ν	'5.7892'	'500'	'199.368'	'9.0324'	'0.1372'
BP	'112.5227'	'115.9209'	'113.6835'	'112.7856'	'0.0534'
reg	'0'	'0.2375'	'0.1263'	'0.2238'	'0.1282'

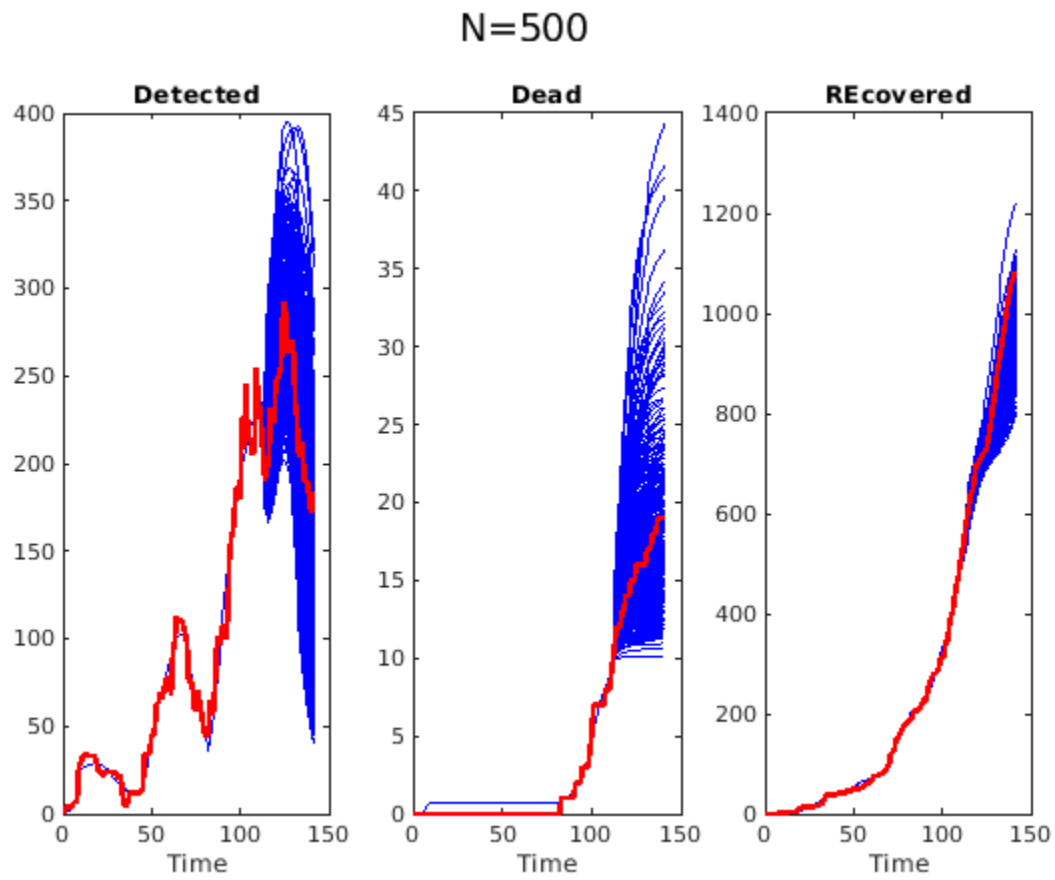
5.3. Identifiability analysis







5.4. Uncertainty analysys



Chapter 6. Extension number6

6.1. Basic information

The extension to be validated consists of the time series from the data142 to the 191. The status of the validation is: COMPLETED.

The number of estimations needed to perform the validation was1000.

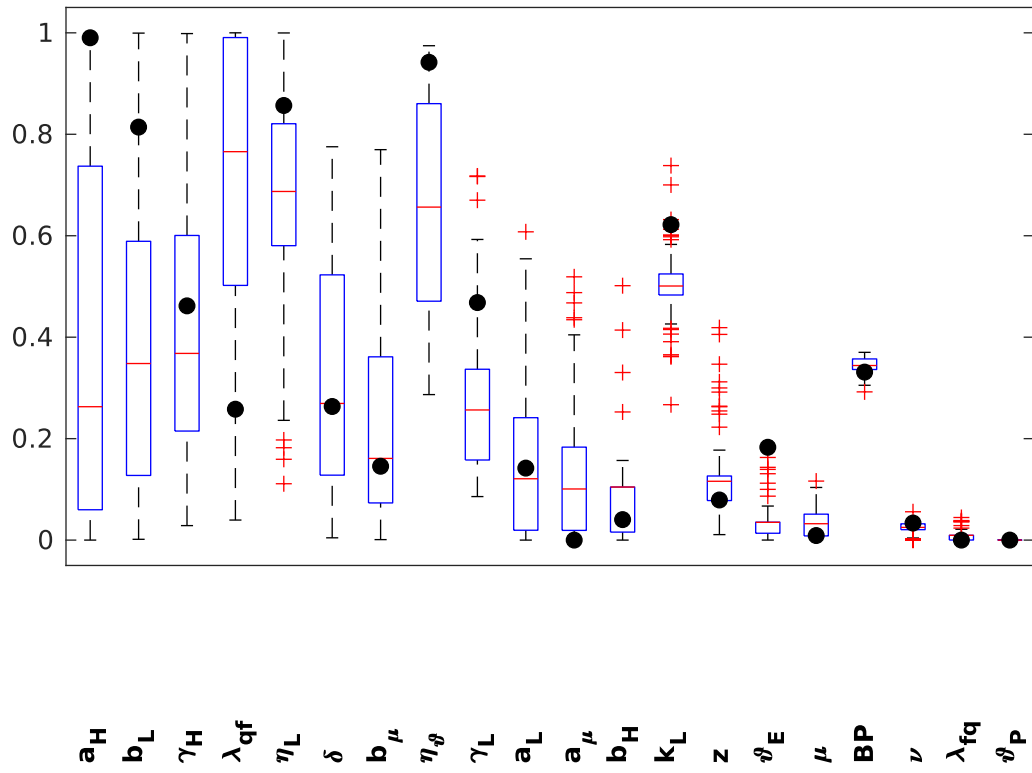
6.2. Estimated parameters with their intervals

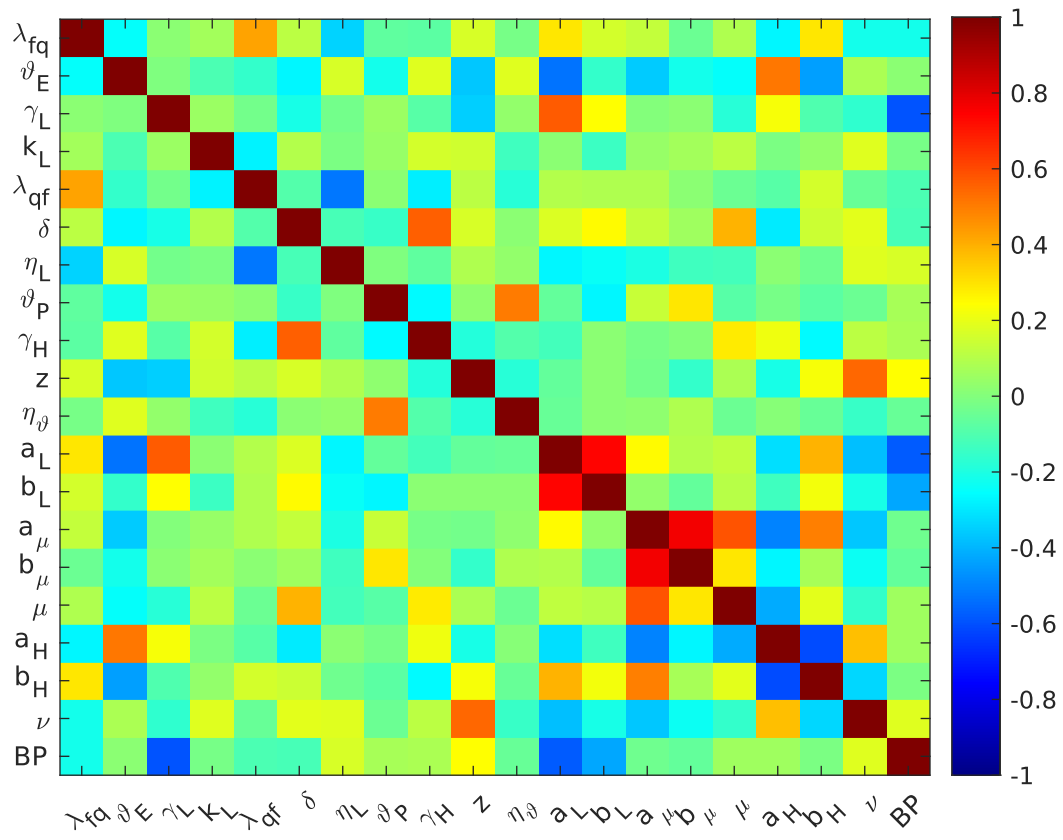
It was necessary to fix 0 parameters of 10 that could be fixed to complete validation.

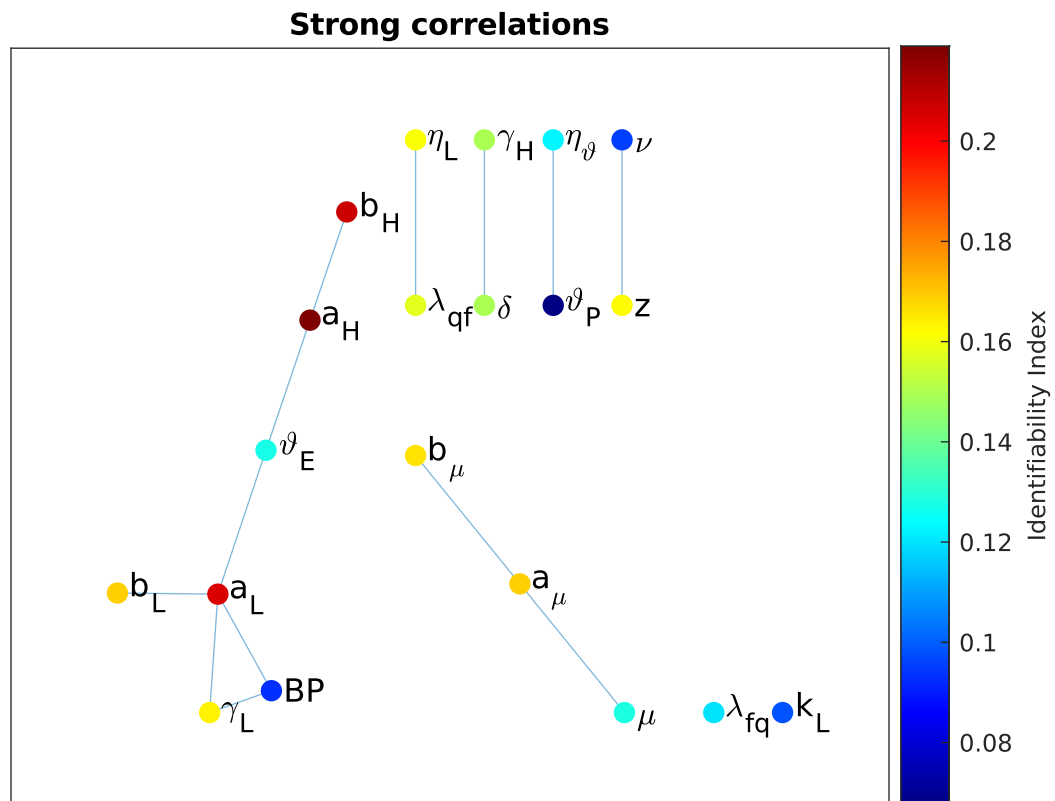
Due to a deviation from the median the CSB method was activated to obtain the parameter intervals.

