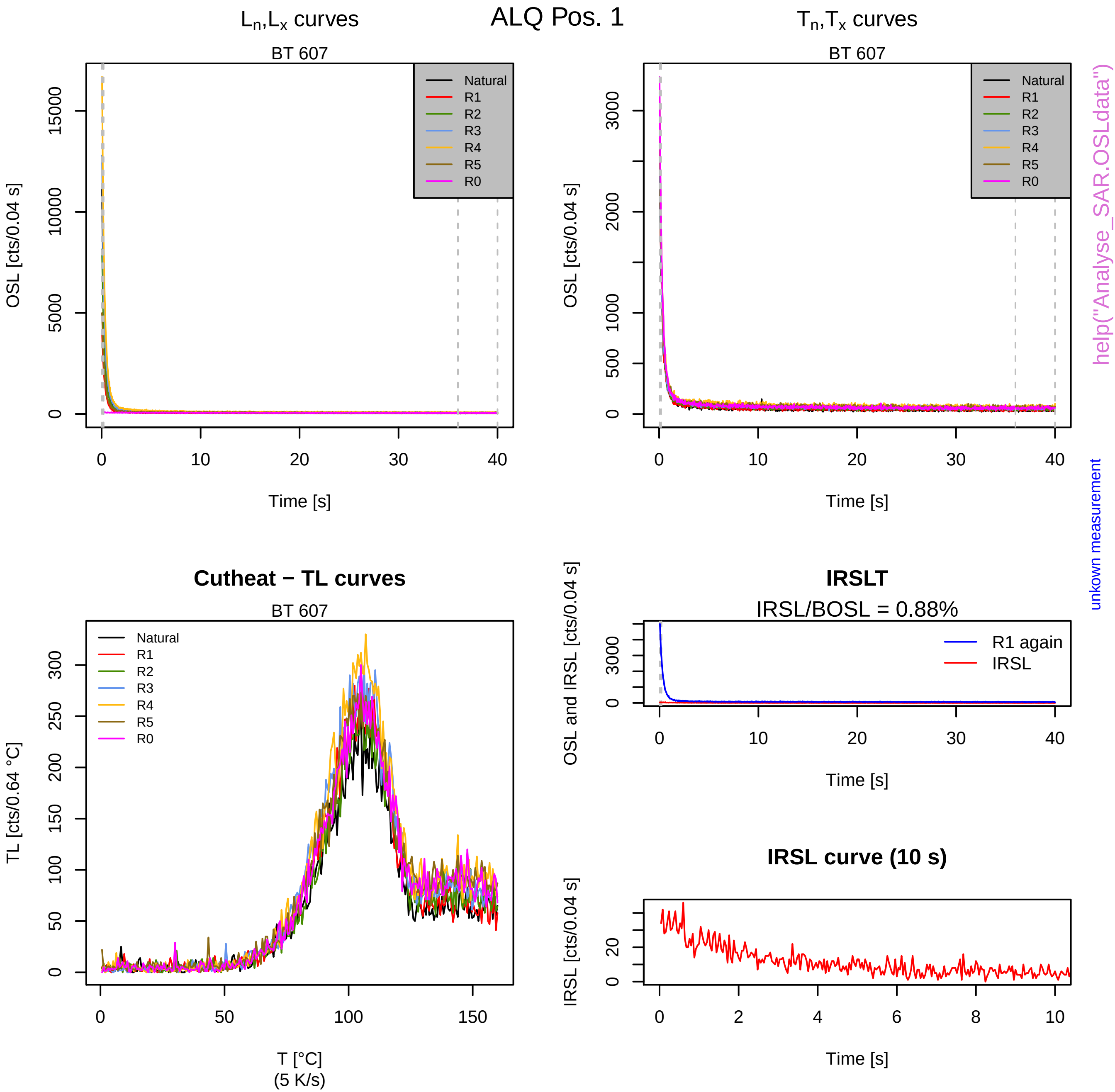
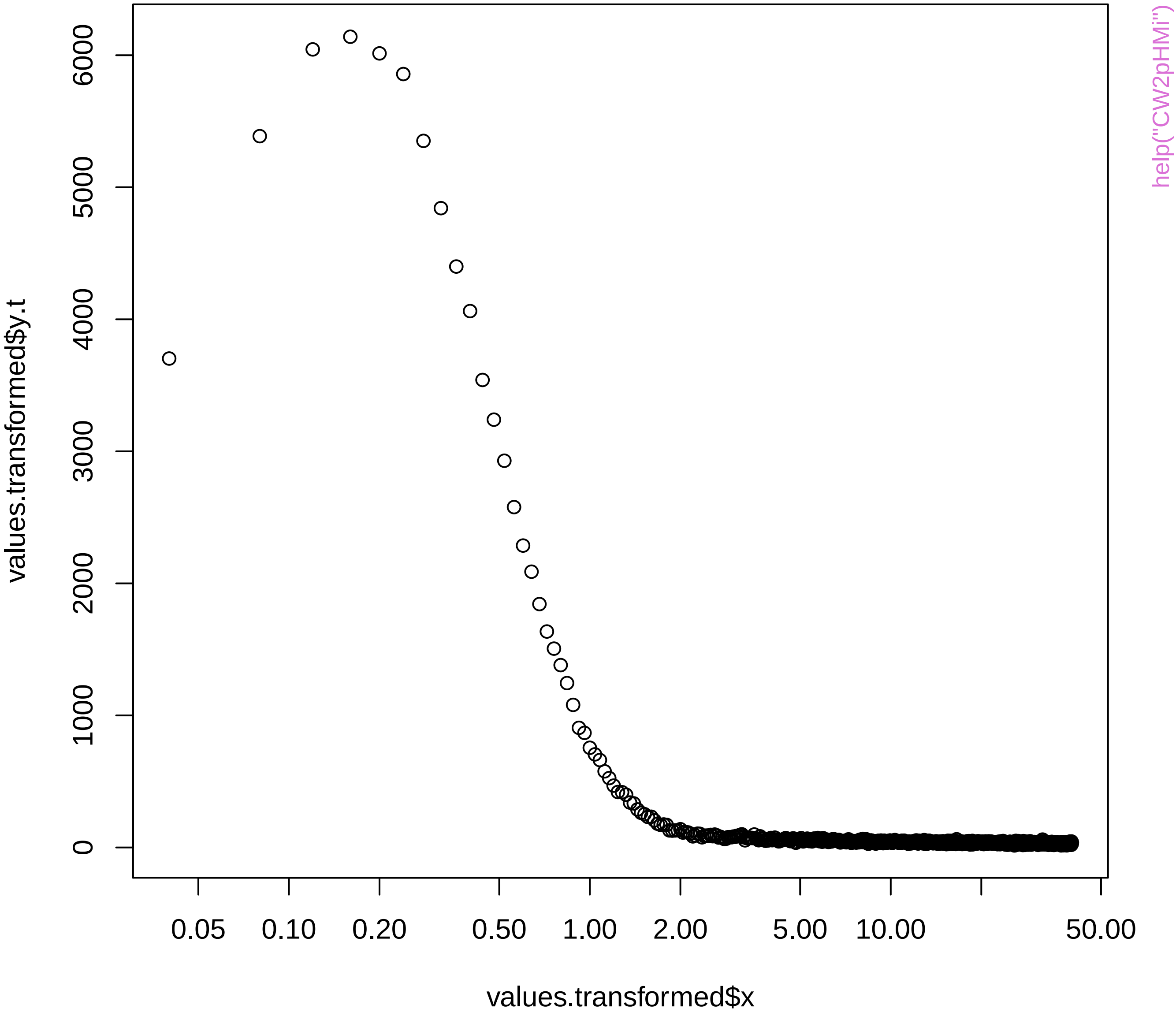
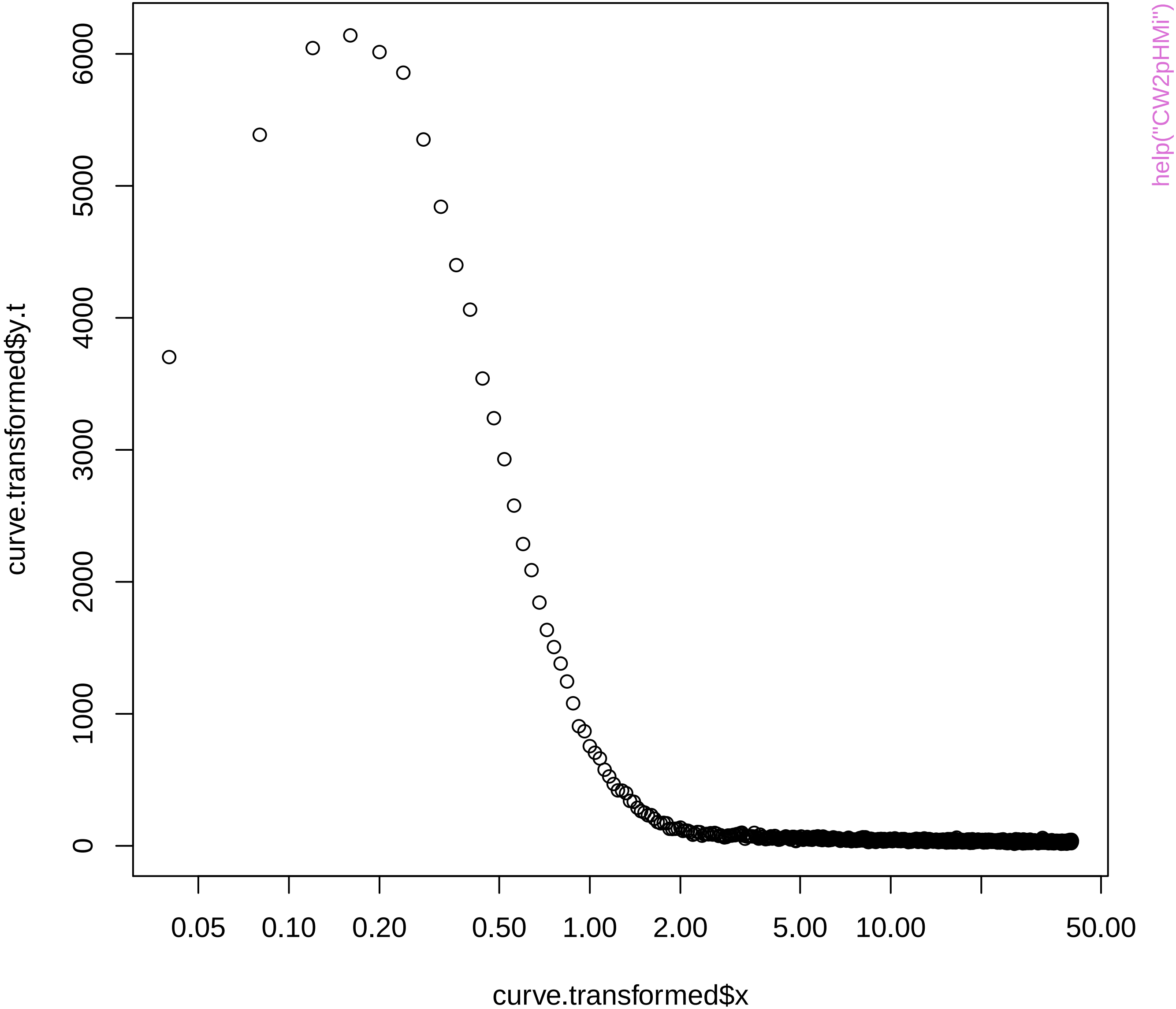

ALQ Pos. 1
Ln,Lx curves
BT 607
Natural
R1
R2
R3
R4
R5
R0
OSL [cts/0.04 s]
0
5000
10000
15000
0
10
20
30
40
Time [s]
Tn,Tx curves
BT 607
Natural
R1
R2
R3
R4
R5
R0
OSL [cts/0.04 s]
0
500
1000
2000
3000
0
10
20
30
40
Time [s]
help("Analyse_SAR.OSLdata")
unkown measurement
Cutheat − TL curves
BT 607
Natural
R1
R2
R3
R4
R5
R0
TL [cts/0.64 °C]
0
50
100
150
200
250
300
0
50
100
150
T [°C]
(5 K/s)
IRSLT
IRSL/BOSL = 0.88%
R1 again
IRSL
OSL and IRSL [cts/0.04 s]
0
3000
0
10
20
30
40
Time [s]
IRSL curve (10 s)
IRSL [cts/0.04 s]
0
20
0
2
4
6
8
10
Time [s]



values.transformed$y.t
6000
5000
4000
3000
2000
1000
0
0.05
0.10
0.20
0.50
1.00
2.00
5.00
10.00
50.00
values.transformed$x
help("CW2pHMi")



curve.transformed$y.t
6000
5000
4000
3000
2000
1000
0
0.05
0.10
0.20
0.50
1.00
2.00
5.00
10.00
50.00
curve.transformed$x
help("CW2pHMi")

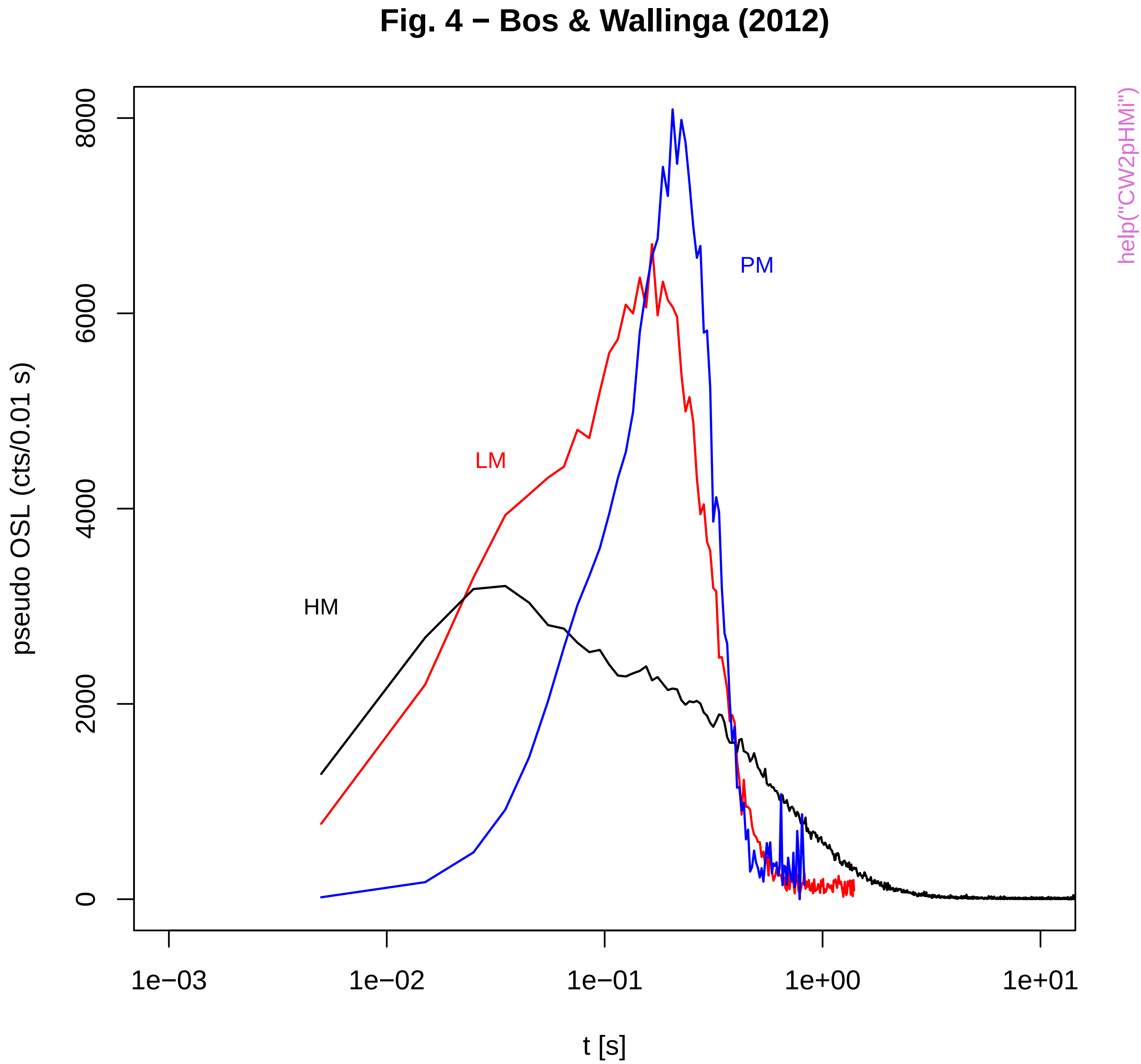
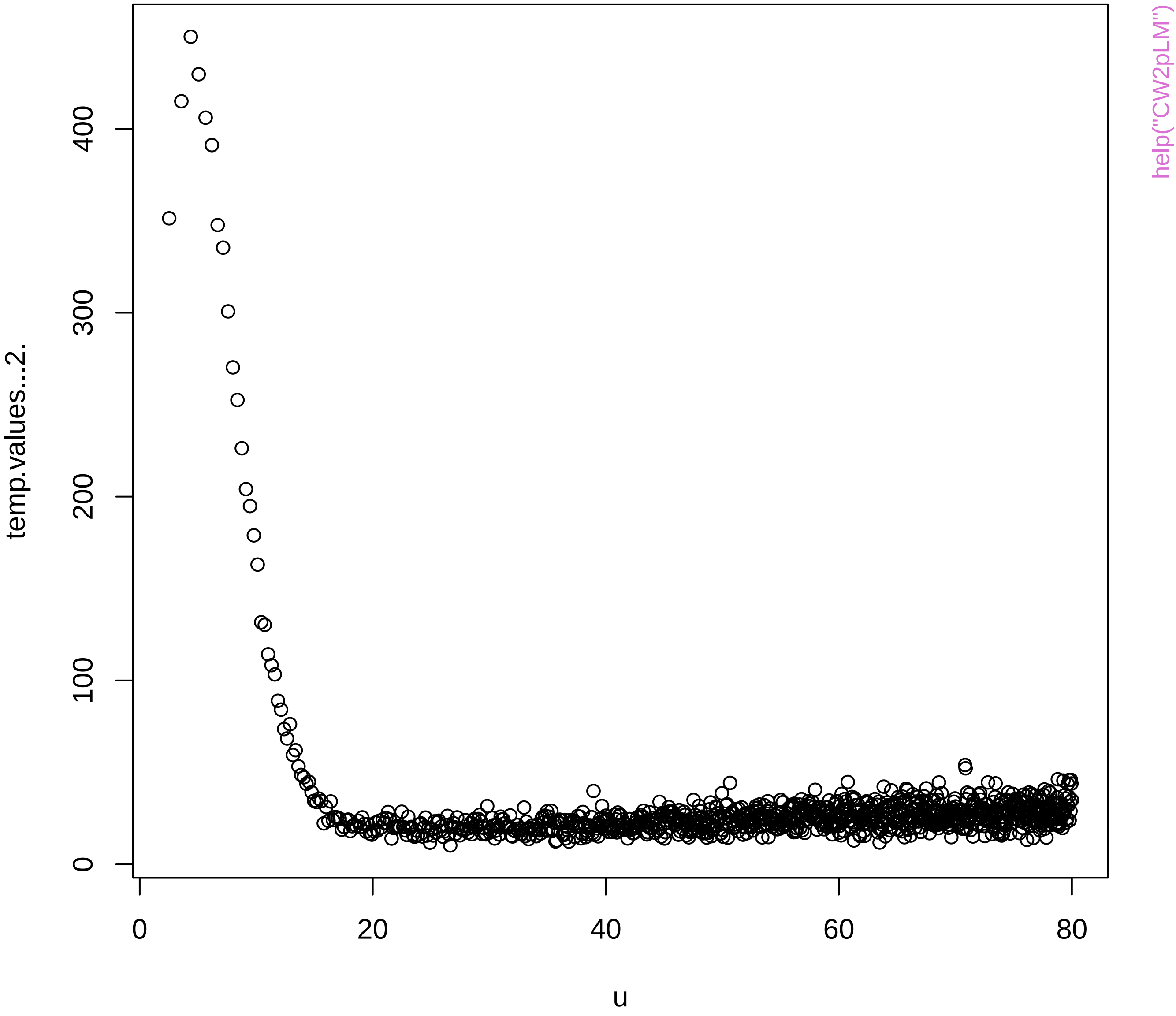
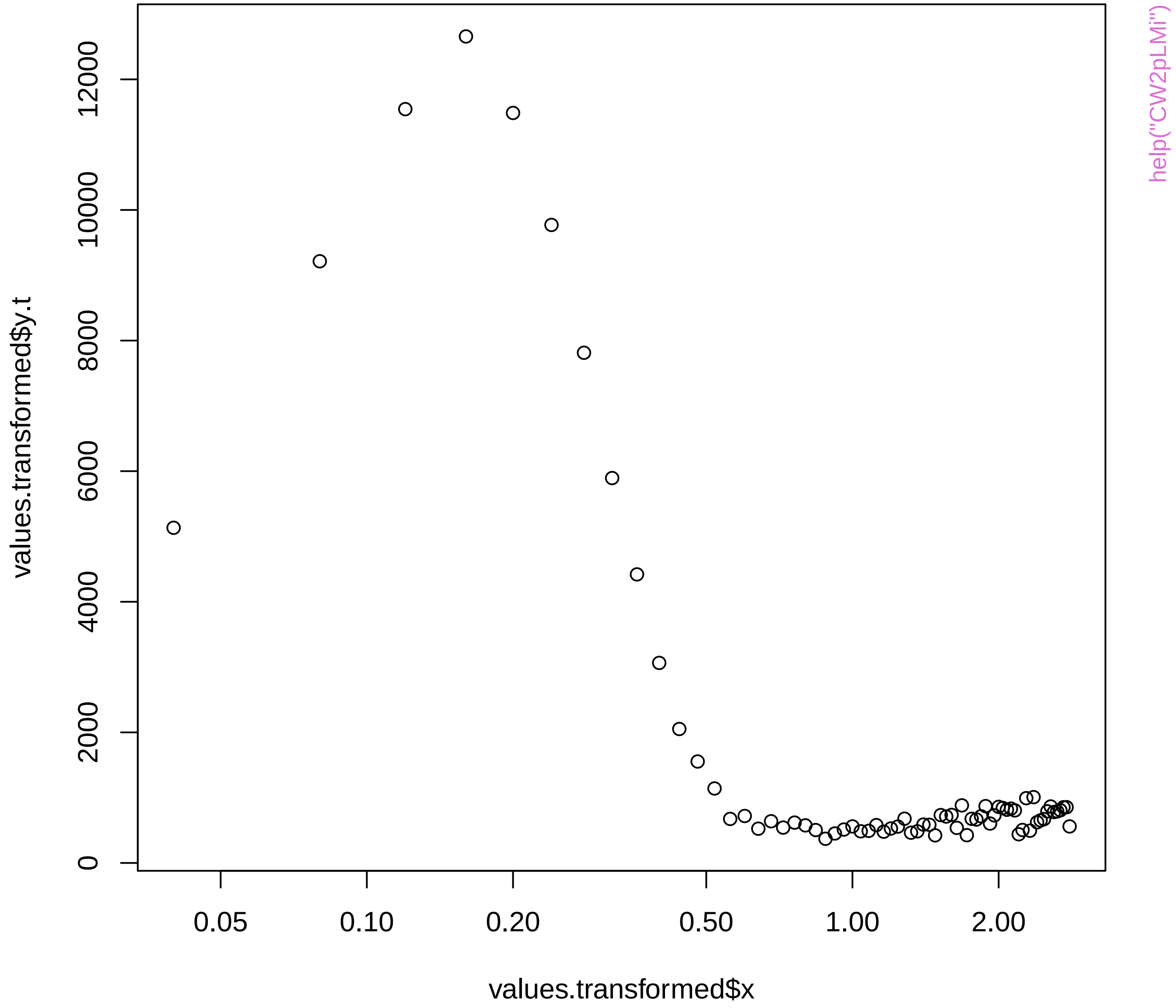


Fig. 4 − Bos & Wallinga (2012)
pseudo OSL (cts/0.01 s)
0
2000
4000
6000
8000
t [s]
1e−03
1e−02
1e−01
1e+00
1e+01
HM
LM
PM
help("CW2pHMi")

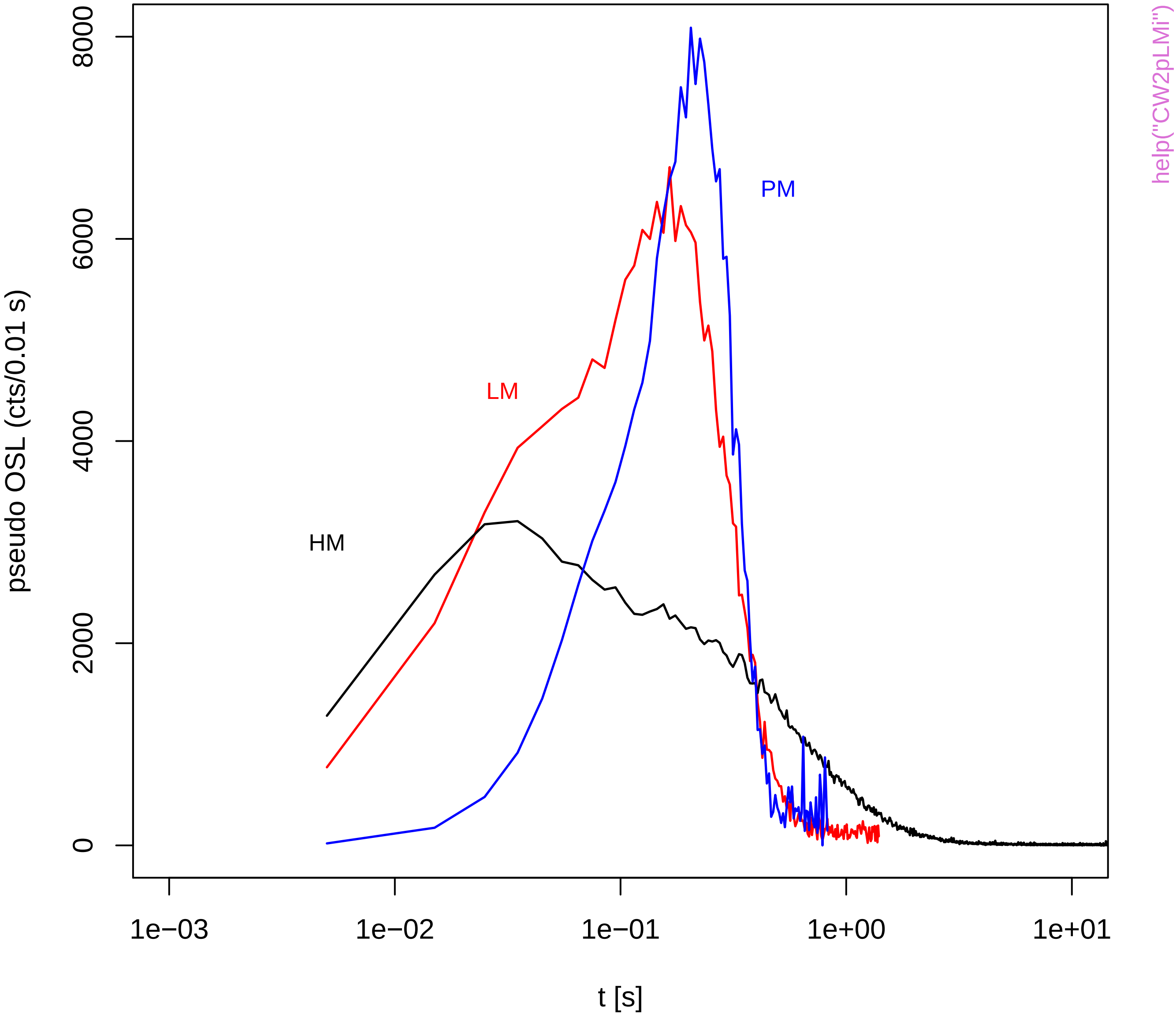


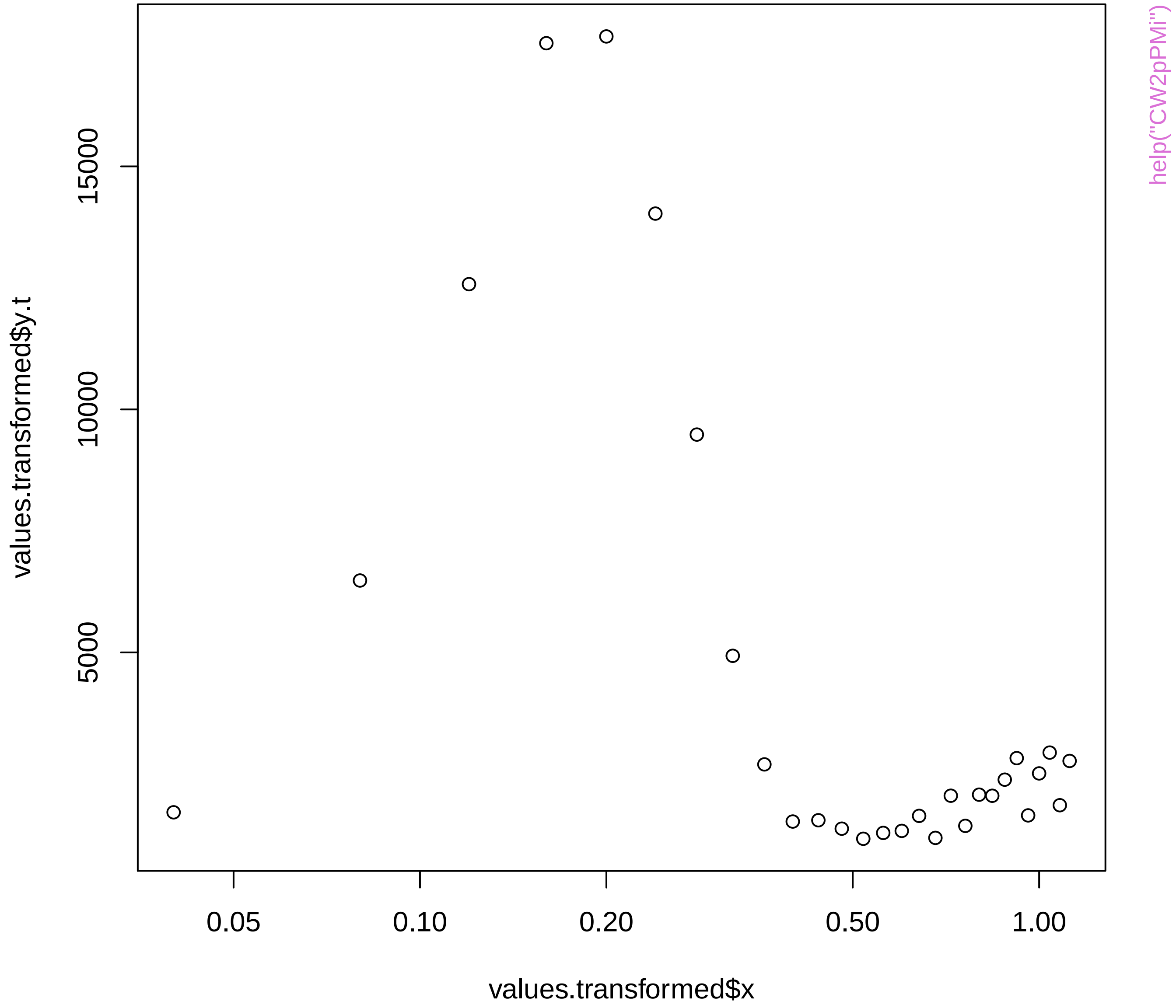
temp.values...2.
u
0
100
200
300
400
0
20
40
60
80
help("CW2pLM")



values.transformed$y.t
0
2000
4000
6000
8000
10000
12000
0.05
0.10
0.20
0.50
1.00
2.00
values.transformed$x
help("CW2pLMi")

Fig. 4 − Bos & Wallinga (2012)




values.transformed$y.t
5000
10000
15000
0.05
0.10
0.20
0.50
1.00
values.transformed$x
help("CW2pPMi")

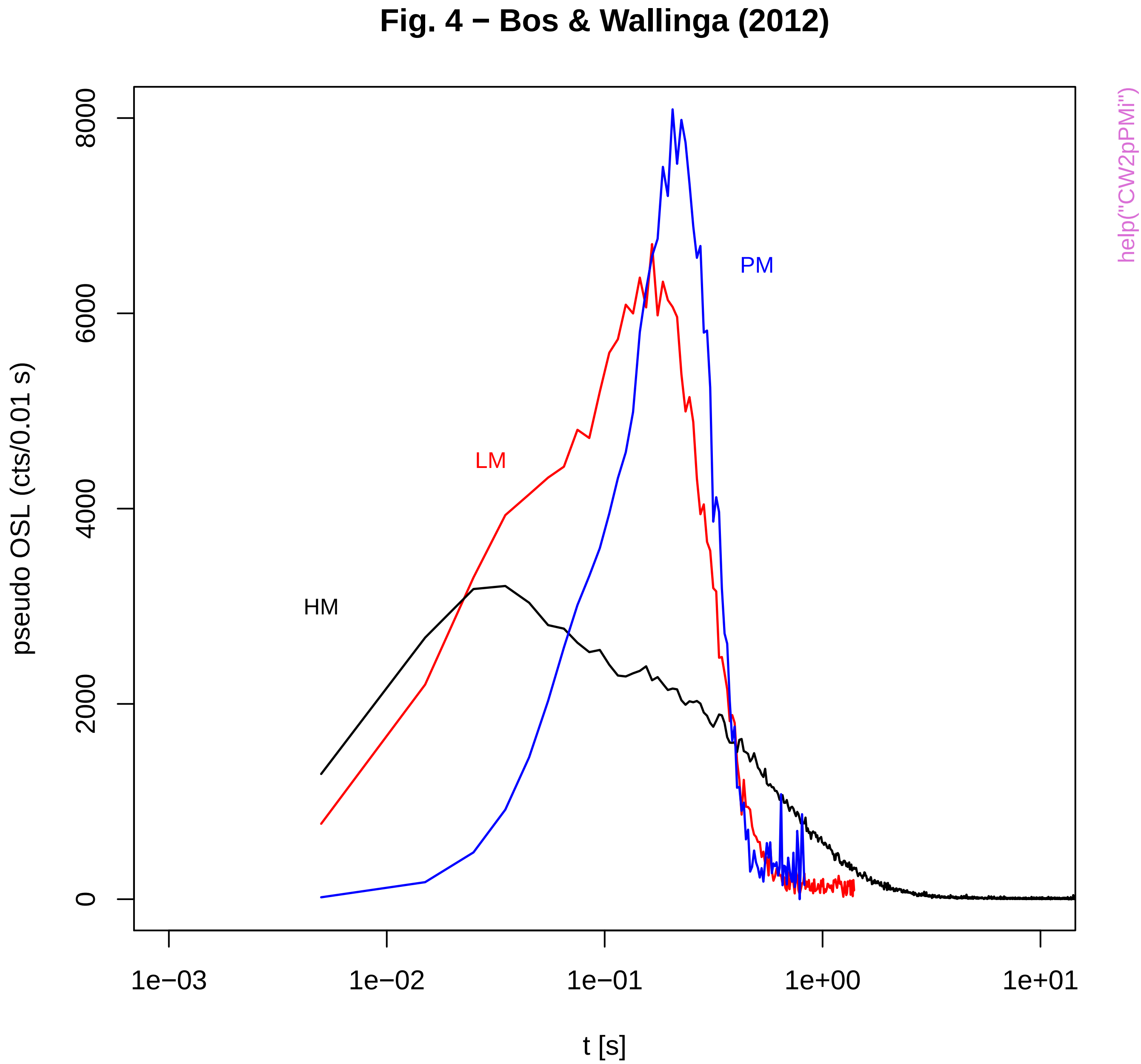
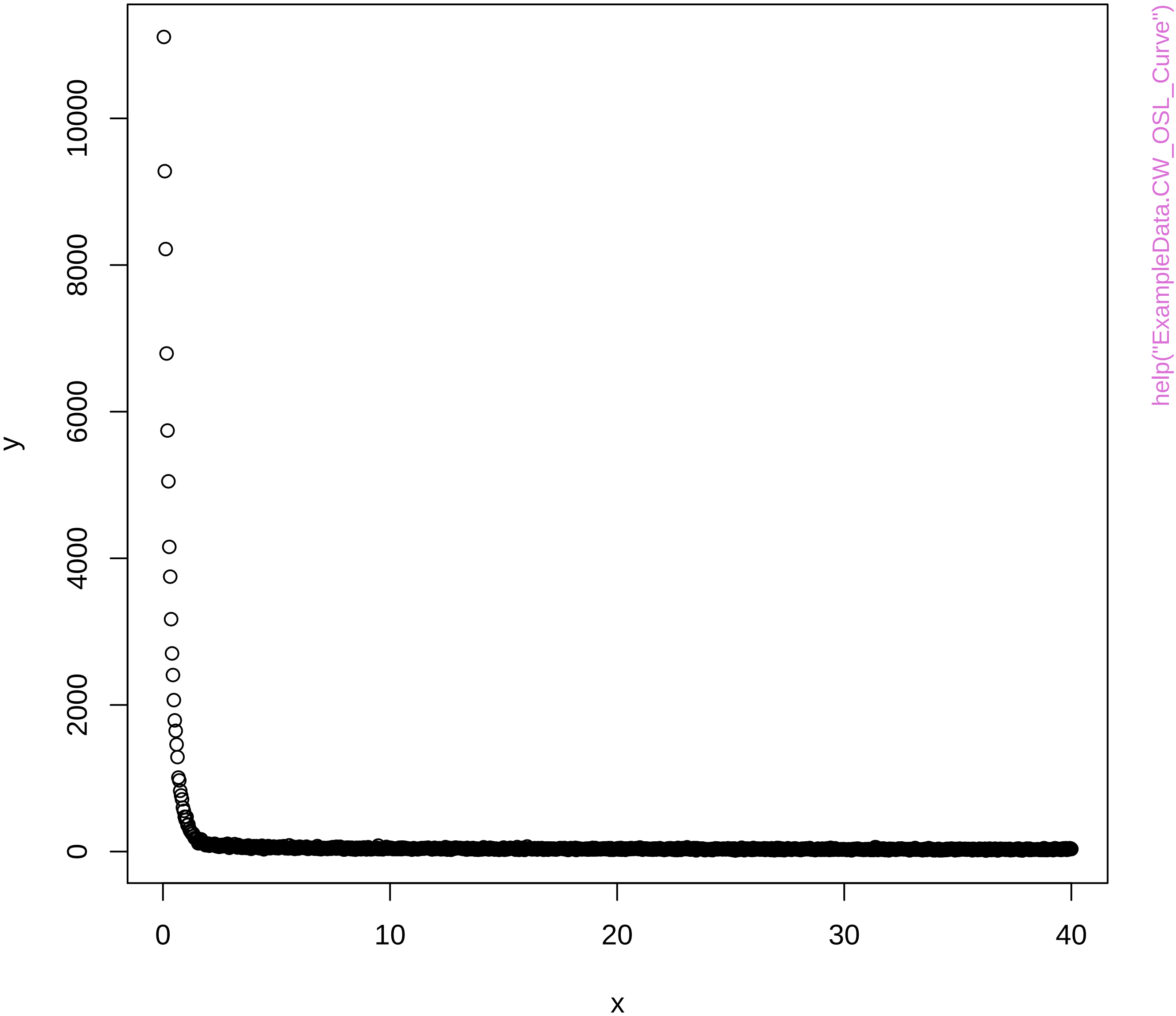
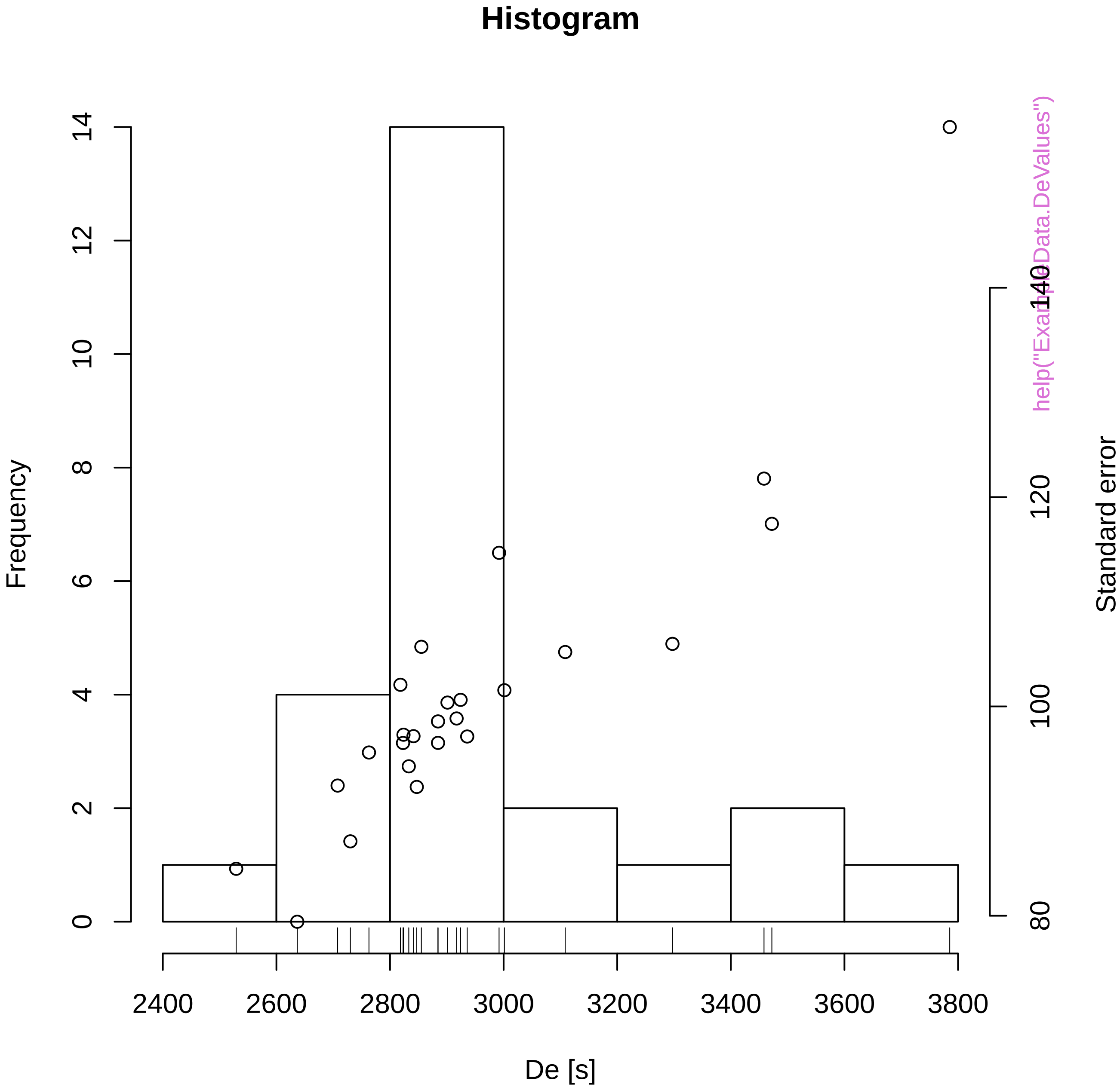


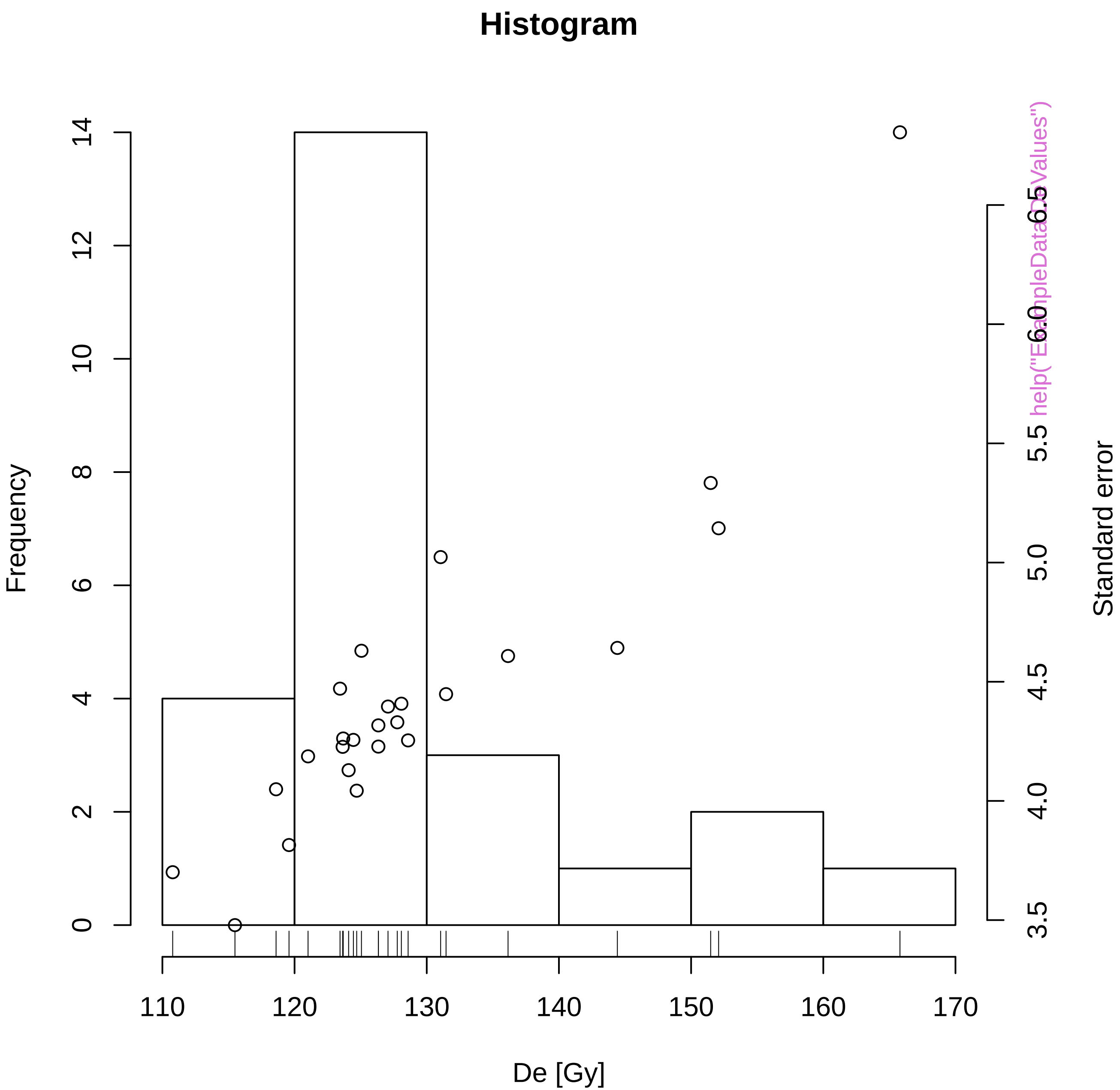
Fig. 4 − Bos & Wallinga (2012)
pseudo OSL (cts/0.01 s)
0
2000
4000
6000
8000
t [s]
1e−03
1e−02
1e−01
1e+00
1e+01
HM
LM
PM
help("CW2pPMi")



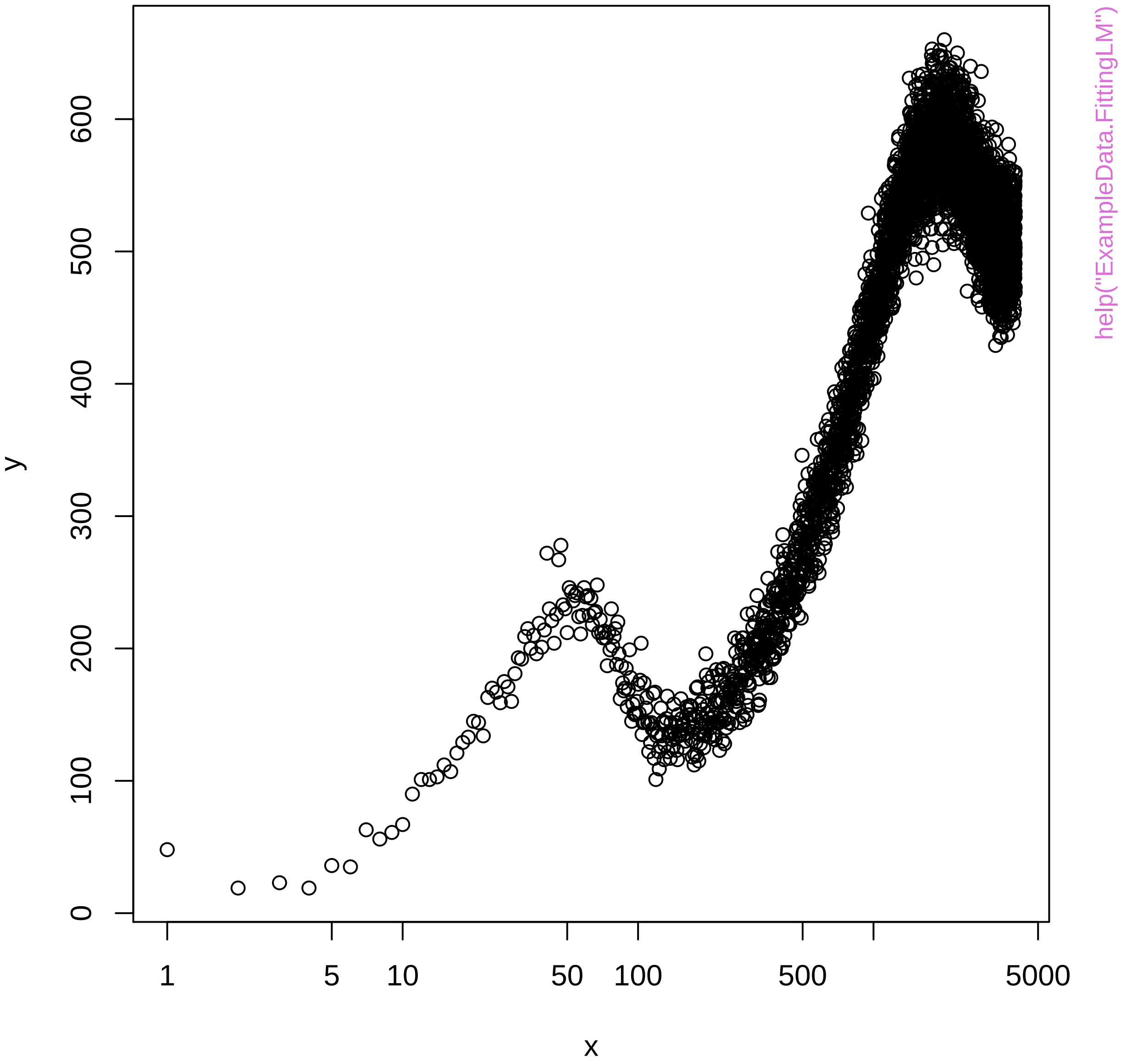
help("ExampleData.CW_OSL_Curve")
y
x
0
2000
4000
6000
8000
10000
0
10
20
30
40



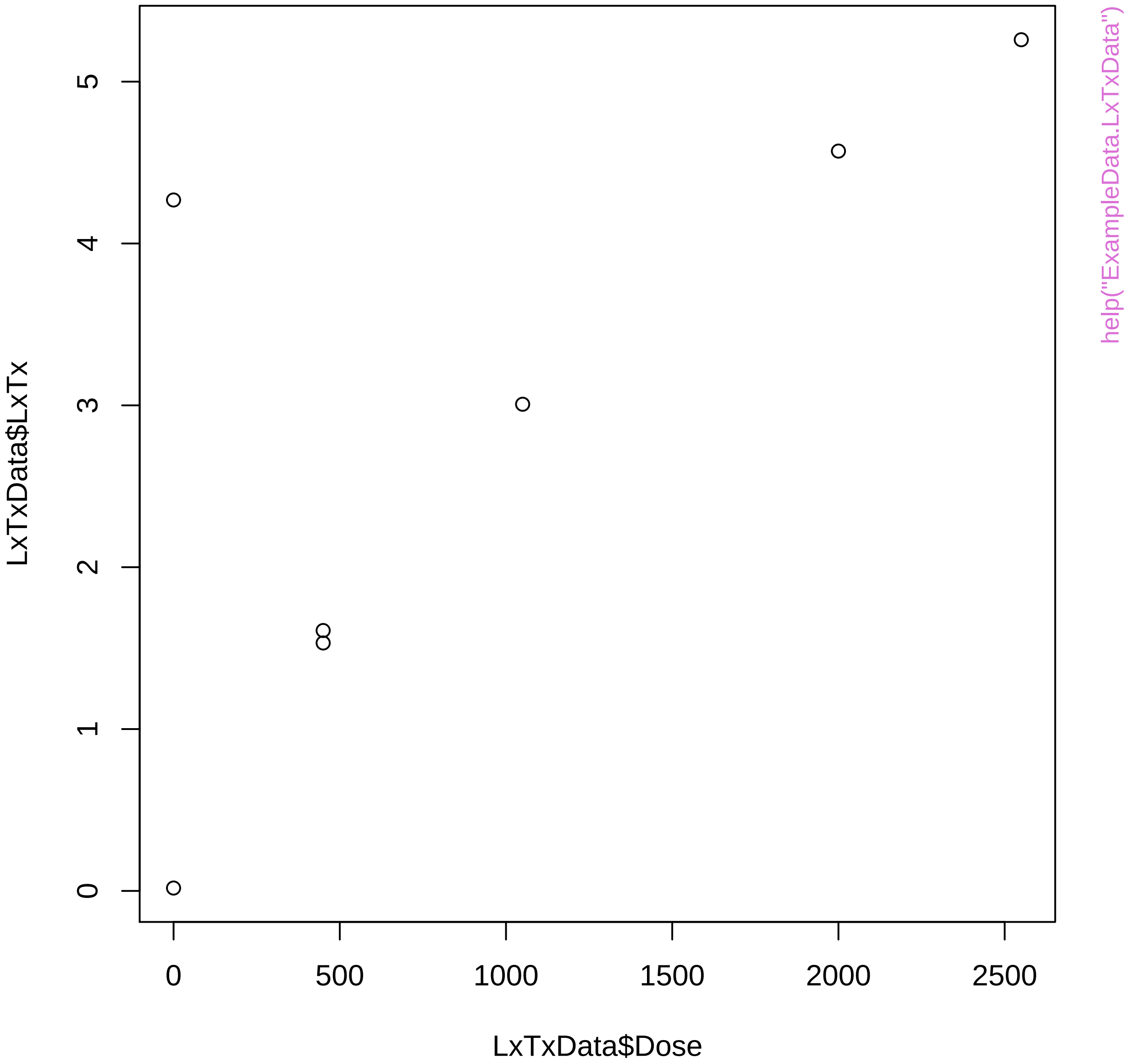
Histogram
Frequency
0
2
4
6
8
10
12
14
2400
2600
2800
3000
3200
3400
3600
3800
De [s]
Standard error
80
100
120
140
help("ExampleData.DeValues")



