

Validation process forGUAVIARE

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 35. The status of the validation is: COMPLETED.

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

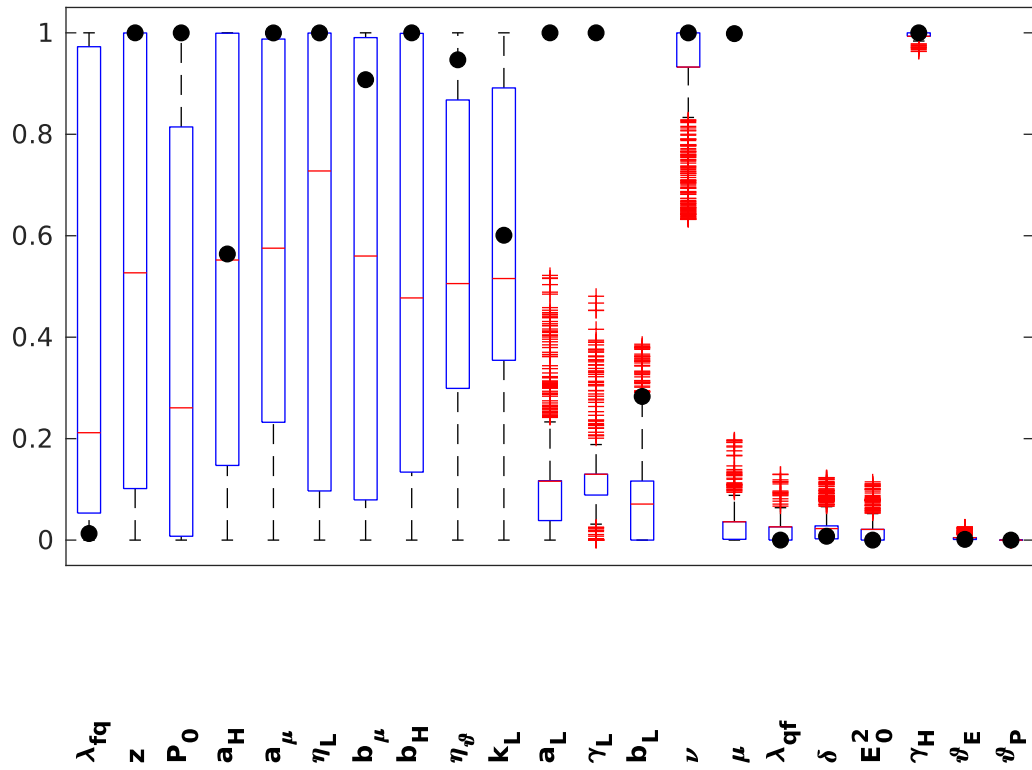
1.2. Estimated parameters with their intervals

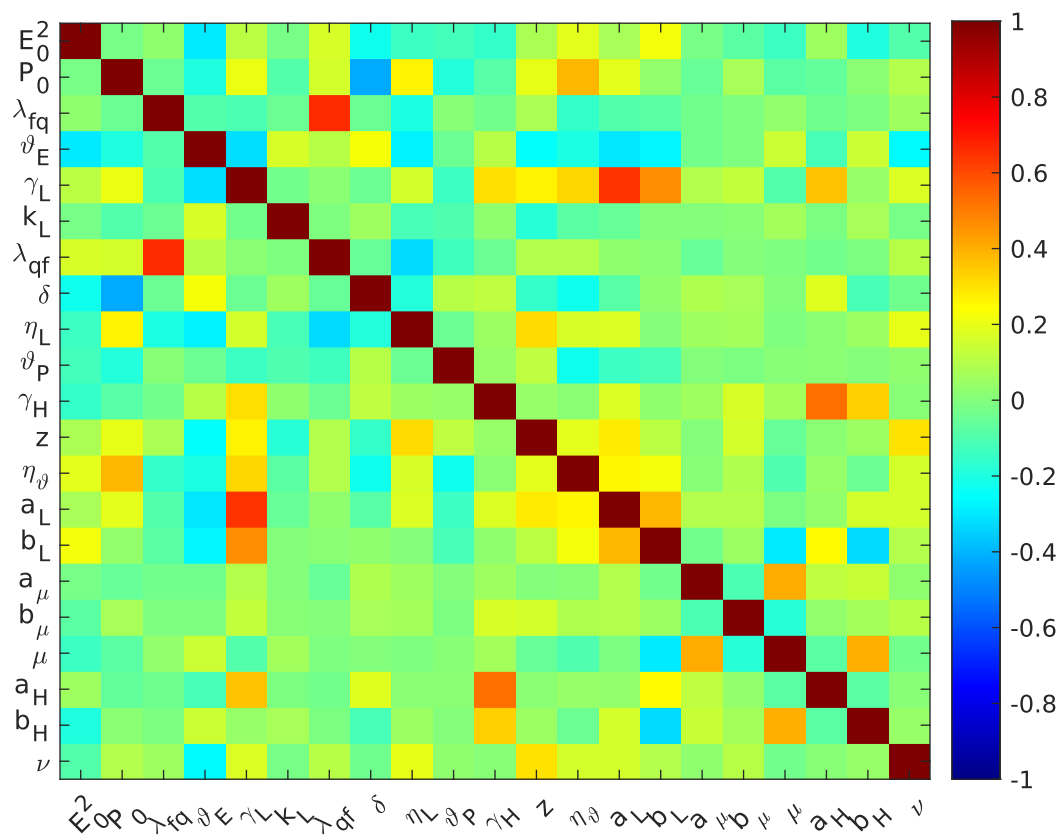
It was necessary to fix 0 parameters of 11 that could be fixed to complete validation.

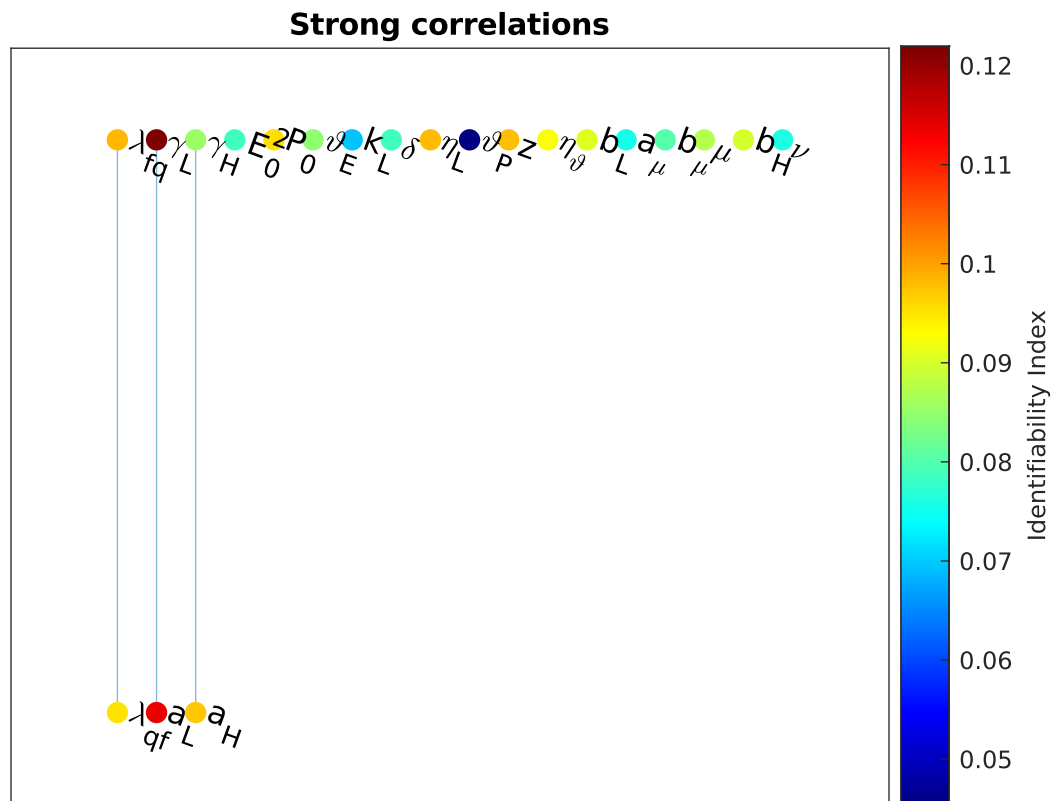
Due to a deviation from the median the CSB method was activated to obtain the parameter intervals.

	Rango		Nominal	Mejor	Index
E^2_0	'0.0006'	'0.025'	'42.2525'	'0.0141'	'0.0788'
P_0	'157.2135'	'400'	'104.2998'	'399.9656'	'0.0955'
λ_{fq}	'0.0032'	'0.0149'	'0.2117'	'0.013'	'0.0984'
ϑ_E	'0.0011'	'0.0017'	'0.0048'	'0.0014'	'0.0849'
γ_L	'0.19'	'1'	'0.1299'	'1'	'0.122'
k_L	'1'	'10'	'5.6406'	'6.4086'	'0.0695'
λ_{qf}	'0'	'0'	'0.0261'	'0'	'0.0952'
δ	'0.0011'	'0.0015'	'0.0034'	'0.0011'	'0.0788'
η_L	'0.1658'	'1'	'0.7277'	'0.9998'	'0.0982'
ϑ_P	'0'	'0'	'0'	'0'	'0.0454'
γ_H	'0.9108'	'1'	'0.9932'	'1'	'0.0855'
z	'19.7181'	'30'	'15.8067'	'29.9997'	'0.098'
η_{ϑ}	'0.4574'	'1'	'0.5057'	'0.9468'	'0.0928'
a_L	'11.2195'	'15'	'2.639'	'15'	'0.1138'
b_L	'1.7155'	'5.8485'	'1.9947'	'4.9638'	'0.0907'
a_{μ}	'14.5634'	'15'	'9.0564'	'14.9971'	'0.0756'
b_{μ}	'12.9952'	'13.7099'	'8.8399'	'13.7067'	'0.0804'
μ	'0.7607'	'1'	'0.0363'	'0.9984'	'0.0875'
a_H	'8.5833'	'8.8982'	'8.73'	'8.8965'	'0.0974'
b_H	'14.4346'	'15'	'7.6834'	'14.9996'	'0.0897'
ν	'318.4807'	'500'	'466.2037'	'499.9546'	'0.0761'

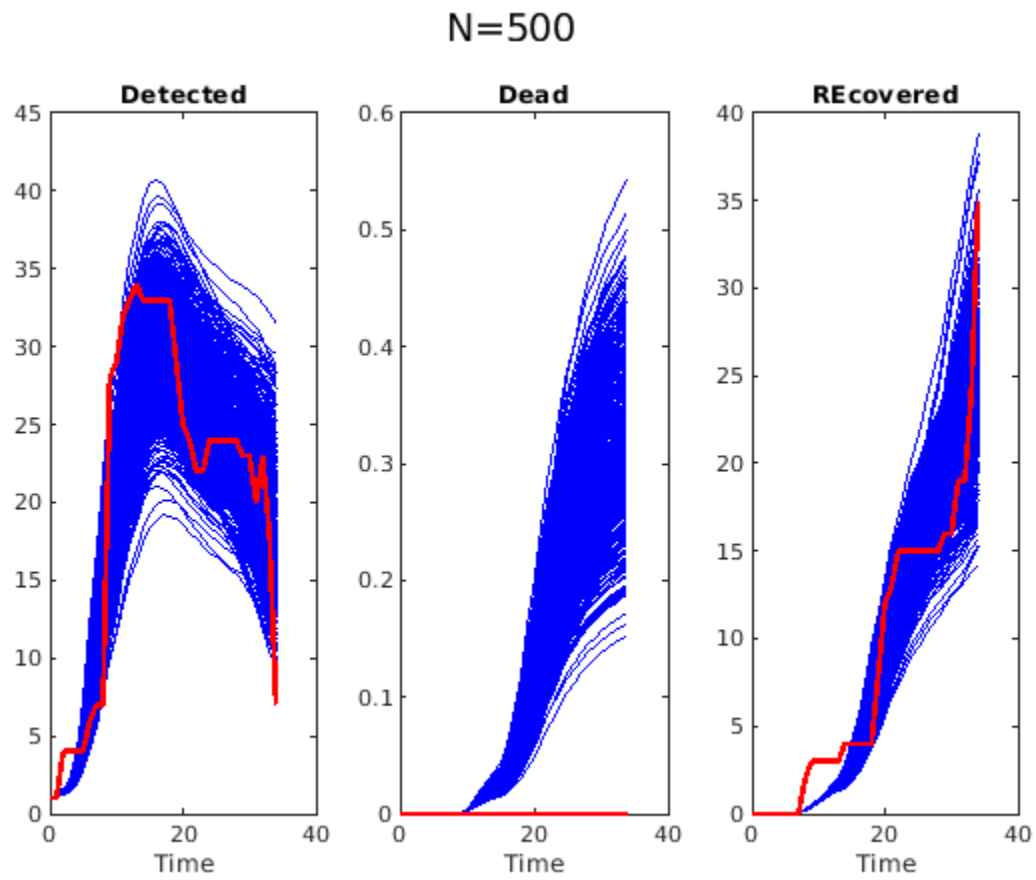
1.3. Identifiability analysis







1.4. Uncertainty analysis



Chapter 2. Extension number2

2.1. Basic information

The extension to be validated consists of the time series from the data35 to the 65. The status of the validation is: COMPLETED.

The number of estimations needed to perform the validation was1000.

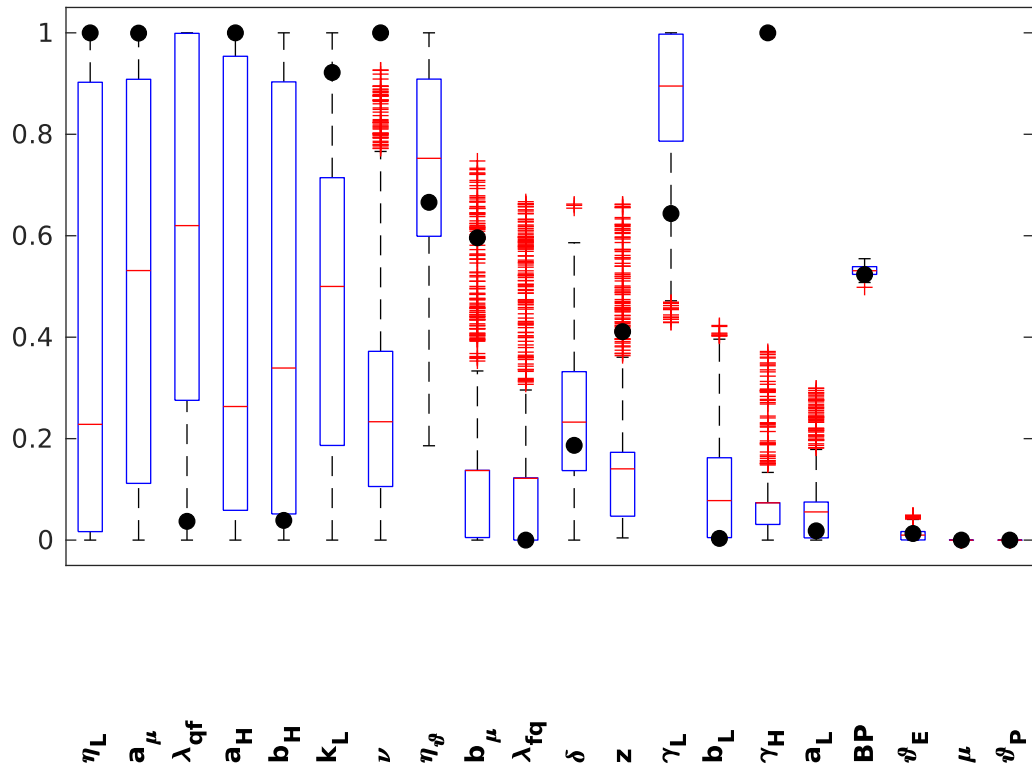
2.2. Estimated parameters with their intervals

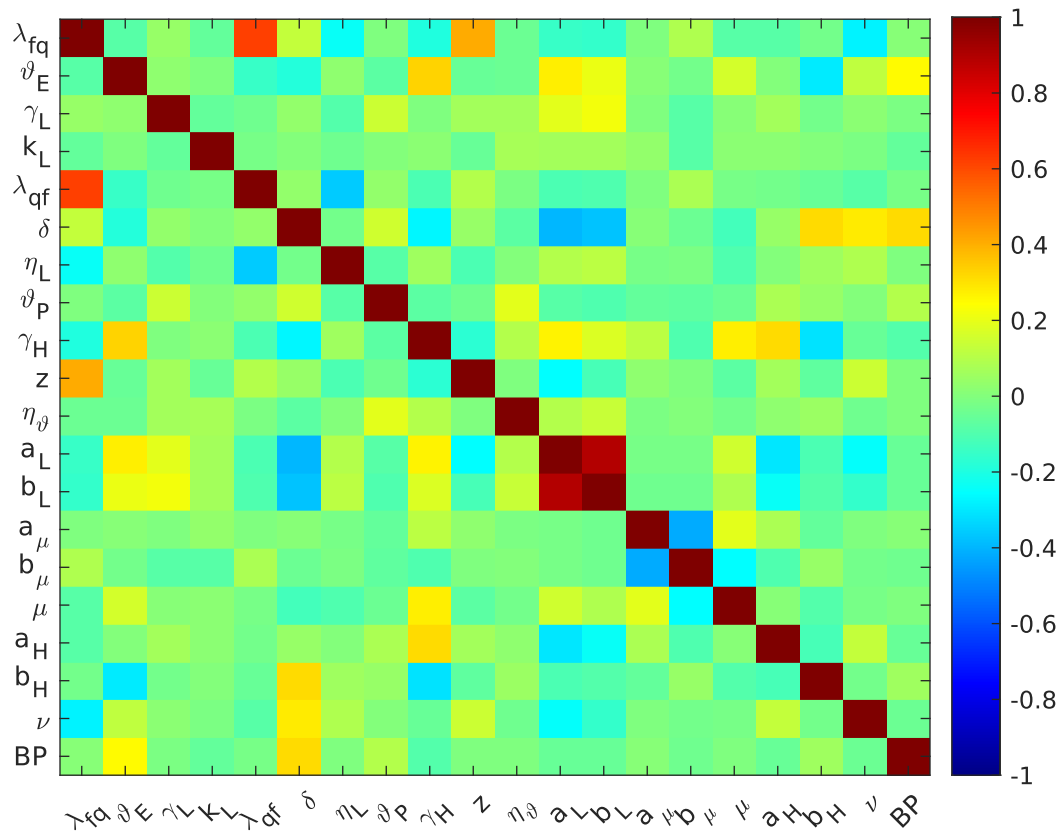
It was necessary to fix 0 parameters of 10 that could be fixed to complete validation.

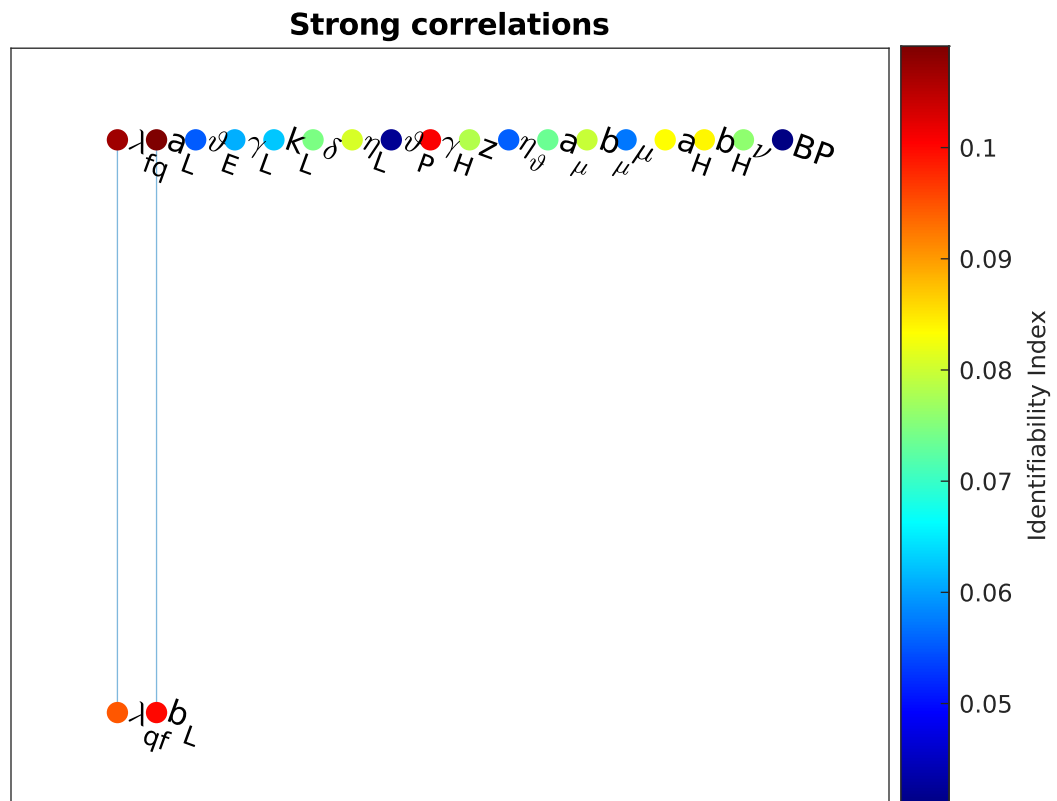
Due to a deviation from the median the CSB method was activated to obtain the parameter intervals.