	Rango		Nominal	Mejor	Index
λ_{fq}	'0'	'0'	'0.0095'	'0'	'0.1201'
ϑ_E	'0.0757'	'0.1856'	'0.0351'	'0.183'	'0.1279'
γ_L	'0.233'	'0.7569'	'0.2565'	'0.4682'	'0.1638'
k_L	'1'	'9.64'	'5.5081'	'6.5967'	'0.0989'
λ_{qf}	'0'	'0.5806'	'0.7657'	'0.258'	'0.1577'
δ	'0.0375'	'0.0737'	'0.0404'	'0.0395'	'0.1497'
η_L	'0'	'1'	'0.6873'	'0.8568'	'0.1615'
ϑ_P	'0'	'0'	'0.0001'	'0'	'0.0677'
γ_H	'0.0973'	'0.8691'	'0.368'	'0.4618'	'0.1496'
z	'0'	'5.3371'	'3.4791'	'2.3721'	'0.1628'
η_{ϑ}	'0.394'	'1'	'0.6564'	'0.9419'	'0.123'
a_L	'1.2934'	'5.9831'	'2.6929'	'2.9869'	'0.2048'
b_L	'5.9322'	'15'	'5.8732'	'12.3983'	'0.1693'
a_{μ}	'1'	'15'	'2.411'	'1.0002'	'0.169'
b_{μ}	'1.35'	'15'	'3.2545'	'3.0381'	'0.166'
μ	'0.0005'	'0.0174'	'0.0323'	'0.009'	'0.1281'
a_H	'9.0239'	'15'	'4.6814'	'14.8636'	'0.2189'
b_H	'1'	'3.1181'	'2.4645'	'1.5654'	'0.2073'
ν	'15.9477'	'366.8809'	'12.5301'	'16.8049'	'0.0956'
BP	'139.4703'	'145.4108'	'140.5'	'139.5'	'0.0937'

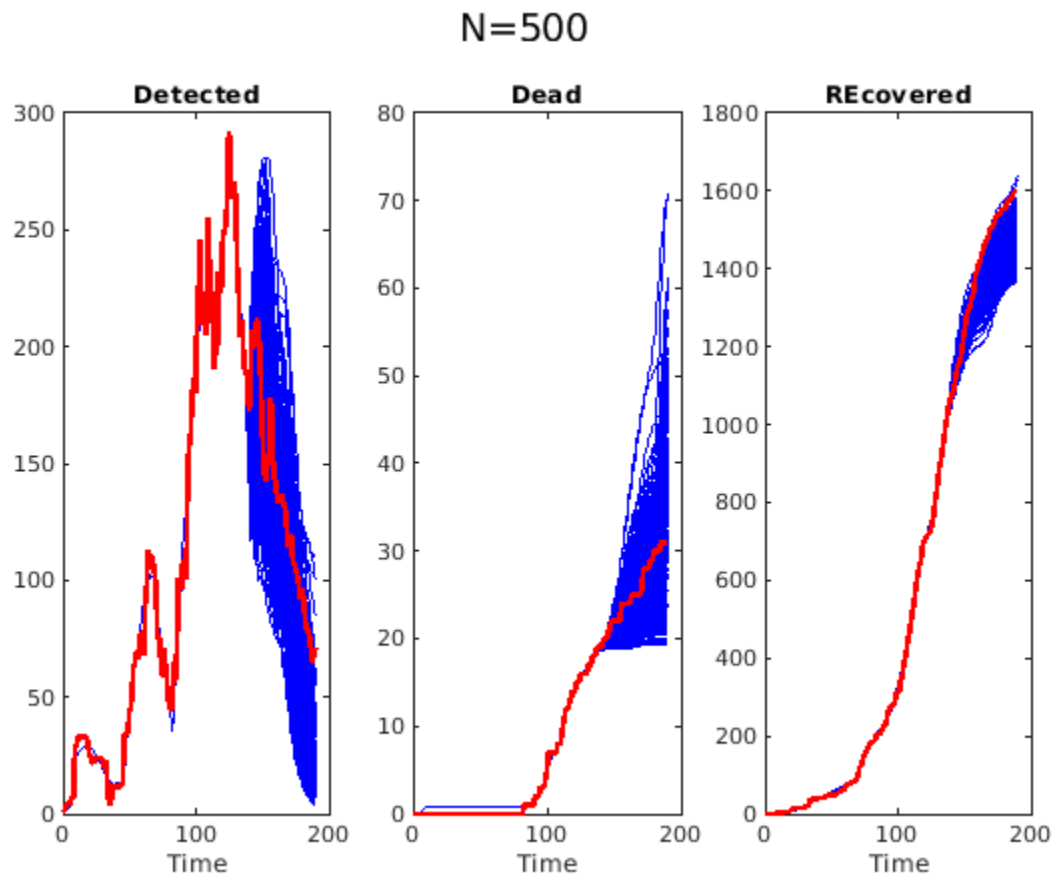
6.3. Identifiability analysys







6.4. Uncertainty analysis



Chapter 7. Extension number7

7.1. Basic information

The extension to be validated consists of the time series from the data191 to the 213. The status of the validation is: COMPLETED.

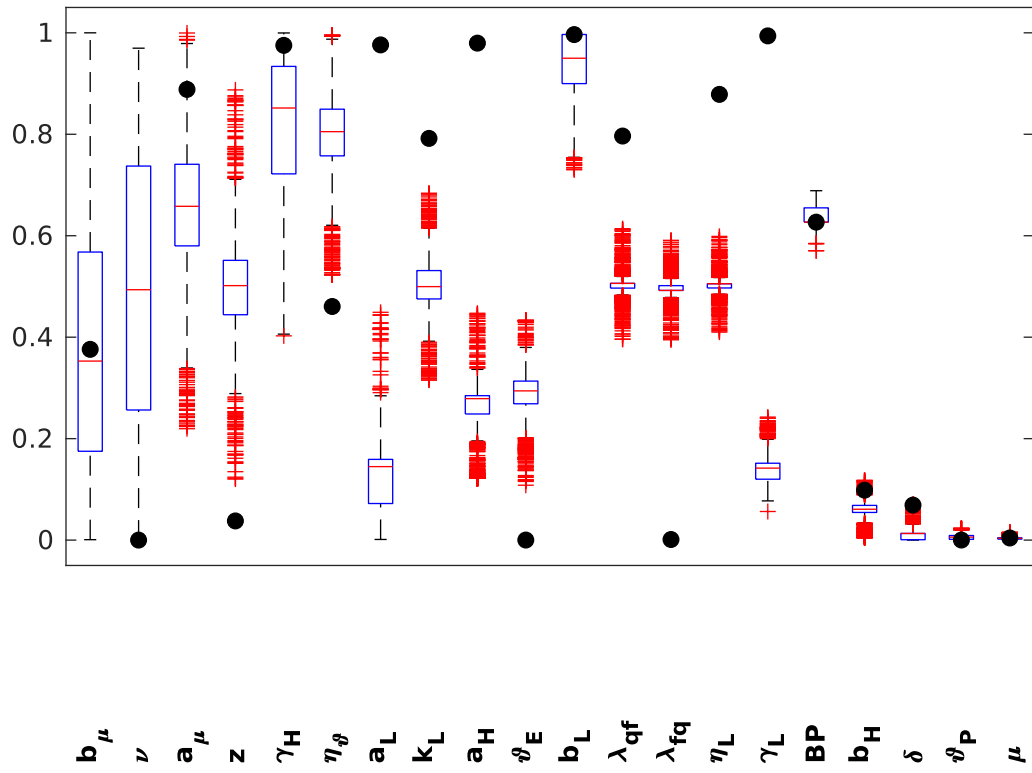
The number of estimations needed to perform the validation was1000.

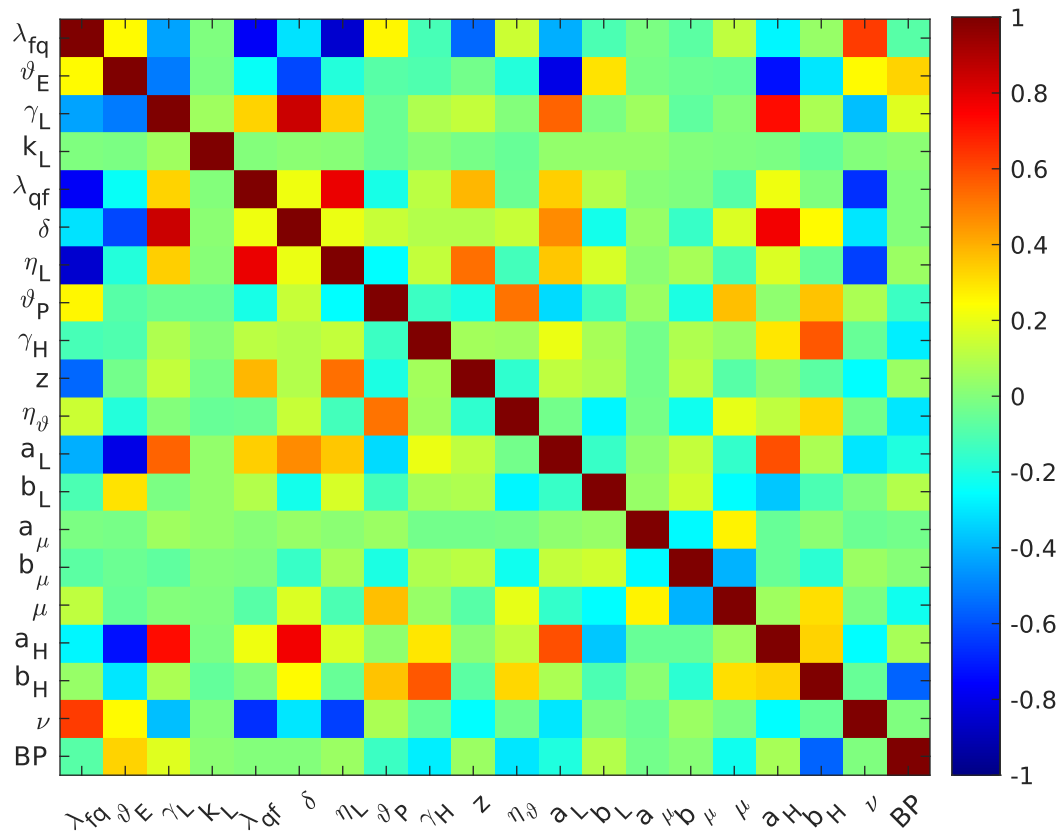
7.2. Estimated parameters with their intervals

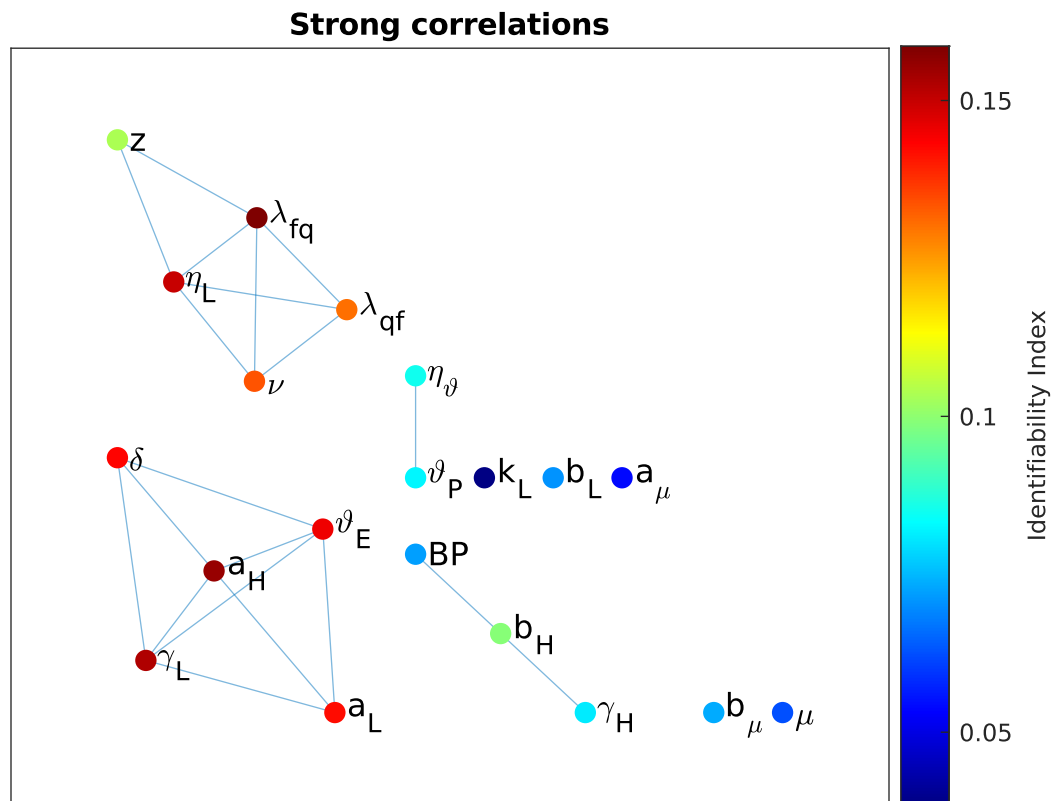
It was necessary to fix 0 parameters of 10 that could be fixed to complete validation.