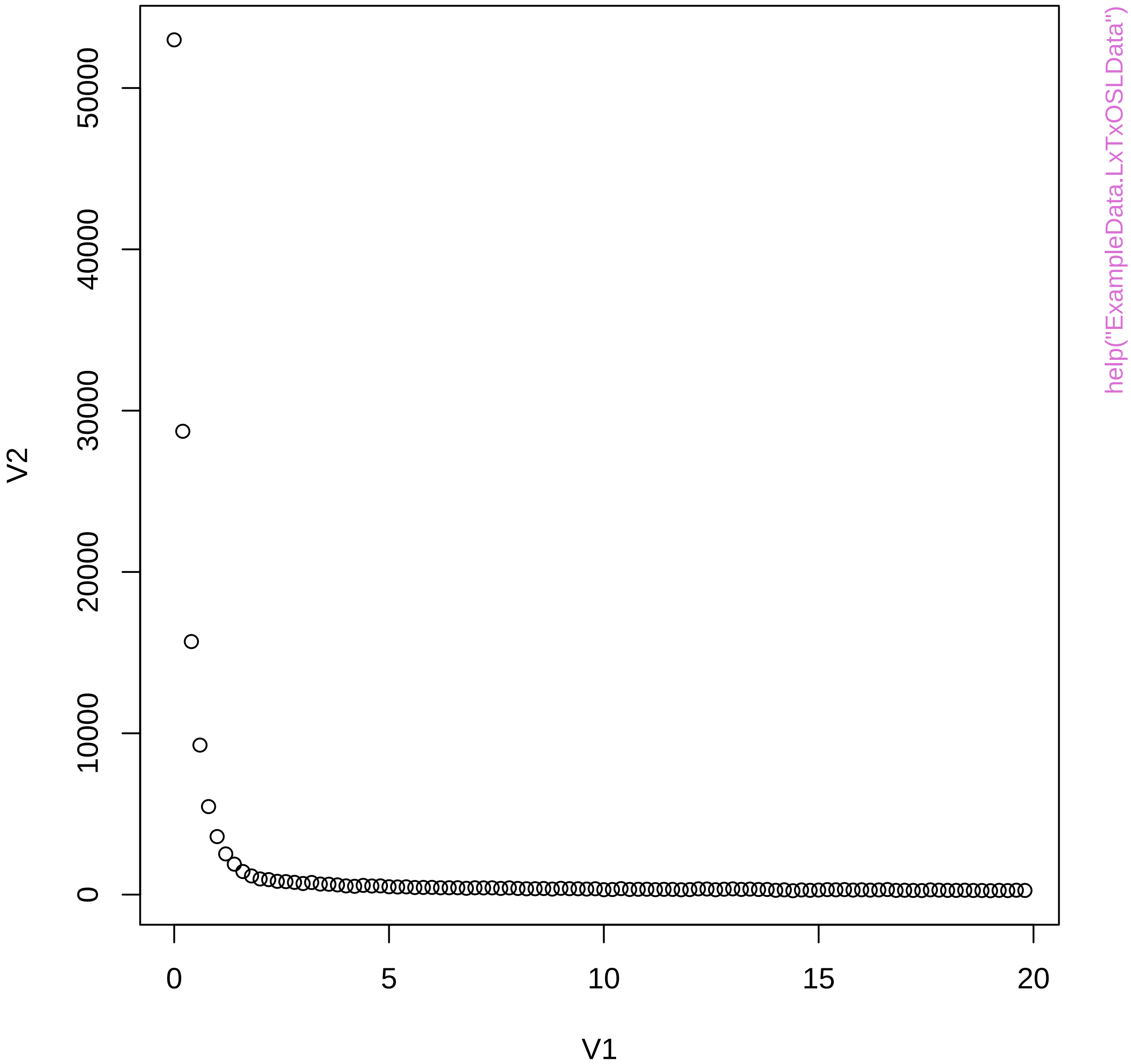
Histogram
Frequency
0
2
4
6
8
10
12
14
110
120
130
140
150
160
170
De [Gy]
Standard error
3.5
4.0
4.5
5.0
5.5
6.0
6.5
help("ExampleData.DeValues")



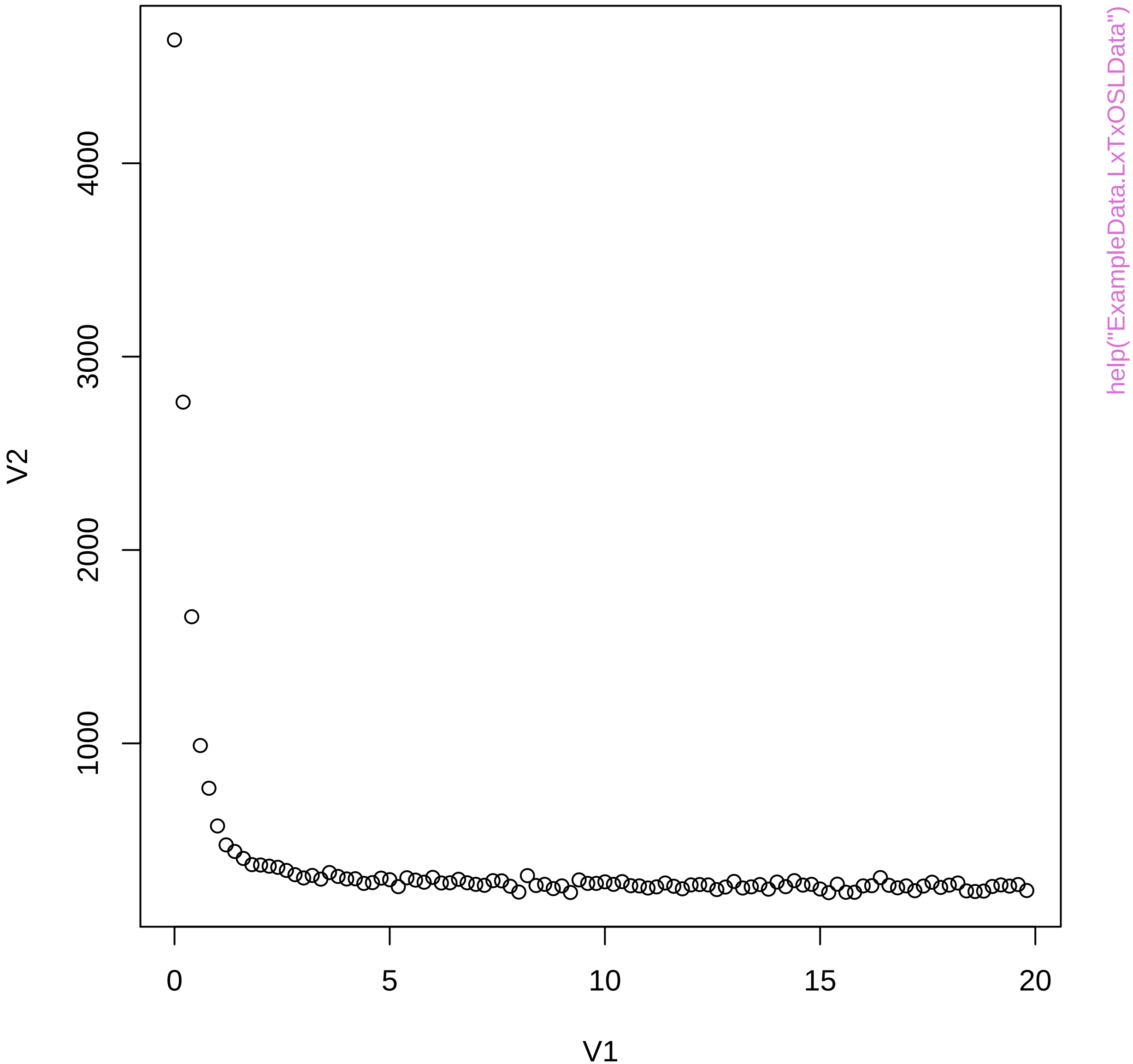
help("ExampleData.FittingLM")
y
x
0
100
200
300
400
500
600
1
5
10
50
100
500
5000



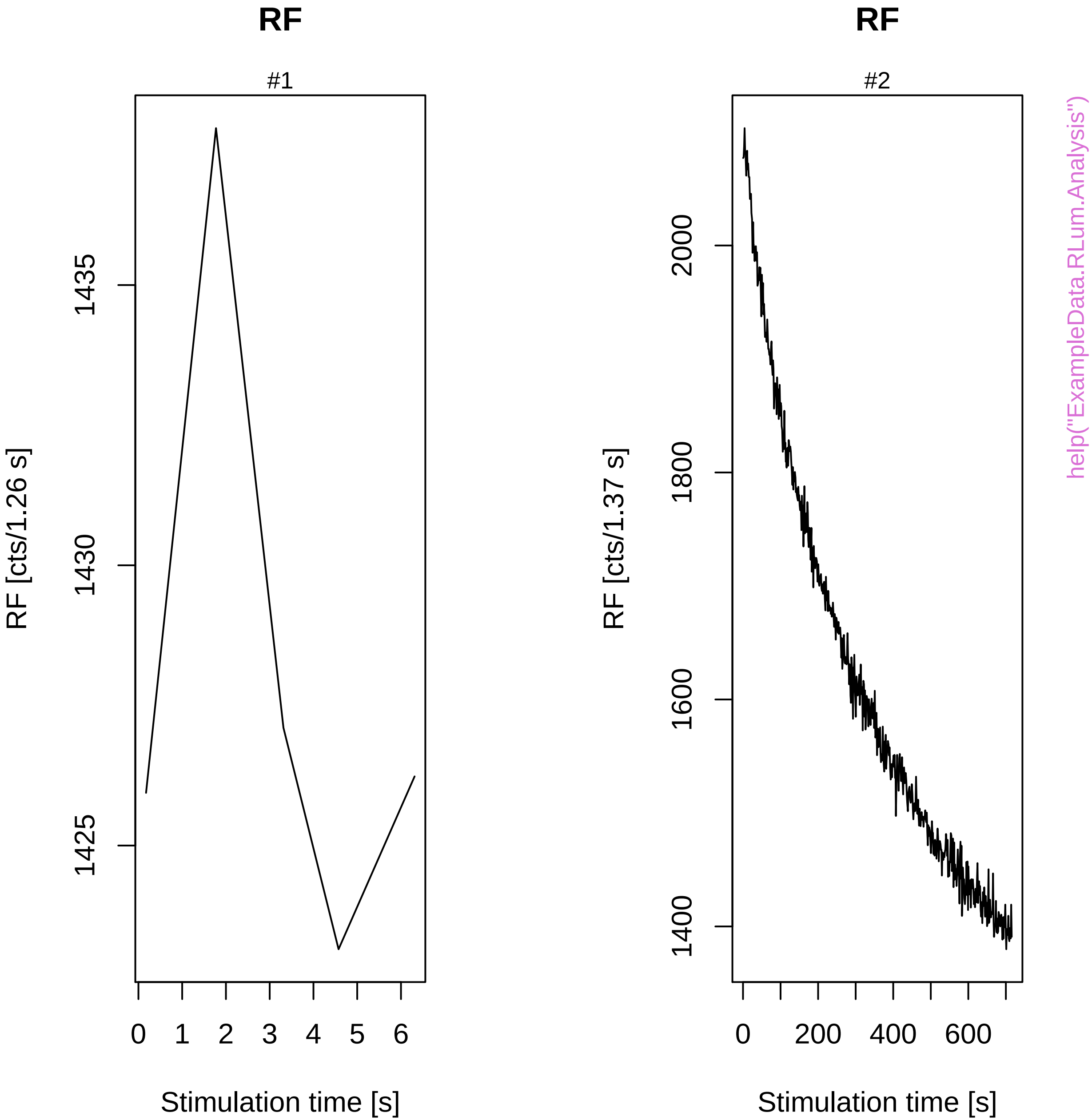
help("ExampleData.LxTxData")
LxTxData$LxTx
0
1
2
3
4
5
0
500
1000
1500
2000
2500
LxTxData$Dose

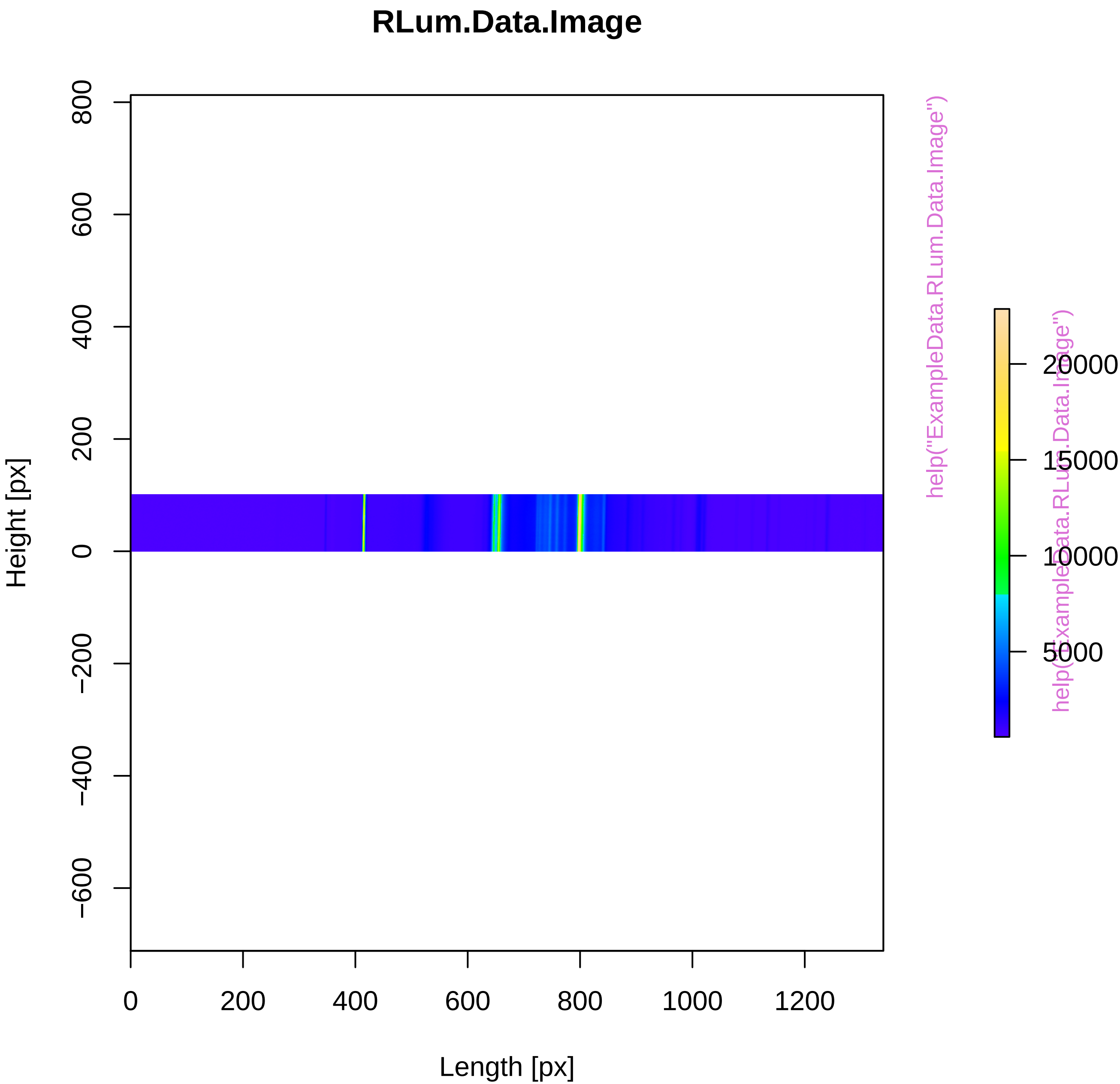


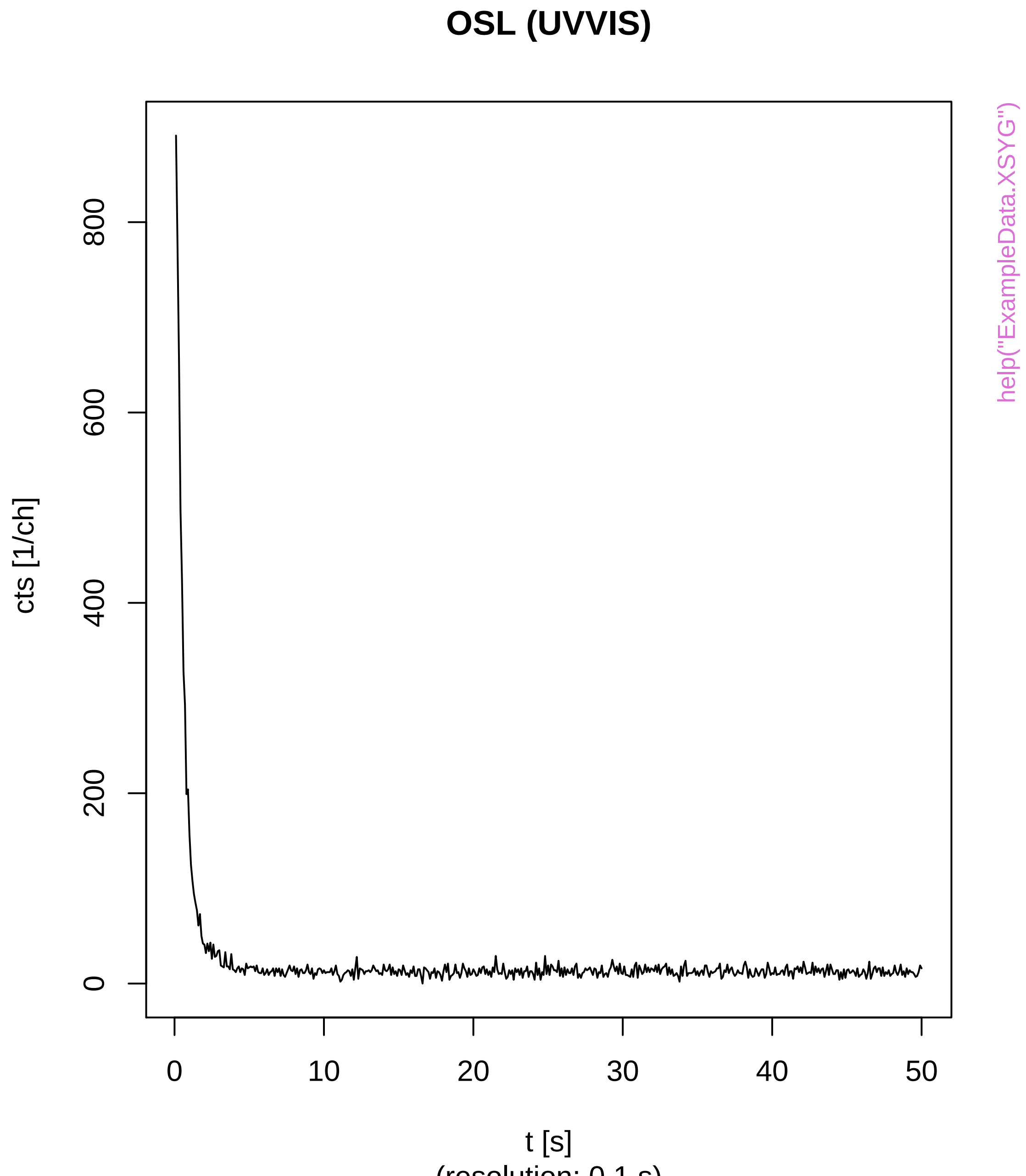
V2
50000
40000
30000
20000
10000
0
0
5
10
15
20
V1
help("ExampleData.LxTxOSLData")

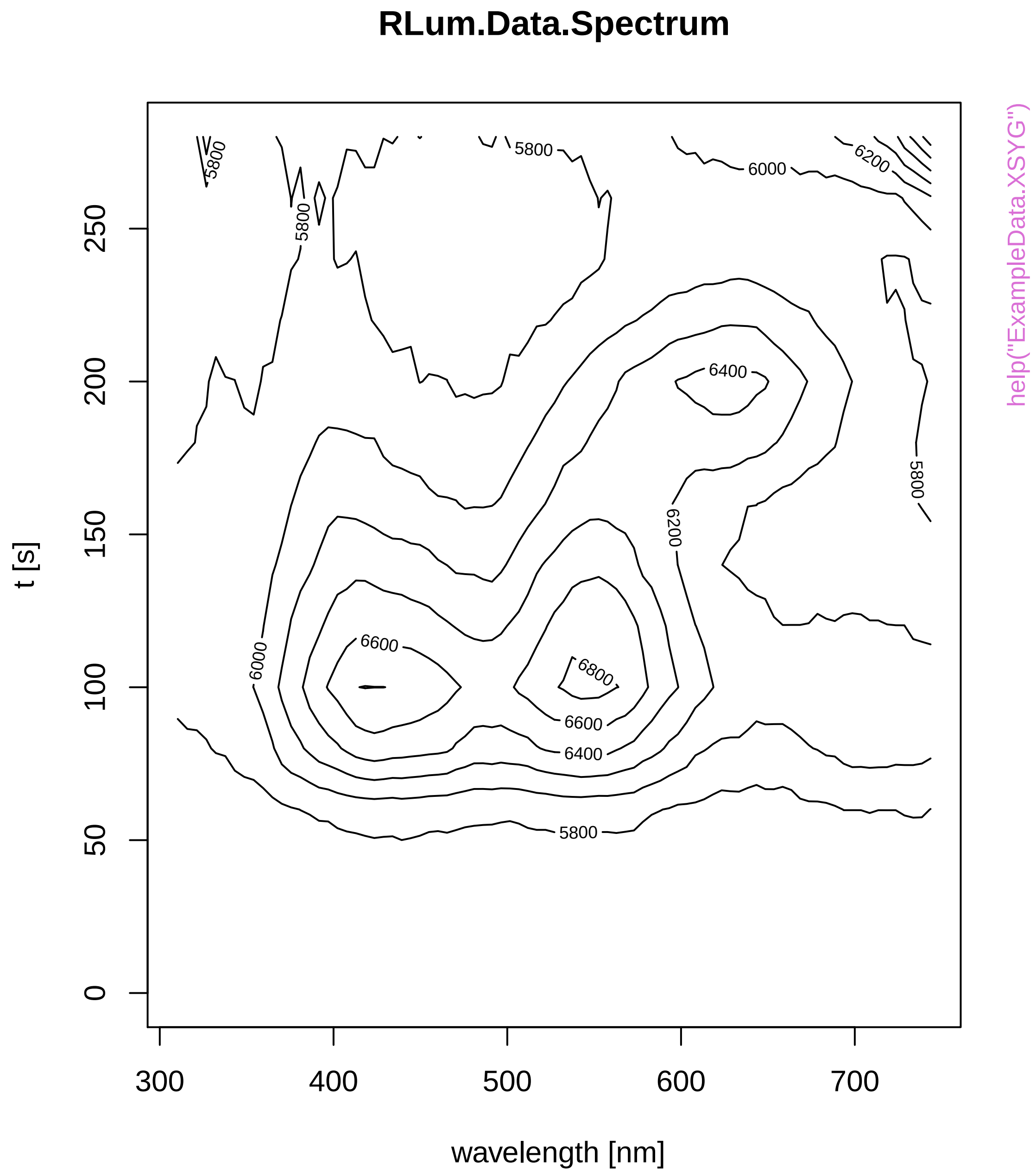


V2
4000
3000
2000
1000
0
5
10
15
20
V1
help("ExampleData.LxTxOSLData")

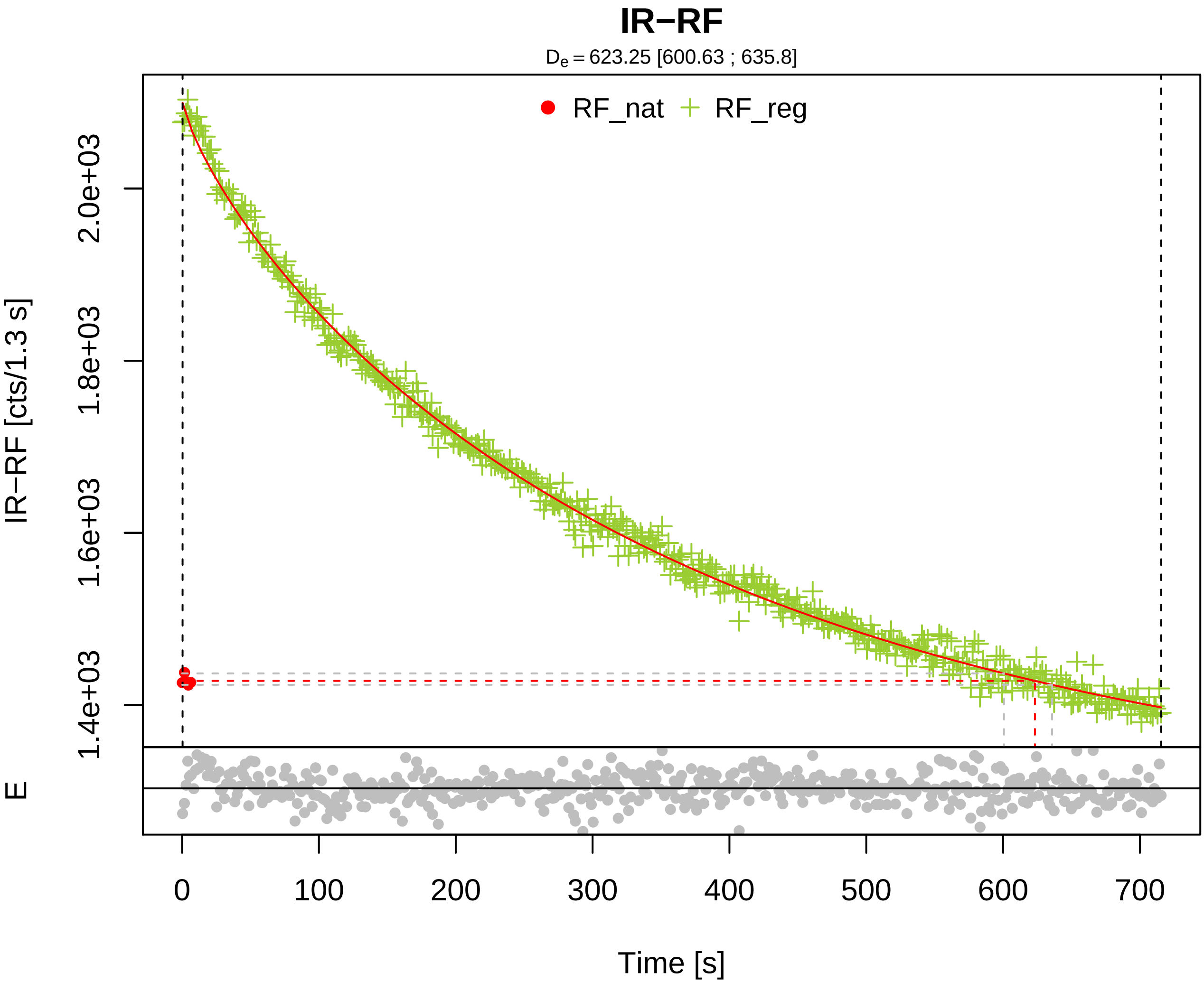

RF
#1
RF [cts/1.26 s]
1425
1430
1435
0
1
2
3
4
5
6
Stimulation time [s]
RF
#2
RF [cts/1.37 s]
1400
1600
1800
2000
0
200
400
600
Stimulation time [s]
help("ExampleData.RLum.Analysis")


RLum.Data.Image
Height [px]
Length [px]
800
600
400
200
0
−200
−400
−600
0
200
400
600
800
1000
1200
help("ExampleData.RLum.Data.Image")
20000
15000
10000
5000
help("ExampleData.RLum.Data.Image")

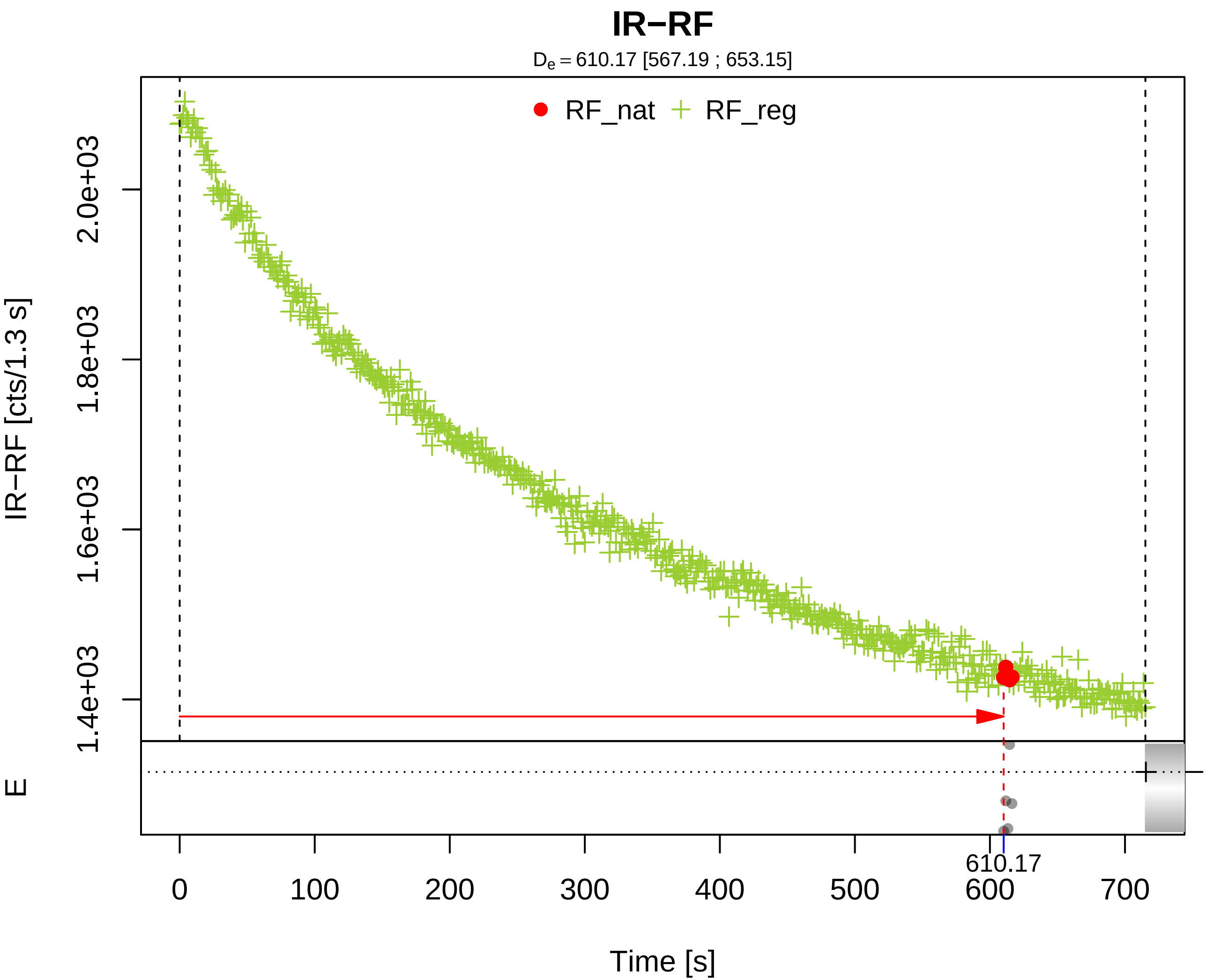

OSL (UVVIS)
cts [1/ch]
0
200
400
600
800
0
10
20
30
40
50
t [s]
(resolution: 0.1 s)
help("ExampleData.XSYG")



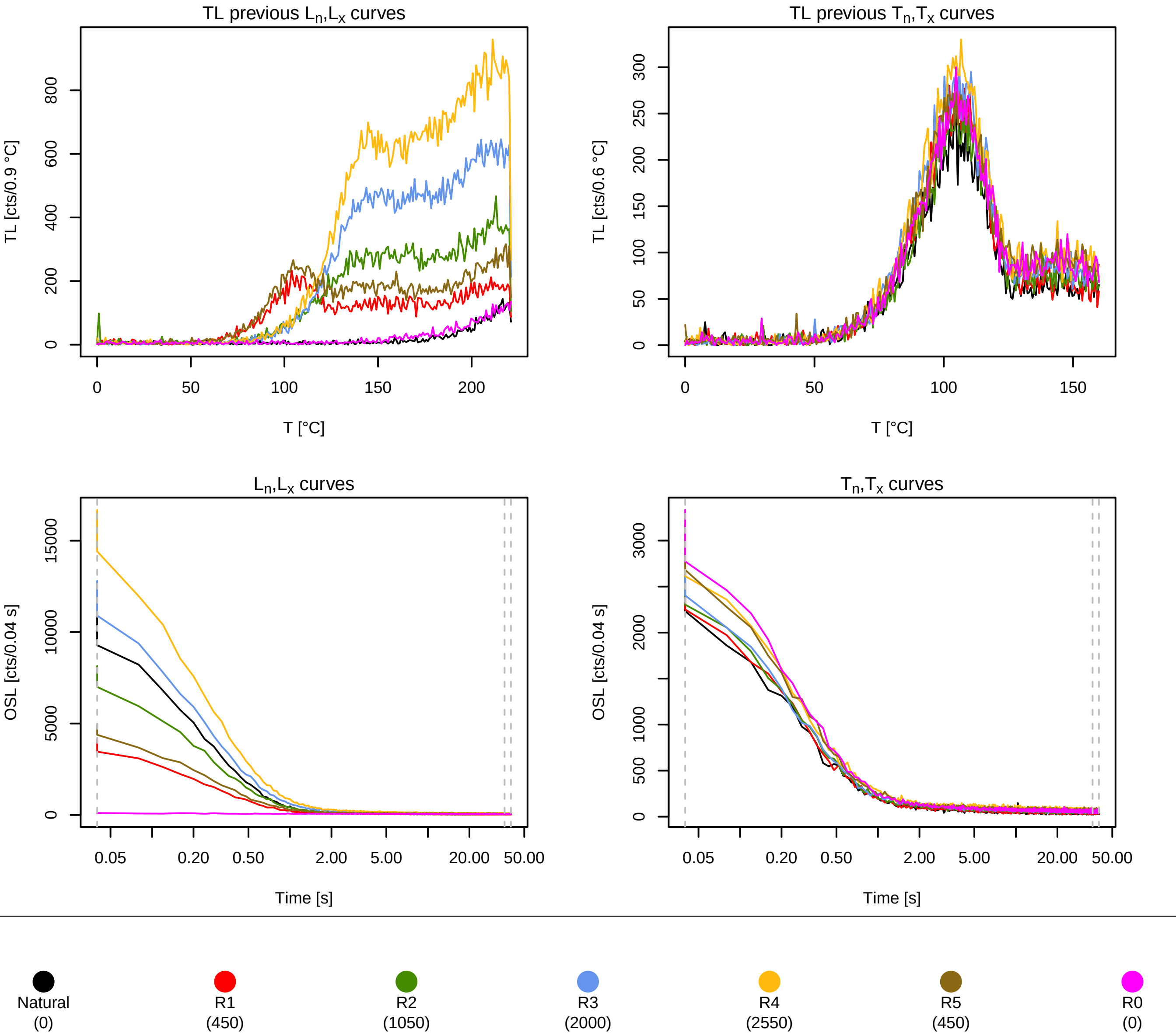
RLum.Data.Spectrum
t [s]
wavelength [nm]
0
50
100
150
200
250
300
400
500
600
700
5800
6000
6200
6400
6600
6800
help("ExampleData.XSYG")

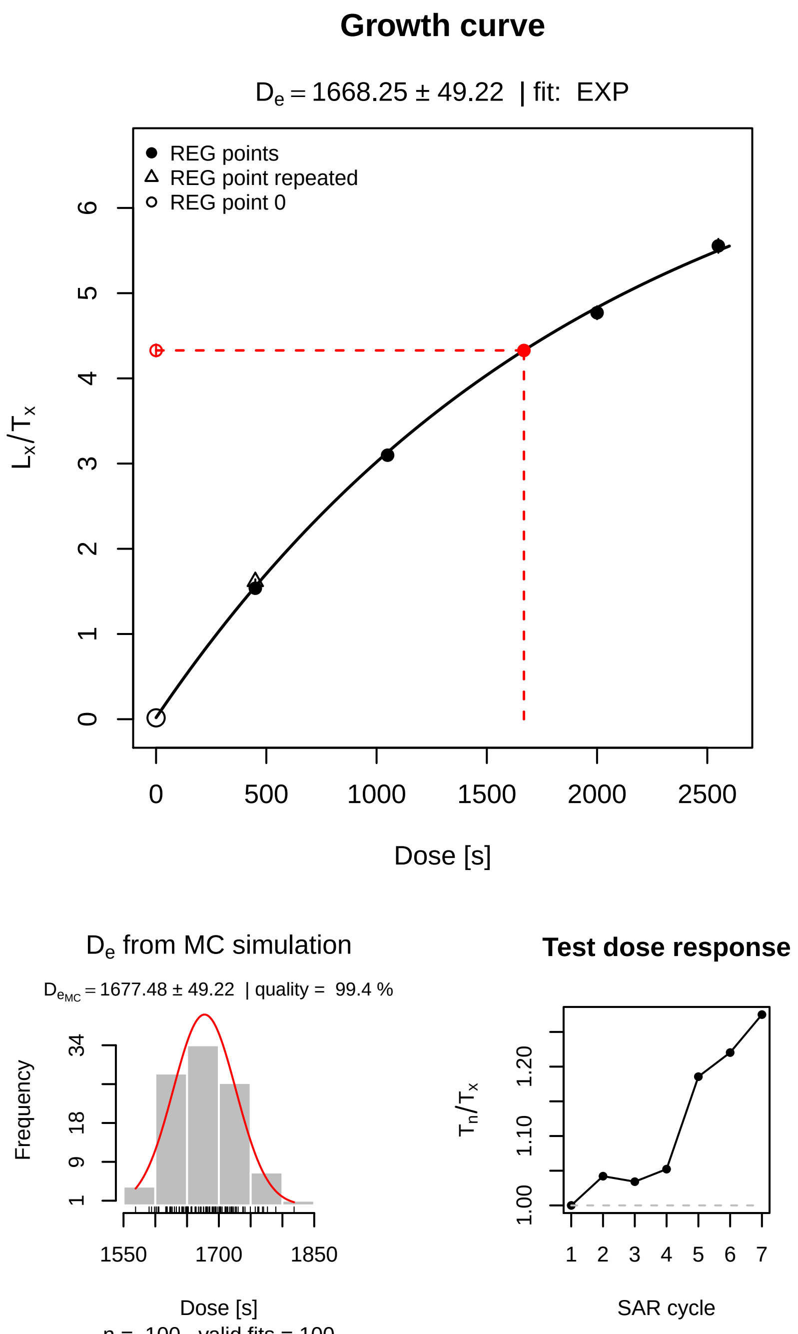


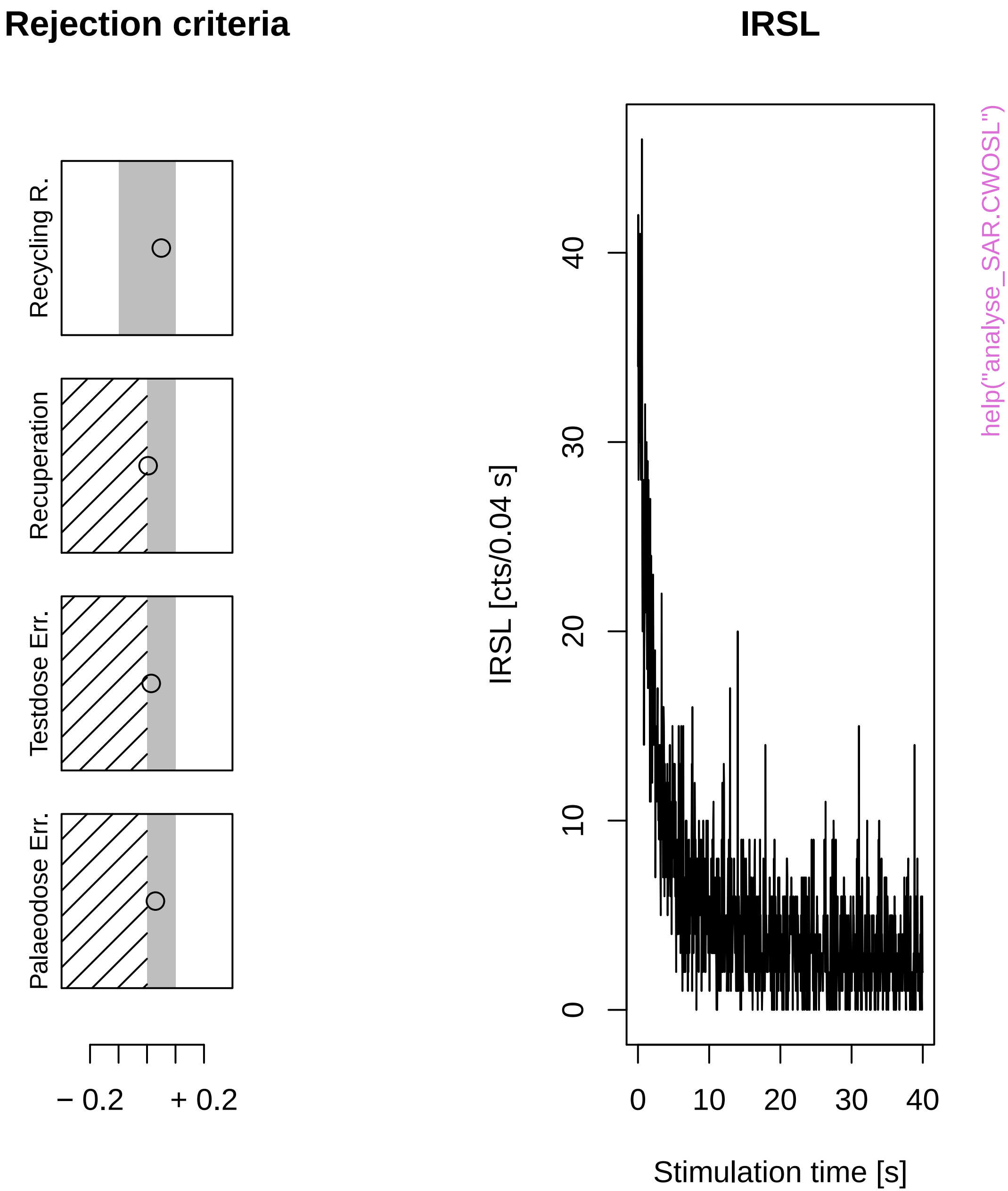
IR−RF
$D_e = 623.25$ [600.63 ; 635.8]
RF_nat
RF_reg
IR−RF [cts/1.3 s]
2.0e+03
1.8e+03
1.6e+03
1.4e+03
E
0
100
200
300
400
500
600
700
Time [s]



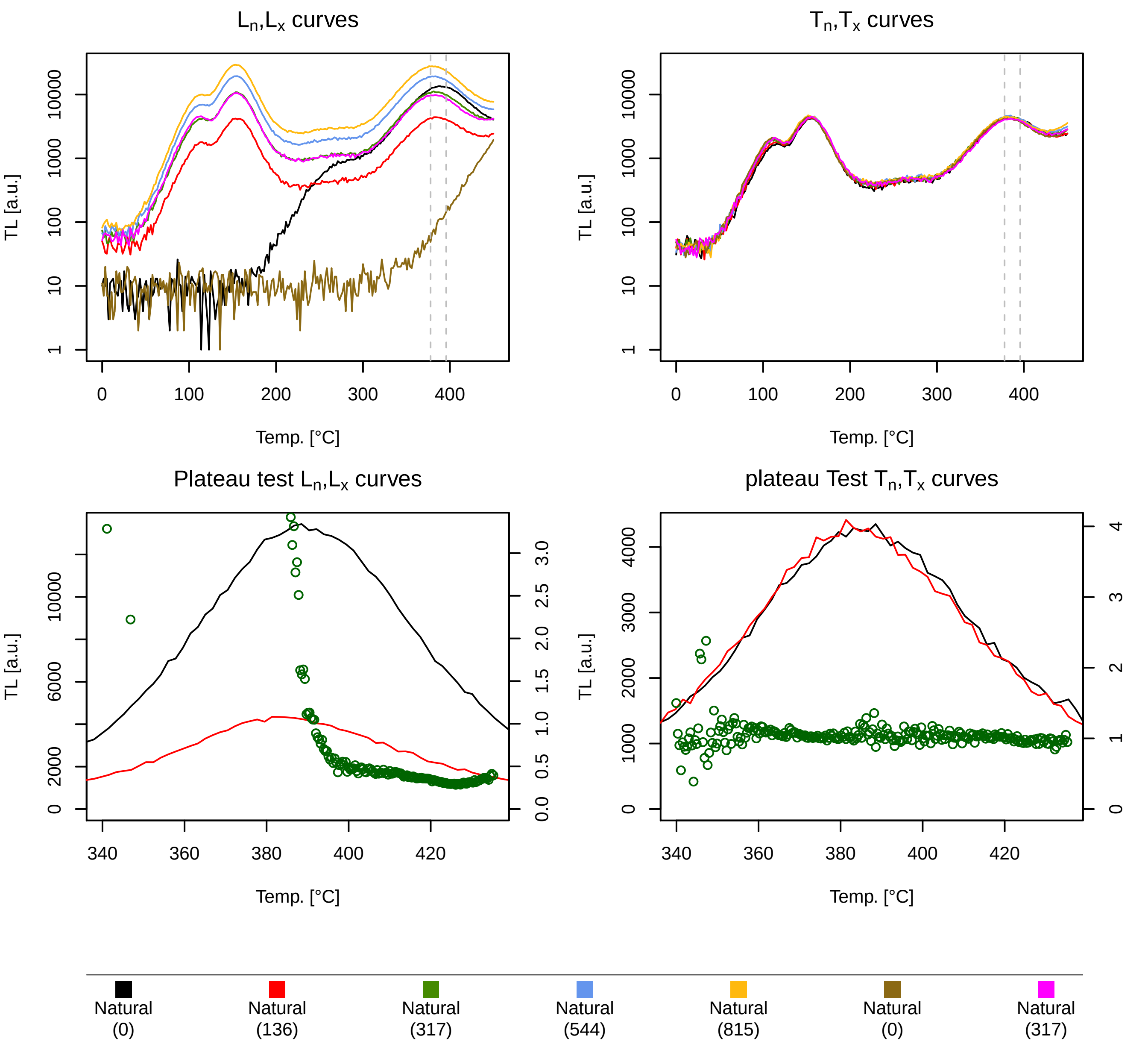
IR−RF
De = 610.17 [567.19 ; 653.15]
RF_nat
RF_reg
IR−RF [cts/1.3 s]
2.0e+03
1.8e+03
1.6e+03
1.4e+03
E
610.17
0
100
200
300
400
500
600
700
Time [s]


TL previous L_n,L_x curves
TL [cts/0.9 °C]
T [°C]
TL previous T_n,T_x curves
TL [cts/0.6 °C]
T [°C]
L_n,L_x curves
OSL [cts/0.04 s]
Time [s]
T_n,T_x curves
OSL [cts/0.04 s]
Time [s]
Natural (0)
R1 (450)
R2 (1050)
R3 (2000)
R4 (2550)
R5 (450)
R0 (0)

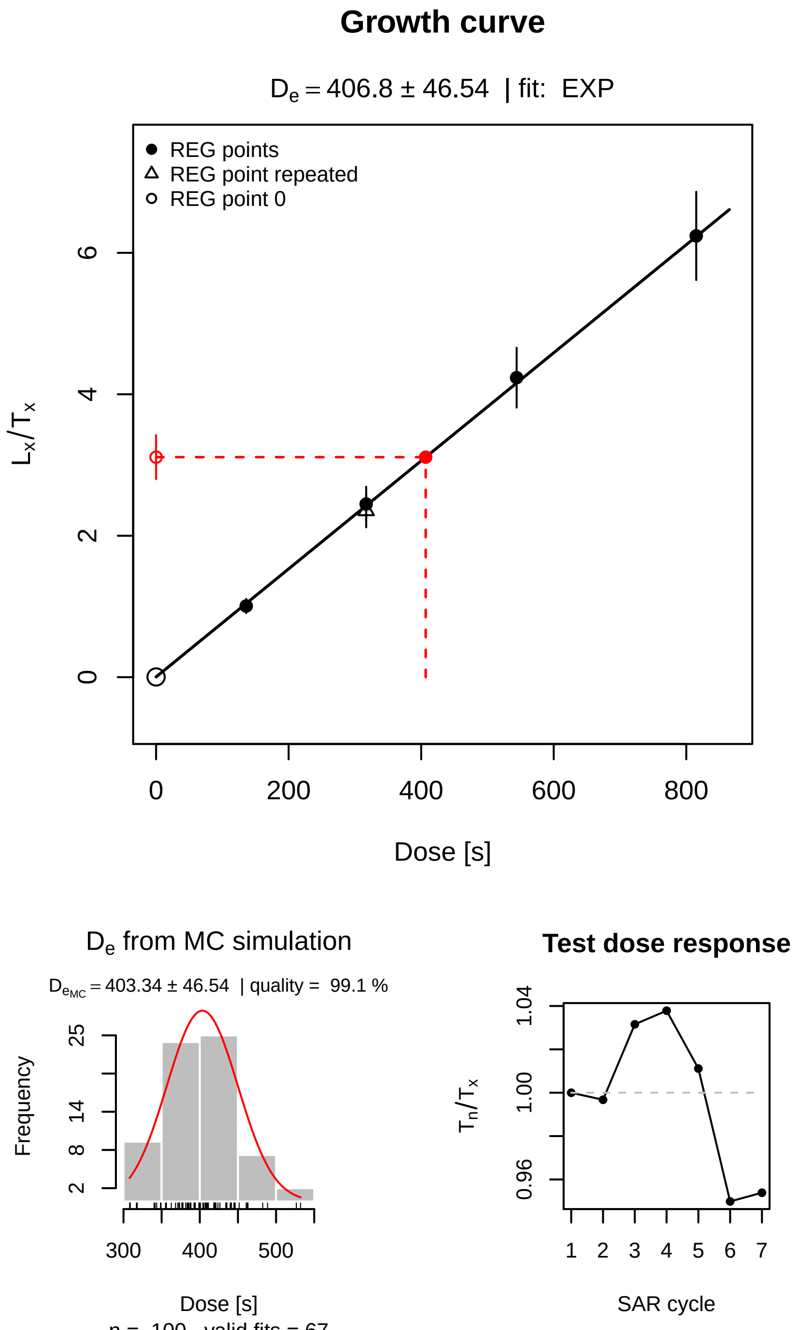

Growth curve
$D_e = 1668.25 \pm 49.22$ | fit: EXP
REG points
REG point repeated
REG point 0
L_x/T_x
0
1
2
3
4
5
6
0
500
1000
1500
2000
2500
Dose [s]
D_e from MC simulation
$D_{e_{MC}} = 1677.48 \pm 49.22$ | quality = 99.4 %
Frequency
1
9
18
34
1550
1700
1850
Dose [s]
Test dose response
T_n/T_x
1.00
1.10
1.20
1
2
3
4
5
6
7
SAR cycle



Rejection criteria
Recycling R.
Recuperation
Testdose Err.
Palaeodose Err.
− 0.2
+ 0.2
IRSL
IRSL [cts/0.04 s]
0
10
20
30
40
Stimulation time [s]
help("analyse_SAR.CWOSL")



L_n,L_x curves
T_n,T_x curves
Plateau test L_n,L_x curves
plateau Test T_n,T_x curves
TL [a.u.]
Temp. [°C]
Natural (0)
Natural (136)
Natural (317)
Natural (544)
Natural (815)
Natural (0)
Natural (317)

