

Validation process for FLORENCIA

The epidemiology research group, EAFIT

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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 87. The status of the validation is: COMPLETED.

The number of estimations needed to perform the validation was1000.

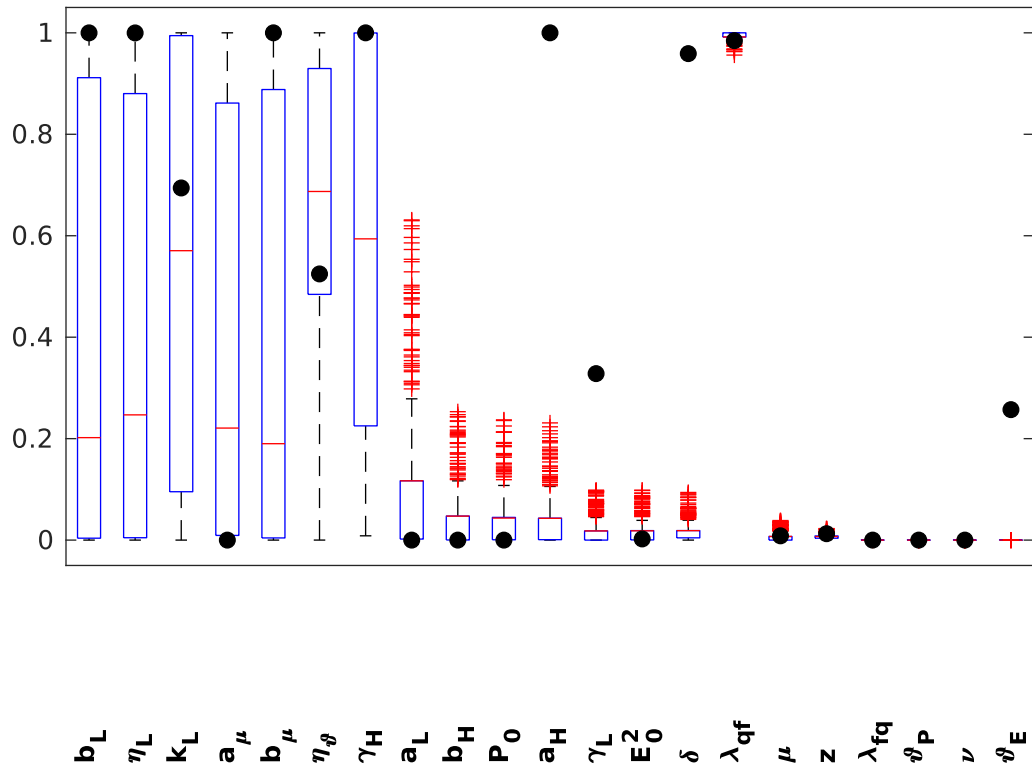
1.2. Estimated parameters with their intervals

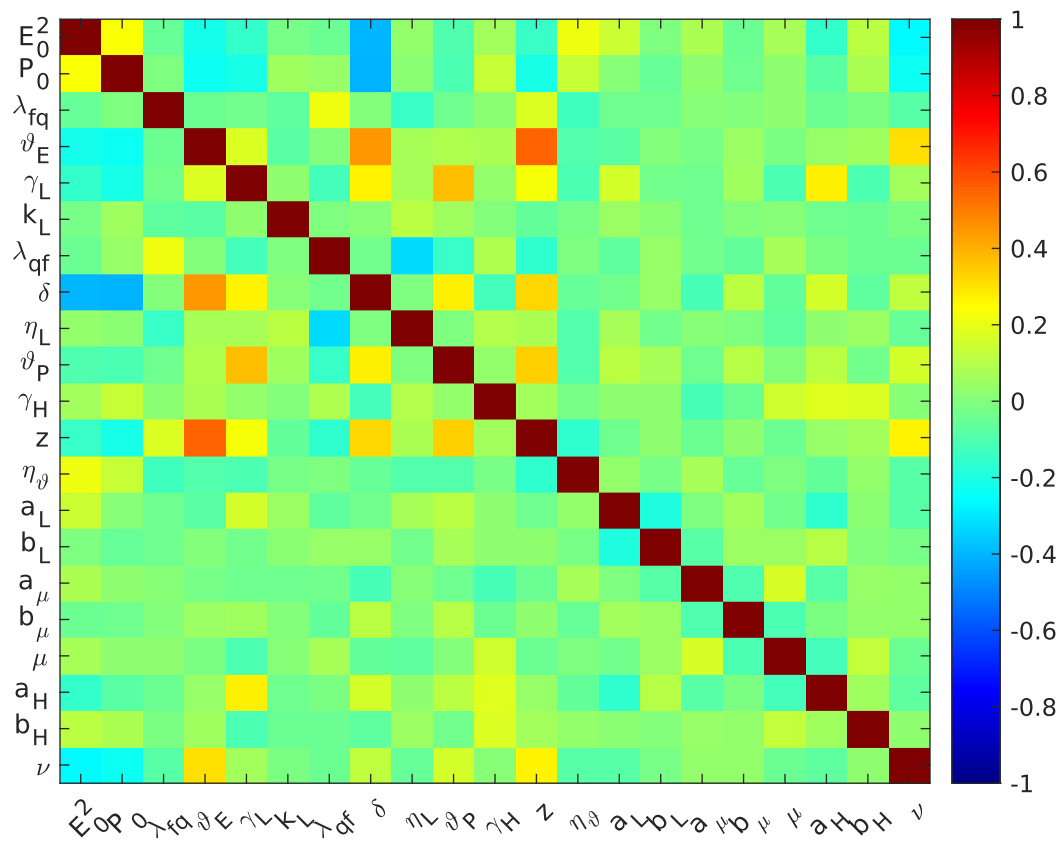
It was necessary to fix 0 parameters of 11 that could be fixed to complete validation.

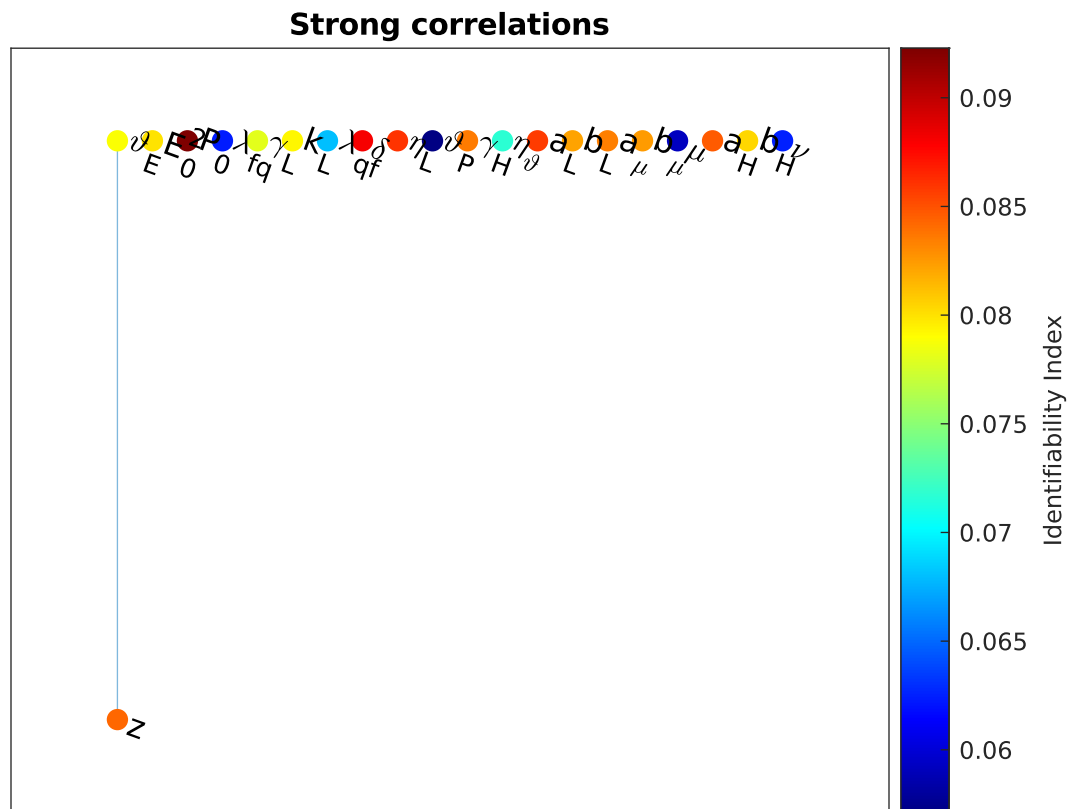
Due to a deviation from the median the CSB method was activated to obtain the parameter intervals.

	Rango		Nominal	Mejor	Index
E^2_0	'3.6562'	'4.9656'	'37.4613'	'4.6199'	'0.0801'
P_0	'0'	'0'	'17.9067'	'0'	'0.0923'
\lambda_{fq}	'0'	'0'	'0'	'0'	'0.0624'
\vartheta_E	'0.1641'	'0.2679'	'0'	'0.2572'	'0.0789'
\gamma_L	'0.2969'	'0.3304'	'0.0181'	'0.3282'	'0.078'
k_L	'1'	'10'	'6.1347'	'7.2476'	'0.0792'
\lambda_{qf}	'0'	'1'	'0.9916'	'0.9846'	'0.068'
\delta	'0.0589'	'0.15'	'0.0028'	'0.1439'	'0.0881'
\eta_L	'0.3463'	'1'	'0.2469'	'0.9998'	'0.0861'
\vartheta_P	'0'	'0'	'0'	'0'	'0.0571'
\gamma_H	'0.3969'	'1'	'0.5939'	'1'	'0.0836'
z	'0.3592'	'0.3971'	'0.2112'	'0.3783'	'0.0842'
\eta_{\vartheta}	'0.1768'	'1'	'0.6873'	'0.5247'	'0.0718'
a_L	'1'	'1.1465'	'2.6368'	'1'	'0.0858'
b_L	'12.8923'	'15'	'3.8278'	'14.9991'	'0.0822'
a_{\mu}	'1'	'15'	'4.0918'	'1'	'0.0834'
b_{\mu}	'3.7719'	'15'	'3.6606'	'15'	'0.0825'
\mu	'0.0002'	'0.0094'	'0.0072'	'0.0084'	'0.0593'
a_H	'8.0952'	'15'	'1.6058'	'15'	'0.0846'
b_H	'1'	'5.0596'	'1.6641'	'1.0003'	'0.0803'
\nu	'0'	'0.0007'	'0.0001'	'0.0003'	'0.0625'

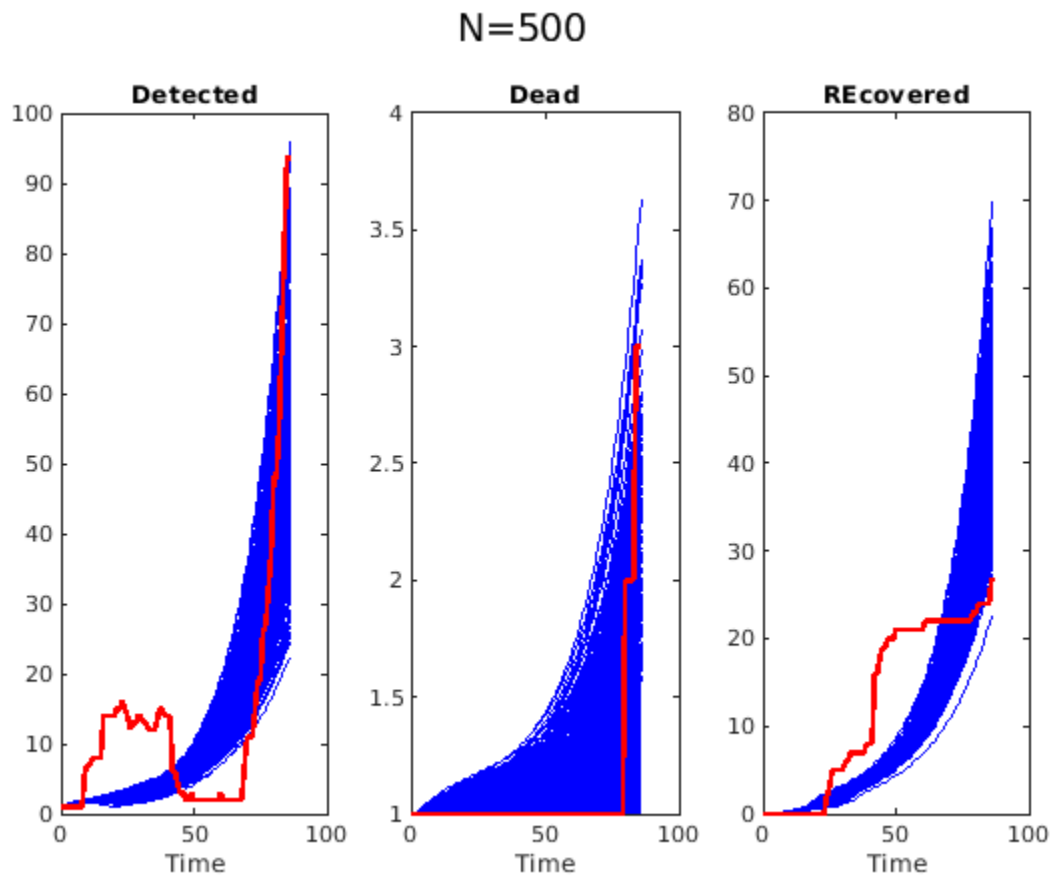
1.3. Identifiability analysys







1.4. Uncertainty analysis



Chapter 2. Extension number2

2.1. Basic information

The extension to be validated consists of the time series from the data87 to the 119. The status of the validation is: COMPLETED.

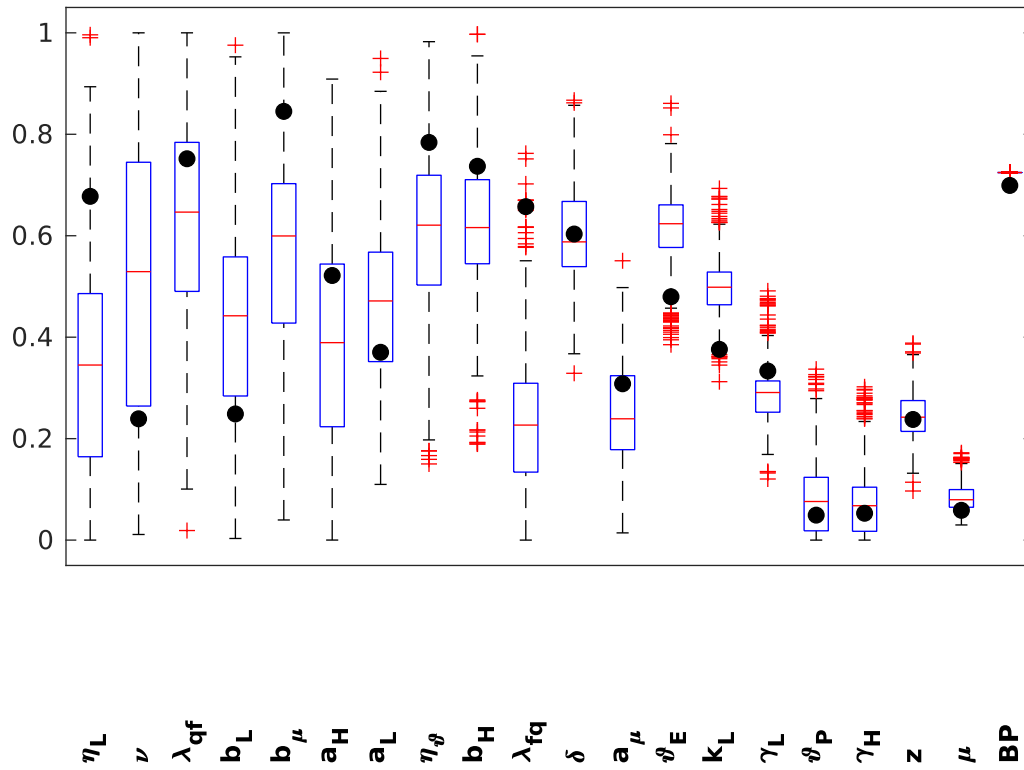
The number of estimations needed to perform the validation was1000.

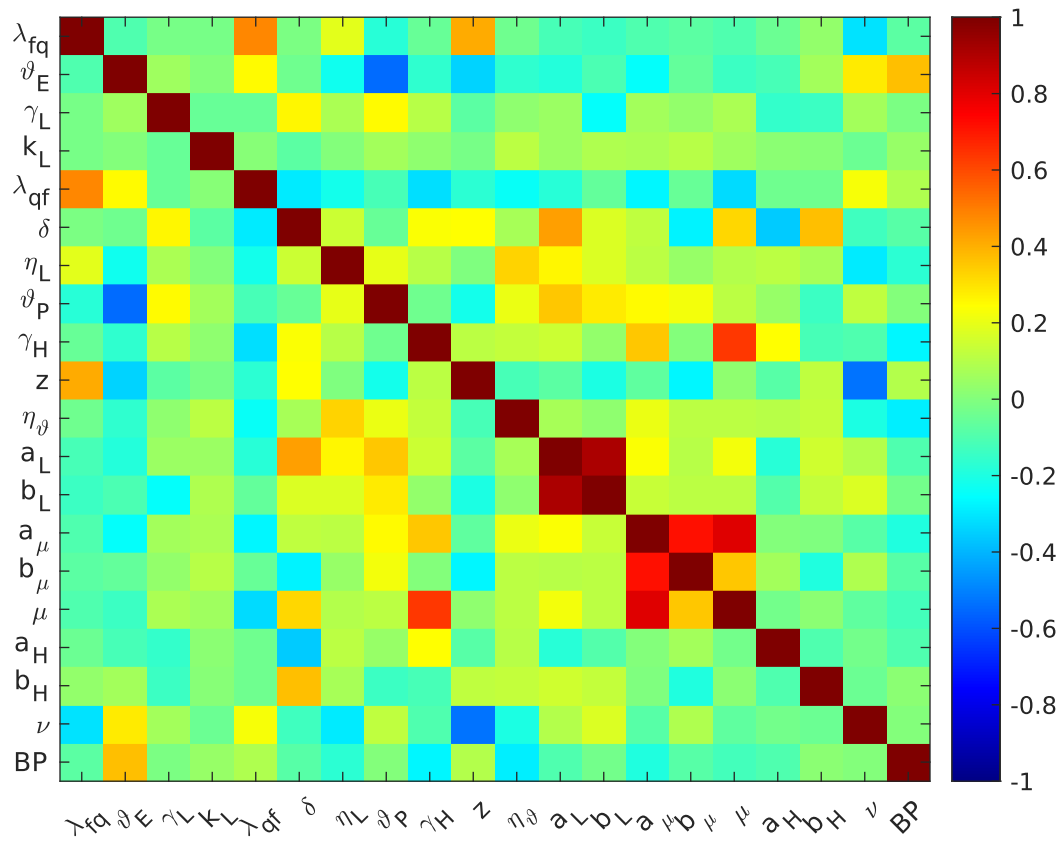
2.2. Estimated parameters with their intervals

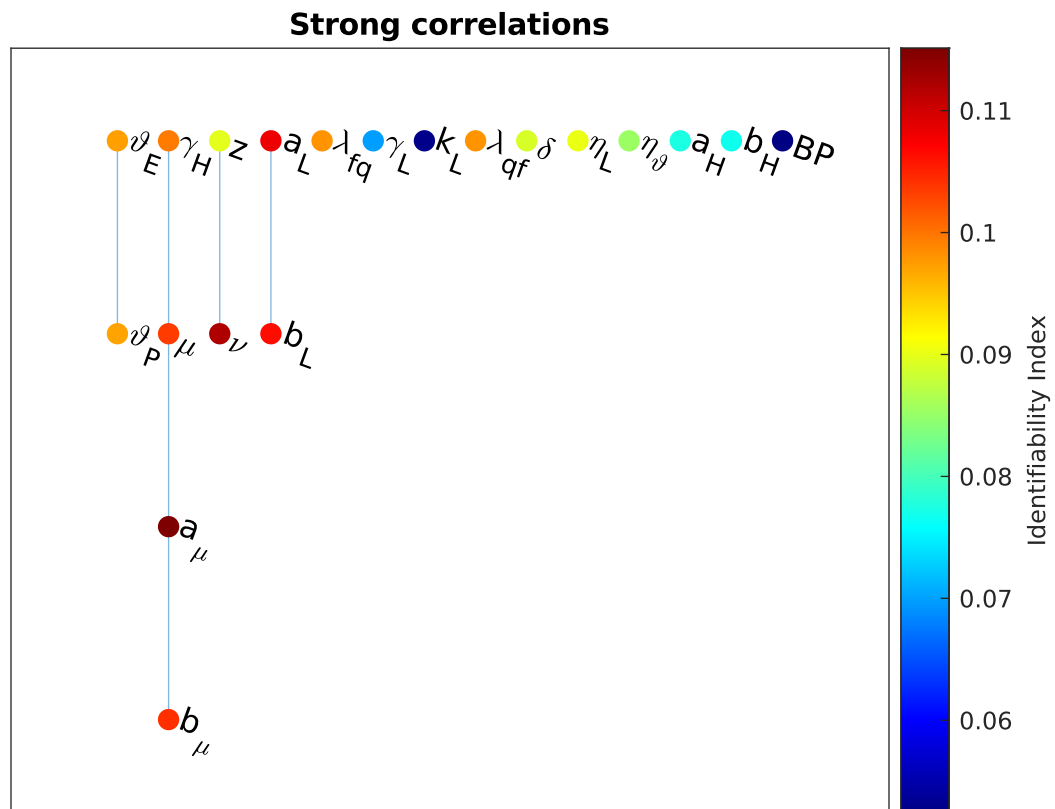
It was necessary to fix 0 parameters of 10 that could be fixed to complete validation.