	Rango		Nominal	Mejor	Index
λ_{fq}	'0'	'0'	'0.1228'	'0'	'0.1069'
ϑ_E	'0.0031'	'0.0163'	'0.0099'	'0.013'	'0.0554'
γ_L	'0.4375'	'1'	'0.895'	'0.6438'	'0.0611'
k_L	'1.864'	'10'	'5.5003'	'9.2962'	'0.0626'
λ_{qf}	'0.0285'	'0.0604'	'0.62'	'0.037'	'0.0947'
δ	'0.0197'	'0.0307'	'0.0349'	'0.028'	'0.0747'
η_L	'0.1808'	'1'	'0.2282'	'0.9999'	'0.0809'
ϑ_P	'0'	'0'	'0'	'0'	'0.0422'
γ_H	'0.2892'	'1'	'0.0737'	'0.9999'	'0.1006'
z	'10.8092'	'27.2219'	'4.2226'	'12.3257'	'0.0784'
η_{ϑ}	'0.3037'	'0.9387'	'0.7526'	'0.6659'	'0.0556'
a_L	'1.2229'	'2.4827'	'1.7789'	'1.2556'	'0.1091'
b_L	'1.0294'	'2.472'	'2.0935'	'1.0468'	'0.0999'
a_{μ}	'1'	'15'	'8.4388'	'14.9924'	'0.0735'
b_{μ}	'1'	'15'	'2.927'	'9.3433'	'0.0796'
μ	'0'	'0'	'0'	'0'	'0.0573'
a_H	'9.0209'	'15'	'4.6869'	'14.9998'	'0.0834'
b_H	'1.252'	'9.8566'	'5.7489'	'1.5436'	'0.0841'
ν	'373.3143'	'500'	'116.7879'	'499.9995'	'0.0759'
BP	'33.5128'	'37.7563'	'34.9849'	'34.5'	'0.0409'

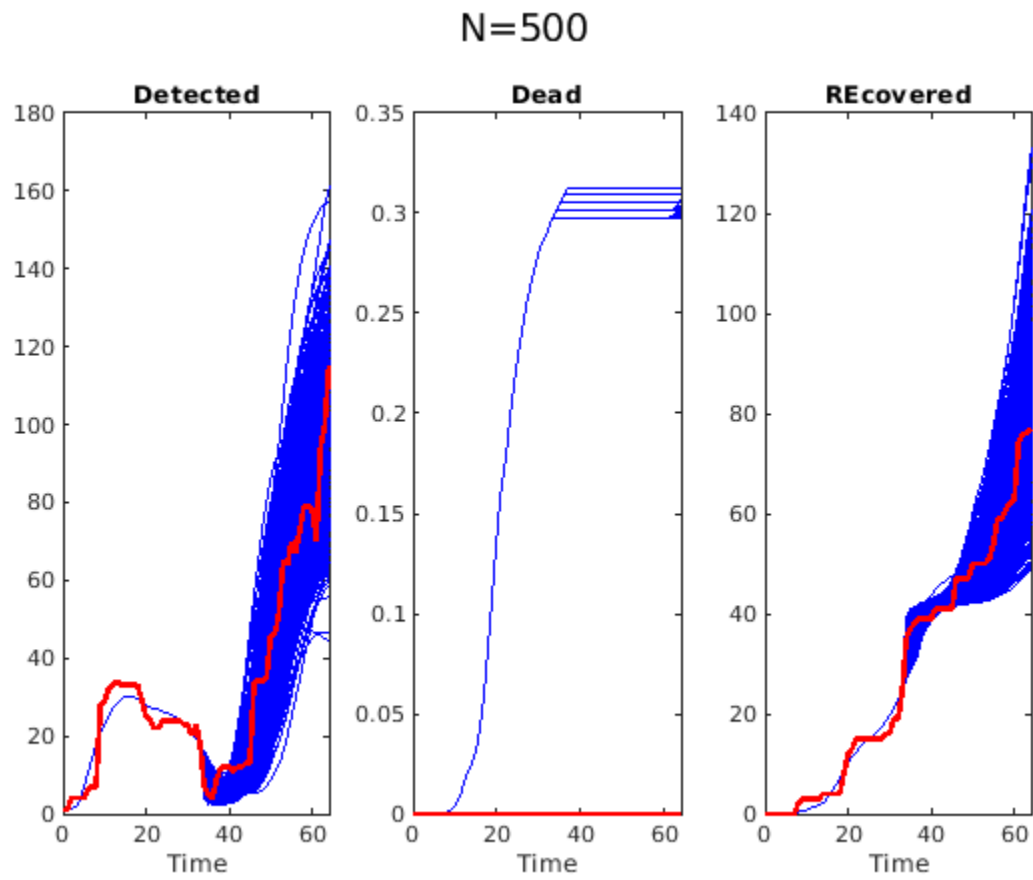
2.3. Identifiability analysis







2.4. Uncertainty analysys



Chapter 3. Extension number3

3.1. Basic information

The extension to be validated consists of the time series from the data65 to the 106. The status of the validation is: COMPLETED.

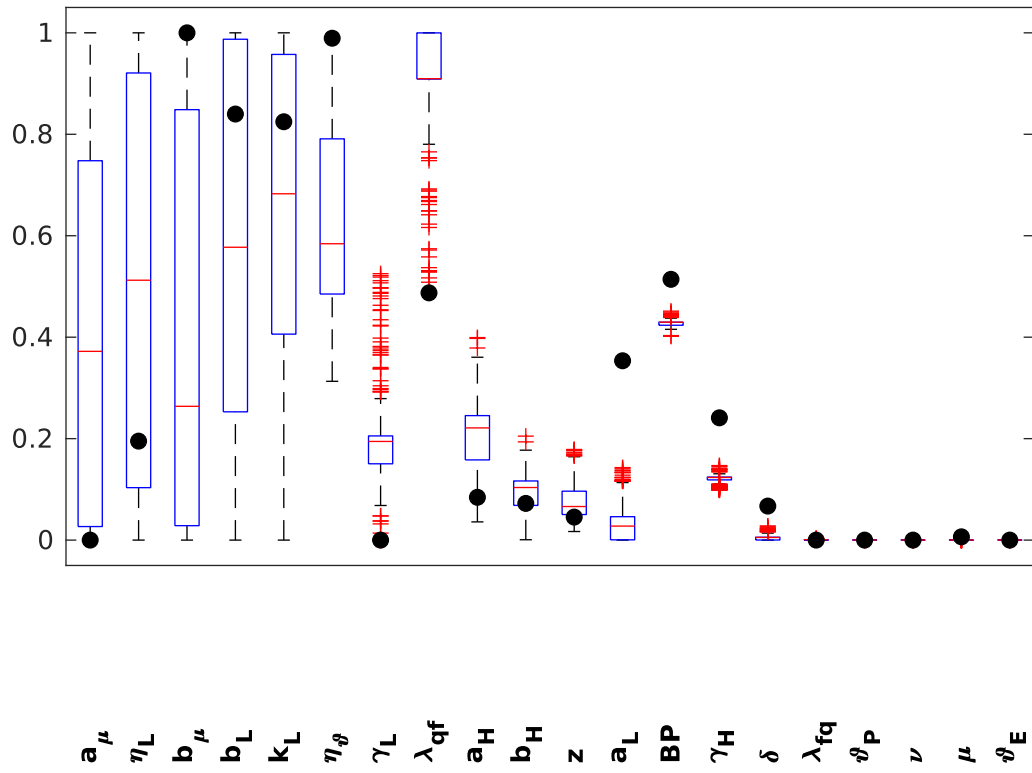
The number of estimations needed to perform the validation was1000.

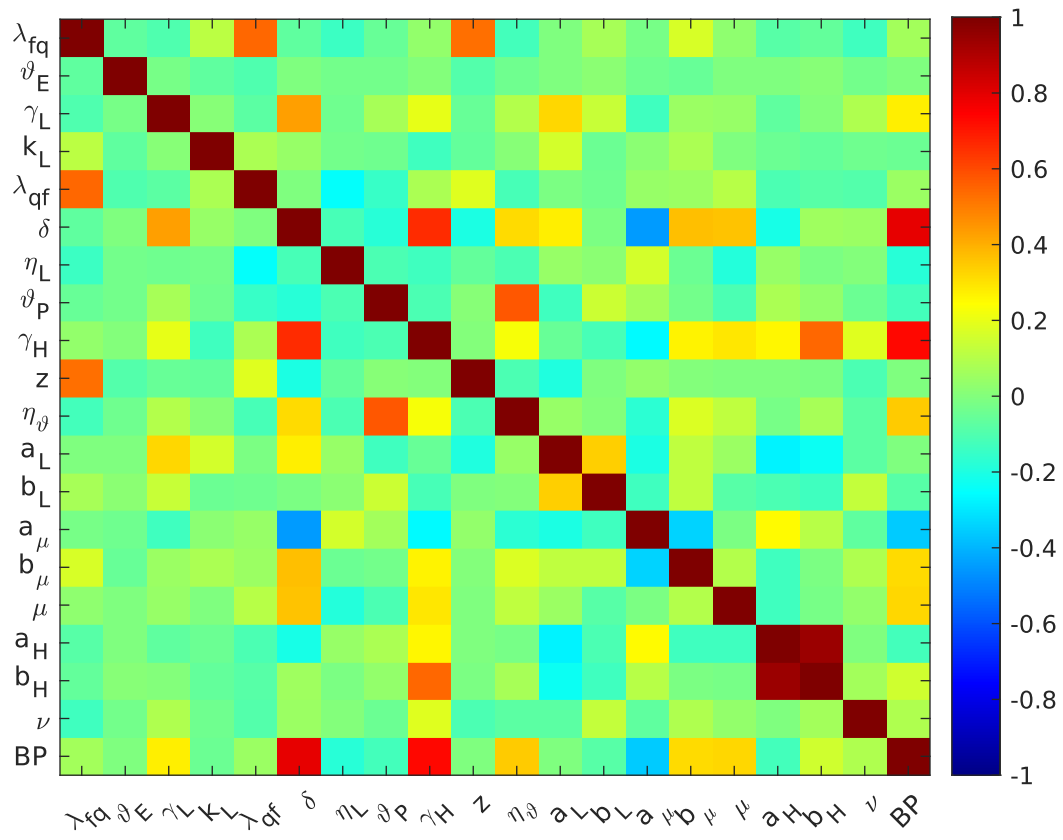
3.2. Estimated parameters with their intervals

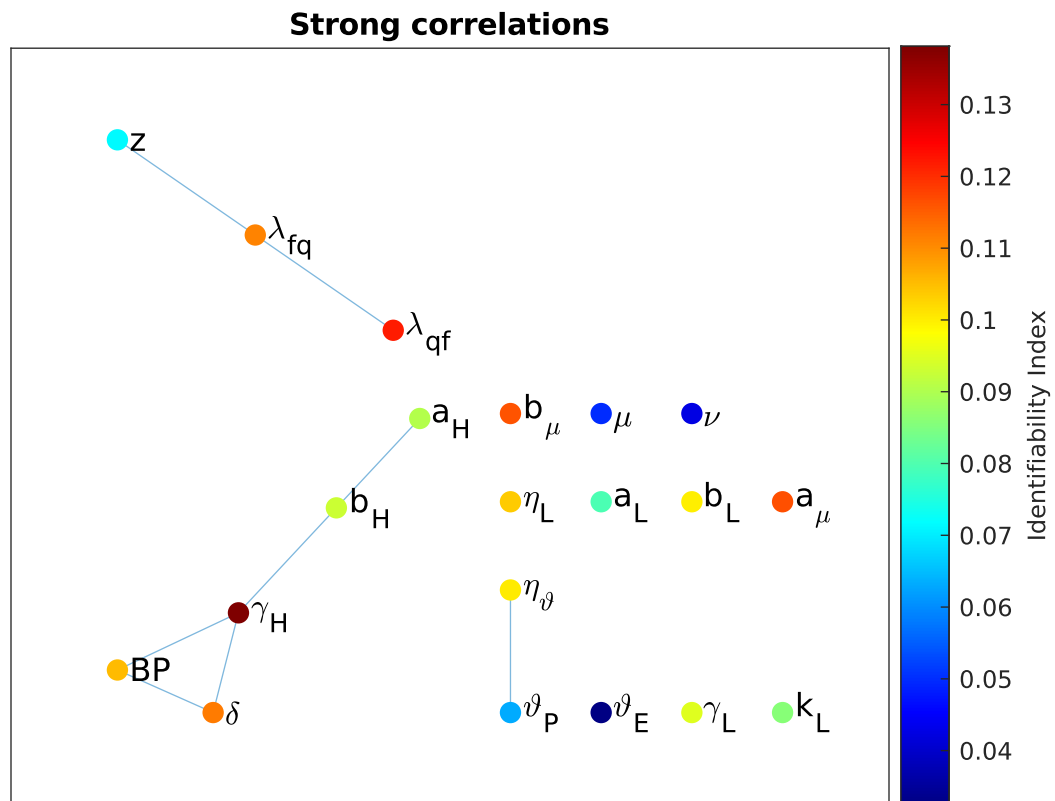
It was necessary to fix 0 parameters of 10 that could be fixed to complete validation.

	Rango		Nominal	Mejor	Index
λ_{fq}	'0'	'0.0622'	'0.0007'	'0'	'0.1112'
ϑ_E	'0'	'0.0001'	'0'	'0'	'0.0325'
γ_L	'0.1523'	'0.2373'	'0.1948'	'0'	'0.0951'
k_L	'6.7122'	'7.5764'	'7.1443'	'8.4224'	'0.0862'
λ_{qf}	'0.8514'	'0.9661'	'0.9088'	'0.4874'	'0.1217'
δ	'0.0001'	'0.0015'	'0.0008'	'0.0101'	'0.1118'
η_L	'0.4545'	'0.5701'	'0.5123'	'0.1951'	'0.1035'
ϑ_P	'0'	'0'	'0'	'0'	'0.0633'
γ_H	'0.1012'	'0.1457'	'0.1235'	'0.2411'	'0.1381'
z	'1.5886'	'2.3851'	'1.9869'	'1.3607'	'0.0715'
η_{ϑ}	'0.5556'	'0.6129'	'0.5842'	'0.9894'	'0.1005'
a_L	'1.069'	'1.7137'	'1.3914'	'5.9494'	'0.0797'
b_L	'8.3362'	'9.8281'	'9.0822'	'12.7586'	'0.1'
a_{μ}	'5.4301'	'6.988'	'6.209'	'1'	'0.1163'
b_{μ}	'3.8614'	'5.5236'	'4.6925'	'14.9999'	'0.1159'
μ	'0'	'0.0006'	'0'	'0.0065'	'0.0502'
a_H	'3.8589'	'4.3339'	'4.0964'	'2.1809'	'0.0905'
b_H	'2.3039'	'2.5981'	'2.451'	'2.0127'	'0.093'
ν	'0'	'0.4242'	'0.0011'	'0'	'0.0426'
BP	'65.1703'	'65.8297'	'65.5'	'71.4995'	'0.1054'

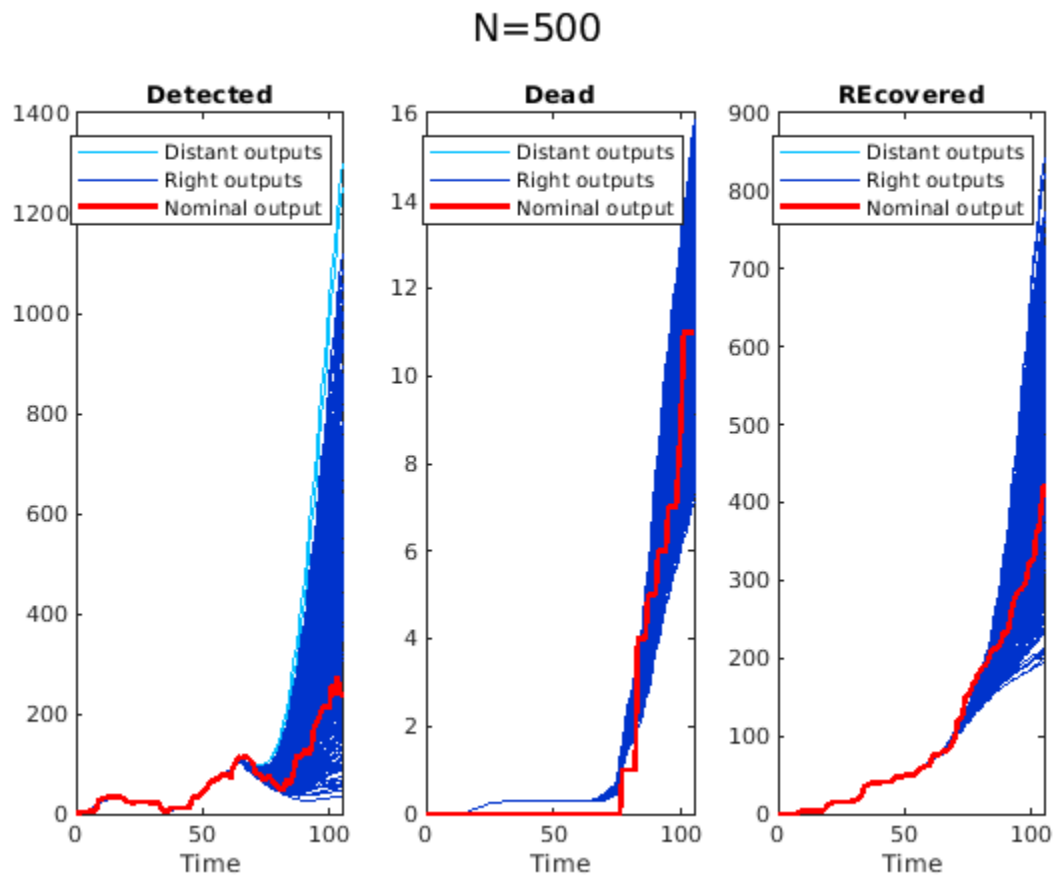
3.3. Identifiability analysis







3.4. Uncertainty analysis



Chapter 4. Extension number4

4.1. Basic information

The extension to be validated consists of the time series from the data106 to the 142. The status of the validation is: COMPLETED.

The number of estimations needed to perform the validation was1000.

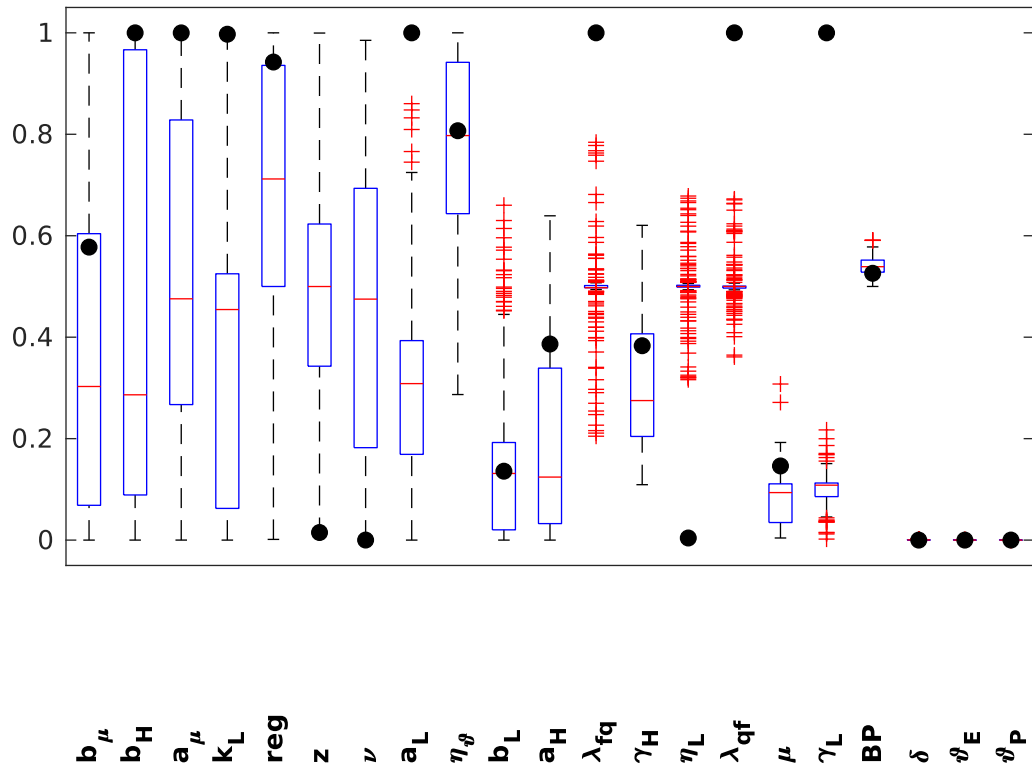
4.2. Estimated parameters with their intervals

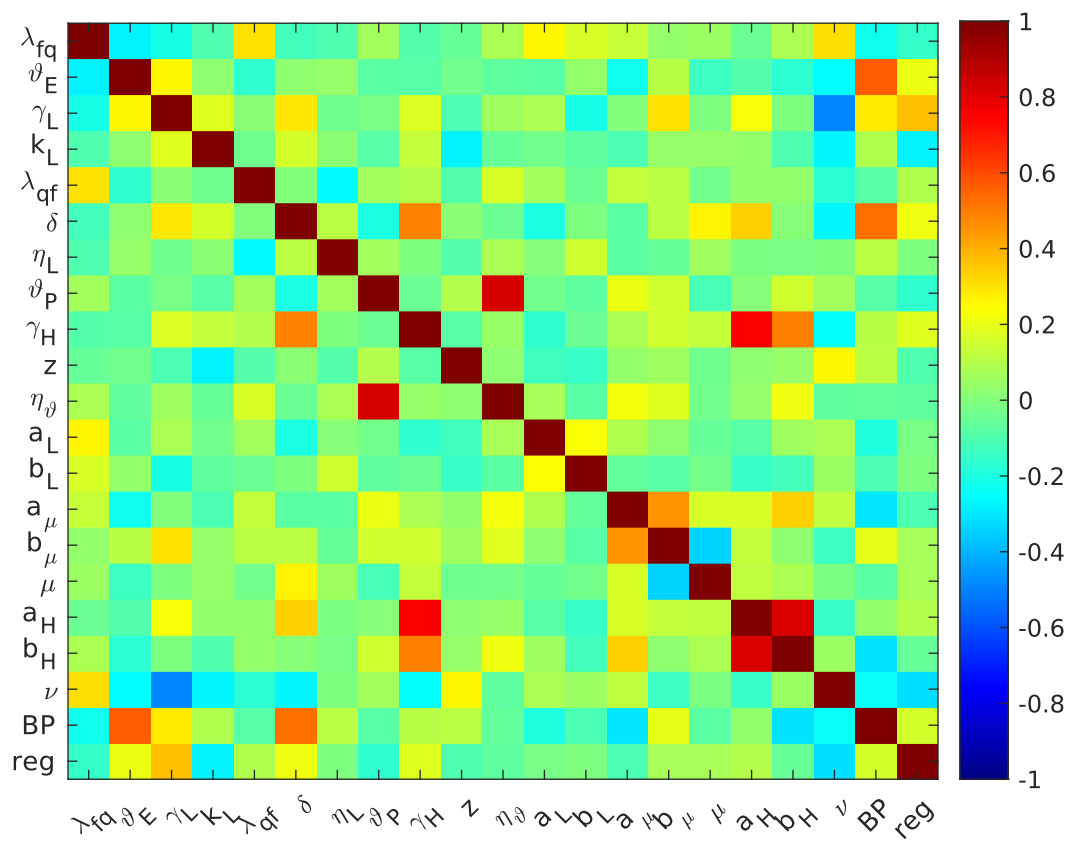
It was necessary to fix 0 parameters of 11 that could be fixed to complete validation.