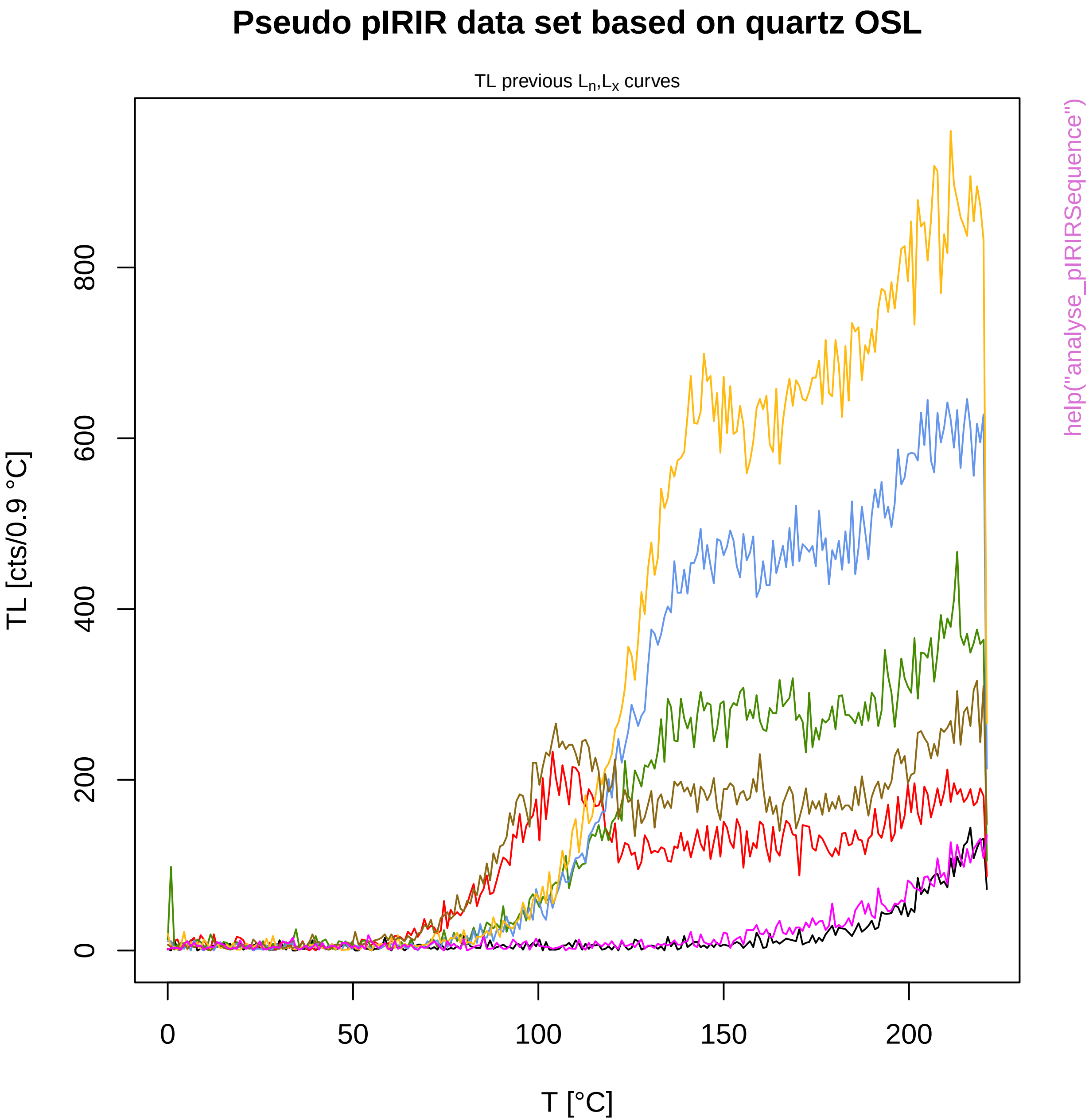


Growth curve
De = 406.8 ± 46.54 | fit: EXP
REG points
REG point repeated
REG point 0
Lx/Tx
0
2
4
6
0
200
400
600
800
Dose [s]
De from MC simulation
DeMC = 403.34 ± 46.54 | quality = 99.1 %
Frequency
2
8
14
25
300
400
500
Dose [s]
Test dose response
Tn/Tx
0.96
1.00
1.04
1
2
3
4
5
6
7
SAR cycle

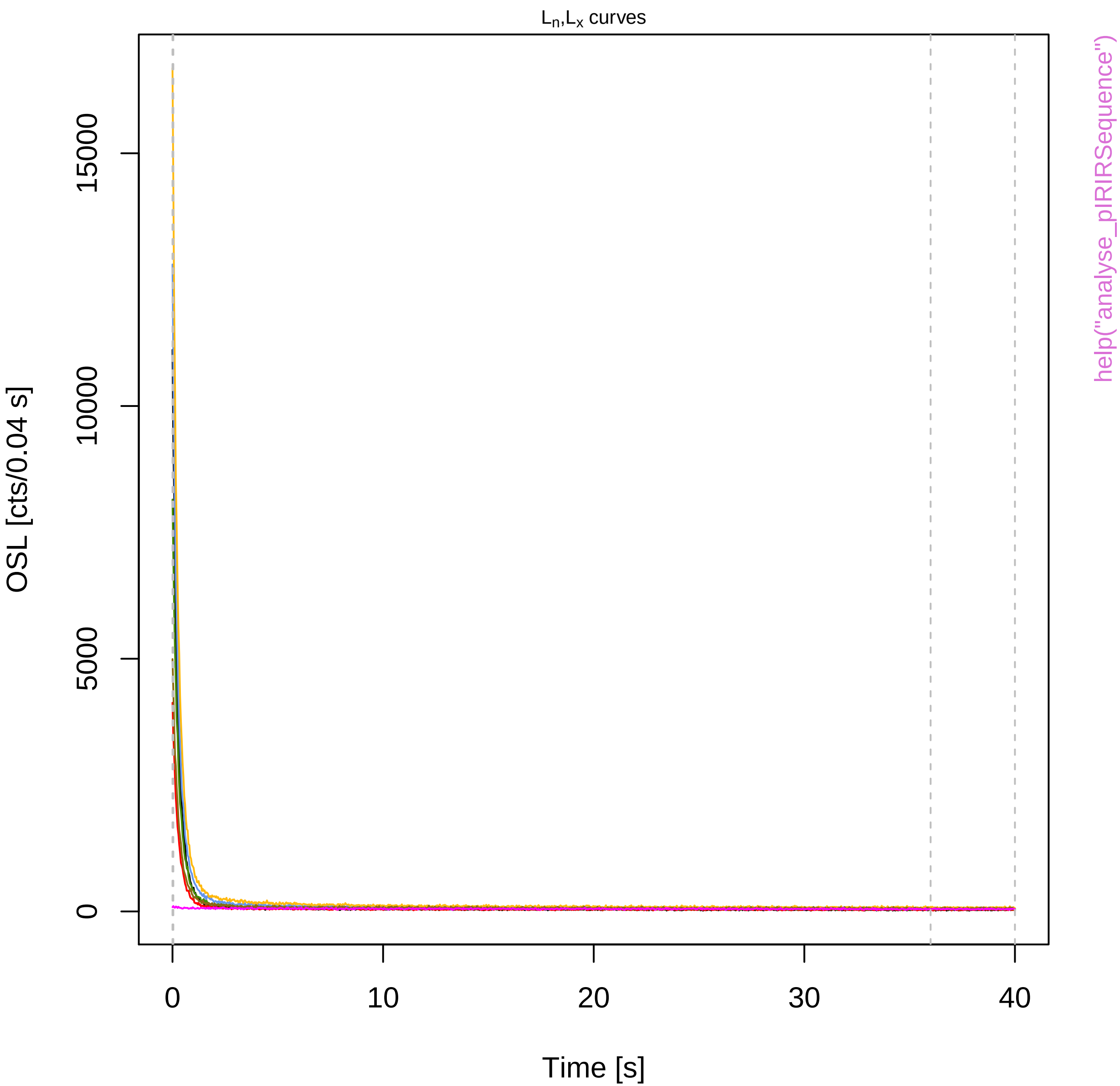
Pseudo pIRIR data set based on quartz OSL

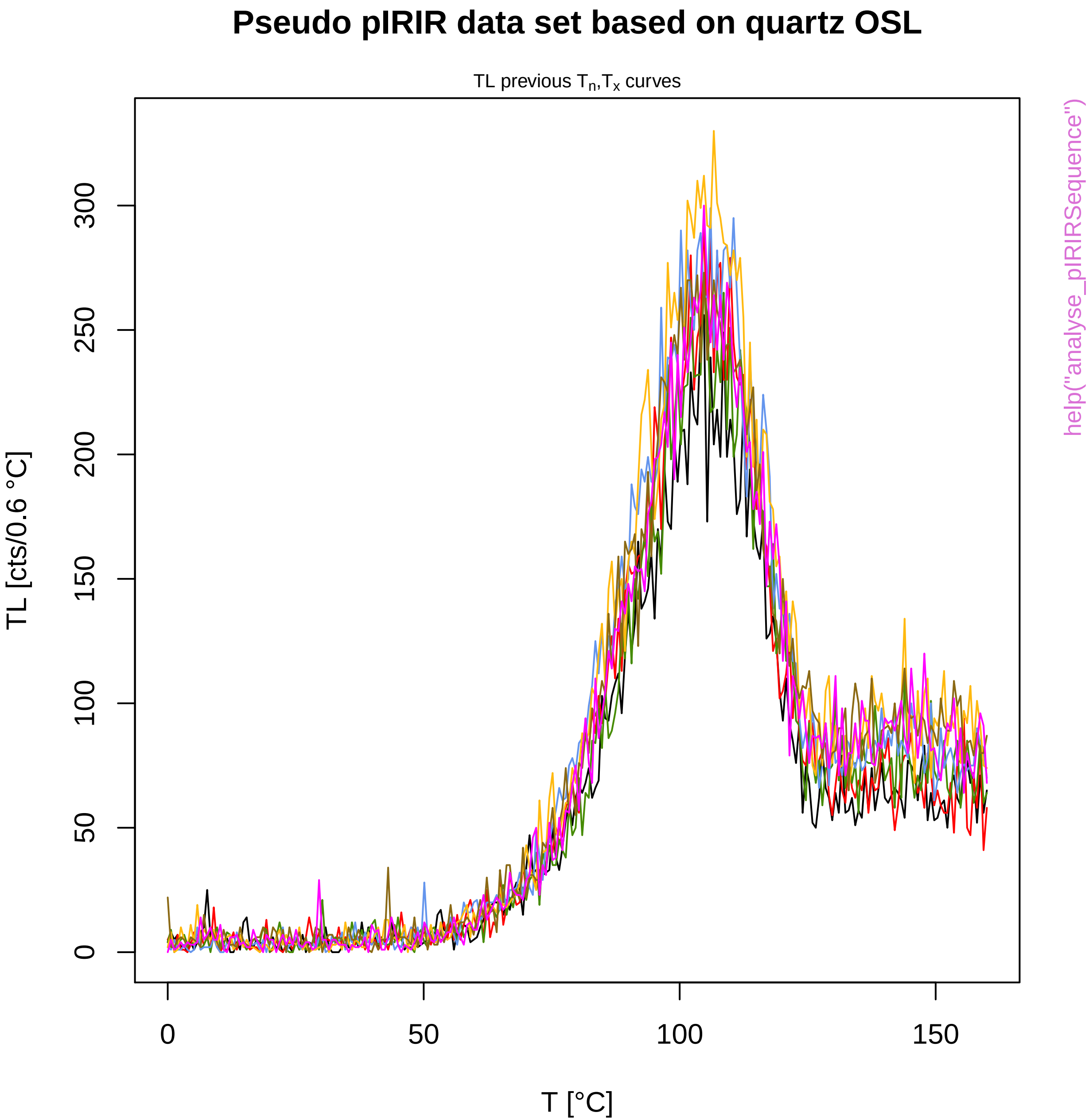
help("analyse_pIRIRSequence")

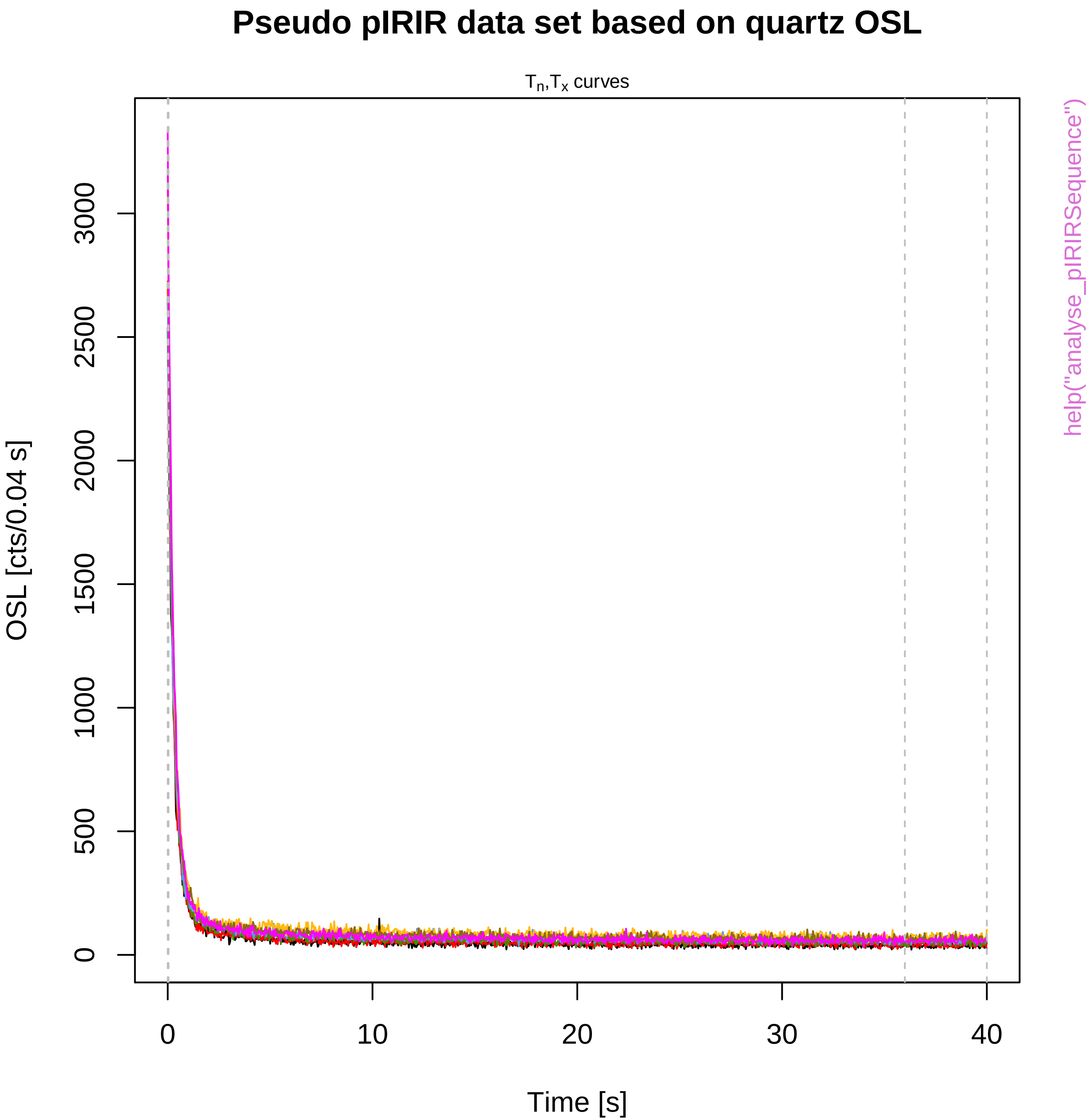
TL
pseudoIRSL1
pseudoIRSL2


Pseudo pIRIR data set based on quartz OSL
TL previous L_n,L_x curves
TL [cts/0.9 °C]
T [°C]
0
200
400
600
800
0
50
100
150
200
help("analyse_pIRIRSequence")

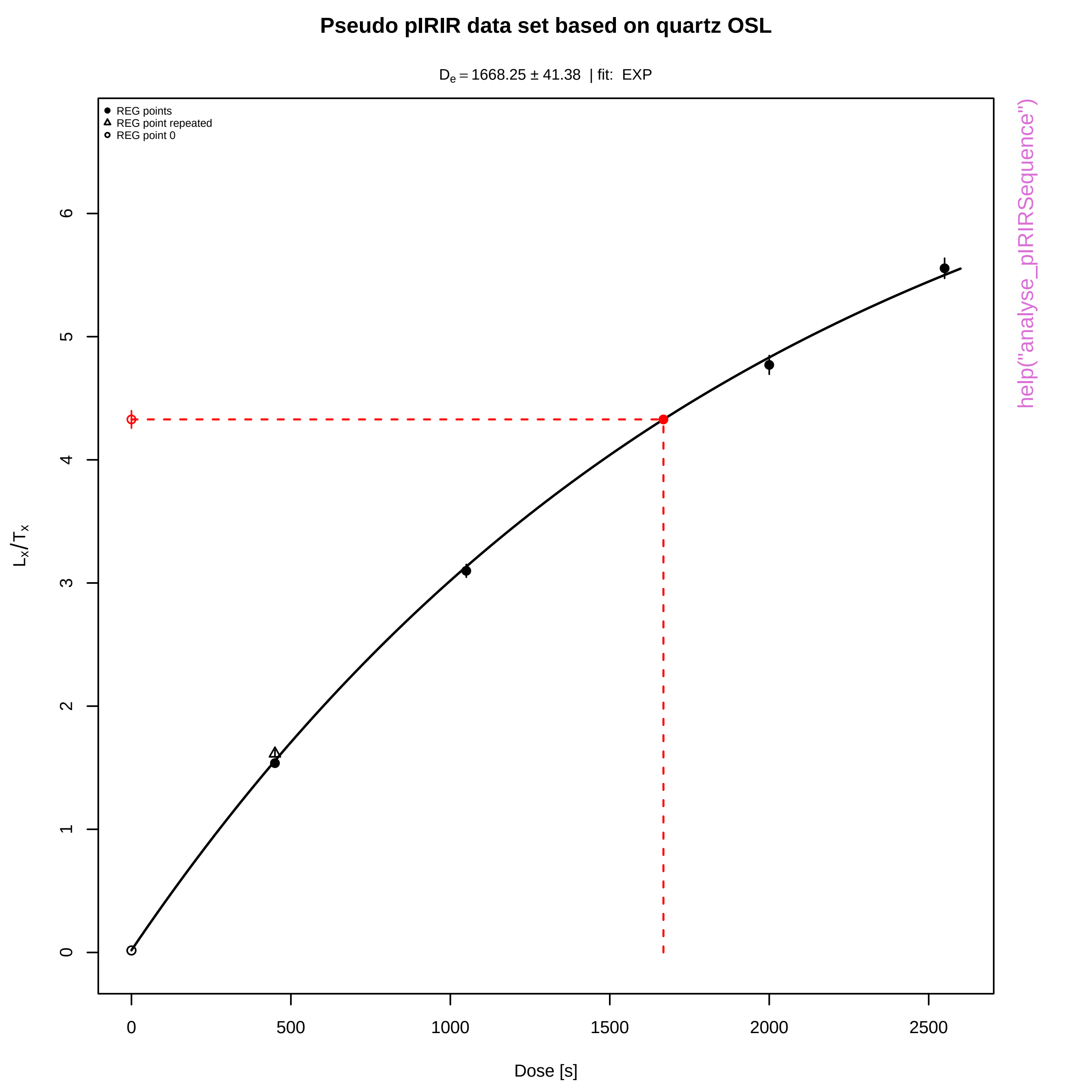
Pseudo pIRIR data set based on quartz OSL

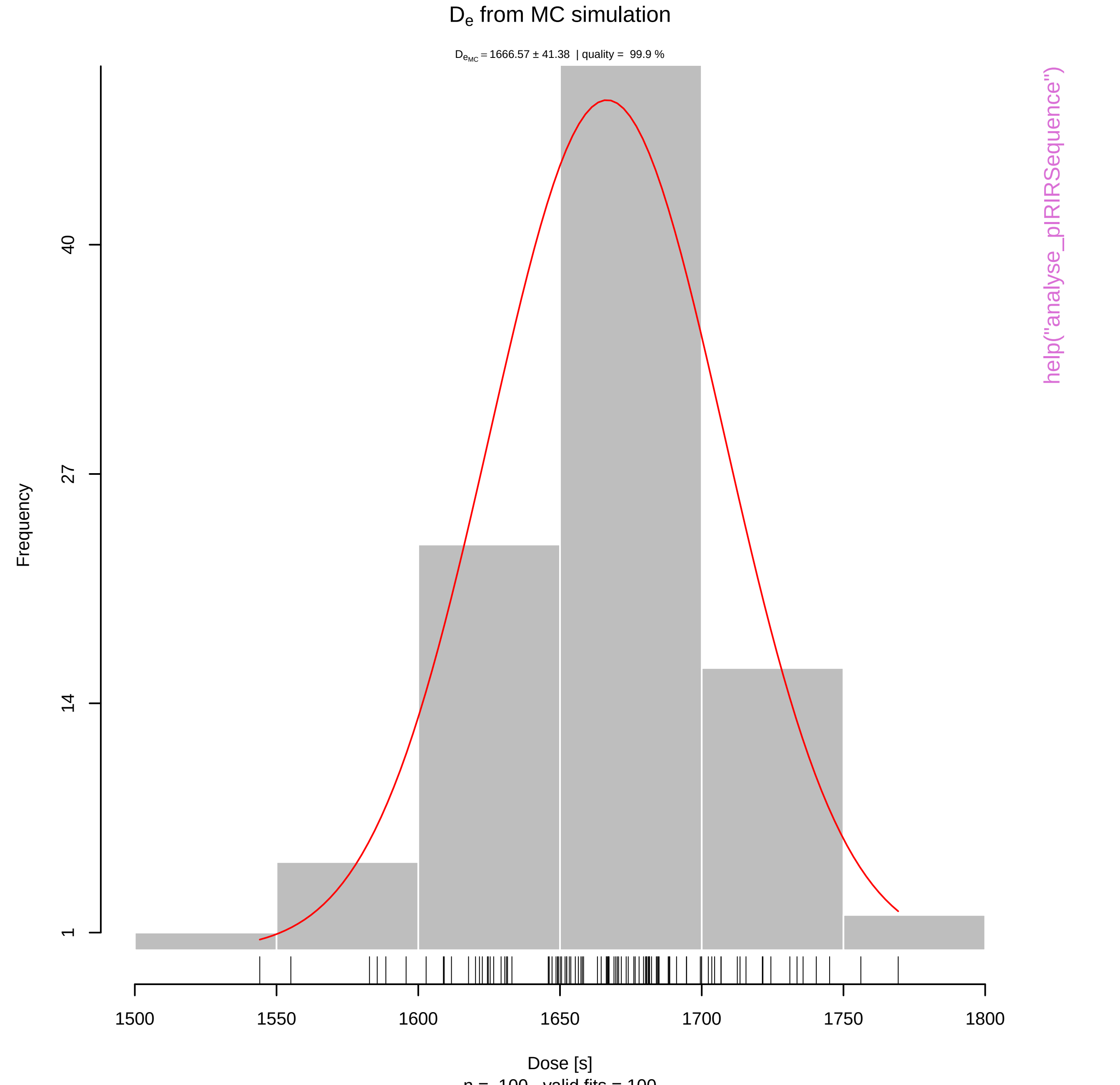



Pseudo pIRIR data set based on quartz OSL
TL previous T_n,T_x curves
TL [cts/0.6 °C]
T [°C]
0
50
100
150
200
250
300
0
50
100
150
help("analyse_pIRIRSequence")

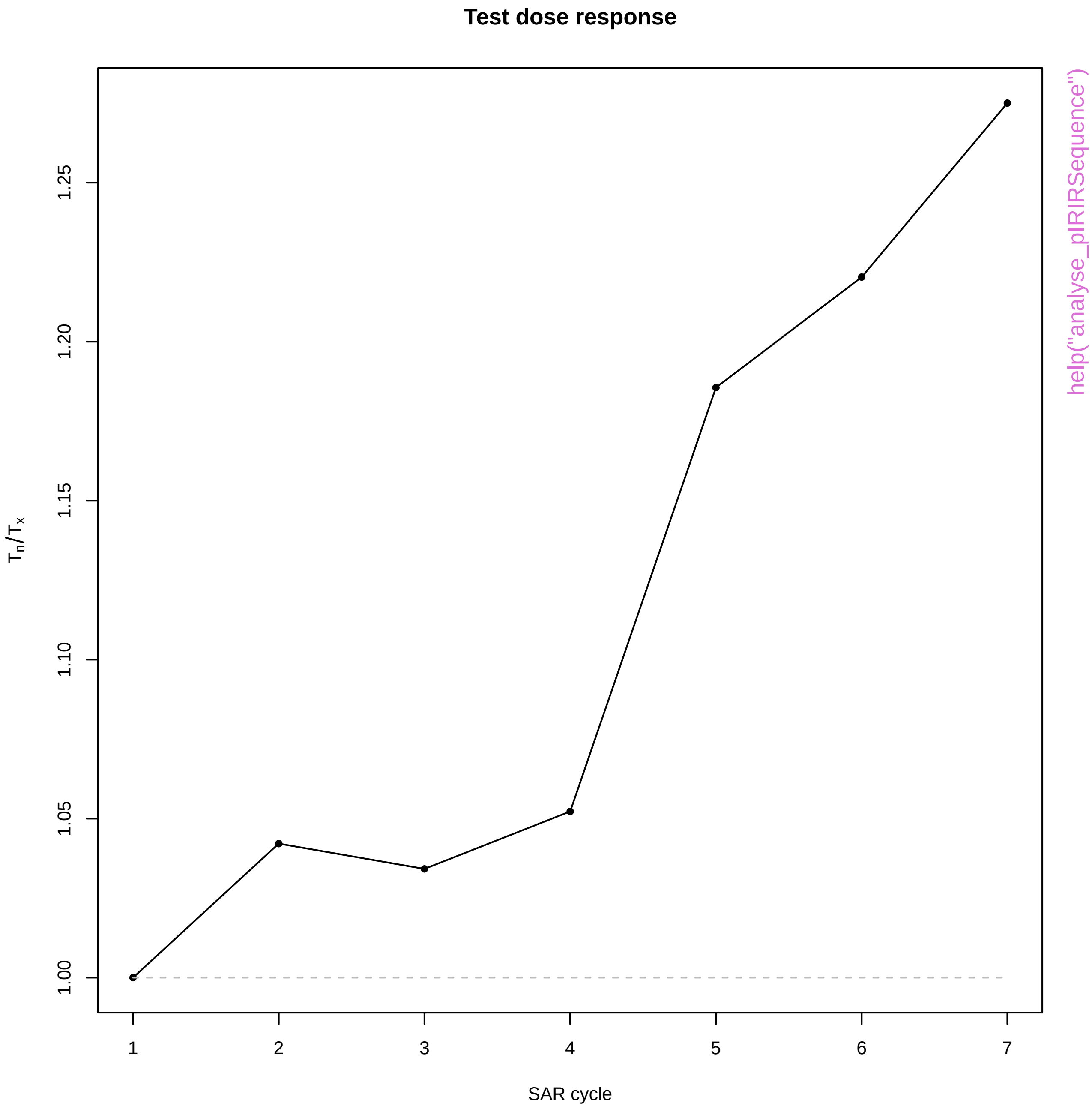


Pseudo pIRIR data set based on quartz OSL
T_n,T_x curves
OSL [cts/0.04 s]
0
500
1000
1500
2000
2500
3000
0
10
20
30
40
Time [s]
help("analyse_pIRIRSequence")

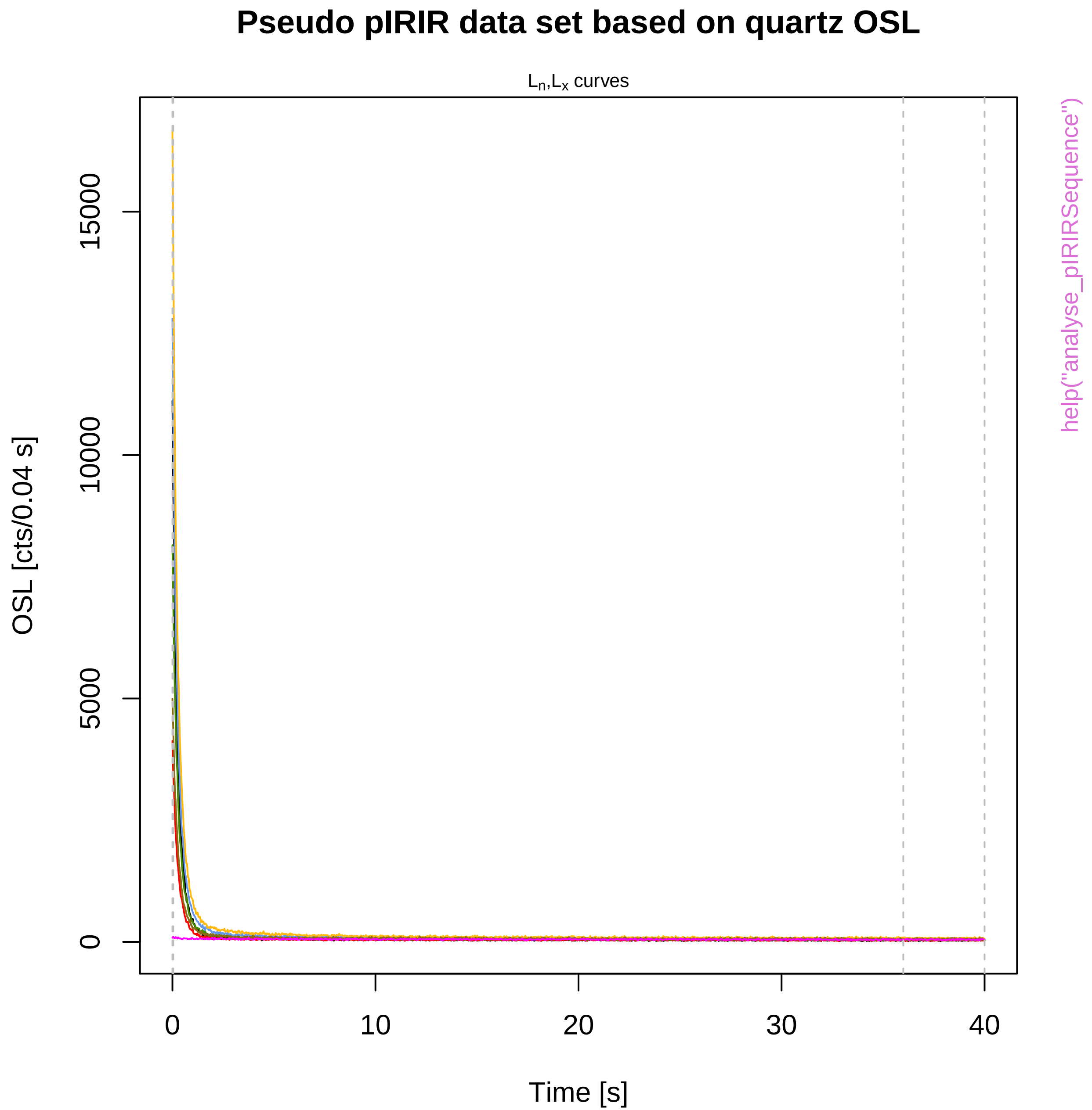

Pseudo pIRIR data set based on quartz OSL
De = 1668.25 ± 41.38 | fit: EXP
REG points
REG point repeated
REG point 0
help("analyse_pIRIRSequence")
Lx/Tx
Dose [s]
0
1
2
3
4
5
6
0
500
1000
1500
2000
2500



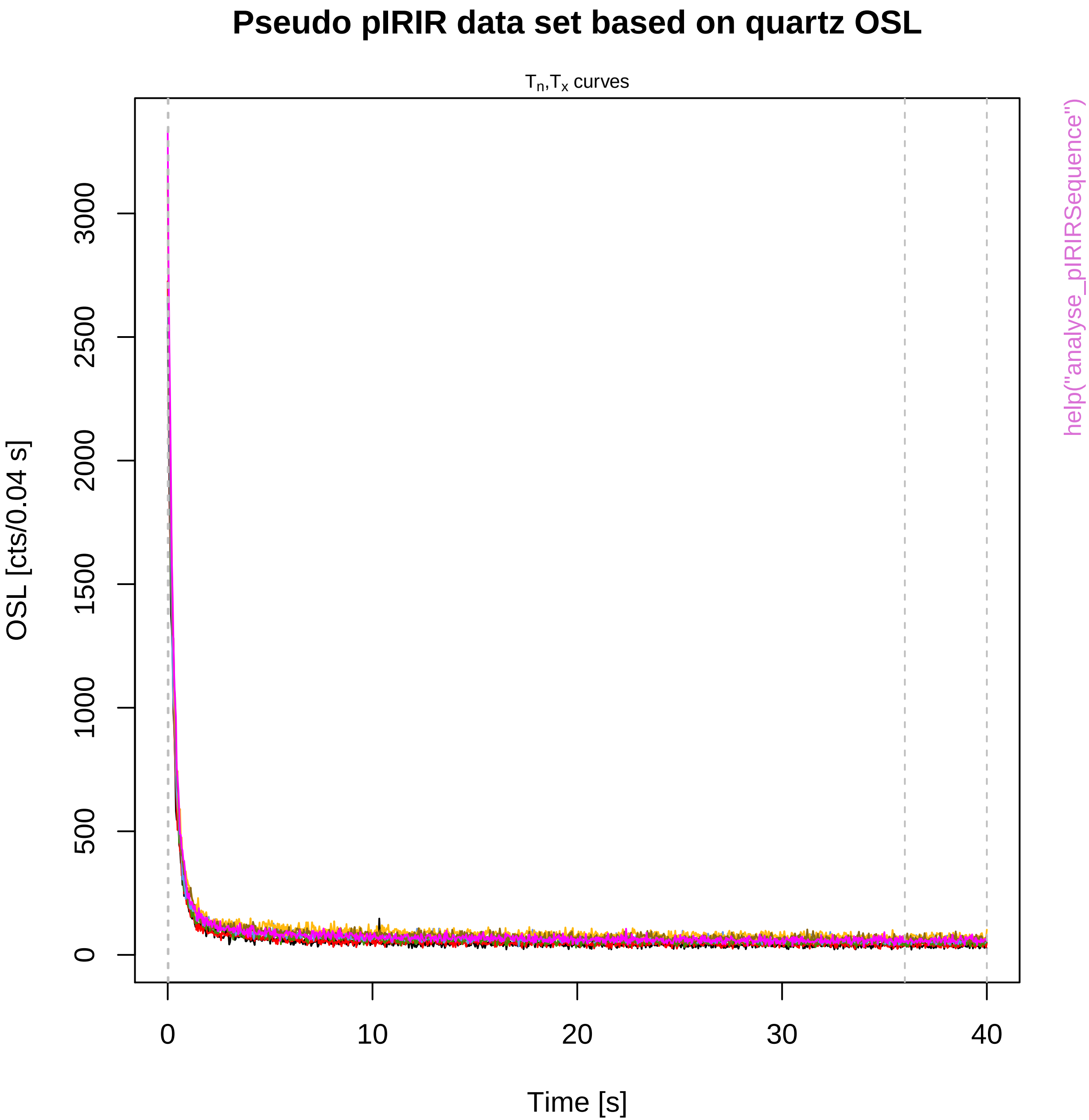
D_e from MC simulation
$D_{e_{MC}}$ = 1666.57 ± 41.38 | quality = 99.9 %
Frequency
40
27
14
1
1500
1550
1600
1650
1700
1750
1800
Dose [s]
n = 100 , valid fits = 100
help("analyse_pIRIRSequence")



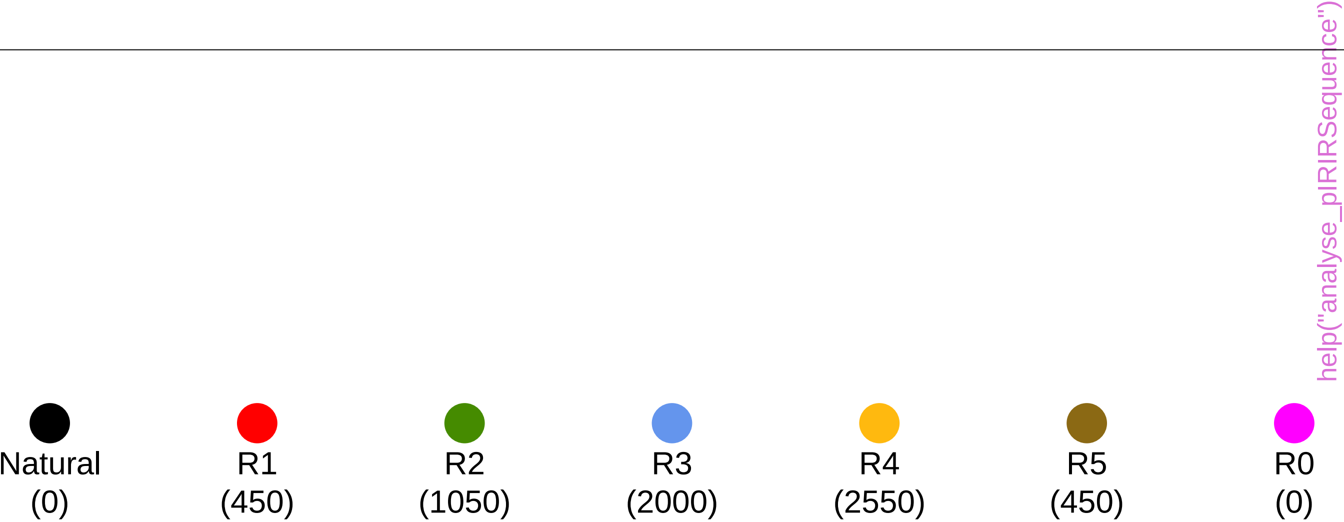
Test dose response
1.00
1.05
1.10
1.15
1.20
1.25
T_n/T_x
1
2
3
4
5
6
7
SAR cycle
help("analyse_pIRIRSequence")



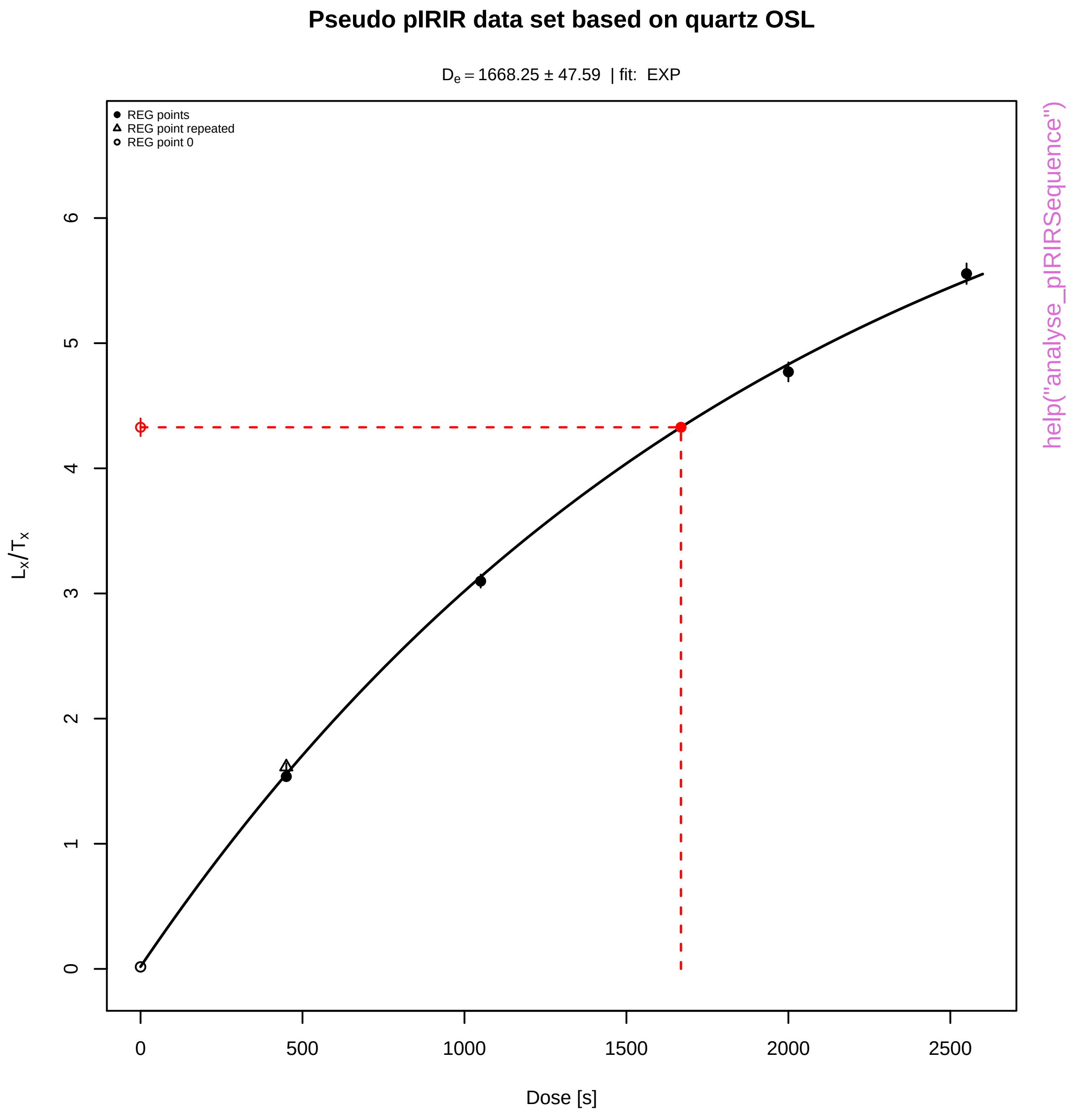
Pseudo pIRIR data set based on quartz OSL
L_n,L_x curves
OSL [cts/0.04 s]
0
5000
10000
15000
0
10
20
30
40
Time [s]
help("analyse_pIRIRSequence")



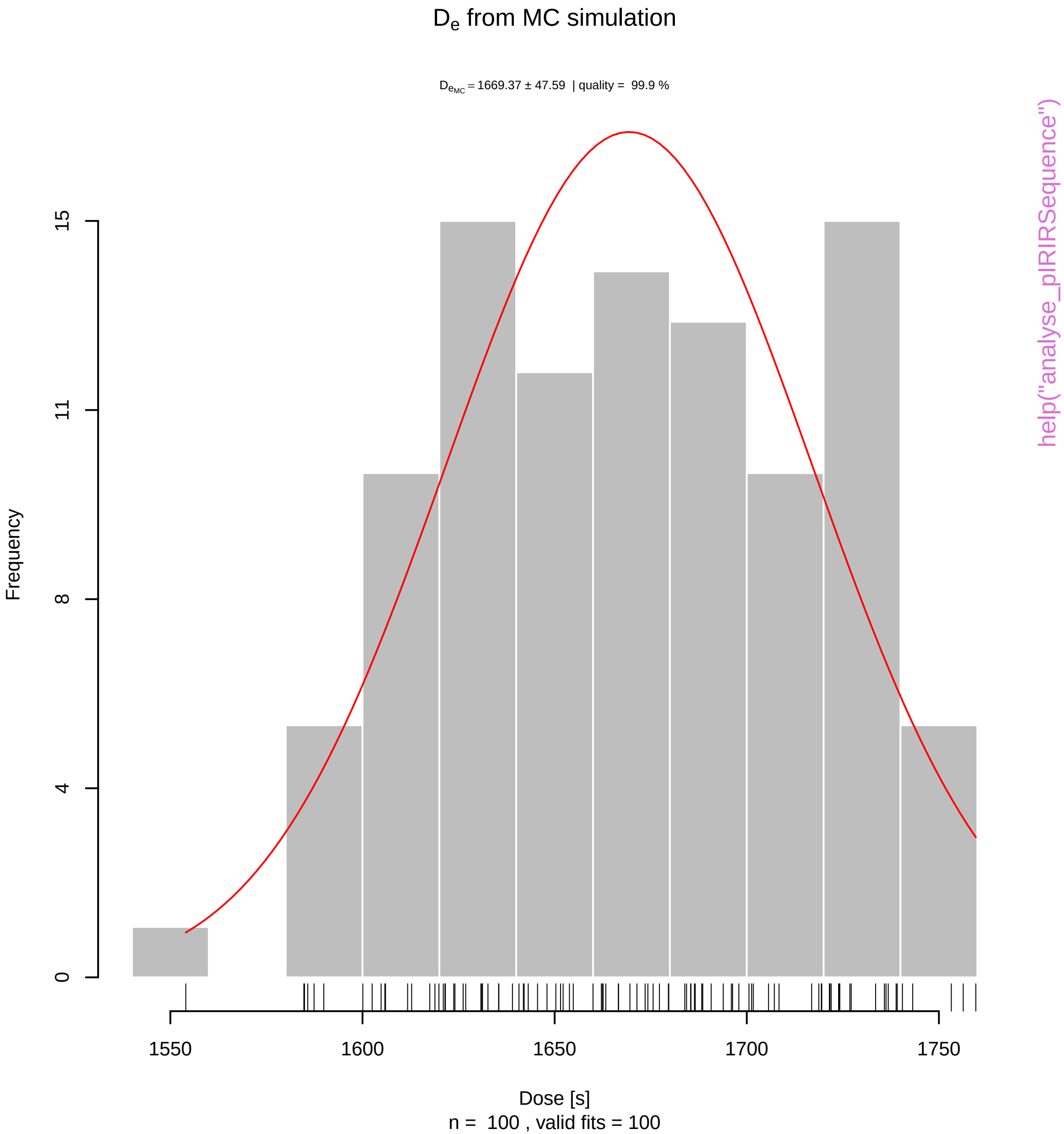
Pseudo pIRIR data set based on quartz OSL
T_n,T_x curves
OSL [cts/0.04 s]
0
500
1000
1500
2000
2500
3000
0
10
20
30
40
Time [s]
help("analyse_pIRIRSequence")



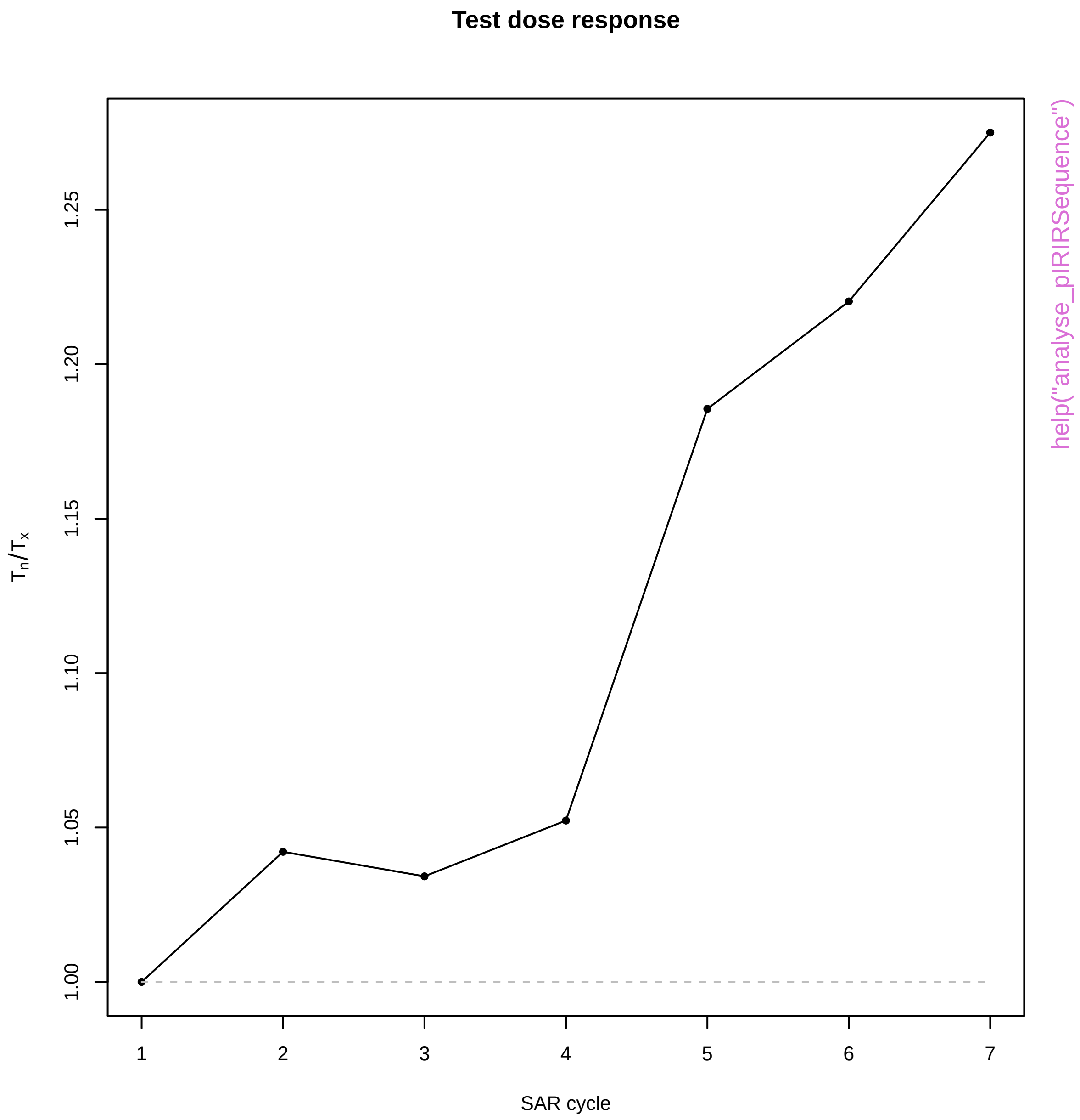
Natural
(0)
R1
(450)
R2
(1050)
R3
(2000)
R4
(2550)
R5
(450)
R0
(0)
help("analyse_pIRIRSequence")



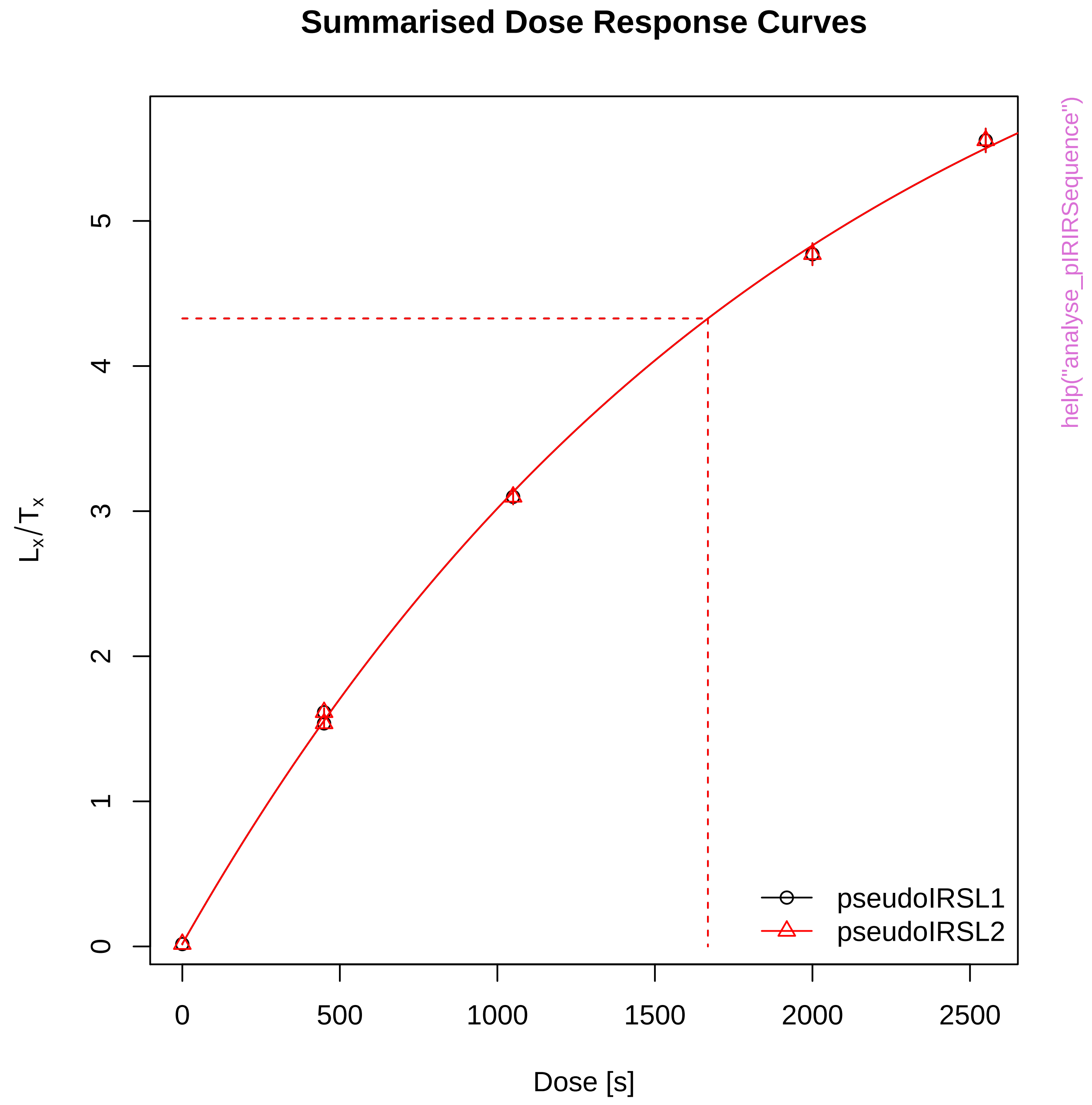
Pseudo pIRIR data set based on quartz OSL
D_e = 1668.25 ± 47.59 | fit: EXP
REG points
REG point repeated
REG point 0
L_x/T_x
Dose [s]
0
1
2
3
4
5
6
0
500
1000
1500
2000
2500
help("analyse_pIRIRSequence")



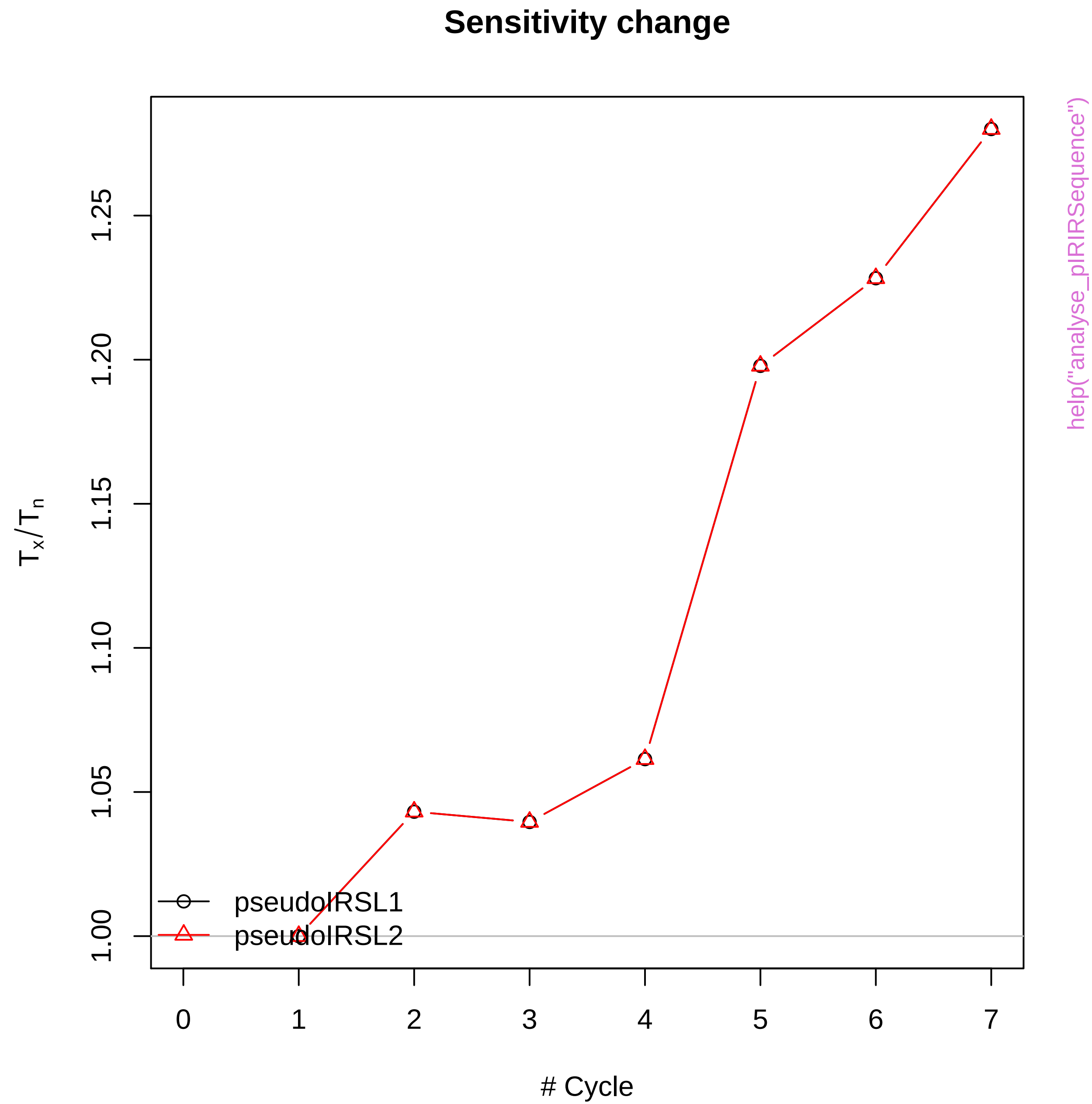
D_e from MC simulation
$D_{e_{MC}}$ = 1669.37 ± 47.59 | quality = 99.9 %
help("analyse_pIRIRSequence")
Frequency
0
4
8
11
15
1550
1600
1650
1700
1750
Dose [s]
n = 100 , valid fits = 100