	Rango		Nominal	Mejor	Index
λ_{fq}	'0.4764'	'0.508'	'0.4922'	'0.0012'	'0.1586'
ϑ_E	'0.2866'	'0.3017'	'0.2942'	'0.0001'	'0.1453'
γ_L	'0.125'	'0.1587'	'0.1419'	'0.994'	'0.1526'
k_L	'5.4229'	'5.5714'	'5.4971'	'8.127'	'0.0386'
λ_{qf}	'0.4949'	'0.5173'	'0.5061'	'0.7965'	'0.1301'
δ	'0'	'0.0051'	'0.002'	'0.0103'	'0.1428'
η_L	'0.4934'	'0.5172'	'0.5053'	'0.8786'	'0.1499'
ϑ_P	'0.0053'	'0.0064'	'0.0058'	'0.0001'	'0.0824'
γ_H	'0.8396'	'0.8634'	'0.8515'	'0.9753'	'0.0812'
z	'14.5657'	'15.5326'	'15.0492'	'1.1332'	'0.1037'
η_{ϑ}	'0.7936'	'0.8165'	'0.8051'	'0.4605'	'0.0854'
a_L	'2.8368'	'3.2206'	'3.0287'	'14.6665'	'0.1421'
b_L	'14.1221'	'14.4714'	'14.2967'	'14.951'	'0.0708'
a_{μ}	'9.9891'	'10.4302'	'10.2096'	'13.4385'	'0.0542'
b_{μ}	'5.6585'	'6.2226'	'5.9405'	'6.2646'	'0.0734'
μ	'0.0023'	'0.0051'	'0.0037'	'0.0042'	'0.0629'
a_H	'4.6661'	'5.1422'	'4.9041'	'14.7152'	'0.1558'
b_H	'1.8189'	'1.8845'	'1.8517'	'2.3777'	'0.0993'
ν	'236.1895'	'257.3708'	'246.7801'	'0.0066'	'0.1336'
BP	'186.3889'	'186.6111'	'186.5'	'186.5'	'0.0721'

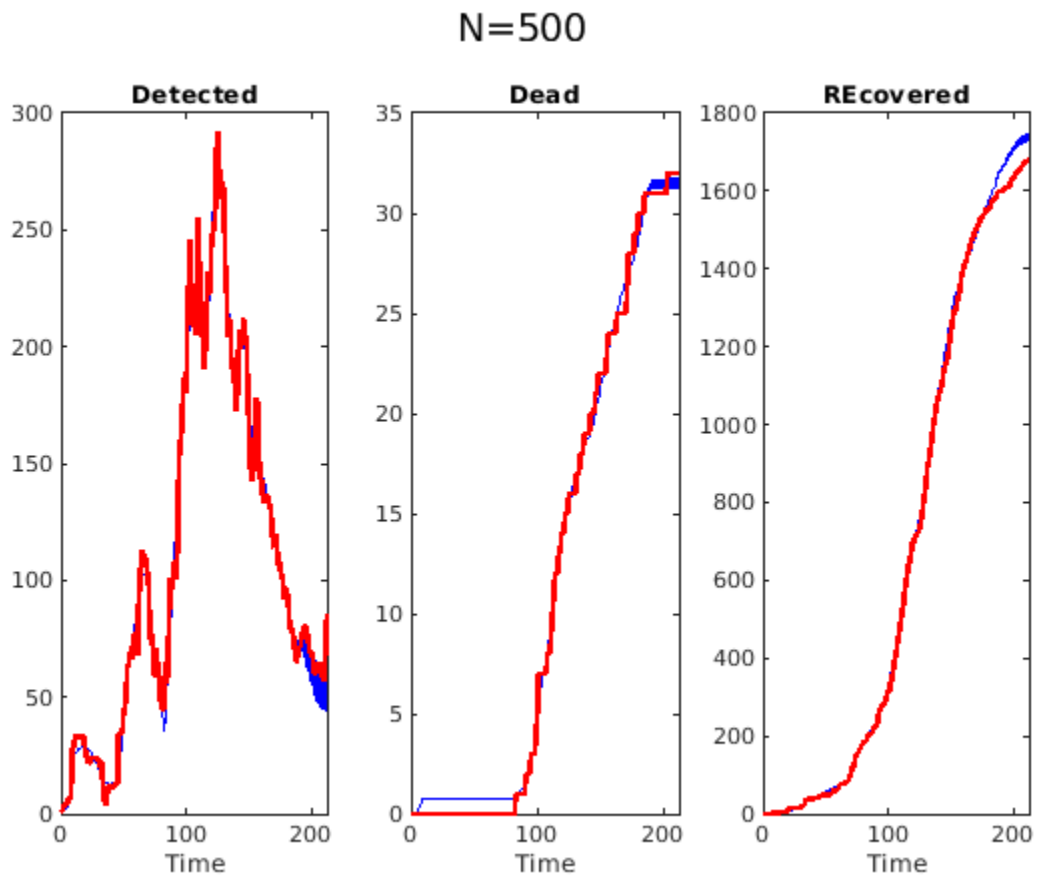
7.3. Identifiability analysys







7.4. Uncertainty analysys



Chapter 8. Extension number8

8.1. Basic information

The extension to be validated consists of the time series from the data213 to the 320. The status of the validation is: COMPLETED.

The number of estimations needed to perform the validation was1000.

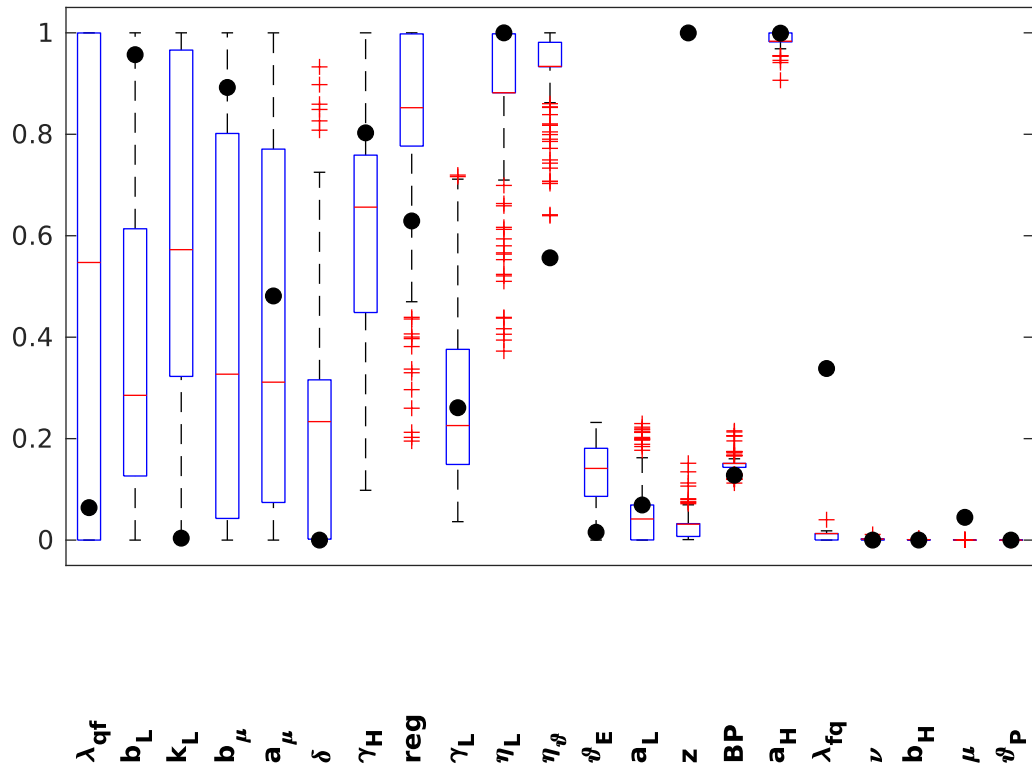
8.2. Estimated parameters with their intervals

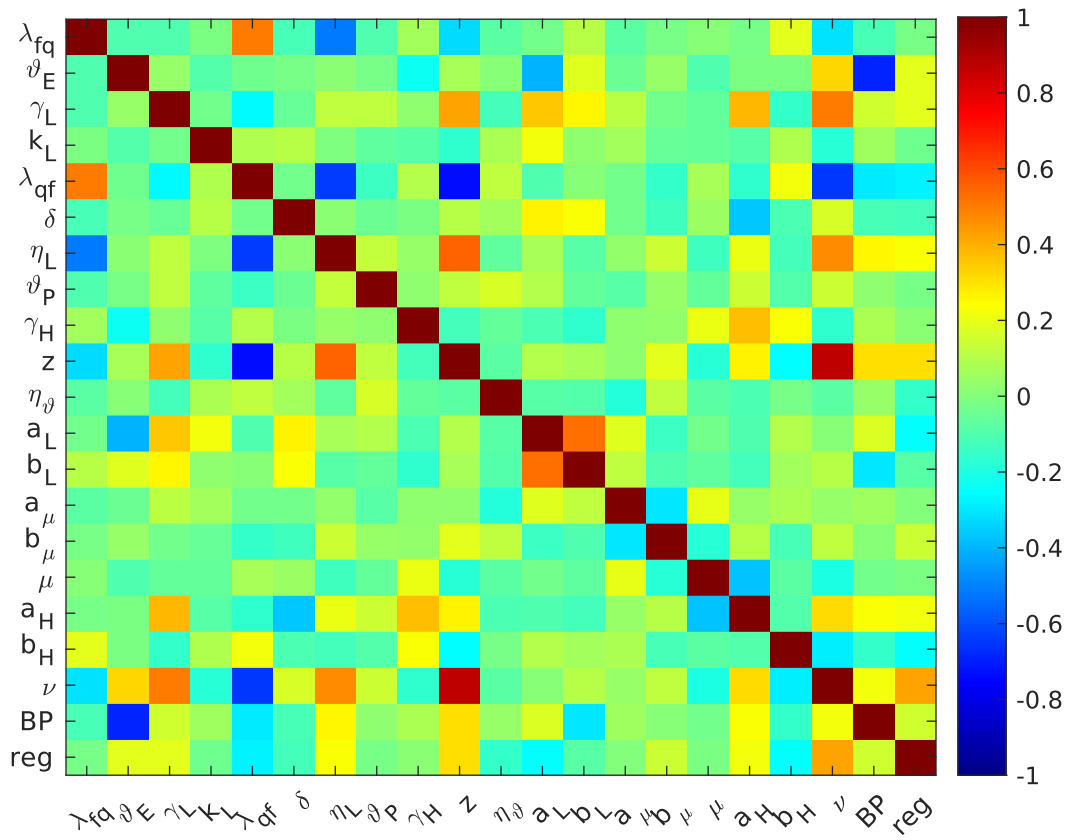
It was necessary to fix 0 parameters of 11 that could be fixed to complete validation.

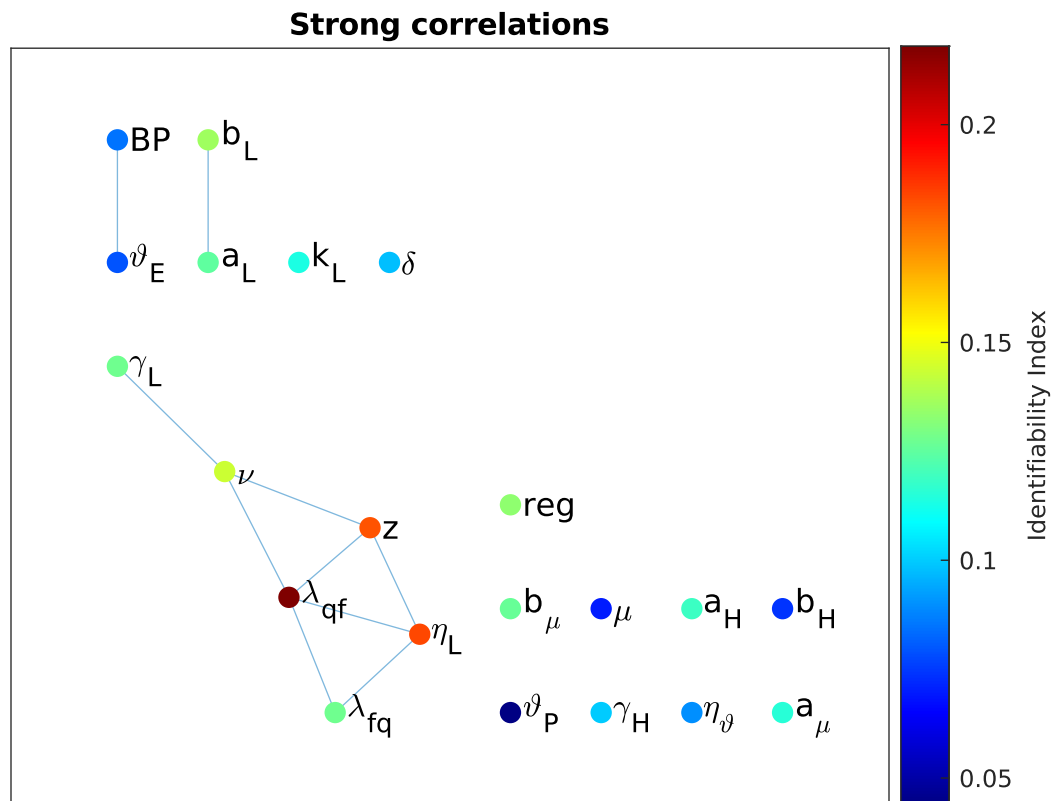
Due to a deviation from the median the CSB method was activated to obtain the parameter intervals.