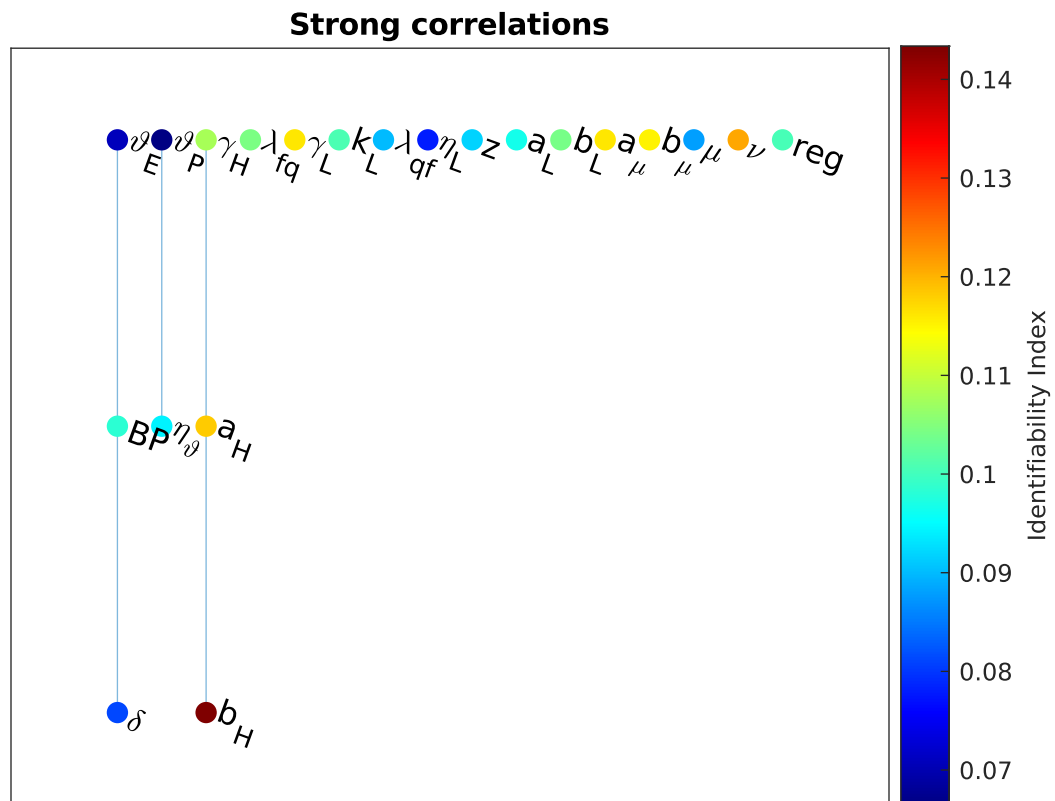
Due to a deviation from the median the CSB method was activated to obtain the parameter intervals.

	Rango		Nominal	Mejor	Index
λ_{fq}	'0'	'1'	'0.4975'	'1'	'0.1044'
ϑ_E	'0'	'0'	'0.0001'	'0'	'0.071'
γ_L	'0.3382'	'1'	'0.1083'	'0.9999'	'0.1162'
k_L	'1'	'10'	'5.0906'	'9.9752'	'0.101'
λ_{qf}	'0.125'	'1'	'0.4999'	'1'	'0.0902'
δ	'0'	'0'	'0.0001'	'0'	'0.0814'
η_L	'0'	'0.0093'	'0.5'	'0.0041'	'0.0781'
ϑ_P	'0.0001'	'0.0001'	'0'	'0.0001'	'0.0665'
γ_H	'0.3151'	'0.5319'	'0.277'	'0.3832'	'0.1078'
z	'0.0227'	'0.908'	'14.9967'	'0.4484'	'0.0918'
η_{ϑ}	'0.7882'	'0.8272'	'0.7974'	'0.807'	'0.0942'
a_L	'10.6901'	'15'	'5.3192'	'14.9992'	'0.0966'
b_L	'1.8027'	'3.1778'	'2.854'	'2.9016'	'0.1041'
a_{μ}	'9.9726'	'15'	'7.6595'	'14.9984'	'0.1163'
b_{μ}	'3.8225'	'9.3987'	'5.2395'	'9.0859'	'0.1153'
μ	'0.0399'	'0.3141'	'0.0939'	'0.1462'	'0.088'
a_H	'4.625'	'7.3869'	'2.7576'	'6.4115'	'0.1182'
b_H	'10.2528'	'15'	'5.0099'	'14.9997'	'0.1434'
ν	'0'	'0.1081'	'237.5251'	'0.048'	'0.1211'
BP	'105.4846'	'109.1163'	'106.5'	'105.5'	'0.0984'
reg	'0.0063'	'0.25'	'0.178'	'0.2356'	'0.1005'

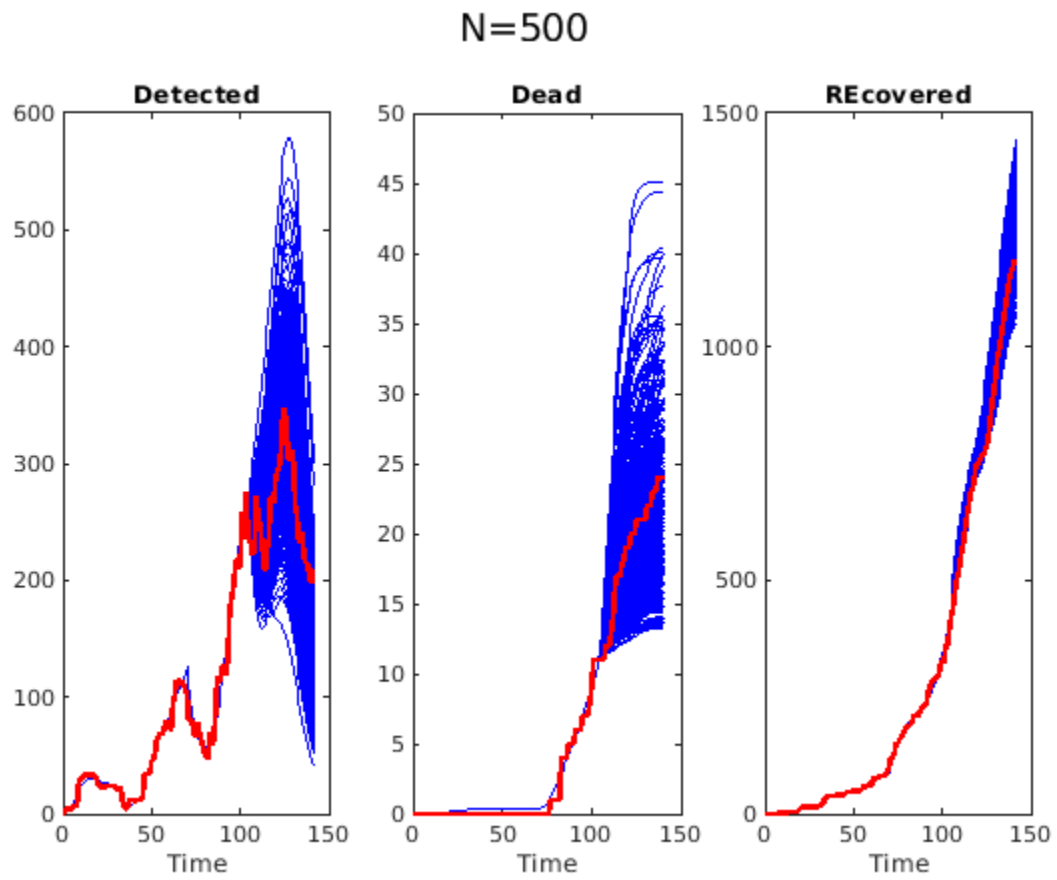
4.3. Identifiability analysis







4.4. Uncertainty analysys



Chapter 5. Extension number5

5.1. Basic information

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

The number of estimations needed to perform the validation was2000.

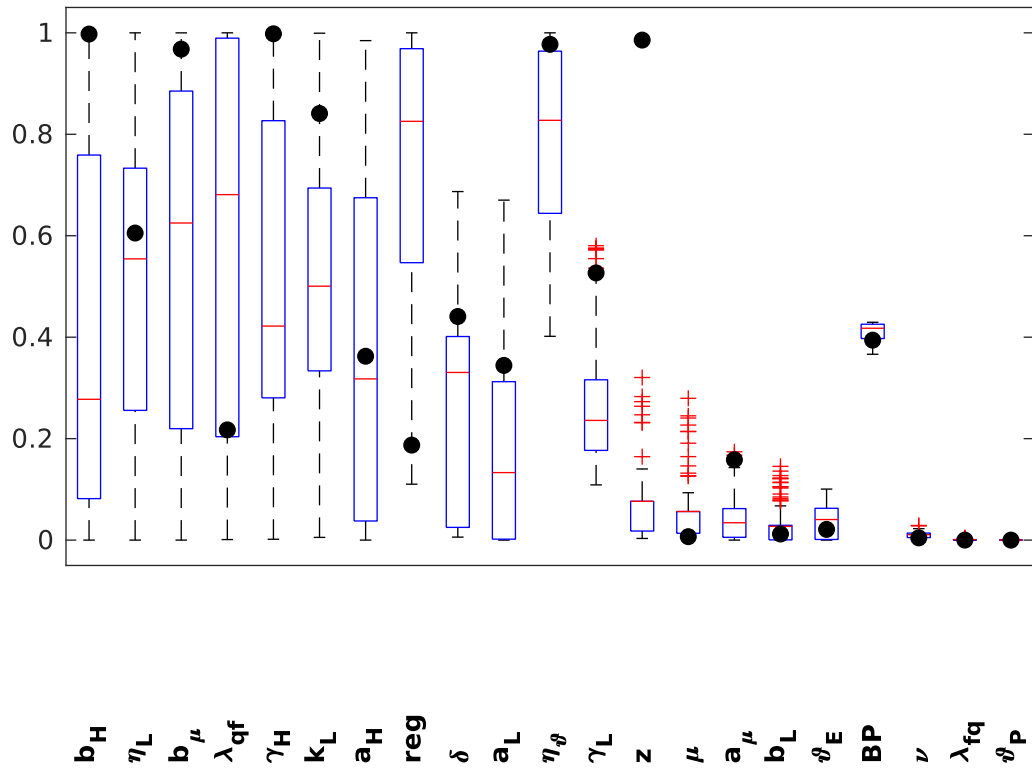
5.2. Estimated parameters with their intervals

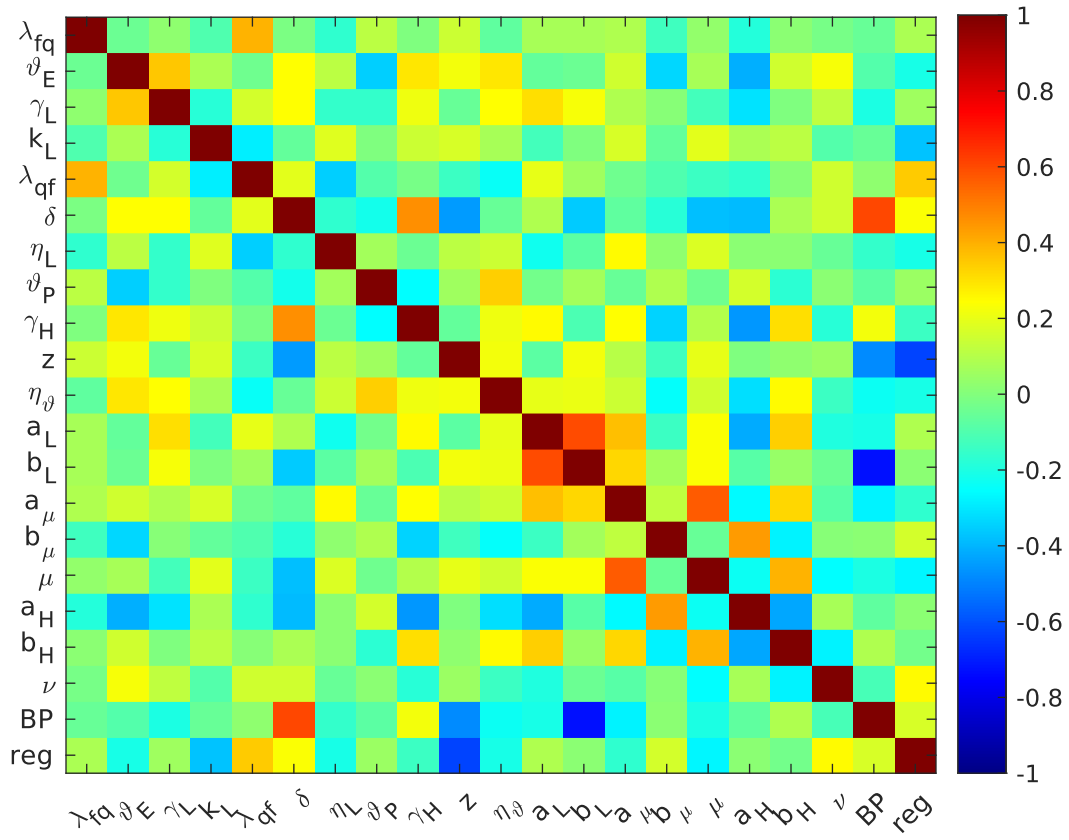
It was necessary to fix 0 parameters of 11 that could be fixed to complete validation.

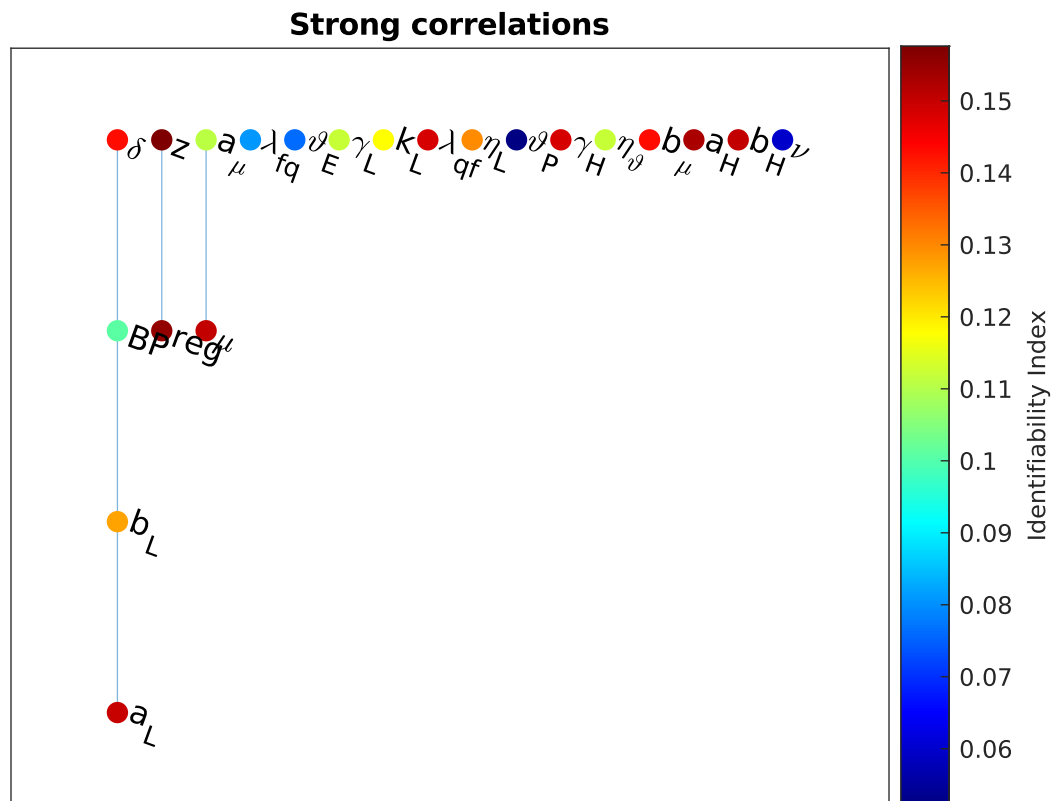
Due to a deviation from the median the CSB method was activated to obtain the parameter intervals.

	Rango		Nominal	Mejor	Index
λ_{fq}	'0'	'0'	'0.001'	'0'	'0.0809'
ϑ_E	'0.0193'	'0.0373'	'0.0405'	'0.0211'	'0.0763'
γ_L	'0.2906'	'0.5399'	'0.2359'	'0.5267'	'0.1122'
k_L	'1'	'9.1'	'5.5048'	'8.5688'	'0.1179'
λ_{qf}	'0.1613'	'1'	'0.6811'	'0.2173'	'0.1485'
δ	'0.04'	'0.0776'	'0.0496'	'0.0661'	'0.1429'
η_L	'0.2238'	'0.9379'	'0.5544'	'0.6053'	'0.1298'
ϑ_P	'0'	'0'	'0'	'0'	'0.0523'
γ_H	'0.2388'	'1'	'0.4219'	'0.9981'	'0.1483'
z	'6.5995'	'30'	'2.2948'	'29.5706'	'0.1576'
η_{ϑ}	'0.5452'	'1'	'0.8275'	'0.9774'	'0.1123'
a_L	'5.7022'	'12.4546'	'2.8629'	'5.8212'	'0.1499'
b_L	'1.1107'	'3.5469'	'1.379'	'1.1682'	'0.1273'
a_{μ}	'1'	'9.3694'	'1.4791'	'3.2182'	'0.111'
b_{μ}	'3.6781'	'15'	'9.7515'	'14.5497'	'0.1429'
μ	'0.0006'	'0.0123'	'0.0564'	'0.0067'	'0.1505'
a_H	'3.9971'	'8.5367'	'5.4492'	'6.0743'	'0.1527'
b_H	'6.7079'	'15'	'4.8859'	'14.966'	'0.1505'
ν	'2.1689'	'3.1643'	'5.3327'	'2.2118'	'0.0598'
BP	'139.3702'	'144.3062'	'141.5'	'139.5'	'0.101'
reg	'0.0296'	'0.0503'	'0.2064'	'0.0468'	'0.1554'

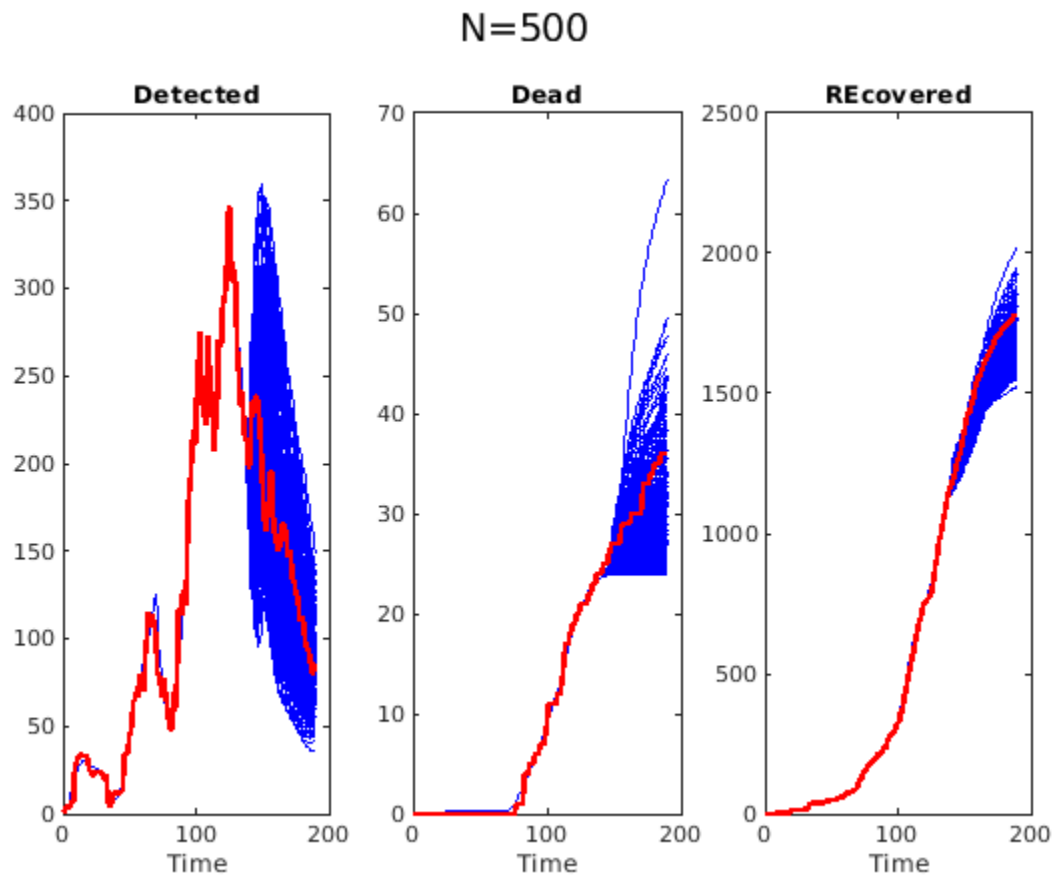
5.3. Identifiability analysis







5.4. Uncertainty analysis



Chapter 6. Extension number6

6.1. Basic information

The extension to be validated consists of the time series from the data191 to the 212. The status of the validation is: COMPLETED.

The number of estimations needed to perform the validation was1000.