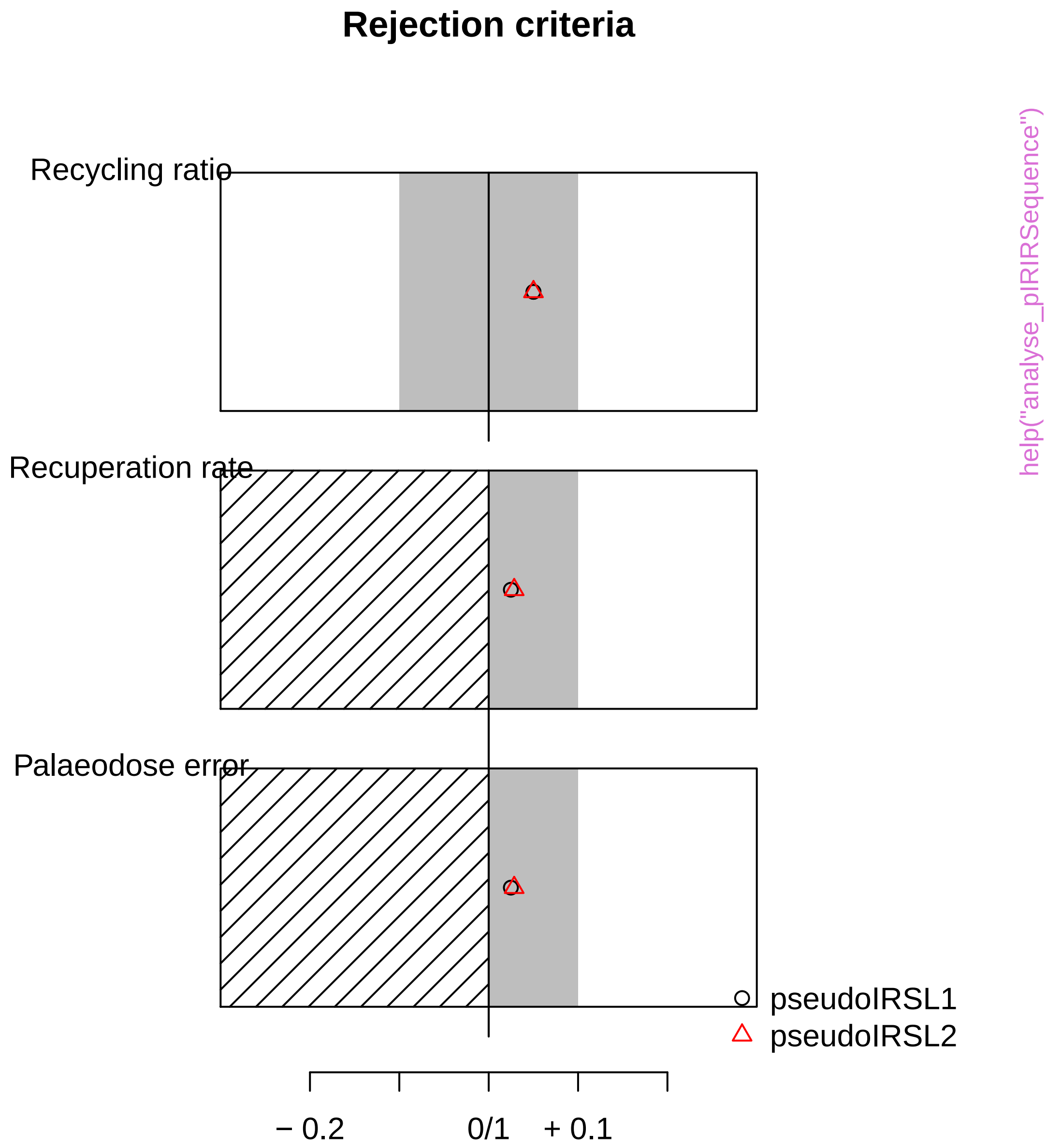
Test dose response
help("analyse_pIRIRSequence")
1.00
1.05
1.10
1.15
1.20
1.25
T_n/T_x
1
2
3
4
5
6
7
SAR cycle



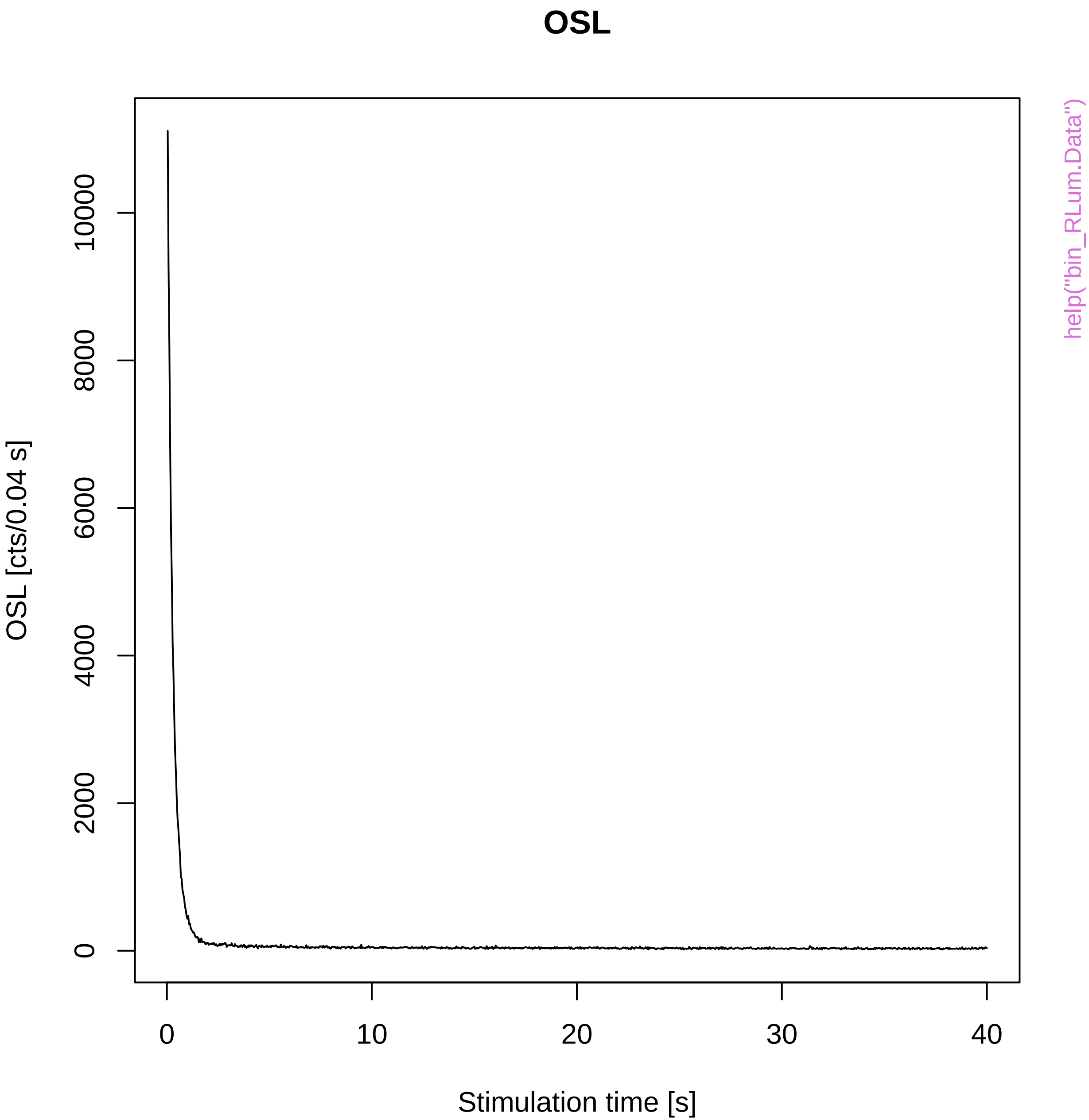
Summarised Dose Response Curves
L_x/T_x
Dose [s]
0
500
1000
1500
2000
2500
0
1
2
3
4
5
pseudoIRSL1
pseudoIRSL2
help("analyse_pIRIRSequence")

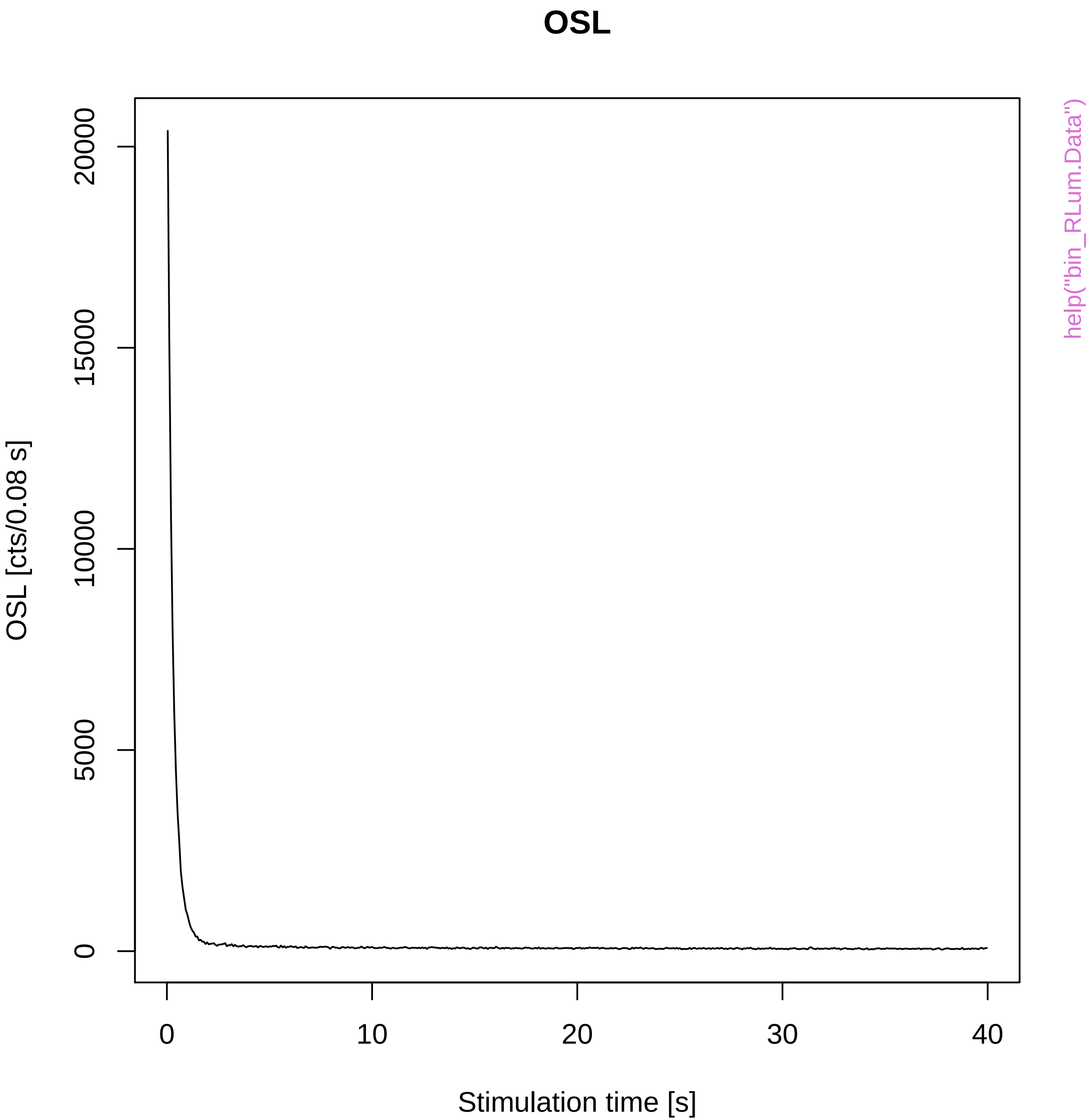


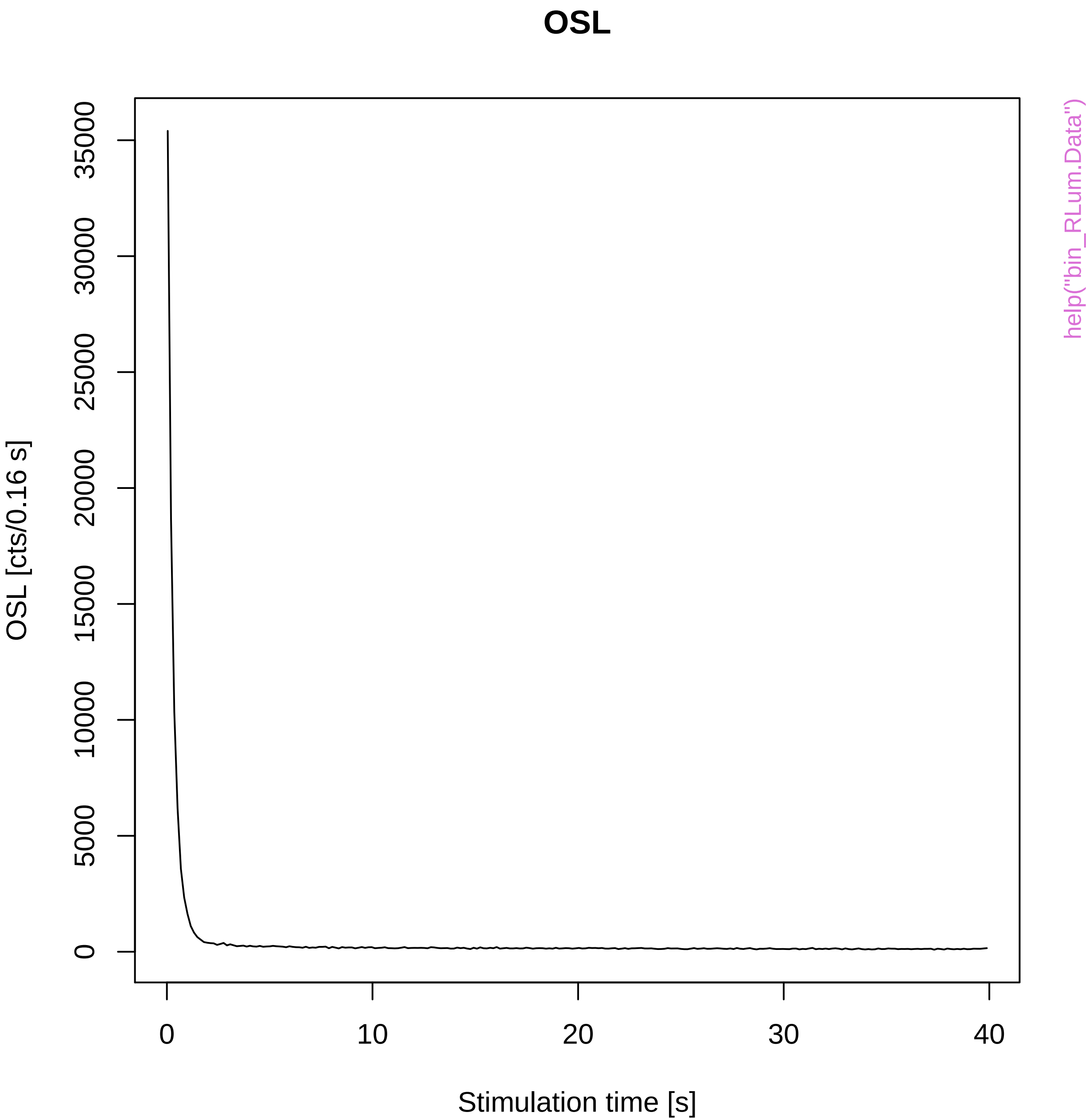
Sensitivity change
T_x/T_n
1.00
1.05
1.10
1.15
1.20
1.25
0
1
2
3
4
5
6
7
Cycle
pseudoIRSL1
pseudoIRSL2
help("analyse_pIRIRSequence")

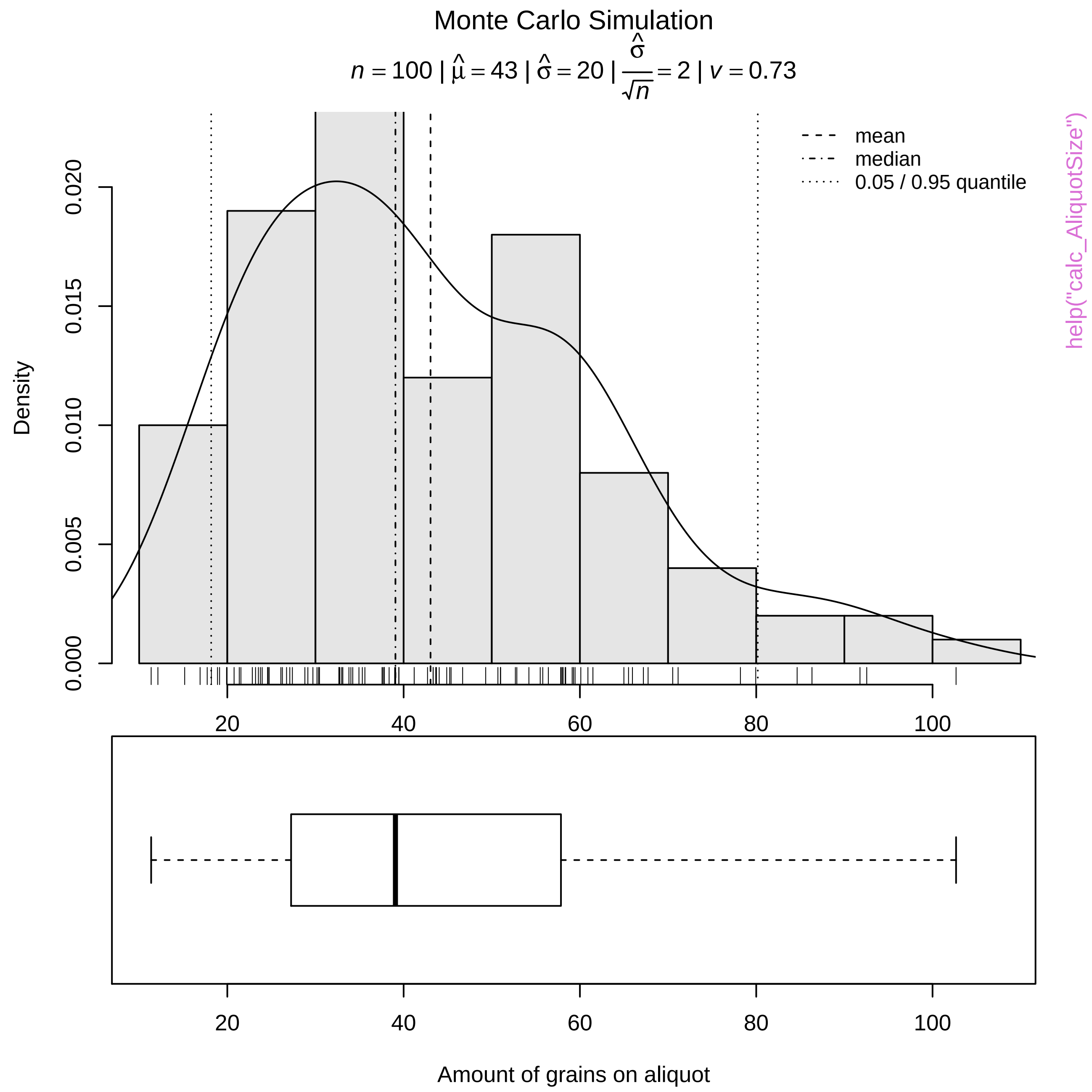


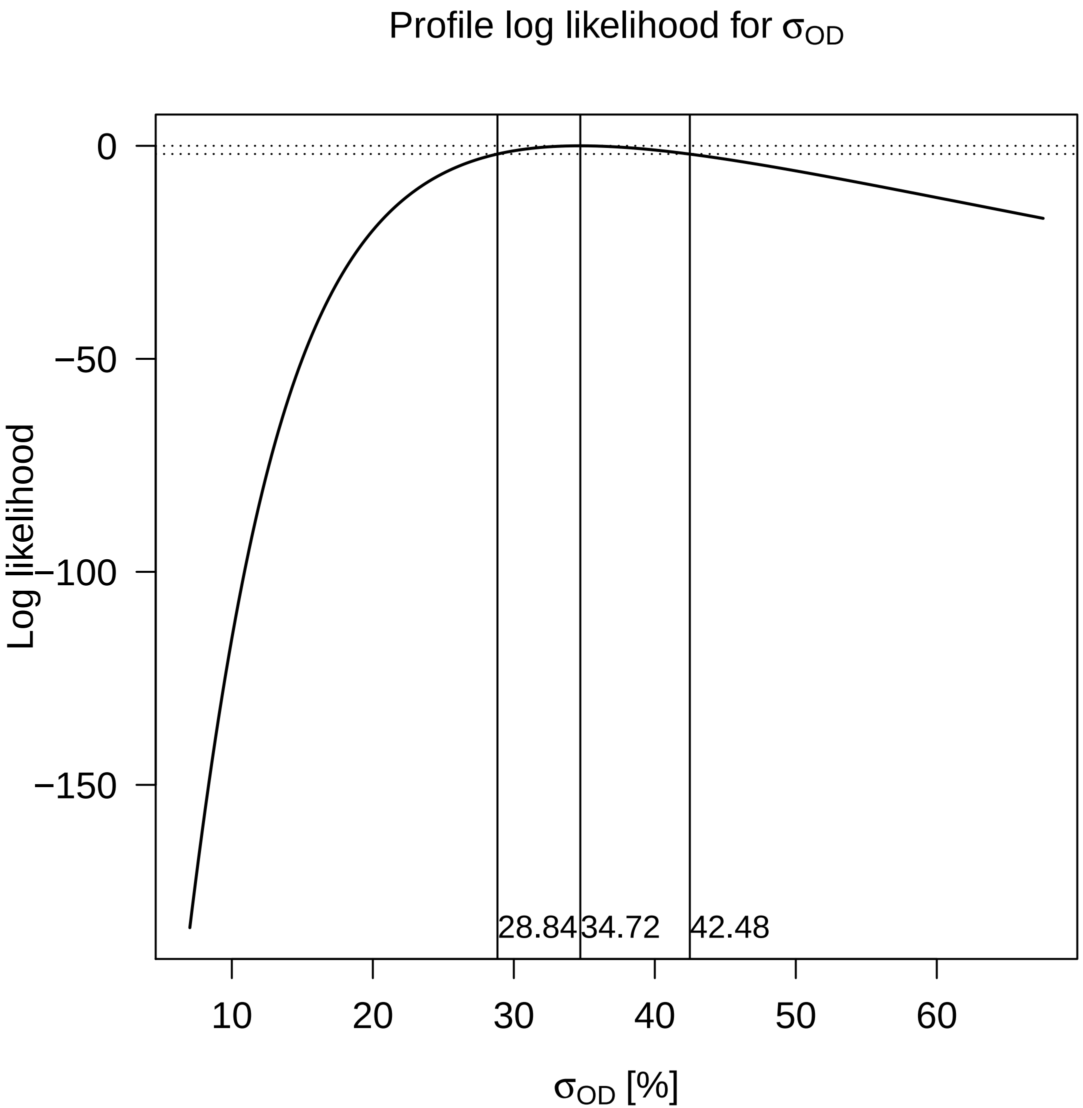
Rejection criteria
Recycling ratio
Recuperation rate
Palaeodose error
pseudoIRSL1
pseudoIRSL2
− 0.2
0/1
+ 0.1
help("analyse_pIRIRSequence")

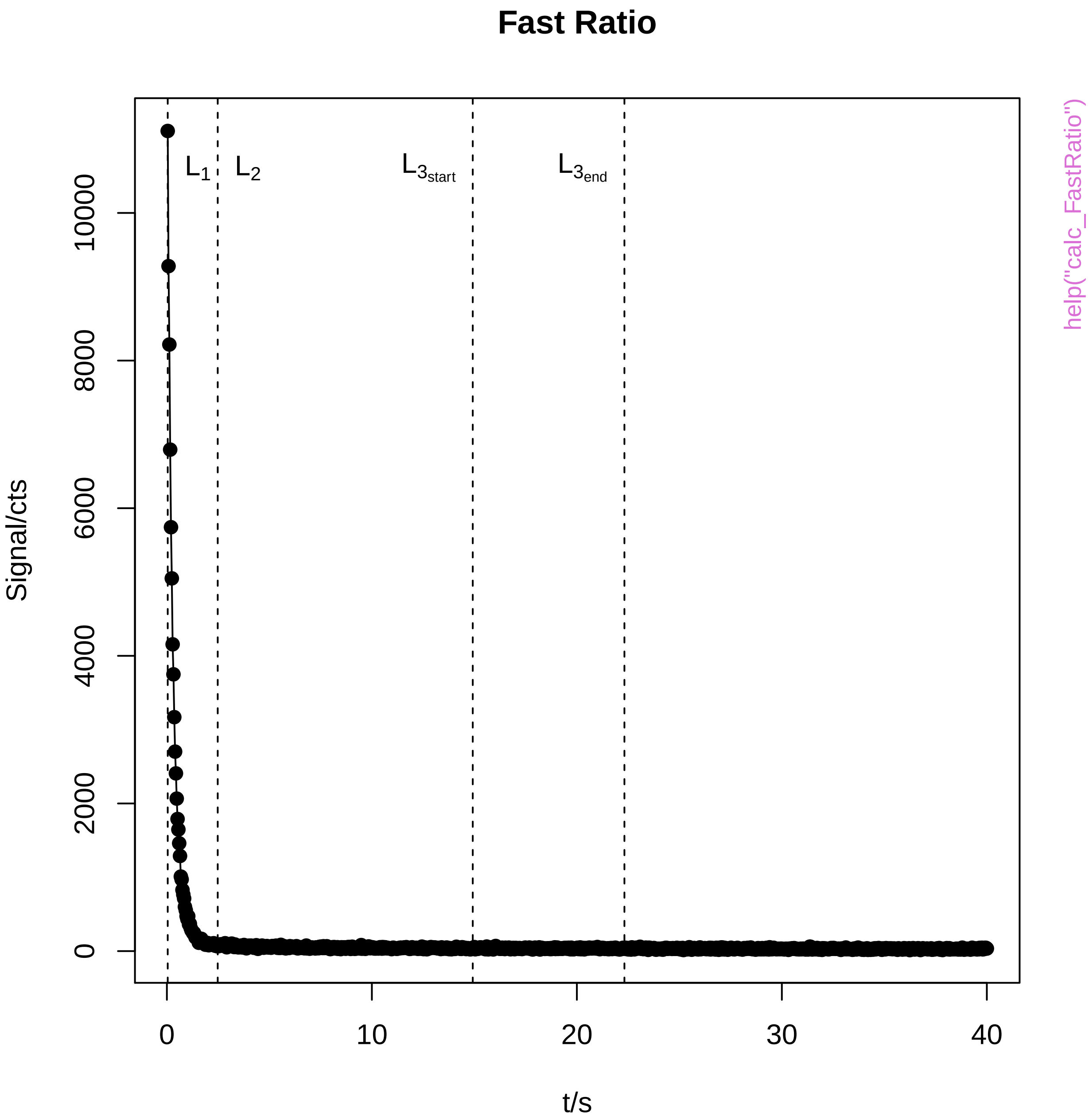

OSL
OSL [cts/0.04 s]
0
2000
4000
6000
8000
10000
0
10
20
30
40
Stimulation time [s]
help("bin_RLum.Data")


OSL
OSL [cts/0.08 s]
0
5000
10000
15000
20000
0
10
20
30
40
Stimulation time [s]
help("bin_RLum.Data")

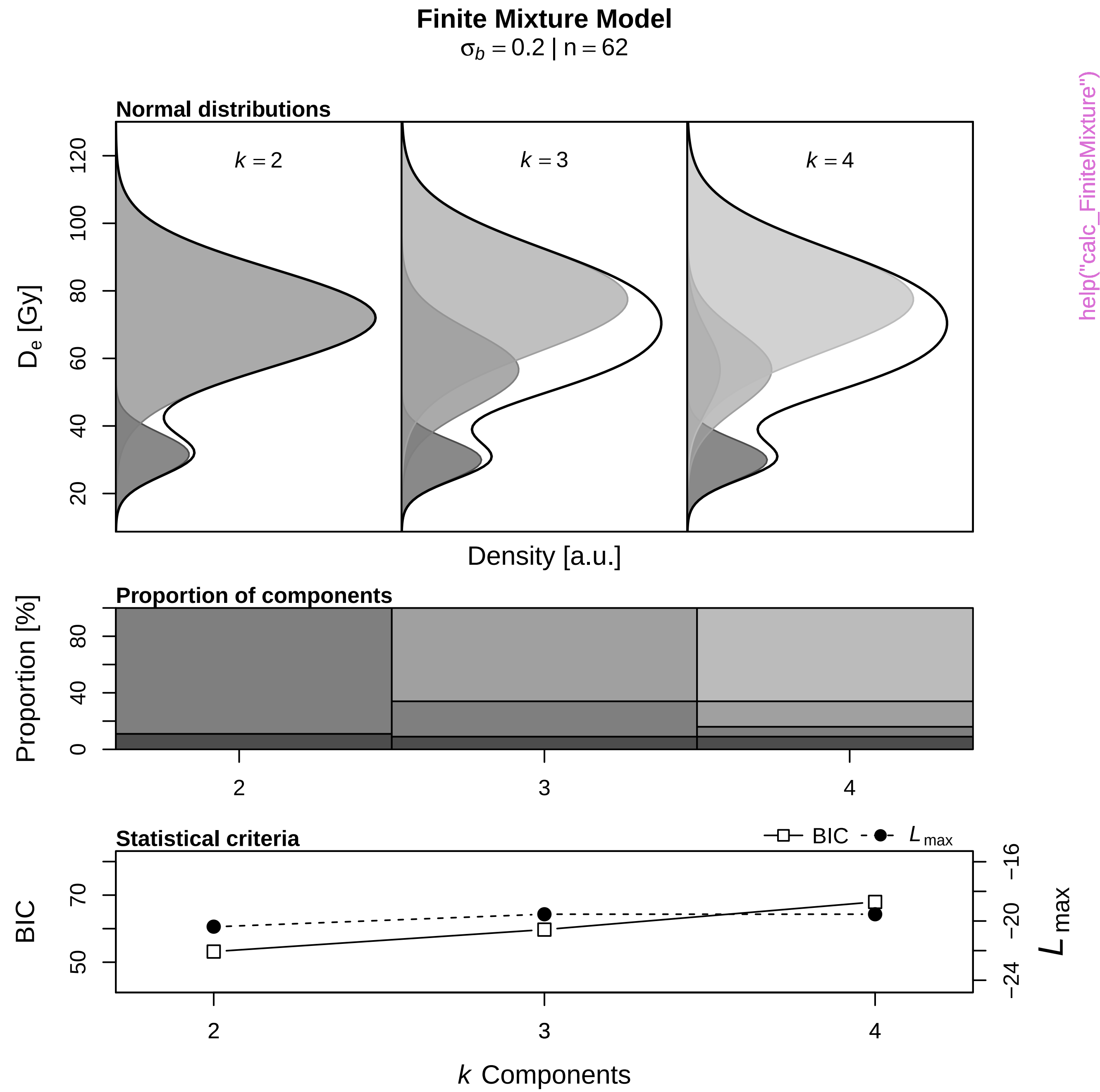

OSL
OSL [cts/0.16 s]
0
5000
10000
15000
20000
25000
30000
35000
0
10
20
30
40
Stimulation time [s]
help("bin_RLum.Data")


Monte Carlo Simulation
$n = 100 \mid \hat{\mu} = 43 \mid \hat{\sigma} = 20 \mid \frac{\hat{\sigma}}{\sqrt{n}} = 2 \mid v = 0.73$
mean
median
0.05 / 0.95 quantile
help("calc_AliquotSize")
Density
0.000
0.005
0.010
0.015
0.020
20
40
60
80
100
Amount of grains on aliquot

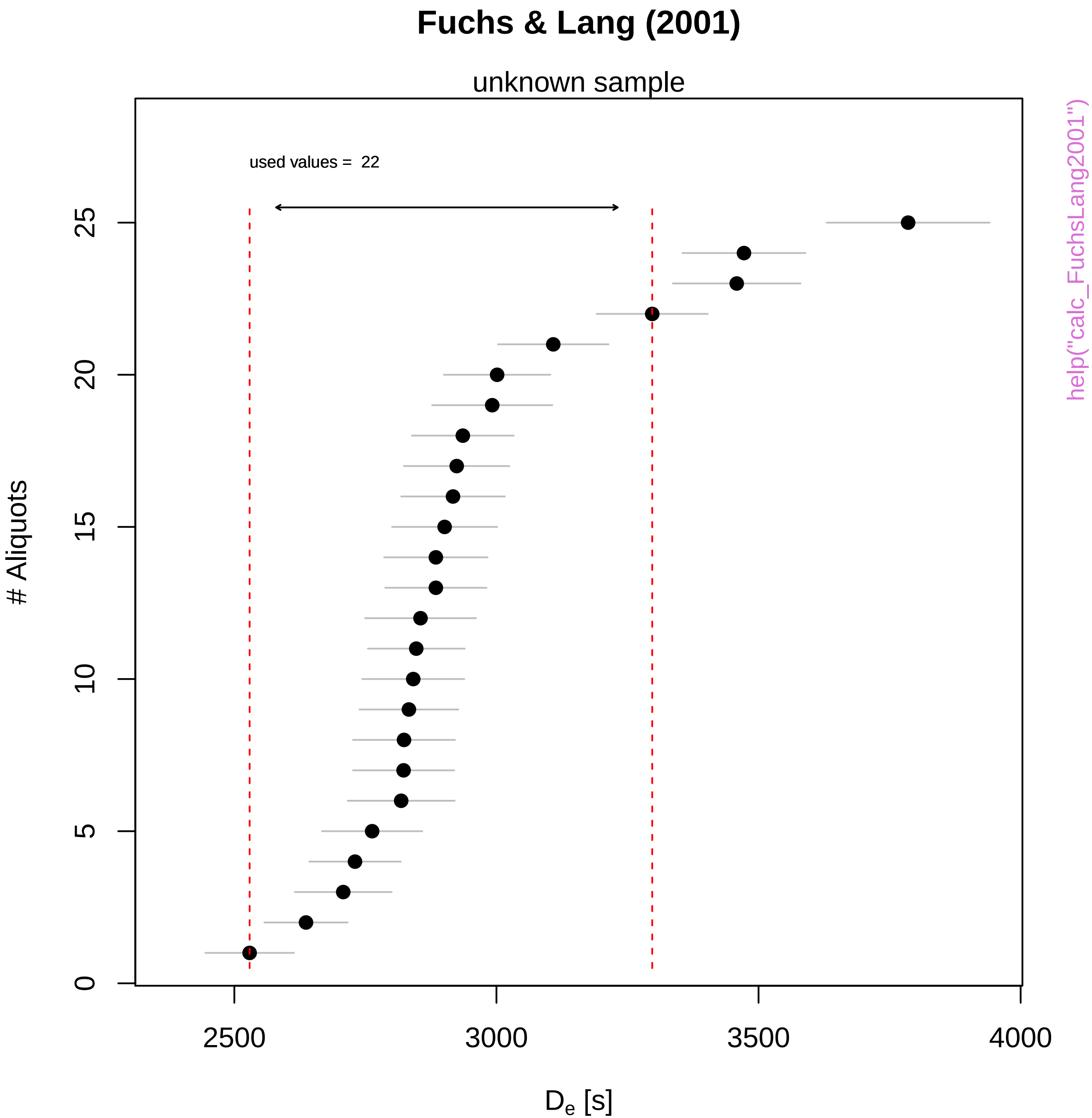

Profile log likelihood for σ_OD
0
−50
−100
−150
Log likelihood
28.84
34.72
42.48
10
20
30
40
50
60
σ_OD [%]

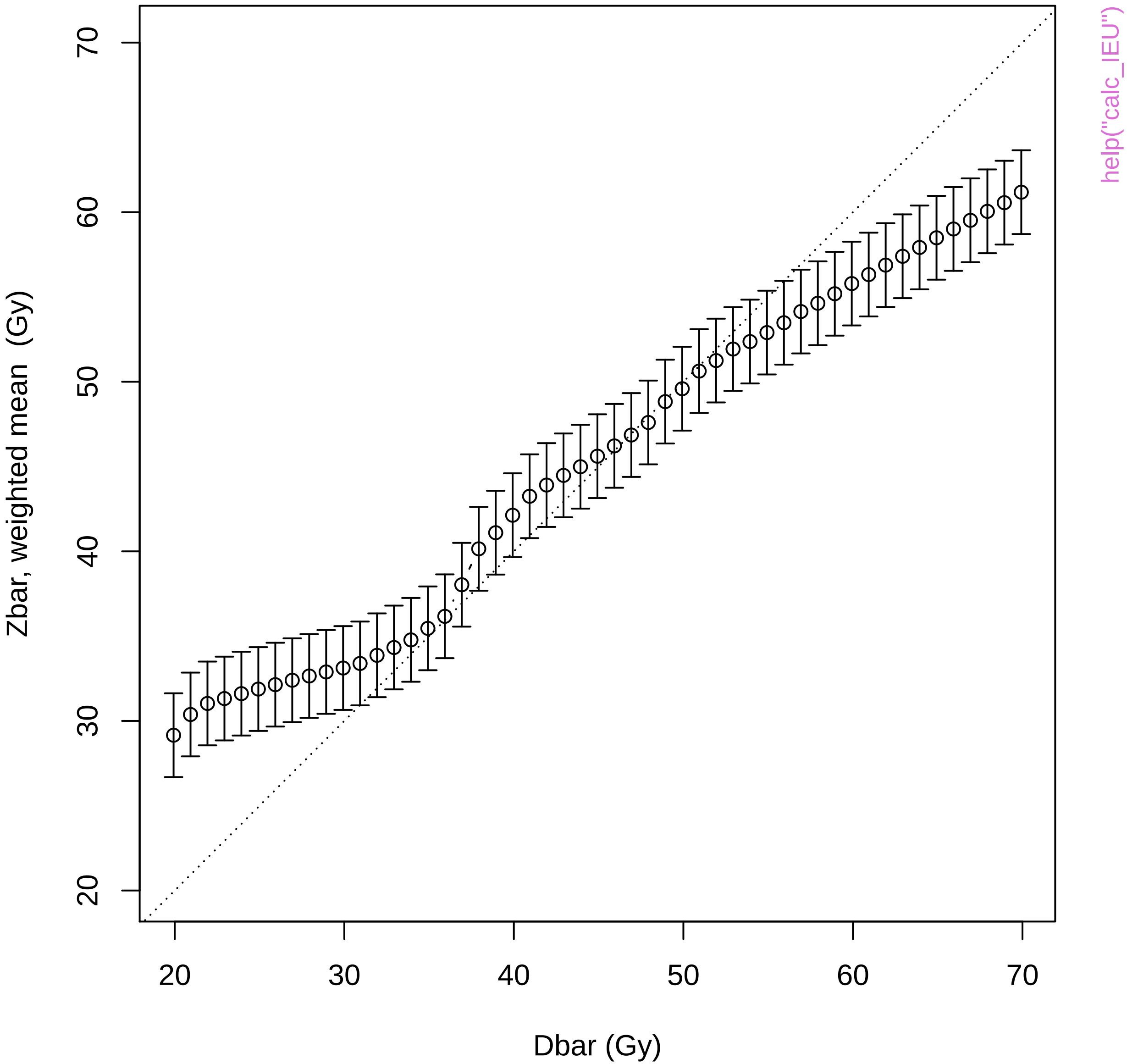


Fast Ratio
L_1
L_2
$L_{3_{start}}$
$L_{3_{end}}$
help("calc_FastRatio")
Signal/cts
0
2000
4000
6000
8000
10000
t/s
0
10
20
30
40

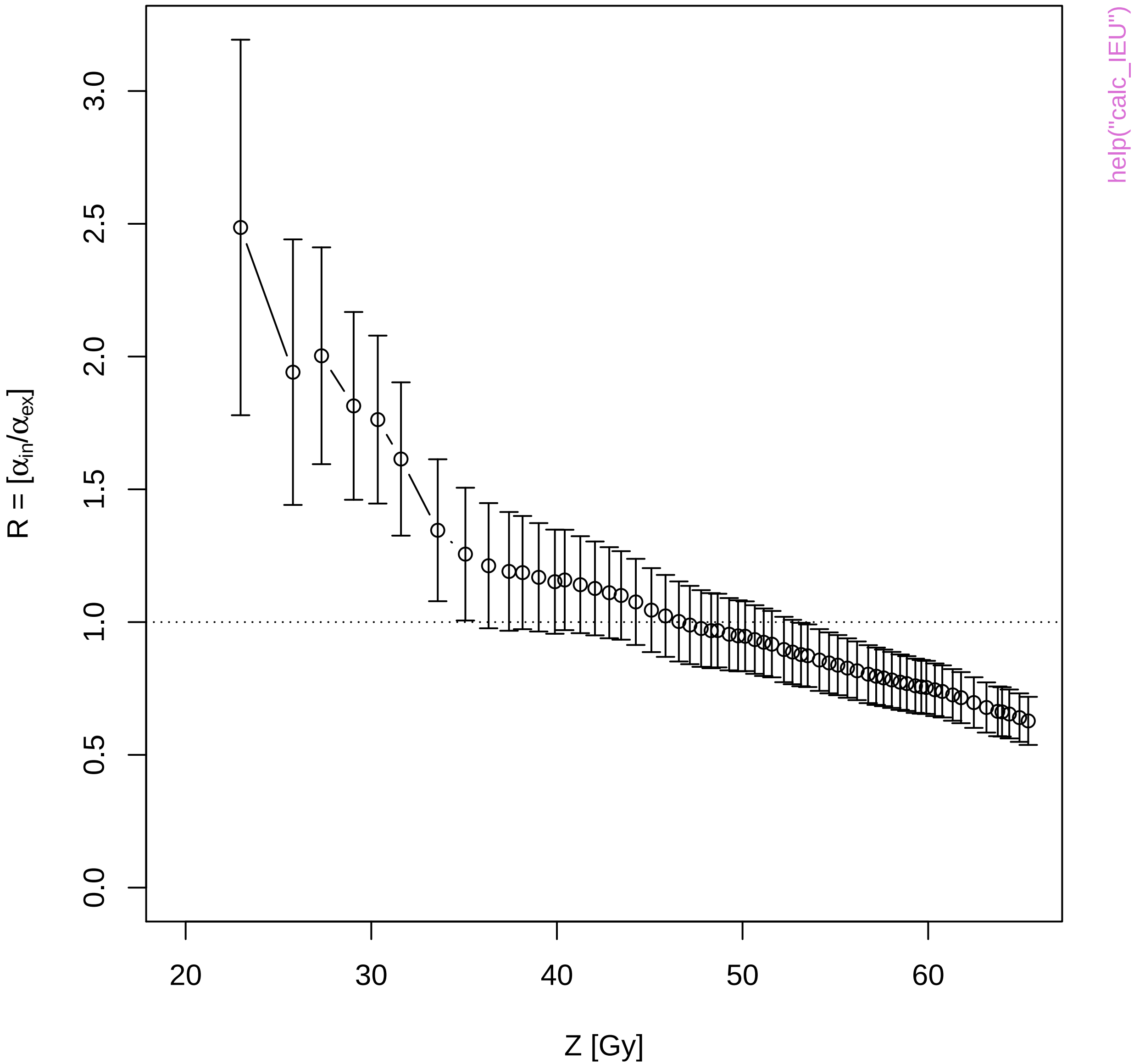


Finite Mixture Model
σb = 0.2 | n = 62
Normal distributions
k = 2
k = 3
k = 4
De [Gy]
20
40
60
80
100
120
Density [a.u.]
Proportion of components
Proportion [%]
0
40
80
2
3
4
Statistical criteria
BIC
Lmax
50
70
−24
−20
−16
2
3
4
k Components
help("calc_FiniteMixture")

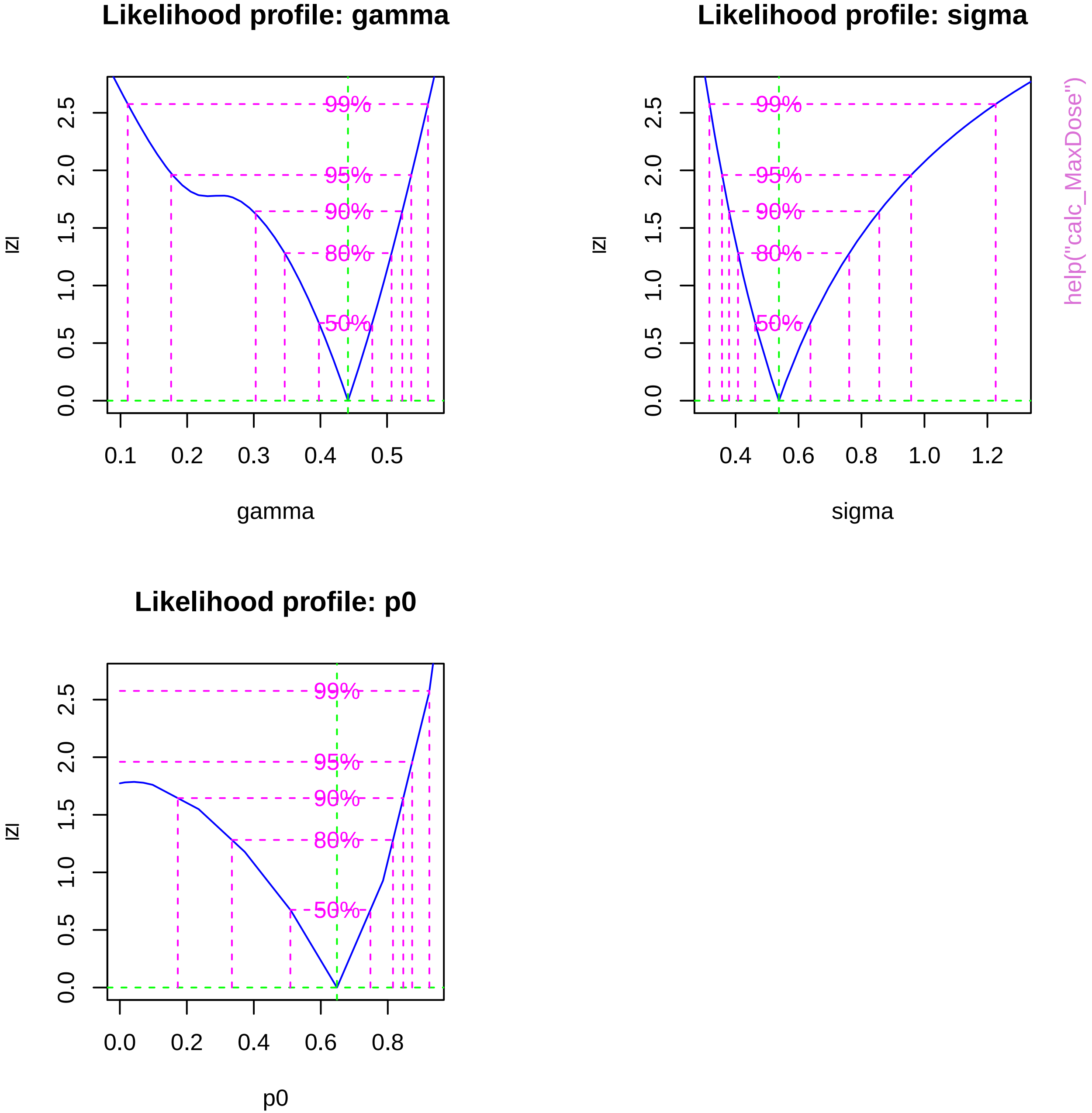

Fuchs & Lang (2001)
unknown sample
used values = 22
help("calc_FuchsLang2001")
# Aliquots
0
5
10
15
20
25
2500
3000
3500
4000
De [s]

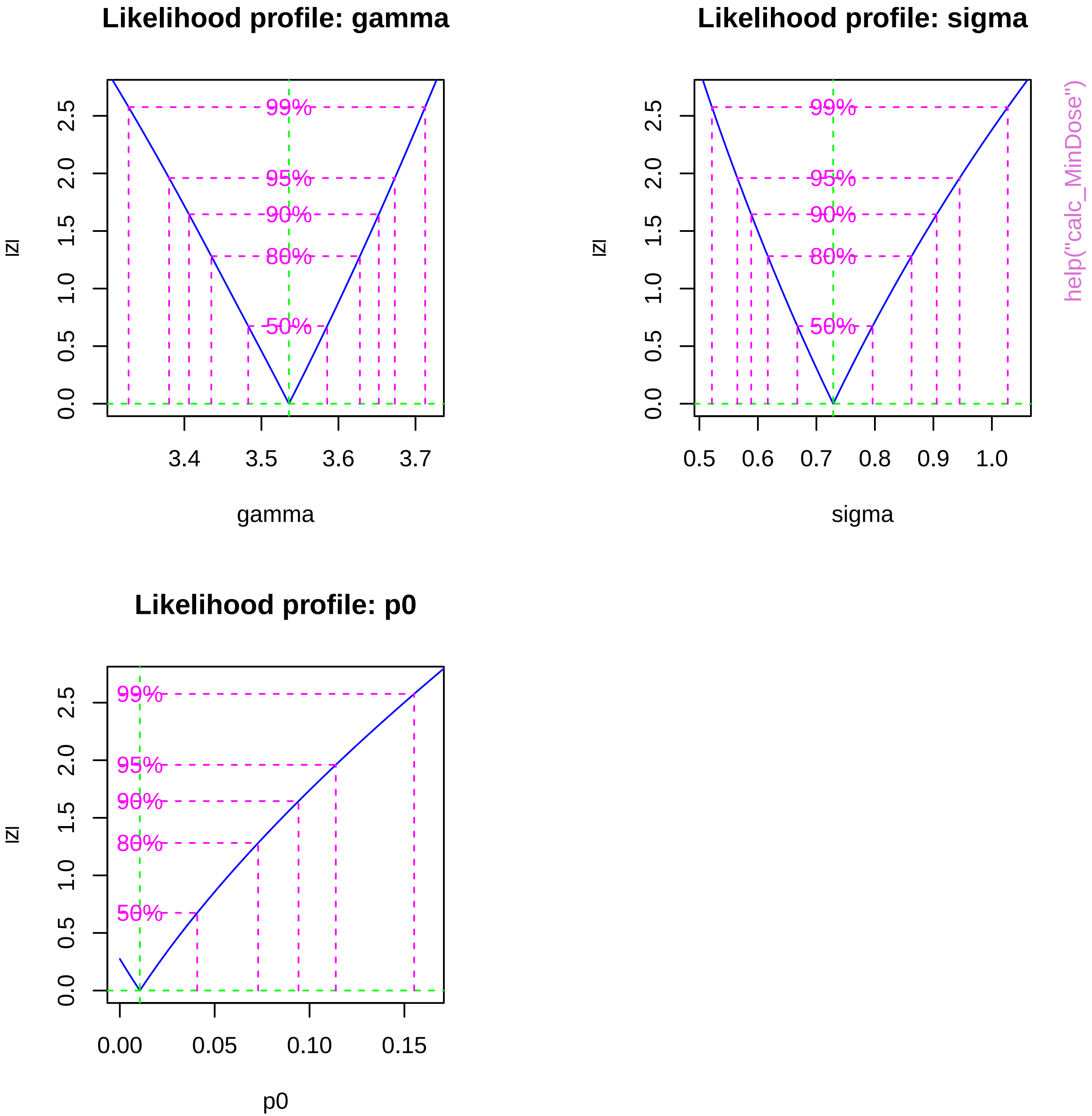


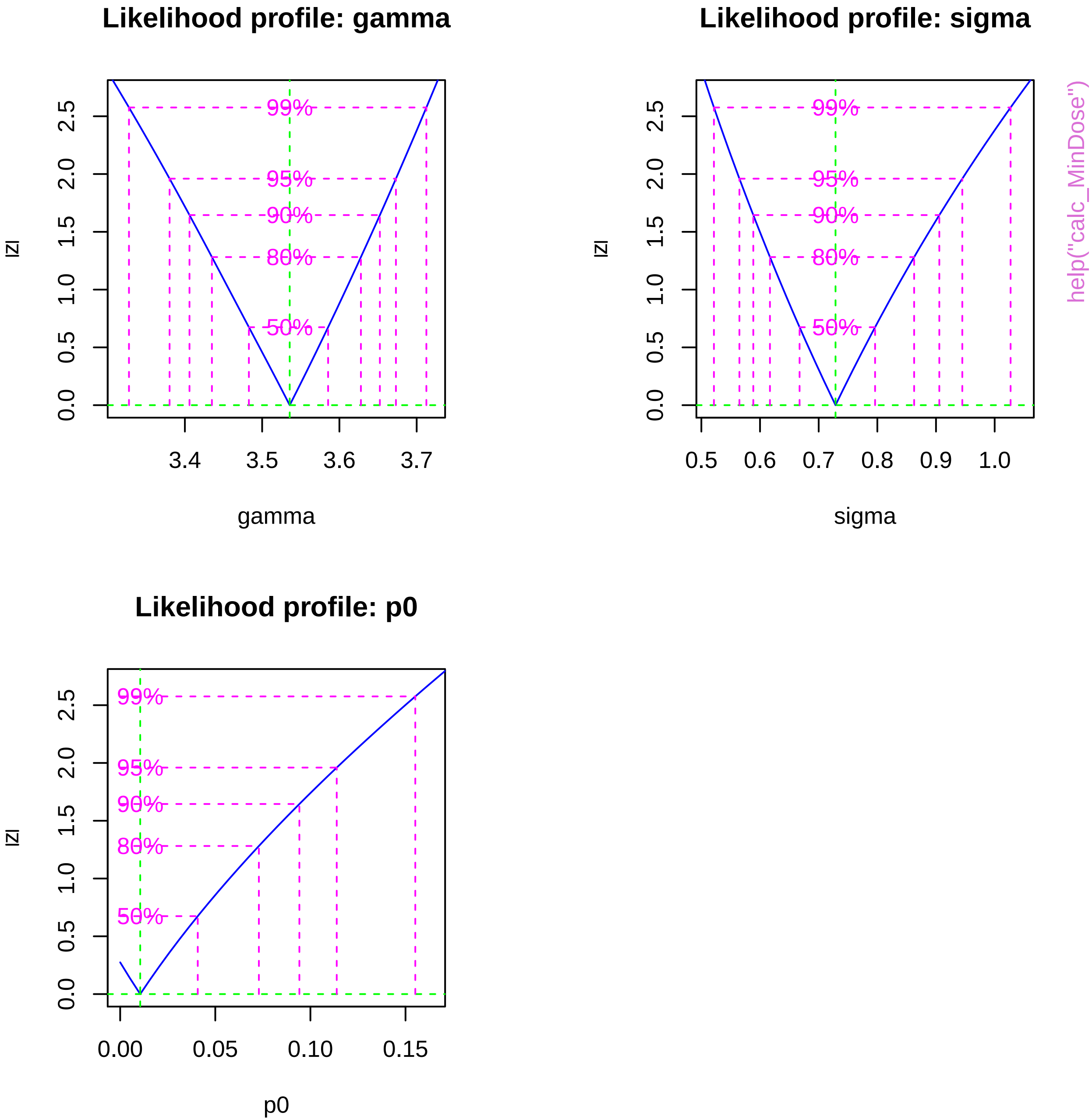
70
60
50
40
30
20
Zbar, weighted mean (Gy)
20
30
40
50
60
70
Dbar (Gy)
help("calc_IEU")