	Rango		Nominal	Mejor	Index
λ_{fq}	'0.1851'	'0.269'	'0.2271'	'0.6573'	'0.098'
ϑ_E	'0.6069'	'0.6405'	'0.6237'	'0.4798'	'0.0974'
γ_L	'0.2689'	'0.3131'	'0.291'	'0.3334'	'0.0699'
k_L	'5.3352'	'5.6381'	'5.4866'	'4.3842'	'0.0531'
λ_{qf}	'0.6162'	'0.6769'	'0.6466'	'0.7518'	'0.098'
δ	'0.0855'	'0.0909'	'0.0882'	'0.0905'	'0.0891'
η_L	'0.3152'	'0.375'	'0.3451'	'0.6776'	'0.0903'
ϑ_P	'0.0595'	'0.0942'	'0.0769'	'0.0492'	'0.0972'
γ_H	'0.0458'	'0.0901'	'0.0679'	'0.0529'	'0.0996'
z	'6.8997'	'7.6673'	'7.2835'	'7.134'	'0.0898'
η_{ϑ}	'0.5937'	'0.6477'	'0.6207'	'0.7839'	'0.0855'
a_L	'7.2963'	'7.9053'	'7.6008'	'6.1834'	'0.1082'
b_L	'6.791'	'7.5905'	'7.1908'	'4.4817'	'0.1065'
a_{μ}	'4.1533'	'4.5566'	'4.3549'	'5.3141'	'0.1151'
b_{μ}	'8.9763'	'9.8068'	'9.3916'	'12.8321'	'0.1043'
μ	'0.0731'	'0.0861'	'0.0796'	'0.0587'	'0.1035'
a_H	'6.0431'	'6.8557'	'6.4494'	'8.3028'	'0.0776'
b_H	'9.2257'	'10.0177'	'9.6217'	'11.3169'	'0.0769'
ν	'245.366'	'283.854'	'264.61'	'119.56'	'0.1121'
BP	'86.3941'	'86.6059'	'86.5'	'83.5'	'0.0525'

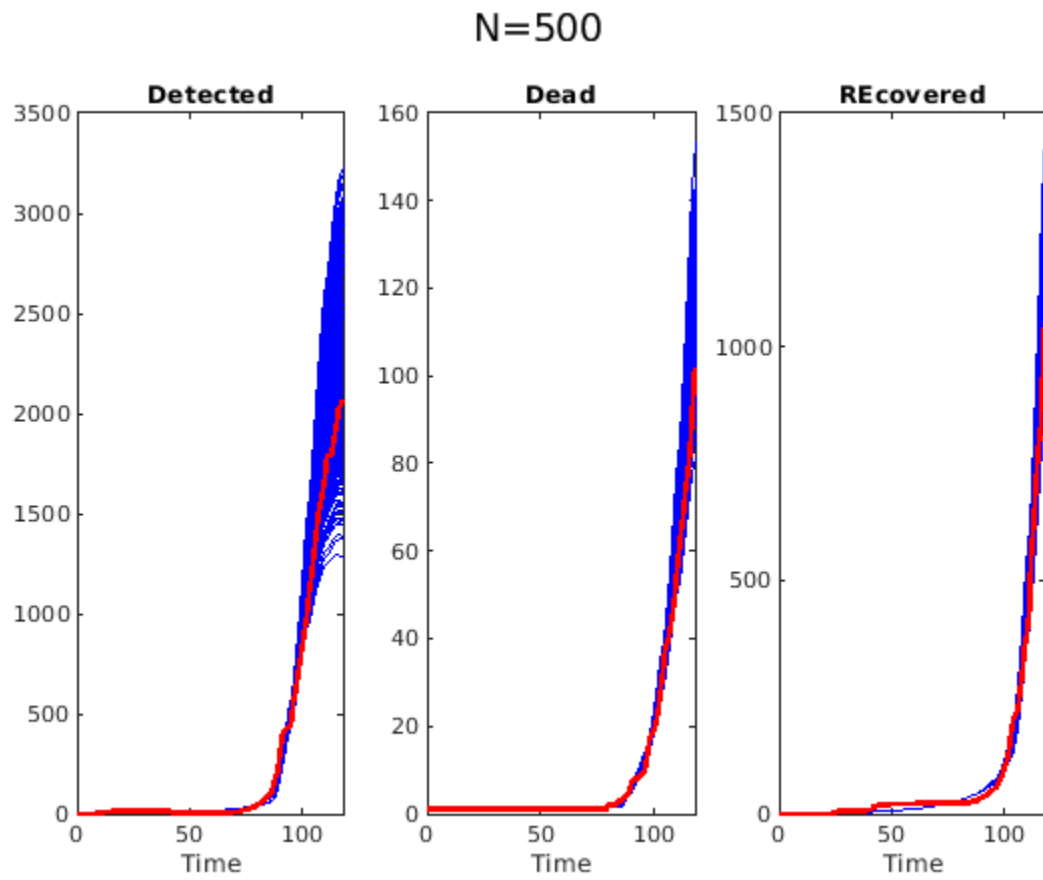
2.3. Identifiability analysys







2.4. Uncertainty analysys



Chapter 3. Extension number3

3.1. Basic information

The extension to be validated consists of the time series from the data119 to the 144. The status of the validation is: COMPLETED.

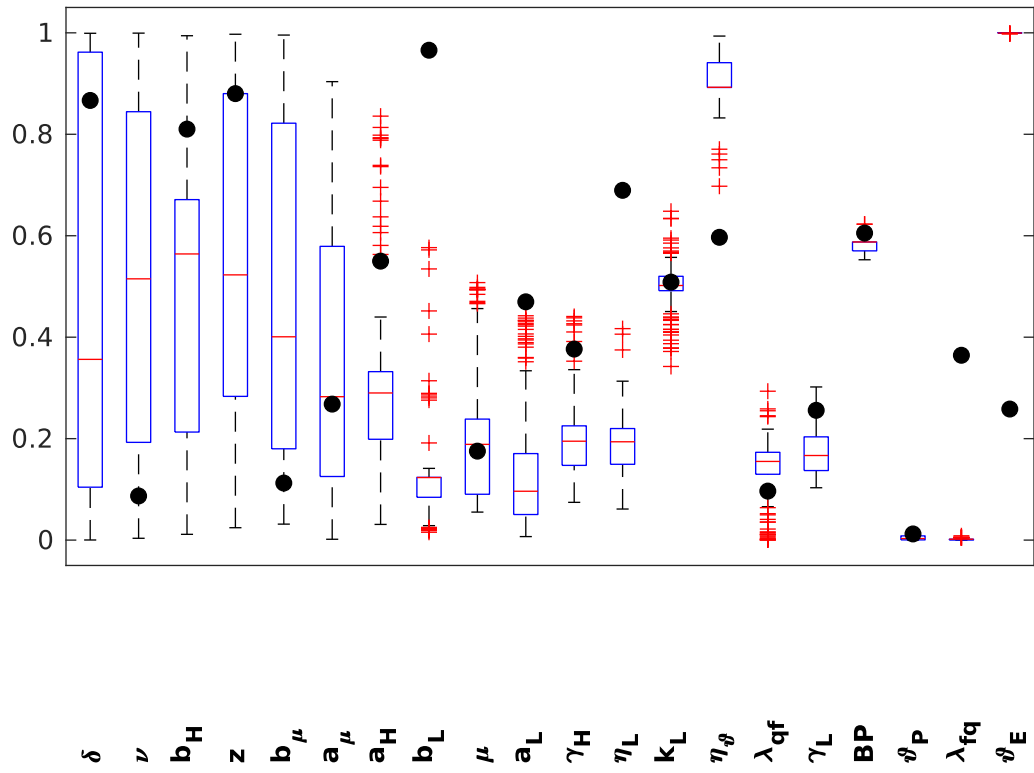
The number of estimations needed to perform the validation was2000.

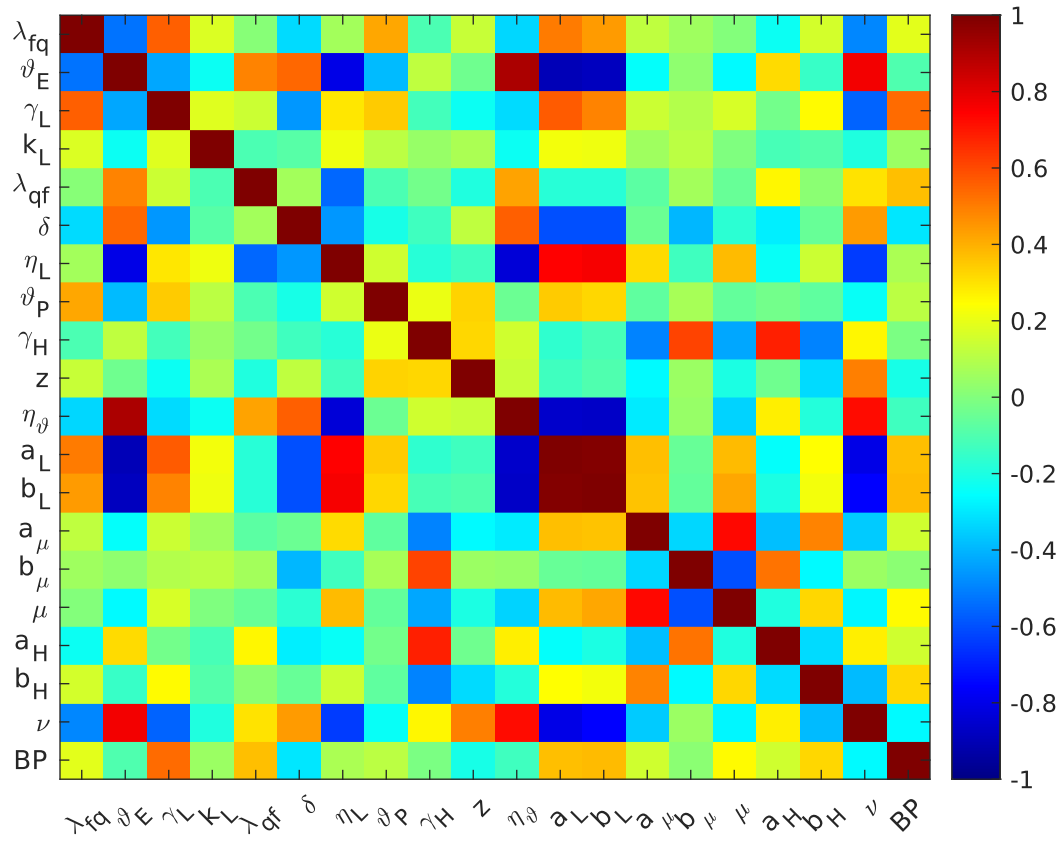
3.2. Estimated parameters with their intervals

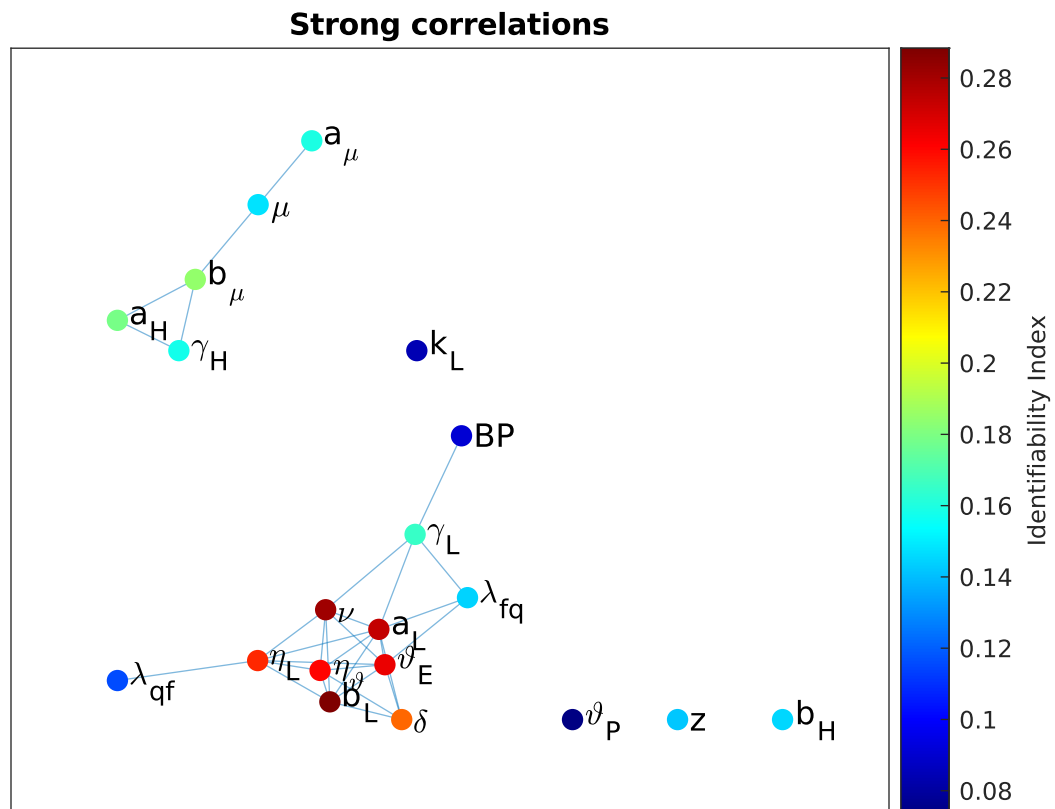
It was necessary to fix 0 parameters of 10 that could be fixed to complete validation.

	Rango		Nominal	Mejor	Index
λ_{fq}	'0'	'0.0434'	'0.0018'	'0.3644'	'0.1449'
ϑ_E	'0.8974'	'1'	'0.9996'	'0.2584'	'0.2652'
γ_L	'0.1513'	'0.1833'	'0.1673'	'0.2558'	'0.1653'
k_L	'5.2644'	'5.7698'	'5.5171'	'5.5769'	'0.0845'
λ_{qf}	'0.1212'	'0.189'	'0.1551'	'0.0966'	'0.1167'
δ	'0.0398'	'0.0671'	'0.0534'	'0.13'	'0.2391'
η_L	'0.1306'	'0.2585'	'0.1945'	'0.6895'	'0.2526'
ϑ_P	'0'	'0.007'	'0.0032'	'0.0121'	'0.074'
γ_H	'0.1453'	'0.2452'	'0.1953'	'0.3766'	'0.1582'
z	'13.4808'	'17.8903'	'15.6856'	'26.4047'	'0.1424'
η_{ϑ}	'0.8272'	'0.9573'	'0.8923'	'0.5969'	'0.2606'
a_L	'1.7796'	'2.9229'	'2.3513'	'7.5763'	'0.2739'
b_L	'1.5555'	'3.9085'	'2.732'	'14.5198'	'0.2884'
a_{μ}	'4.1669'	'5.7484'	'4.9577'	'4.7532'	'0.1601'
b_{μ}	'5.5132'	'7.7087'	'6.6109'	'2.5747'	'0.1853'
μ	'0.1562'	'0.2213'	'0.1887'	'0.1754'	'0.1478'
a_H	'4.1034'	'6.0394'	'5.0714'	'8.6989'	'0.1787'
b_H	'7.9975'	'9.7974'	'8.8974'	'12.3427'	'0.1456'
ν	'218.5687'	'296.4624'	'257.5155'	'43.5125'	'0.2811'
BP	'120.3125'	'120.6875'	'120.5'	'121.5'	'0.0909'

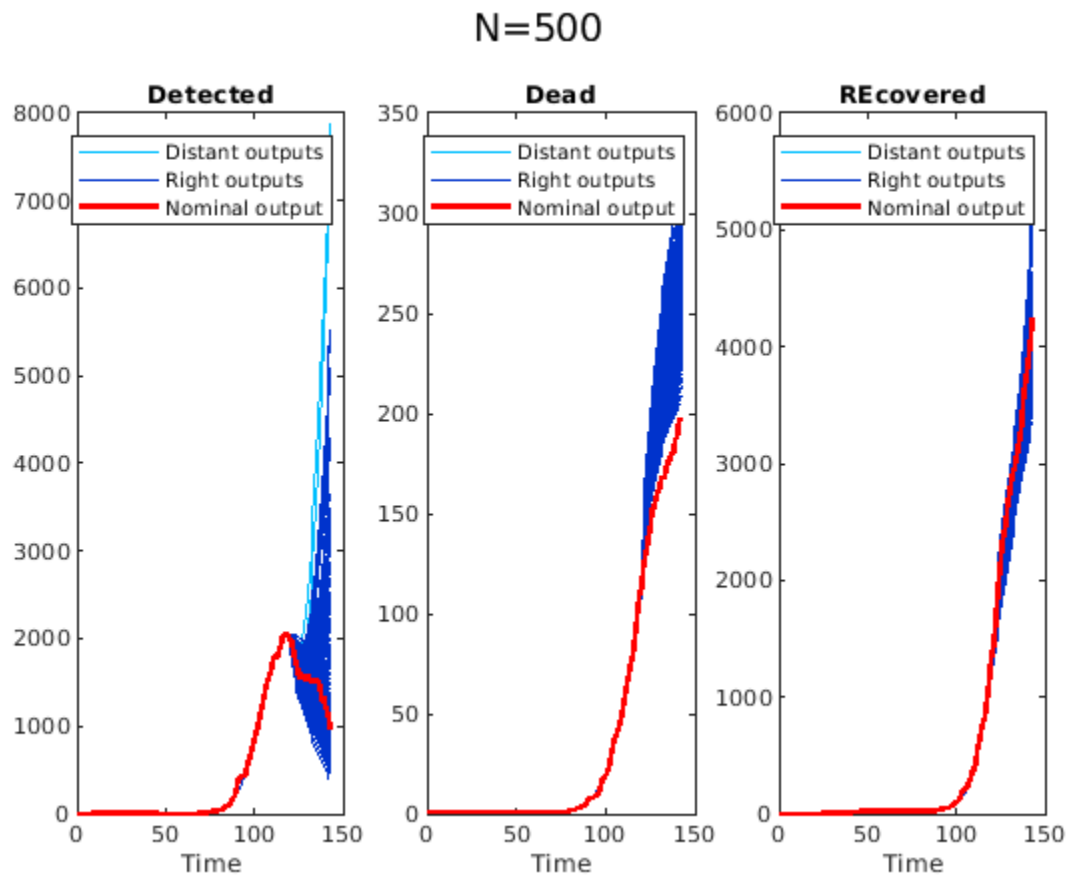
3.3. Identifiability analysis







3.4. Uncertainty analysys



Chapter 4. Extension number4

4.1. Basic information

The extension to be validated consists of the time series from the data144 to the 164. The status of the validation is: COMPLETED.

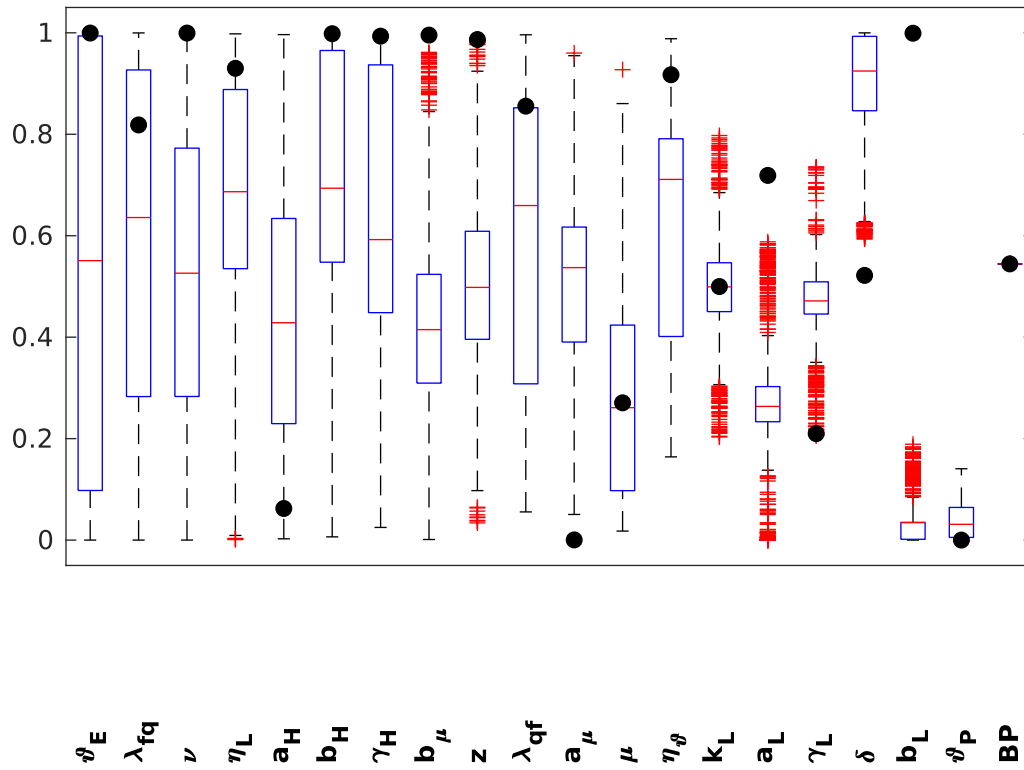
The number of estimations needed to perform the validation was1000.