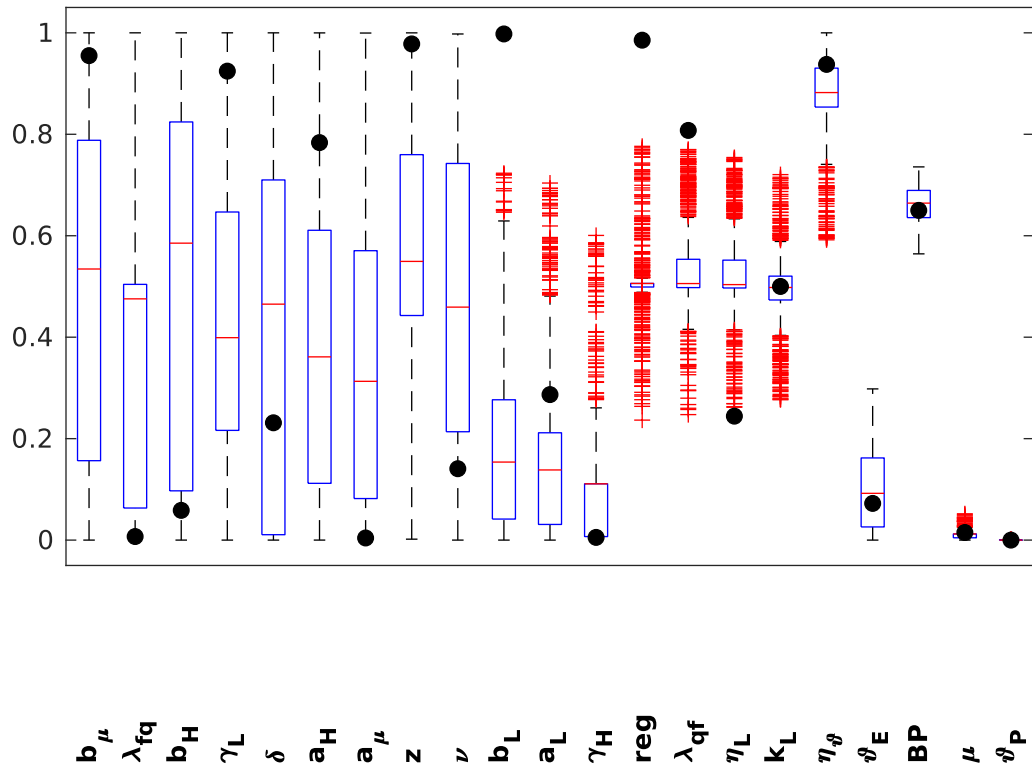
6.2. Estimated parameters with their intervals

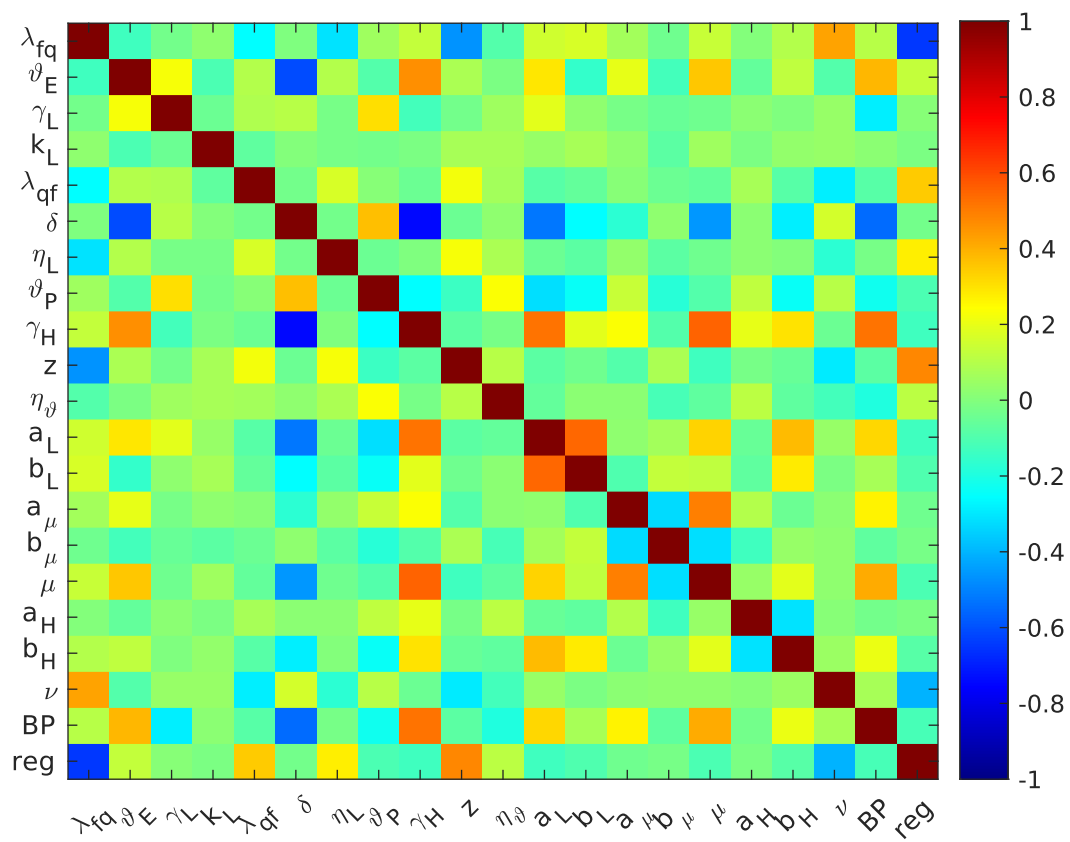
It was necessary to fix 0 parameters of 11 that could be fixed to complete validation.

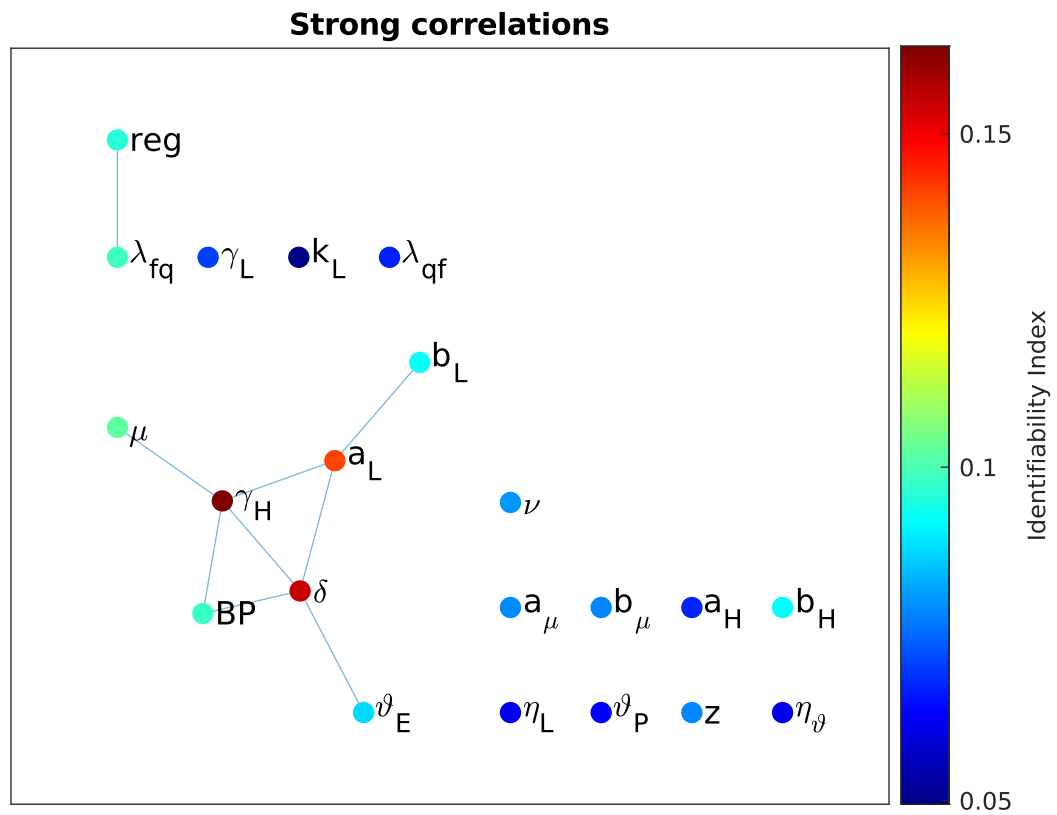
Due to a deviation from the median the CSB method was activated to obtain the parameter intervals.

	Rango		Nominal	Mejor	Index
λ_{fq}	'0'	'0.0158'	'0.4756'	'0.007'	'0.0991'
ϑ_E	'0.0686'	'0.1146'	'0.0922'	'0.0723'	'0.0881'
γ_L	'0.3345'	'0.9903'	'0.3991'	'0.9245'	'0.0707'
k_L	'1'	'10'	'5.482'	'5.5001'	'0.0495'
λ_{qf}	'0'	'0.9891'	'0.5057'	'0.8076'	'0.0672'
δ	'0.0311'	'0.066'	'0.0698'	'0.0347'	'0.1549'
η_L	'0'	'0.5498'	'0.5037'	'0.2443'	'0.0612'
ϑ_P	'0'	'0'	'0.0001'	'0'	'0.0631'
γ_H	'0'	'0.012'	'0.1109'	'0.0053'	'0.1631'
z	'0'	'30'	'16.4822'	'29.3439'	'0.0784'
η_{ϑ}	'0.4471'	'1'	'0.8822'	'0.9378'	'0.0608'
a_L	'1'	'15'	'2.9361'	'5.0159'	'0.1411'
b_L	'9.103'	'15'	'3.1535'	'14.969'	'0.093'
a_{μ}	'1'	'15'	'5.3821'	'1.0587'	'0.079'
b_{μ}	'2.4'	'15'	'8.4819'	'14.3709'	'0.0787'
μ	'0'	'0.032'	'0.0121'	'0.015'	'0.1026'
a_H	'1'	'15'	'6.0569'	'11.9705'	'0.0676'
b_H	'1'	'15'	'9.1952'	'1.8208'	'0.0918'
ν	'51.0538'	'477.5527'	'229.6375'	'70.3585'	'0.0803'
BP	'187.0241'	'192.4366'	'188.5'	'187.5'	'0.098'
reg	'0'	'0.25'	'0.1265'	'0.2464'	'0.0965'

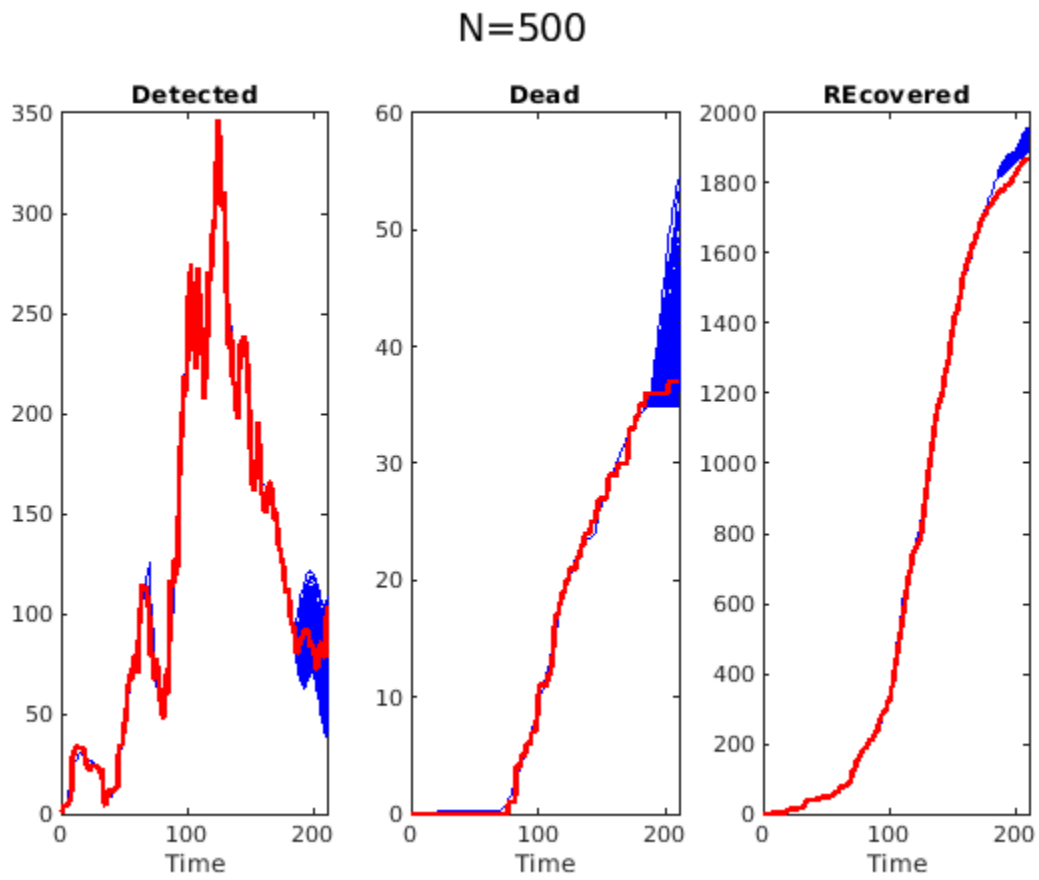
6.3. Identifiability analysis







6.4. Uncertainty analysys



Chapter 7. Extension number7

7.1. Basic information

The extension to be validated consists of the time series from the data212 to the 265. The status of the validation is: COMPLETED.

The number of estimations needed to perform the validation was2000.

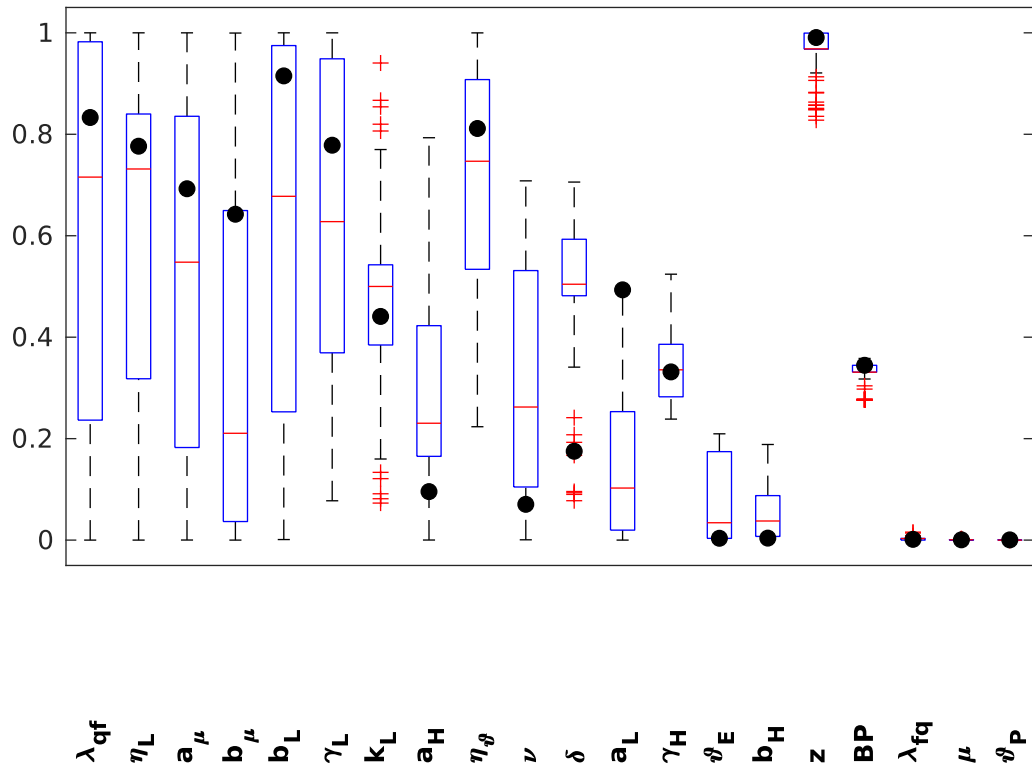
7.2. Estimated parameters with their intervals

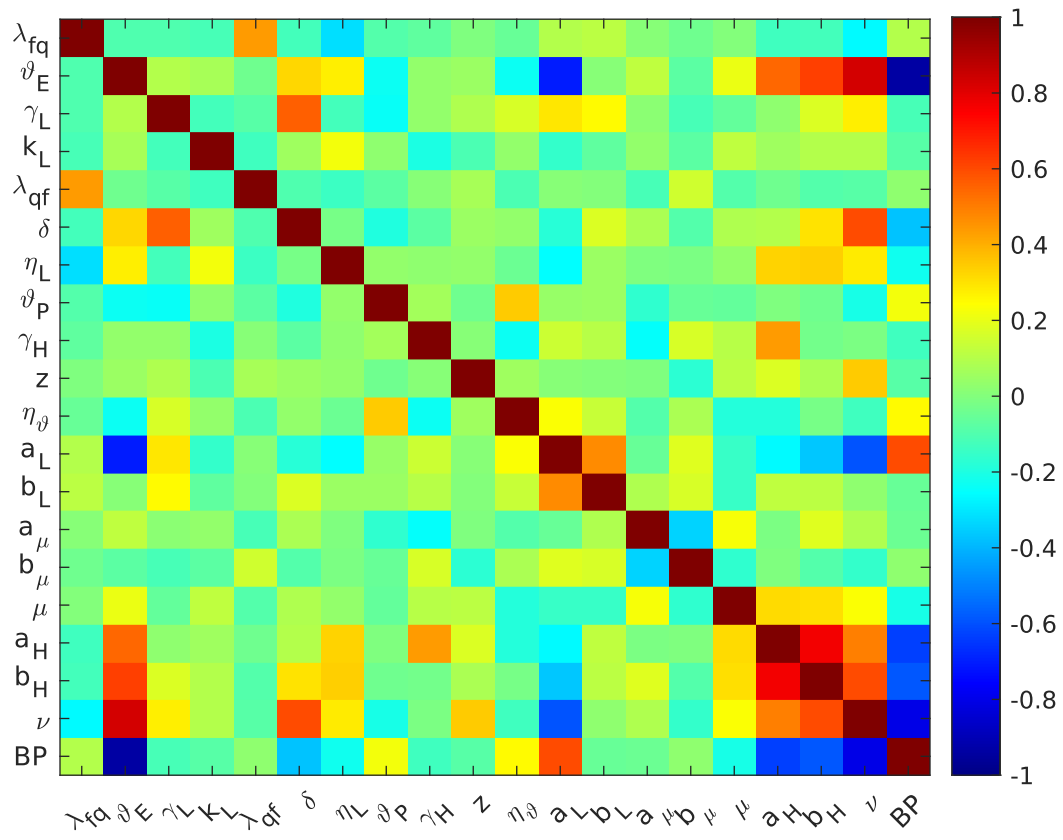
It was necessary to fix 0 parameters of 10 that could be fixed to complete validation.

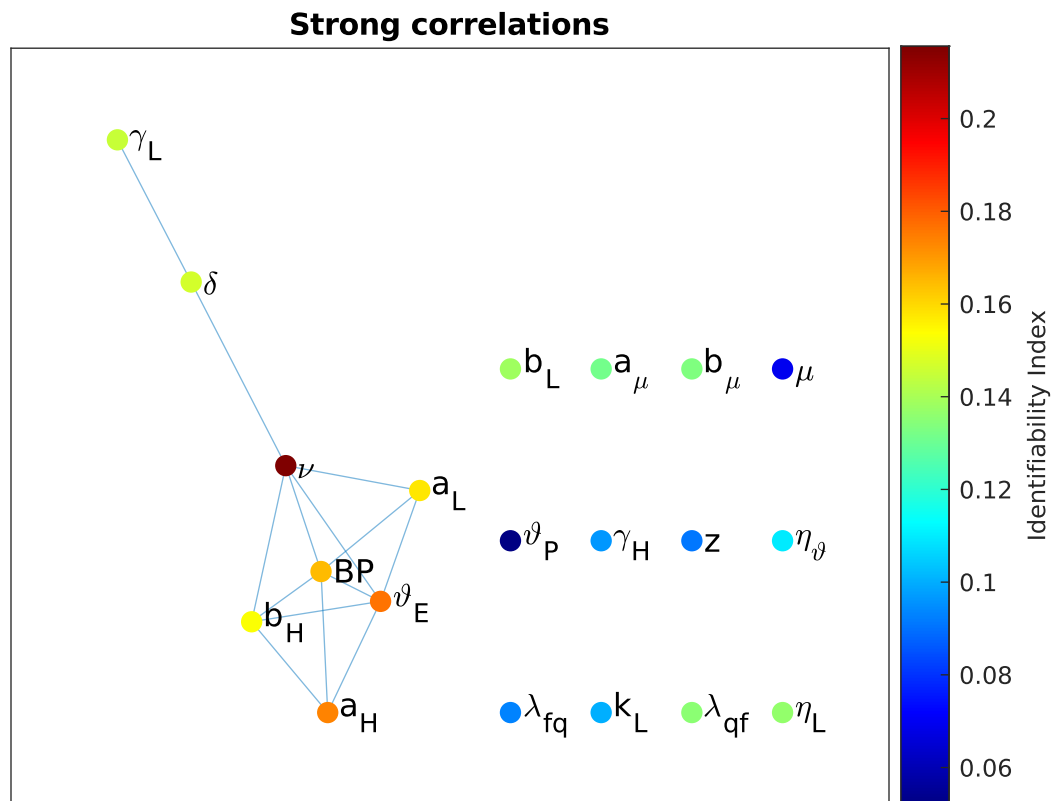
Due to a deviation from the median the CSB method was activated to obtain the parameter intervals.

	Rango		Nominal	Mejor	Index
λ_{fq}	'0.0001'	'0.0033'	'0.0033'	'0.0015'	'0.0935'
ϑ_E	'0.0002'	'0.0081'	'0.0386'	'0.0036'	'0.1761'
γ_L	'0.202'	'1'	'0.6278'	'0.7785'	'0.1449'
k_L	'1'	'8.7976'	'5.5001'	'4.9682'	'0.1003'
λ_{qf}	'0.0192'	'0.96'	'0.7156'	'0.8331'	'0.1354'
δ	'0.024'	'0.0439'	'0.0753'	'0.0263'	'0.1471'
η_L	'0.319'	'1'	'0.7316'	'0.7765'	'0.1368'
ϑ_P	'0.0001'	'0.0008'	'0'	'0.0004'	'0.0521'
γ_H	'0.252'	'0.9342'	'0.3358'	'0.3316'	'0.0962'
z	'10.2516'	'30'	'29.0323'	'29.7214'	'0.0916'
η_{ϑ}	'0.7137'	'0.9566'	'0.7469'	'0.8114'	'0.11'
a_L	'4.3024'	'12.3113'	'2.4365'	'7.907'	'0.1578'
b_L	'6.7914'	'15'	'10.4881'	'13.8116'	'0.1386'
a_{μ}	'1'	'15'	'8.6703'	'10.6969'	'0.1316'
b_{μ}	'1'	'13.768'	'3.948'	'9.9933'	'0.1337'
μ	'0'	'0.0012'	'0.0006'	'0.0006'	'0.0696'
a_H	'2.3223'	'3.4566'	'4.2331'	'2.3385'	'0.1738'
b_H	'1'	'1.9803'	'1.531'	'1.0546'	'0.1533'
ν	'29.3623'	'51.5942'	'131.1682'	'35.2568'	'0.2156'
BP	'213.9491'	'219.207'	'215.5'	'216.5'	'0.1646'

7.3. Identifiability analysis

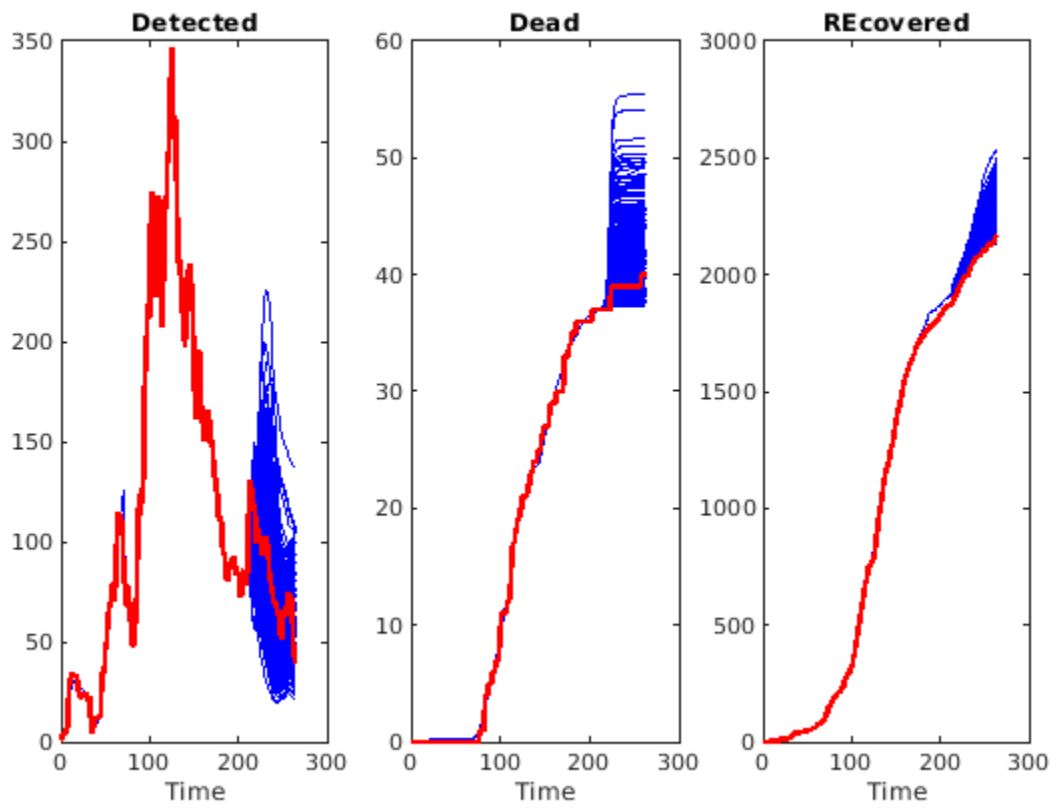






7.4. Uncertainty analysis

N=500



Chapter 8. Extension number8

8.1. Basic information

The extension to be validated consists of the time series from the data265 to the 320. The status of the validation is: COMPLETED.