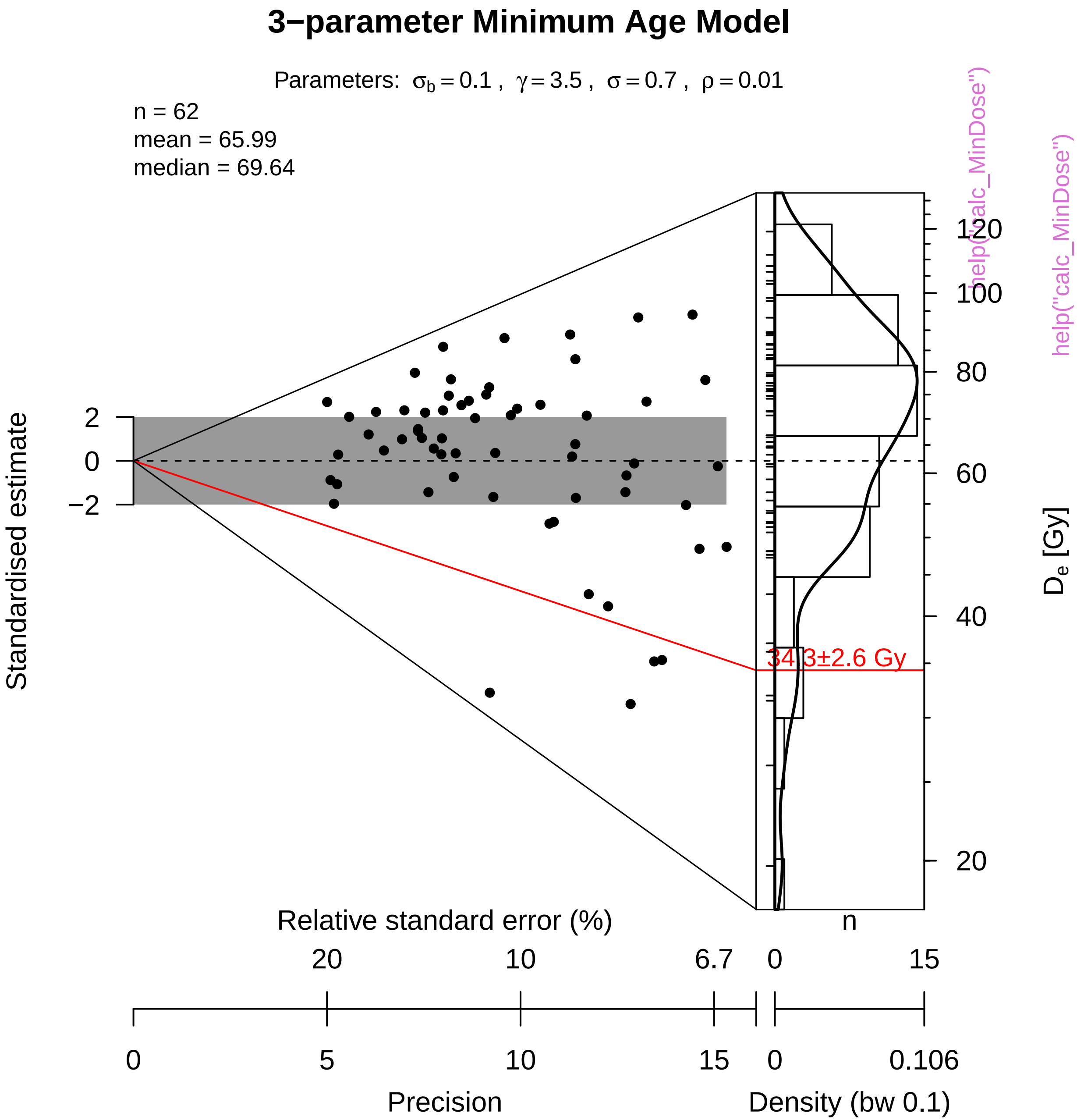


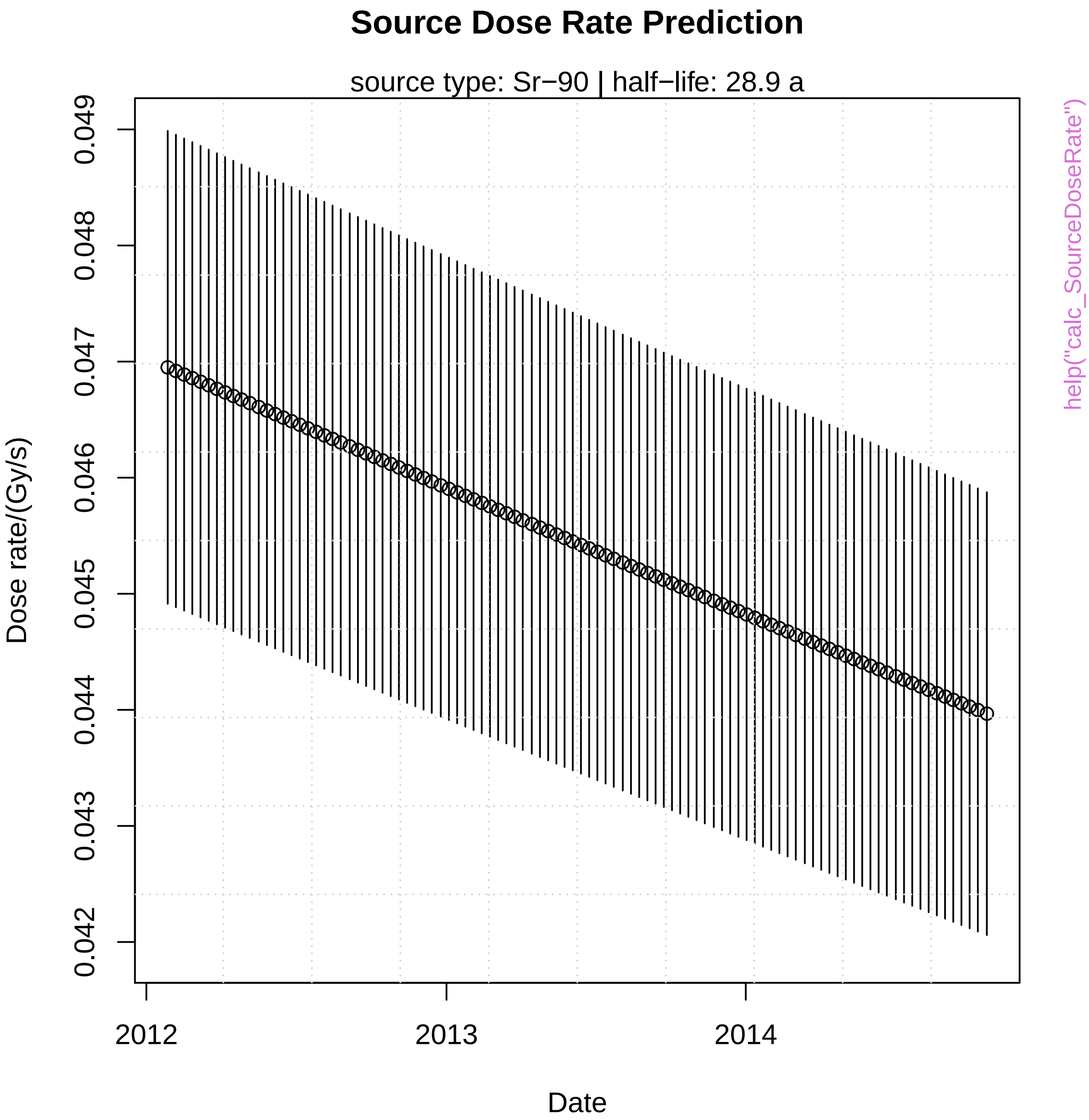
R = [α_{in}/α_{ex}]
0.0
0.5
1.0
1.5
2.0
2.5
3.0
20
30
40
50
60
Z [Gy]
help("calc_IEU")

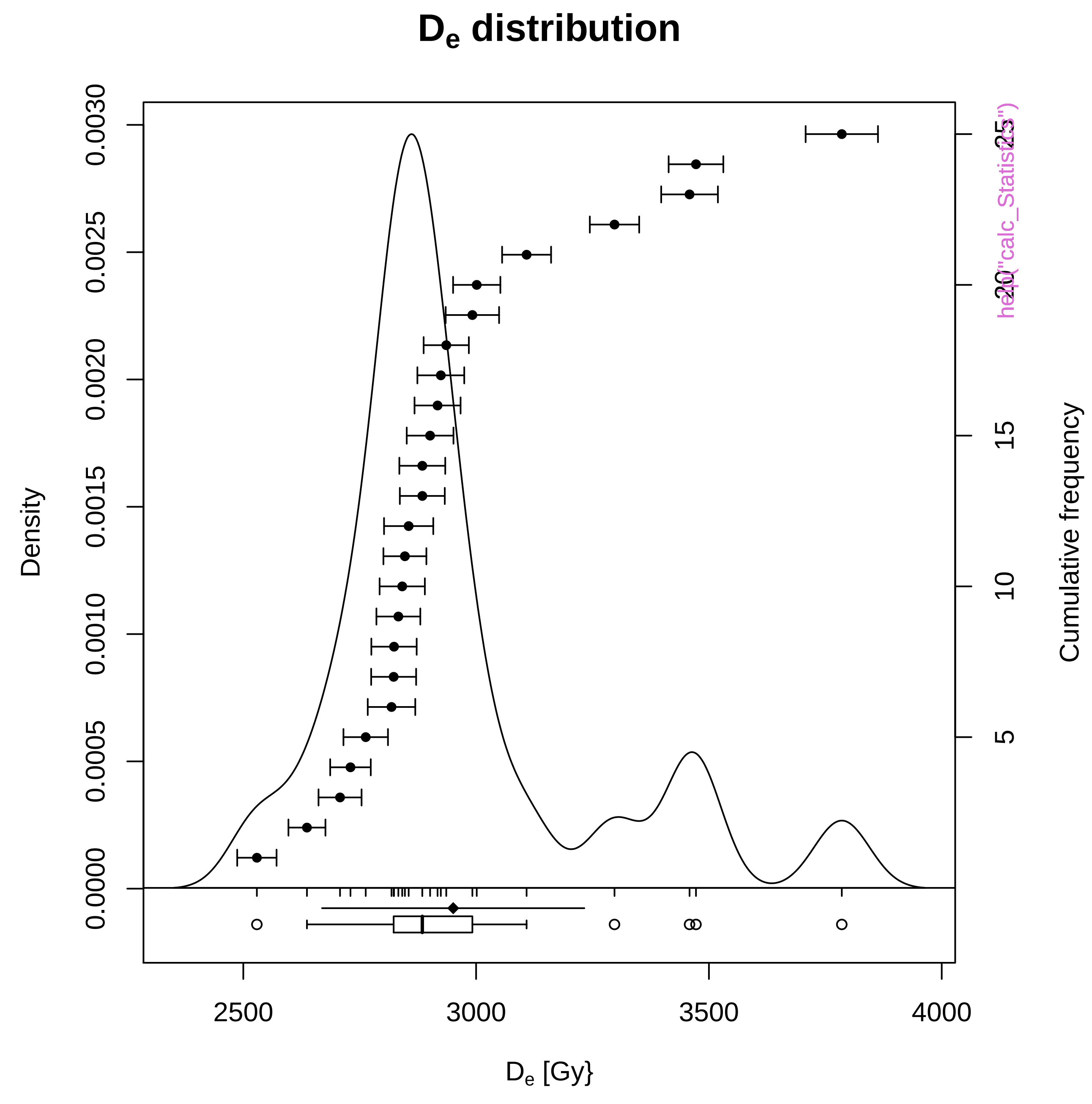

Likelihood profile: gamma
|z|
0.0
0.5
1.0
1.5
2.0
2.5
99%
95%
90%
80%
50%
0.1
0.2
0.3
0.4
0.5
gamma
Likelihood profile: sigma
|z|
0.0
0.5
1.0
1.5
2.0
2.5
99%
95%
90%
80%
50%
0.4
0.6
0.8
1.0
1.2
sigma
help("calc_MaxDose")
Likelihood profile: p0
|z|
0.0
0.5
1.0
1.5
2.0
2.5
99%
95%
90%
80%
50%
0.0
0.2
0.4
0.6
0.8
p0


Likelihood profile: gamma
Likelihood profile: sigma
Likelihood profile: p0
|z|
gamma
sigma
p0
99%
95%
90%
80%
50%
0.0
0.5
1.0
1.5
2.0
2.5
3.4
3.5
3.6
3.7
0.5
0.6
0.7
0.8
0.9
1.0
0.00
0.05
0.10
0.15
help("calc_MinDose")

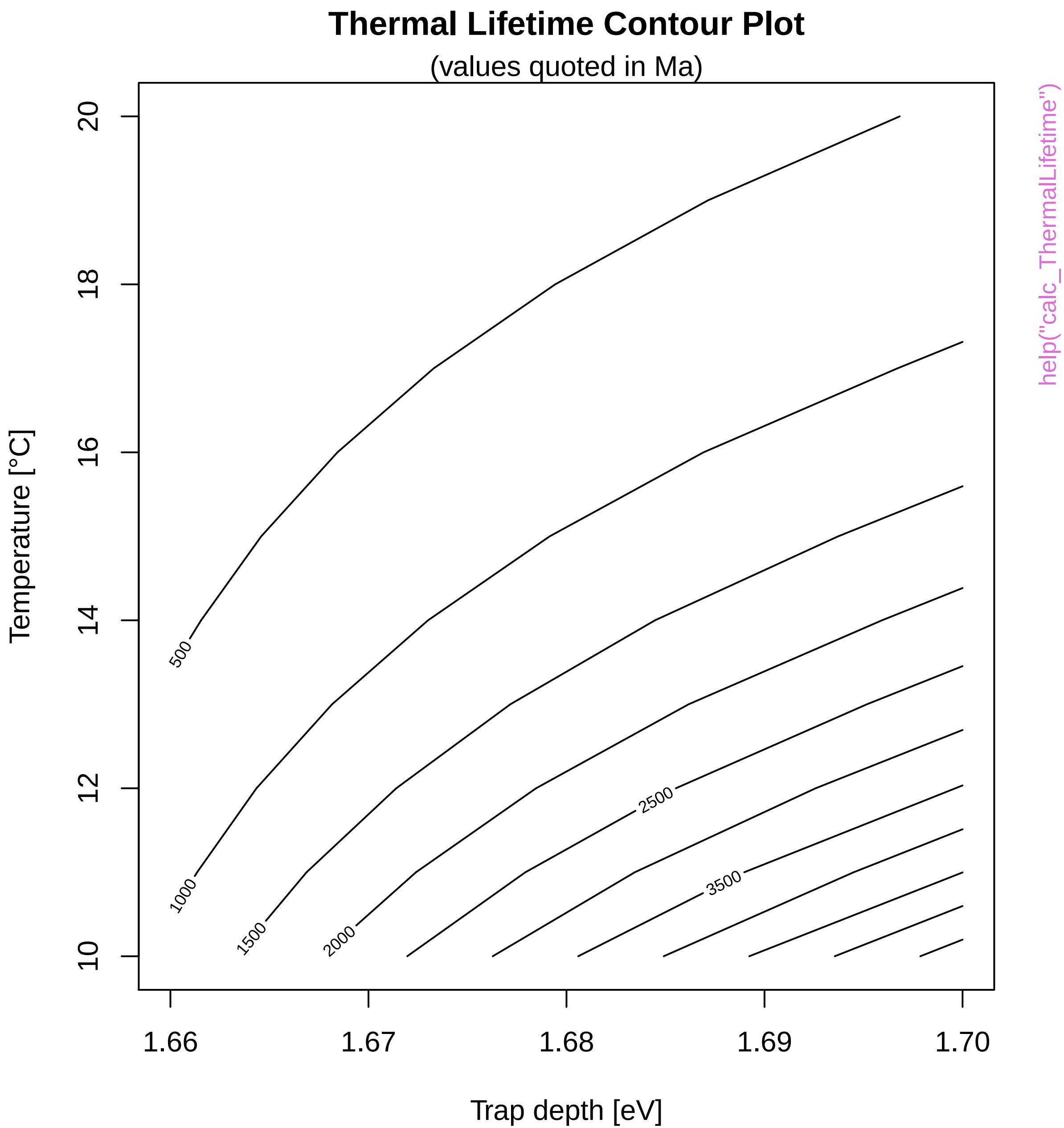

Likelihood profile: gamma
Likelihood profile: sigma
Likelihood profile: p0
|z|
0.0
0.5
1.0
1.5
2.0
2.5
99%
95%
90%
80%
50%
3.4
3.5
3.6
3.7
gamma
0.5
0.6
0.7
0.8
0.9
1.0
sigma
0.00
0.05
0.10
0.15
p0
help("calc_MinDose")


3−parameter Minimum Age Model
Parameters: σb = 0.1 , γ = 3.5 , σ = 0.7 , ρ = 0.01
n = 62
mean = 65.99
median = 69.64
help("calc_MinDose")
help("calc_MinDose")
Standardised estimate
2
0
−2
120
100
80
60
40
20
De [Gy]
34.3±2.6 Gy
Relative standard error (%)
20
10
6.7
n
0
15
0
5
10
15
0
0.106
Precision
Density (bw 0.1)

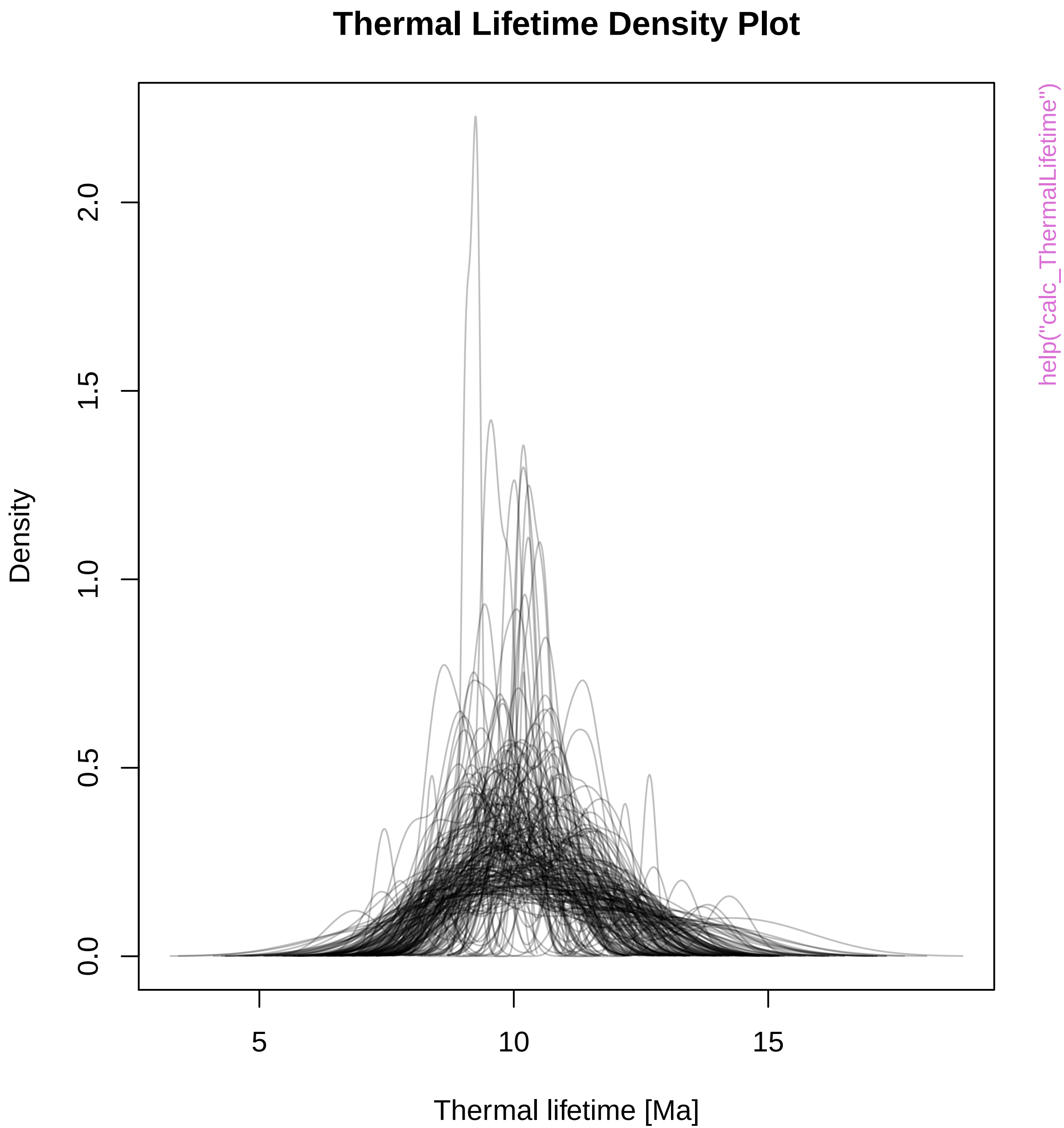

Source Dose Rate Prediction
source type: Sr−90 | half−life: 28.9 a
Dose rate/(Gy/s)
0.042
0.043
0.044
0.045
0.046
0.047
0.048
0.049
2012
2013
2014
Date
help("calc_SourceDoseRate")



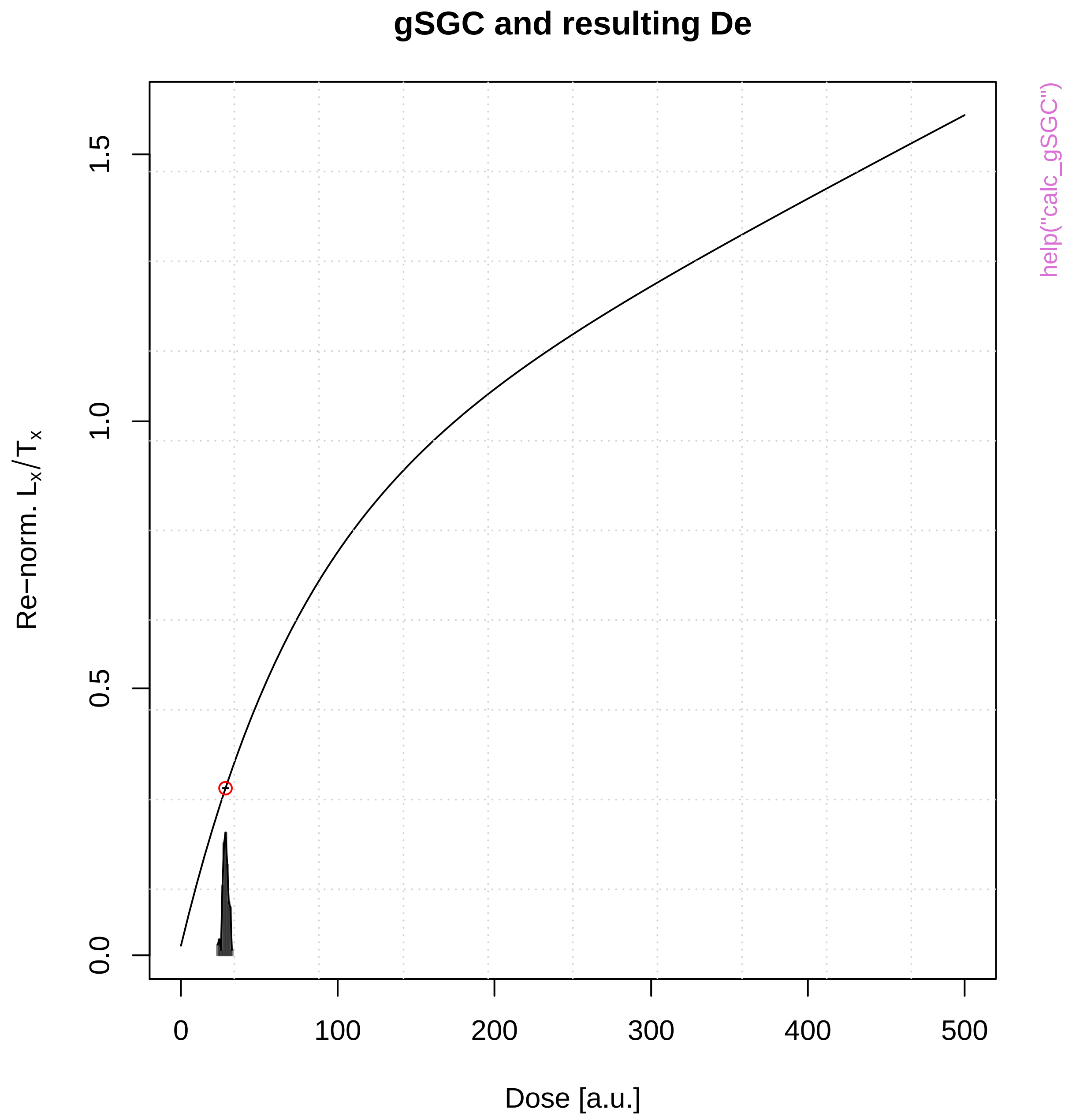
De distribution
Density
0.0000
0.0005
0.0010
0.0015
0.0020
0.0025
0.0030
Cumulative frequency
5
10
15
20
25
help("calc_Statistics")
2500
3000
3500
4000
De [Gy}

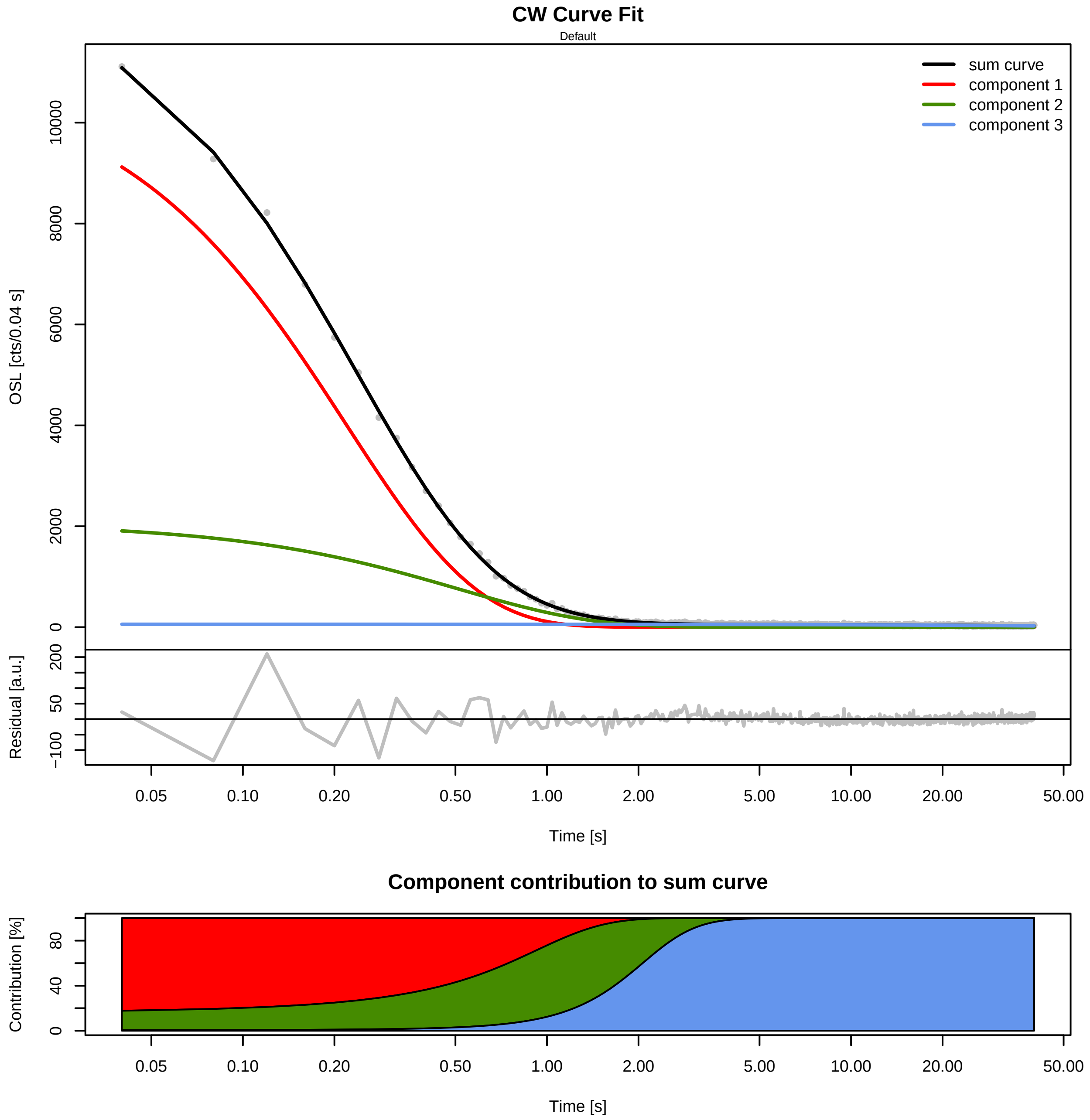


Thermal Lifetime Contour Plot
(values quoted in Ma)
Temperature [°C]
Trap depth [eV]
help("calc_ThermalLifetime")
10
12
14
16
18
20
1.66
1.67
1.68
1.69
1.70
500
1000
1500
2000
2500
3500

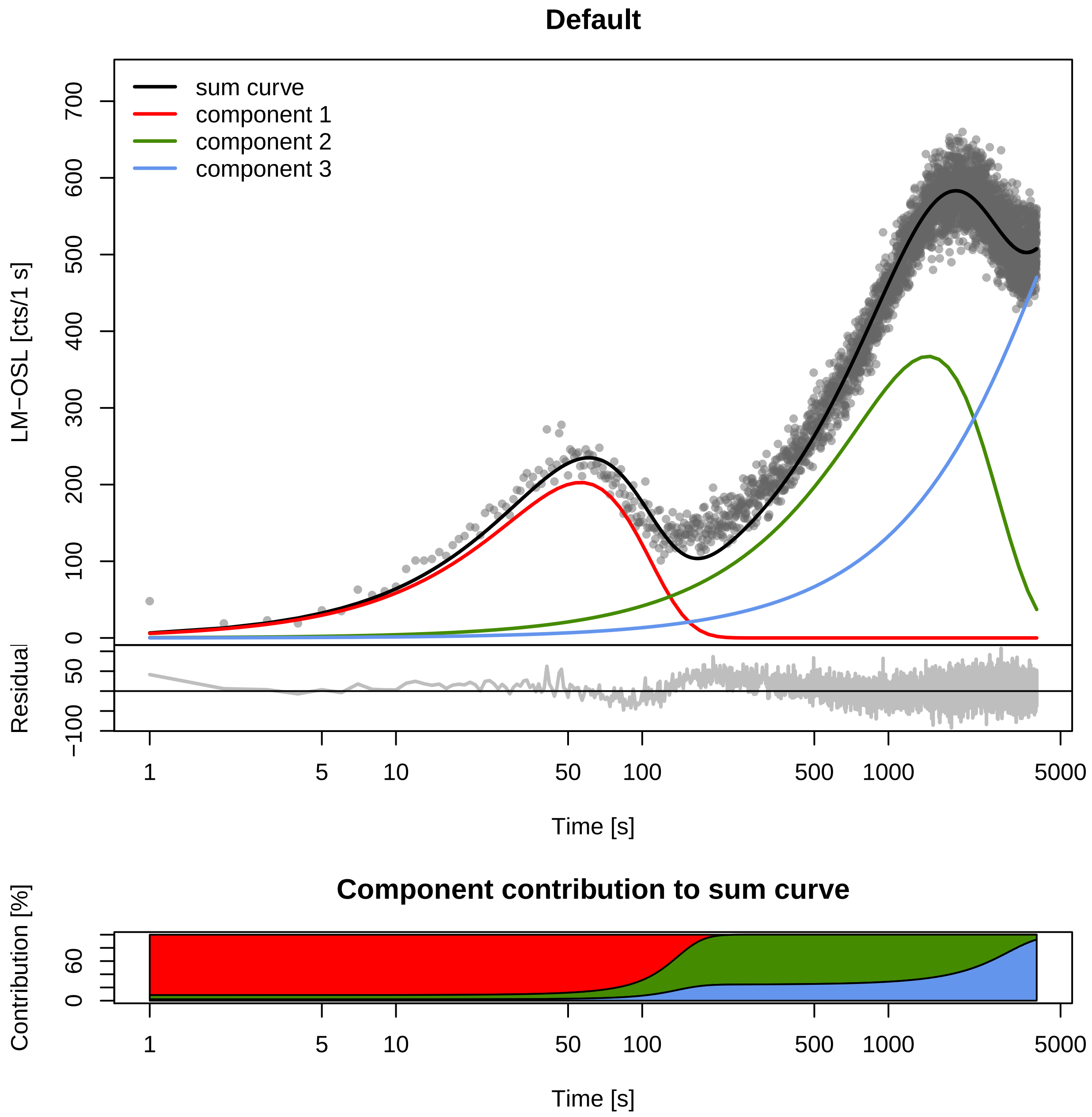


Thermal Lifetime Density Plot
Density
0.0
0.5
1.0
1.5
2.0
5
10
15
Thermal lifetime [Ma]
help("calc_ThermalLifetime")

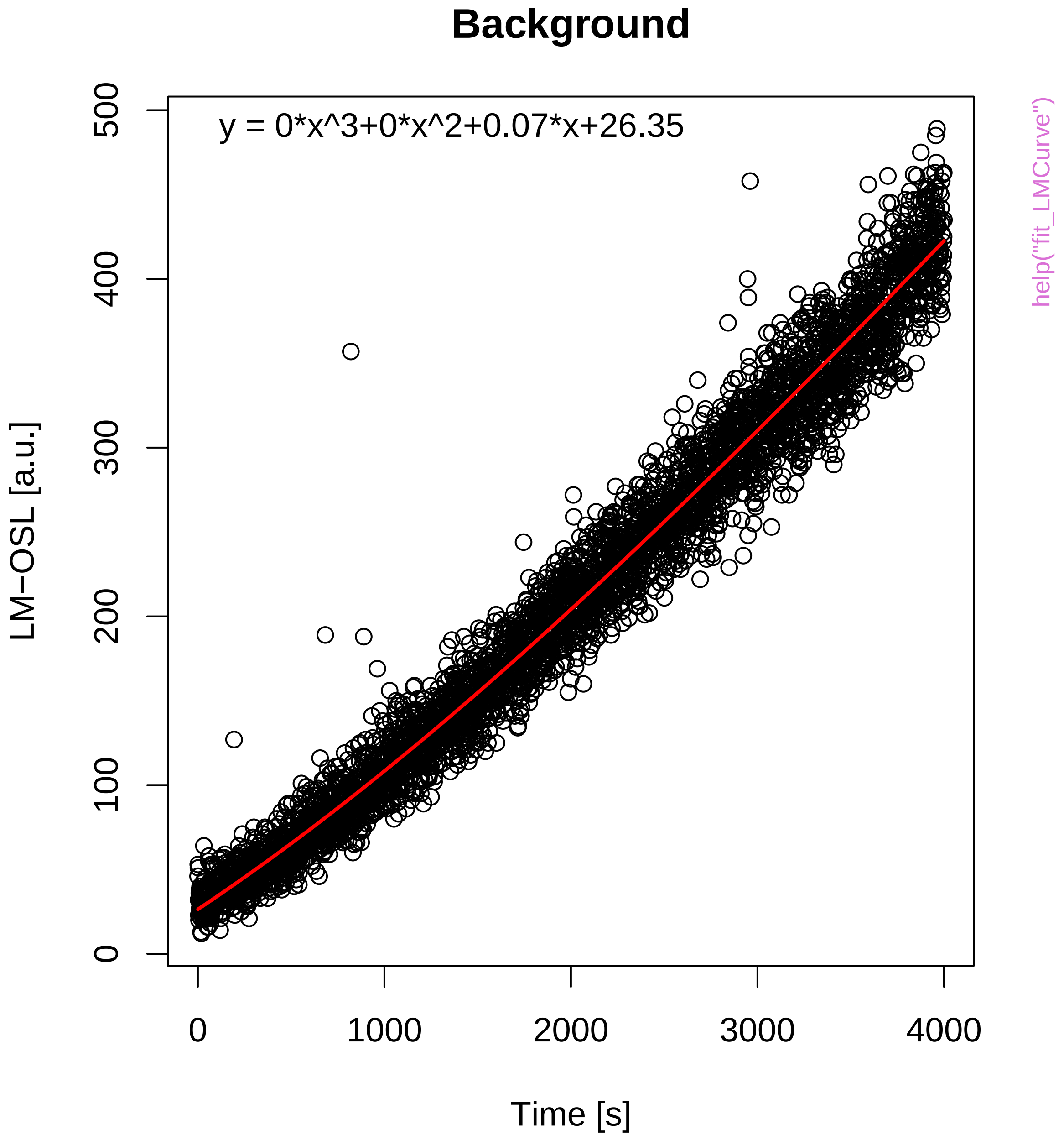

gSGC and resulting De
Re−norm. L_x/T_x
Dose [a.u.]
0
100
200
300
400
500
0.0
0.5
1.0
1.5
help("calc_gSGC")

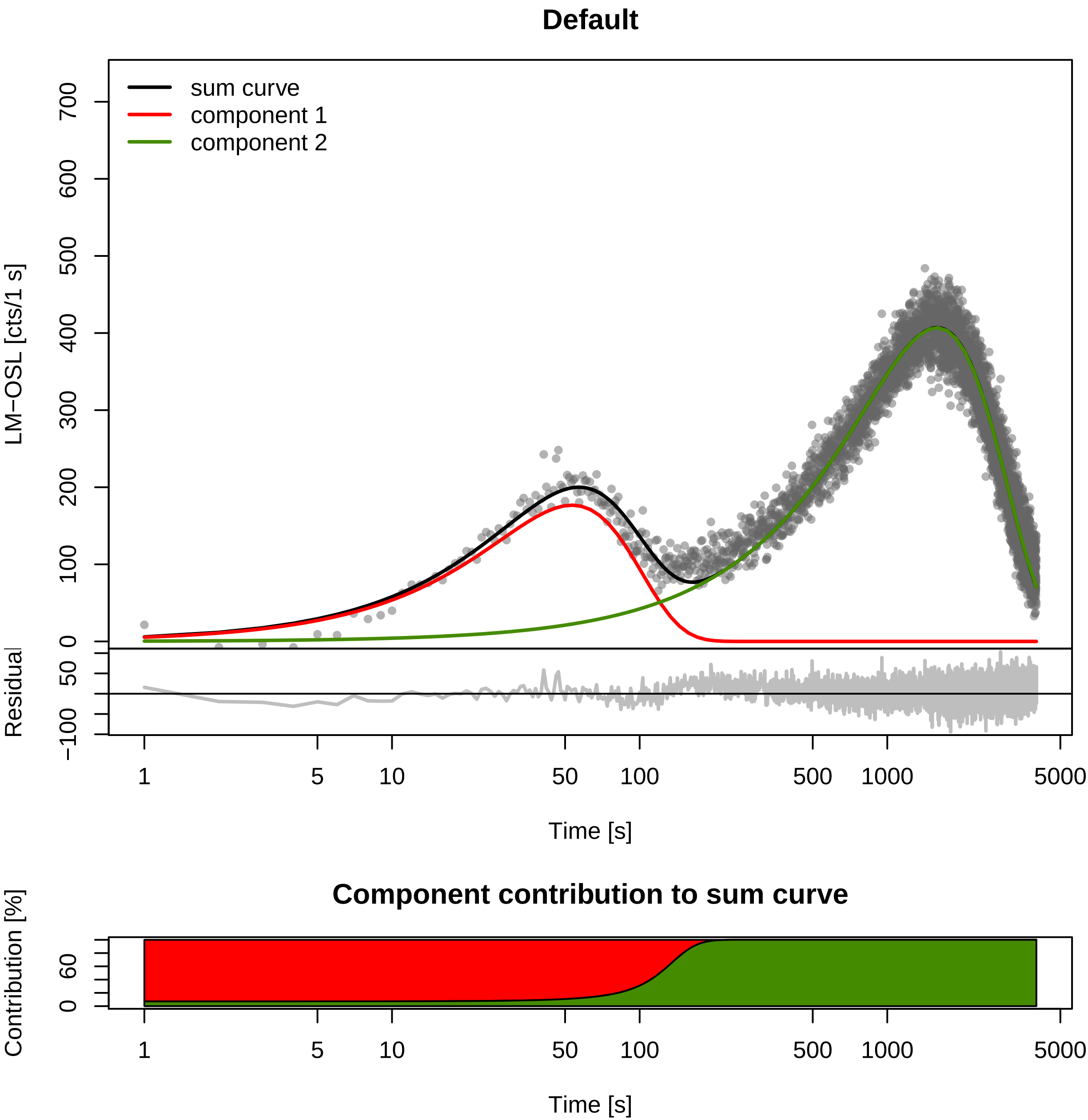


CW Curve Fit
Default
sum curve
component 1
component 2
component 3
OSL [cts/0.04 s]
0
2000
4000
6000
8000
10000
Residual [a.u.]
−100
50
200
0.05
0.10
0.20
0.50
1.00
2.00
5.00
10.00
20.00
50.00
Time [s]
Component contribution to sum curve
Contribution [%]
0
40
80
0.05
0.10
0.20
0.50
1.00
2.00
5.00
10.00
20.00
50.00
Time [s]

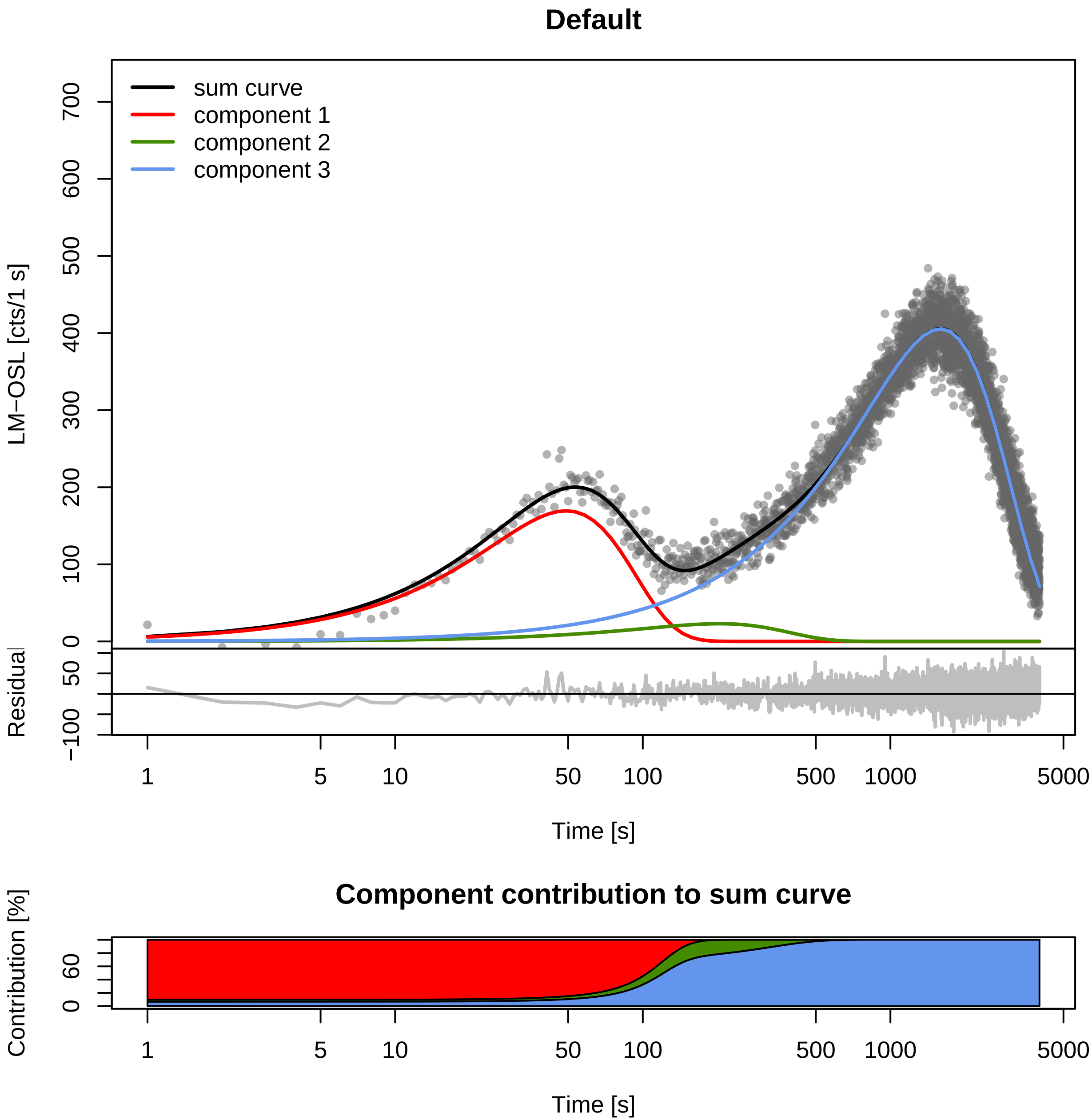


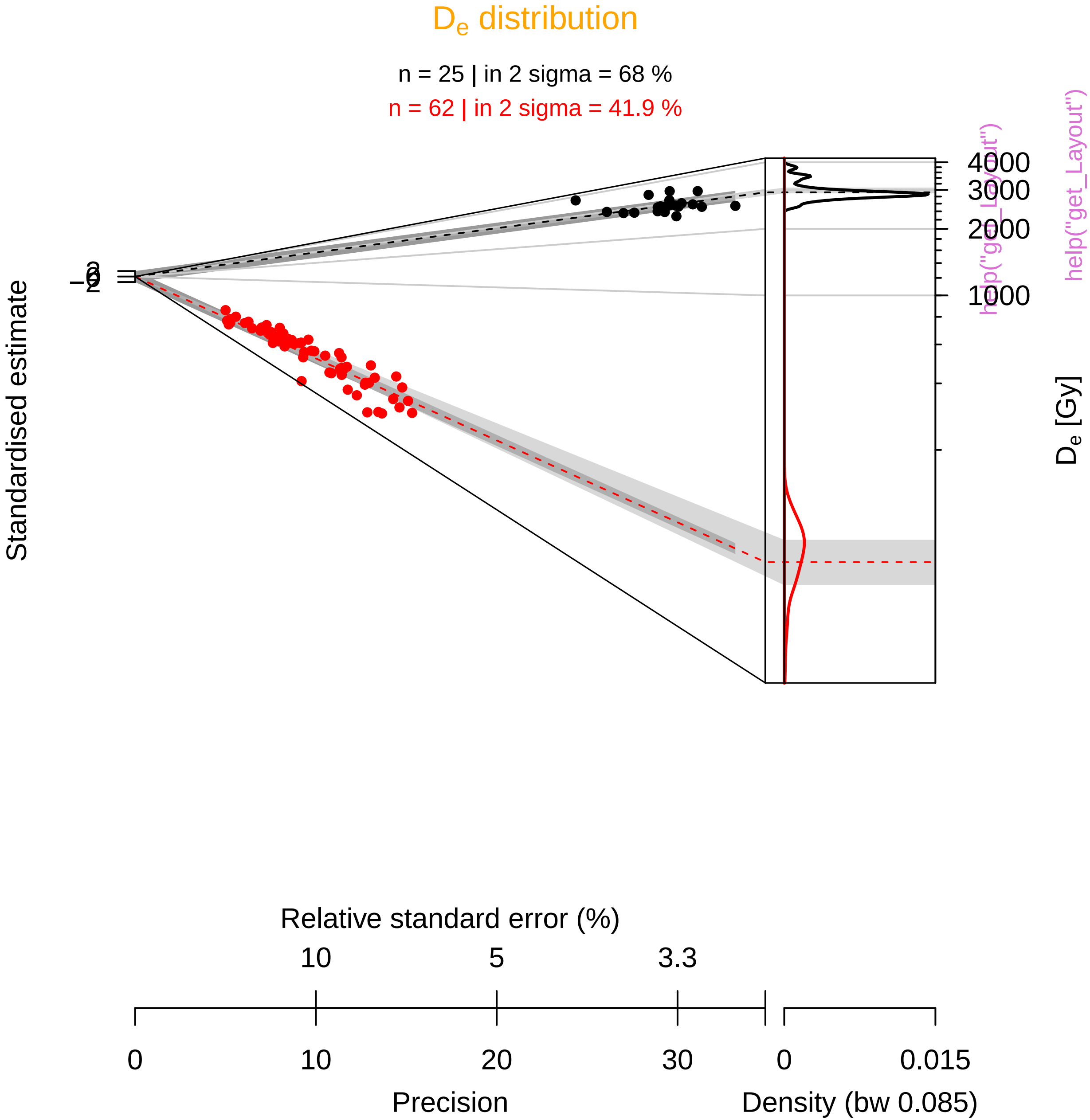
Default
sum curve
component 1
component 2
component 3
LM−OSL [cts/1 s]
0
100
200
300
400
500
600
700
Residual
−100
0
50
1
5
10
50
100
500
1000
5000
Time [s]
Component contribution to sum curve
Contribution [%]
0
60
1
5
10
50
100
500
1000
5000
Time [s]

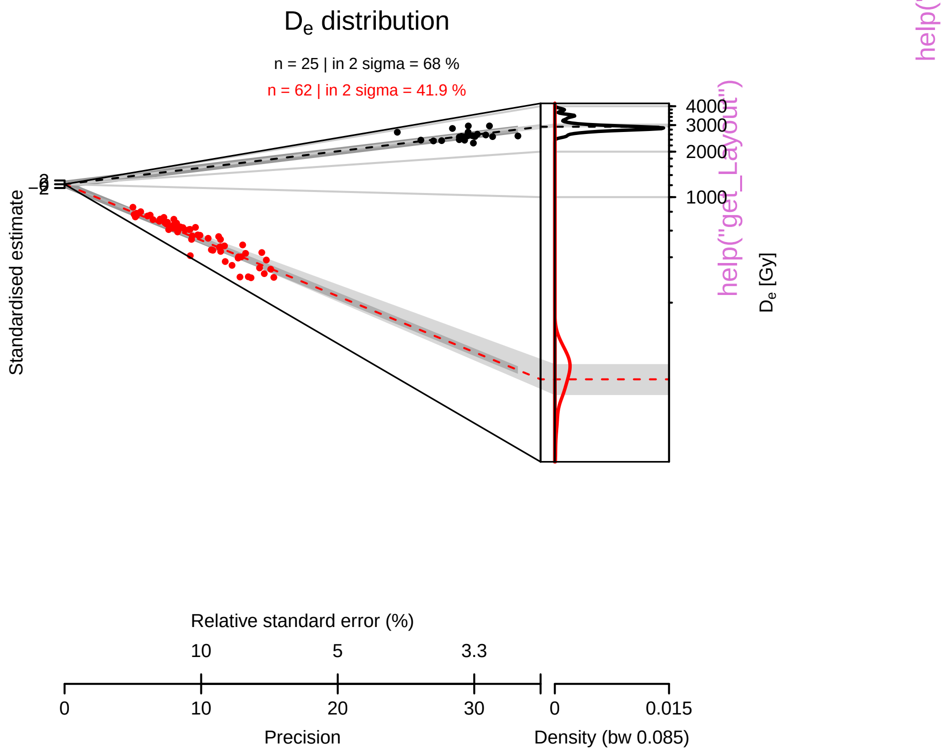

Background
y = 0*x^3+0*x^2+0.07*x+26.35
LM−OSL [a.u.]
0
100
200
300
400
500
0
1000
2000
3000
4000
Time [s]
help("fit_LMCurve")