	Rango		Nominal	Mejor	Index
λ_{fq}	'0.2392'	'0.3496'	'0.0129'	'0.3383'	'0.1279'
ϑ_E	'0.0148'	'0.0219'	'0.1413'	'0.0155'	'0.0794'
γ_L	'0.2036'	'0.2642'	'0.2267'	'0.261'	'0.1279'
k_L	'1'	'2.2613'	'6.153'	'1.0345'	'0.1139'
λ_{qf}	'0.0618'	'0.0999'	'0.5473'	'0.064'	'0.218'
δ	'0'	'0'	'0.0351'	'0'	'0.098'
η_L	'0.6862'	'1'	'0.8818'	'0.9999'	'0.1839'
ϑ_P	'0'	'0'	'0'	'0'	'0.044'
γ_H	'0.1719'	'0.905'	'0.6564'	'0.8029'	'0.1001'
z	'18.2953'	'30'	'0.9739'	'29.9937'	'0.1819'
η_{ϑ}	'0.551'	'0.9775'	'0.9331'	'0.5565'	'0.0897'
a_L	'1.5088'	'5.0562'	'1.6152'	'1.9691'	'0.1253'
b_L	'9.8998'	'14.4248'	'4.9955'	'14.3969'	'0.1362'
a_{μ}	'1'	'15'	'5.3587'	'7.7382'	'0.1157'
b_{μ}	'1.35'	'15'	'5.579'	'13.4923'	'0.1263'
μ	'0'	'0.1009'	'0.0002'	'0.0449'	'0.0701'
a_H	'5.3043'	'15'	'14.75'	'14.9907'	'0.1193'
b_H	'1'	'11.4328'	'1.0123'	'1.0012'	'0.0744'
ν	'0'	'0.0281'	'1.3026'	'0.0136'	'0.1436'
BP	'201.1728'	'213.0435'	'210.5'	'207.5'	'0.0849'
reg	'0.11'	'0.2019'	'0.2123'	'0.1573'	'0.1336'

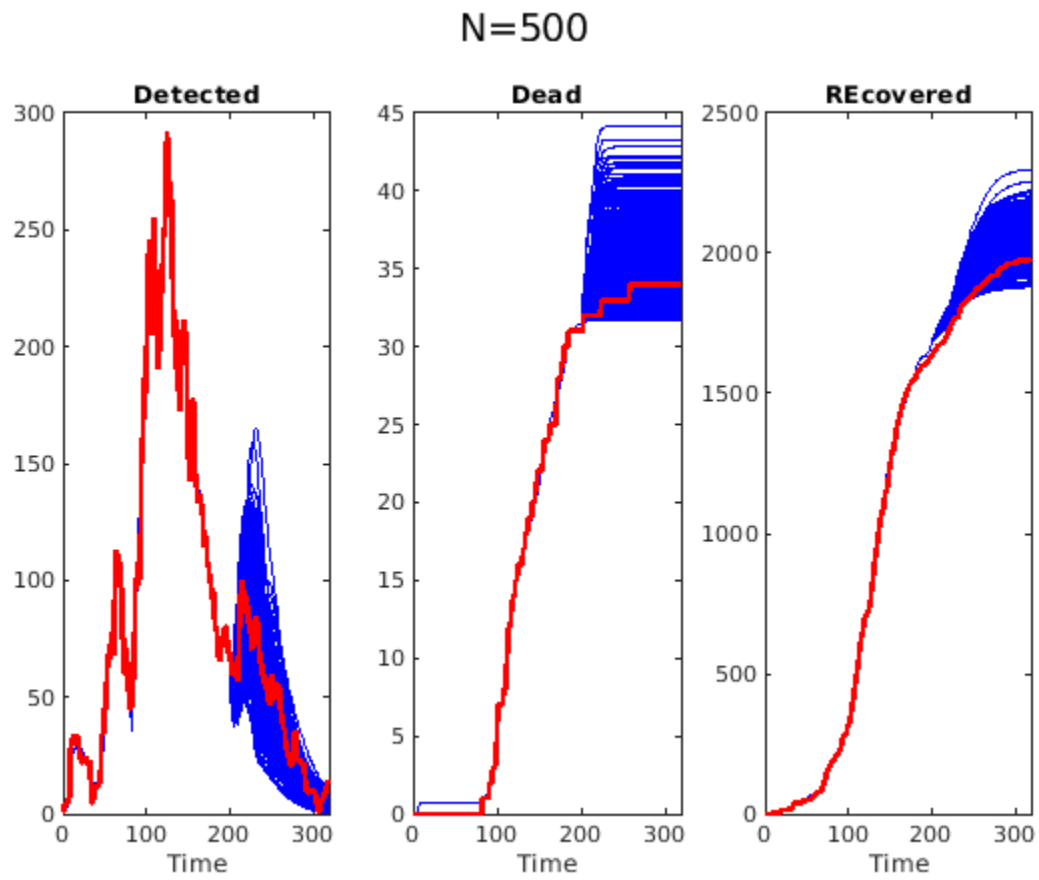
8.3. Identifiability analysis







8.4. Uncertainty analysis



Chapter 9. Extension number9

9.1. Basic information

The extension to be validated consists of the time series from the data320 to the 351. The status of the validation is: COMPLETED.

The number of estimations needed to perform the validation was1000.

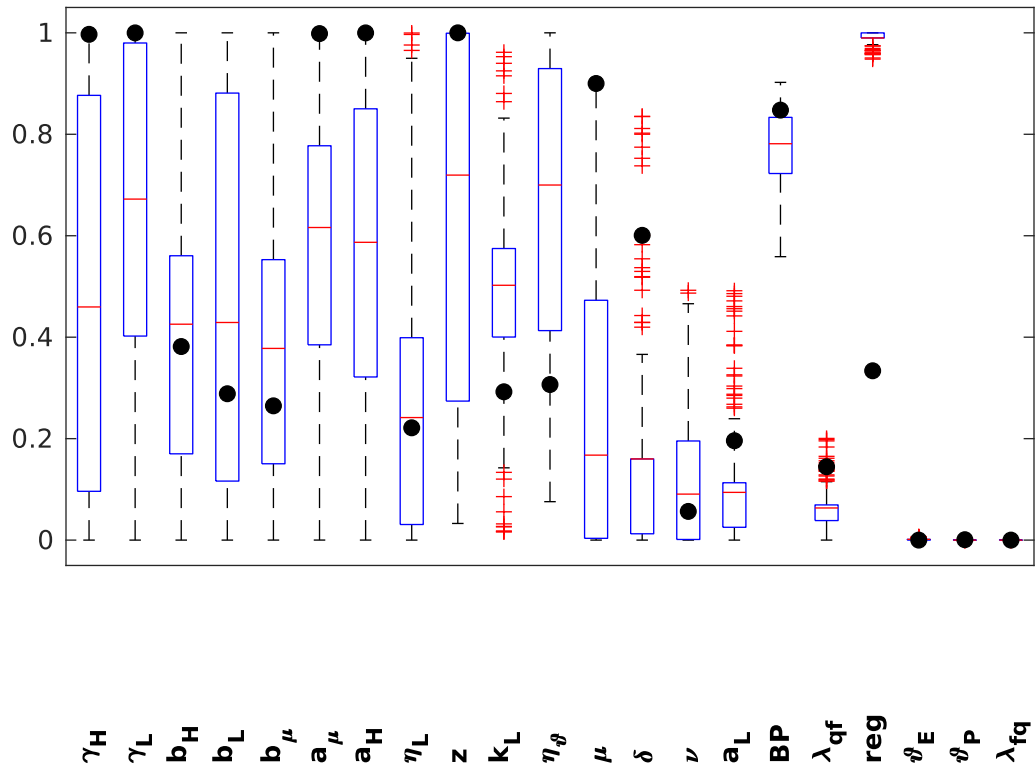
9.2. Estimated parameters with their intervals

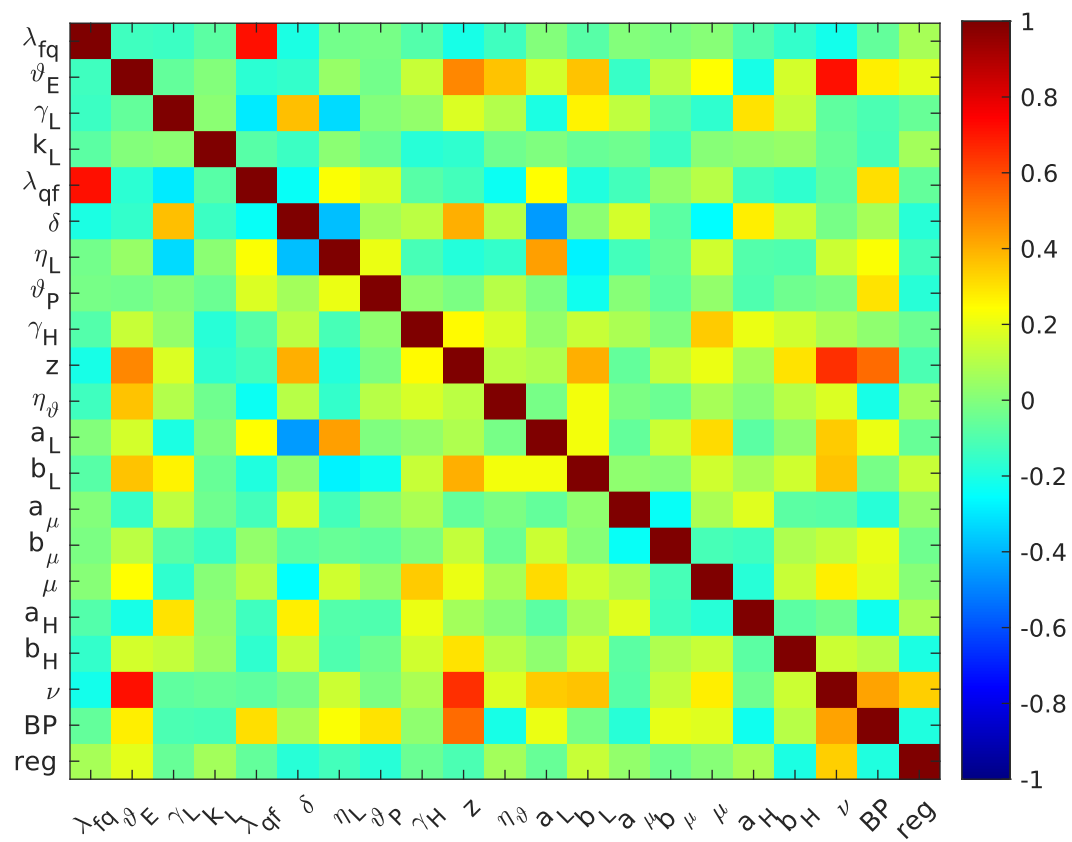
It was necessary to fix 0 parameters of 11 that could be fixed to complete validation.

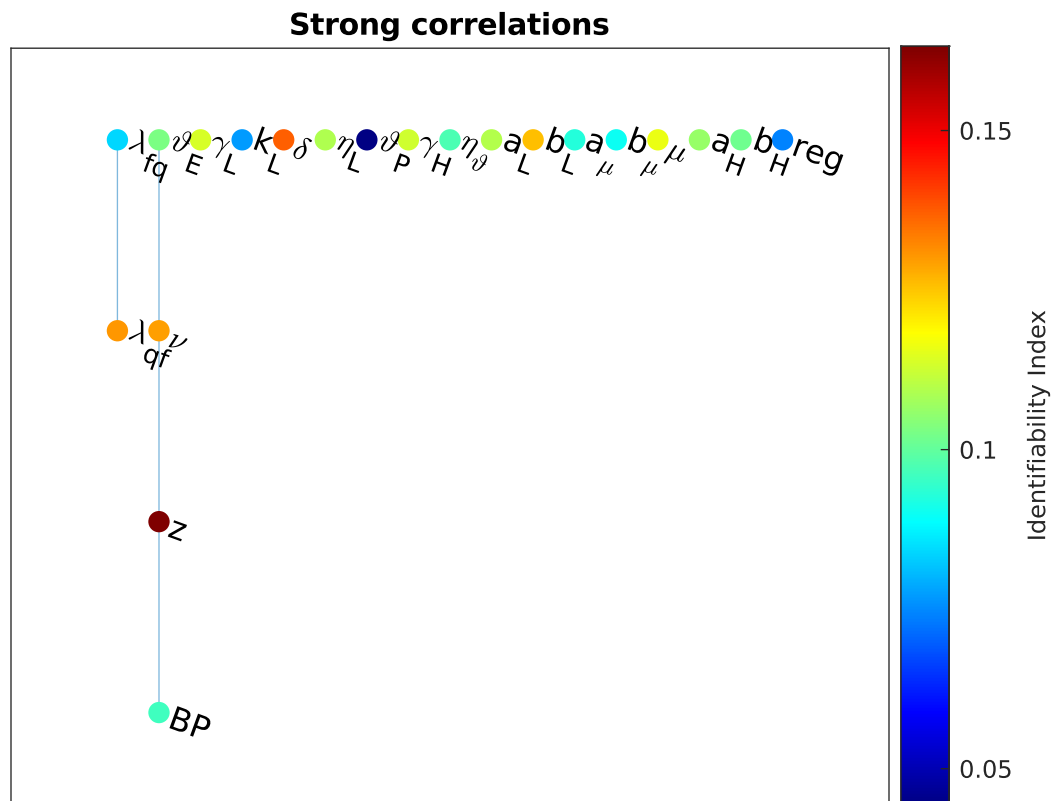
Due to a deviation from the median the CSB method was activated to obtain the parameter intervals.