The number of estimations needed to perform the validation was1000.

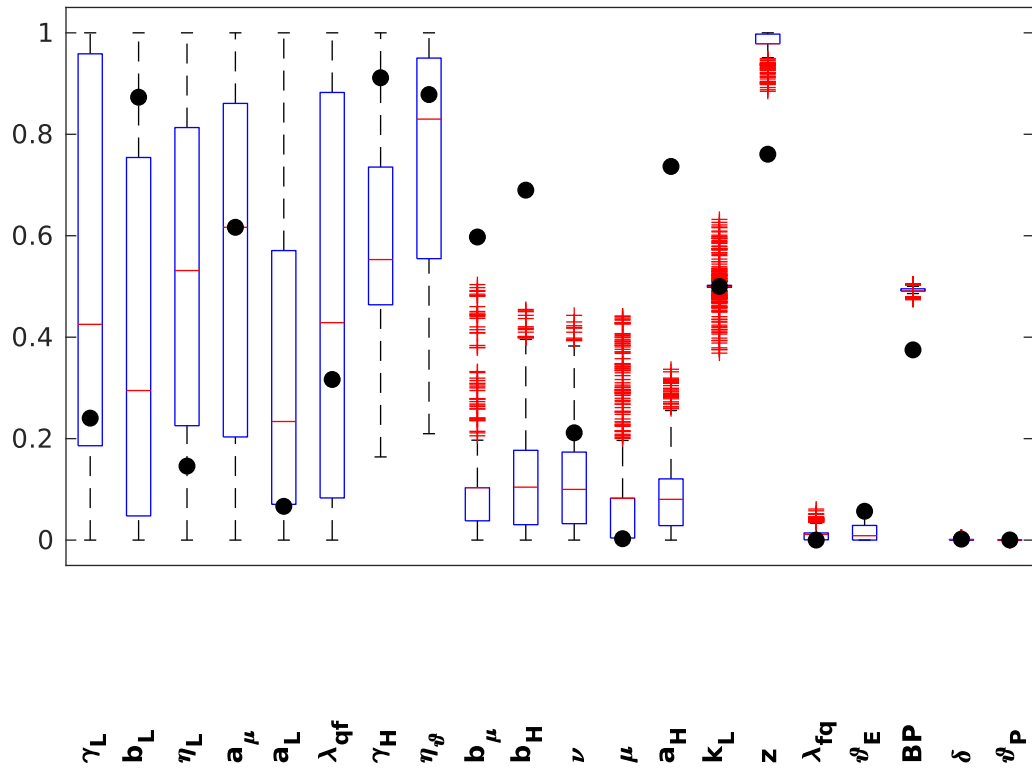
8.2. Estimated parameters with their intervals

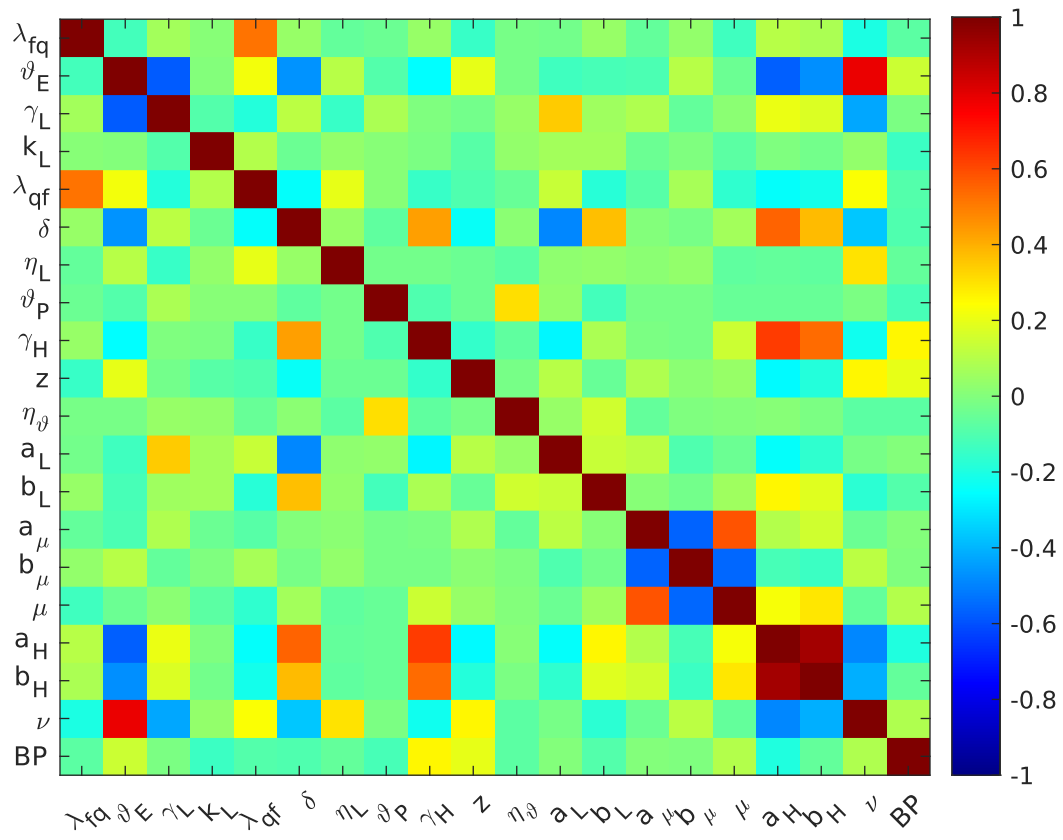
It was necessary to fix 0 parameters of 10 that could be fixed to complete validation.

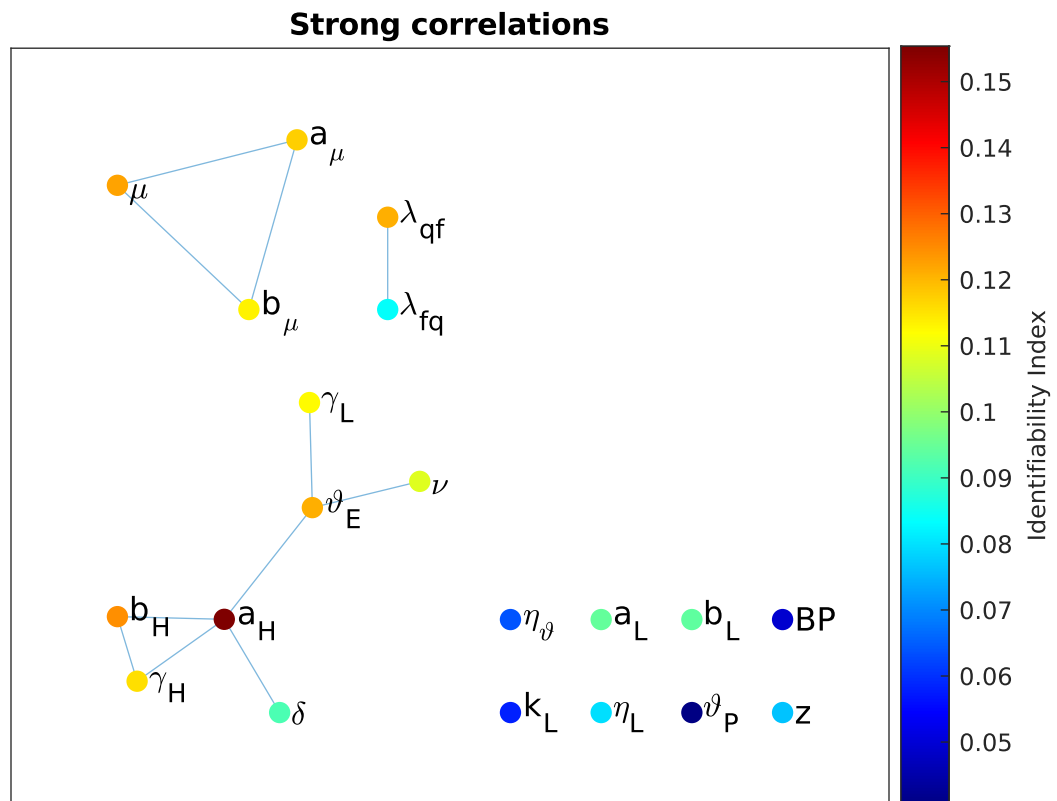
Due to a deviation from the median the CSB method was activated to obtain the parameter intervals.

	Rango		Nominal	Mejor	Index
λ_{fq}	'0'	'0.7695'	'0.0113'	'0.0001'	'0.0837'
ϑ_E	'0.0401'	'0.0738'	'0.0086'	'0.0569'	'0.1211'
γ_L	'0.1973'	'0.2499'	'0.4254'	'0.2404'	'0.1124'
k_L	'1'	'9.64'	'5.4985'	'5.5007'	'0.0585'
λ_{qf}	'0'	'0.6429'	'0.4287'	'0.3166'	'0.1212'
δ	'0.0001'	'0.0007'	'0.0002'	'0.0003'	'0.0918'
η_L	'0'	'0.3283'	'0.5314'	'0.1459'	'0.0797'
ϑ_P	'0.0002'	'0.0005'	'0'	'0.0003'	'0.0406'
γ_H	'0.3784'	'1'	'0.553'	'0.9114'	'0.1157'
z	'1.215'	'24.3'	'29.3582'	'22.8208'	'0.0766'
η_{ϑ}	'0.8609'	'0.974'	'0.8299'	'0.8783'	'0.0639'
a_L	'1.664'	'2.2998'	'4.273'	'1.9321'	'0.0948'
b_L	'10.9675'	'13.9292'	'5.1275'	'13.2227'	'0.0941'
a_{μ}	'1'	'14.44'	'9.633'	'9.633'	'0.1176'
b_{μ}	'1.28'	'15'	'2.4475'	'9.365'	'0.1135'
μ	'0'	'0.0059'	'0.0825'	'0.0027'	'0.1226'
a_H	'5.987'	'11.3359'	'2.1248'	'11.3122'	'0.1554'
b_H	'7.629'	'15'	'2.4613'	'10.6588'	'0.1249'
ν	'61.5393'	'395.5411'	'49.9673'	'105.7603'	'0.1086'
BP	'249.1023'	'255.8813'	'265.0155'	'252.5'	'0.0494'

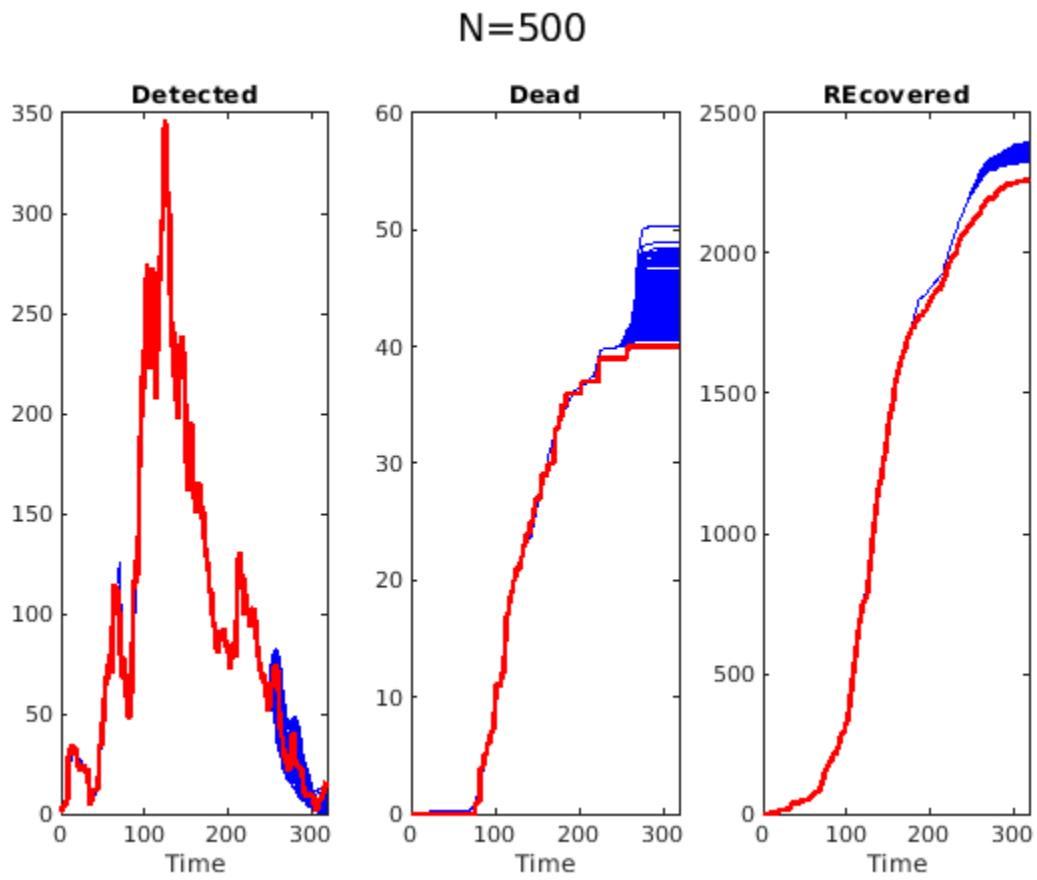
8.3. Identifiability analysys







8.4. Uncertainty analysys



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.

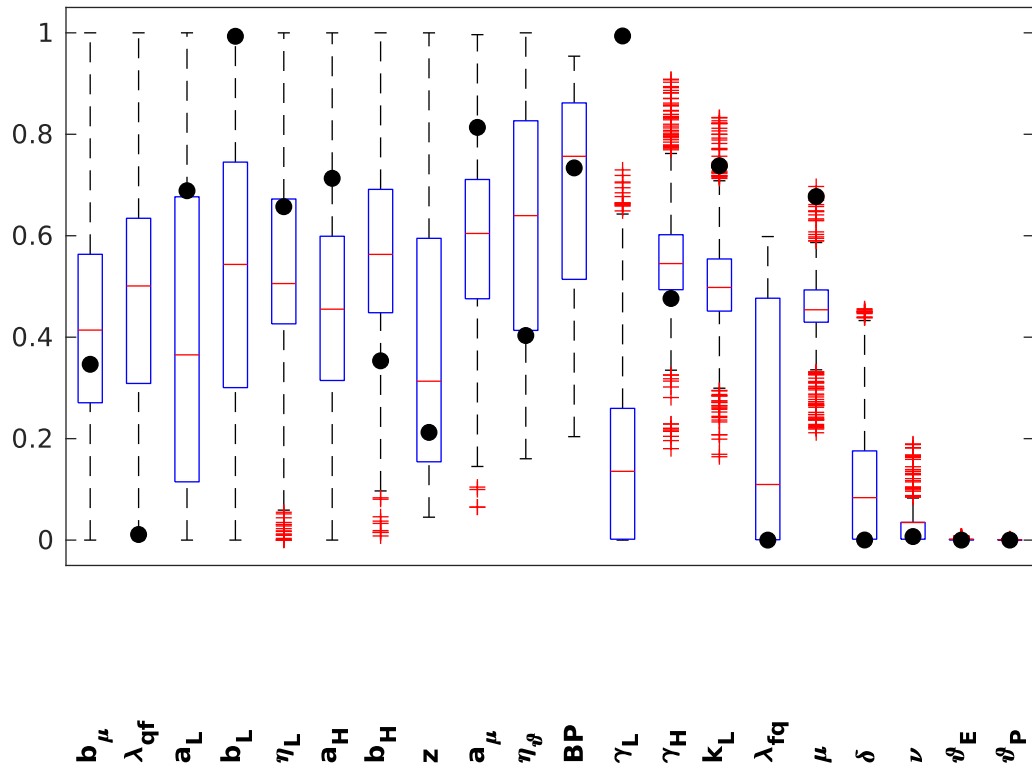
9.2. Estimated parameters with their intervals

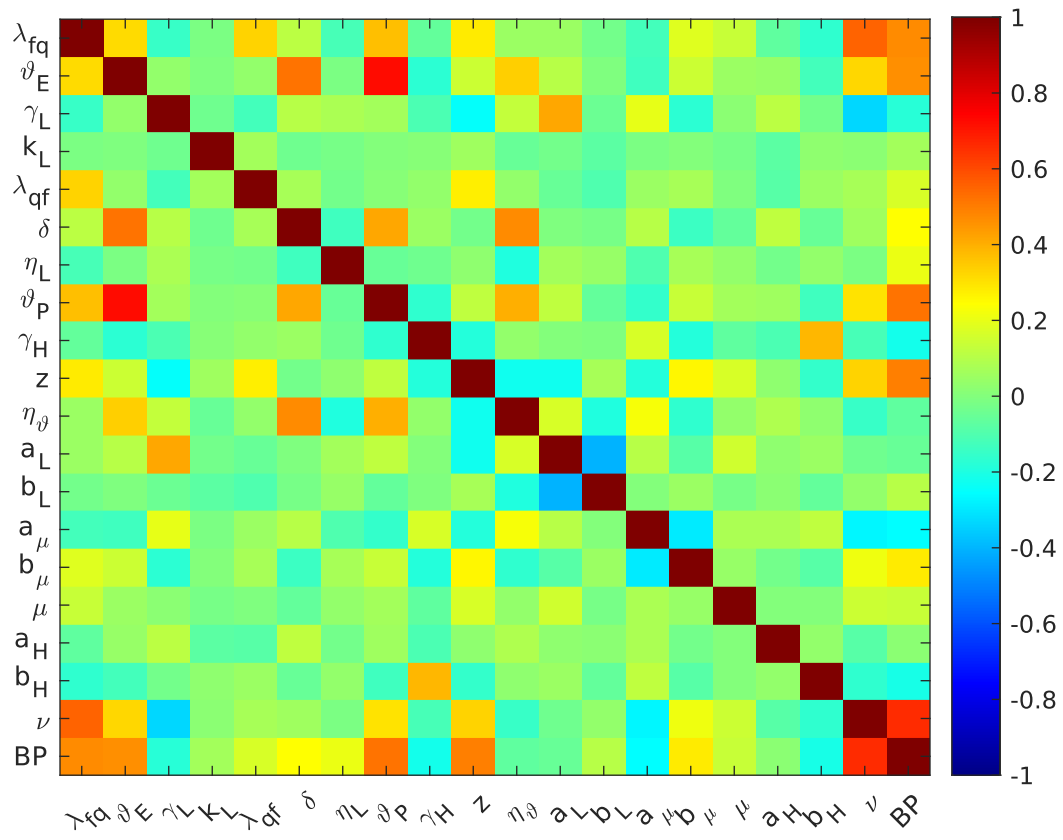
It was necessary to fix 0 parameters of 10 that could be fixed to complete validation.

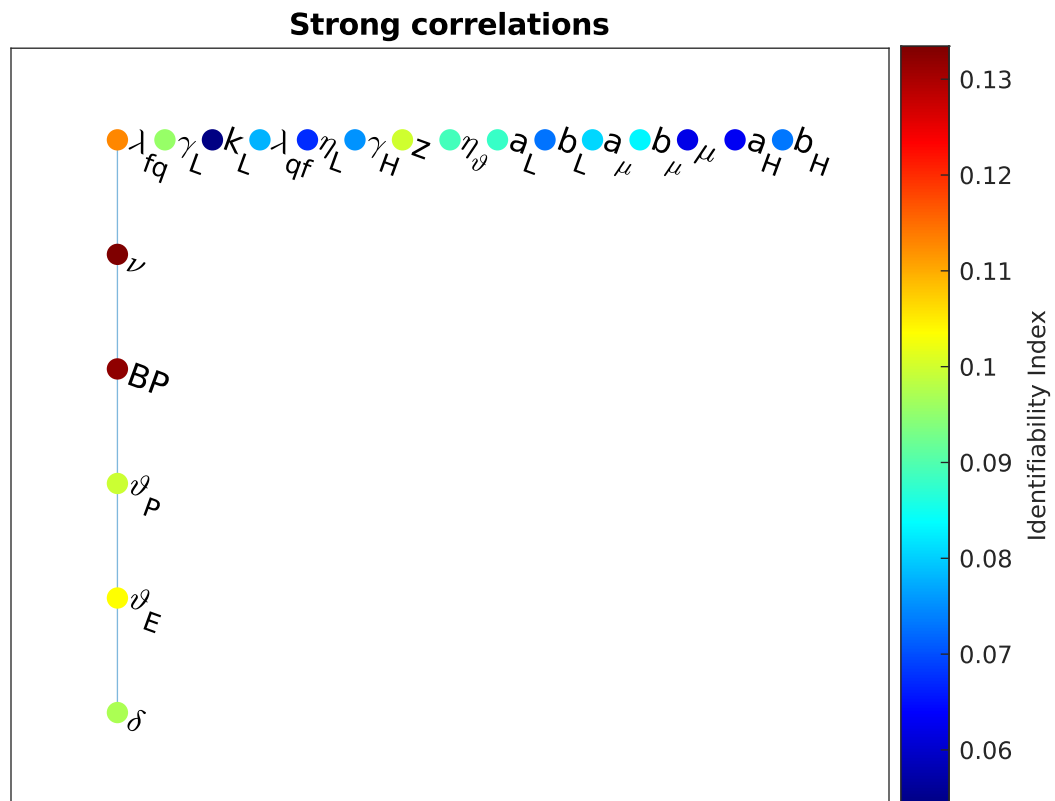
Due to a deviation from the median the CSB method was activated to obtain the parameter intervals.