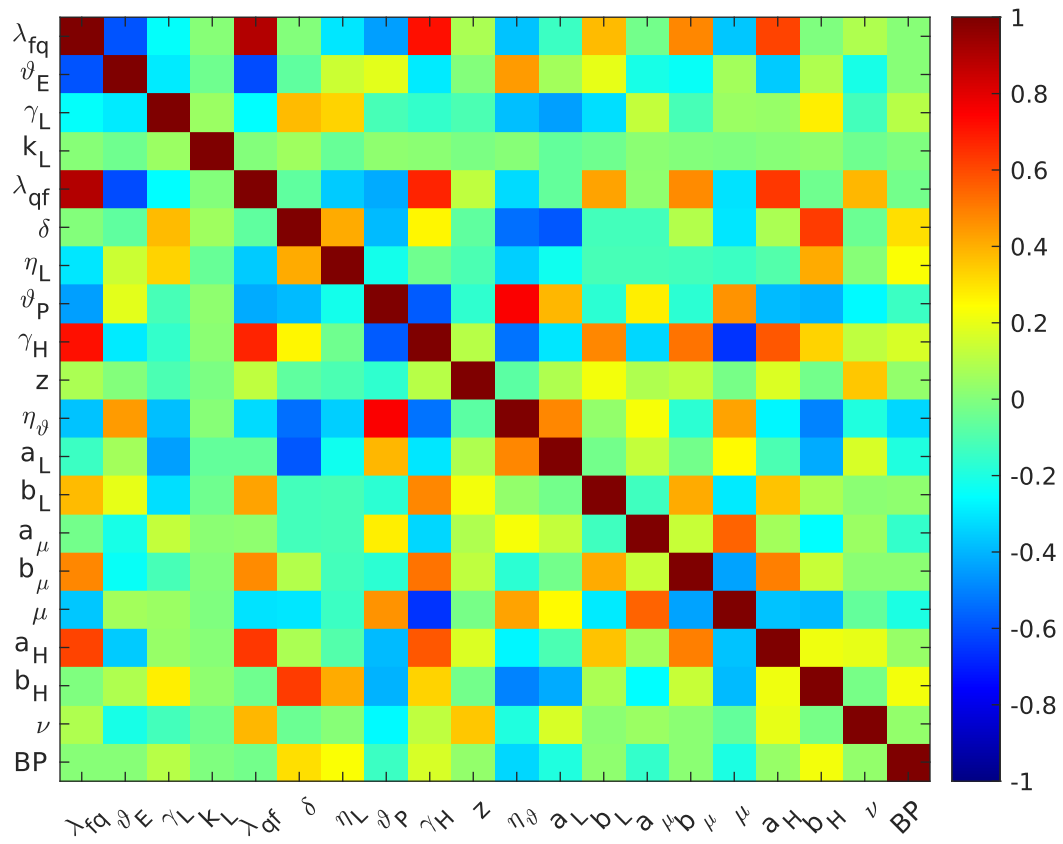
4.2. Estimated parameters with their intervals

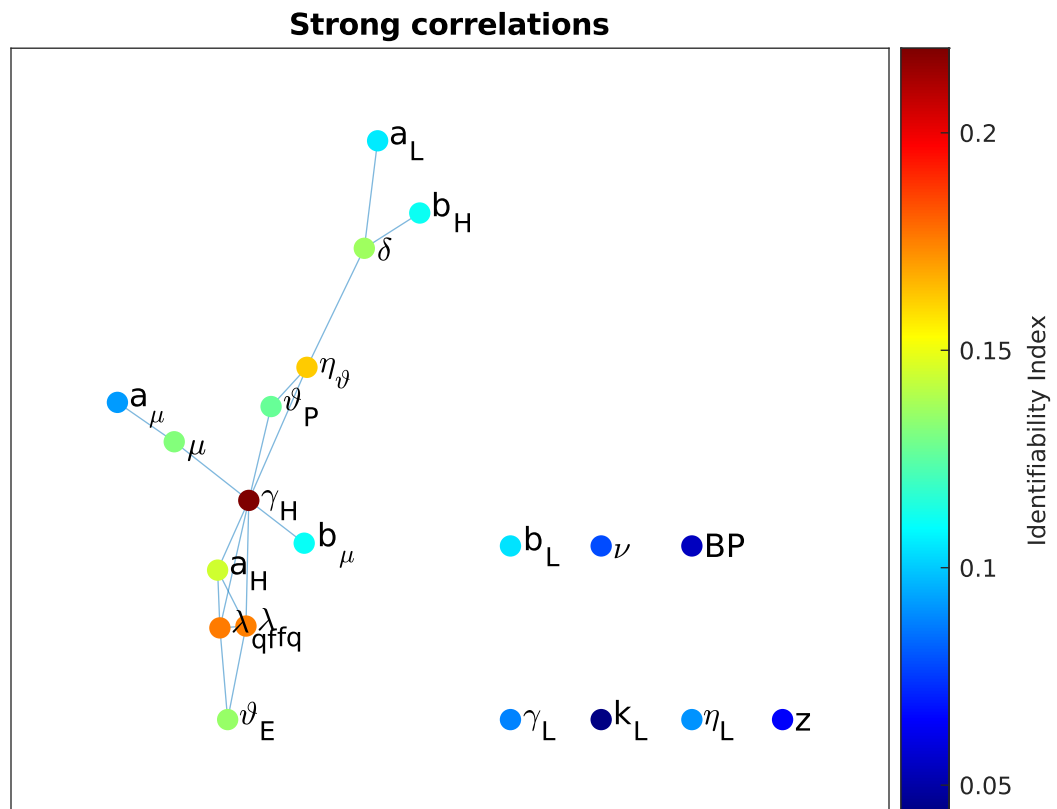
It was necessary to fix 0 parameters of 10 that could be fixed to complete validation.

	Rango		Nominal	Mejor	Index
λ_{fq}	'0.6073'	'0.6644'	'0.6359'	'0.8184'	'0.1755'
ϑ_E	'0.5169'	'0.5848'	'0.5508'	'0.9995'	'0.1353'
γ_L	'0.4574'	'0.4856'	'0.4715'	'0.2098'	'0.0879'
k_L	'5.3767'	'5.6086'	'5.4926'	'5.4986'	'0.0438'
λ_{qf}	'0.6351'	'0.6839'	'0.6595'	'0.8554'	'0.1757'
δ	'0.136'	'0.1412'	'0.1386'	'0.0783'	'0.1367'
η_L	'0.6677'	'0.7058'	'0.6867'	'0.93'	'0.0908'
ϑ_P	'0.0284'	'0.034'	'0.0312'	'0'	'0.1269'
γ_H	'0.5707'	'0.6141'	'0.5924'	'0.9934'	'0.2195'
z	'14.4929'	'15.4205'	'14.9567'	'29.6015'	'0.0649'
η_{ϑ}	'0.6913'	'0.7305'	'0.7109'	'0.9173'	'0.162'
a_L	'4.4609'	'4.9191'	'4.69'	'11.0645'	'0.1058'
b_L	'1.0463'	'1.9301'	'1.4882'	'14.9879'	'0.1044'
a_{μ}	'8.2905'	'8.7456'	'8.518'	'1.005'	'0.0918'
b_{μ}	'6.5213'	'7.0985'	'6.8099'	'14.9365'	'0.1105'
μ	'0.2462'	'0.2759'	'0.261'	'0.2706'	'0.1317'
a_H	'6.7299'	'7.2679'	'6.9989'	'1.8727'	'0.1452'
b_H	'10.4596'	'10.9633'	'10.7114'	'14.9753'	'0.1114'
ν	'251.1778'	'274.9537'	'263.0657'	'499.7351'	'0.0787'
BP	'143.4563'	'143.5437'	'143.5'	'143.4999'	'0.0543'

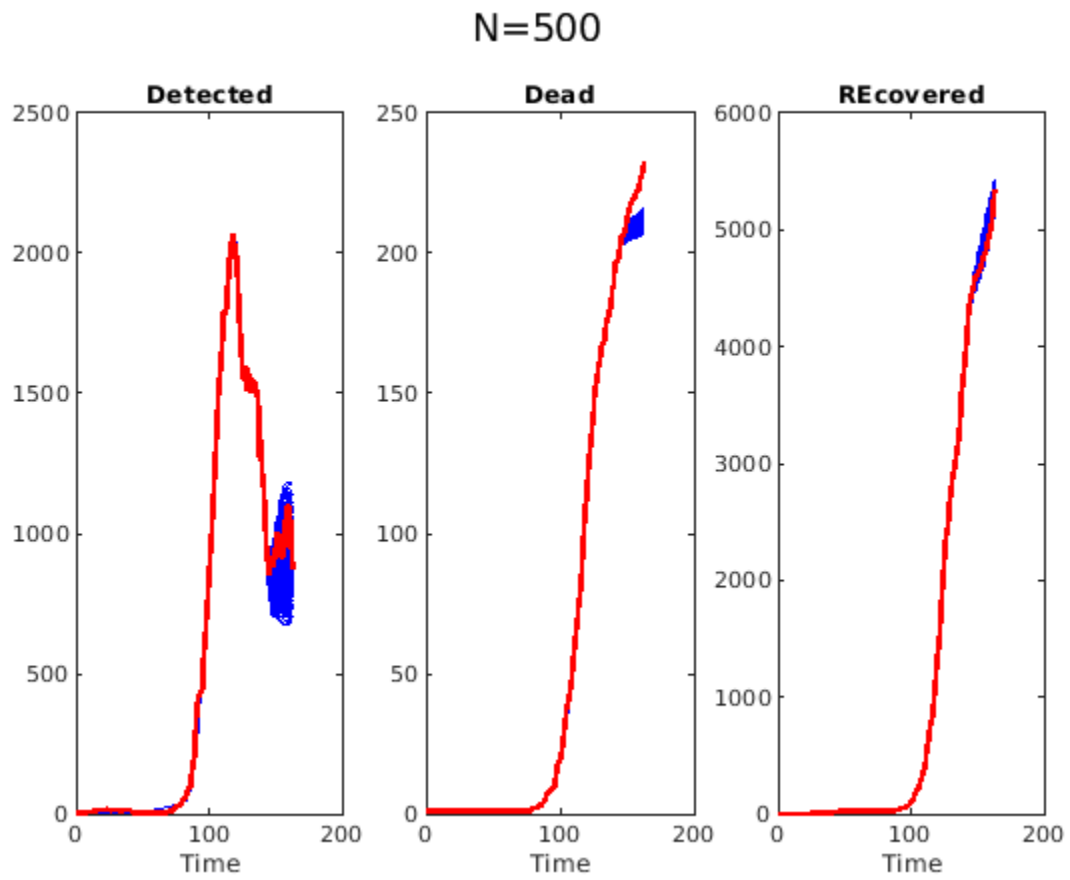
4.3. Identifiability analysis







4.4. Uncertainty analysys



Chapter 5. Extension number5

5.1. Basic information

The extension to be validated consists of the time series from the data164 to the 246. The status of the validation is: COMPLETED.

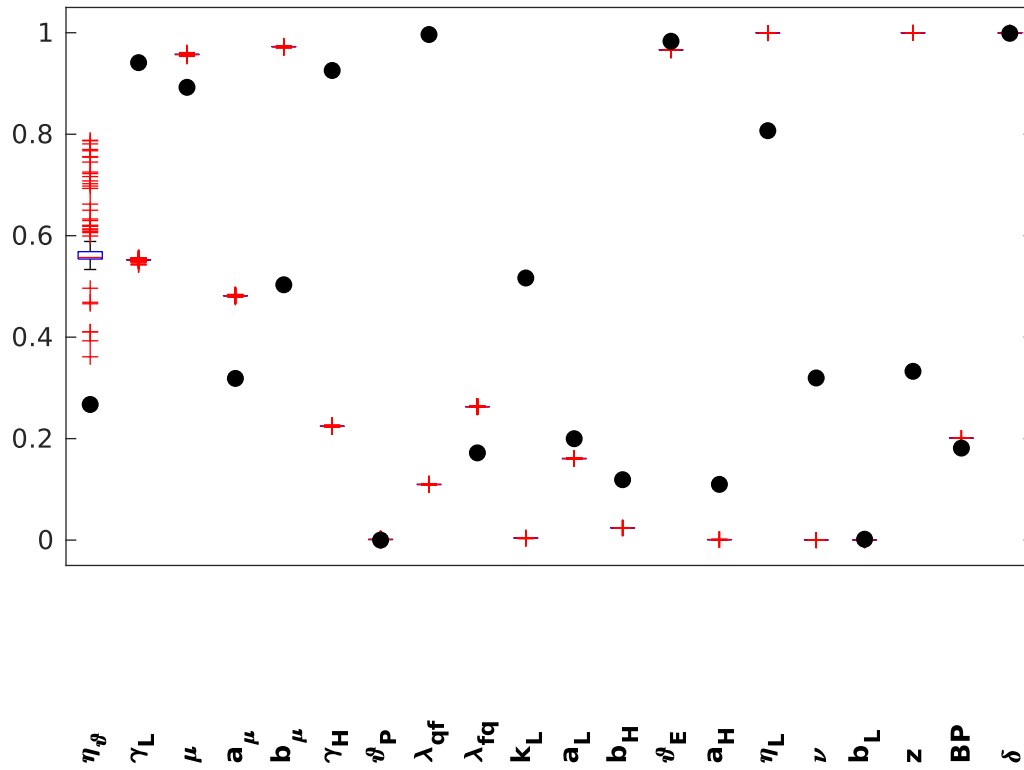
The number of estimations needed to perform the validation was1000.

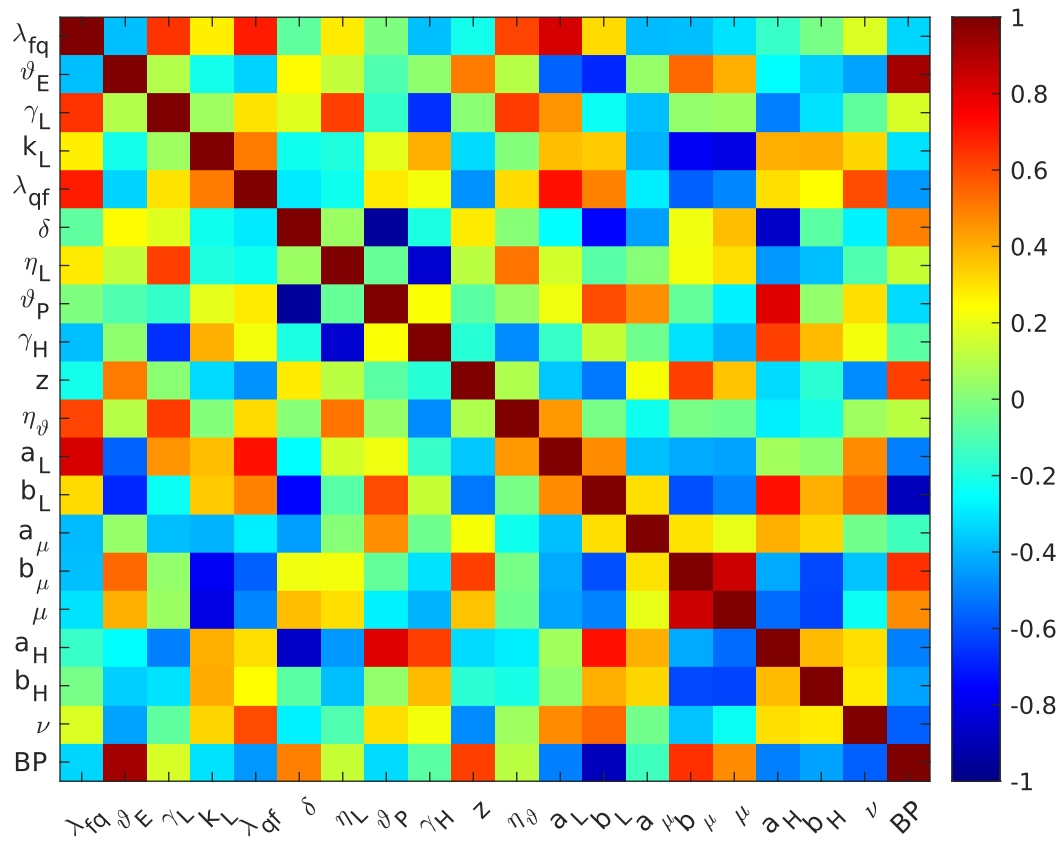
5.2. Estimated parameters with their intervals

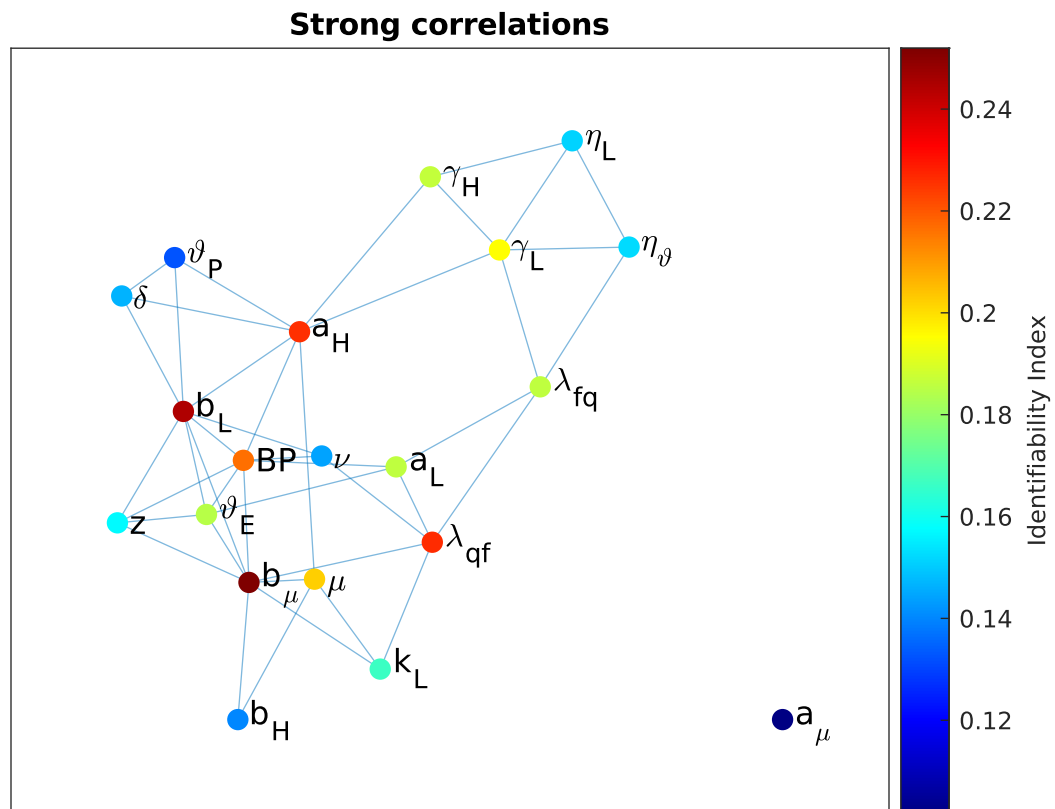
It was necessary to fix 0 parameters of 10 that could be fixed to complete validation.