	Rango		Nominal	Mejor	Index
λ_{fq}	'0'	'0'	'0'	'0'	'0.0841'
ϑ_E	'0'	'0'	'0.0015'	'0'	'0.1032'
γ_L	'0.5888'	'1'	'0.6722'	'0.9999'	'0.1138'
k_L	'1.45'	'10'	'5.521'	'3.6313'	'0.0772'
λ_{qf}	'0.1366'	'0.3631'	'0.0633'	'0.1446'	'0.1303'
δ	'0.0134'	'0.1215'	'0.024'	'0.0901'	'0.1369'
η_L	'0.0911'	'1'	'0.2416'	'0.2214'	'0.1089'
ϑ_P	'0.0003'	'0.0046'	'0'	'0.0008'	'0.0444'
γ_H	'0.1664'	'1'	'0.4596'	'0.997'	'0.113'
z	'21.5144'	'30'	'21.5857'	'29.9996'	'0.1632'
η_{ϑ}	'0.2587'	'0.3813'	'0.7'	'0.3067'	'0.0976'
a_L	'3.1186'	'3.8138'	'2.3171'	'3.7428'	'0.1099'
b_L	'3.1298'	'5.1555'	'7.0058'	'5.0394'	'0.1257'
a_{μ}	'6.4784'	'15'	'9.6272'	'14.9791'	'0.0929'
b_{μ}	'1.5739'	'12.6242'	'6.2903'	'4.7056'	'0.0902'
μ	'0.0738'	'0.9097'	'0.1675'	'0.9001'	'0.1159'
a_H	'2.715'	'15'	'9.2186'	'14.9982'	'0.1062'
b_H	'1.3325'	'14.3'	'6.9586'	'6.3421'	'0.1016'
ν	'24.0307'	'33.3594'	'45.3306'	'28.2793'	'0.1295'
BP	'321.4952'	'324.9903'	'313.0146'	'321.5'	'0.096'
reg	'0.0751'	'0.0917'	'0.2475'	'0.0834'	'0.0746'

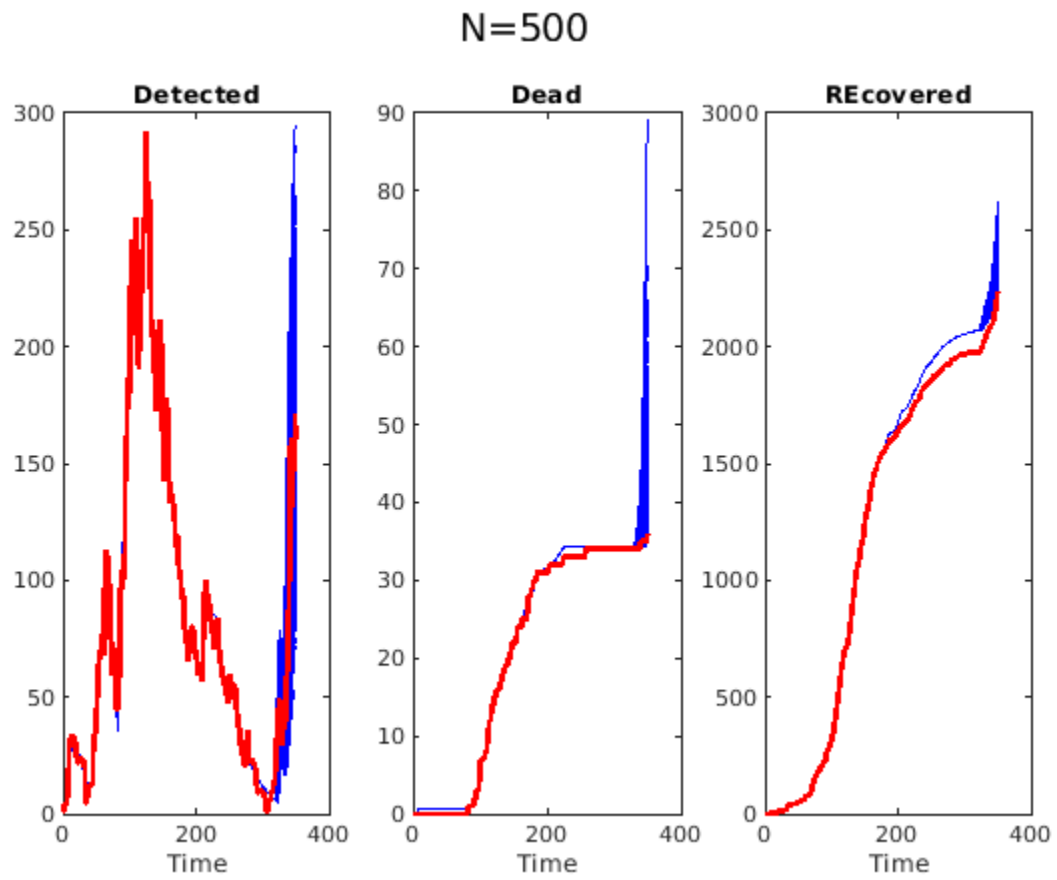
9.3. Identifiability analysis







9.4. Uncertainty analysys



Chapter 10. Extension number10

10.1. Basic information

The extension to be validated consists of the time series from the data351 to the 372. The status of the validation is: COMPLETED.

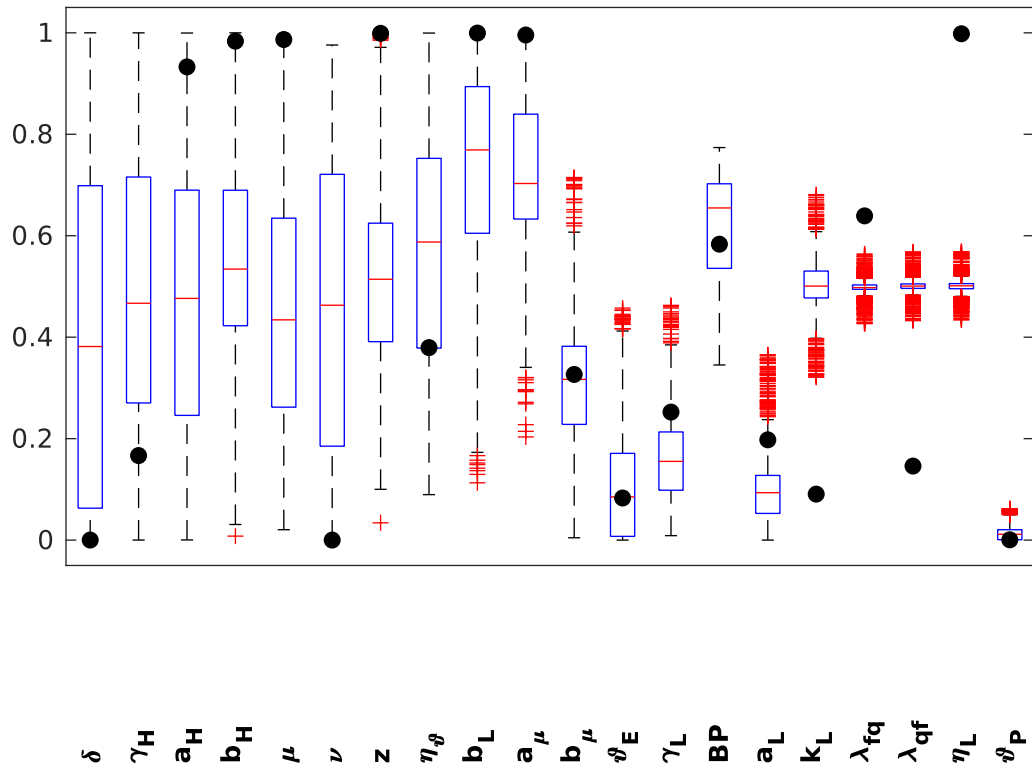
The number of estimations needed to perform the validation was1000.

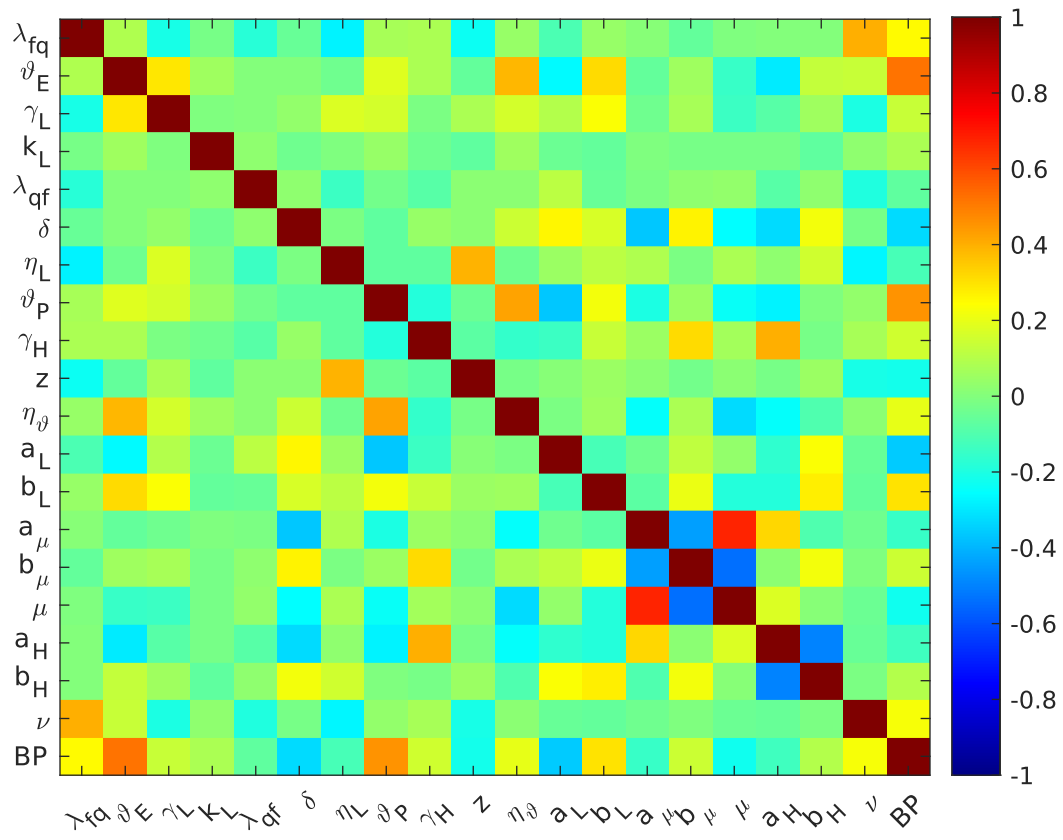
10.2. Estimated parameters with their intervals

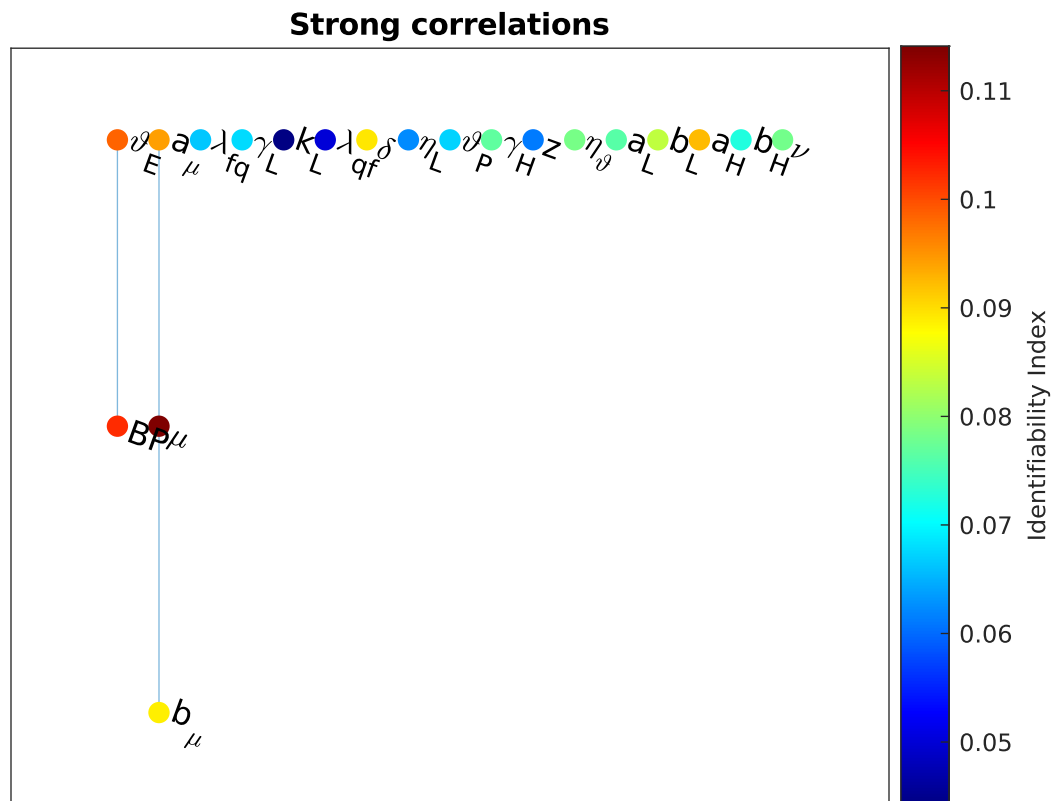
It was necessary to fix 0 parameters of 10 that could be fixed to complete validation.