	Rango		Nominal	Mejor	Index
λ_{fq}	'0'	'0'	'0.11'	'0'	'0.1128'
ϑ_E	'0'	'0'	'0.0015'	'0'	'0.1035'
γ_L	'0.4977'	'1'	'0.1362'	'0.9938'	'0.0955'
k_L	'1.225'	'10'	'5.4828'	'7.6417'	'0.0543'
λ_{qf}	'0.0005'	'0.0239'	'0.501'	'0.011'	'0.0779'
δ	'0'	'0.0001'	'0.0126'	'0'	'0.0972'
η_L	'0.1547'	'0.9662'	'0.5057'	'0.6573'	'0.0676'
ϑ_P	'0'	'0'	'0.0004'	'0'	'0.0997'
γ_H	'0.05'	'0.889'	'0.5451'	'0.4763'	'0.0754'
z	'4.9504'	'8.2349'	'9.3968'	'6.3693'	'0.0999'
η_{ϑ}	'0.4018'	'0.4383'	'0.6396'	'0.4033'	'0.0891'
a_L	'9.2832'	'13.0425'	'6.1122'	'10.6423'	'0.0882'
b_L	'11.0371'	'15'	'8.6085'	'14.9045'	'0.0729'
a_{μ}	'1'	'13.9024'	'9.4612'	'12.3901'	'0.0809'
b_{μ}	'1'	'15'	'6.7962'	'5.8519'	'0.0833'
μ	'0.05'	'1'	'0.4541'	'0.6772'	'0.0623'
a_H	'1'	'15'	'7.3733'	'10.9848'	'0.0633'
b_H	'1'	'14.3'	'8.8842'	'5.9482'	'0.0732'
ν	'3.4748'	'6.7382'	'17.425'	'3.4888'	'0.1334'
BP	'319.6902'	'324.3463'	'322.5'	'320.7617'	'0.1321'

9.3. Identifiability analysis

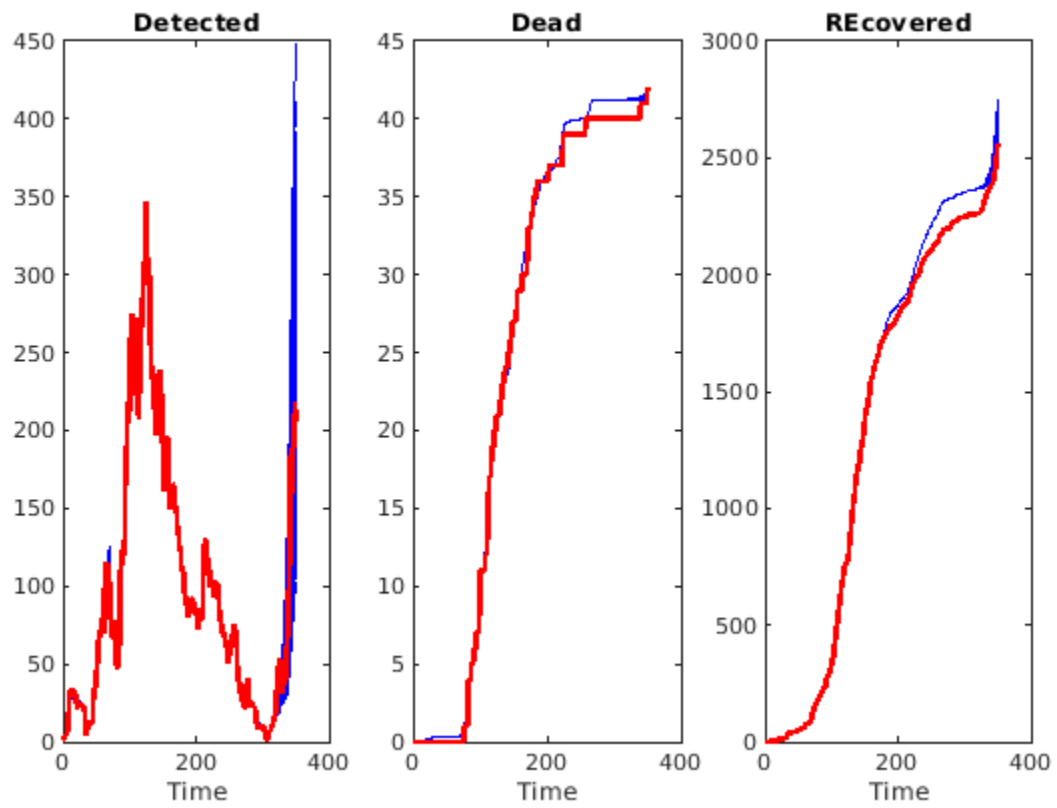






9.4. Uncertainty analysis

N=500



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.

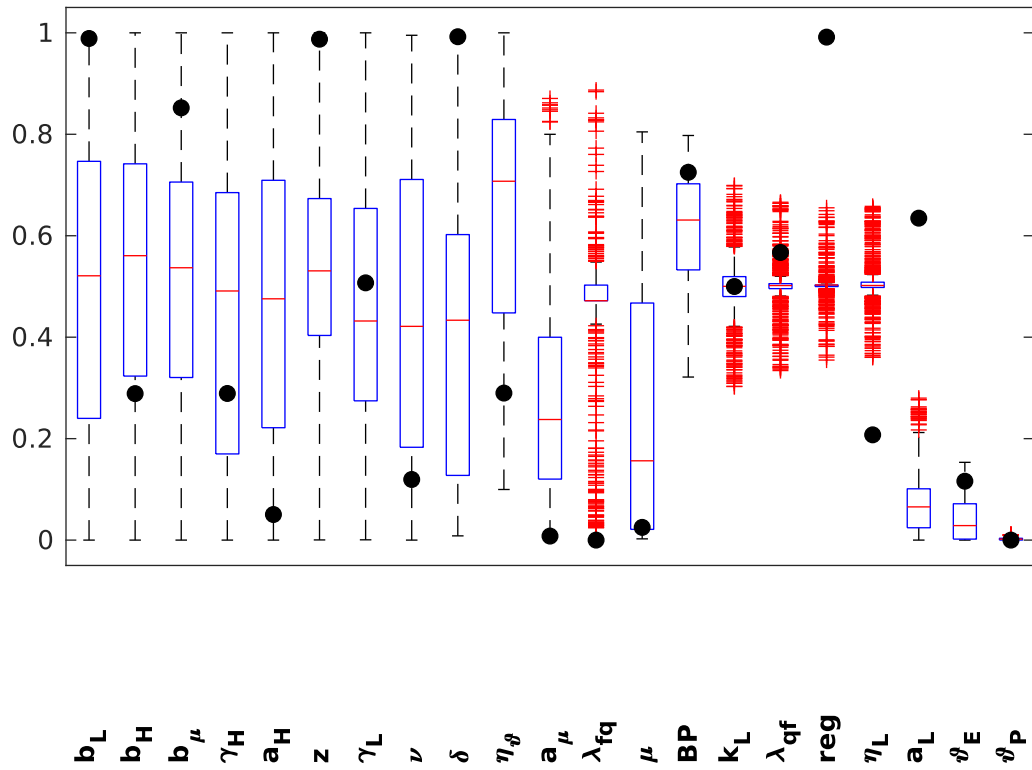
10.2. Estimated parameters with their intervals

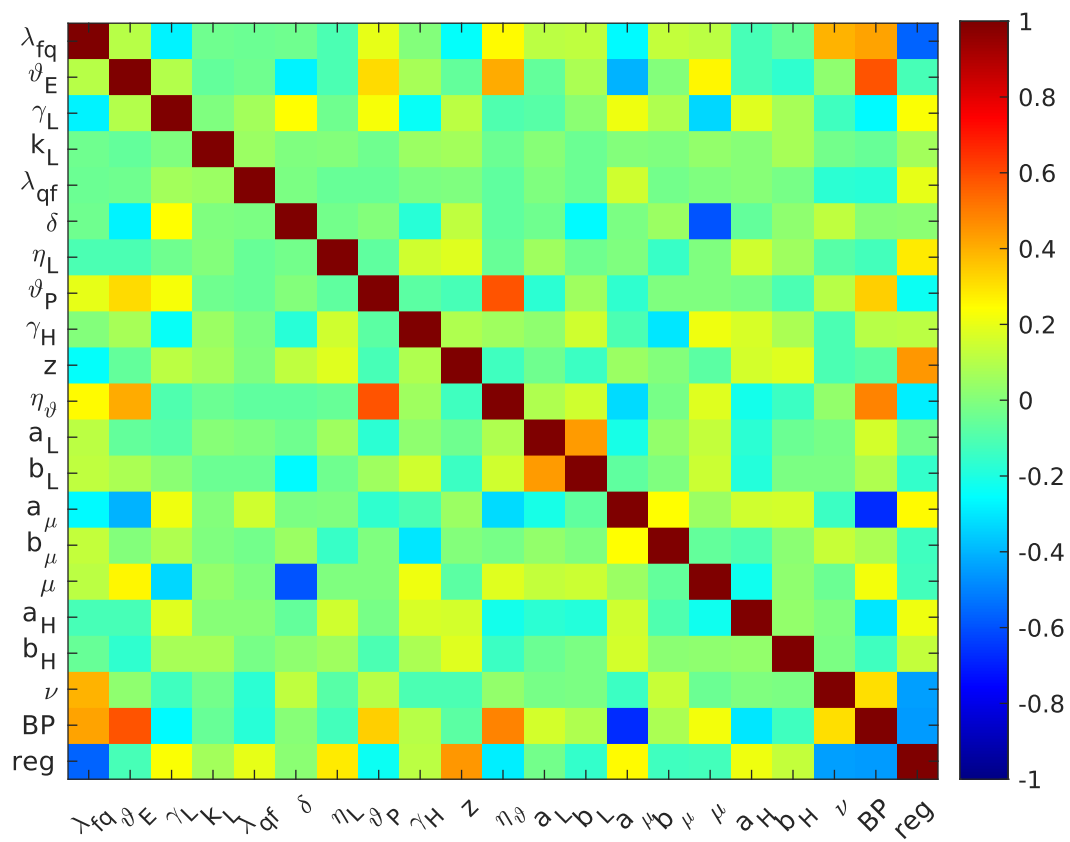
It was necessary to fix 0 parameters of 11 that could be fixed to complete validation.

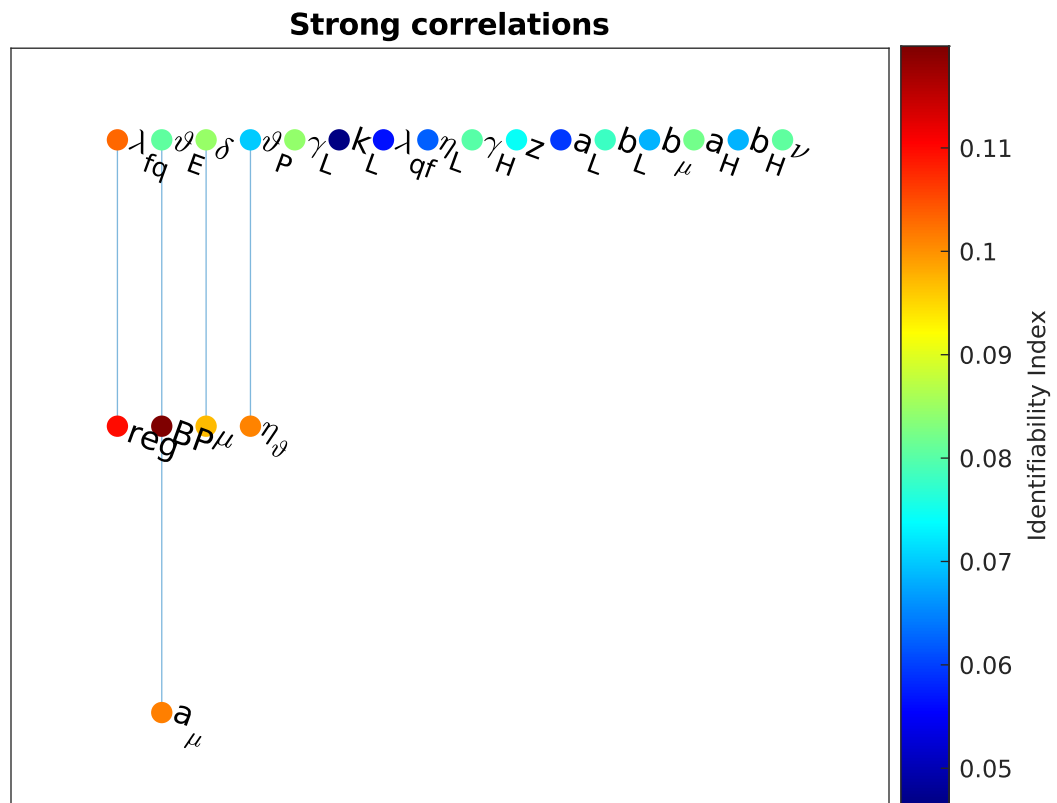
Due to a deviation from the median the CSB method was activated to obtain the parameter intervals.

	Rango		Nominal	Mejor	Index
λ_{fq}	'0'	'0'	'0.4719'	'0'	'0.1031'
ϑ_E	'0.095'	'0.1461'	'0.0286'	'0.1161'	'0.0809'
γ_L	'0.1941'	'1'	'0.4319'	'0.5071'	'0.0844'
k_L	'1'	'10'	'5.5021'	'5.4993'	'0.0465'
λ_{qf}	'0'	'1'	'0.5018'	'0.567'	'0.0566'
δ	'0.0516'	'0.15'	'0.065'	'0.1488'	'0.0848'
η_L	'0'	'0.4669'	'0.5019'	'0.2075'	'0.0625'
ϑ_P	'0'	'0'	'0.002'	'0'	'0.0702'
γ_H	'0.1383'	'1'	'0.4911'	'0.2891'	'0.0803'
z	'0'	'30'	'15.9223'	'29.6232'	'0.0744'
η_{ϑ}	'0.2424'	'1'	'0.7074'	'0.2898'	'0.101'
a_L	'9.7683'	'15'	'1.9165'	'9.8851'	'0.0597'
b_L	'7.6675'	'15'	'8.2946'	'14.844'	'0.0781'
a_{μ}	'1'	'13.6'	'4.3283'	'1.1111'	'0.1012'
b_{μ}	'1.56'	'15'	'8.5165'	'12.9294'	'0.0683'
μ	'0'	'0.0536'	'0.1563'	'0.0251'	'0.0971'
a_H	'1'	'3.9603'	'7.6593'	'1.706'	'0.0821'
b_H	'2.75'	'15'	'8.8494'	'5.0429'	'0.0685'
ν	'46.1671'	'500'	'210.674'	'59.7555'	'0.0808'
BP	'348.884'	'354.489'	'346.5'	'350.4524'	'0.1198'
reg	'0'	'0.25'	'0.1257'	'0.2479'	'0.1096'

10.3. Identifiability analysis

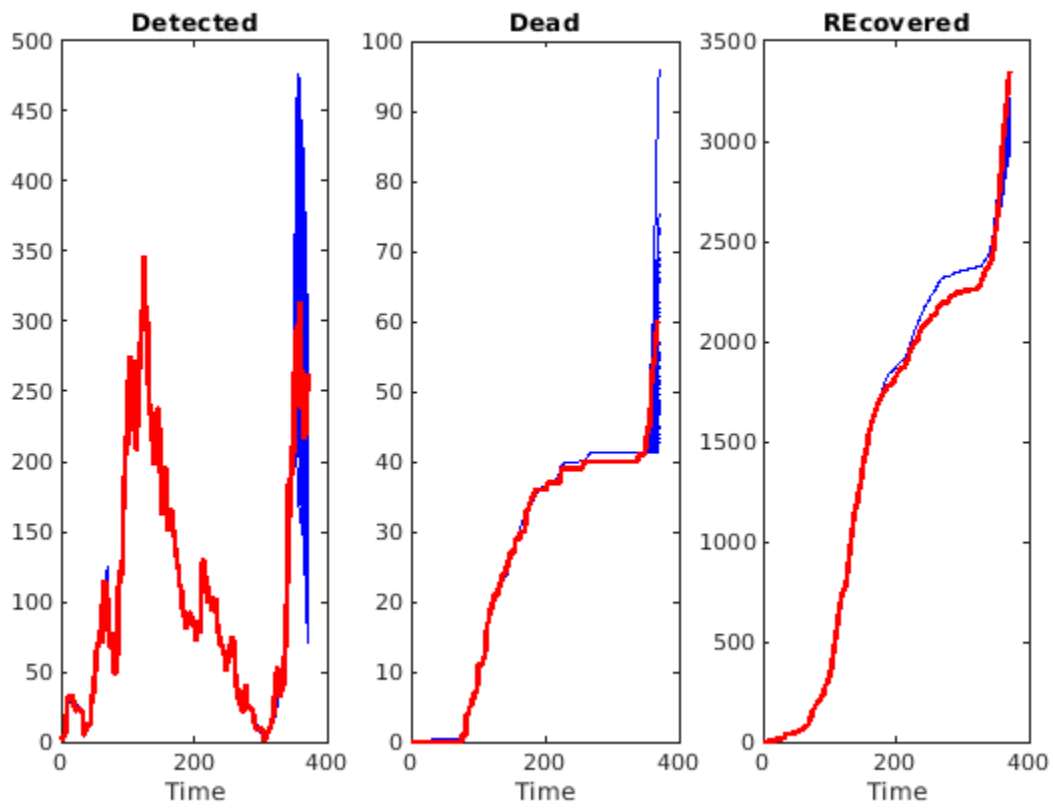






10.4. Uncertainty analysys

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.

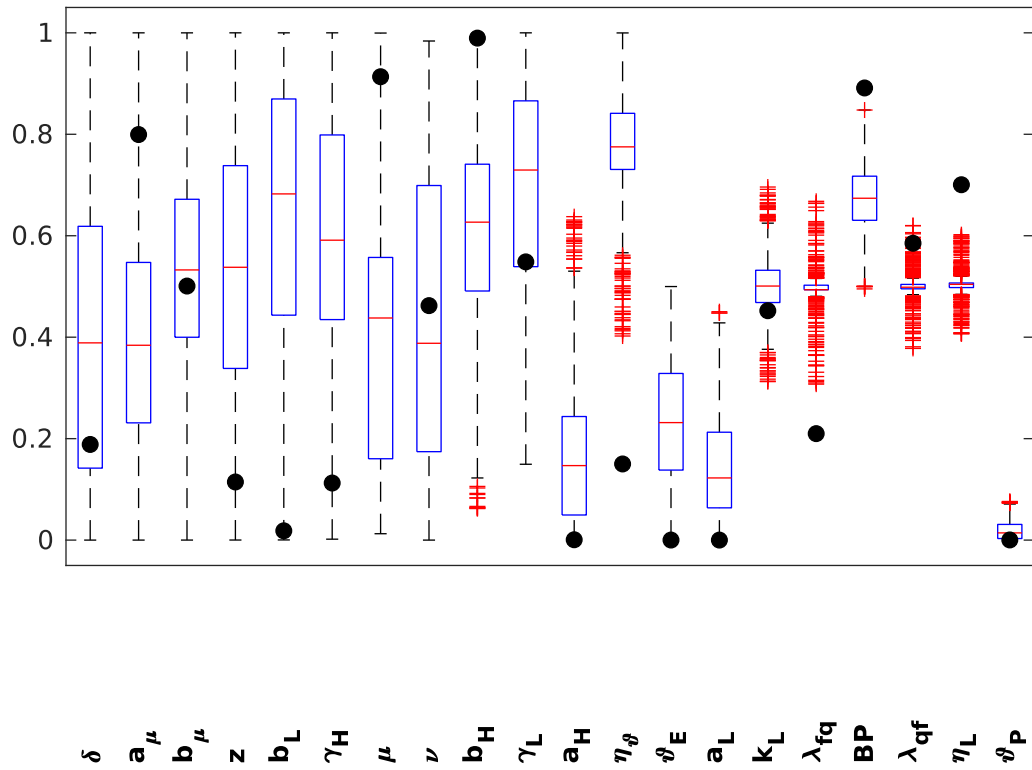
11.2. Estimated parameters with their intervals

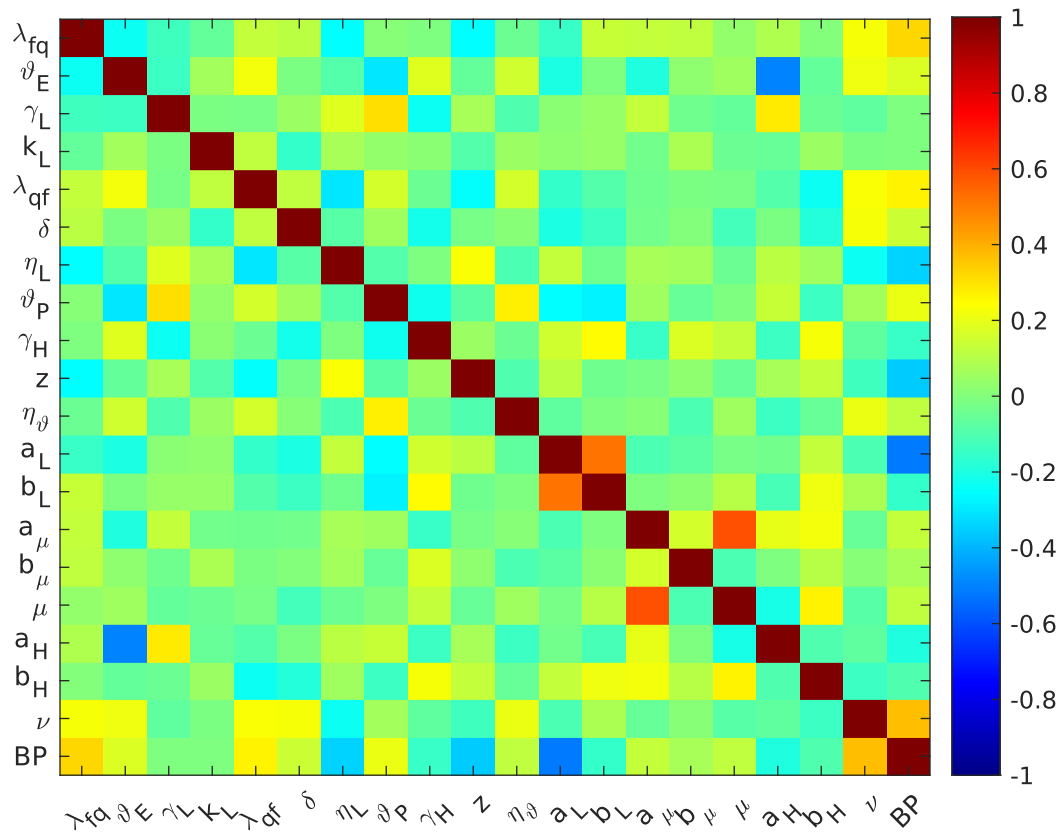
It was necessary to fix 0 parameters of 10 that could be fixed to complete validation.