	Rango		Nominal	Mejor	Index
λ_{fq}	'0.2327'	'0.2933'	'0.263'	'0.1719'	'0.1858'
ϑ_E	'0.9479'	'0.9844'	'0.9661'	'0.9832'	'0.1848'
γ_L	'0.5137'	'0.5912'	'0.5524'	'0.9411'	'0.1957'
k_L	'1'	'1.3952'	'1.0359'	'5.6495'	'0.1664'
λ_{qf}	'0.0682'	'0.1511'	'0.1097'	'0.9965'	'0.2262'
δ	'0.1481'	'0.15'	'0.15'	'0.1498'	'0.1467'
η_L	'0.9441'	'1'	'0.9994'	'0.8069'	'0.1516'
ϑ_P	'0'	'0.0122'	'0.0013'	'0'	'0.133'
γ_H	'0.1747'	'0.2742'	'0.2245'	'0.9256'	'0.1866'
z	'29.5068'	'30'	'29.9948'	'9.9799'	'0.1576'
η_{ϑ}	'0.5192'	'0.5946'	'0.5569'	'0.2673'	'0.1529'
a_L	'2.9745'	'3.5272'	'3.2509'	'3.7979'	'0.1858'
b_L	'1'	'1.3511'	'1.0013'	'1.0237'	'0.2448'
a_{μ}	'7.5332'	'7.9495'	'7.7414'	'5.4617'	'0.102'
b_{μ}	'14.2268'	'15'	'14.6134'	'8.0452'	'0.252'
μ	'0.9253'	'0.9888'	'0.9571'	'0.8924'	'0.2024'
a_H	'1'	'1.2635'	'1.0133'	'2.538'	'0.2258'
b_H	'1.0601'	'1.6101'	'1.3351'	'2.6667'	'0.1403'
ν	'0'	'9.1144'	'0.0148'	'159.7836'	'0.1447'
BP	'164.2366'	'164.7633'	'164.5'	'162.5'	'0.2163'

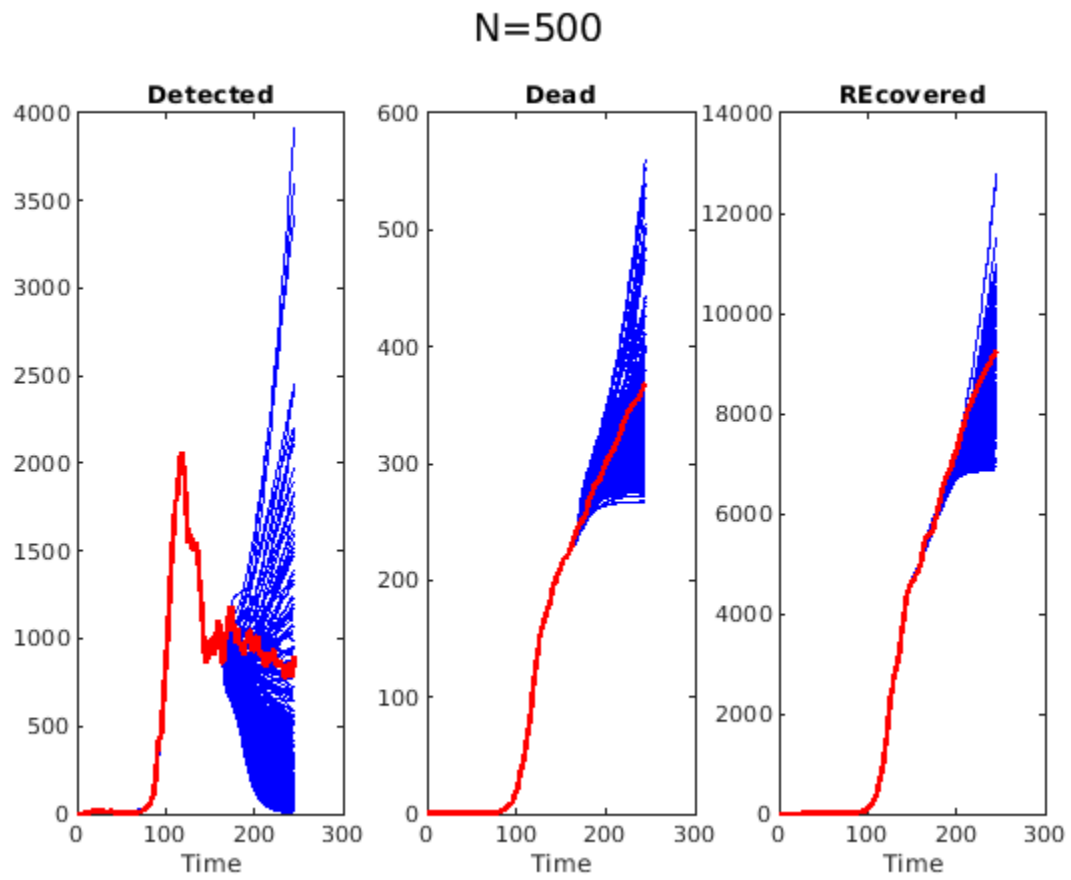
5.3. Identifiability analysis







5.4. Uncertainty analysis



Chapter 6. Extension number6

6.1. Basic information

The extension to be validated consists of the time series from the data246 to the 285. The status of the validation is: COMPLETED.

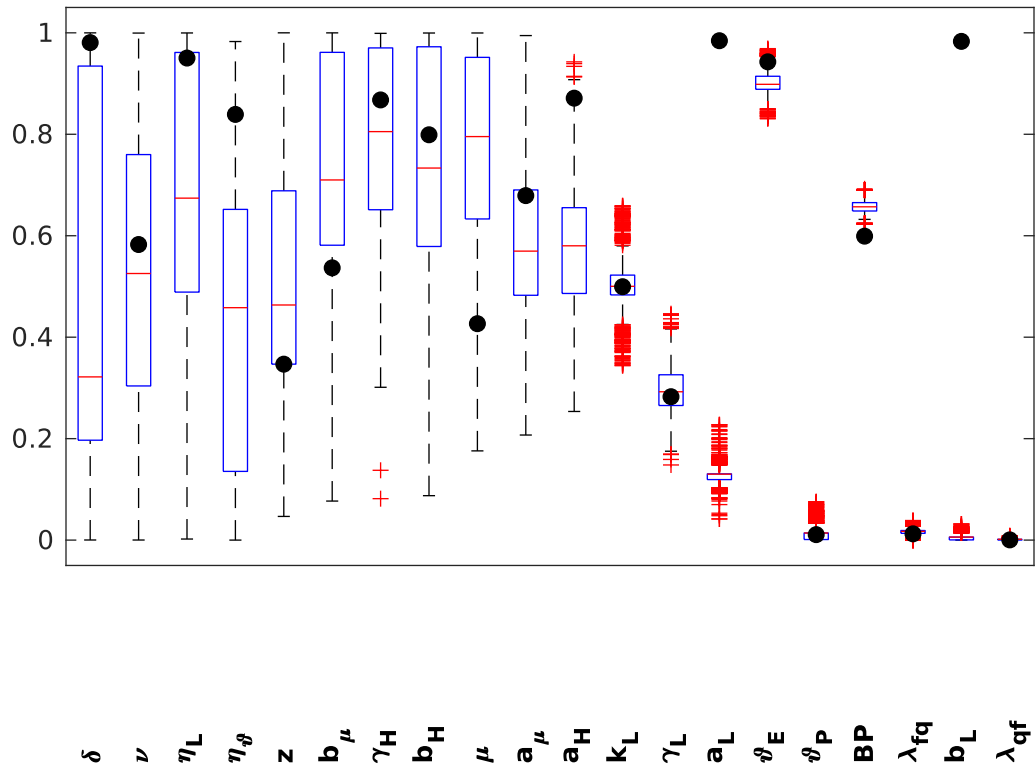
The number of estimations needed to perform the validation was1000.

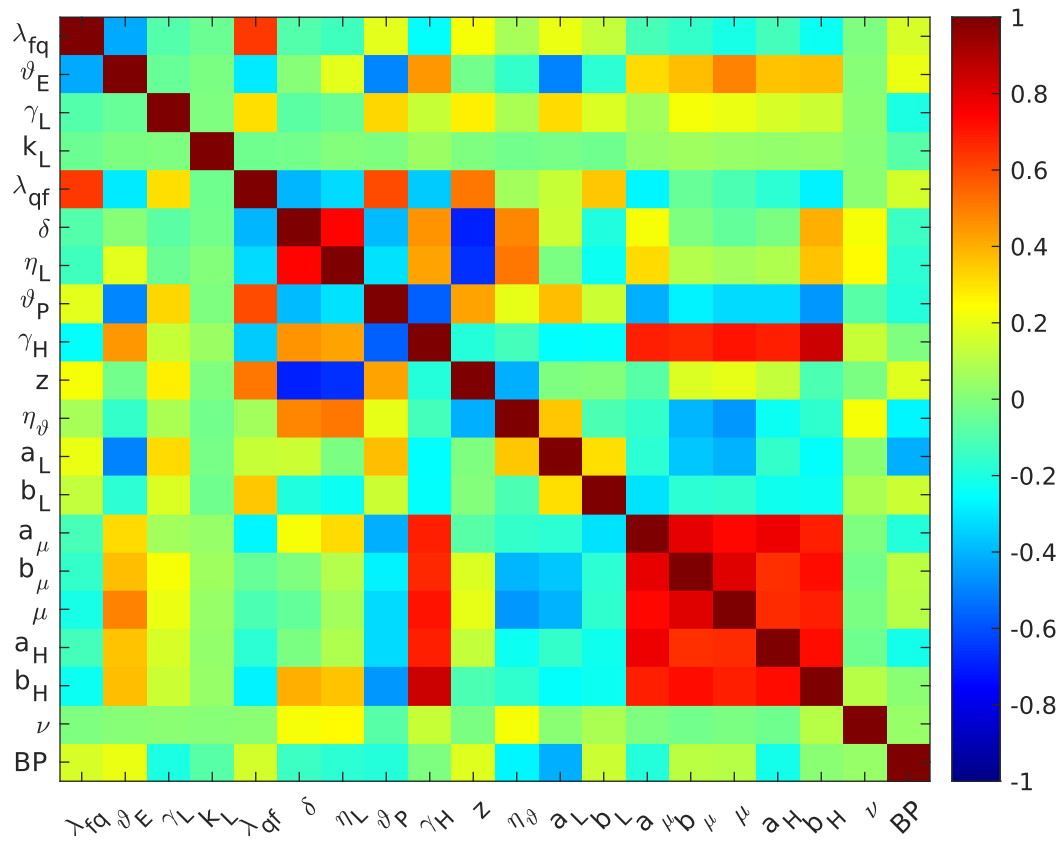
6.2. Estimated parameters with their intervals

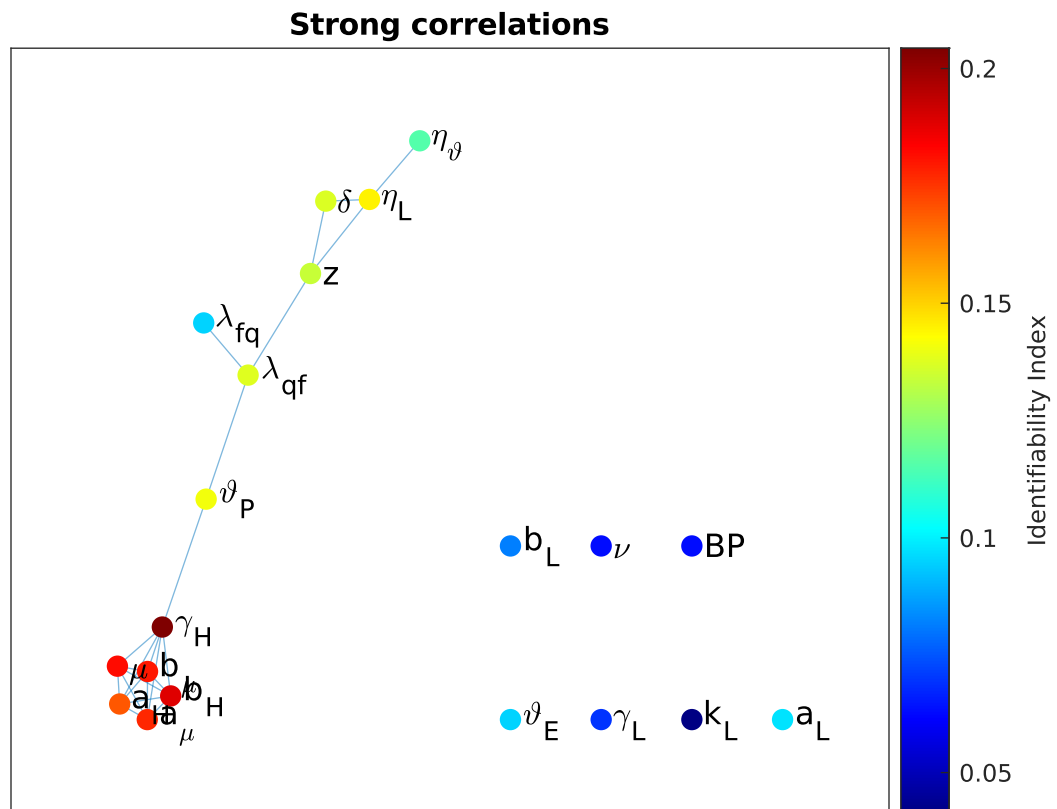
It was necessary to fix 0 parameters of 10 that could be fixed to complete validation.

	Rango		Nominal	Mejor	Index
λ_{fq}	'0.0028'	'0.0317'	'0.0173'	'0.0124'	'0.0954'
ϑ_E	'0.8894'	'0.9075'	'0.8985'	'0.9428'	'0.0952'
γ_L	'0.2844'	'0.3004'	'0.2924'	'0.2827'	'0.0696'
k_L	'5.4199'	'5.5855'	'5.5027'	'5.4953'	'0.0416'
λ_{qf}	'0'	'0.0237'	'0.0016'	'0.0004'	'0.1379'
δ	'0.0441'	'0.0524'	'0.0483'	'0.1471'	'0.1372'
η_L	'0.6533'	'0.6949'	'0.6741'	'0.9503'	'0.1451'
ϑ_P	'0'	'0.0309'	'0.014'	'0.0108'	'0.1412'
γ_H	'0.791'	'0.8195'	'0.8052'	'0.8677'	'0.2043'
z	'13.3801'	'14.4283'	'13.9042'	'10.4048'	'0.1341'
η_{ϑ}	'0.4358'	'0.4805'	'0.4582'	'0.8392'	'0.1157'
a_L	'2.5723'	'3.0676'	'2.82'	'14.782'	'0.0976'
b_L	'1'	'1.3993'	'1.0833'	'14.7639'	'0.0819'
a_{μ}	'8.8259'	'9.1244'	'8.9752'	'10.5071'	'0.1775'
b_{μ}	'10.724'	'11.1547'	'10.9393'	'8.5137'	'0.1796'
μ	'0.7818'	'0.8091'	'0.7955'	'0.4266'	'0.1815'
a_H	'8.9771'	'9.2671'	'9.1221'	'13.1965'	'0.1699'
b_H	'11.0466'	'11.4893'	'11.268'	'12.1861'	'0.1885'
ν	'251.9992'	'273.533'	'262.7661'	'291.3336'	'0.0632'
BP	'243.3221'	'243.6779'	'243.5'	'236.5'	'0.0638'

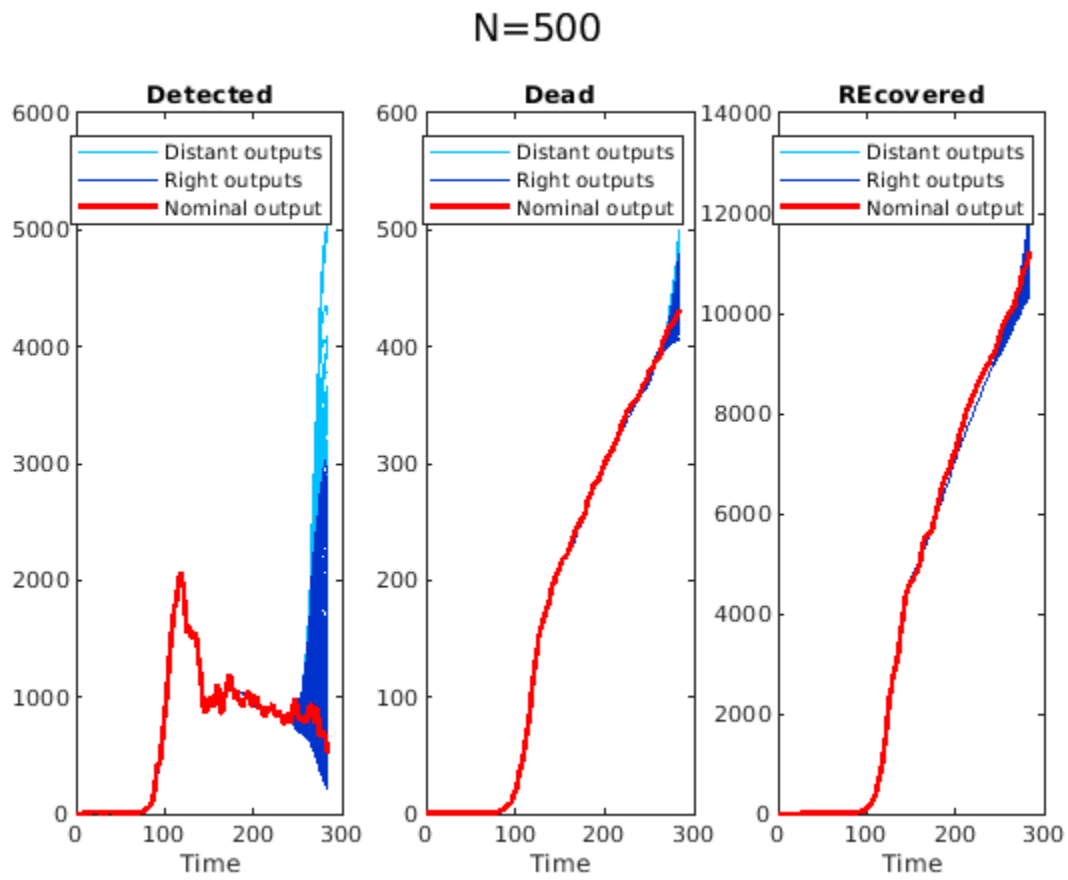
6.3. Identifiability analysys







6.4. Uncertainty analysis



Chapter 7. Extension number7

7.1. Basic information

The extension to be validated consists of the time series from the data285 to the 317. The status of the validation is: COMPLETED.

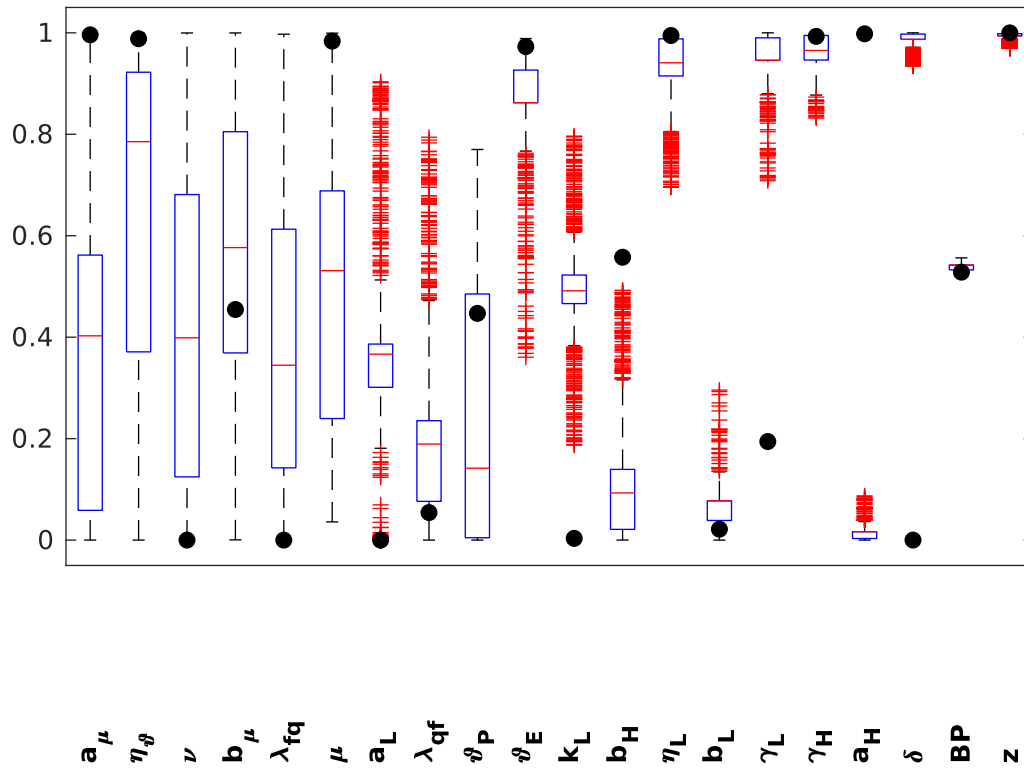
The number of estimations needed to perform the validation was1000.