	Rango		Nominal	Mejor	Index
\lambda_{fq}	'0.4831'	'0.5124'	'0.4977'	'0.6391'	'0.0664'
\vartheta_E	'0.0633'	'0.1069'	'0.0851'	'0.083'	'0.0983'
\gamma_L	'0.1397'	'0.1707'	'0.1552'	'0.2524'	'0.0677'
k_L	'5.4105'	'5.603'	'5.5068'	'1.8158'	'0.0443'
\lambda_{qf}	'0.4895'	'0.5119'	'0.5007'	'0.1459'	'0.0503'
\delta	'0.0525'	'0.0619'	'0.0572'	'0'	'0.0894'
\eta_L	'0.4902'	'0.5123'	'0.5013'	'0.9982'	'0.0623'
\vartheta_P	'0.0083'	'0.0147'	'0.0115'	'0.0006'	'0.0674'
\gamma_H	'0.442'	'0.4918'	'0.4669'	'0.1667'	'0.077'
z	'14.9529'	'15.902'	'15.4275'	'29.9695'	'0.0613'
\eta_{\vartheta}	'0.5682'	'0.607'	'0.5876'	'0.3795'	'0.0786'
a_L	'2.0368'	'2.58'	'2.3084'	'3.7673'	'0.0763'
b_L	'11.4501'	'12.0856'	'11.7678'	'14.9933'	'0.0834'
a_{\mu}	'10.5573'	'11.125'	'10.8411'	'14.9396'	'0.0944'
b_{\mu}	'5.1871'	'5.6848'	'5.4359'	'5.5723'	'0.0888'
\mu	'0.41'	'0.4583'	'0.4342'	'0.9868'	'0.1141'
a_H	'7.3039'	'8.0365'	'7.6702'	'14.0597'	'0.0925'
b_H	'8.2144'	'8.745'	'8.4797'	'14.7696'	'0.0726'
\nu	'217.7334'	'245.2597'	'231.4965'	'0.0344'	'0.0783'
BP	'346.9547'	'348.0452'	'347.5'	'344.5'	'0.1023'

10.3. Identifiability analysis

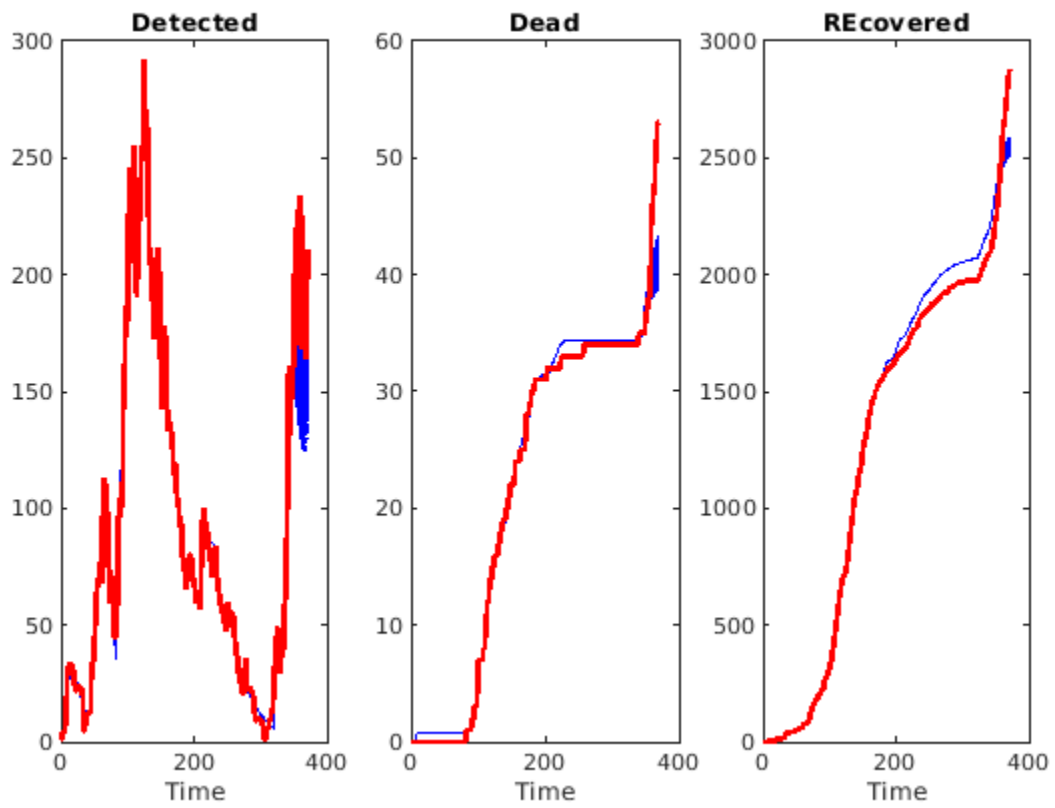






10.4. Uncertainty analysys

N=500



Chapter 11. Extension number11

11.1. Basic information

The extension to be validated consists of the time series from the data372 to the 384. The status of the validation is: COMPLETED.

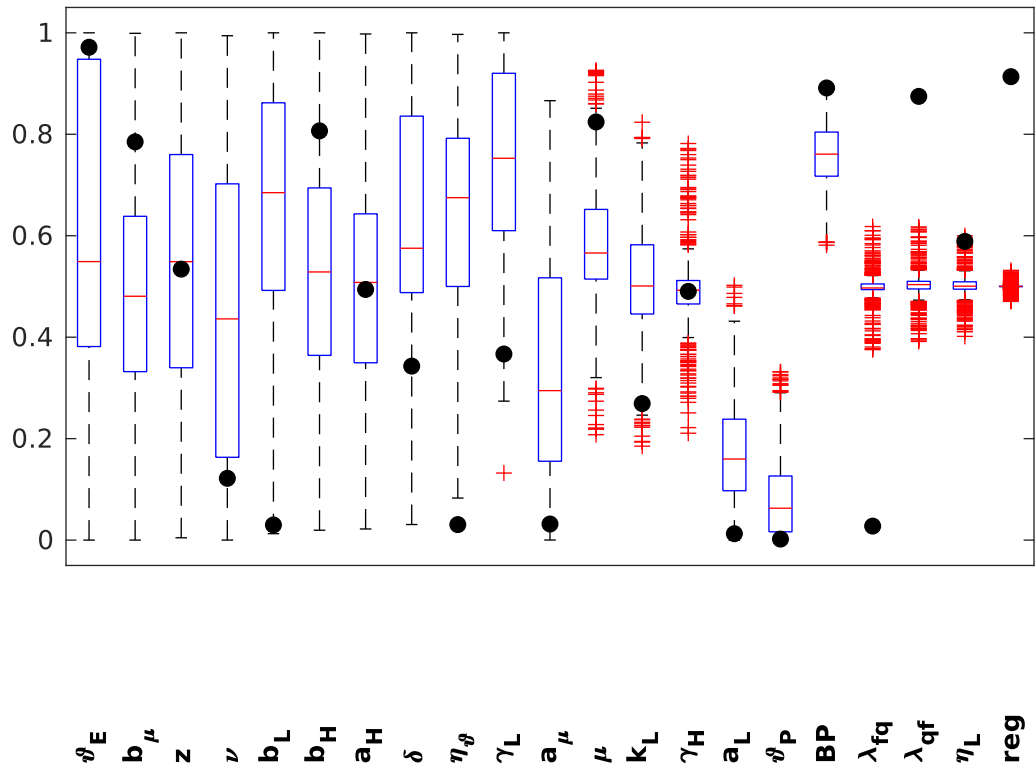
The number of estimations needed to perform the validation was1000.

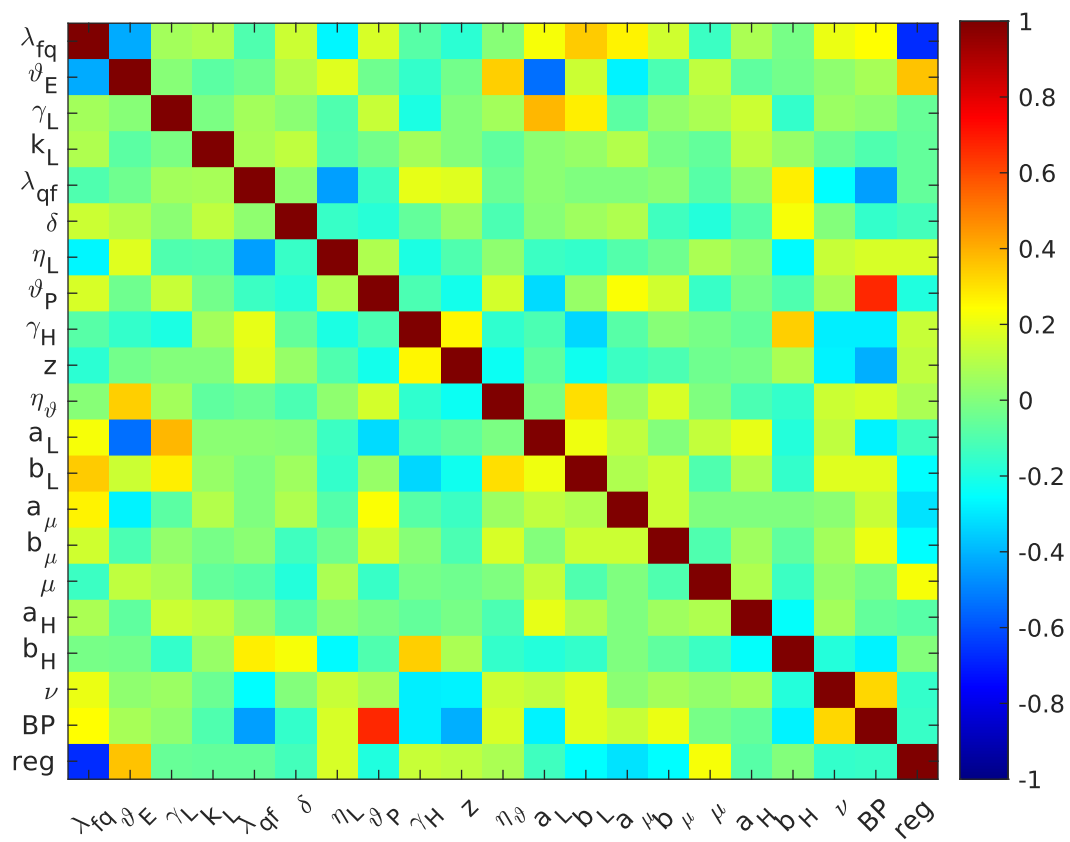
11.2. Estimated parameters with their intervals

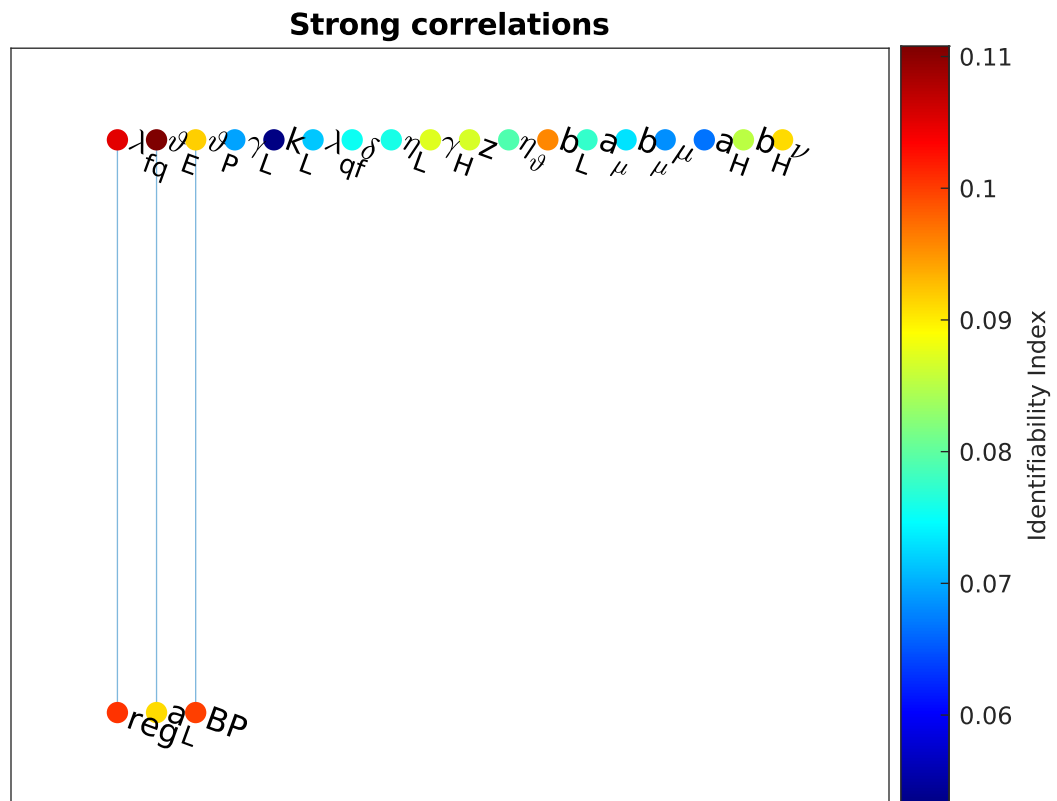
It was necessary to fix 0 parameters of 11 that could be fixed to complete validation.