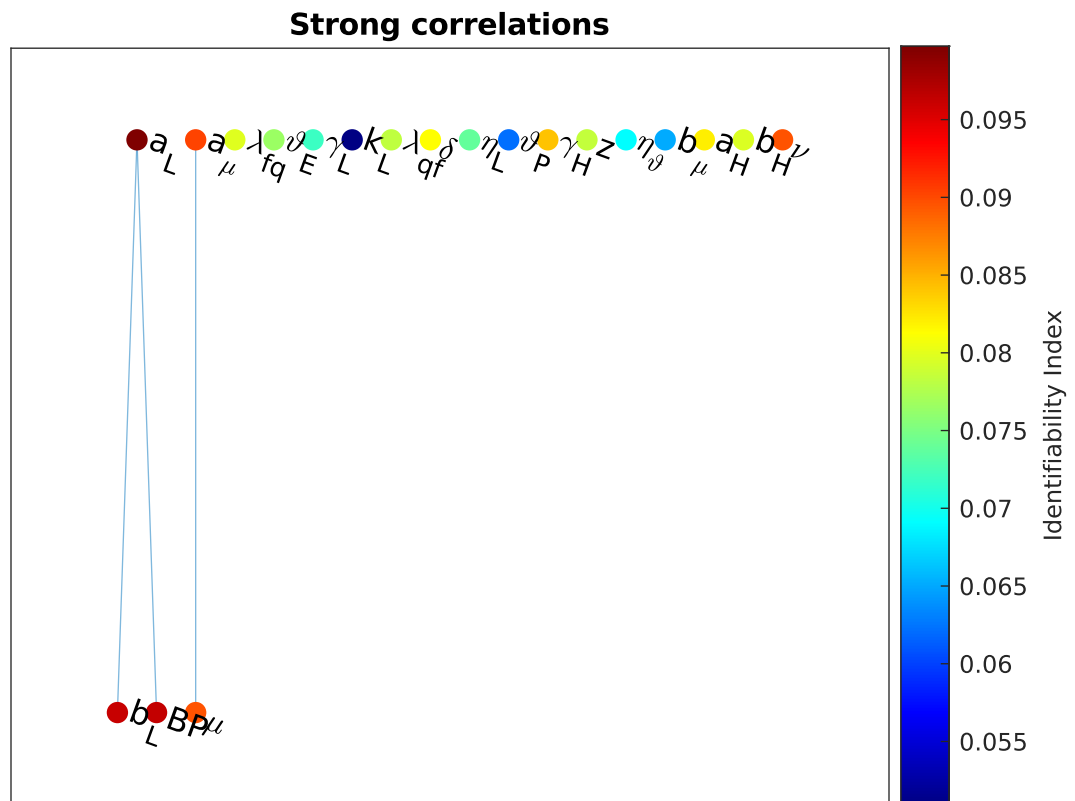
Due to a deviation from the median the CSB method was activated to obtain the parameter intervals.

	Rango		Nominal	Mejor	Index
\lambda_{fq}	'0'	'0.4722'	'0.4935'	'0.2099'	'0.0798'
\vartheta_E	'0'	'0.0003'	'0.2317'	'0.0001'	'0.0765'
\gamma_L	'0.5447'	'0.8745'	'0.7295'	'0.5485'	'0.072'
k_L	'1'	'10'	'5.5073'	'5.0697'	'0.051'
\lambda_{qf}	'0'	'1'	'0.4985'	'0.5852'	'0.0782'
\delta	'0'	'0.0636'	'0.0583'	'0.0283'	'0.0814'
\eta_L	'0'	'1'	'0.5041'	'0.7005'	'0.0739'
\vartheta_P	'0.0002'	'0.0098'	'0.0142'	'0.0003'	'0.0624'
\gamma_H	'0'	'0.2531'	'0.5912'	'0.1125'	'0.0842'
z	'0.1933'	'7.7337'	'16.1343'	'3.4372'	'0.0785'
\eta_{\vartheta}	'0.056'	'0.2817'	'0.7752'	'0.1501'	'0.0691'
a_L	'1'	'1.2796'	'2.7266'	'1.0006'	'0.0997'
b_L	'1.0972'	'3.4549'	'10.5545'	'1.2564'	'0.0962'
a_{\mu}	'8.81'	'15'	'6.3772'	'12.1925'	'0.0903'
b_{\mu}	'1'	'11.2144'	'8.4564'	'8.0115'	'0.0652'
\mu	'0'	'0.95'	'0.4379'	'0.9135'	'0.0895'
a_H	'1'	'11.206'	'3.0651'	'1.0096'	'0.0821'
b_H	'1'	'15'	'9.7727'	'14.8542'	'0.0795'
\nu	'32.8355'	'500'	'193.9952'	'231.1174'	'0.0894'
BP	'369.5691'	'372.5286'	'366.5'	'371.5'	'0.0965'

11.3. Identifiability analysis

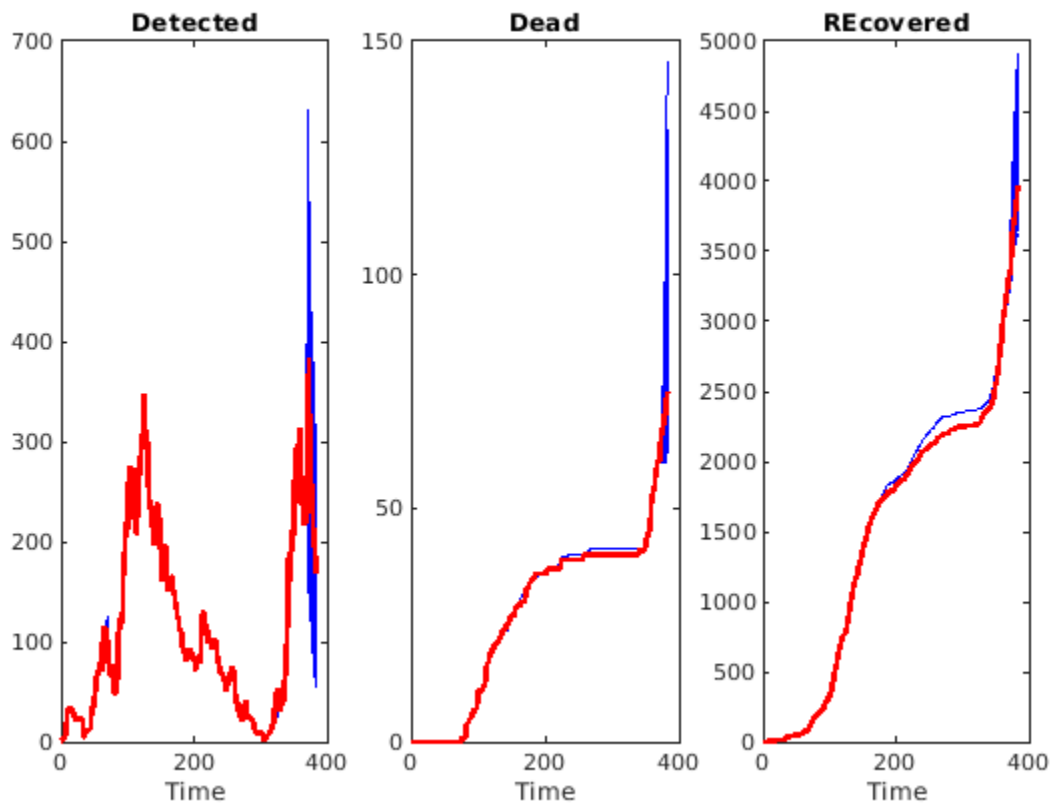






11.4. Uncertainty analysys

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 393. The status of the validation is: COMPLETED.

The number of estimations needed to perform the validation was1000.

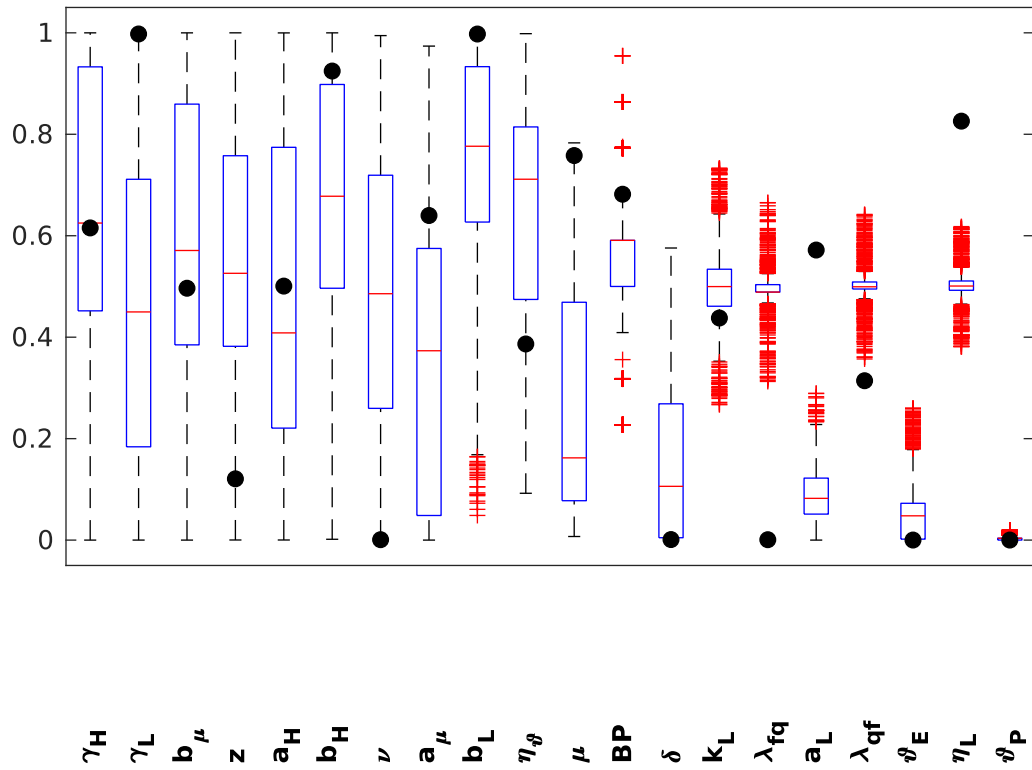
12.2. Estimated parameters with their intervals

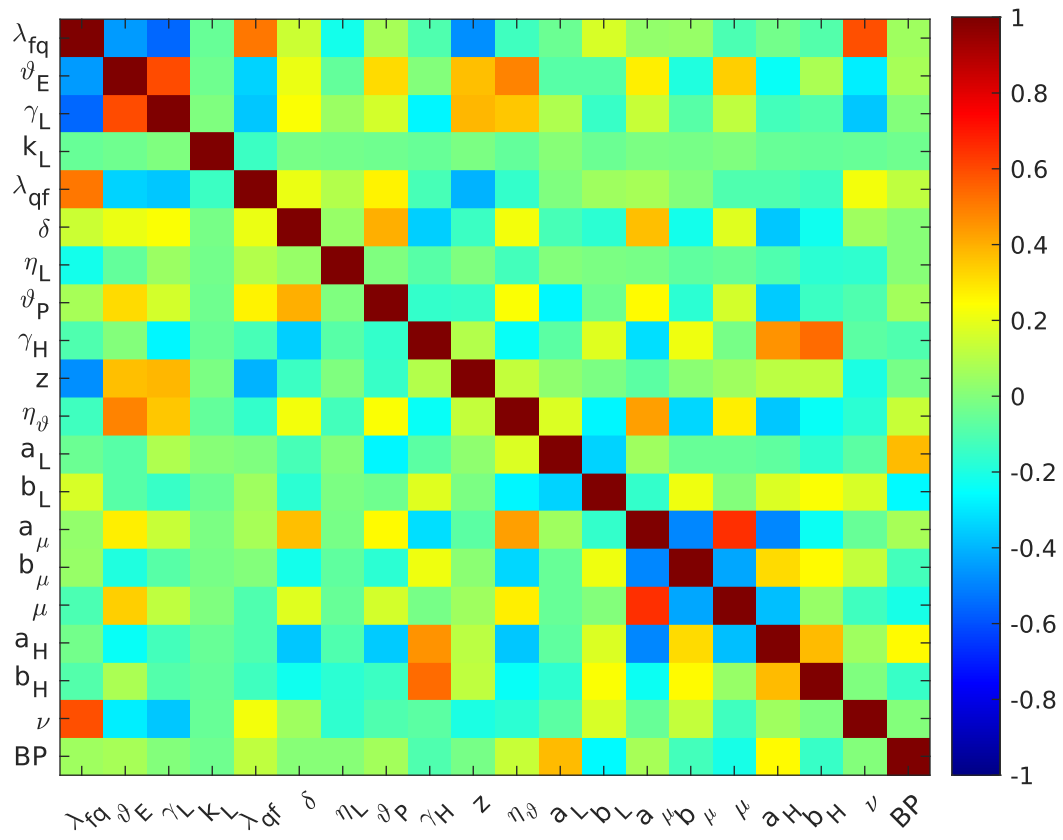
It was necessary to fix 0 parameters of 10 that could be fixed to complete validation.

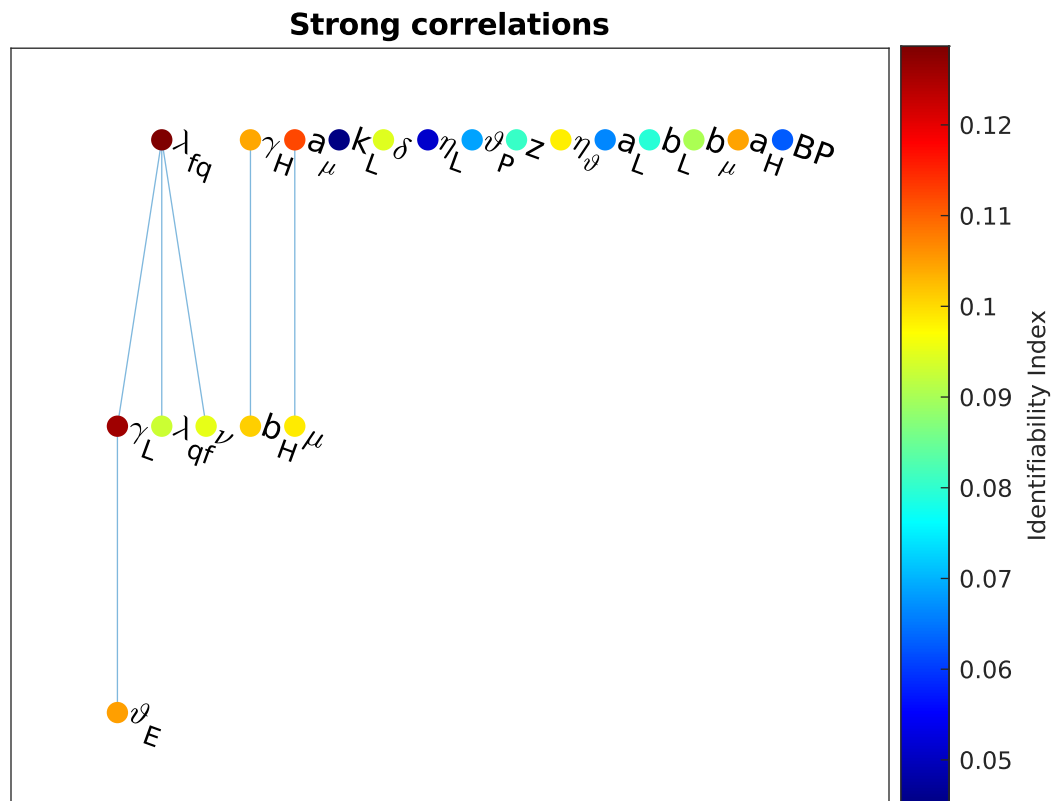
Due to a deviation from the median the CSB method was activated to obtain the parameter intervals.

	Rango		Nominal	Mejor	Index
λ_{fq}	'0'	'0.0017'	'0.4889'	'0.0008'	'0.1287'
ϑ_E	'0'	'0.0003'	'0.0479'	'0.0001'	'0.1051'
γ_L	'0.4966'	'1'	'0.4498'	'0.9977'	'0.1259'
k_L	'1.18'	'10'	'5.4978'	'4.9403'	'0.0451'
λ_{qf}	'0.0973'	'0.6447'	'0.4994'	'0.3142'	'0.093'
δ	'0'	'0.0004'	'0.0159'	'0.0002'	'0.0944'
η_L	'0.2815'	'0.9706'	'0.5008'	'0.8259'	'0.051'
ϑ_P	'0.0001'	'0.0002'	'0.0037'	'0.0001'	'0.0689'
γ_H	'0.3574'	'1'	'0.625'	'0.6154'	'0.1044'
z	'3.282'	'5.9741'	'15.7779'	'3.6233'	'0.0809'
η_{ϑ}	'0.3783'	'0.4261'	'0.7114'	'0.3866'	'0.0985'
a_L	'7.1214'	'9.1181'	'2.1523'	'9.0051'	'0.0664'
b_L	'11.1164'	'15'	'11.8662'	'14.9668'	'0.0794'
a_{μ}	'8.4637'	'15'	'6.2257'	'9.9583'	'0.1121'
b_{μ}	'1.2477'	'10.424'	'8.9929'	'7.9509'	'0.0902'
μ	'0.0482'	'0.9513'	'0.1623'	'0.7581'	'0.0989'
a_H	'2.9305'	'8.5995'	'6.7186'	'8.01'	'0.1046'
b_H	'8.6959'	'14.3649'	'10.4899'	'13.9452'	'0.1011'
ν	'0.0219'	'0.8767'	'242.8469'	'0.4102'	'0.0953'
BP	'379.4523'	'380.7859'	'378.5'	'379.4999'	'0.0628'

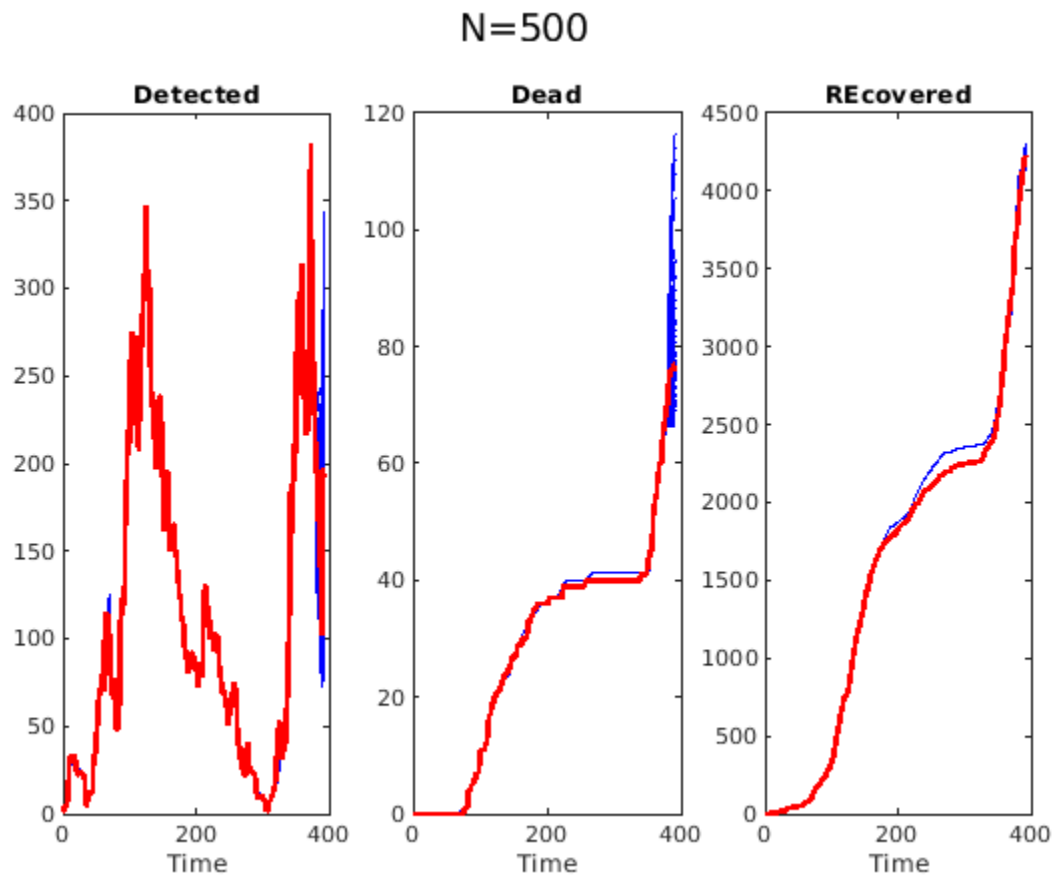
12.3. Identifiability analysis







12.4. Uncertainty analysis



Chapter 13. Extension number13

13.1. Basic information

The extension to be validated consists of the time series from the data393 to the 400. The status of the validation is: COMPLETED.

The number of estimations needed to perform the validation was1000.