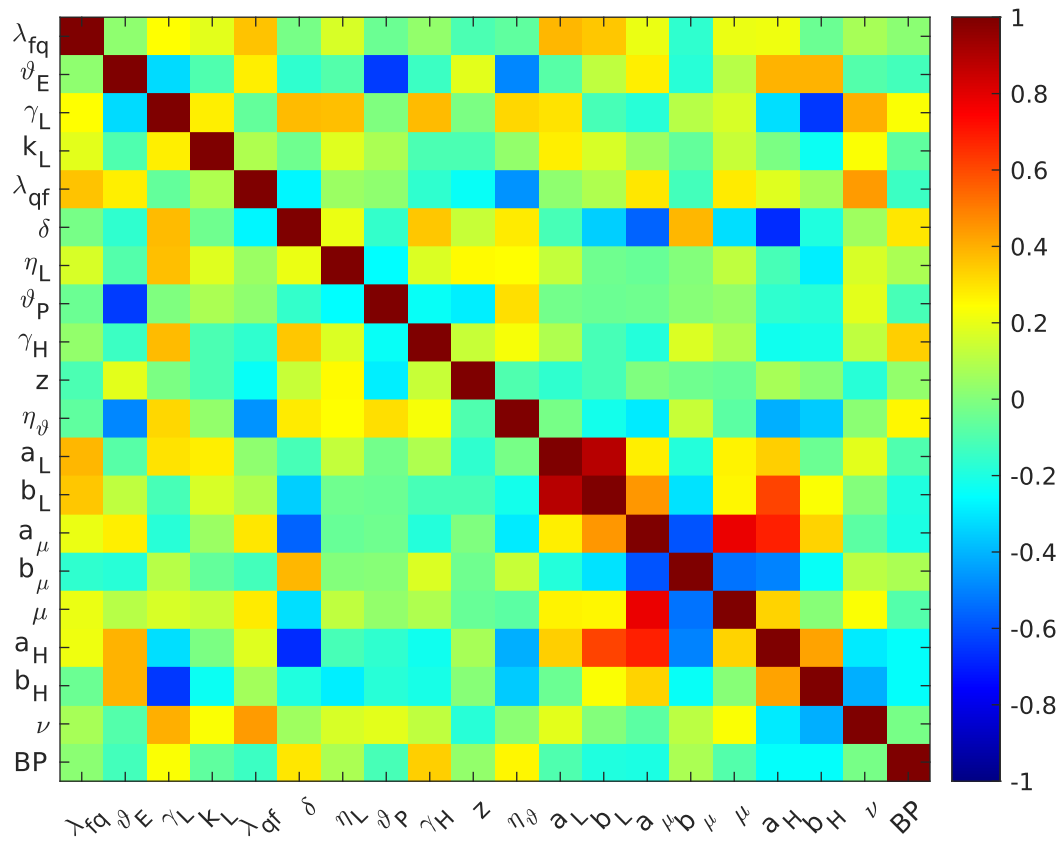
7.2. Estimated parameters with their intervals

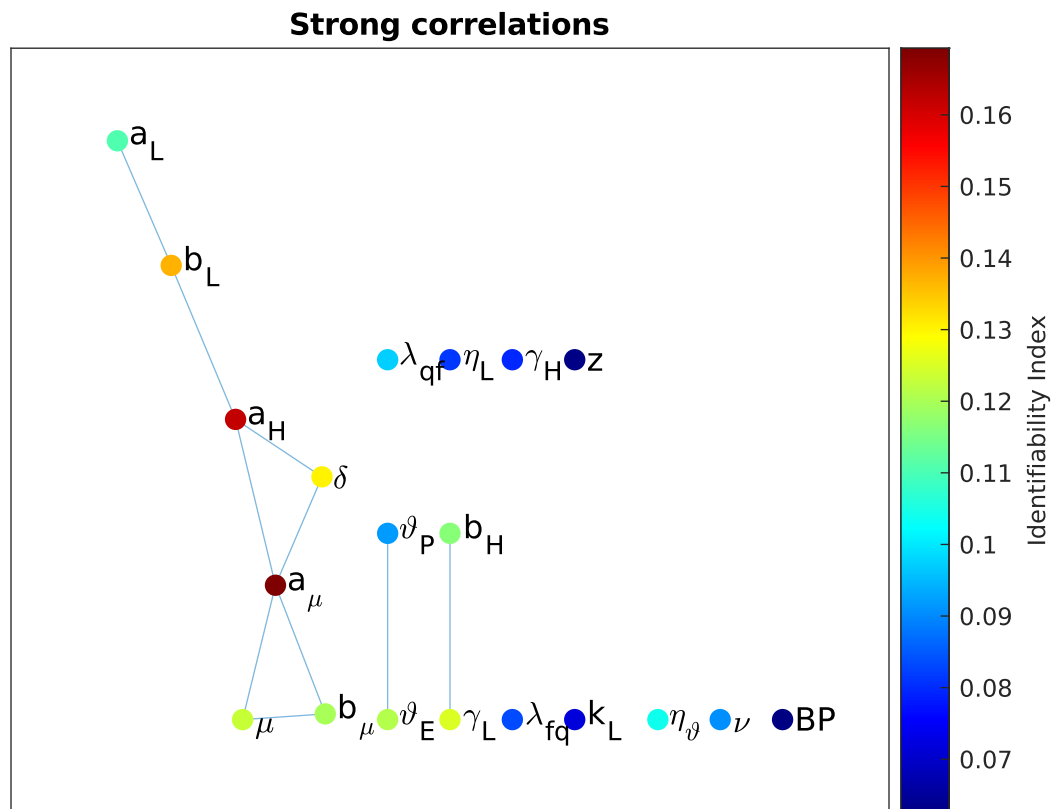
It was necessary to fix 0 parameters of 10 that could be fixed to complete validation.

	Rango		Nominal	Mejor	Index
λ_{fq}	'0.3228'	'0.3668'	'0.3448'	'0'	'0.0837'
ϑ_E	'0.8311'	'0.8935'	'0.8623'	'0.9729'	'0.1212'
γ_L	'0.9183'	'0.9732'	'0.9457'	'0.1943'	'0.1255'
k_L	'5.2742'	'5.5713'	'5.4228'	'1.0308'	'0.072'
λ_{qf}	'0.1629'	'0.216'	'0.1895'	'0.0543'	'0.0973'
δ	'0.1443'	'0.15'	'0.1481'	'0'	'0.1304'
η_L	'0.922'	'0.9599'	'0.941'	'0.9947'	'0.0815'
ϑ_P	'0.1229'	'0.1608'	'0.1418'	'0.447'	'0.0919'
γ_H	'0.9538'	'0.9766'	'0.9652'	'0.993'	'0.0801'
z	'29.3726'	'30'	'29.8235'	'29.9966'	'0.0633'
η_{ϑ}	'0.7607'	'0.8101'	'0.7854'	'0.9884'	'0.1039'
a_L	'5.794'	'6.4744'	'6.1342'	'1.0001'	'0.1107'
b_L	'1.6847'	'2.4837'	'2.0842'	'1.3017'	'0.1369'
a_{μ}	'6.2833'	'6.9919'	'6.6376'	'14.9447'	'0.1693'
b_{μ}	'8.7774'	'9.3675'	'9.0725'	'7.3645'	'0.1198'
μ	'0.5094'	'0.553'	'0.5312'	'0.9837'	'0.1231'
a_H	'1'	'1.6198'	'1.2311'	'14.9729'	'0.1621'
b_H	'1.9949'	'2.6106'	'2.3027'	'8.8068'	'0.1164'
ν	'187.3473'	'211.4306'	'199.389'	'0.0248'	'0.0907'
BP	'284.3811'	'284.6188'	'284.5'	'283.5'	'0.0626'

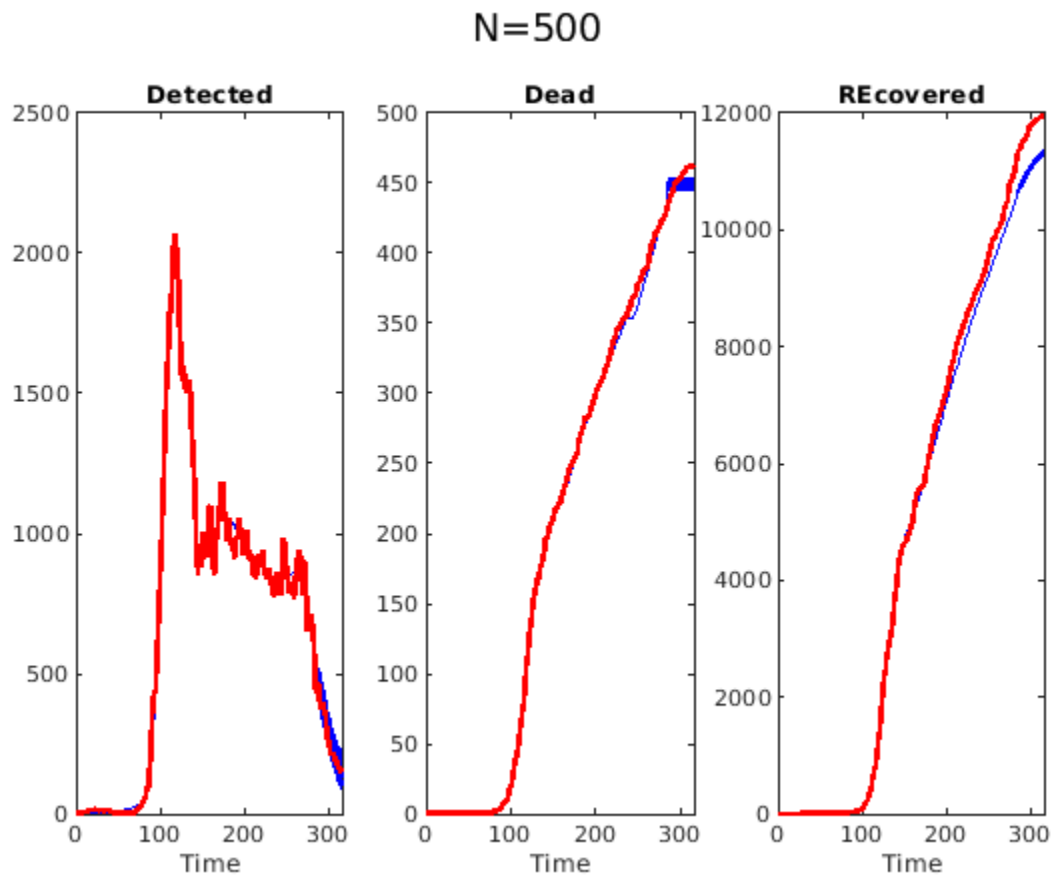
7.3. Identifiability analysis







7.4. Uncertainty analysis



Chapter 8. Extension number8

8.1. Basic information

The extension to be validated consists of the time series from the data317 to the 349. The status of the validation is: COMPLETED.

The number of estimations needed to perform the validation was1000.

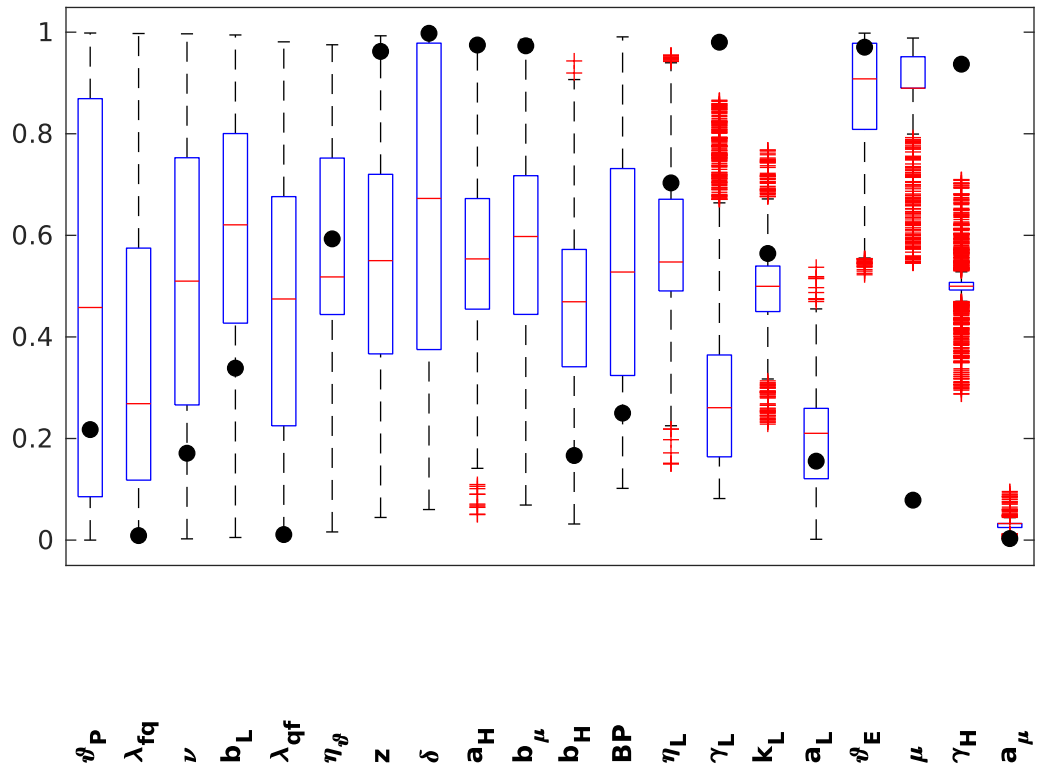
8.2. Estimated parameters with their intervals

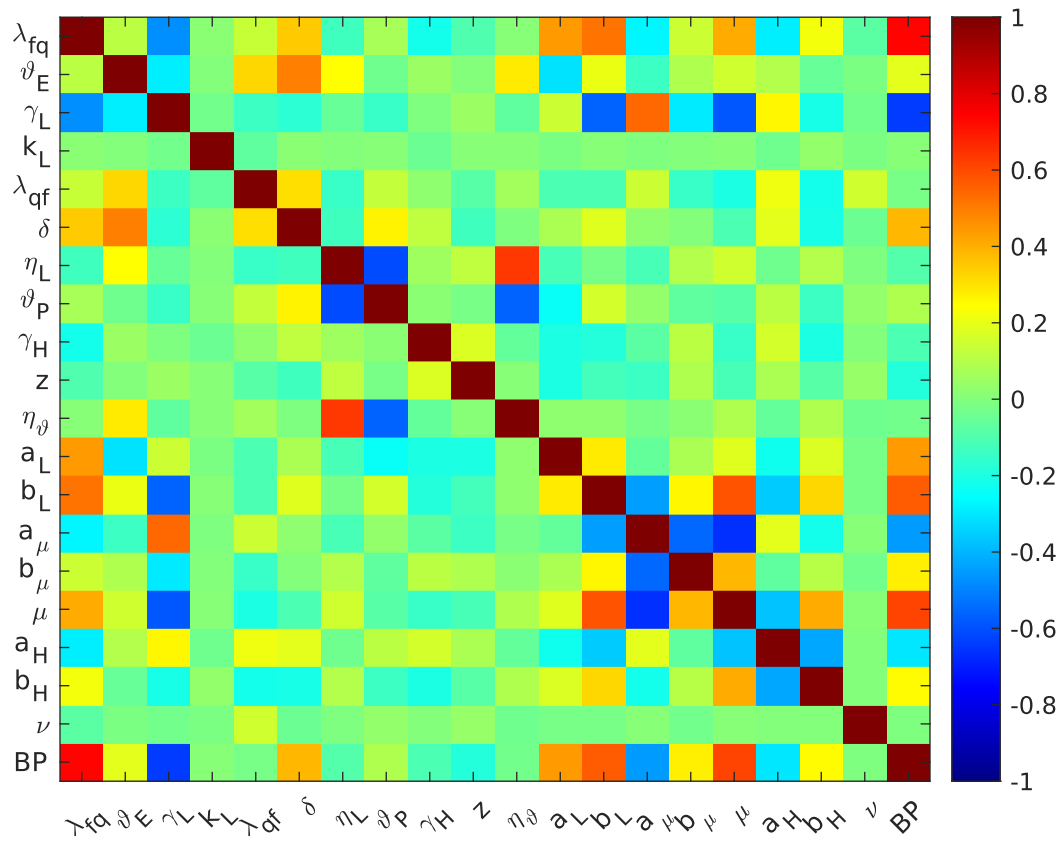
It was necessary to fix 0 parameters of 10 that could be fixed to complete validation.

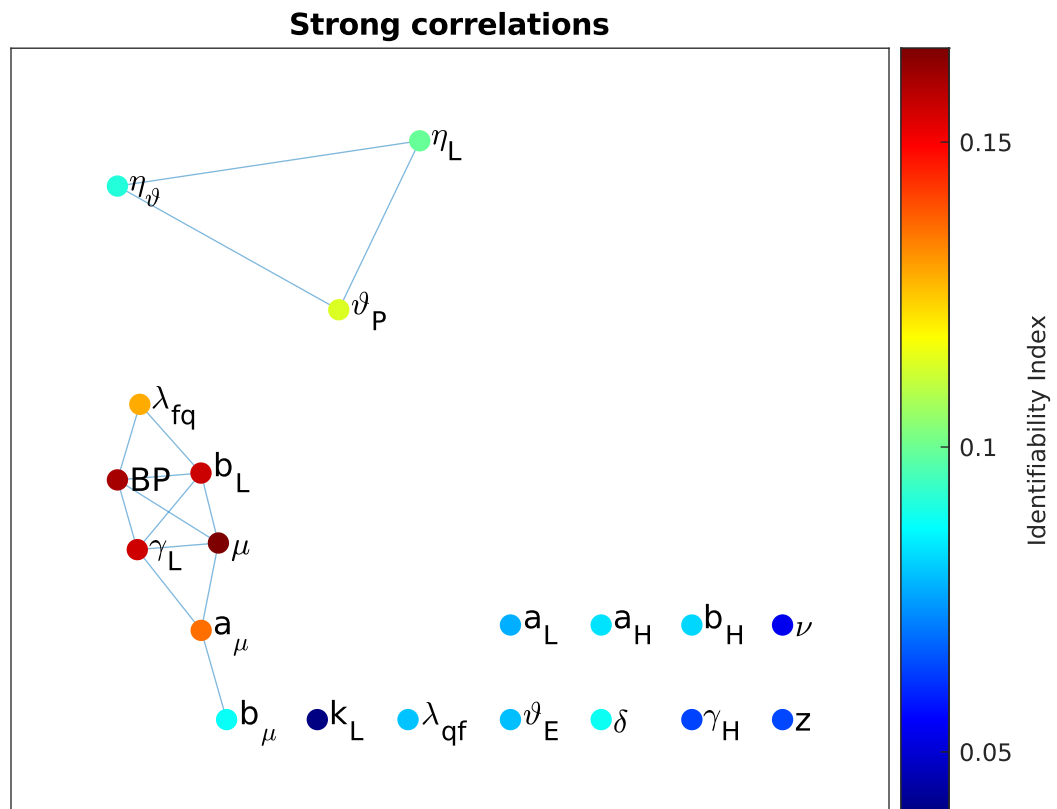
Due to a deviation from the median the CSB method was activated to obtain the parameter intervals.

	Rango		Nominal	Mejor	Index
λ_{fq}	'0.0064'	'0.0152'	'0.2686'	'0.0089'	'0.1284'
ϑ_E	'0.9652'	'0.9729'	'0.9081'	'0.9704'	'0.0788'
γ_L	'0.5777'	'1'	'0.2607'	'0.9802'	'0.1553'
k_L	'1.2138'	'9.2166'	'5.4969'	'6.0787'	'0.0401'
λ_{qf}	'0.0005'	'0.0246'	'0.4747'	'0.0109'	'0.0796'
δ	'0.021'	'0.15'	'0.1009'	'0.1497'	'0.0881'
η_L	'0.3082'	'0.9647'	'0.5475'	'0.7033'	'0.0995'
ϑ_P	'0.1636'	'0.2367'	'0.458'	'0.2176'	'0.114'
γ_H	'0.0396'	'1'	'0.4998'	'0.937'	'0.0639'
z	'24.3561'	'29.3861'	'16.5056'	'28.8643'	'0.0646'
η_{ϑ}	'0.3521'	'0.6264'	'0.5181'	'0.5931'	'0.0914'
a_L	'3.1343'	'4.2139'	'3.9435'	'3.1757'	'0.077'
b_L	'3.6413'	'7.934'	'9.6898'	'5.7393'	'0.156'
a_{μ}	'1'	'12.3715'	'1.4573'	'1.0419'	'0.1359'
b_{μ}	'1.623'	'15'	'9.3679'	'14.6241'	'0.088'
μ	'0.0042'	'0.1599'	'0.8897'	'0.0786'	'0.1654'
a_H	'3.9305'	'15'	'8.7506'	'14.646'	'0.0836'
b_H	'1'	'11.0608'	'7.5692'	'3.3313'	'0.0821'
ν	'4.2482'	'153.7737'	'254.9319'	'85.511'	'0.0536'
BP	'298.1428'	'307.4651'	'313.5'	'298.5'	'0.1603'

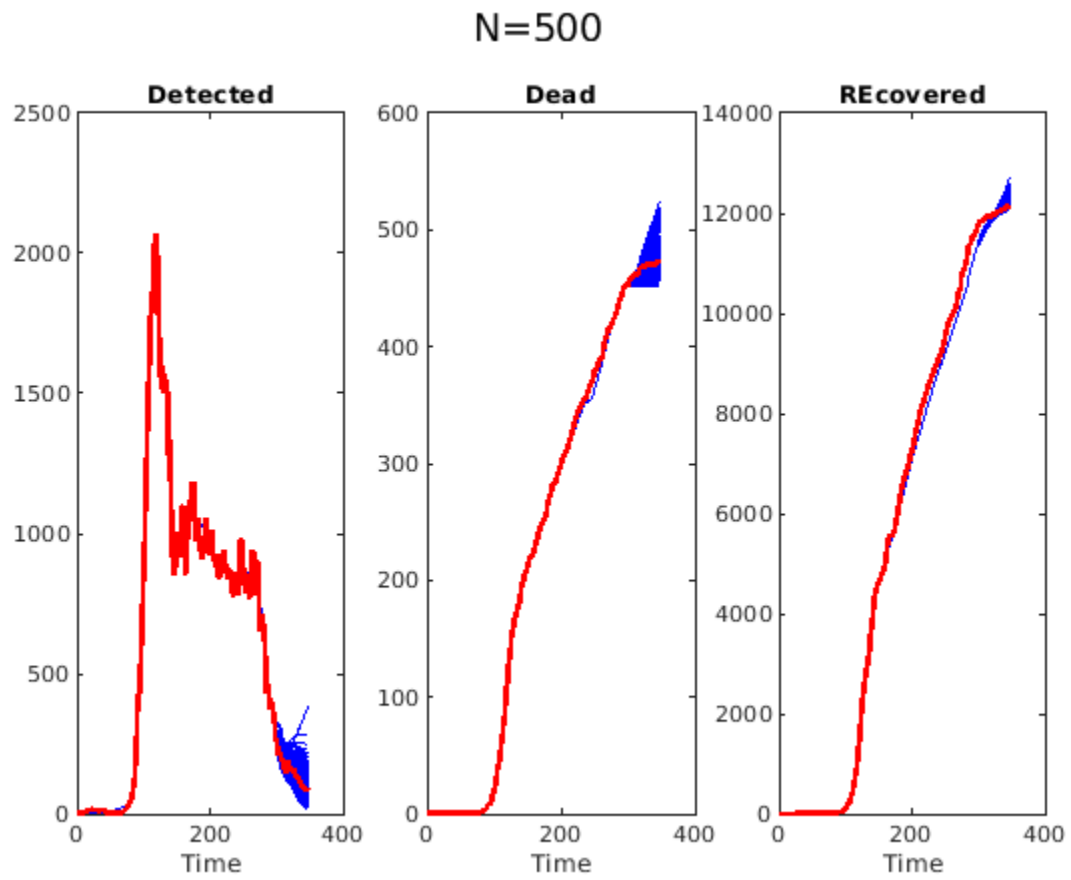
8.3. Identifiability analysis







8.4. Uncertainty analysis



Chapter 9. Extension number9

9.1. Basic information

The extension to be validated consists of the time series from the data349 to the 420. The status of the validation is: COMPLETED.