	Rango		Nominal	Mejor	Index
\lambda_{fq}	'0.4739'	'0.5201'	'0.497'	'0.0276'	'0.1051'
\vartheta_E	'0.5109'	'0.5872'	'0.5491'	'0.9715'	'0.1108'
\gamma_L	'0.7302'	'0.7752'	'0.7527'	'0.3668'	'0.0695'
k_L	'5.3719'	'5.6454'	'5.5087'	'3.4223'	'0.0532'
\lambda_{qf}	'0.4855'	'0.5218'	'0.5037'	'0.8747'	'0.0716'
\delta	'0.0821'	'0.0905'	'0.0863'	'0.0514'	'0.0753'
\eta_L	'0.4827'	'0.5185'	'0.5006'	'0.5888'	'0.0761'
\vartheta_P	'0.0451'	'0.0809'	'0.063'	'0.002'	'0.0918'
\gamma_H	'0.4665'	'0.5188'	'0.4927'	'0.4904'	'0.0873'
z	'15.5456'	'17.3874'	'16.4665'	'16.0255'	'0.0868'
\eta_{\vartheta}	'0.6481'	'0.7012'	'0.6747'	'0.0305'	'0.0791'
a_L	'3.0073'	'3.4752'	'3.2412'	'1.1765'	'0.091'
b_L	'10.1365'	'11.0411'	'10.5888'	'1.4184'	'0.0959'
a_{\mu}	'4.7481'	'5.5025'	'5.1253'	'1.4441'	'0.0775'
b_{\mu}	'7.3683'	'8.0913'	'7.7298'	'11.9916'	'0.0731'
\mu	'0.5425'	'0.5895'	'0.566'	'0.8244'	'0.0685'
a_H	'7.782'	'8.4392'	'8.1106'	'7.9171'	'0.0668'
b_H	'8.0302'	'8.7708'	'8.4005'	'12.2948'	'0.0853'
\nu	'200.1546'	'235.9416'	'218.0481'	'60.9135'	'0.0912'
BP	'368.2214'	'368.7786'	'368.5'	'371.5'	'0.0998'
reg	'0.1195'	'0.1306'	'0.1251'	'0.2284'	'0.1005'

11.3. Identifiability analysis

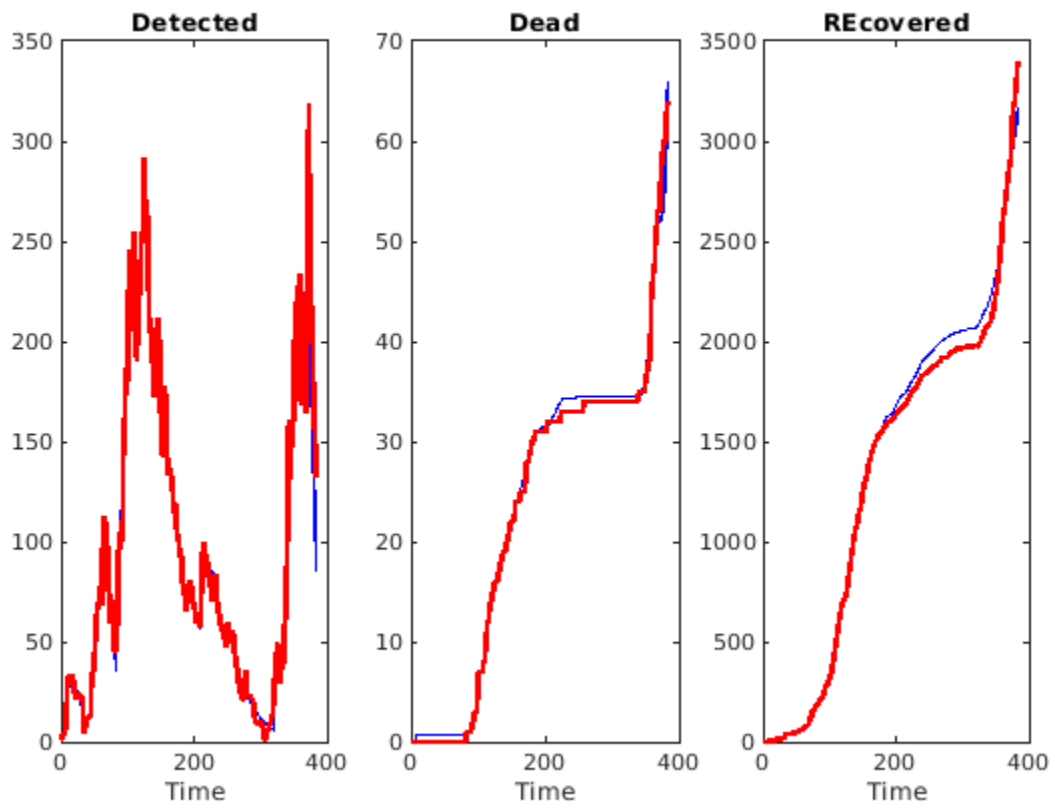






11.4. Uncertainty analysys

N=500



Chapter 12. Extension number12

12.1. Basic information

The extension to be validated consists of the time series from the data384 to the 400. The status of the validation is: COMPLETED.

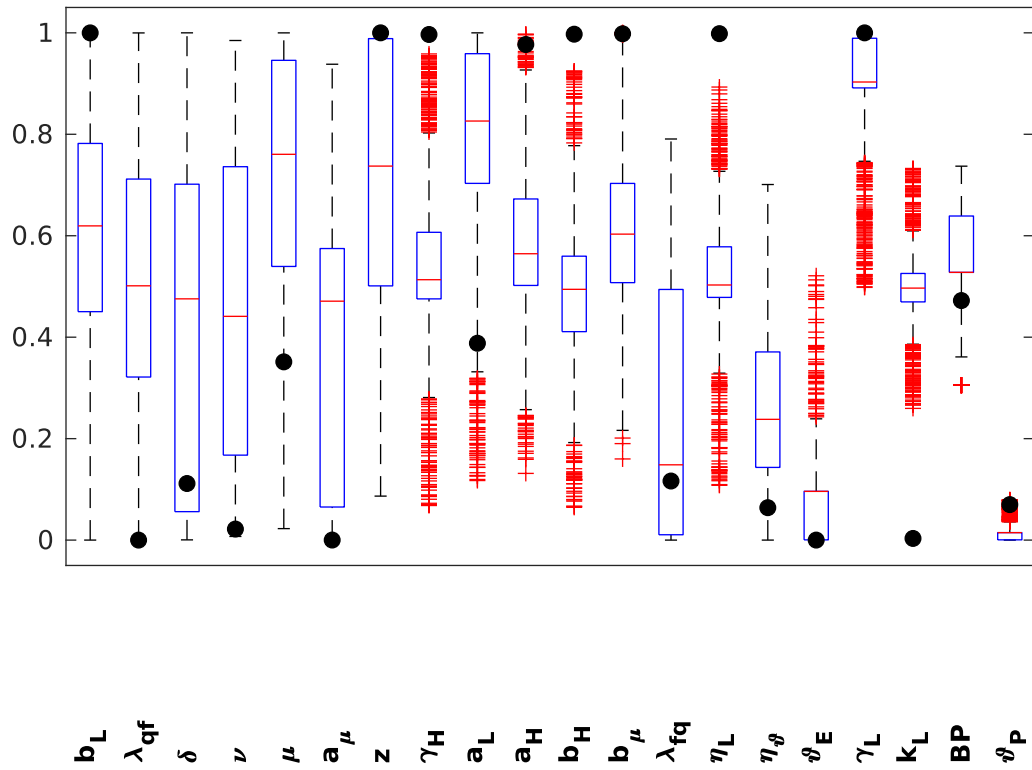
The number of estimations needed to perform the validation was1000.

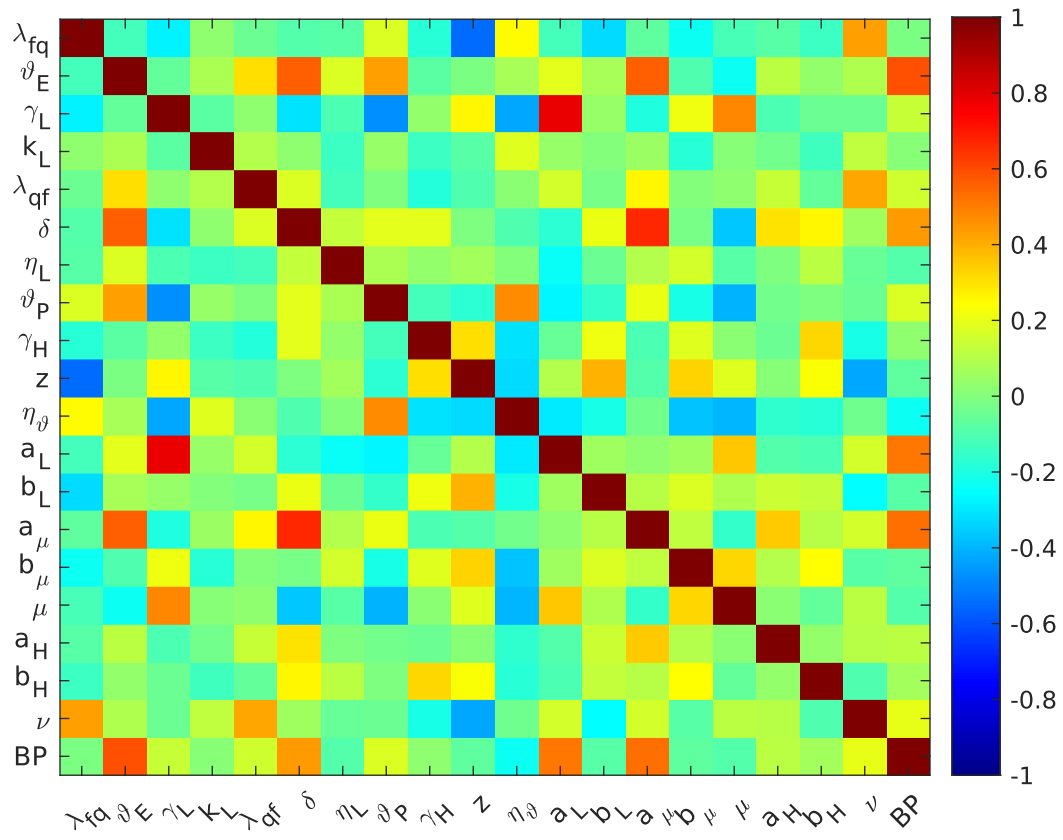
12.2. Estimated parameters with their intervals

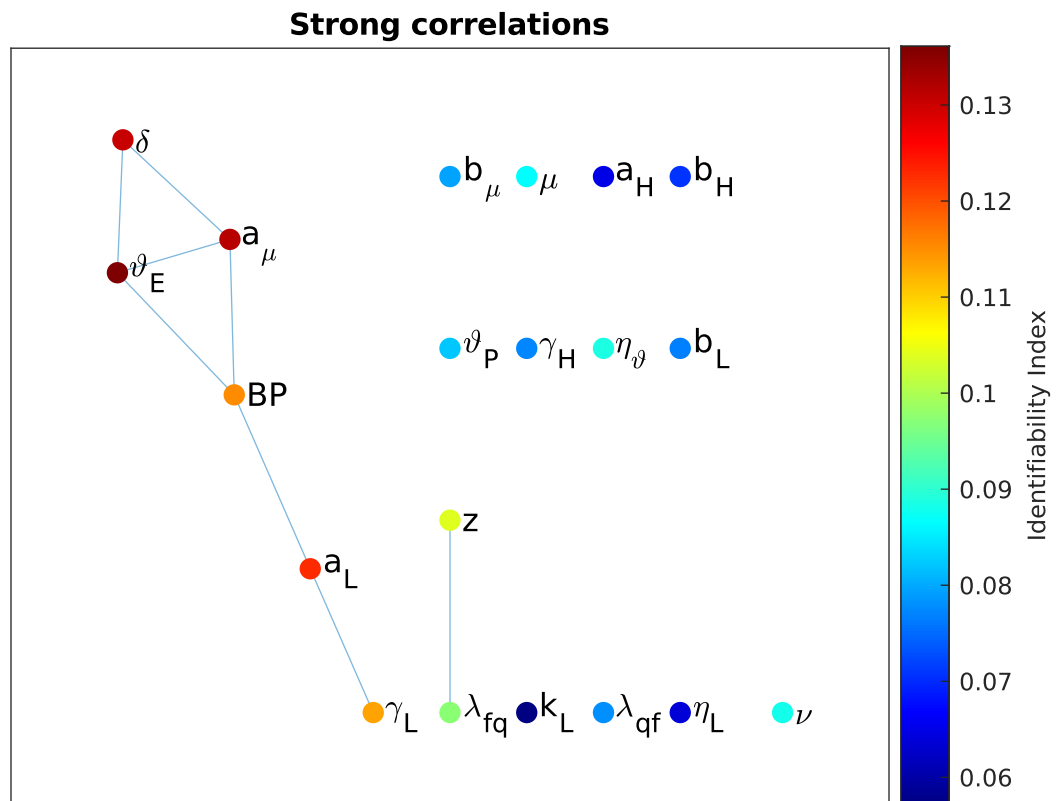
It was necessary to fix 0 parameters of 10 that could be fixed to complete validation.