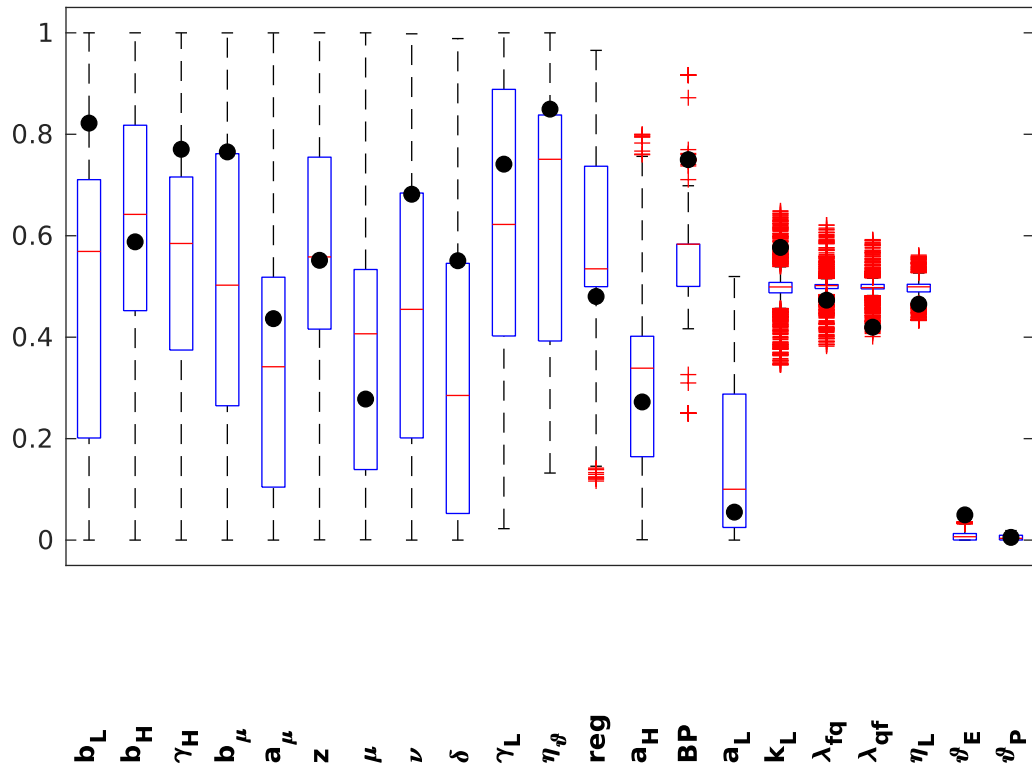
13.2. Estimated parameters with their intervals

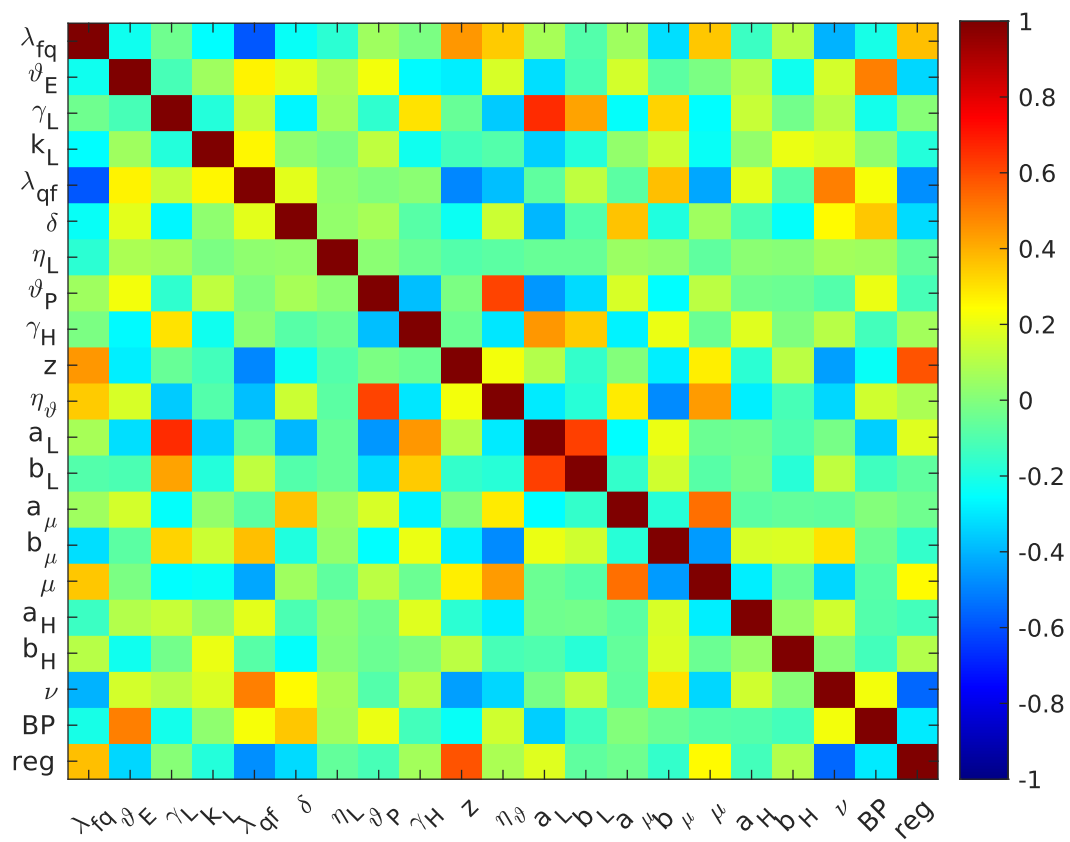
It was necessary to fix 0 parameters of 11 that could be fixed to complete validation.

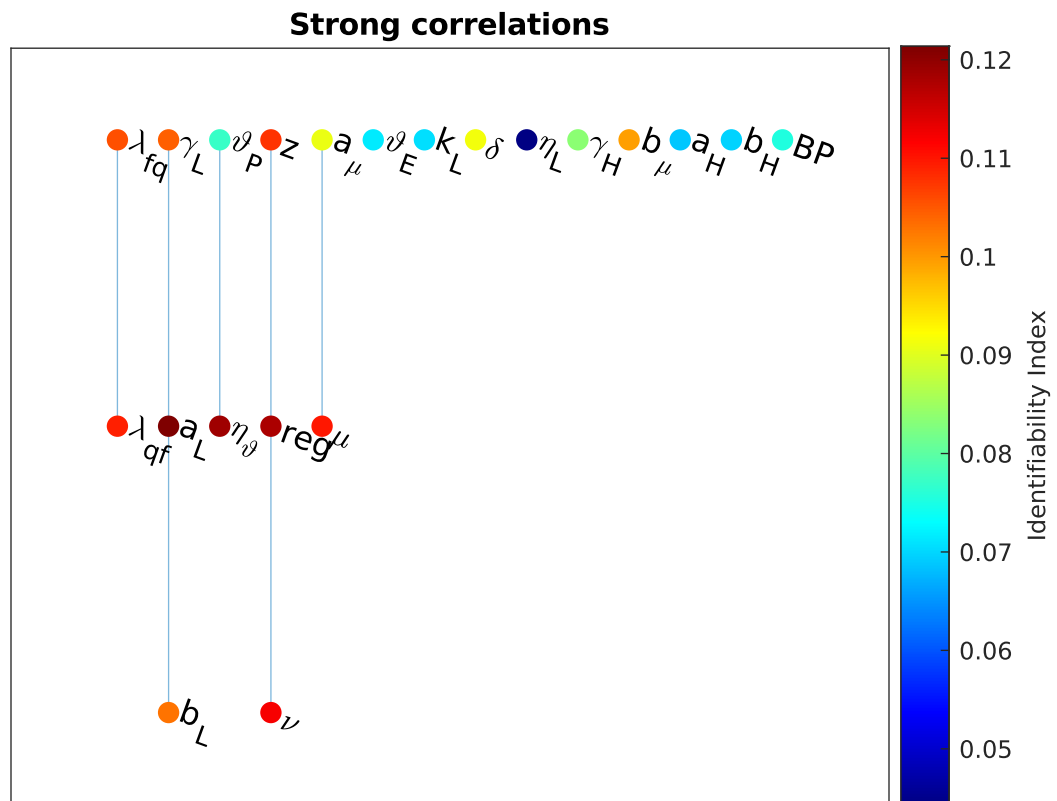
Due to a deviation from the median the CSB method was activated to obtain the parameter intervals.

	Rango		Nominal	Mejor	Index
\lambda_{fq}	'0'	'1'	'0.5017'	'0.473'	'0.1056'
\vartheta_E	'0.0401'	'0.1082'	'0.0067'	'0.0497'	'0.0715'
\gamma_L	'0.4744'	'0.9737'	'0.6223'	'0.7411'	'0.1045'
k_L	'1'	'10'	'5.4912'	'6.1925'	'0.0707'
\lambda_{qf}	'0'	'0.9443'	'0.4977'	'0.4197'	'0.1091'
\delta	'0.0475'	'0.0846'	'0.0428'	'0.0826'	'0.0914'
\eta_L	'0'	'1'	'0.4993'	'0.4651'	'0.0444'
\vartheta_P	'0.0011'	'0.0109'	'0.0035'	'0.0054'	'0.0774'
\gamma_H	'0'	'0.95'	'0.5847'	'0.7705'	'0.0837'
z	'0'	'27'	'16.7463'	'16.5464'	'0.1078'
\eta_{\vartheta}	'0.6144'	'1'	'0.7507'	'0.8496'	'0.1187'
a_L	'1.2798'	'3.126'	'2.4041'	'1.7721'	'0.1214'
b_L	'5.291'	'14.0201'	'8.9668'	'12.5085'	'0.103'
a_{\mu}	'5.9286'	'14.5464'	'5.7842'	'7.1116'	'0.0909'
b_{\mu}	'1'	'13.6'	'8.0355'	'11.7135'	'0.0997'
\mu	'0'	'0.5646'	'0.4067'	'0.278'	'0.1097'
a_H	'4.1528'	'15'	'5.7448'	'4.8128'	'0.0688'
b_H	'1.56'	'15'	'9.9891'	'9.2318'	'0.0696'
\nu	'81.0085'	'479.0504'	'227.4377'	'340.8962'	'0.1121'
BP	'386.7824'	'388.9171'	'387.5'	'388.5'	'0.0755'
reg	'0.0063'	'0.2262'	'0.1337'	'0.1201'	'0.1178'

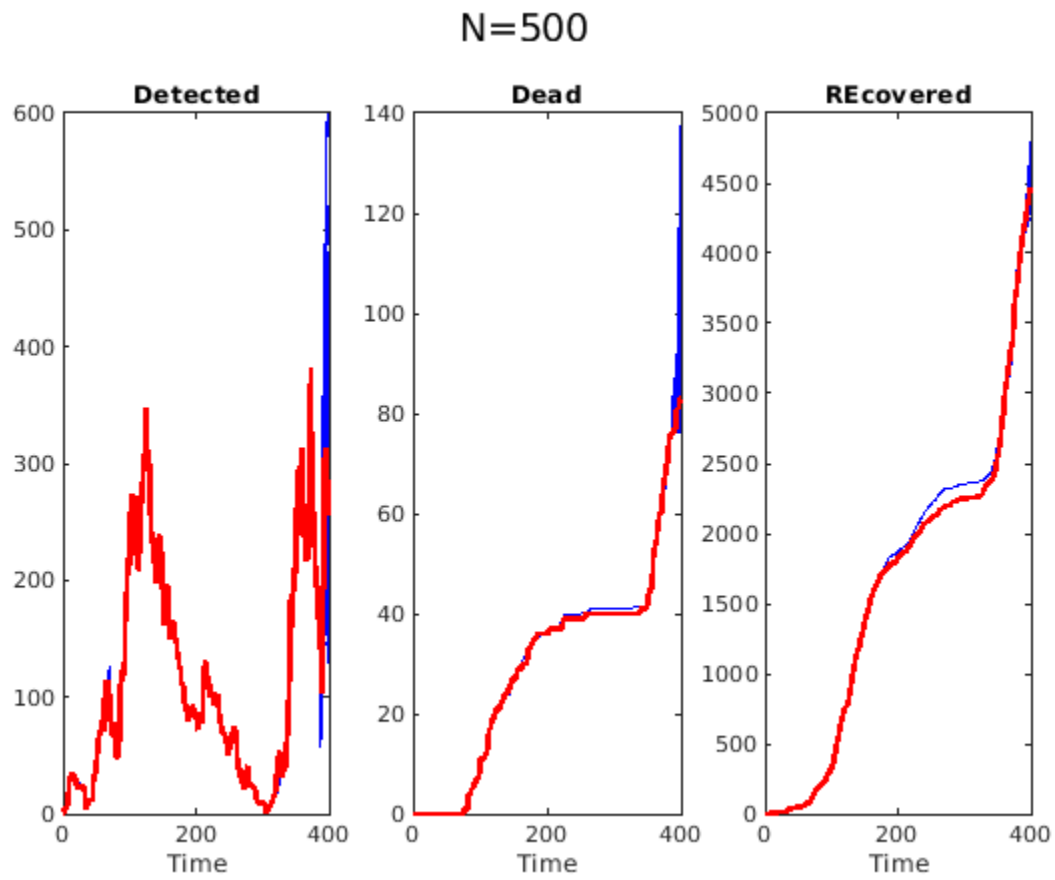
13.3. Identifiability analysis







13.4. Uncertainty analysys



Chapter 14. Extension number14

14.1. 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 was2000.

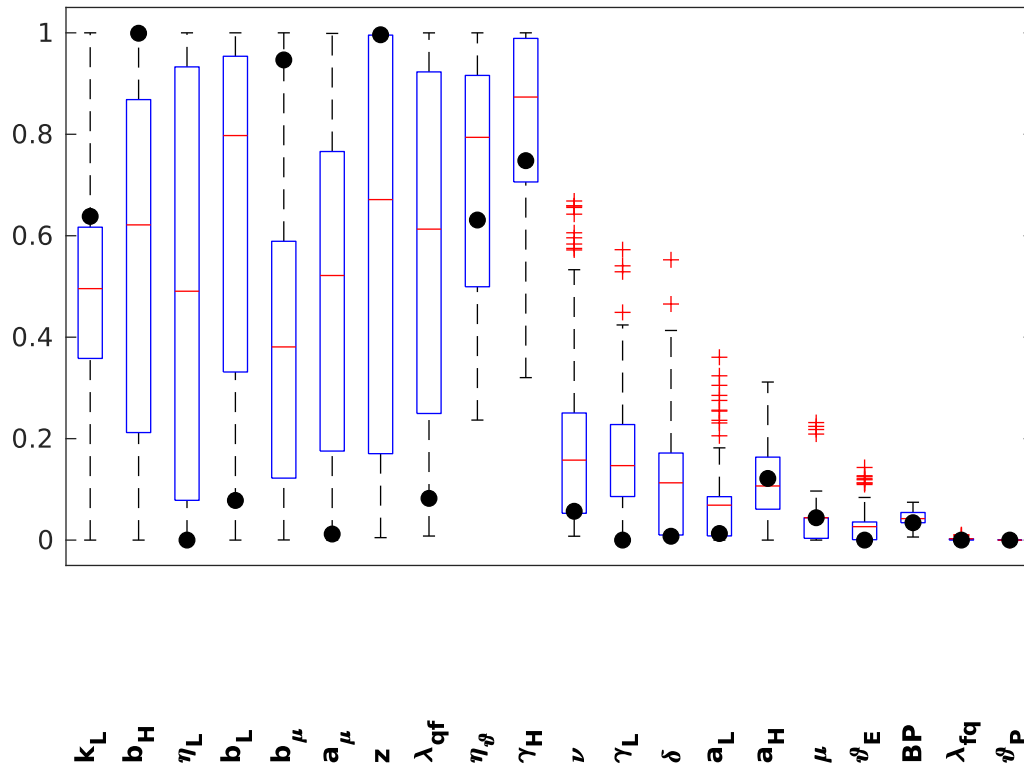
14.2. Estimated parameters with their intervals

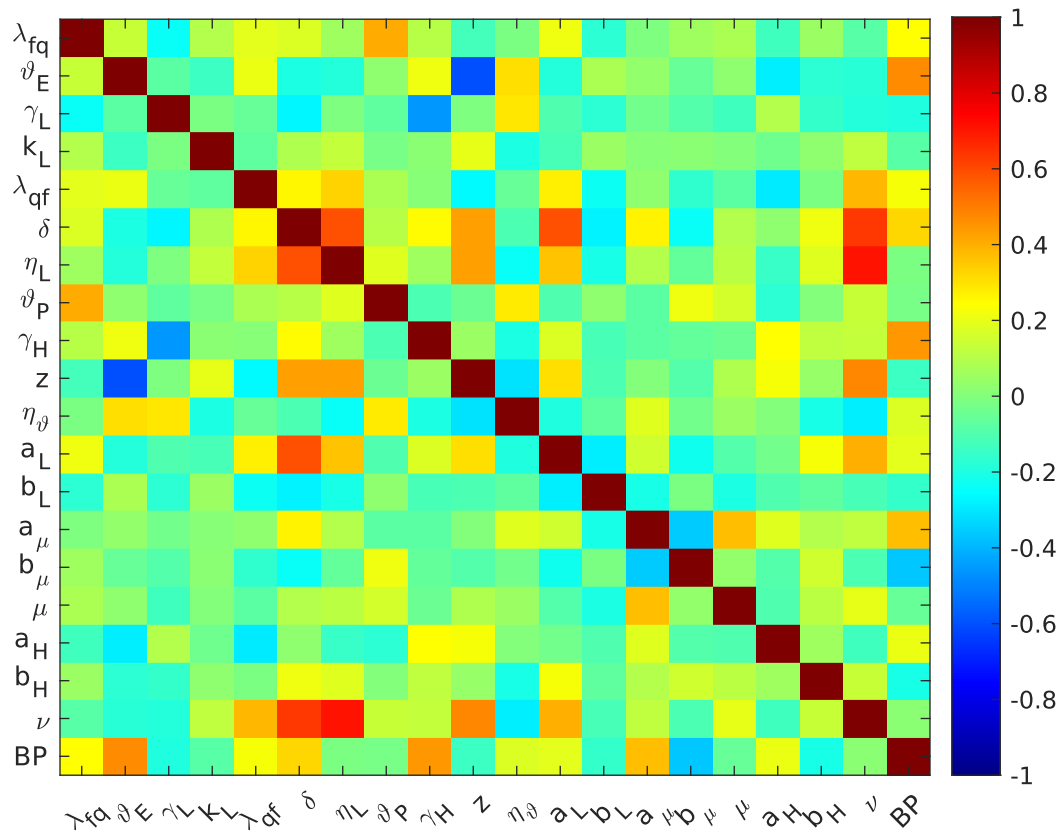
It was necessary to fix 0 parameters of 10 that could be fixed to complete validation.

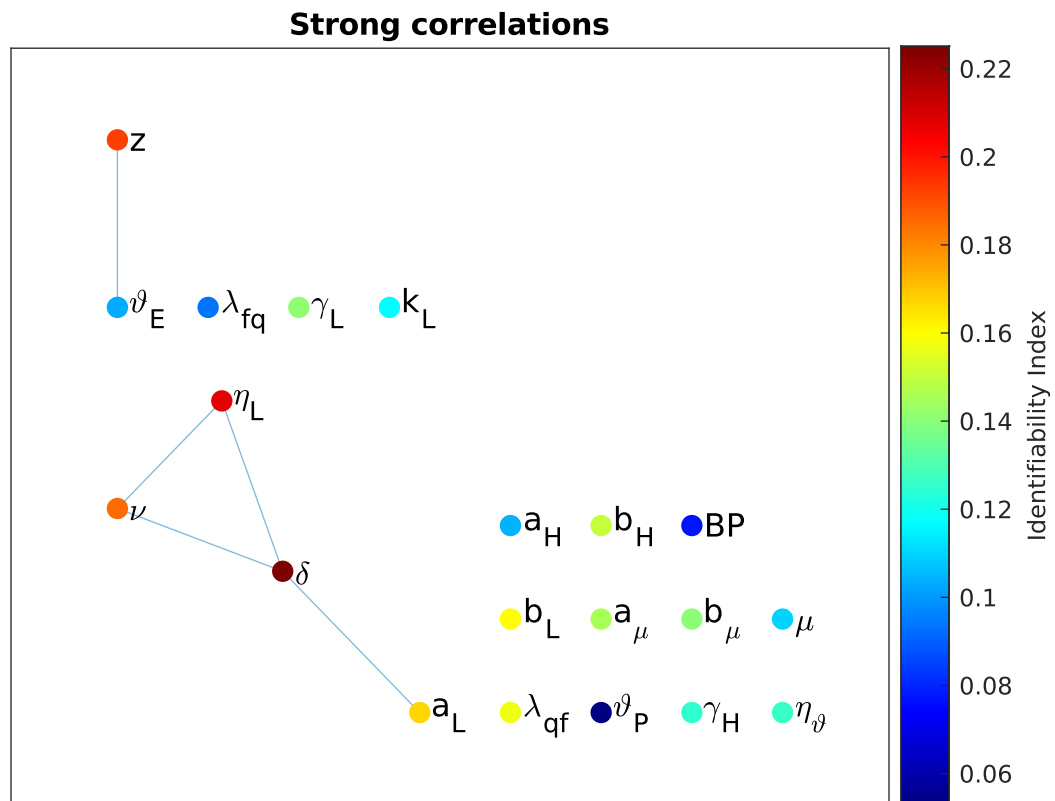
Due to a deviation from the median the CSB method was activated to obtain the parameter intervals.

	Rango		Nominal	Mejor	Index
λ_{fq}	'0'	'0'	'0.0026'	'0'	'0.094'
ϑ_E	'0'	'0'	'0.0265'	'0'	'0.1032'
γ_L	'0'	'0'	'0.1468'	'0'	'0.1415'
k_L	'1'	'10'	'5.4615'	'6.7437'	'0.1172'
λ_{qf}	'0.0783'	'0.1613'	'0.613'	'0.0823'	'0.1577'
δ	'0'	'0.0026'	'0.0169'	'0.0011'	'0.2251'
η_L	'0'	'0.0001'	'0.4906'	'0'	'0.2077'
ϑ_P	'0'	'0'	'0'	'0'	'0.053'
γ_H	'0.4217'	'1'	'0.8734'	'0.748'	'0.1256'
z	'10.4281'	'30'	'20.1375'	'29.8853'	'0.1924'
η_{ϑ}	'0.6264'	'0.6847'	'0.794'	'0.631'	'0.1267'
a_L	'1'	'15'	'1.9638'	'1.1817'	'0.1673'
b_L	'1'	'14.3'	'12.1648'	'2.0942'	'0.1604'
a_{μ}	'1'	'15'	'8.3024'	'1.1674'	'0.1457'
b_{μ}	'1'	'15'	'6.3314'	'14.2519'	'0.1409'
μ	'0'	'0.0992'	'0.0441'	'0.0441'	'0.1098'
a_H	'1.4985'	'4.1656'	'2.494'	'2.7016'	'0.1042'
b_H	'5.2'	'15'	'9.6995'	'14.9885'	'0.1501'
ν	'22.5644'	'37.7272'	'78.8293'	'28.4098'	'0.1851'
BP	'399.1933'	'401.8343'	'403.5032'	'401.5'	'0.0778'

14.3. Identifiability analysis







14.4. Uncertainty analysis

N=500