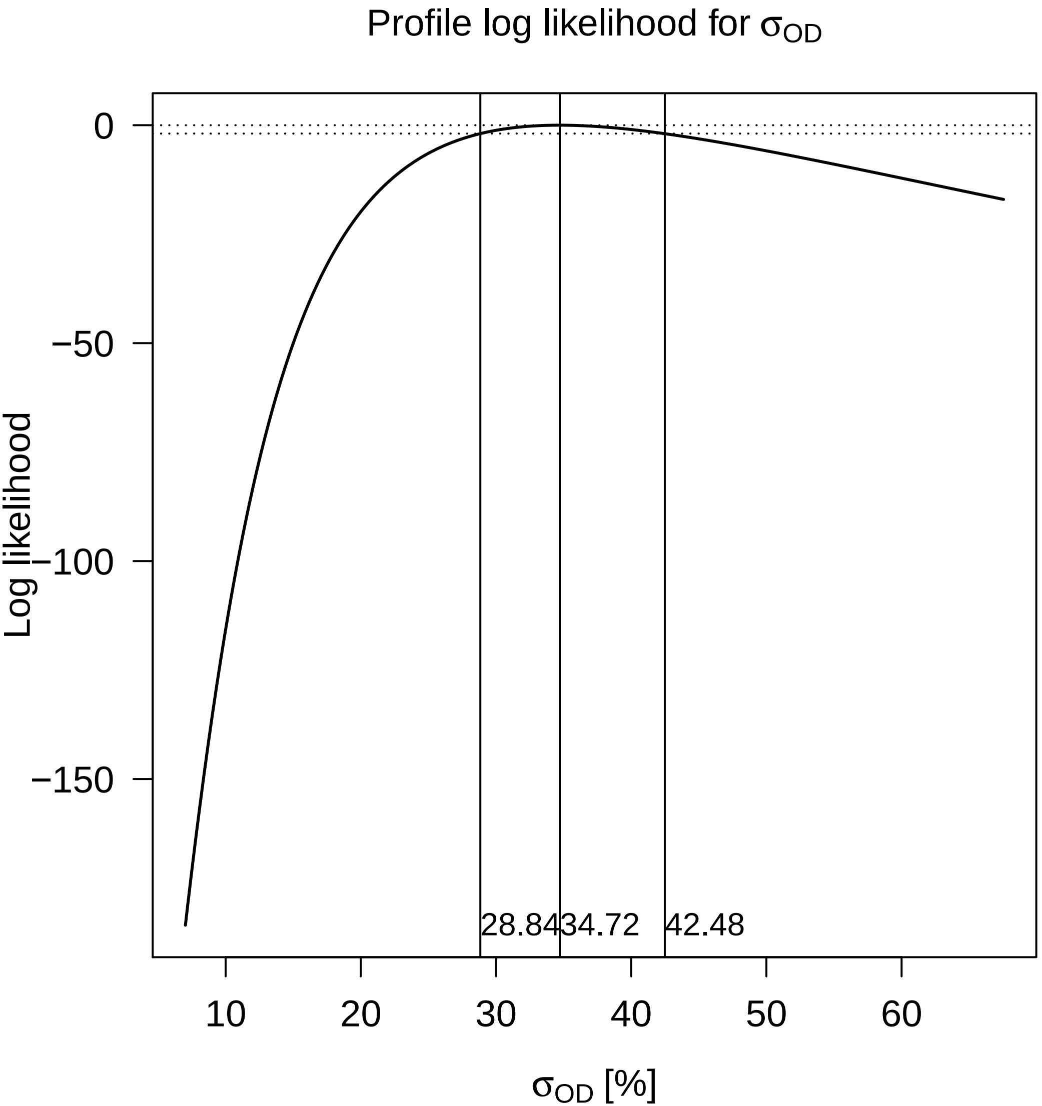
Default
sum curve
component 1
component 2
LM−OSL [cts/1 s]
0
100
200
300
400
500
600
700
Residual
−100
50
1
5
10
50
100
500
1000
5000
Time [s]
Component contribution to sum curve
Contribution [%]
0
60
1
5
10
50
100
500
1000
5000
Time [s]


Default
sum curve
component 1
component 2
component 3
LM−OSL [cts/1 s]
0
100
200
300
400
500
600
700
Residual
−100
50
1
5
10
50
100
500
1000
5000
Time [s]
Component contribution to sum curve
Contribution [%]
0
60
1
5
10
50
100
500
1000
5000
Time [s]

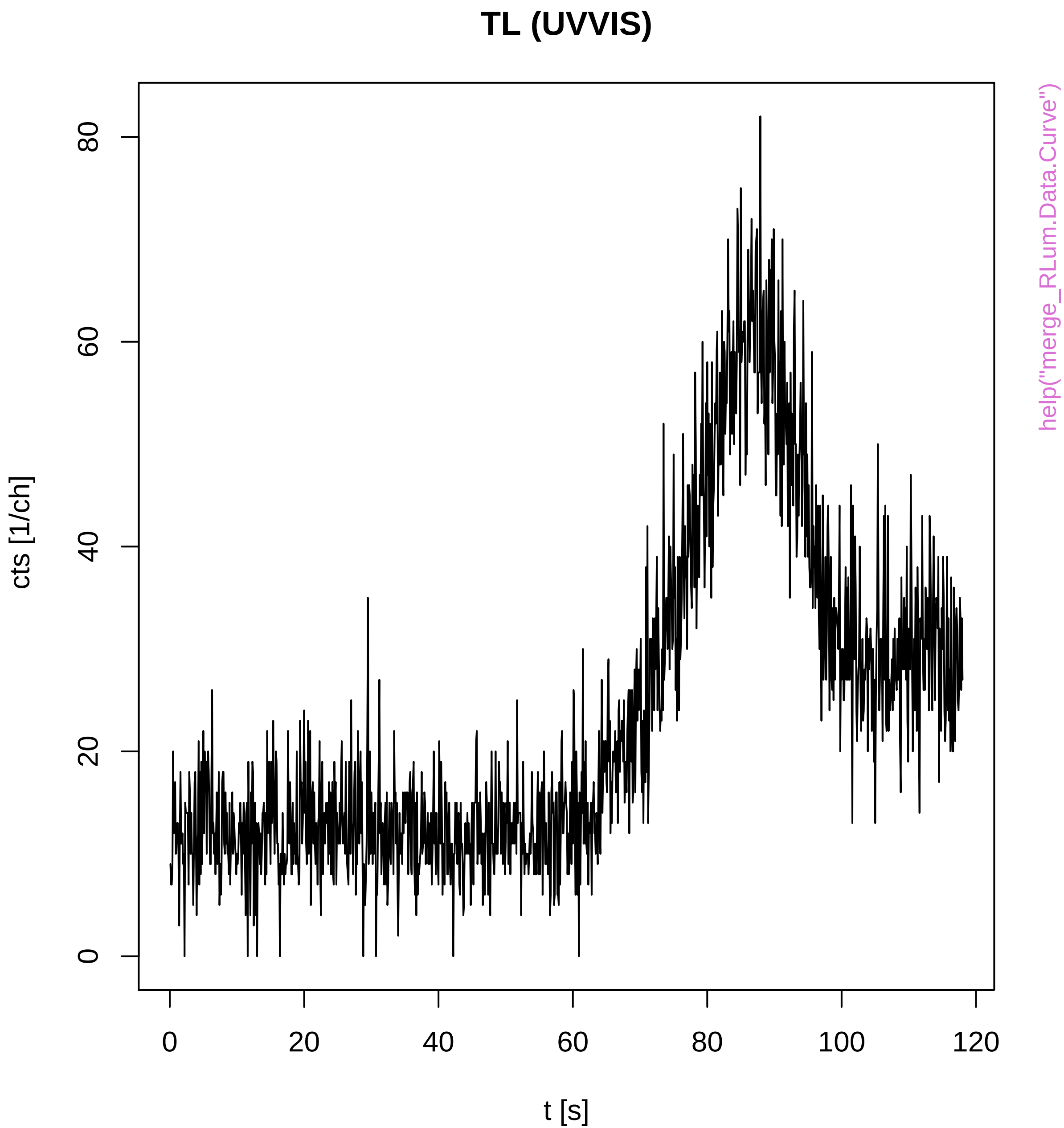

De distribution
n = 25 | in 2 sigma = 68 %
n = 62 | in 2 sigma = 41.9 %
Standardised estimate
2
0
−2
4000
3000
2000
1000
De [Gy]
help("get_Layout")
help("get_Layout")
Relative standard error (%)
10
5
3.3
0
10
20
30
0
0.015
Precision
Density (bw 0.085)



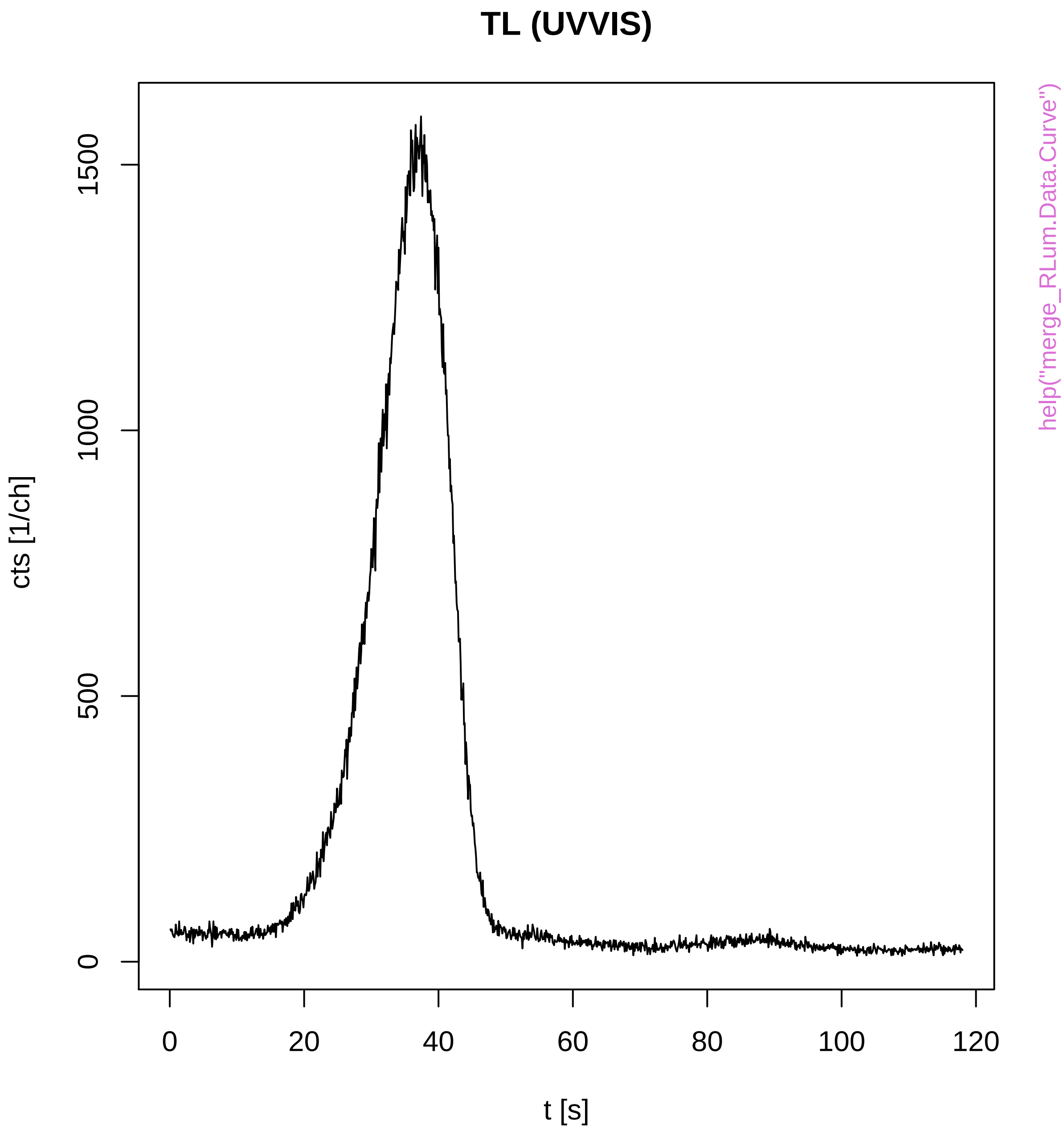
D_e distribution
n = 25 | in 2 sigma = 68 %
n = 62 | in 2 sigma = 41.9 %
Standardised estimate
4000
3000
2000
1000
D_e [Gy]
help("get_Layout")
help("get_Layout")
Relative standard error (%)
10
5
3.3
0
10
20
30
0
0.015
Precision
Density (bw 0.085)

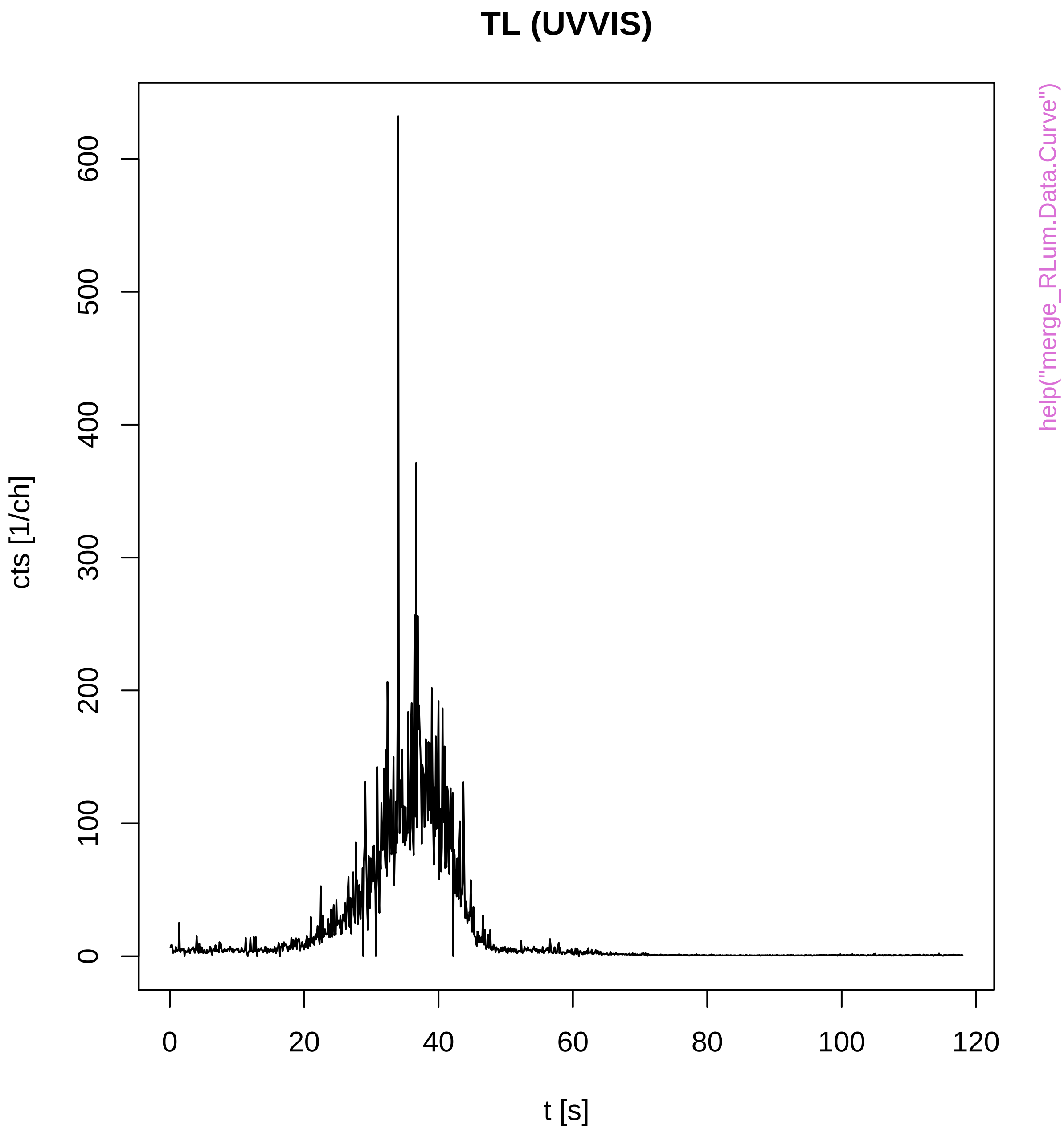


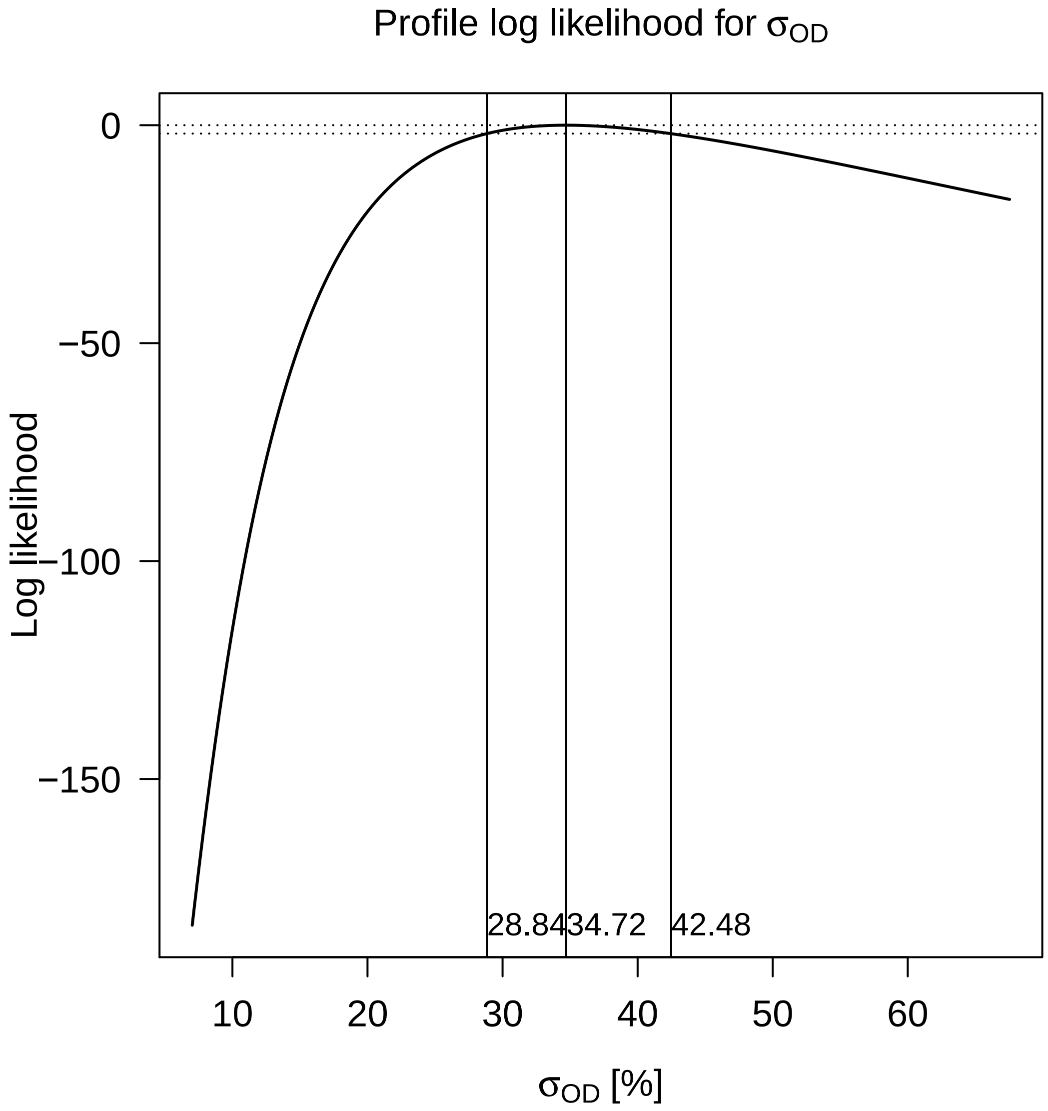
Profile log likelihood for σ_OD
0
−50
−100
−150
Log likelihood
28.84
34.72
42.48
10
20
30
40
50
60
σ_OD [%]



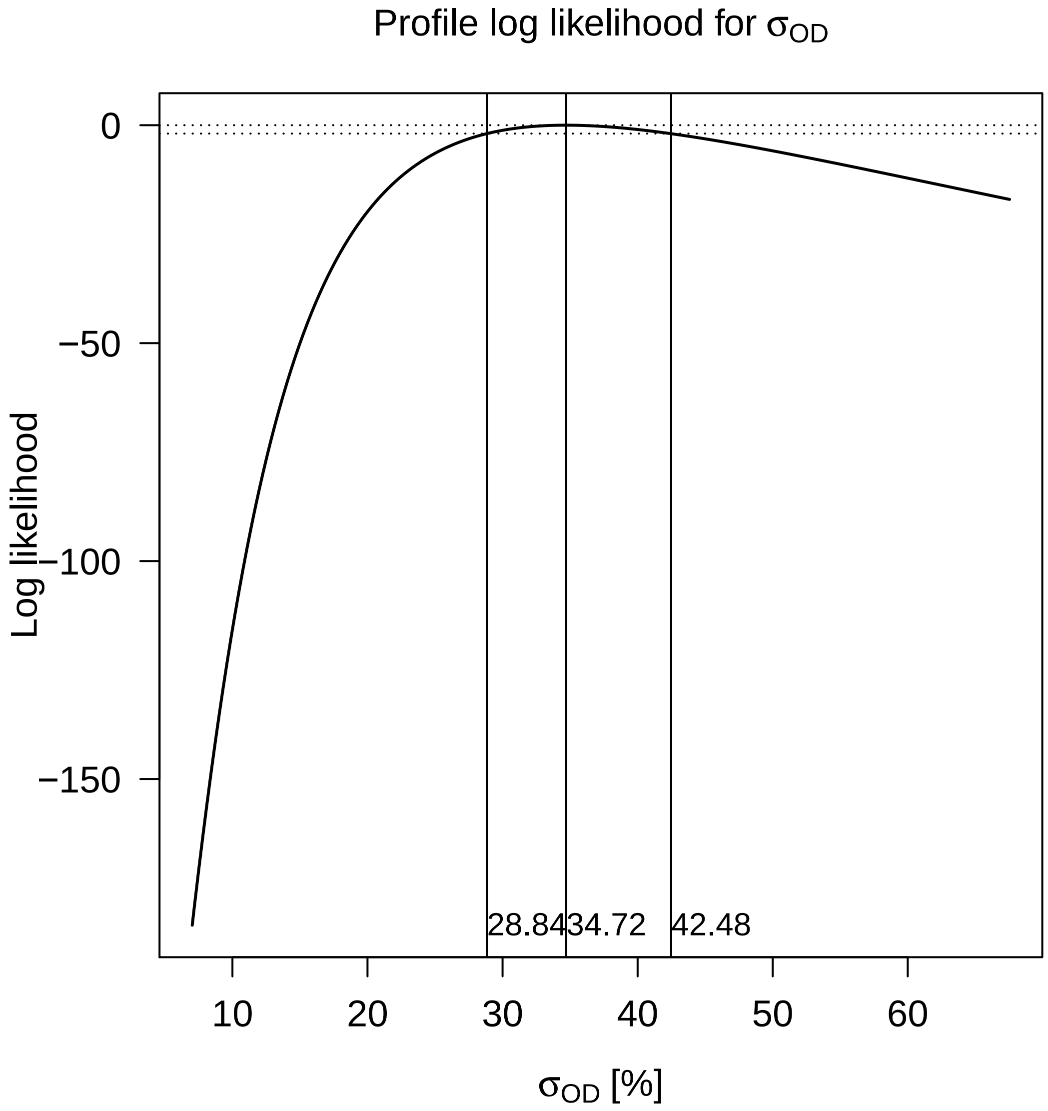
TL (UVVIS)
cts [1/ch]
t [s]
0
20
40
60
80
0
20
40
60
80
100
120
help("merge_RLum.Data.Curve")


TL (UVVIS)
cts [1/ch]
t [s]
0
500
1000
1500
0
20
40
60
80
100
120
help("merge_RLum.Data.Curve")

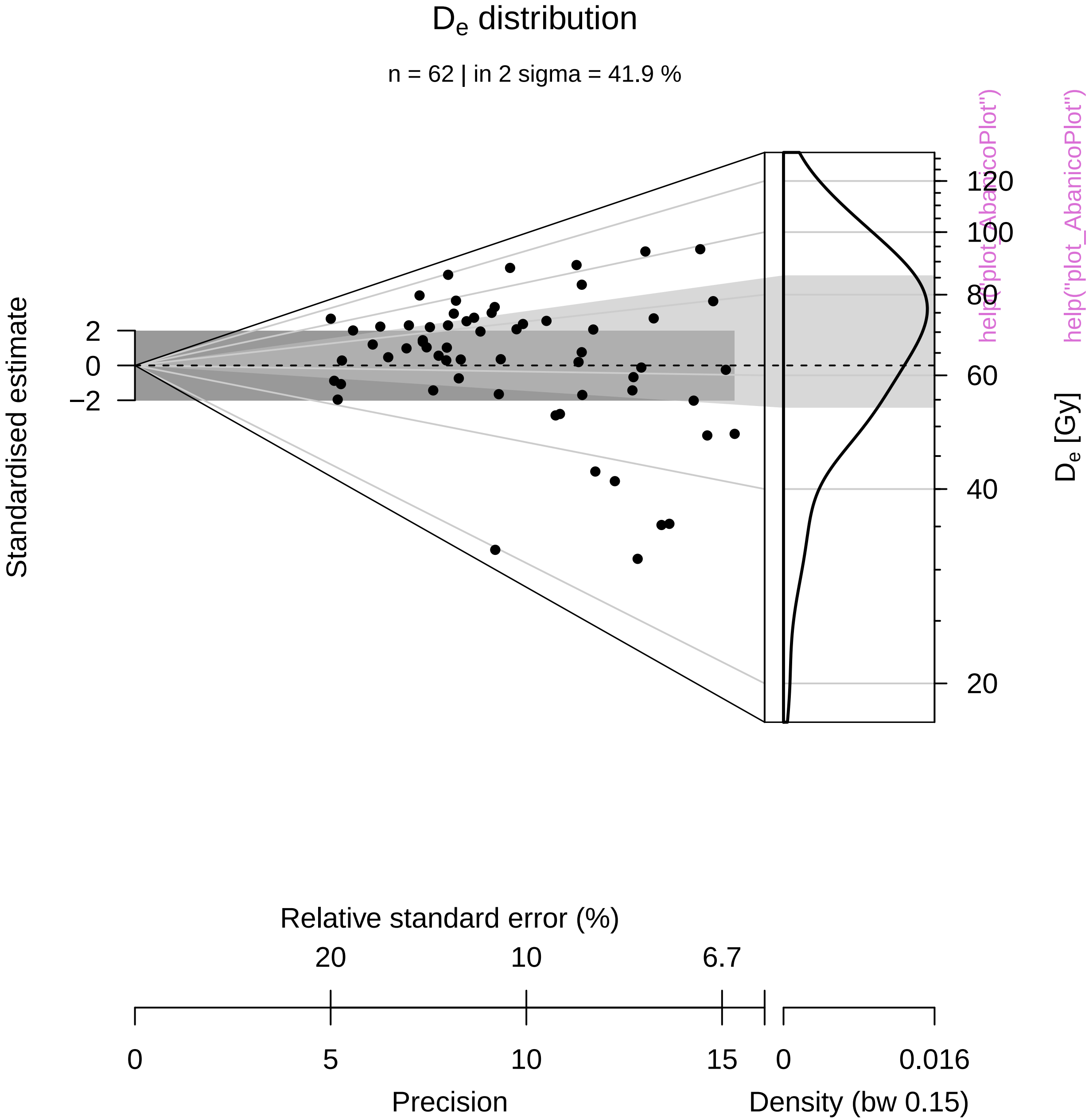

TL (UVVIS)
cts [1/ch]
0
100
200
300
400
500
600
t [s]
0
20
40
60
80
100
120
help("merge_RLum.Data.Curve")

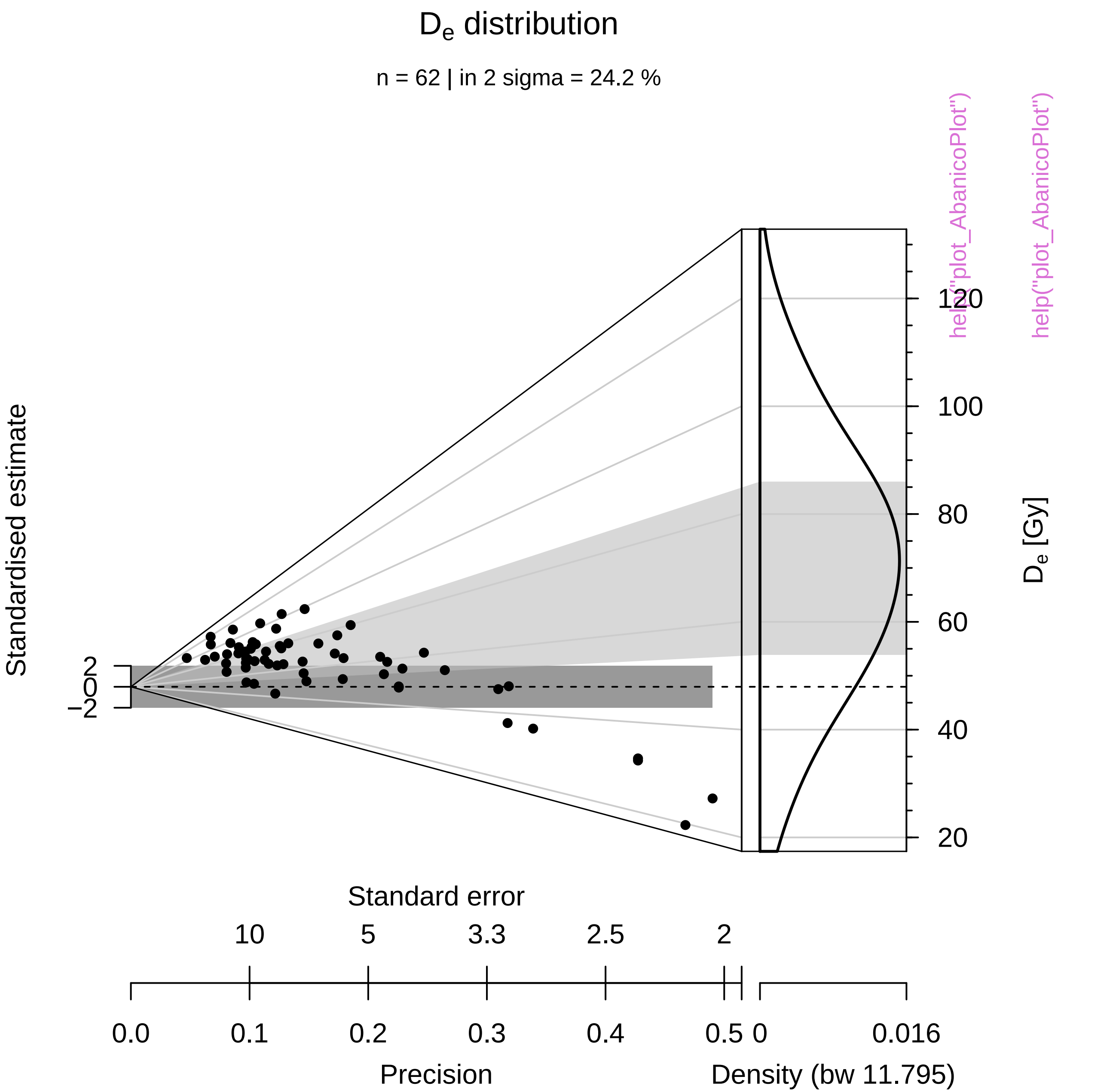


Profile log likelihood for σOD
0
−50
−100
−150
Log likelihood
28.84
34.72
42.48
10
20
30
40
50
60
σOD [%]

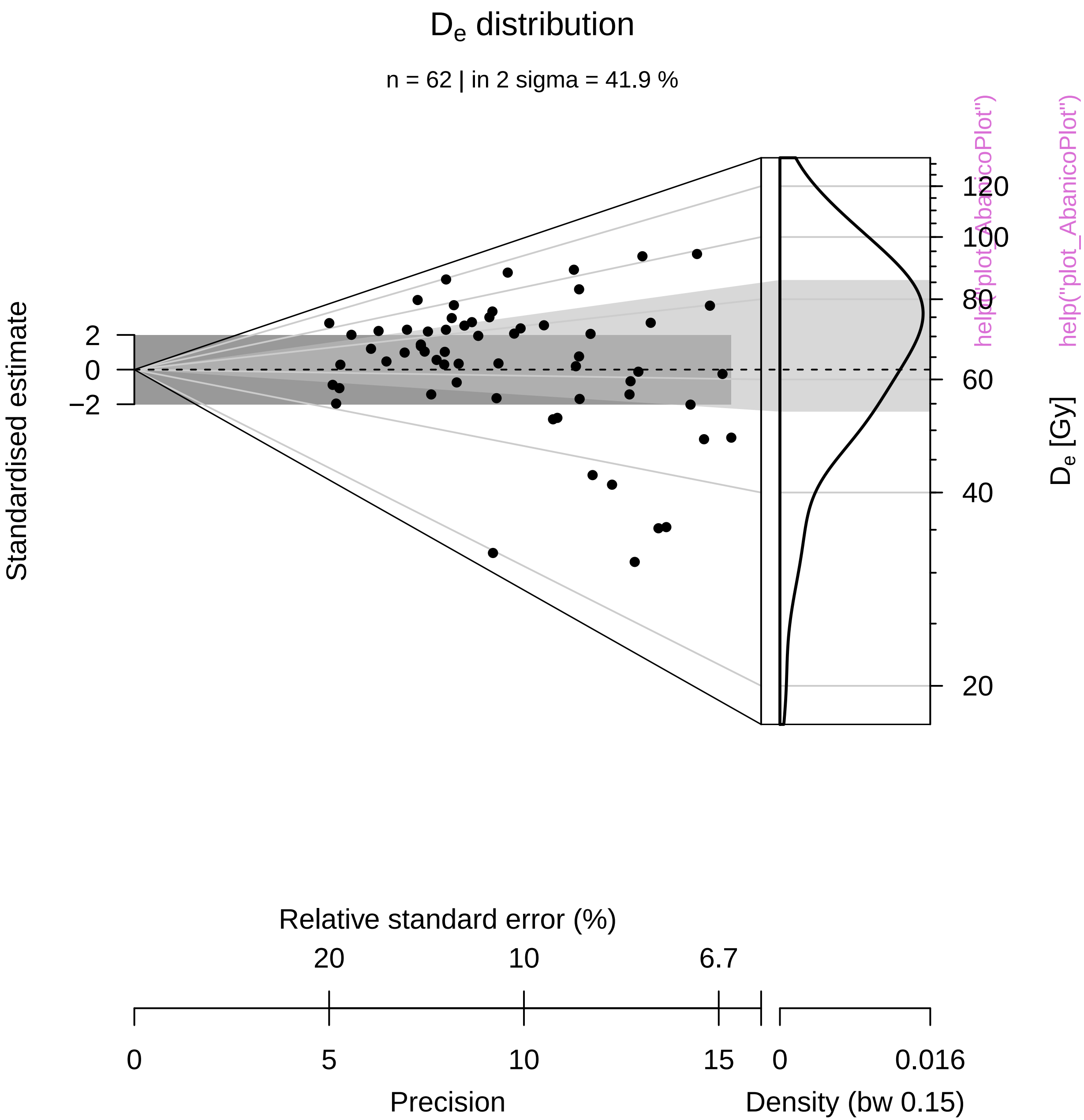


Profile log likelihood for σ_{OD}
0
−50
−100
−150
Log likelihood
28.84
34.72
42.48
10
20
30
40
50
60
σ_{OD} [%]

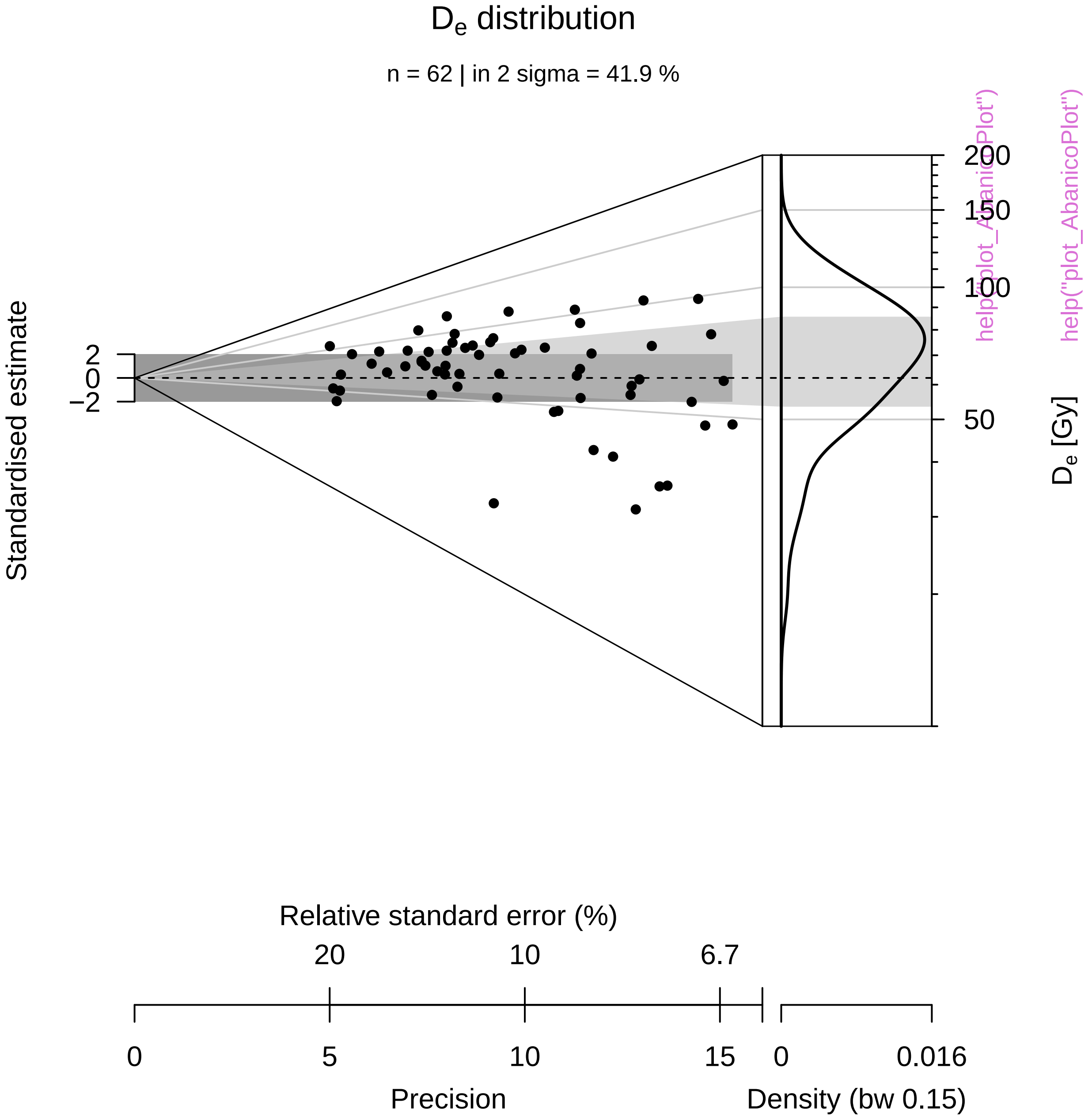

De distribution
n = 62 | in 2 sigma = 41.9 %
Standardised estimate
2
0
−2
120
100
80
60
40
20
De [Gy]
help("plot_AbanicoPlot")
help("plot_AbanicoPlot")
Relative standard error (%)
20
10
6.7
0
5
10
15
Precision
0
0.016
Density (bw 0.15)



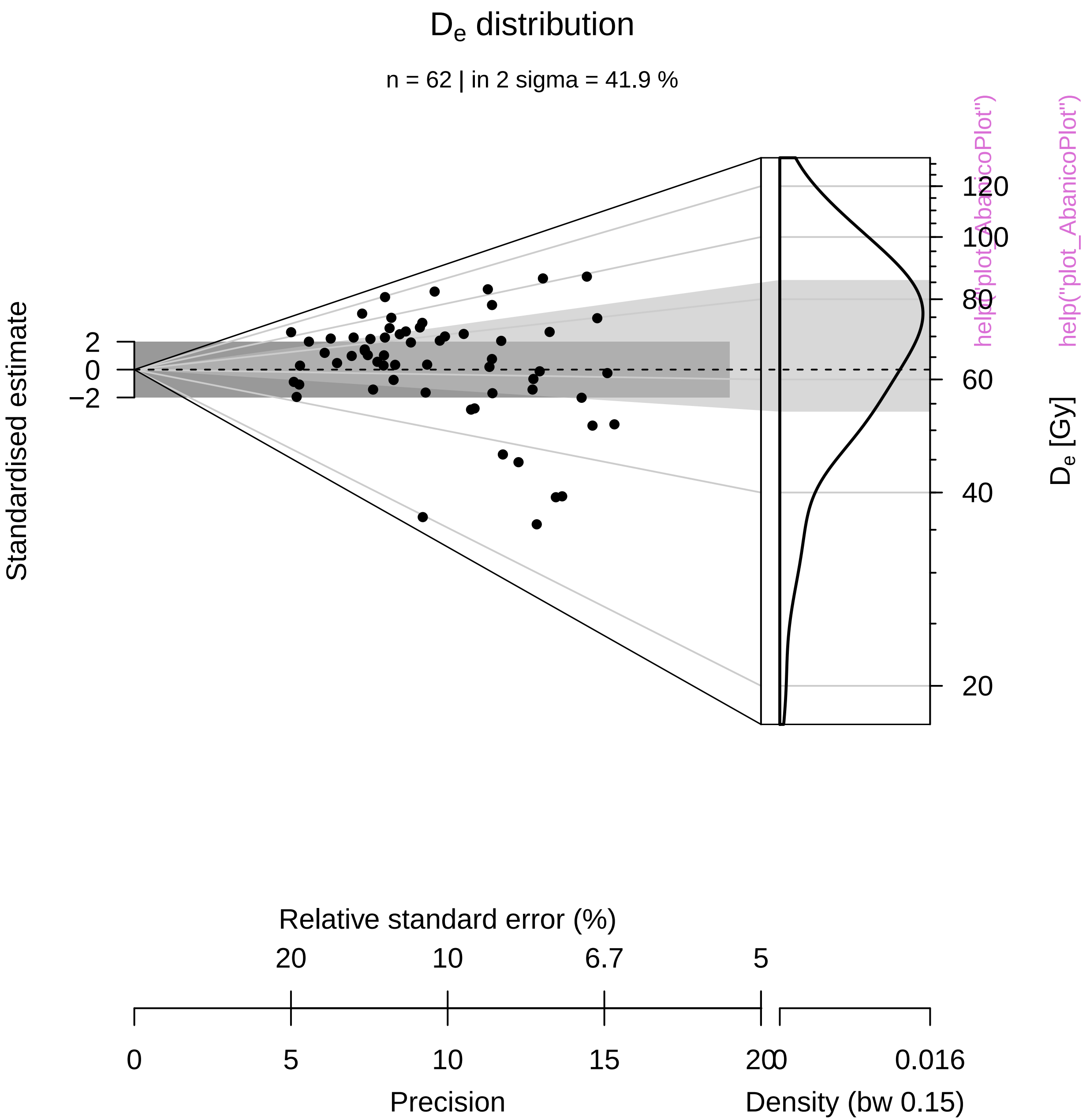
De distribution
n = 62 | in 2 sigma = 24.2 %
help("plot_AbanicoPlot")
help("plot_AbanicoPlot")
Standardised estimate
2
0
-2
120
100
80
60
40
20
De [Gy]
Standard error
10
5
3.3
2.5
2
0.0
0.1
0.2
0.3
0.4
0.5
0
0.016
Precision
Density (bw 11.795)



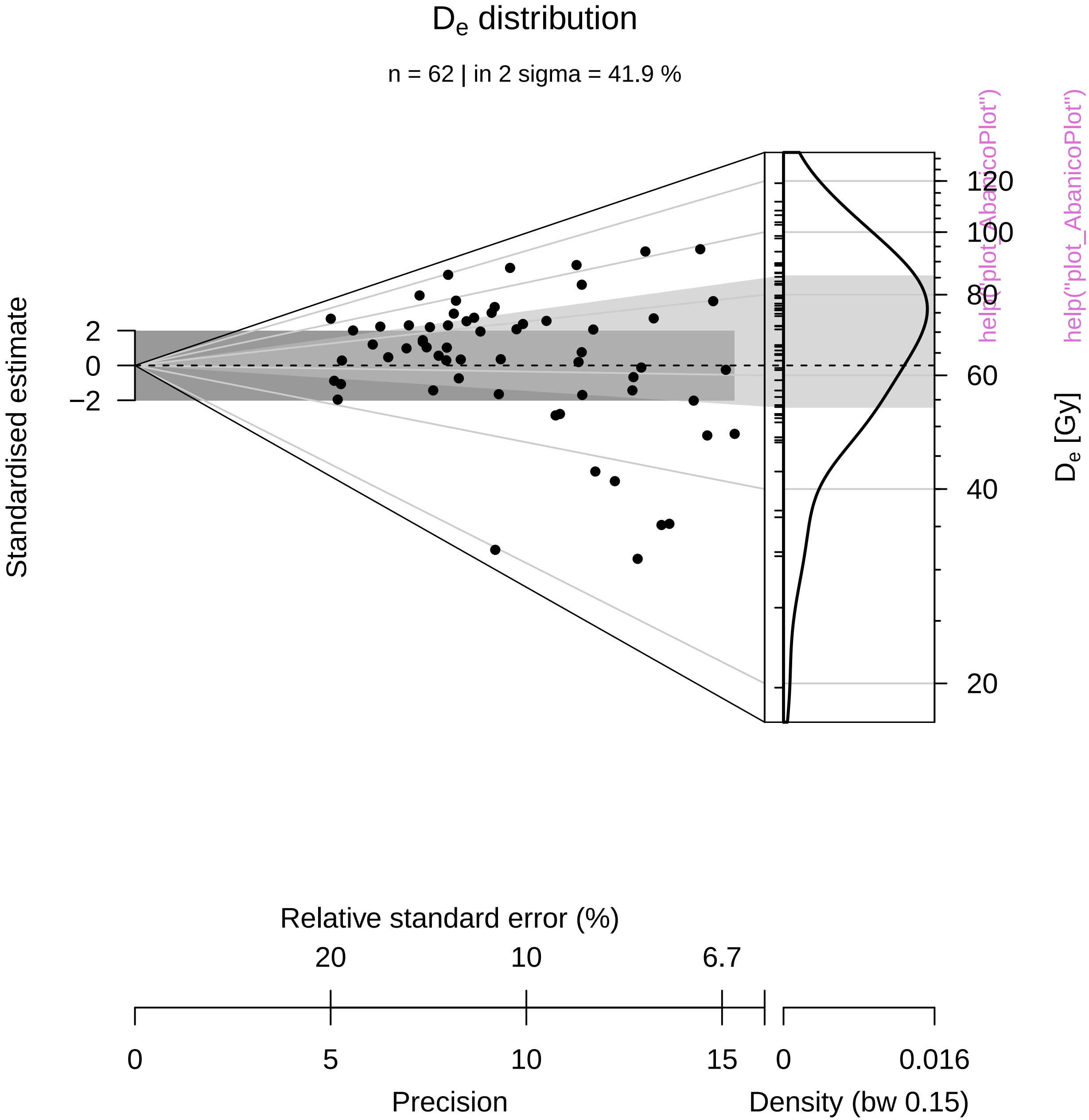
D_e distribution
n = 62 | in 2 sigma = 41.9 %
Standardised estimate
2
0
−2
120
100
80
60
40
20
D_e [Gy]
help("plot_AbanicoPlot")
help("plot_AbanicoPlot")
Relative standard error (%)
20
10
6.7
0
5
10
15
Precision
0
0.016
Density (bw 0.15)



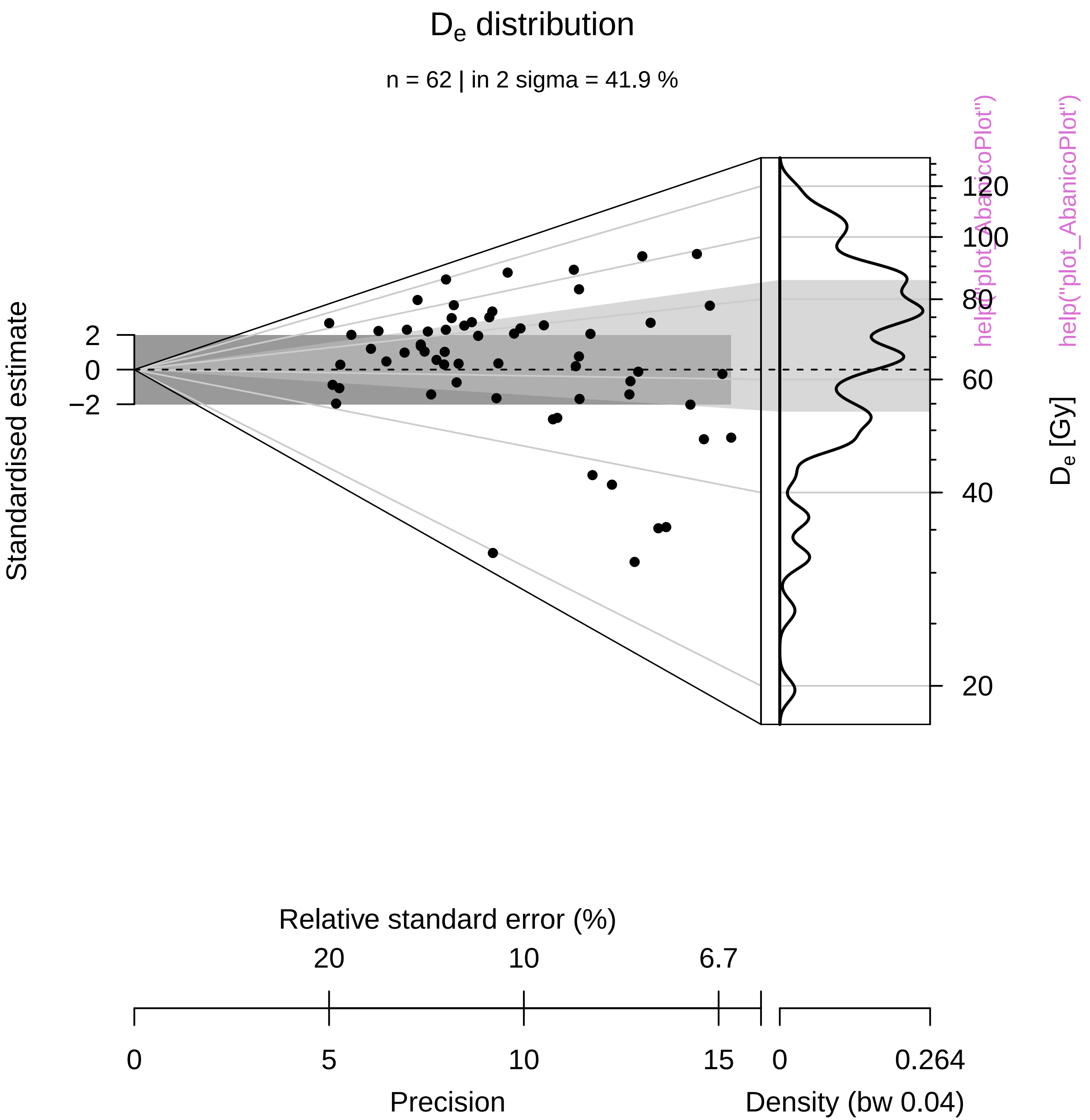
D$_e$ distribution
n = 62 | in 2 sigma = 41.9 %
Standardised estimate
2
0
-2
200
150
100
50
D$_e$ [Gy]
help("plot_AbanicoPlot")
help("plot_AbanicoPlot")
Relative standard error (%)
20
10
6.7
0
5
10
15
Precision
0
0.016
Density (bw 0.15)