The number of estimations needed to perform the validation was1000.

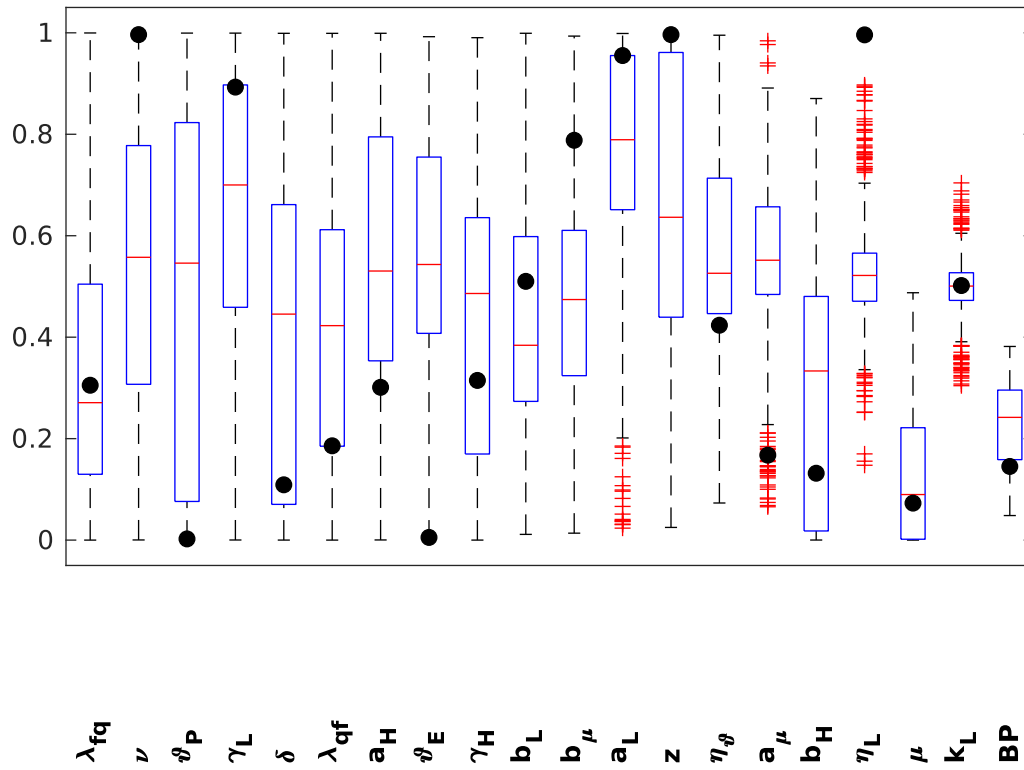
9.2. Estimated parameters with their intervals

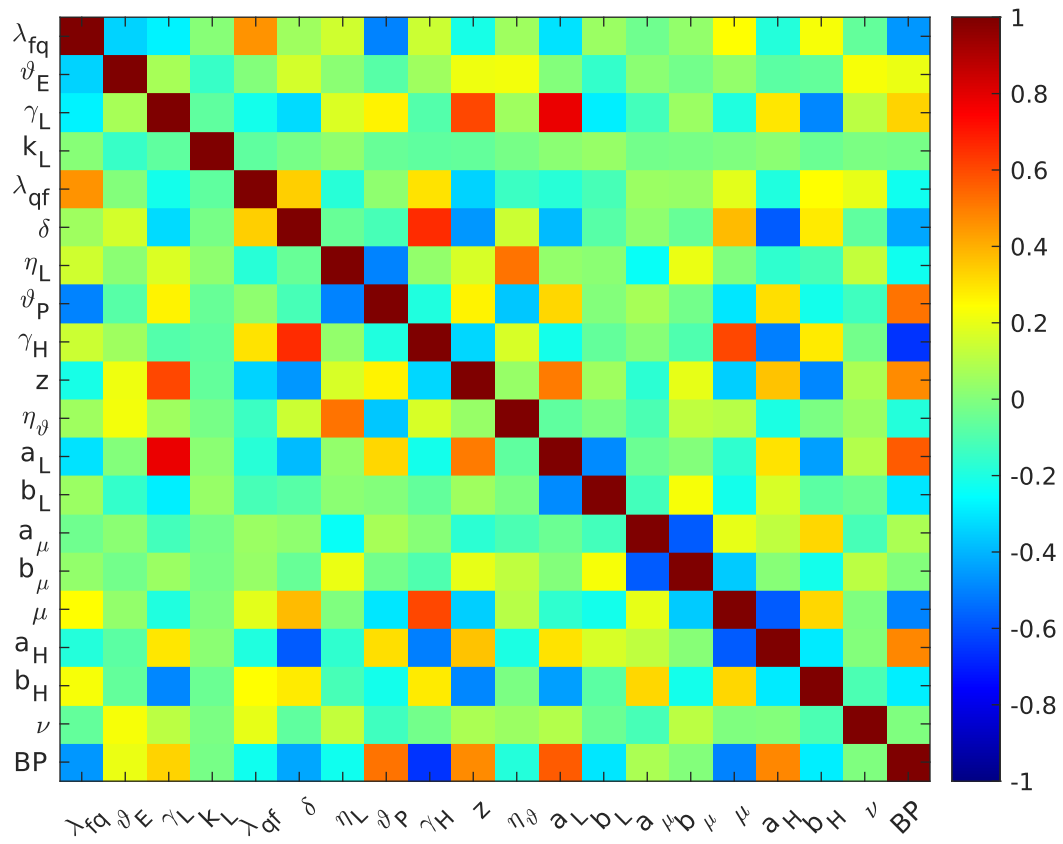
It was necessary to fix 0 parameters of 10 that could be fixed to complete validation.

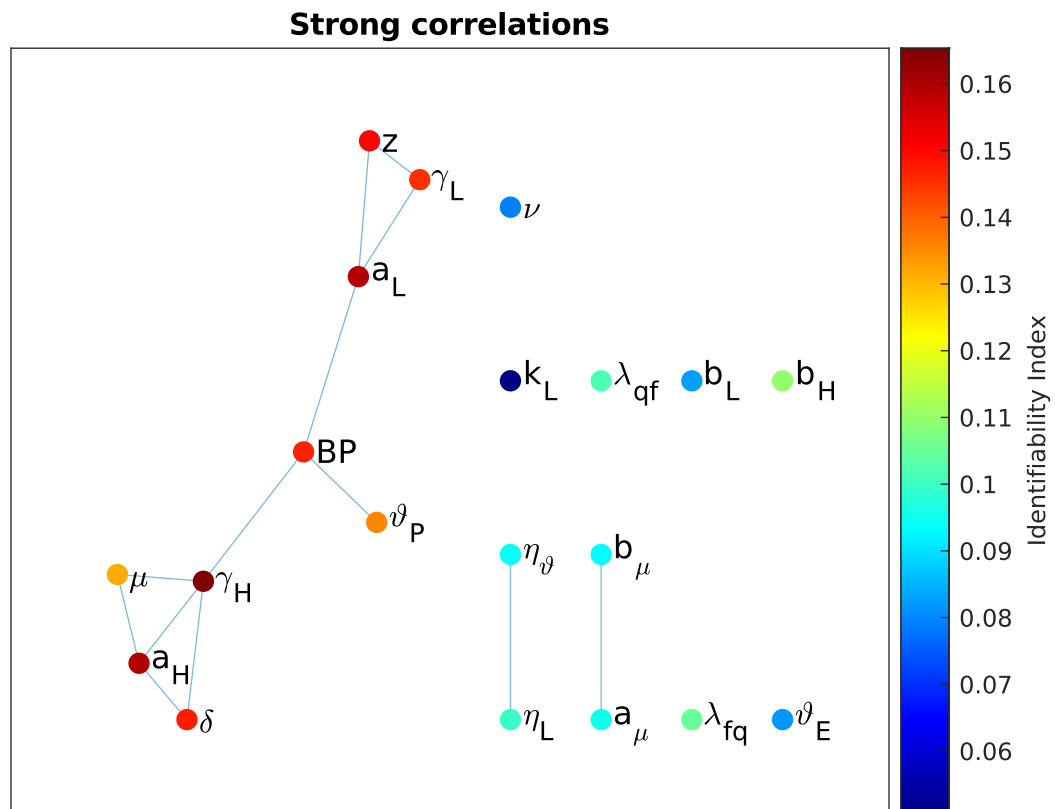
Due to a deviation from the median the CSB method was activated to obtain the parameter intervals.

	Rango		Nominal	Mejor	Index
\lambda_{fq}	'0.273'	'0.3107'	'0.2709'	'0.3053'	'0.1052'
\vartheta_E	'0.0006'	'0.0119'	'0.5433'	'0.0053'	'0.0821'
\gamma_L	'0.3195'	'1'	'0.7001'	'0.893'	'0.1454'
k_L	'1'	'9.64'	'5.5068'	'5.5162'	'0.0508'
\lambda_{qf}	'0.1751'	'0.1961'	'0.4228'	'0.1859'	'0.102'
\delta	'0.0009'	'0.0353'	'0.0668'	'0.0164'	'0.1478'
\eta_L	'0.5384'	'1'	'0.5217'	'0.996'	'0.0999'
\vartheta_P	'0.0003'	'0.1969'	'0.546'	'0.0023'	'0.1358'
\gamma_H	'0.0483'	'0.6813'	'0.4861'	'0.3148'	'0.1653'
z	'21.5179'	'30'	'19.0915'	'29.8928'	'0.1503'
\eta_{\vartheta}	'0.0479'	'0.5188'	'0.526'	'0.4236'	'0.0943'
a_L	'9.8991'	'14.3963'	'12.0495'	'14.3727'	'0.1593'
b_L	'7.4389'	'14.6976'	'6.3767'	'8.1409'	'0.0827'
a_{\mu}	'1.35'	'15'	'8.7241'	'3.3445'	'0.0952'
b_{\mu}	'1'	'15'	'7.6389'	'12.0344'	'0.0935'
\mu	'0'	'0.164'	'0.0898'	'0.0729'	'0.1316'
a_H	'1'	'15'	'8.426'	'5.2164'	'0.1594'
b_H	'1.7'	'15'	'5.6679'	'2.8452'	'0.1101'
\nu	'399.9846'	'500'	'278.7377'	'498.2206'	'0.0792'
BP	'329.2685'	'336.9756'	'339.5'	'330.5041'	'0.1469'

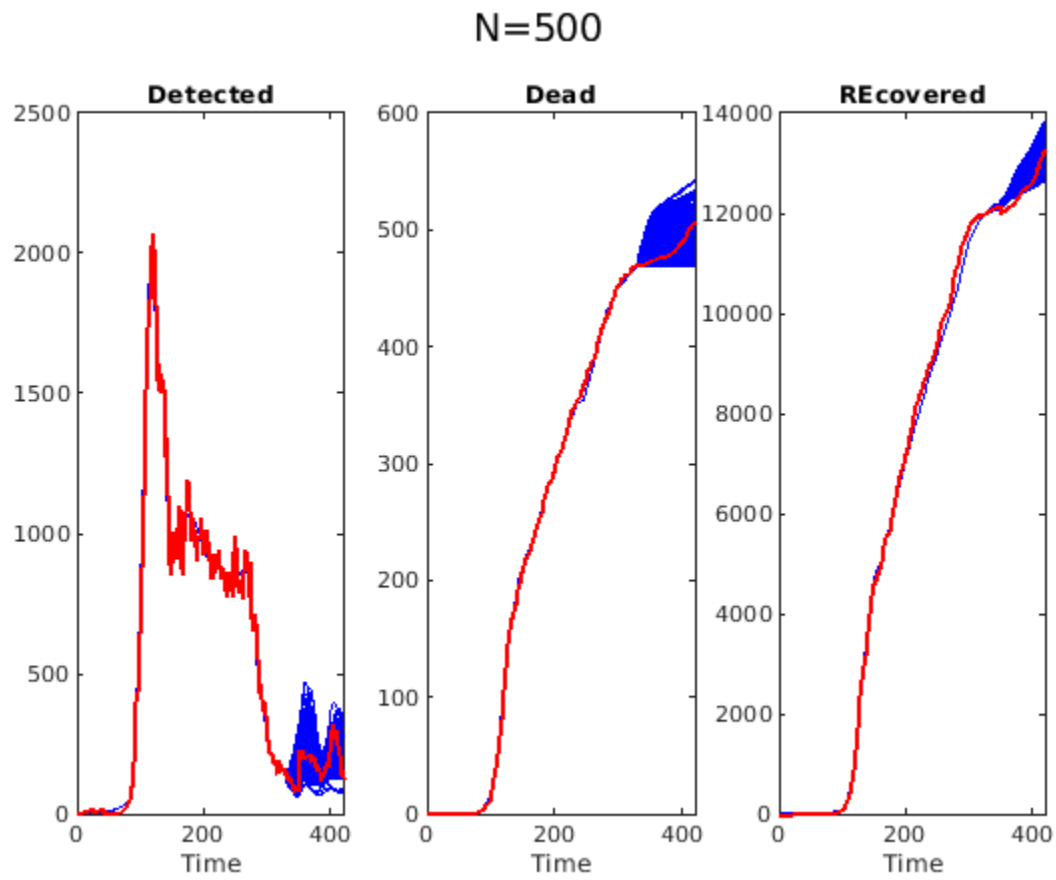
9.3. Identifiability analysys







9.4. Uncertainty analysis



Chapter 10. Extension number10

10.1. Basic information

The extension to be validated consists of the time series from the data420 to the 449. The status of the validation is: COMPLETED.

The number of estimations needed to perform the validation was1000.

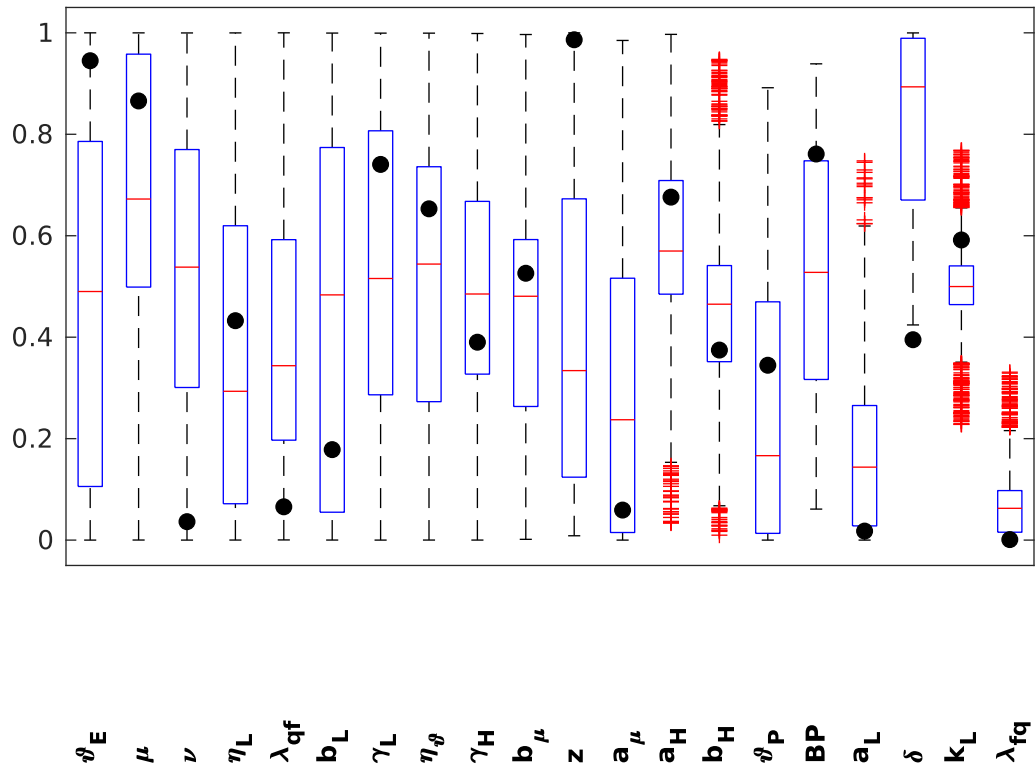
10.2. Estimated parameters with their intervals

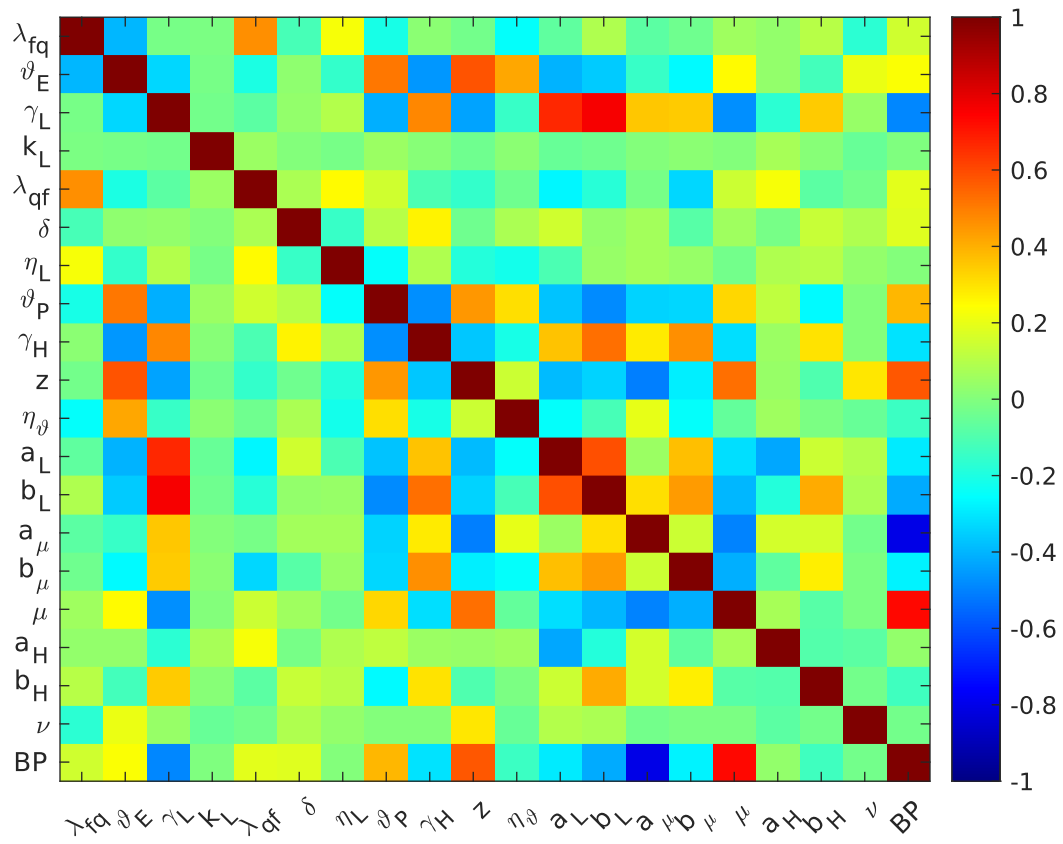
It was necessary to fix 0 parameters of 10 that could be fixed to complete validation.

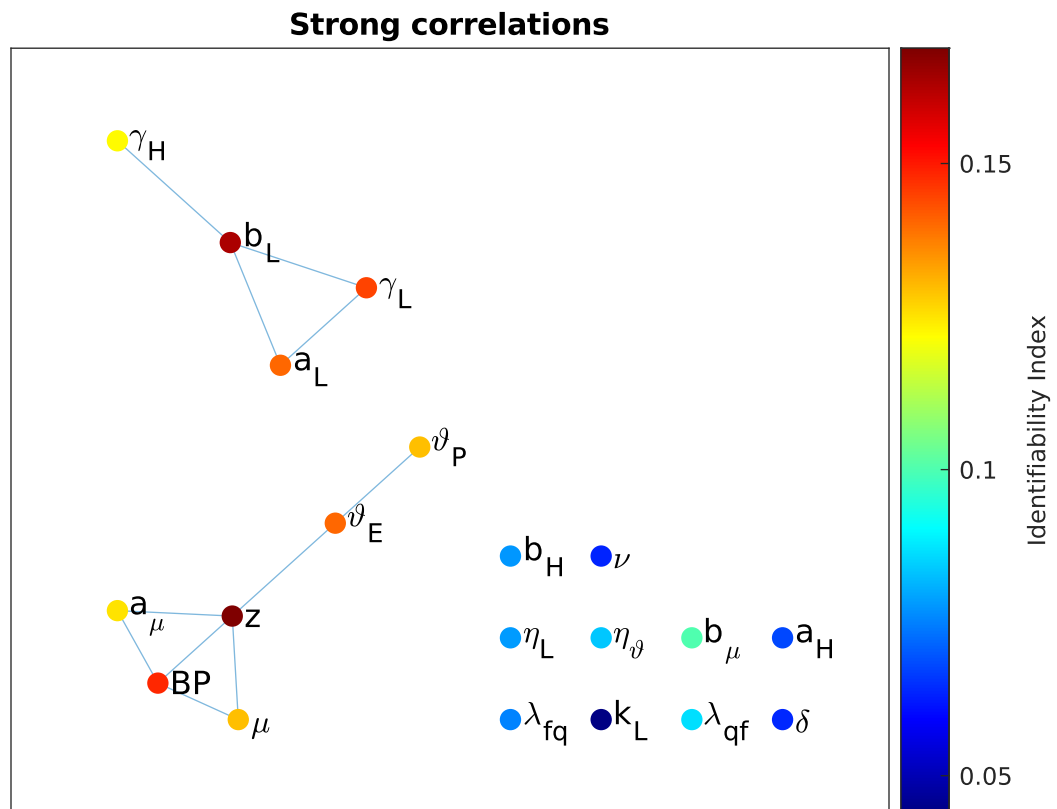
Due to a deviation from the median the CSB method was activated to obtain the parameter intervals.