	Rango		Nominal	Mejor	Index
\lambda_{fq}	'0.1307'	'0.1681'	'0.1494'	'0.1165'	'0.0975'
\vartheta_E	'0.071'	'0.1214'	'0.0962'	'0'	'0.1361'
\gamma_L	'0.8781'	'0.9279'	'0.903'	'0.9999'	'0.1135'
k_L	'5.3462'	'5.5955'	'5.4708'	'1.0295'	'0.0572'
\lambda_{qf}	'0.477'	'0.5256'	'0.5013'	'0'	'0.0779'
\delta	'0.0673'	'0.0754'	'0.0713'	'0.0167'	'0.1305'
\eta_L	'0.4865'	'0.5193'	'0.5029'	'0.9984'	'0.064'
\vartheta_P	'0.003'	'0.0265'	'0.0147'	'0.07'	'0.0823'
\gamma_H	'0.4952'	'0.5314'	'0.5133'	'0.9967'	'0.0774'
z	'21.516'	'22.7213'	'22.1187'	'29.9994'	'0.1039'
\eta_{\vartheta}	'0.2248'	'0.2513'	'0.2381'	'0.0639'	'0.0889'
a_L	'12.2039'	'12.9209'	'12.5624'	'6.433'	'0.1229'
b_L	'9.4237'	'9.9201'	'9.6719'	'14.9984'	'0.0767'
a_{\mu}	'7.304'	'7.8839'	'7.5939'	'1.0015'	'0.1317'
b_{\mu}	'9.2377'	'9.6505'	'9.4441'	'14.9736'	'0.0795'
\mu	'0.7425'	'0.7785'	'0.7605'	'0.3514'	'0.0867'
a_H	'8.6848'	'9.1217'	'8.9032'	'14.6778'	'0.0651'
b_H	'7.688'	'8.154'	'7.921'	'14.9622'	'0.0711'
\nu	'208.3242'	'232.7539'	'220.539'	'10.8855'	'0.0881'
BP	'381.3583'	'381.6417'	'381.5'	'380.5'	'0.1152'

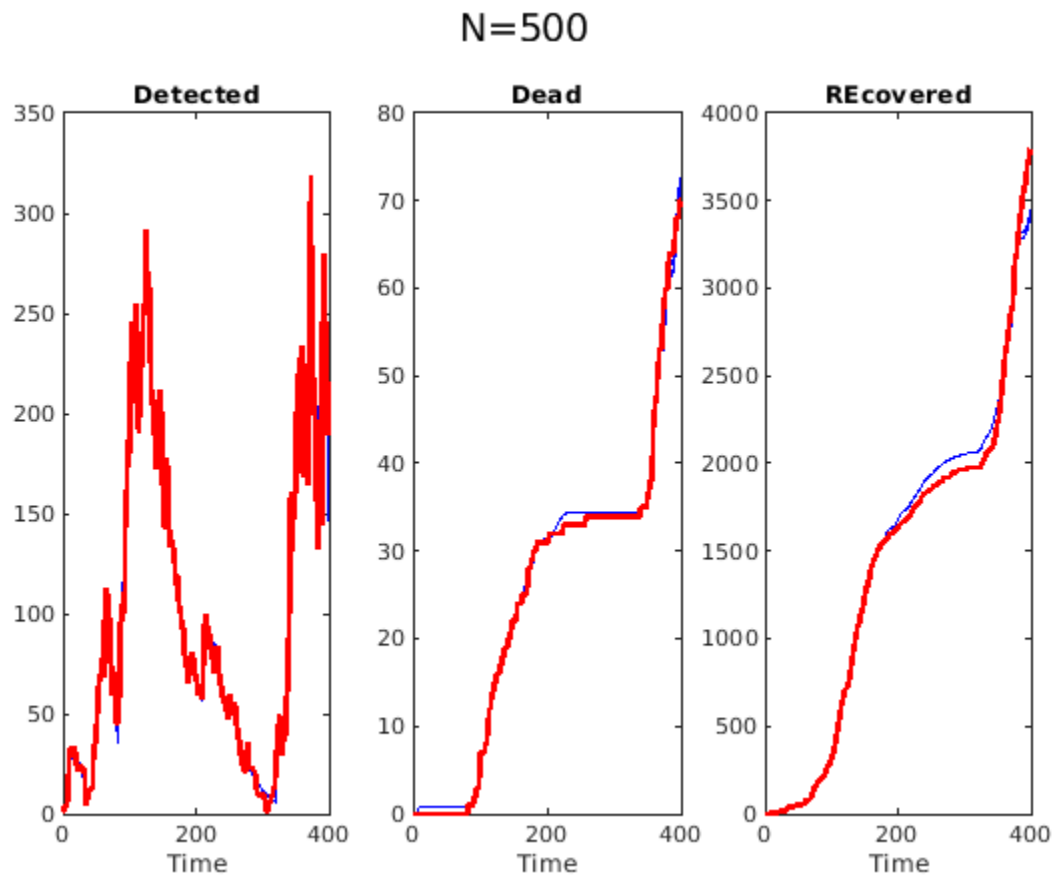
12.3. Identifiability analysis







12.4. Uncertainty analysys



Chapter 13. Extension number13

13.1. Basic information

The extension to be validated consists of the time series from the data400 to the 651. The status of the validation is: COMPLETED.

The number of estimations needed to perform the validation was1000.

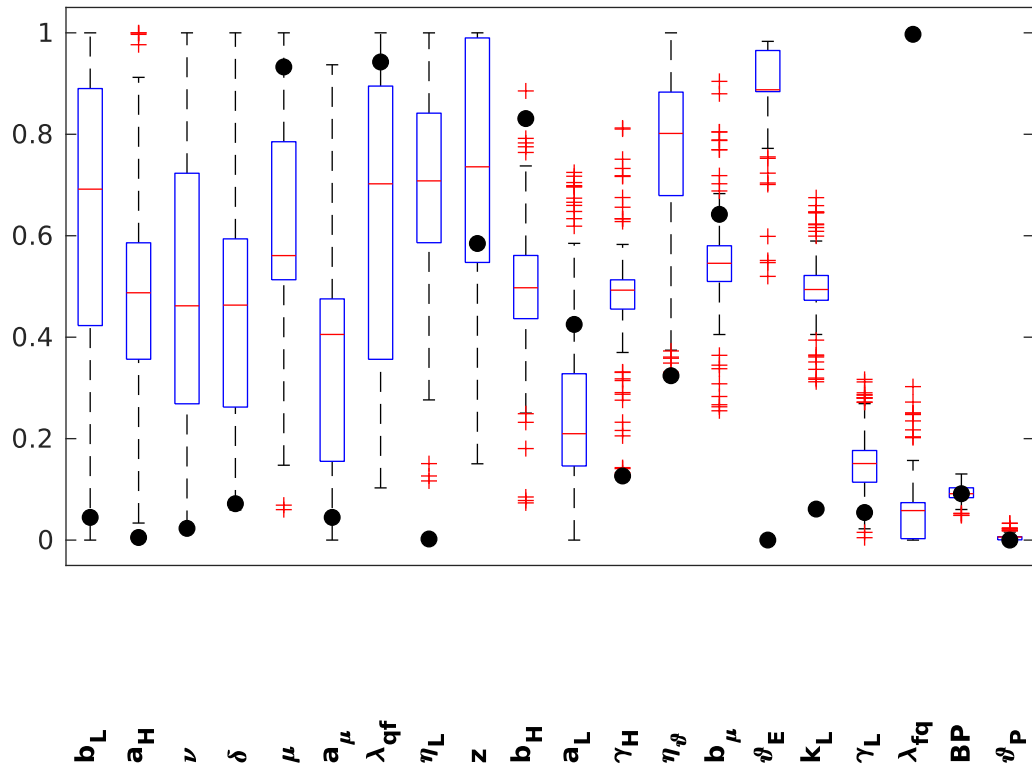
13.2. Estimated parameters with their intervals

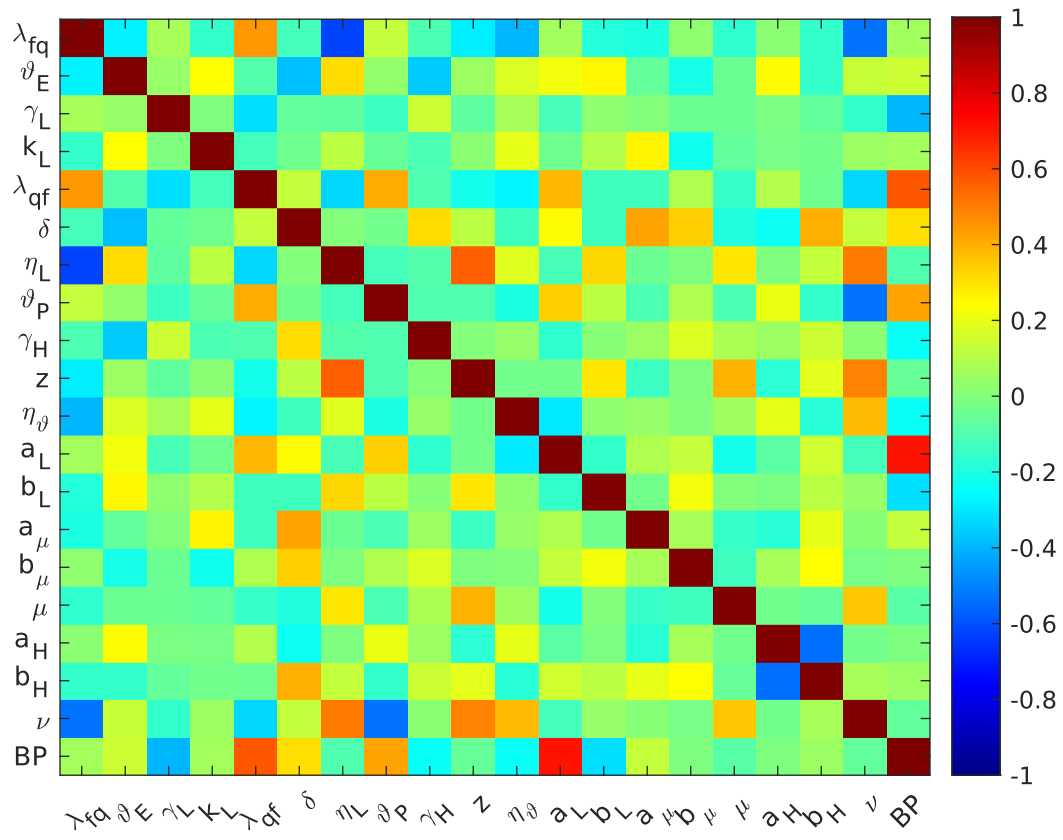
It was necessary to fix 0 parameters of 10 that could be fixed to complete validation.

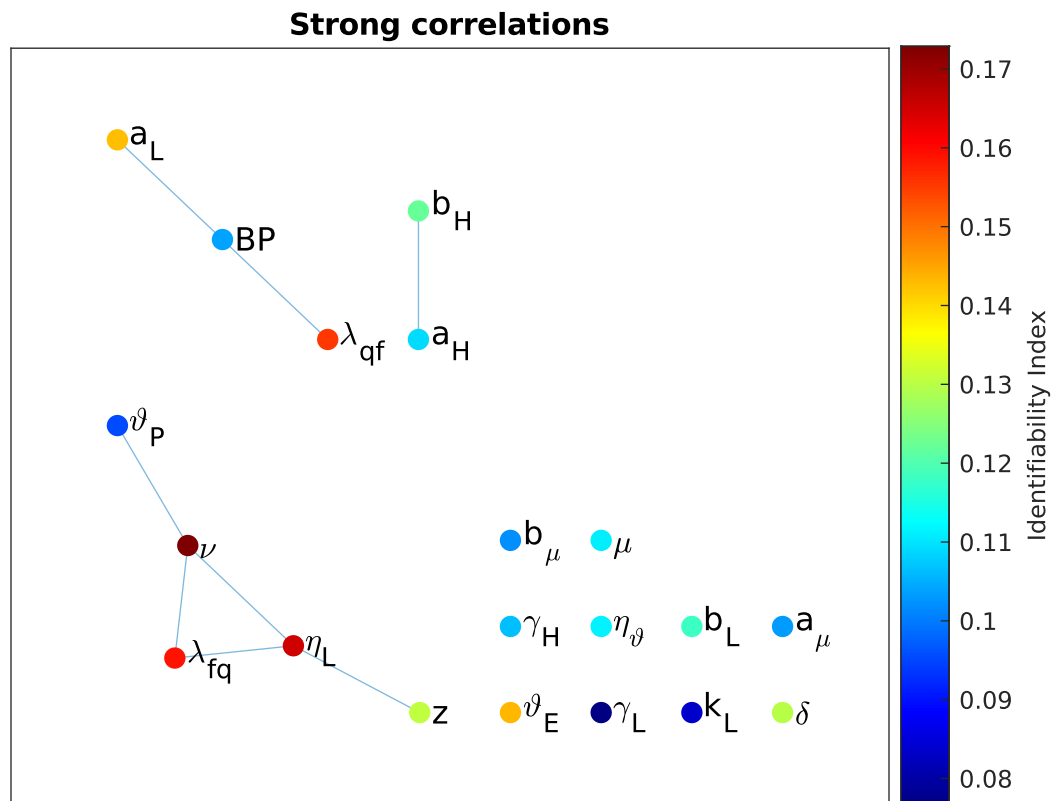
Due to a deviation from the median the CSB method was activated to obtain the parameter intervals.

	Rango		Nominal	Mejor	Index
λ_{fq}	'0.8017'	'1'	'0.0583'	'0.9971'	'0.159'
ϑ_E	'0'	'0.0002'	'0.8876'	'0.0001'	'0.1435'
γ_L	'0.0068'	'0.0552'	'0.1509'	'0.0544'	'0.0767'
k_L	'1'	'9.55'	'5.446'	'1.5504'	'0.0839'
λ_{qf}	'0.7579'	'0.9717'	'0.7023'	'0.9425'	'0.1554'
δ	'0.0009'	'0.0232'	'0.0695'	'0.0108'	'0.1299'
η_L	'0'	'0.0049'	'0.7061'	'0.0022'	'0.1651'
ϑ_P	'0'	'0'	'0.0067'	'0'	'0.0956'
γ_H	'0.0057'	'0.2733'	'0.4927'	'0.1264'	'0.1066'
z	'16.5214'	'24.3503'	'22.0762'	'17.5412'	'0.1307'
η_{ϑ}	'0.319'	'0.3685'	'0.8004'	'0.3241'	'0.1114'
a_L	'1.28'	'15'	'3.9469'	'6.9526'	'0.1428'
b_L	'1'	'15'	'10.6856'	'1.6265'	'0.1181'
a_{μ}	'1'	'15'	'6.7'	'1.6263'	'0.1034'
b_{μ}	'1'	'14.44'	'8.6396'	'9.9904'	'0.1022'
μ	'0'	'1'	'0.5593'	'0.9328'	'0.111'
a_H	'1'	'13.6'	'7.826'	'1.0718'	'0.1091'
b_H	'1'	'14.44'	'7.9641'	'12.6332'	'0.1223'
ν	'11.3901'	'20.2577'	'230.9288'	'11.5568'	'0.1729'
BP	'405.5533'	'409.2153'	'407.5'	'407.5'	'0.1038'

13.3. Identifiability analysis







13.4. Uncertainty analysis