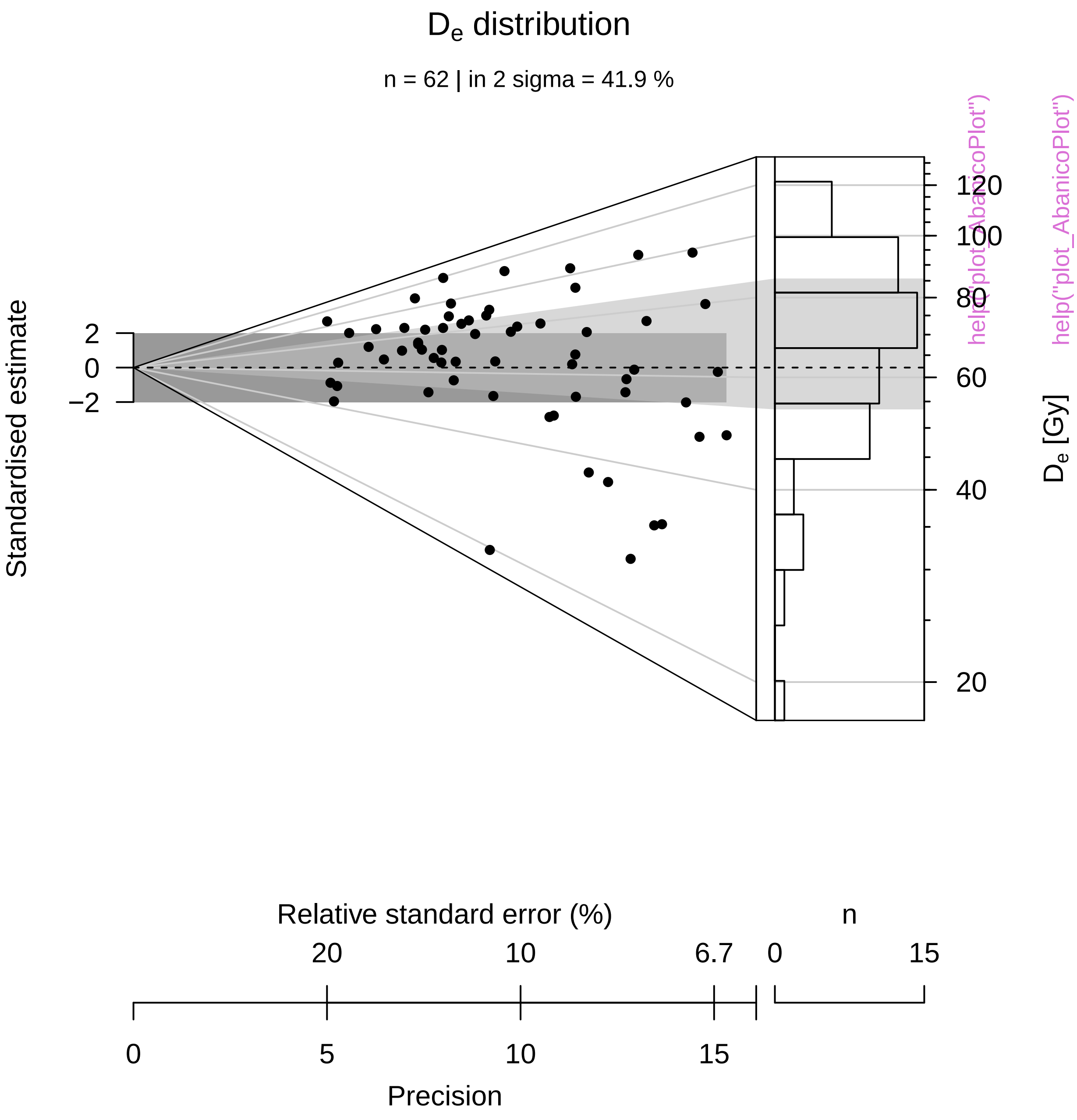
D_e distribution
n = 62 | in 2 sigma = 41.9 %
Standardised estimate
2
0
−2
help("plot_AbanicoPlot")
help("plot_AbanicoPlot")
120
100
80
60
40
20
D_e [Gy]
Relative standard error (%)
20
10
6.7
5
0
5
10
15
20
0
0.016
Precision
Density (bw 0.15)



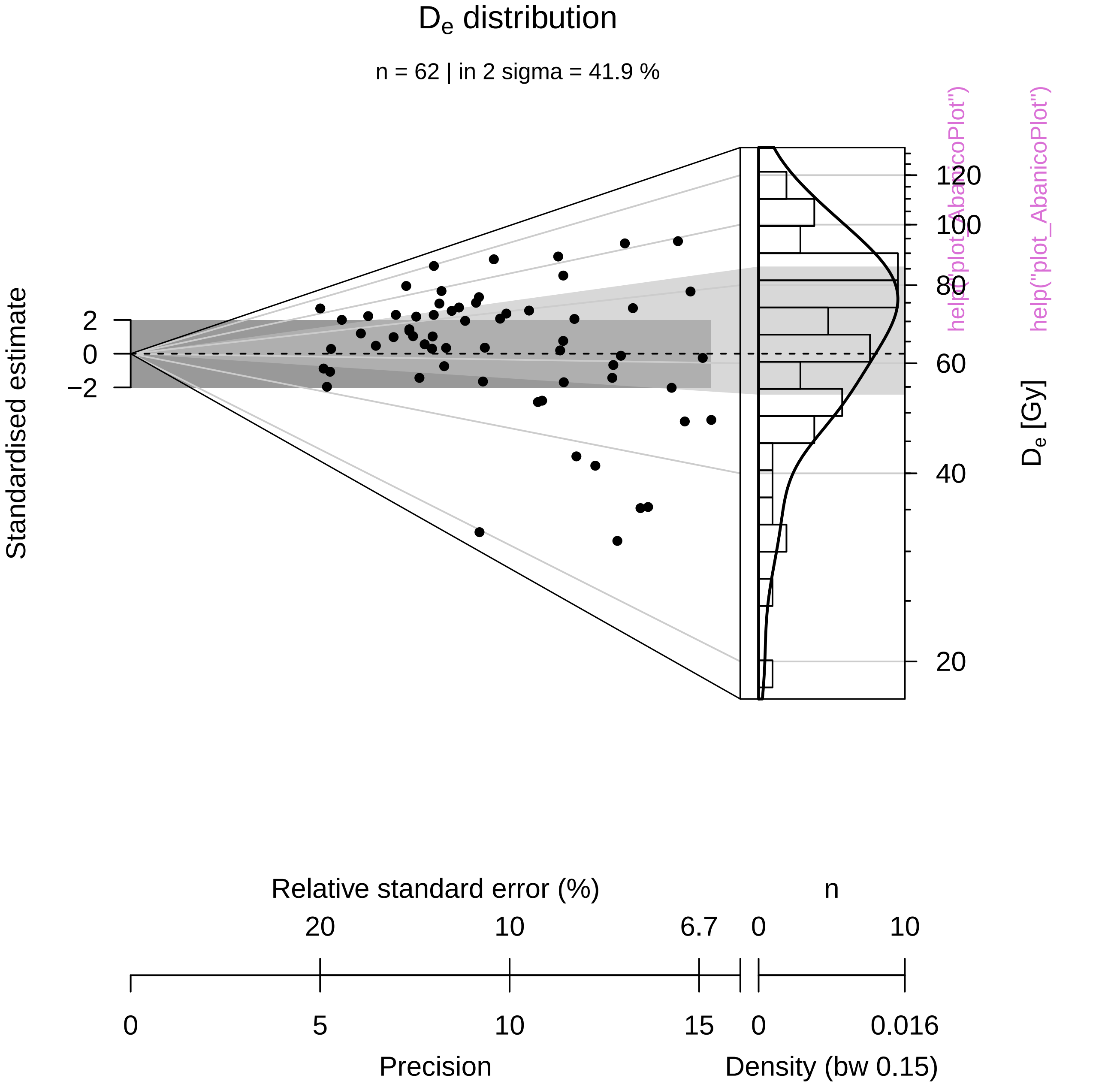
D_e distribution
n = 62 | in 2 sigma = 41.9 %
Standardised estimate
2
0
−2
120
100
80
60
40
20
D_e [Gy]
help("plot_AbanicoPlot")
help("plot_AbanicoPlot")
Relative standard error (%)
20
10
6.7
0
5
10
15
0
0.016
Precision
Density (bw 0.15)



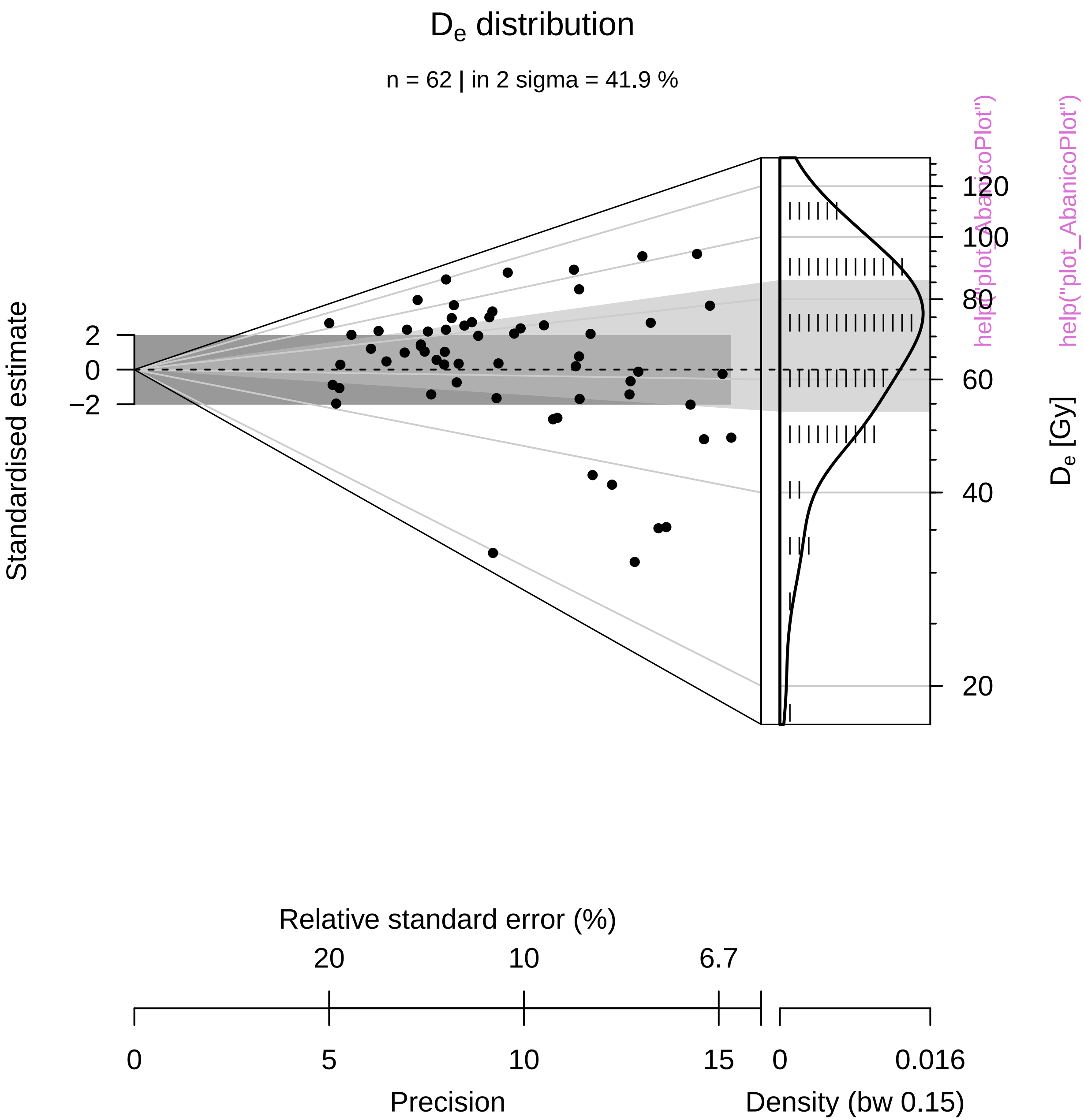
De distribution
n = 62 | in 2 sigma = 41.9 %
Standardised estimate
2
0
−2
120
100
80
60
40
20
De [Gy]
help("plot_AbanicoPlot")
help("plot_AbanicoPlot")
Relative standard error (%)
20
10
6.7
0
5
10
15
Precision
0
0.264
Density (bw 0.04)



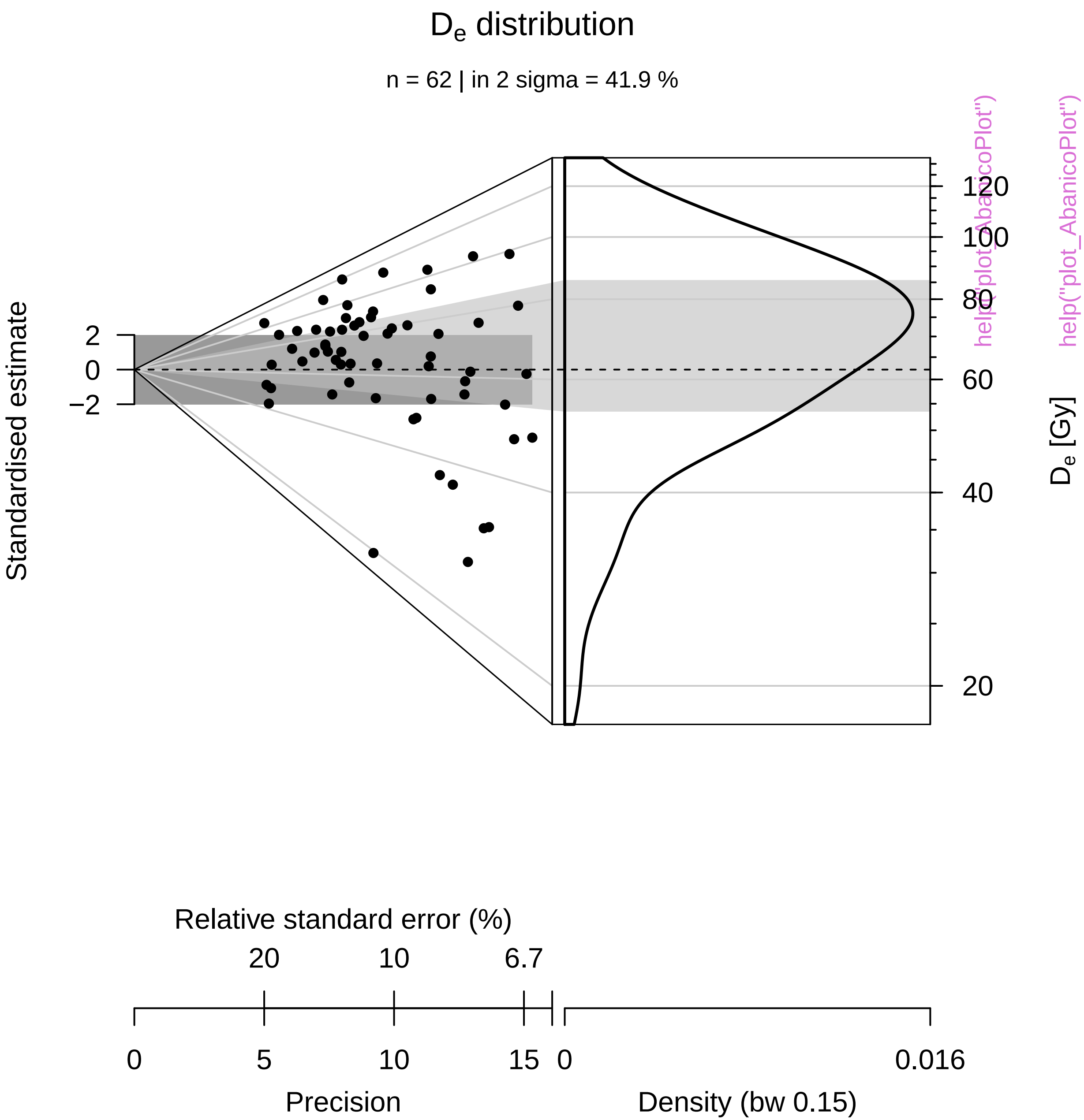
De distribution
n = 62 | in 2 sigma = 41.9 %
help("plot_AbanicoPlot")
help("plot_AbanicoPlot")
Standardised estimate
2
0
−2
120
100
80
60
40
20
De [Gy]
Relative standard error (%)
20
10
6.7
n
0
15
0
5
10
15
Precision



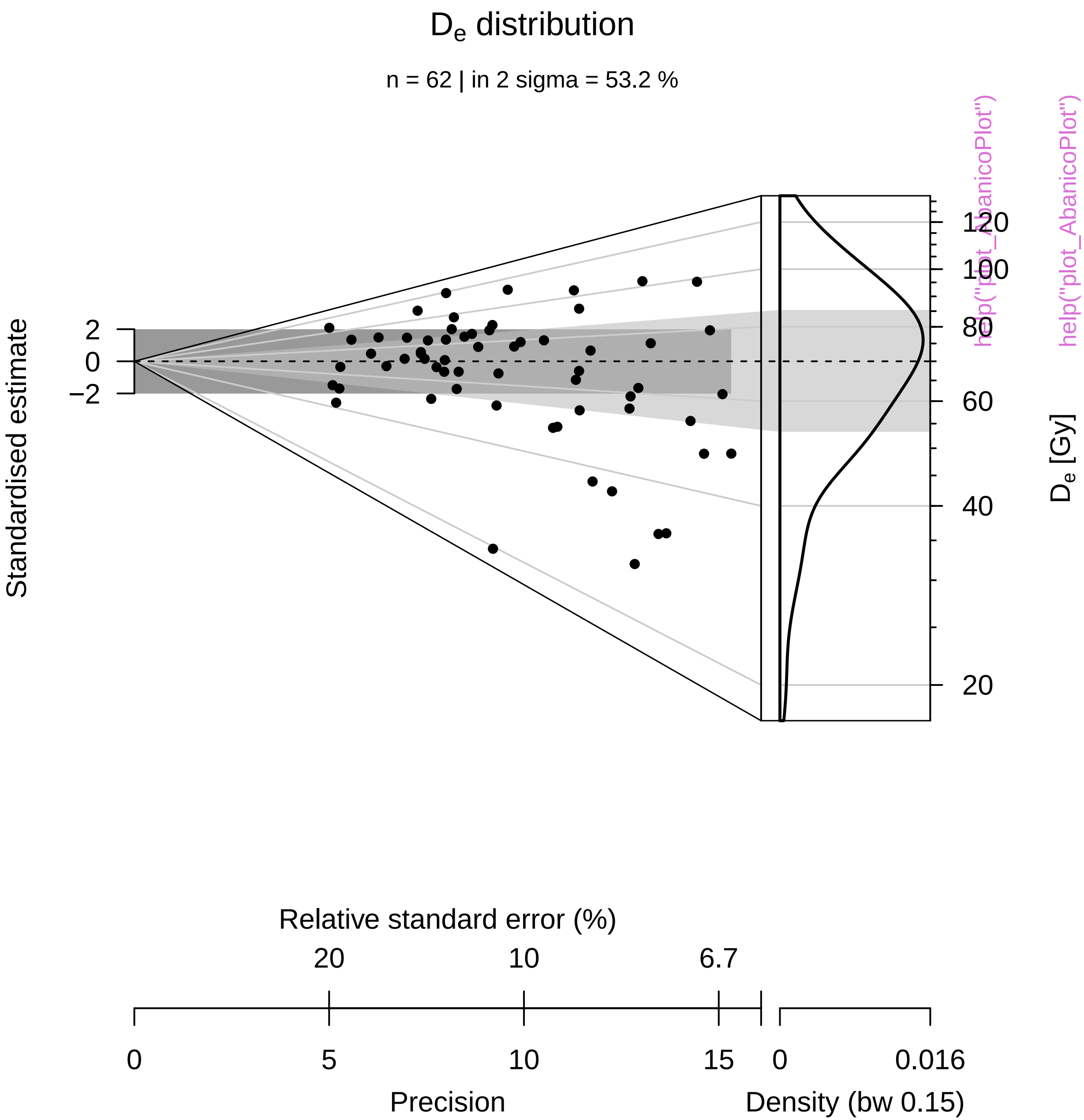
De distribution
n = 62 | in 2 sigma = 41.9 %
Standardised estimate
2
0
−2
120
100
80
60
40
20
De [Gy]
help("plot_AbanicoPlot")
help("plot_AbanicoPlot")
Relative standard error (%)
20
10
6.7
n
0
10
0
5
10
15
0
0.016
Precision
Density (bw 0.15)



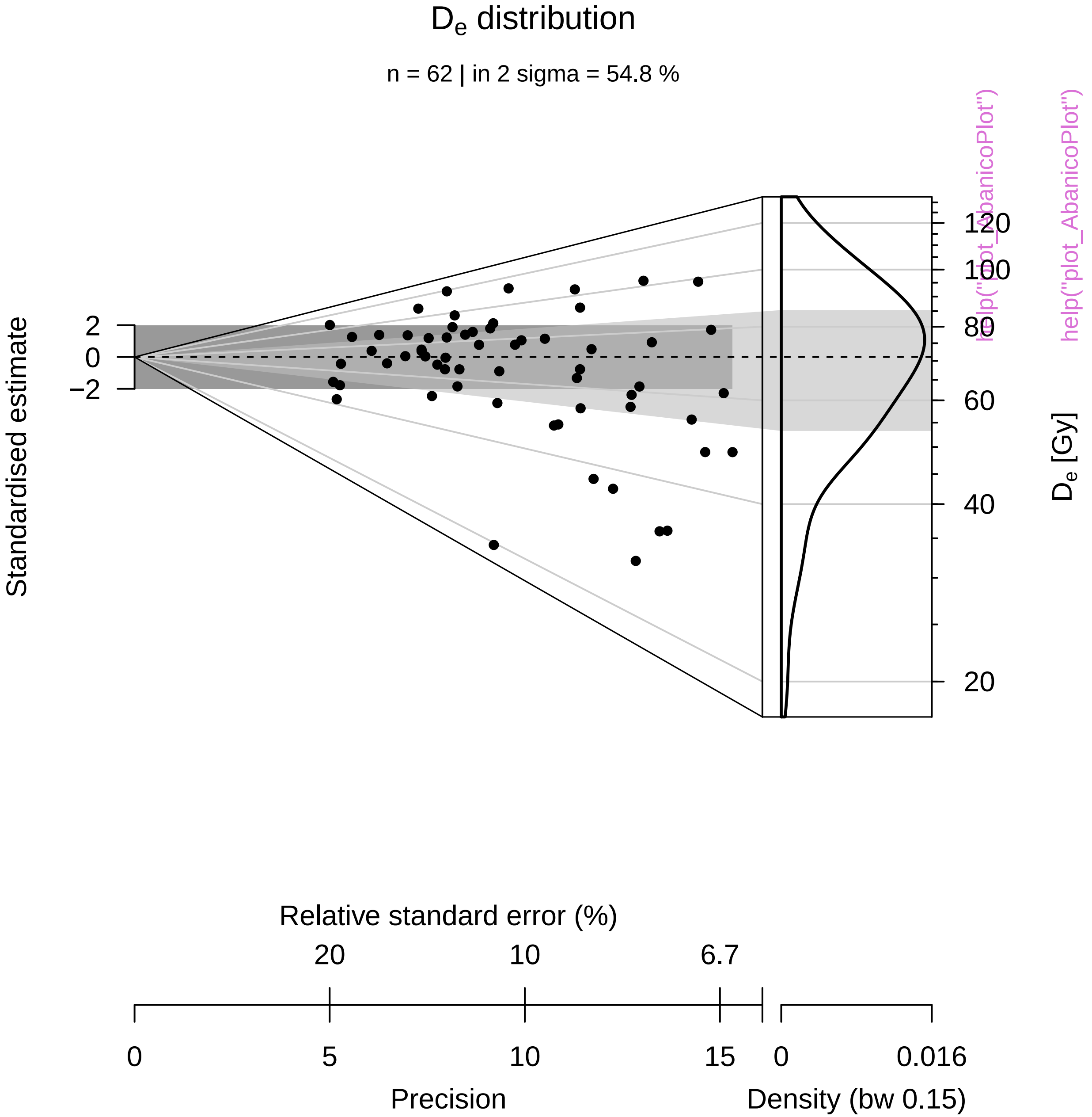
D_e distribution
n = 62 | in 2 sigma = 41.9 %
Standardised estimate
2
0
−2
120
100
80
60
40
20
D_e [Gy]
help("plot_AbanicoPlot")
help("plot_AbanicoPlot")
Relative standard error (%)
20
10
6.7
0
5
10
15
Precision
0
0.016
Density (bw 0.15)

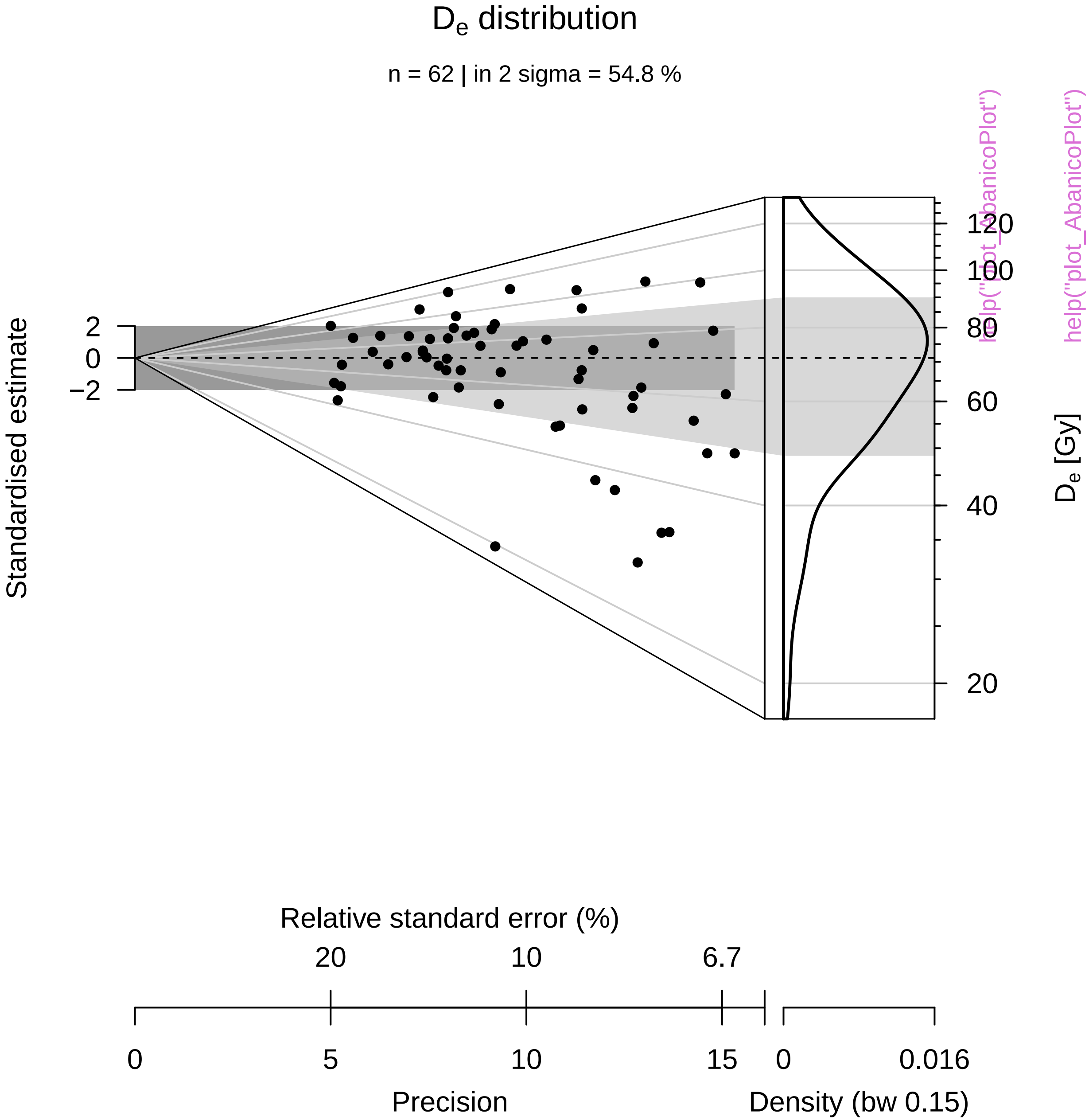


De distribution
n = 62 | in 2 sigma = 41.9 %
Standardised estimate
2
0
−2
120
100
80
60
40
20
De [Gy]
help("plot_AbanicoPlot")
help("plot_AbanicoPlot")
Relative standard error (%)
20
10
6.7
0
5
10
15
0
0.016
Precision
Density (bw 0.15)

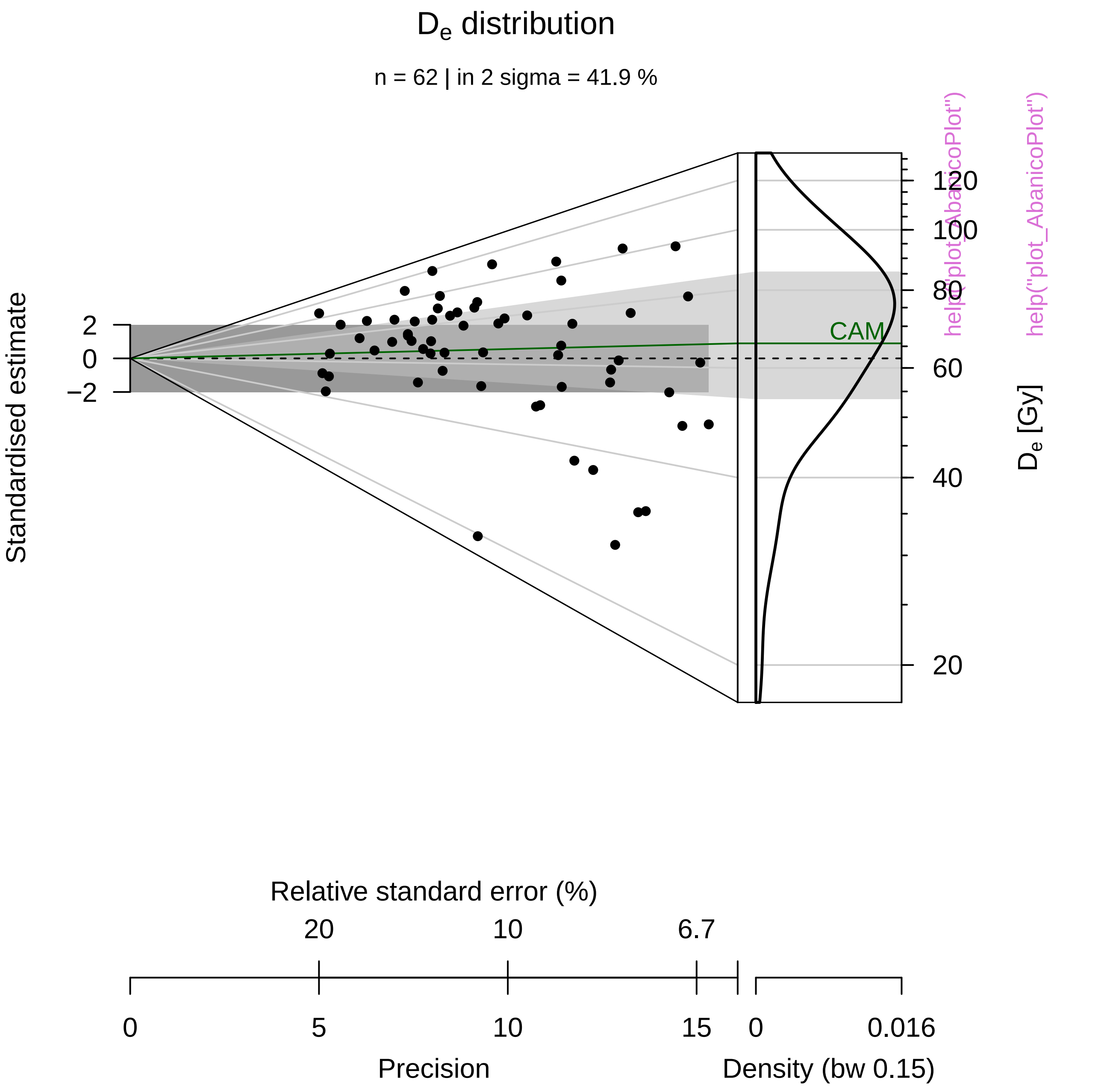


D_e distribution
n = 62 | in 2 sigma = 53.2 %
Standardised estimate
2
0
−2
120
100
80
60
40
20
D_e [Gy]
help("plot_AbanicoPlot")
help("plot_AbanicoPlot")
Relative standard error (%)
20
10
6.7
0
5
10
15
Precision
0
0.016
Density (bw 0.15)

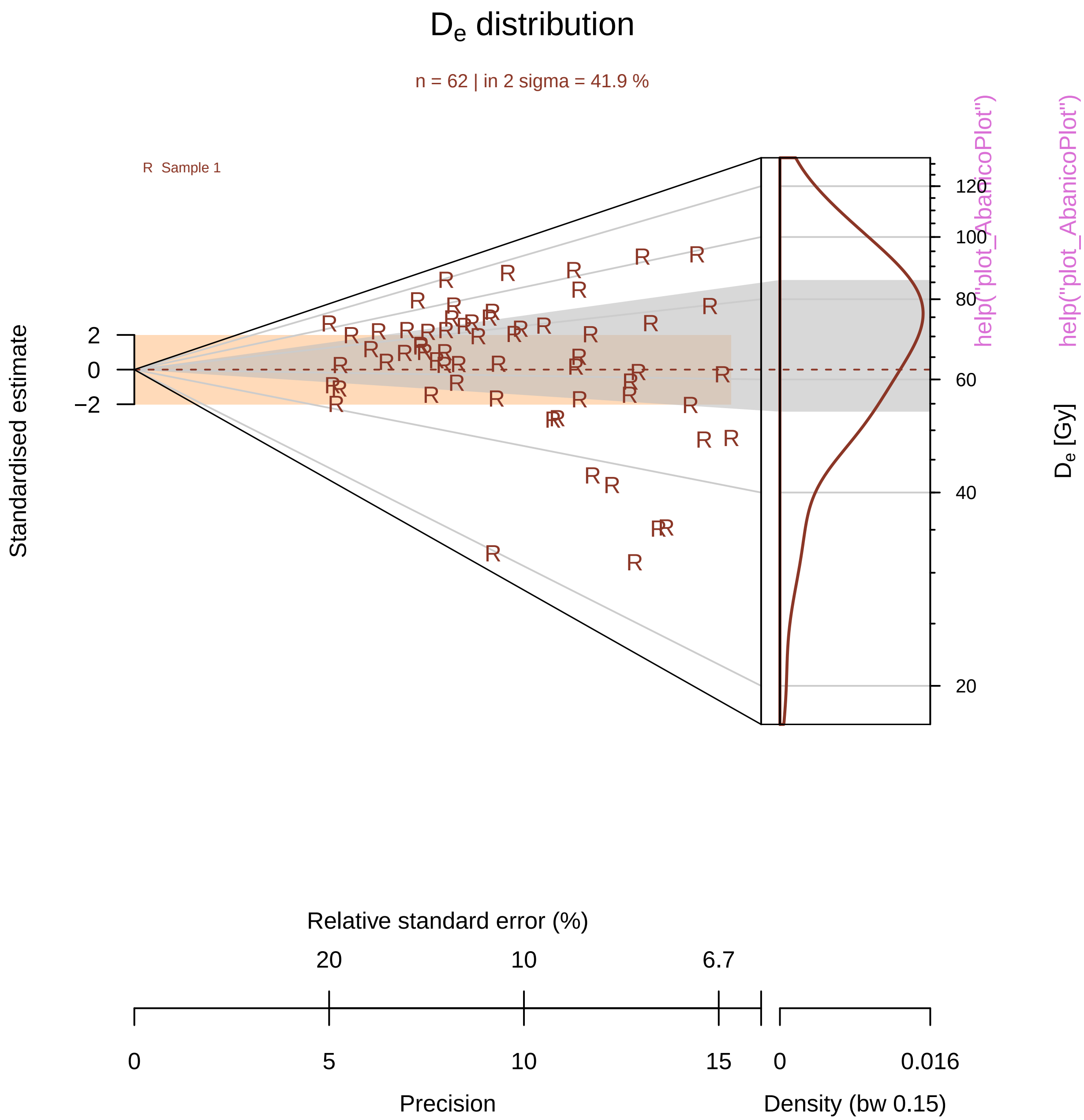

De distribution
n = 62 | in 2 sigma = 54.8 %
Standardised estimate
2
0
−2
120
100
80
60
40
20
De [Gy]
help("plot_AbanicoPlot")
help("plot_AbanicoPlot")
Relative standard error (%)
20
10
6.7
0
5
10
15
Precision
0
0.016
Density (bw 0.15)



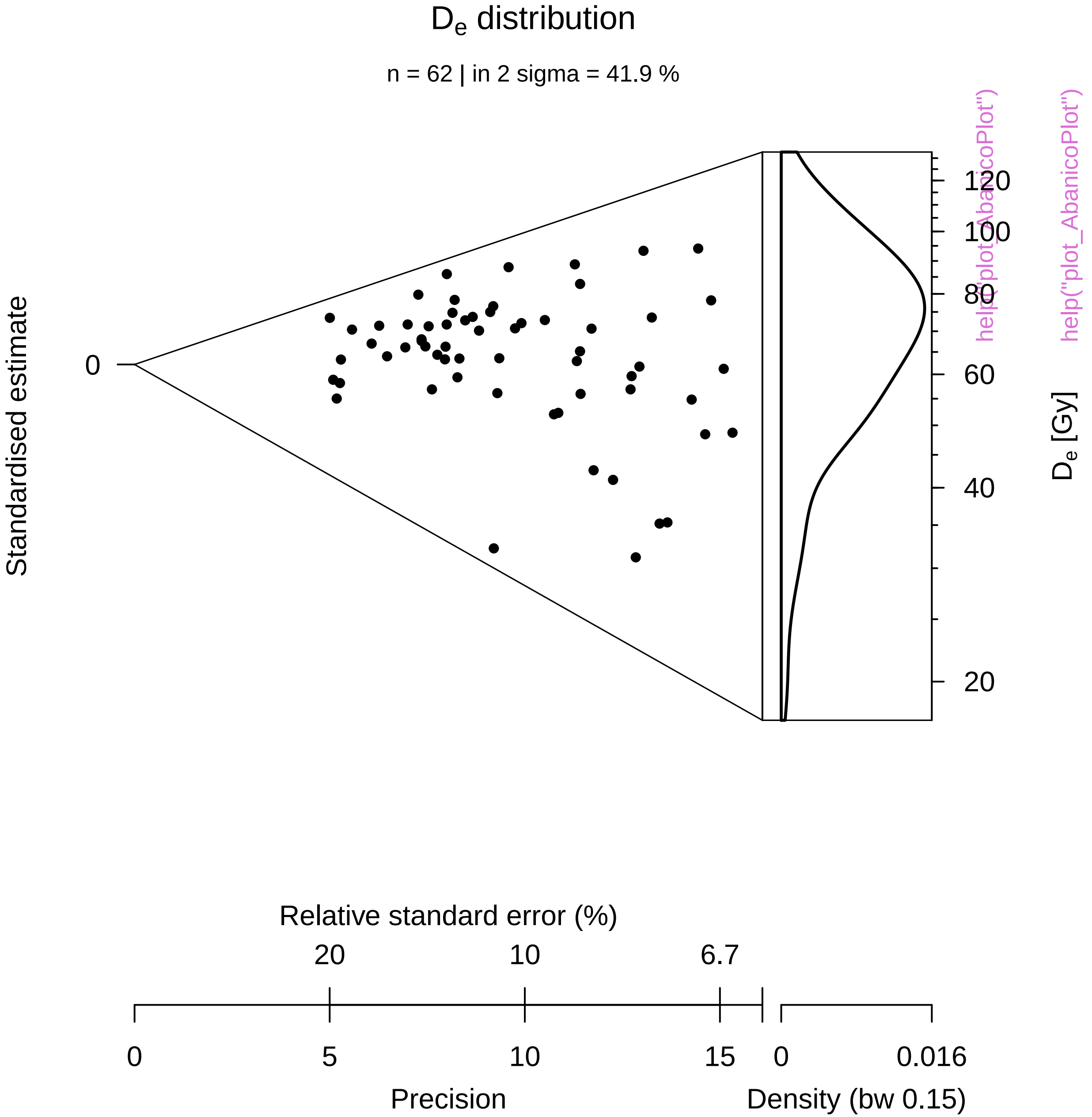
D_e distribution
n = 62 | in 2 sigma = 54.8 %
Standardised estimate
2
0
−2
120
100
80
60
40
20
D_e [Gy]
help("plot_AbanicoPlot")
help("plot_AbanicoPlot")
Relative standard error (%)
20
10
6.7
0
5
10
15
Precision
0
0.016
Density (bw 0.15)

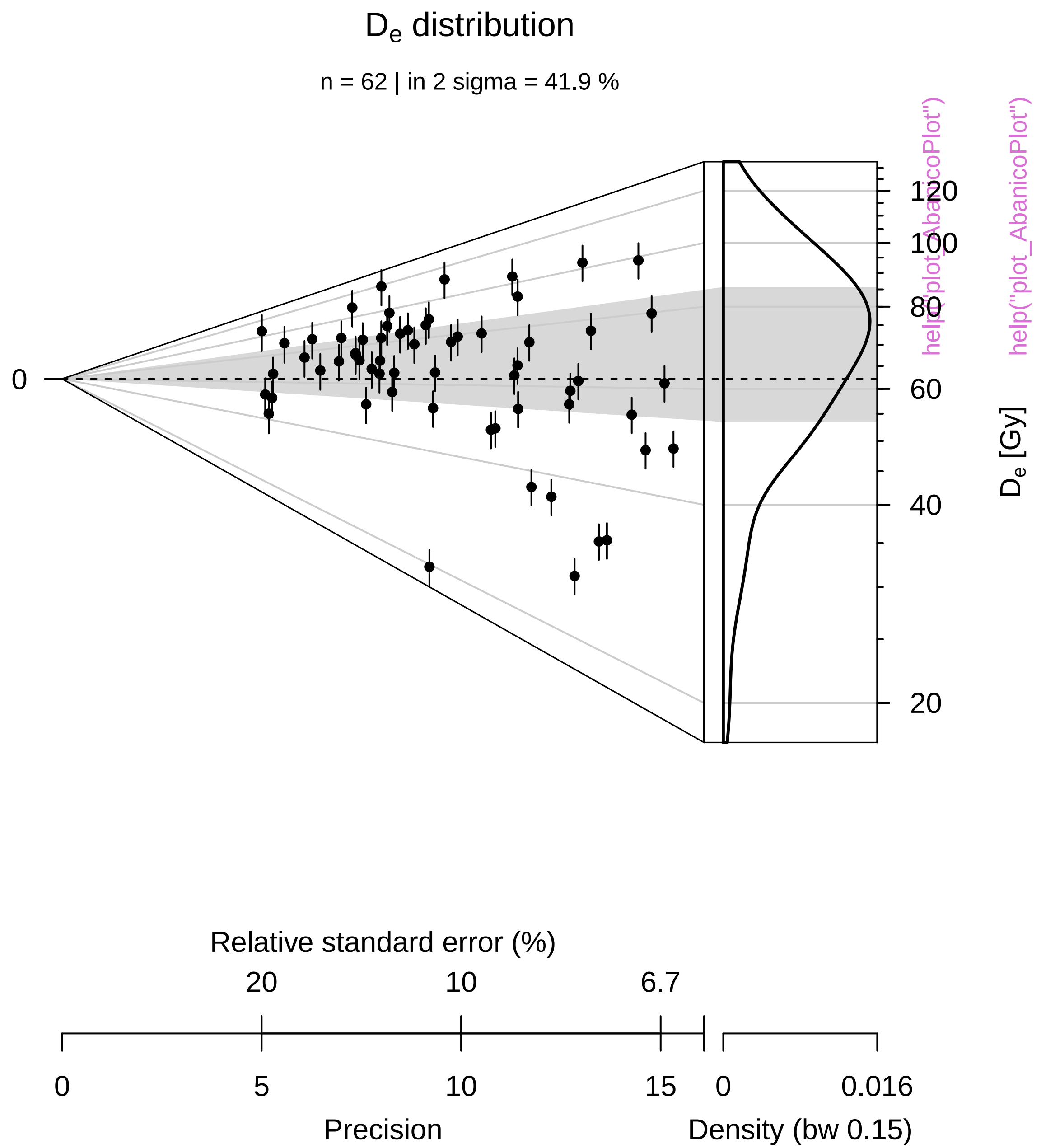


D_e distribution
n = 62 | in 2 sigma = 41.9 %
Standardised estimate
2
0
−2
CAM
120
100
80
60
40
20
D_e [Gy]
help("plot_AbanicoPlot")
help("plot_AbanicoPlot")
Relative standard error (%)
20
10
6.7
0
5
10
15
Precision
0
0.016
Density (bw 0.15)

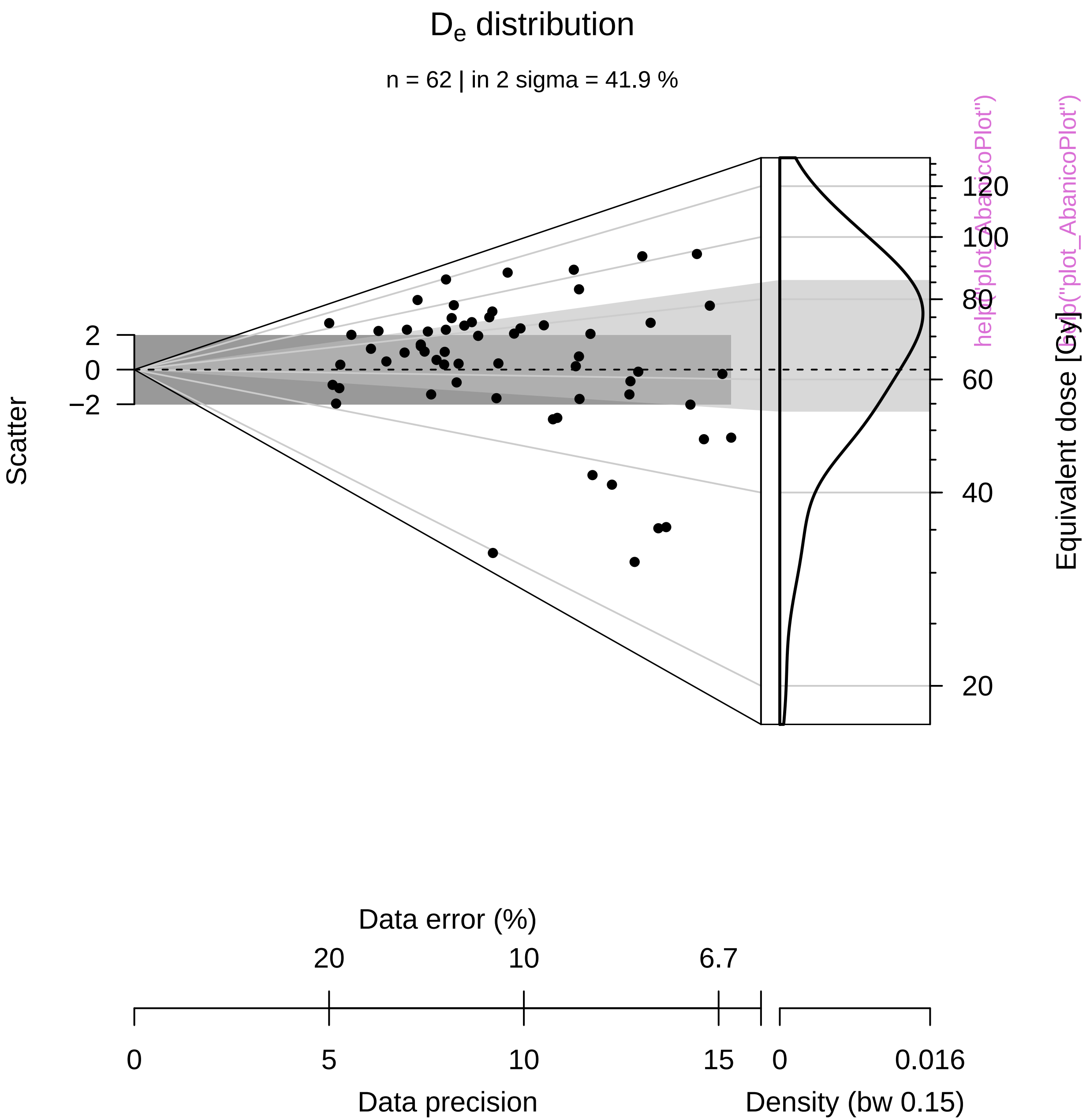


D_e distribution
n = 62 | in 2 sigma = 41.9 %
R Sample 1
Standardised estimate
2
0
−2
help("plot_AbanicoPlot")
help("plot_AbanicoPlot")
120
100
80
60
40
20
D_e [Gy]
Relative standard error (%)
20
10
6.7
0
5
10
15
0
0.016
Precision
Density (bw 0.15)

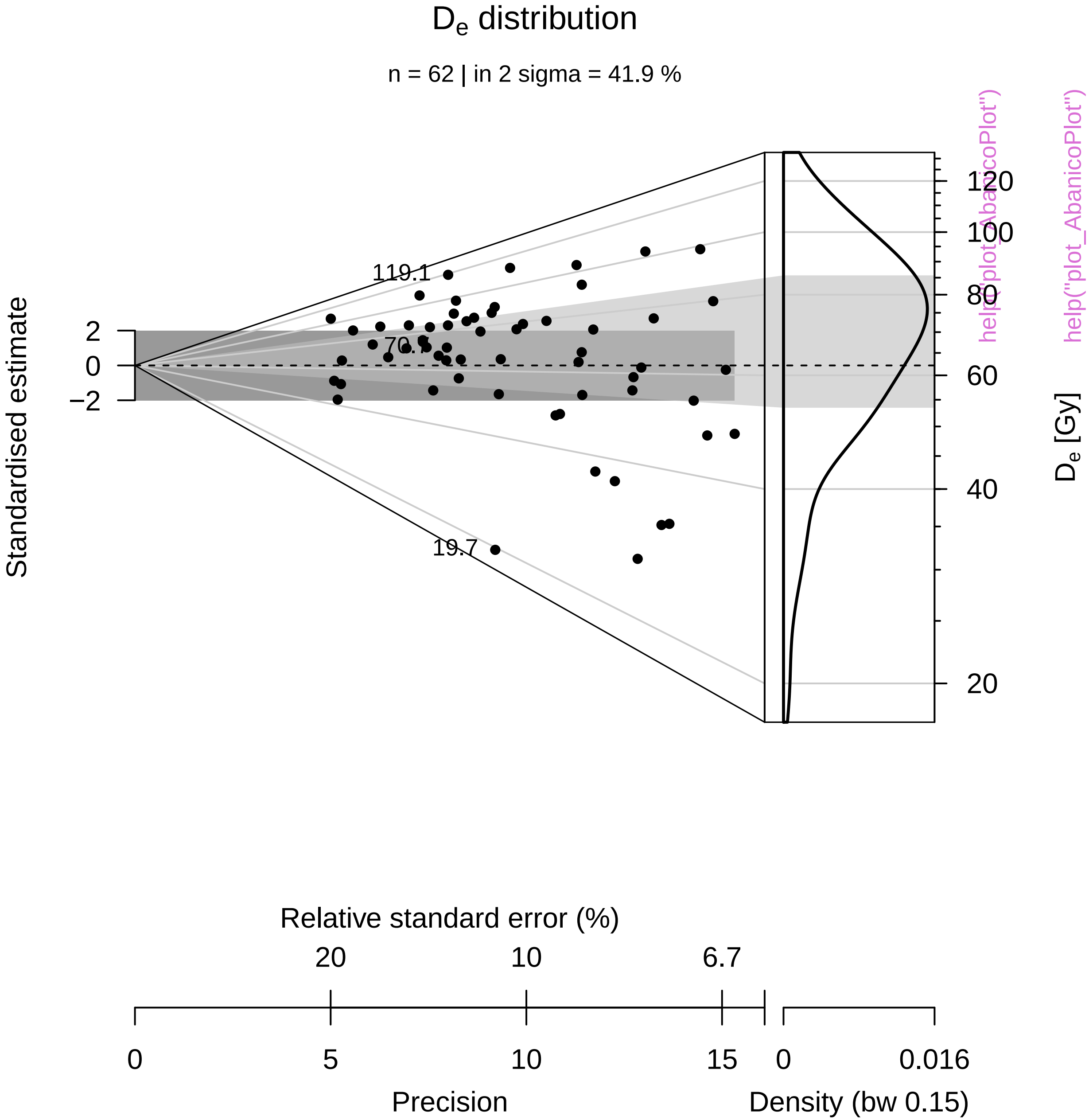

De distribution
n = 62 | in 2 sigma = 41.9 %
help("plot_AbanicoPlot")
help("plot_AbanicoPlot")
Standardised estimate
0
120
100
80
60
40
20
De [Gy]
Relative standard error (%)
20
10
6.7
0
5
10
15
Precision
0
0.016
Density (bw 0.15)



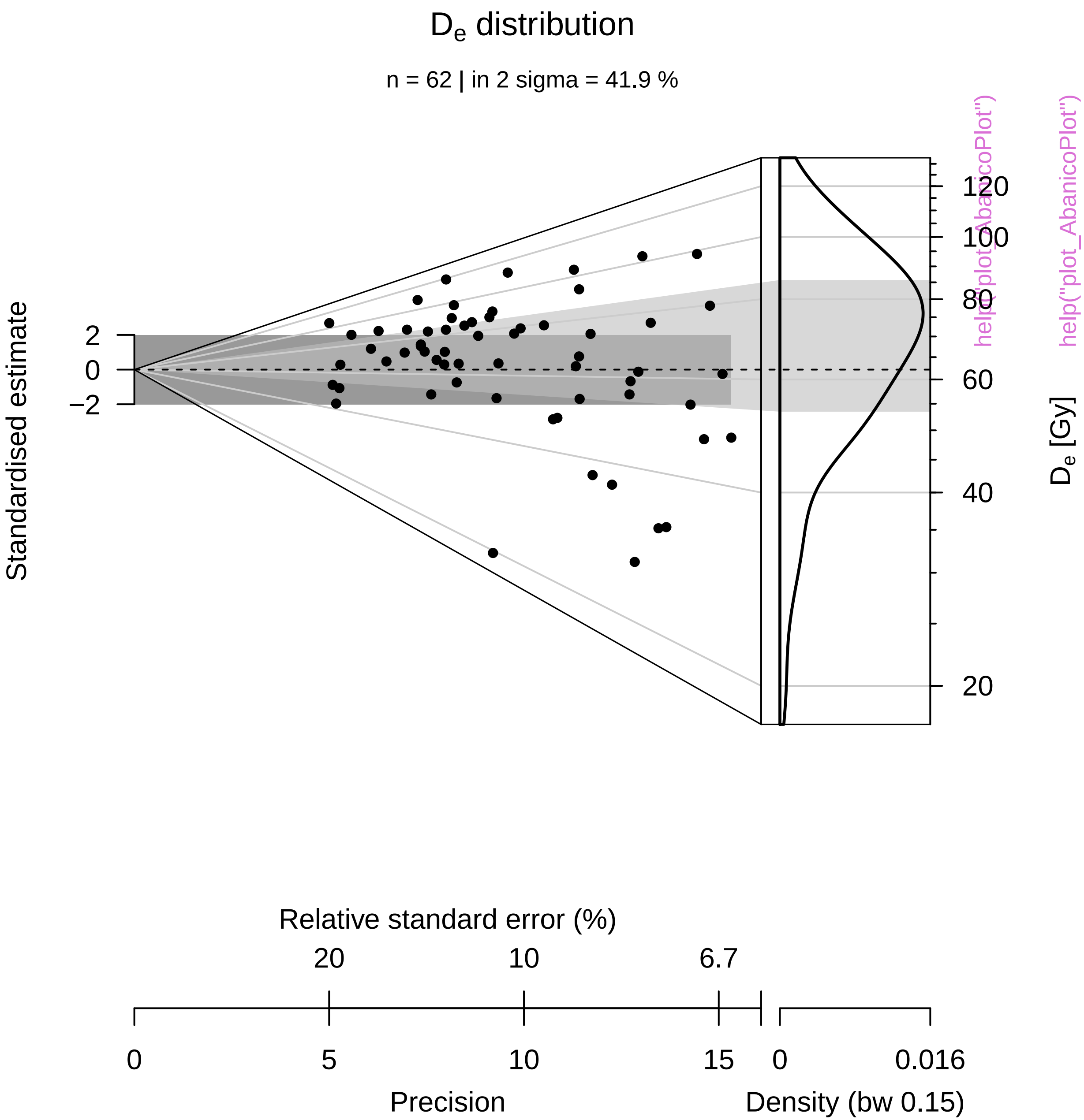
D_e distribution
n = 62 | in 2 sigma = 41.9 %
0
120
100
80
60
40
20
D_e [Gy]
help("plot_AbanicoPlot")
help("plot_AbanicoPlot")
Relative standard error (%)
20
10
6.7
0
5
10
15
0
0.016
Precision
Density (bw 0.15)