	Rango		Nominal	Mejor	Index
λ_{fq}	'0'	'0.0023'	'0.0627'	'0.001'	'0.0757'
ϑ_E	'0.9357'	'0.9464'	'0.4901'	'0.945'	'0.1405'
γ_L	'0.6593'	'0.986'	'0.5157'	'0.7406'	'0.1446'
k_L	'1.45'	'10'	'5.4985'	'6.325'	'0.044'
λ_{qf}	'0.0622'	'0.1049'	'0.3438'	'0.0657'	'0.0866'
δ	'0.0059'	'0.1333'	'0.134'	'0.0593'	'0.0641'
η_L	'0.1262'	'0.9056'	'0.2934'	'0.4325'	'0.0783'
ϑ_P	'0.3192'	'0.4101'	'0.1664'	'0.3447'	'0.1298'
γ_H	'0.0334'	'0.8103'	'0.4851'	'0.3901'	'0.1224'
z	'26.5873'	'29.9283'	'10.0238'	'29.5897'	'0.1688'
η_{ϑ}	'0.3194'	'0.6551'	'0.5441'	'0.6531'	'0.0837'
a_L	'1.0509'	'1.5999'	'3.0136'	'1.2489'	'0.1406'
b_L	'2.0185'	'4.7106'	'7.7676'	'3.4968'	'0.1632'
a_{μ}	'1.5544'	'15'	'4.3216'	'1.8287'	'0.1252'
b_{μ}	'1'	'12.424'	'7.7298'	'8.3644'	'0.1003'
μ	'0'	'0.96'	'0.6724'	'0.8657'	'0.1294'
a_H	'1.252'	'13.1061'	'8.978'	'10.4656'	'0.0681'
b_H	'1.9574'	'15'	'7.5106'	'6.2446'	'0.078'
ν	'6.6042'	'40.8804'	'269.0509'	'18.1691'	'0.0636'
BP	'413.6754'	'419.0616'	'396.5'	'417.5'	'0.1481'

10.3. Identifiability analysis

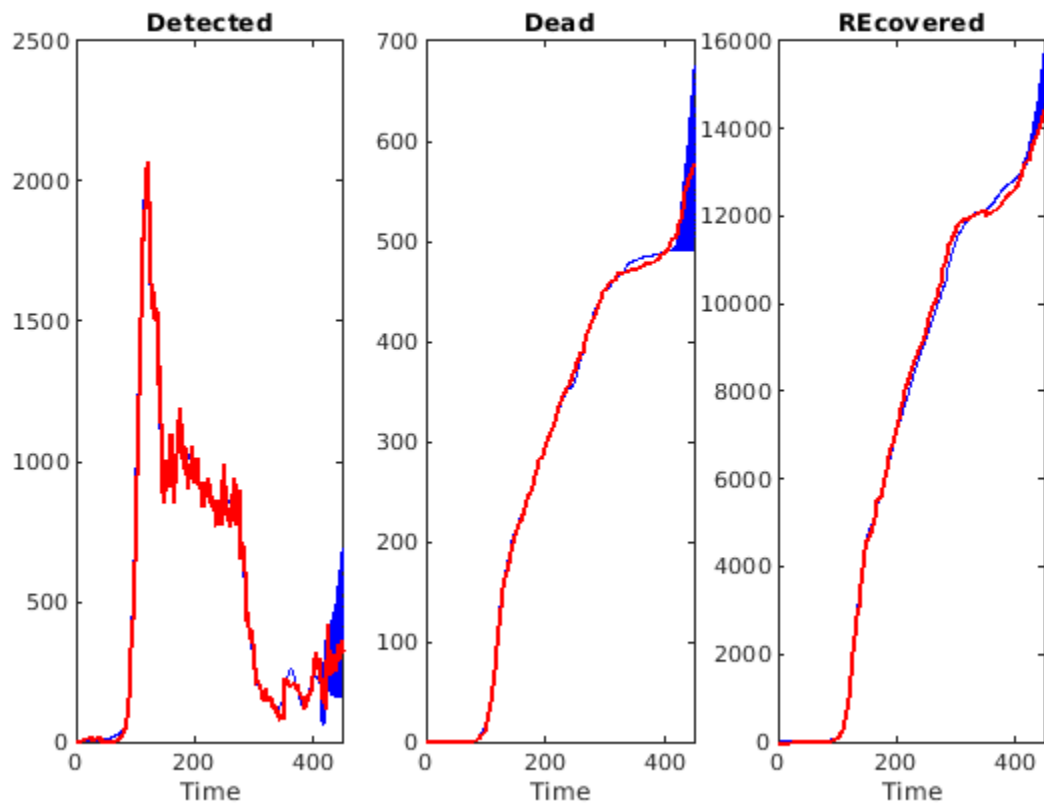






10.4. Uncertainty analysys

N=500



Chapter 11. Extension number11

11.1. Basic information

The extension to be validated consists of the time series from the data449 to the 457. The status of the validation is: COMPLETED.

The number of estimations needed to perform the validation was1000.

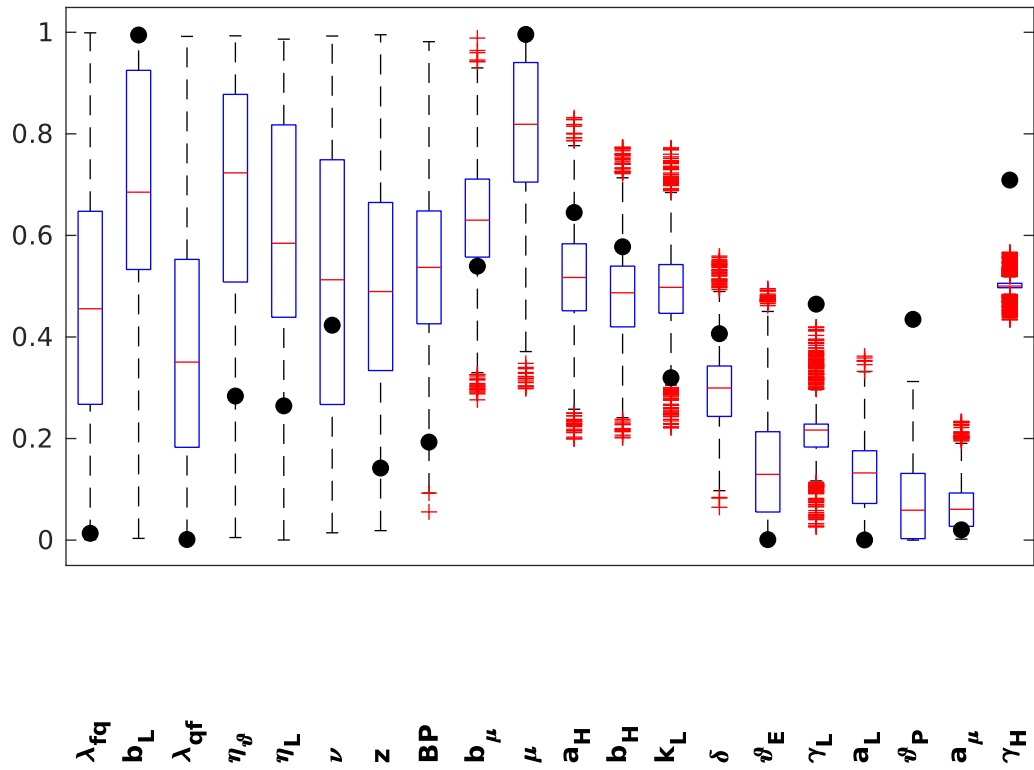
11.2. Estimated parameters with their intervals

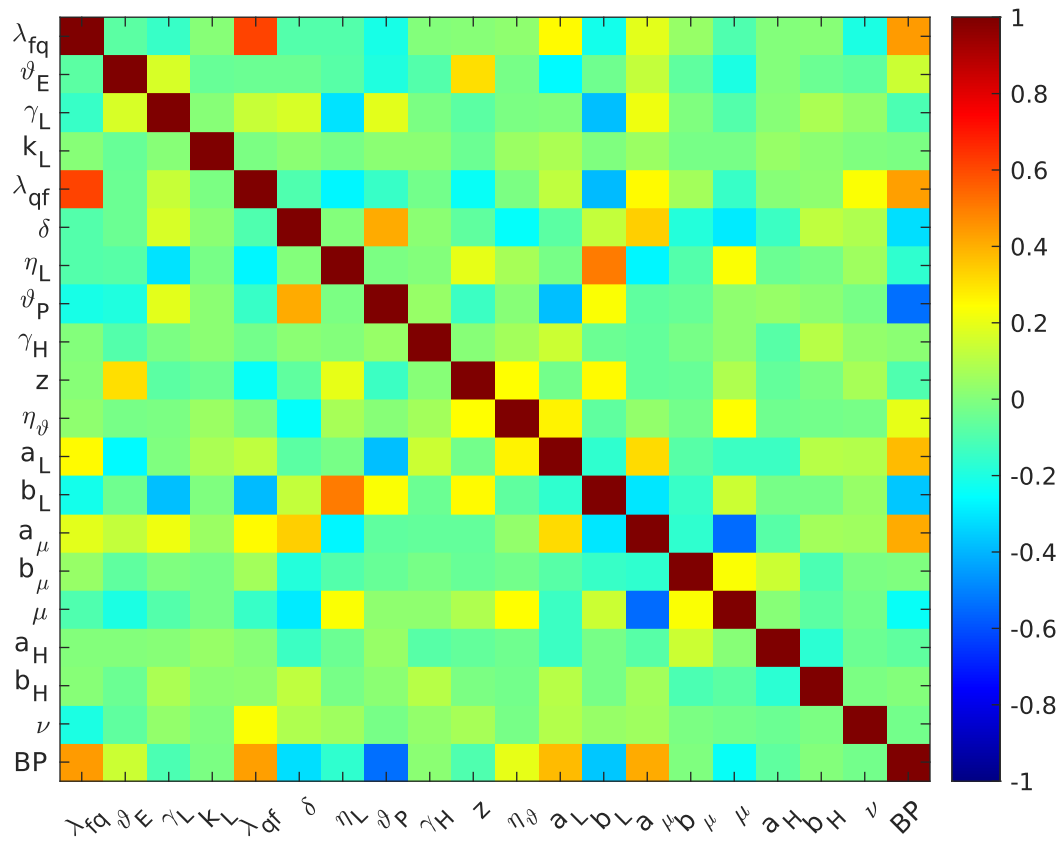
It was necessary to fix 0 parameters of 10 that could be fixed to complete validation.

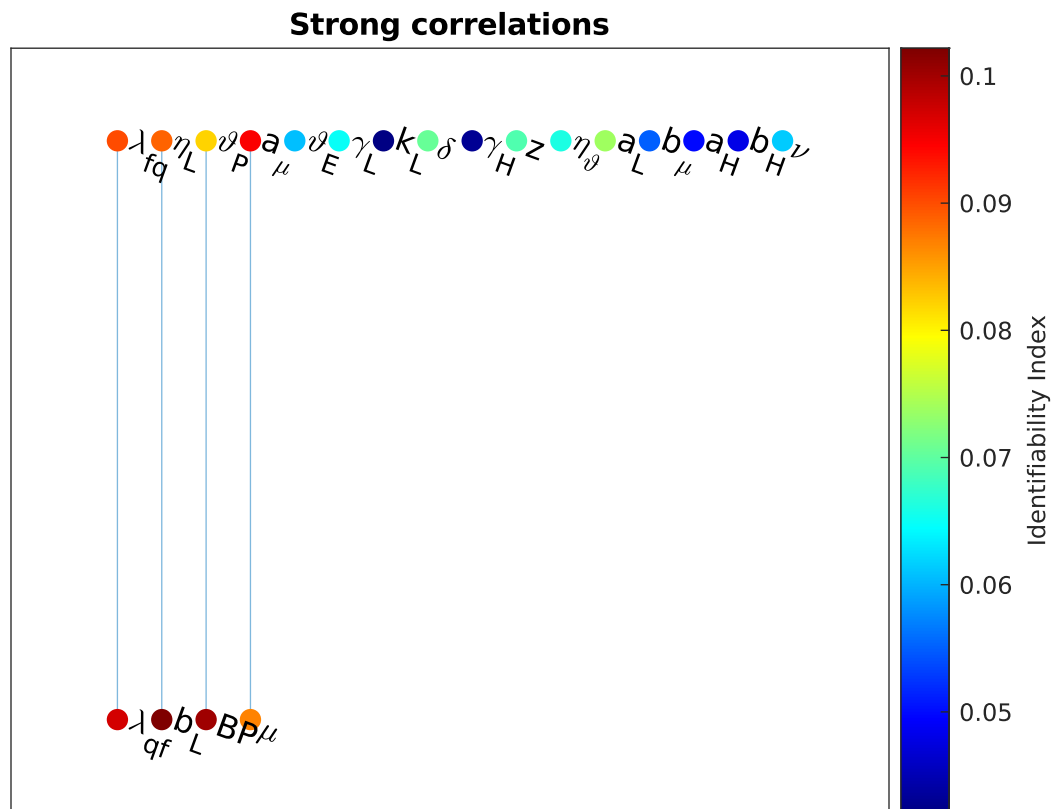
Due to a deviation from the median the CSB method was activated to obtain the parameter intervals.

	Rango		Nominal	Mejor	Index
λ_{fq}	'0.0112'	'0.0217'	'0.4555'	'0.0134'	'0.0902'
ϑ_E	'0'	'0.0019'	'0.1294'	'0.0009'	'0.0607'
γ_L	'0.3908'	'0.4762'	'0.2167'	'0.4646'	'0.065'
k_L	'1.3805'	'9.55'	'5.4795'	'3.8776'	'0.0421'
λ_{qf}	'0.0001'	'0.0023'	'0.3505'	'0.0012'	'0.097'
δ	'0.0088'	'0.1321'	'0.0449'	'0.061'	'0.0705'
η_L	'0.0213'	'0.5111'	'0.5845'	'0.2644'	'0.0886'
ϑ_P	'0.2263'	'0.5737'	'0.0589'	'0.4347'	'0.0821'
γ_H	'0.025'	'1'	'0.5003'	'0.709'	'0.0432'
z	'3.9268'	'5.7122'	'14.6832'	'4.2571'	'0.0691'
η_{ϑ}	'0.0273'	'0.6128'	'0.7232'	'0.2837'	'0.0662'
a_L	'1'	'1.1863'	'2.8515'	'1.0042'	'0.074'
b_L	'11.6541'	'15'	'10.5919'	'14.9249'	'0.1022'
a_{μ}	'1.28'	'14.314'	'1.8502'	'1.283'	'0.0949'
b_{μ}	'1'	'14.44'	'9.8206'	'8.5519'	'0.0551'
μ	'0.2995'	'1'	'0.8188'	'0.9958'	'0.0867'
a_H	'1.2688'	'13.9132'	'8.2404'	'10.0313'	'0.0499'
b_H	'1.5327'	'11.9635'	'7.818'	'9.0864'	'0.048'
ν	'211.0417'	'351.8865'	'256.3222'	'211.6092'	'0.0614'
BP	'425.0707'	'429.0122'	'434.5'	'425.2115'	'0.1001'

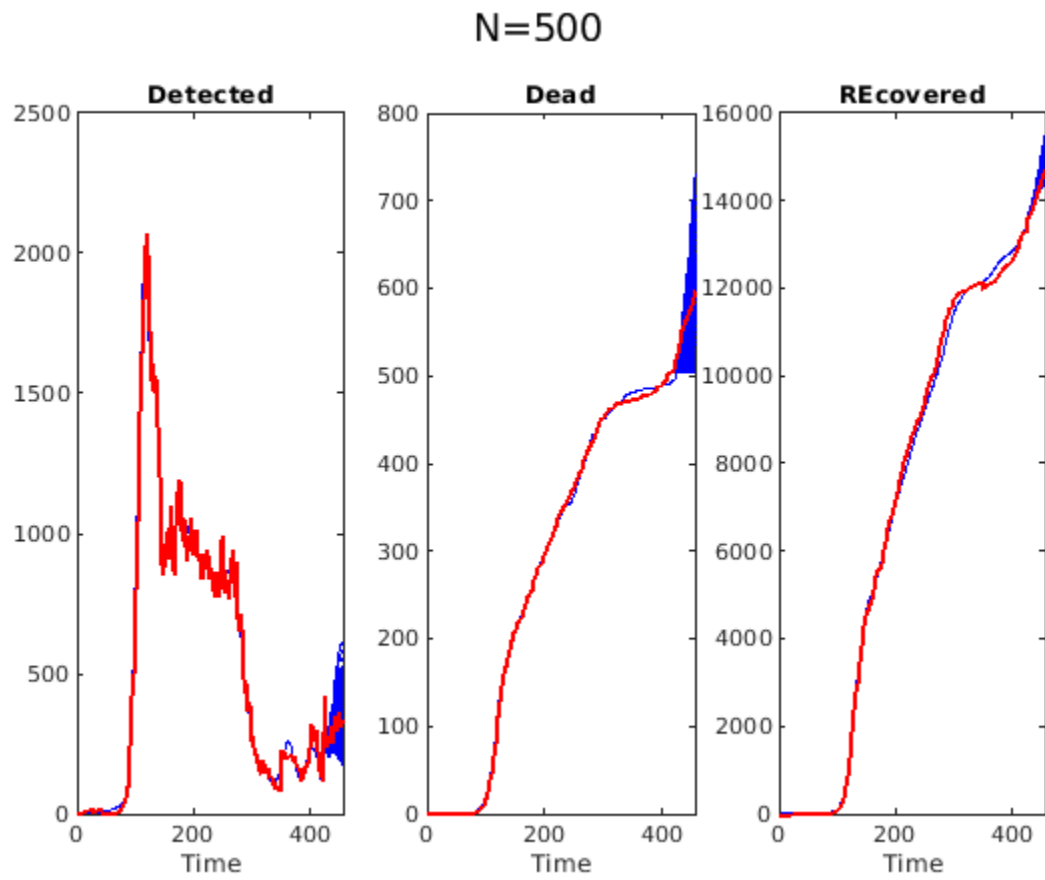
11.3. Identifiability analysis







11.4. Uncertainty analysis



Chapter 12. Extension number12

12.1. Basic information

The extension to be validated consists of the time series from the data457 to the 597. The status of the validation is: COMPLETED.

The number of estimations needed to perform the validation was1000.

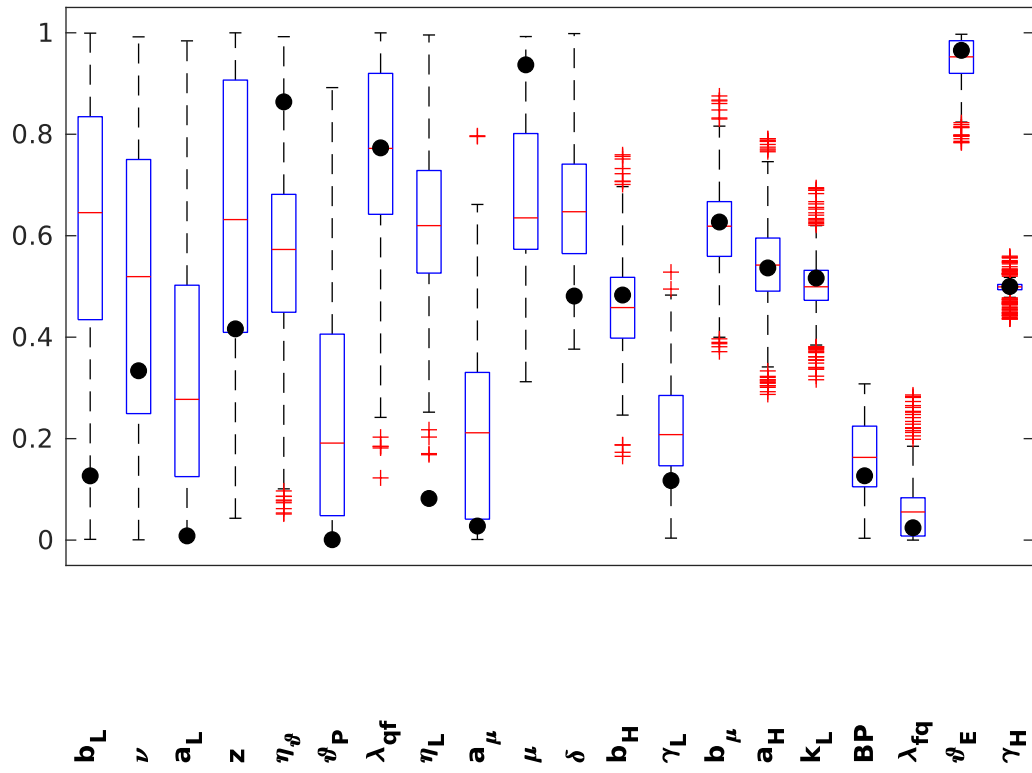
12.2. Estimated parameters with their intervals

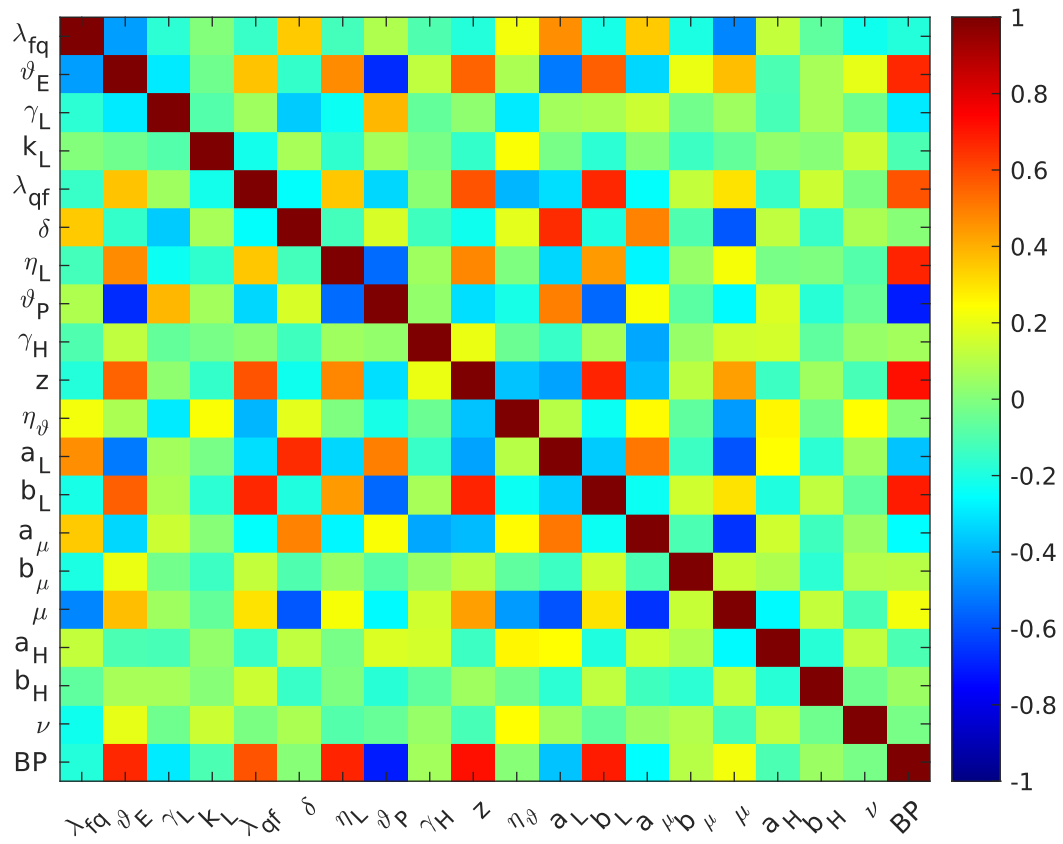
It was necessary to fix 0 parameters of 10 that could be fixed to complete validation.

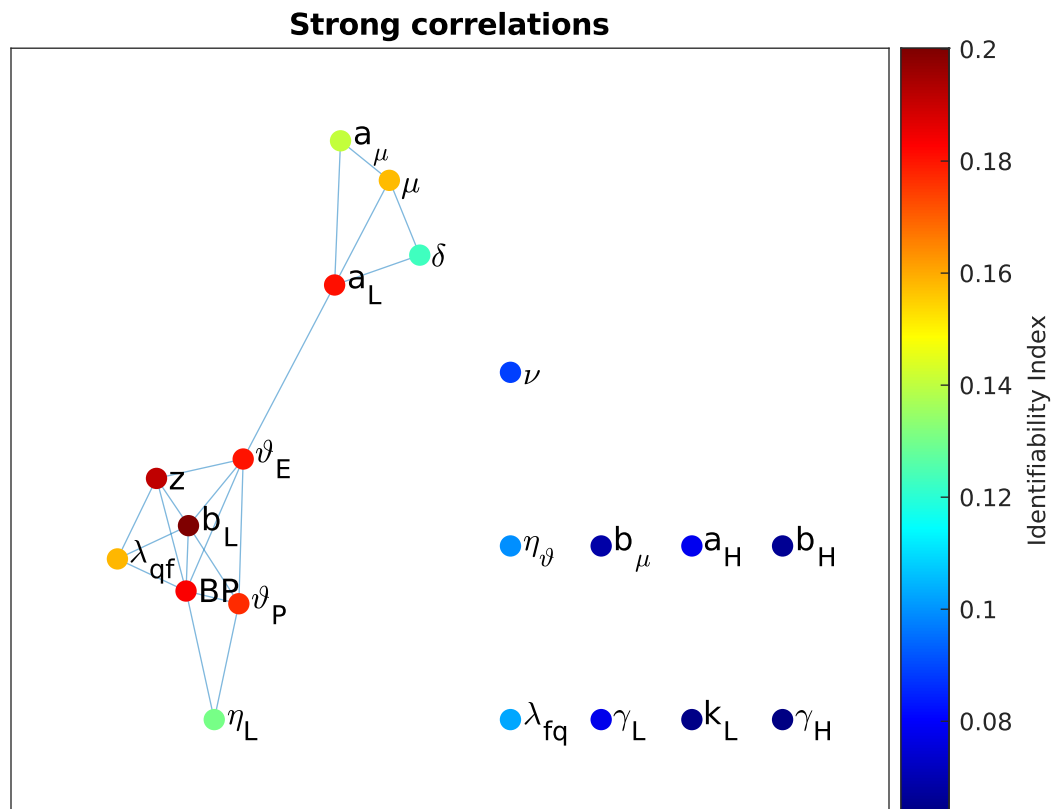
Due to a deviation from the median the CSB method was activated to obtain the parameter intervals.

	Rango		Nominal	Mejor	Index
λ_{fq}	'0.0022'	'0.0742'	'0.0555'	'0.0243'	'0.1028'
ϑ_E	'0.9565'	'0.9675'	'0.9522'	'0.9654'	'0.18'
γ_L	'0.0924'	'0.1208'	'0.208'	'0.1174'	'0.0781'
k_L	'1'	'10'	'5.494'	'5.6487'	'0.0648'
λ_{qf}	'0.4542'	'0.7999'	'0.7721'	'0.7732'	'0.1585'
δ	'0'	'0.15'	'0.0971'	'0.0722'	'0.1233'
η_L	'0.0101'	'0.0925'	'0.6198'	'0.0821'	'0.1307'
ϑ_P	'0'	'0.0018'	'0.1912'	'0.0008'	'0.1771'
γ_H	'0'	'1'	'0.4991'	'0.4999'	'0.0638'
z	'12.1806'	'14.8149'	'18.954'	'12.4917'	'0.1912'
η_{ϑ}	'0'	'1'	'0.5722'	'0.8638'	'0.0996'
a_L	'1.0302'	'2.5124'	'4.8837'	'1.1166'	'0.1805'
b_L	'1.1496'	'4.7776'	'10.0366'	'2.7734'	'0.2002'
a_{μ}	'1'	'15'	'3.9623'	'1.3878'	'0.1406'
b_{μ}	'1.336'	'14.44'	'9.6625'	'9.7781'	'0.0689'
μ	'0'	'1'	'0.6352'	'0.9369'	'0.1578'
a_H	'1'	'15'	'8.5899'	'8.5108'	'0.0783'
b_H	'1'	'15'	'7.4169'	'7.7632'	'0.0663'
ν	'7.5109'	'375.5471'	'259.6734'	'166.9098'	'0.0889'
BP	'460.586'	'468.9148'	'471.5'	'466.4991'	'0.1834'

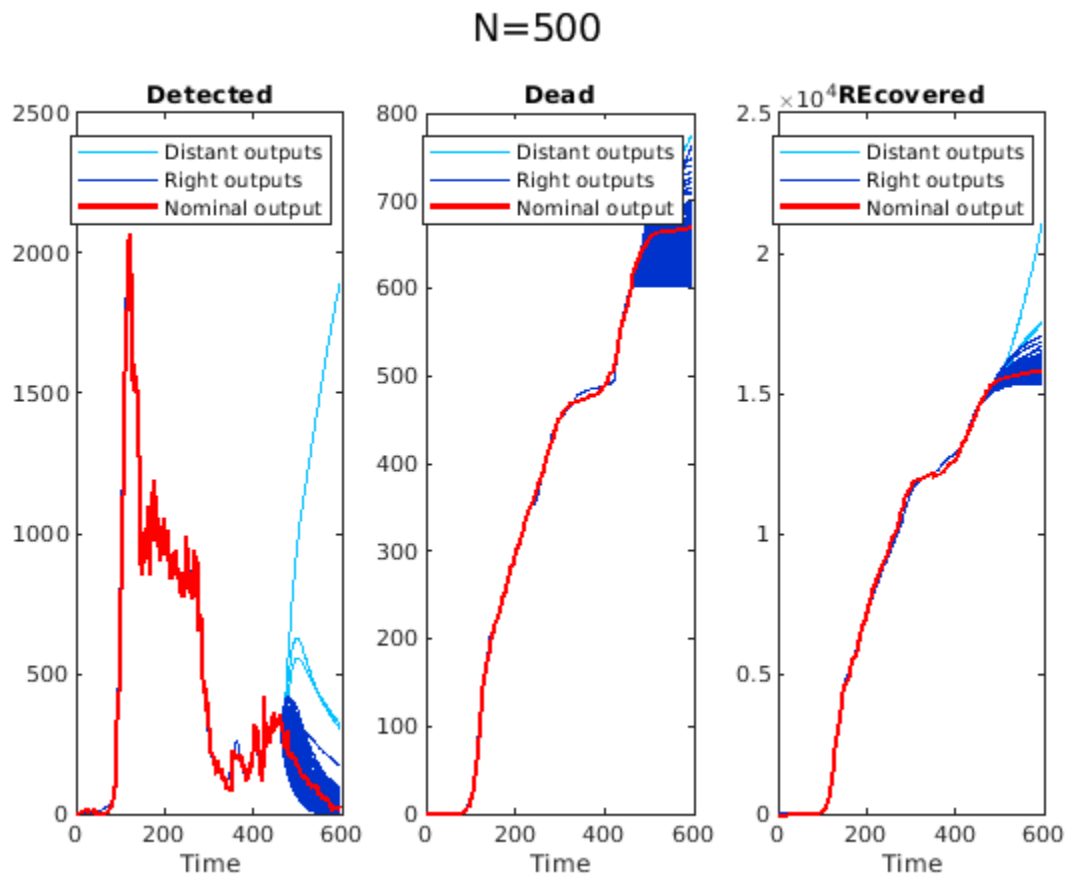
12.3. Identifiability analysis







12.4. Uncertainty analysis



Chapter 13. Extension number13

13.1. Basic information

The extension to be validated consists of the time series from the data597 to the 684. The status of the validation is: COMPLETED.

The number of estimations needed to perform the validation was1000.

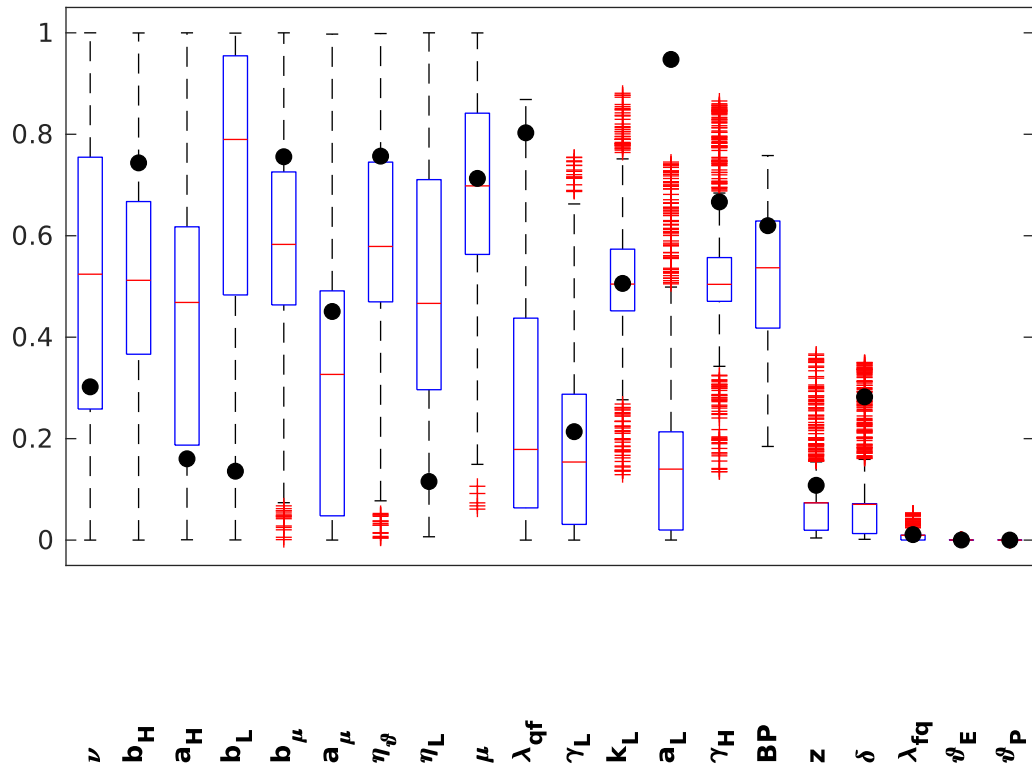
13.2. Estimated parameters with their intervals

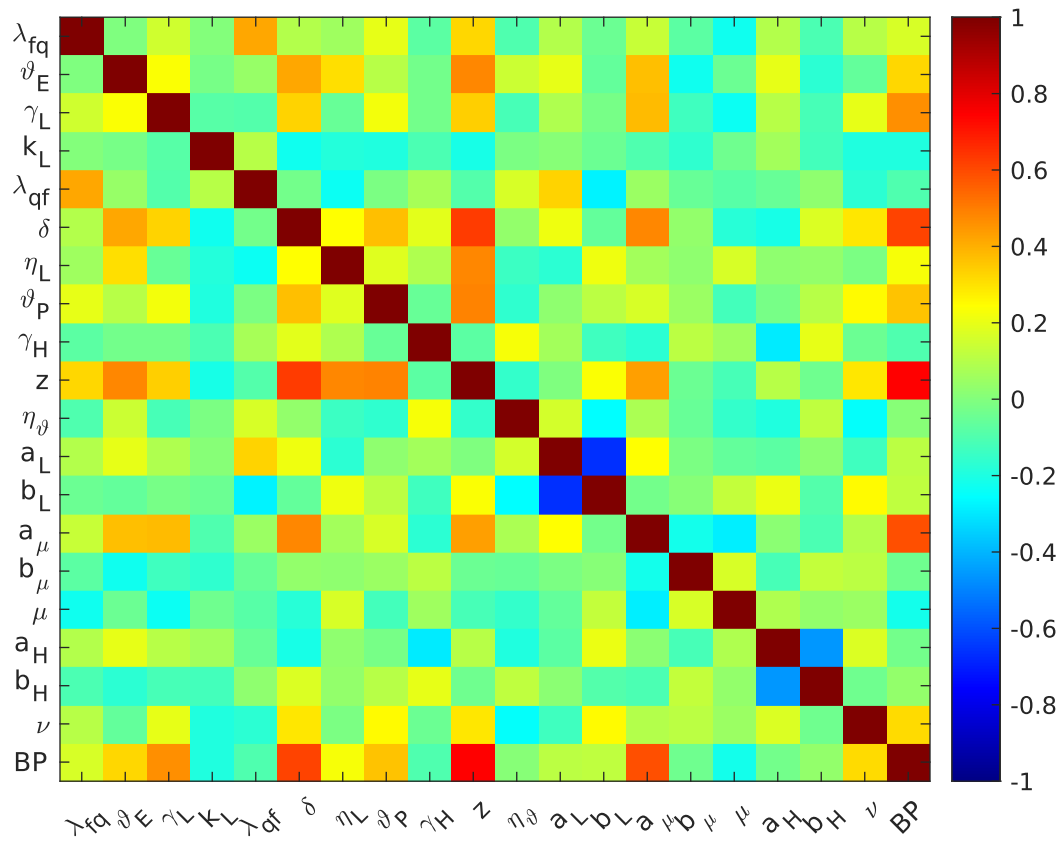
It was necessary to fix 0 parameters of 10 that could be fixed to complete validation.

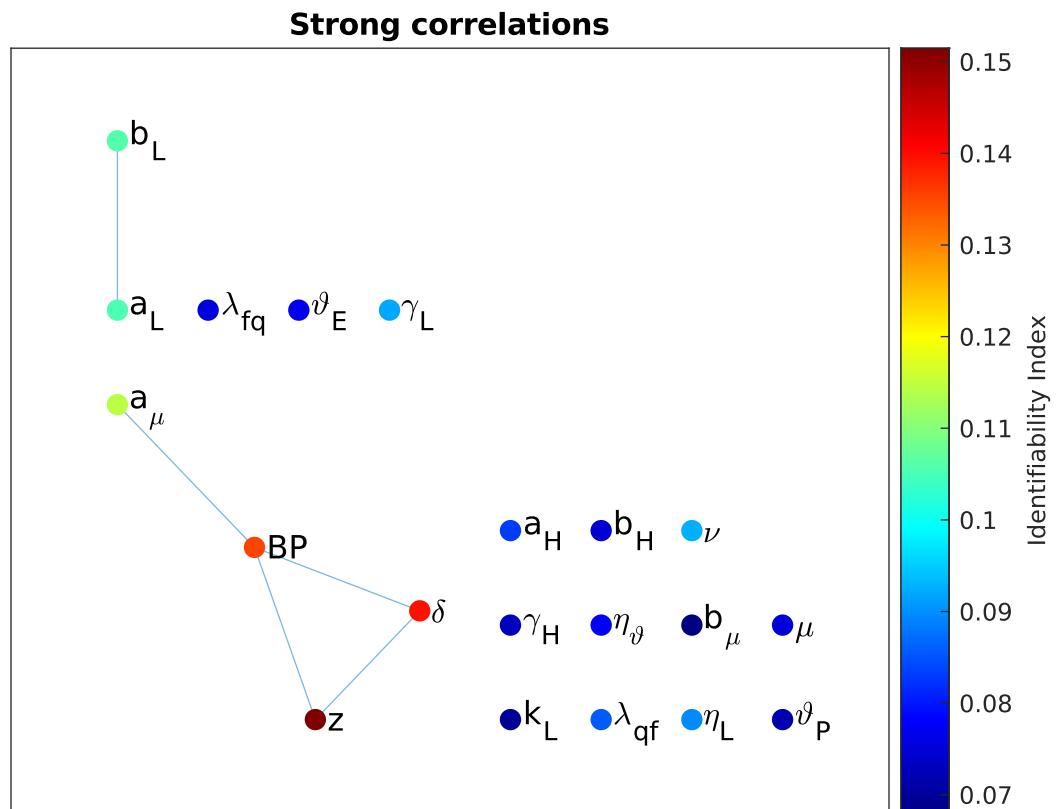
Due to a deviation from the median the CSB method was activated to obtain the parameter intervals.

	Rango		Nominal	Mejor	Index
λ_{fq}	'0.0096'	'0.0437'	'0.0098'	'0.0108'	'0.0756'
ϑ_E	'0'	'0.0004'	'0.0002'	'0.0002'	'0.0769'
γ_L	'0.048'	'0.3475'	'0.1541'	'0.2138'	'0.0921'
k_L	'1.576'	'9.3261'	'5.542'	'5.554'	'0.07'
λ_{qf}	'0.6371'	'0.8088'	'0.1796'	'0.8029'	'0.0859'
δ	'0.0339'	'0.0475'	'0.0106'	'0.0424'	'0.1396'
η_L	'0.1066'	'0.1939'	'0.4666'	'0.1155'	'0.0897'
ϑ_P	'0'	'0'	'0'	'0'	'0.072'
γ_H	'0.3691'	'0.8379'	'0.5042'	'0.6667'	'0.0731'
z	'3.0256'	'3.6879'	'2.2098'	'3.2404'	'0.1515'
η_{ϑ}	'0.7209'	'0.7888'	'0.5789'	'0.7569'	'0.078'
a_L	'4.8733'	'15'	'2.9589'	'14.2657'	'0.1054'
b_L	'1.8478'	'11.0886'	'12.0572'	'2.9014'	'0.1061'
a_{μ}	'5.4592'	'13.5243'	'5.5727'	'7.3093'	'0.1144'
b_{μ}	'2.0325'	'12.5654'	'9.1608'	'11.58'	'0.0681'
μ	'0.0753'	'0.8596'	'0.6977'	'0.713'	'0.0755'
a_H	'2.9059'	'4.3225'	'7.5589'	'3.244'	'0.0832'
b_H	'7.5134'	'14.5939'	'8.1699'	'11.4108'	'0.0748'
ν	'132.8979'	'189.4538'	'262.0898'	'151.0698'	'0.0926'
BP	'589.6364'	'593.1849'	'573.5'	'591.4997'	'0.1354'

13.3. Identifiability analysis







13.4. Uncertainty analysys