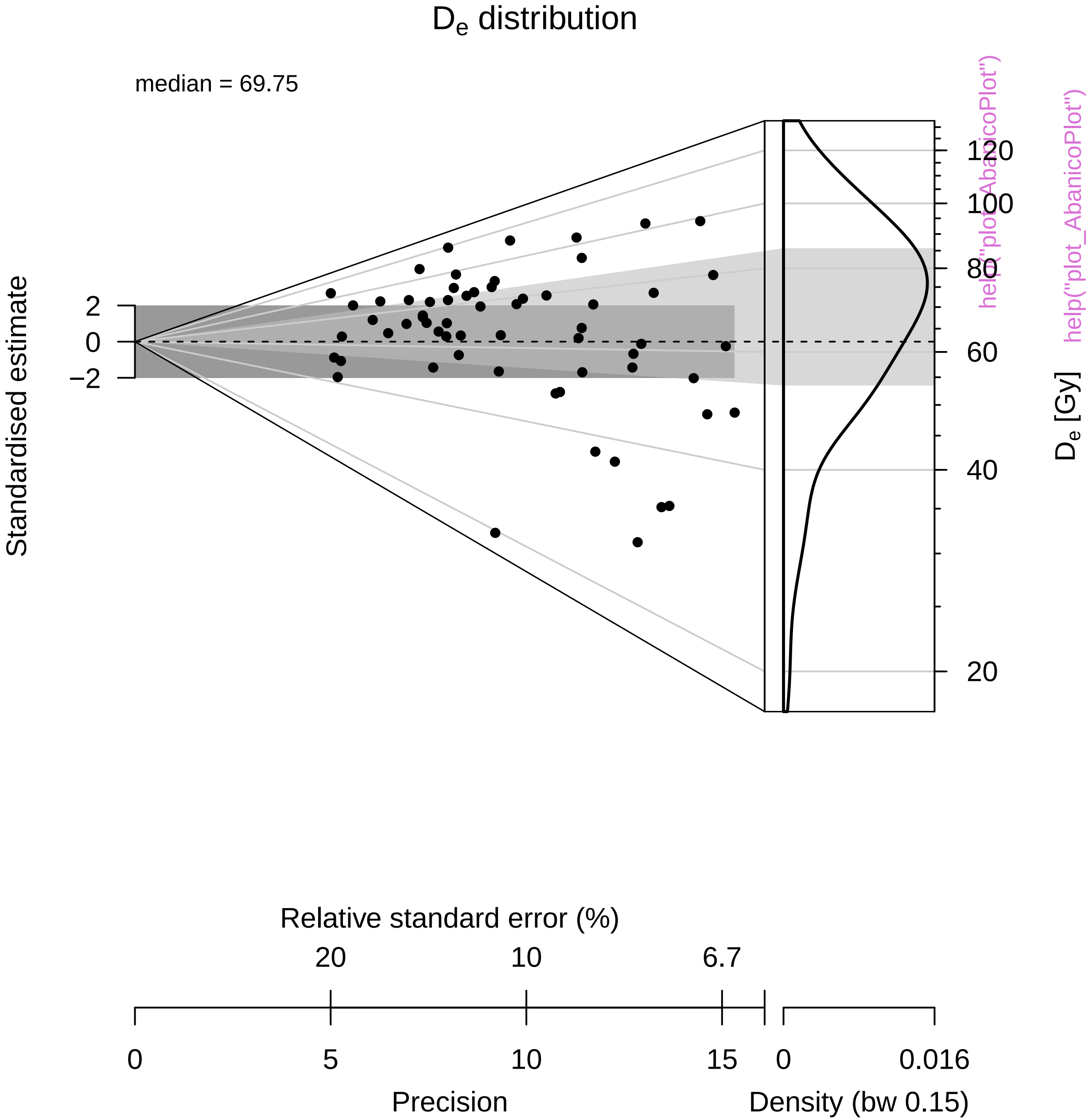
D_e distribution
n = 62 | in 2 sigma = 41.9 %
Scatter
2
0
−2
120
100
80
60
40
20
Equivalent dose [Gy]
help("plot_AbanicoPlot")
help("plot_AbanicoPlot")
Data error (%)
20
10
6.7
0
5
10
15
0
0.016
Data precision
Density (bw 0.15)



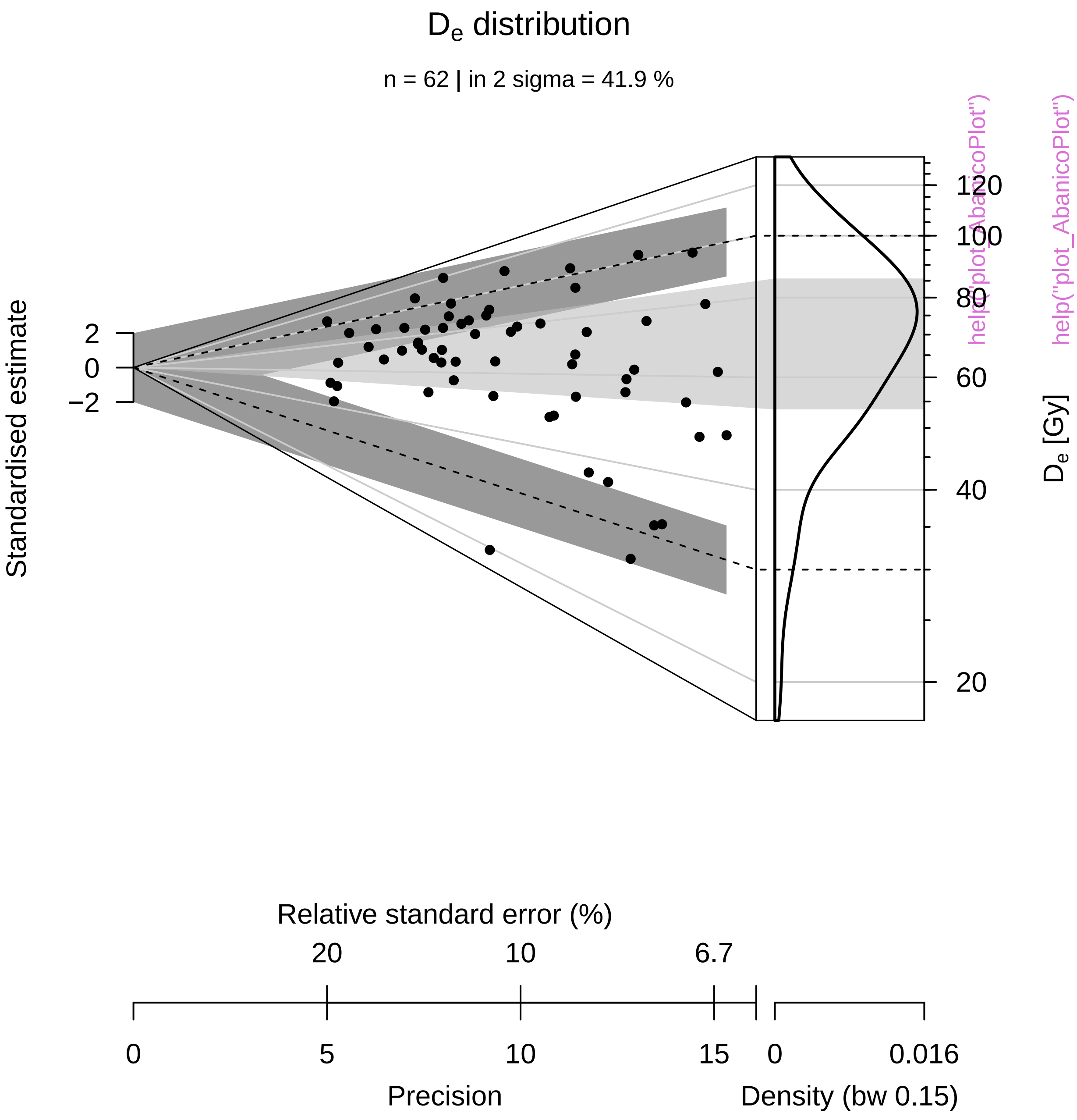
D_e distribution
n = 62 | in 2 sigma = 41.9 %
Standardised estimate
2
0
−2
119.1
70.7
19.7
120
100
80
60
40
20
D_e [Gy]
help("plot_AbanicoPlot")
help("plot_AbanicoPlot")
Relative standard error (%)
20
10
6.7
0
5
10
15
0
0.016
Precision
Density (bw 0.15)



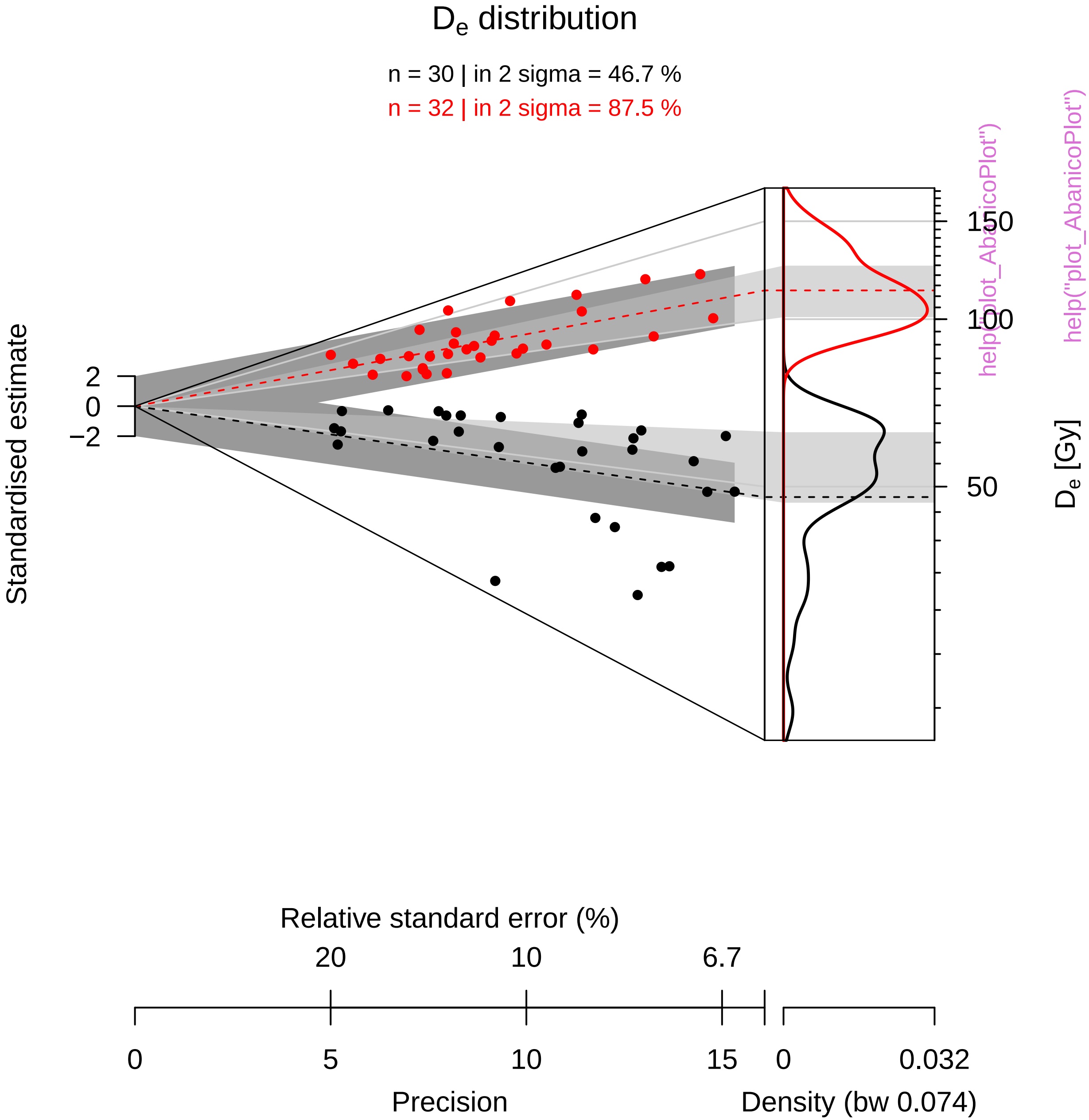
D$_e$ distribution
n = 62 | in 2 sigma = 41.9 %
Standardised estimate
2
0
−2
120
100
80
60
40
20
D$_e$ [Gy]
help("plot_AbanicoPlot")
help("plot_AbanicoPlot")
Relative standard error (%)
20
10
6.7
0
5
10
15
Precision
0
0.016
Density (bw 0.15)



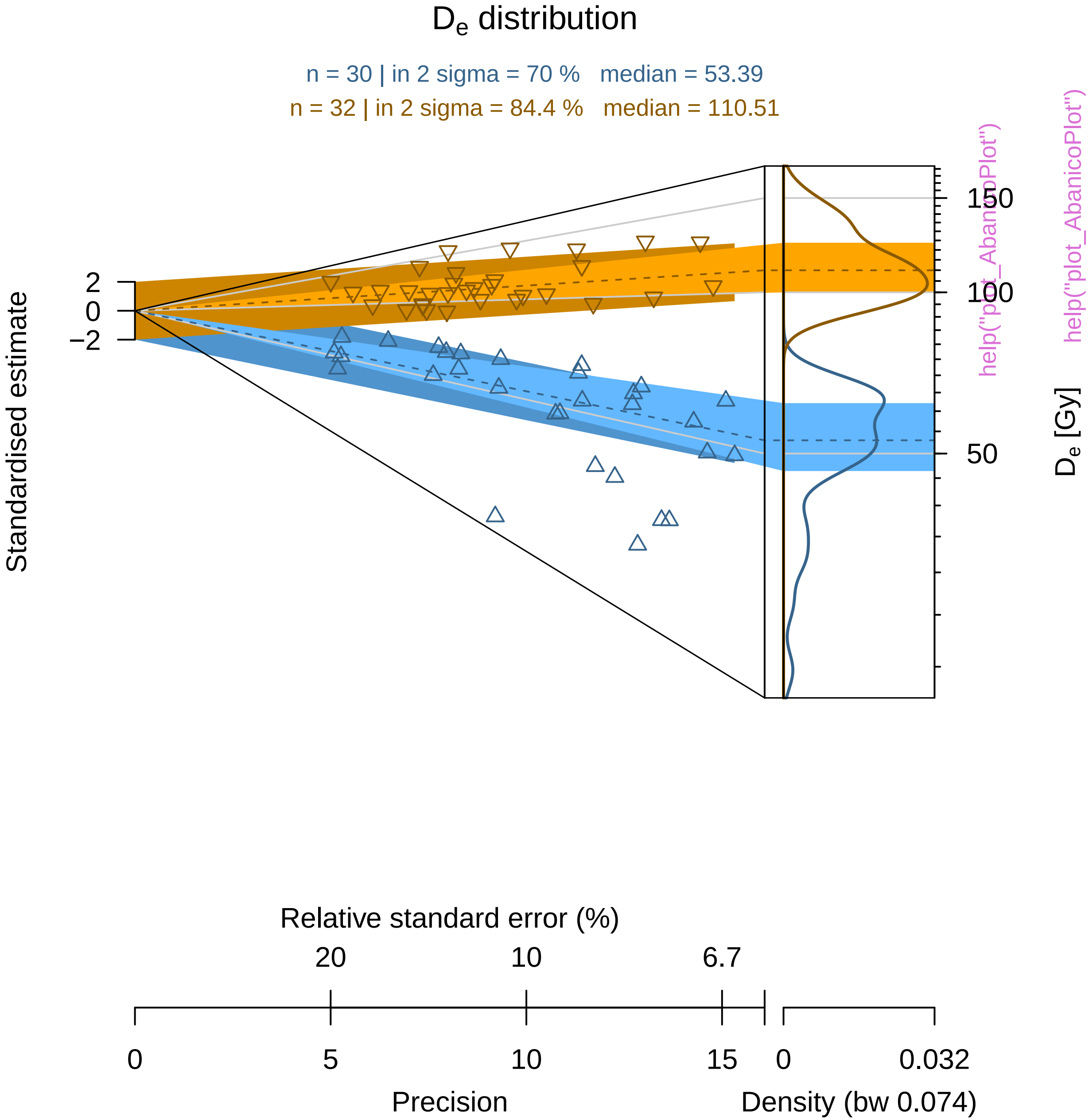
D_e distribution
median = 69.75
Standardised estimate
2
0
−2
120
100
80
60
40
20
D_e [Gy]
help("plot_AbanicoPlot")
help("plot_AbanicoPlot")
Relative standard error (%)
20
10
6.7
0
5
10
15
Precision
0
0.016
Density (bw 0.15)



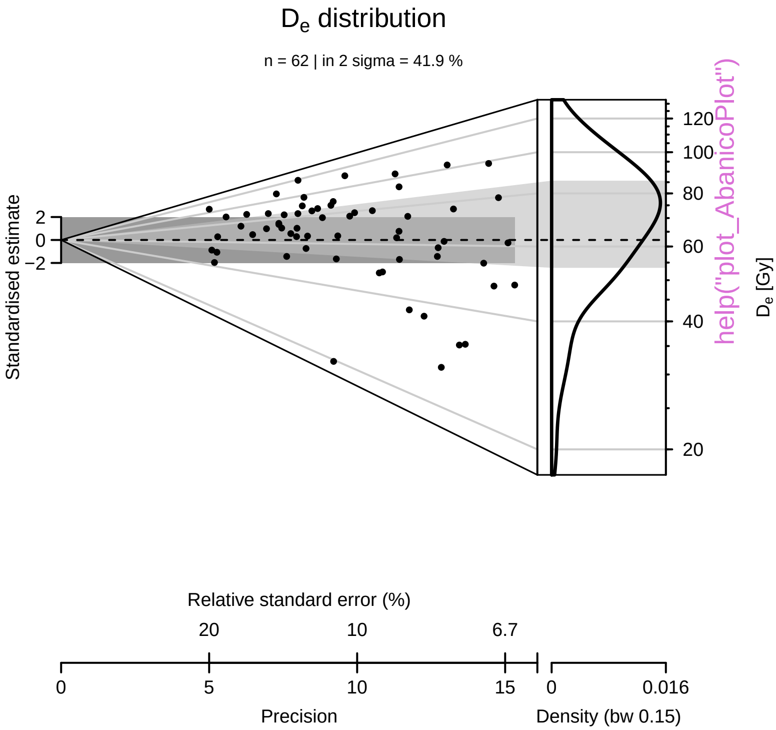
De distribution
n = 62 | in 2 sigma = 41.9 %
Standardised estimate
2
0
−2
help("plot_AbanicoPlot")
help("plot_AbanicoPlot")
120
100
80
60
40
20
De [Gy]
Relative standard error (%)
20
10
6.7
0
5
10
15
Precision
0
0.016
Density (bw 0.15)



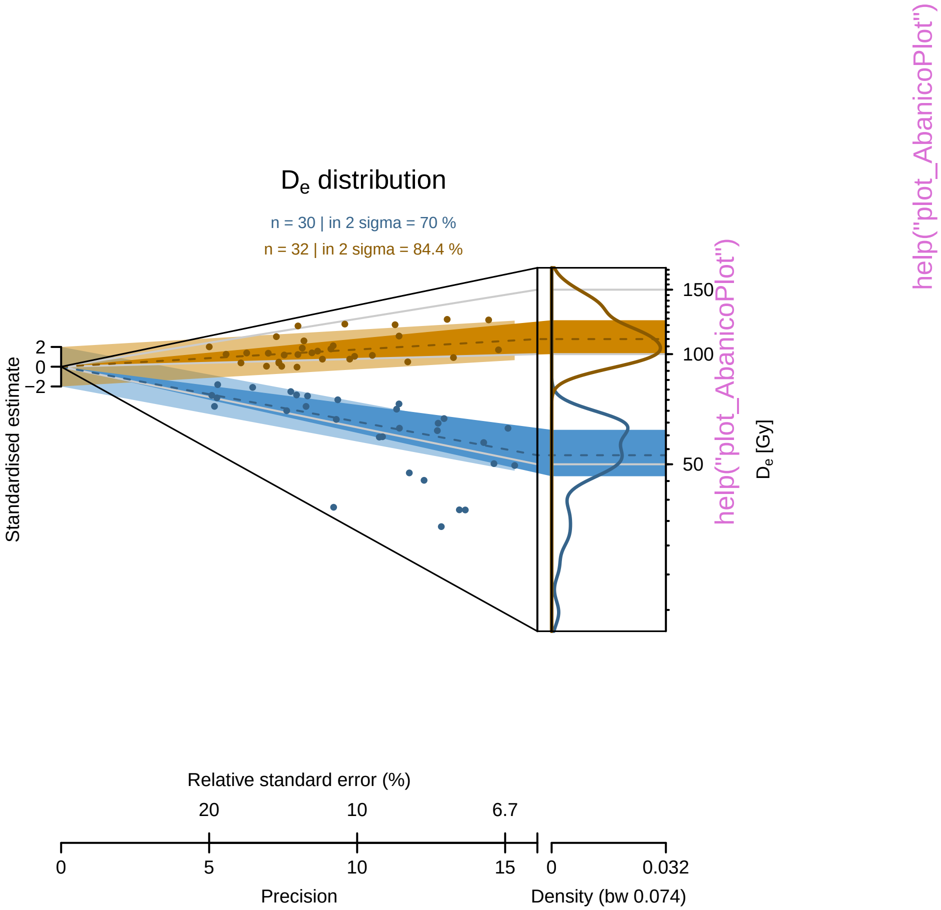
De distribution
n = 30 | in 2 sigma = 46.7 %
n = 32 | in 2 sigma = 87.5 %
help("plot_AbanicoPlot")
help("plot_AbanicoPlot")
Standardised estimate
2
0
-2
150
100
50
De [Gy]
Relative standard error (%)
20
10
6.7
0
5
10
15
0
0.032
Precision
Density (bw 0.074)



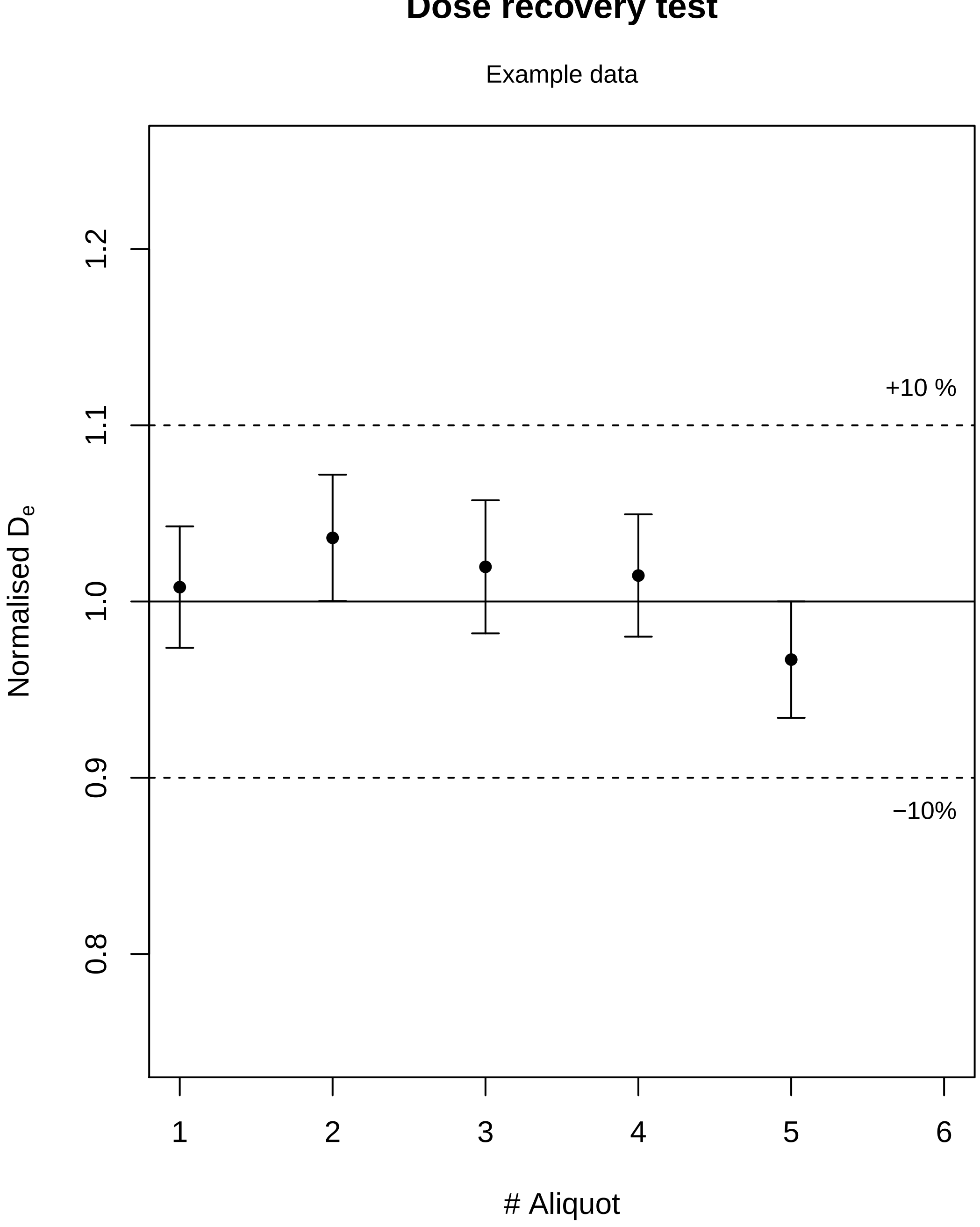
D_e distribution
n = 30 | in 2 sigma = 70 % median = 53.39
n = 32 | in 2 sigma = 84.4 % median = 110.51
Standardised estimate
2
0
−2
150
100
50
D_e [Gy]
help("plot_AbanicoPlot")
help("plot_AbanicoPlot")
Relative standard error (%)
20
10
6.7
0
5
10
15
Precision
0
0.032
Density (bw 0.074)

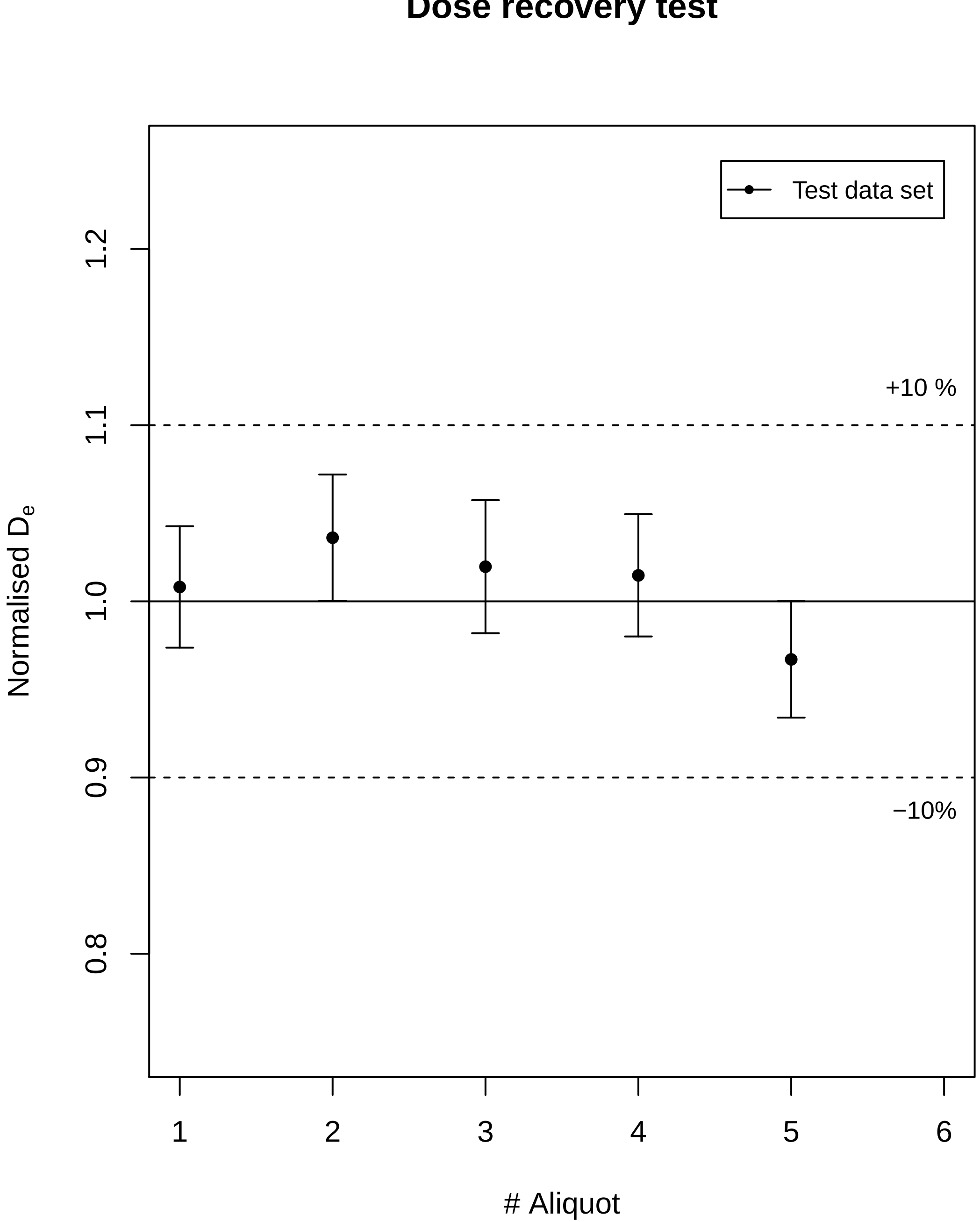


help("plot_AbanicoPlot")

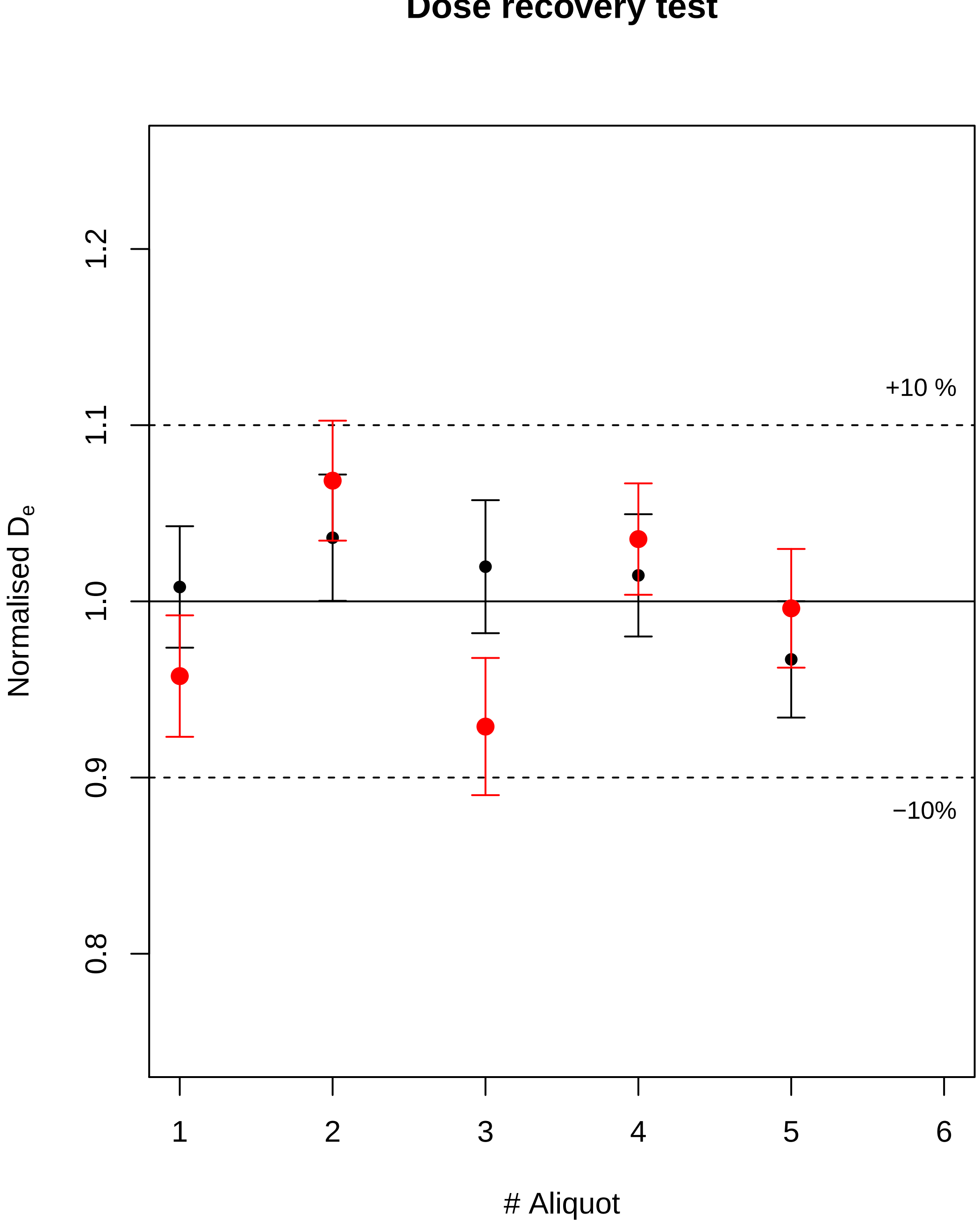


De distribution
n = 30 | in 2 sigma = 70 %
n = 32 | in 2 sigma = 84.4 %
Standardised estimate
2
0
−2
150
100
50
De [Gy]
help("plot_AbanicoPlot")
help("plot_AbanicoPlot")
Relative standard error (%)
20
10
6.7
0
5
10
15
0
0.032
Precision
Density (bw 0.074)

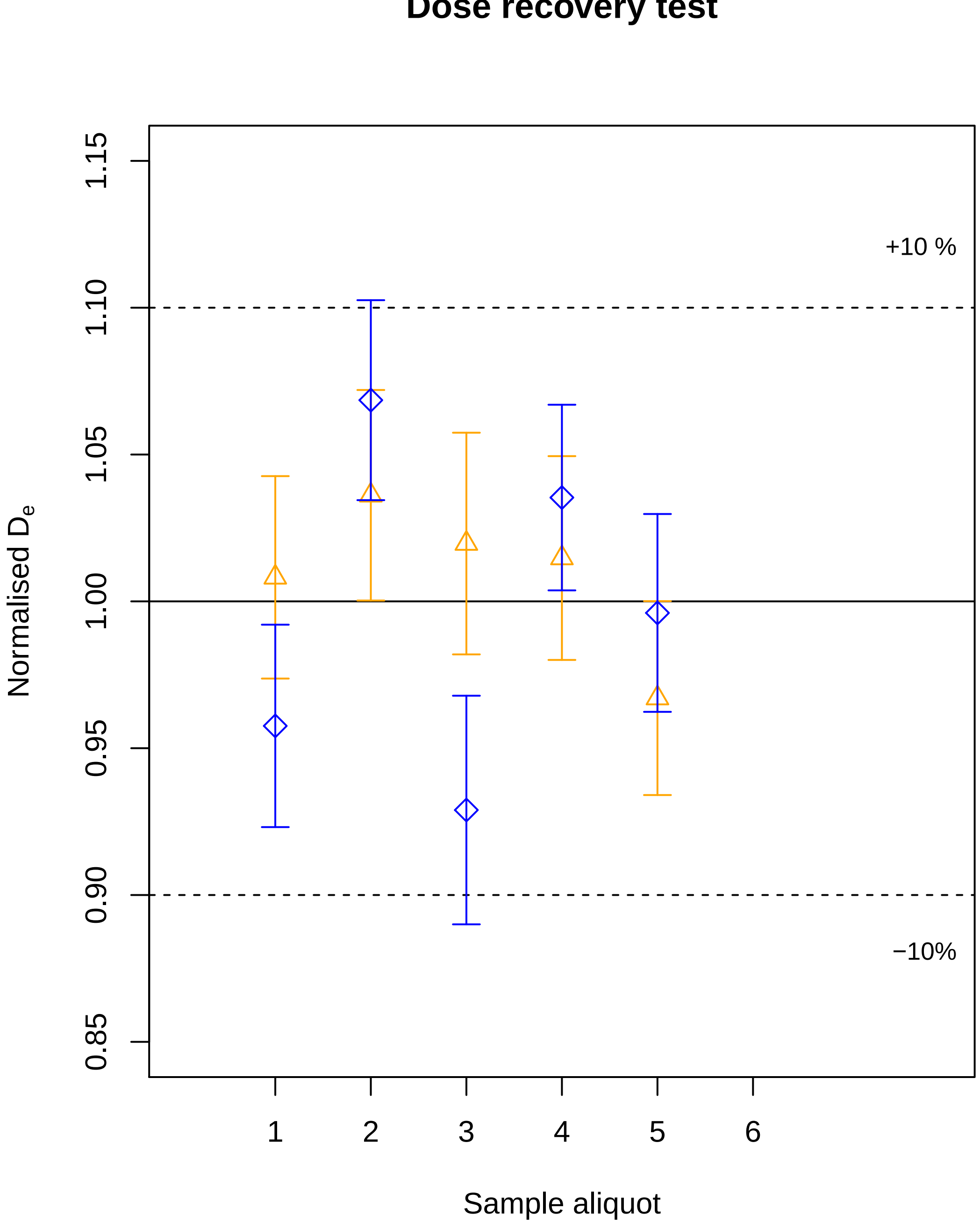

Dose recovery test
Example data
+10 %
−10%
Normalised D_e
1.2
1.1
1.0
0.9
0.8
1
2
3
4
5
6
Aliquot



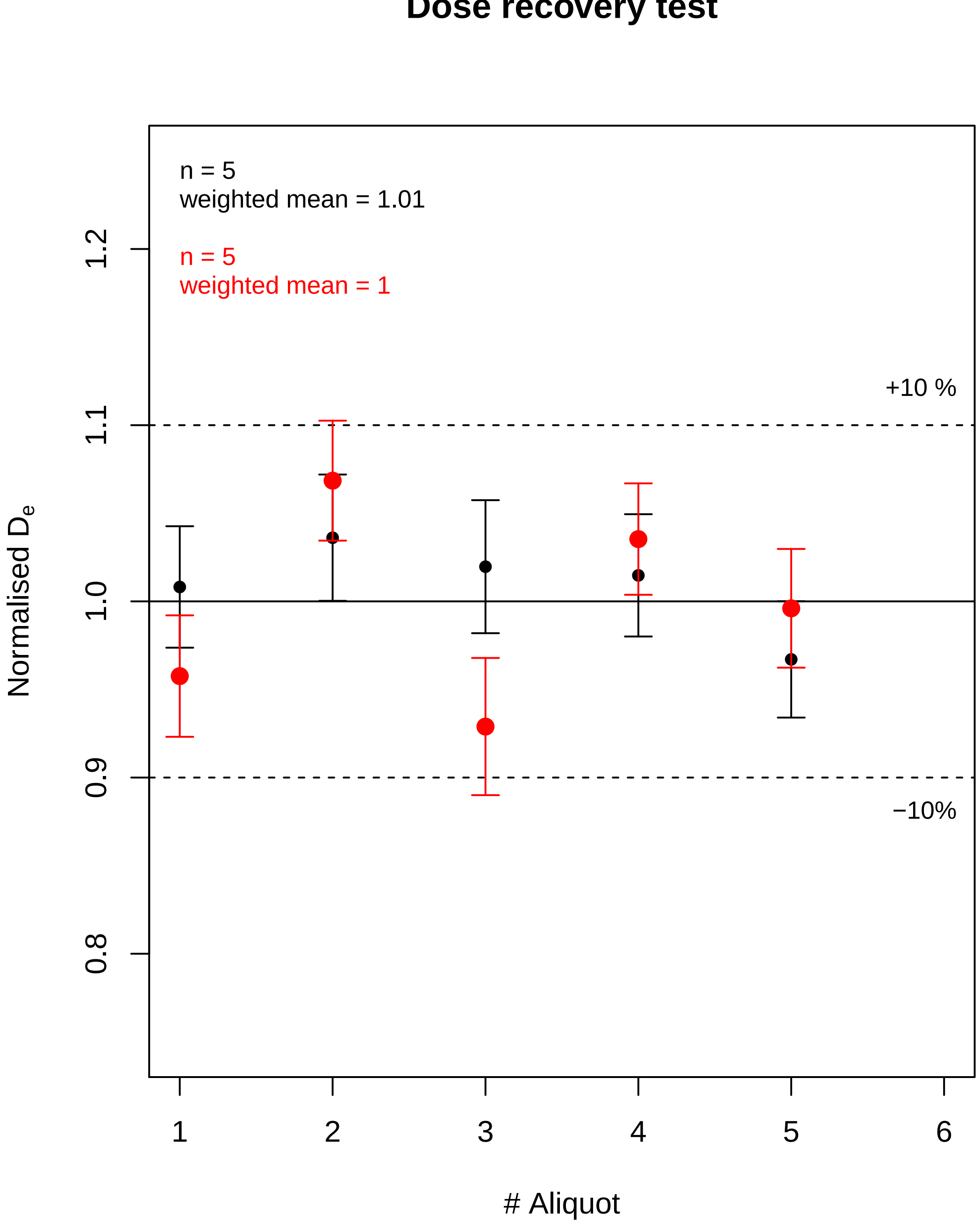
Dose recovery test
Test data set
+10 %
−10%
1.2
1.1
1.0
0.9
0.8
Normalised D_e
1
2
3
4
5
6
Aliquot

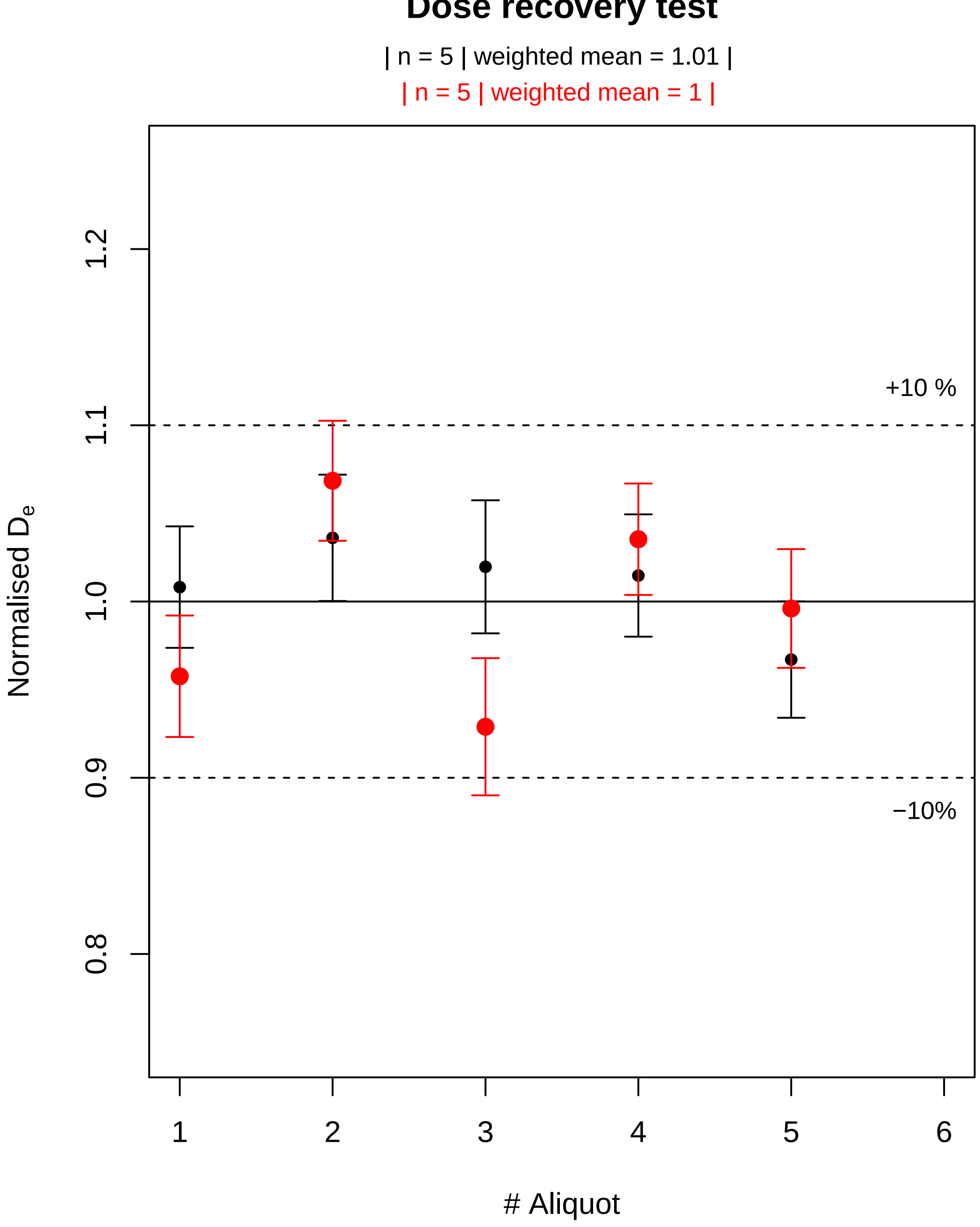


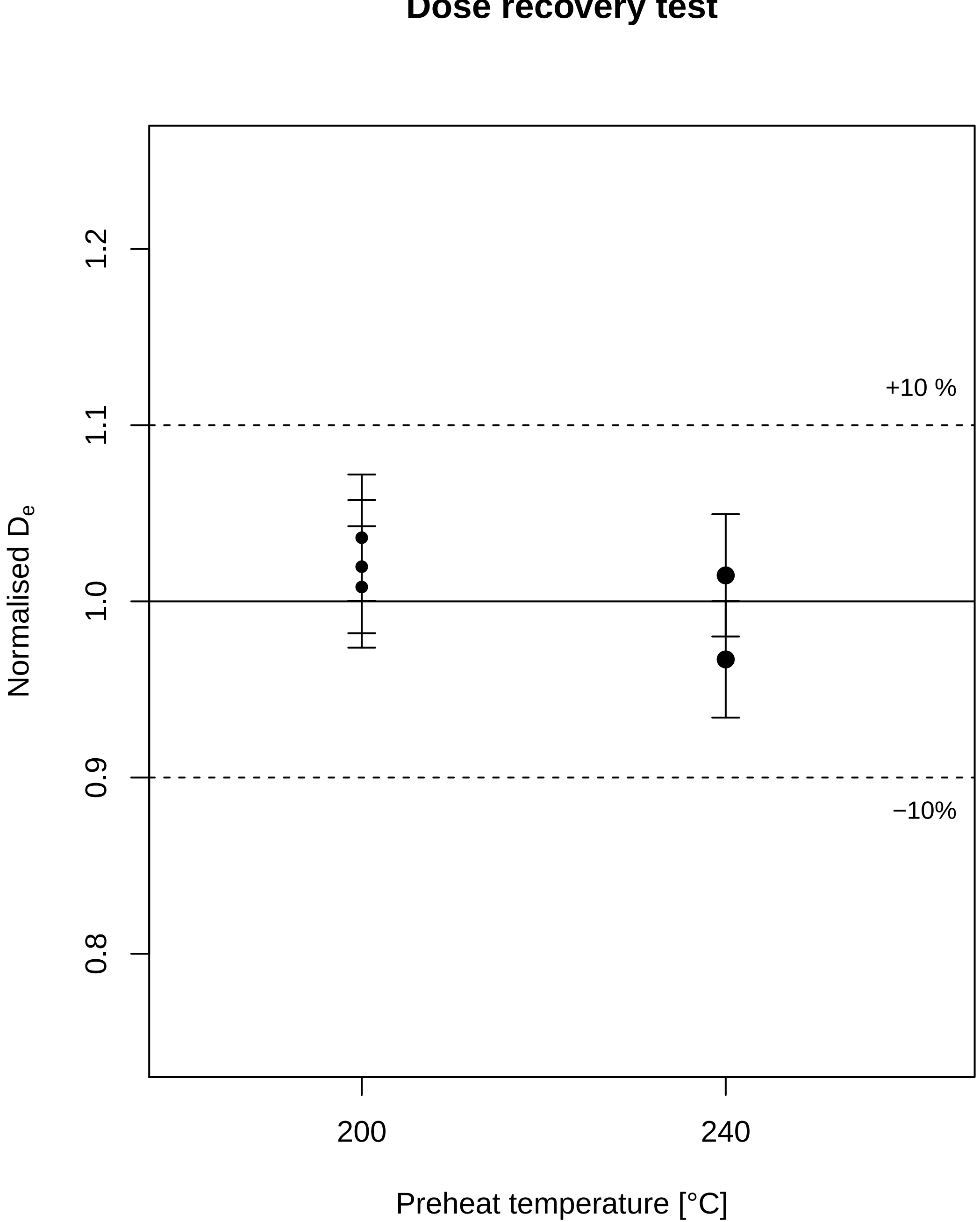
Dose recovery test
+10 %
−10%
1.2
1.1
1.0
0.9
0.8
Normalised D_e
1
2
3
4
5
6
Aliquot



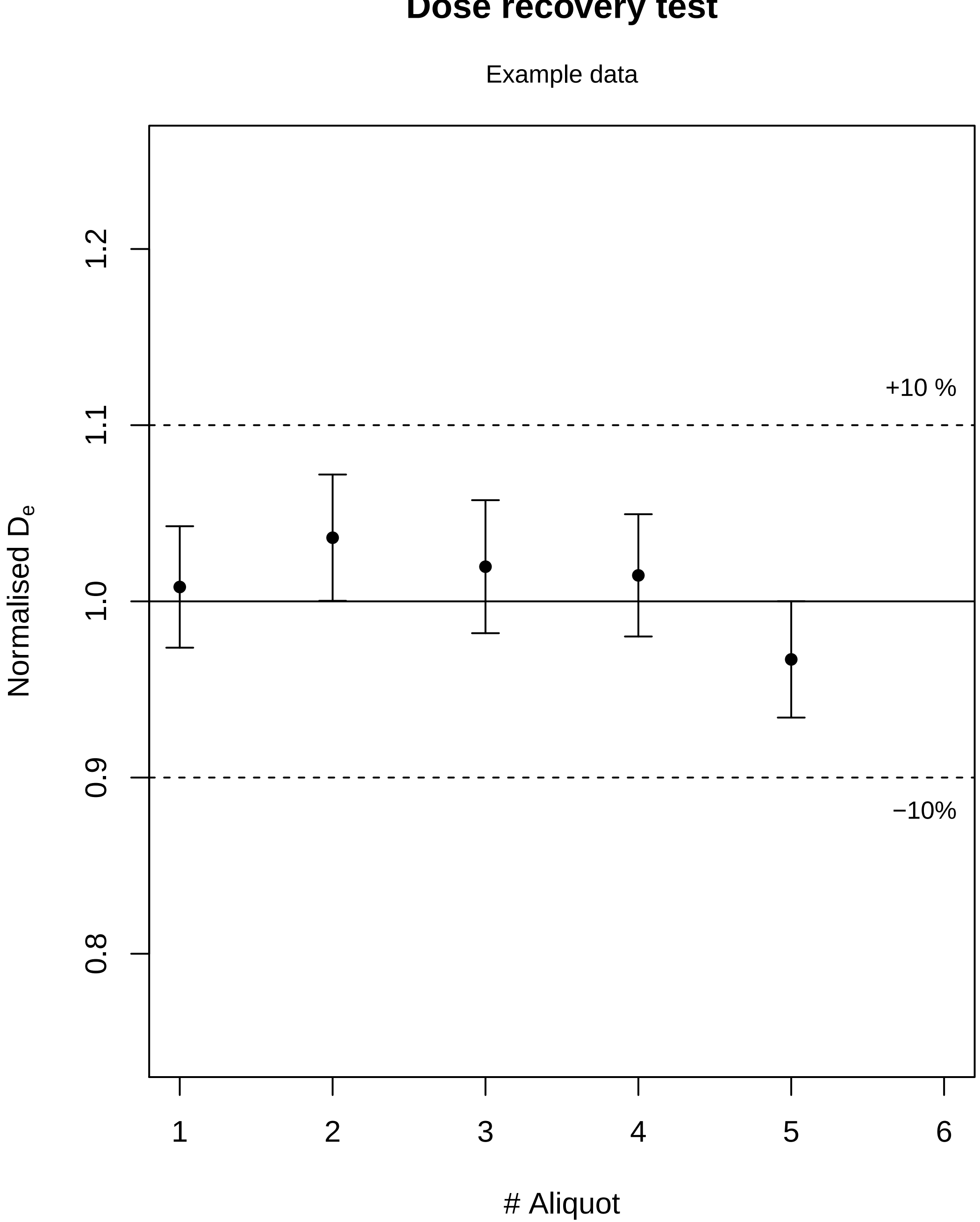
Dose recovery test
+10 %
−10%
1.15
1.10
1.05
1.00
0.95
0.90
0.85
Normalised D_e
1
2
3
4
5
6
Sample aliquot

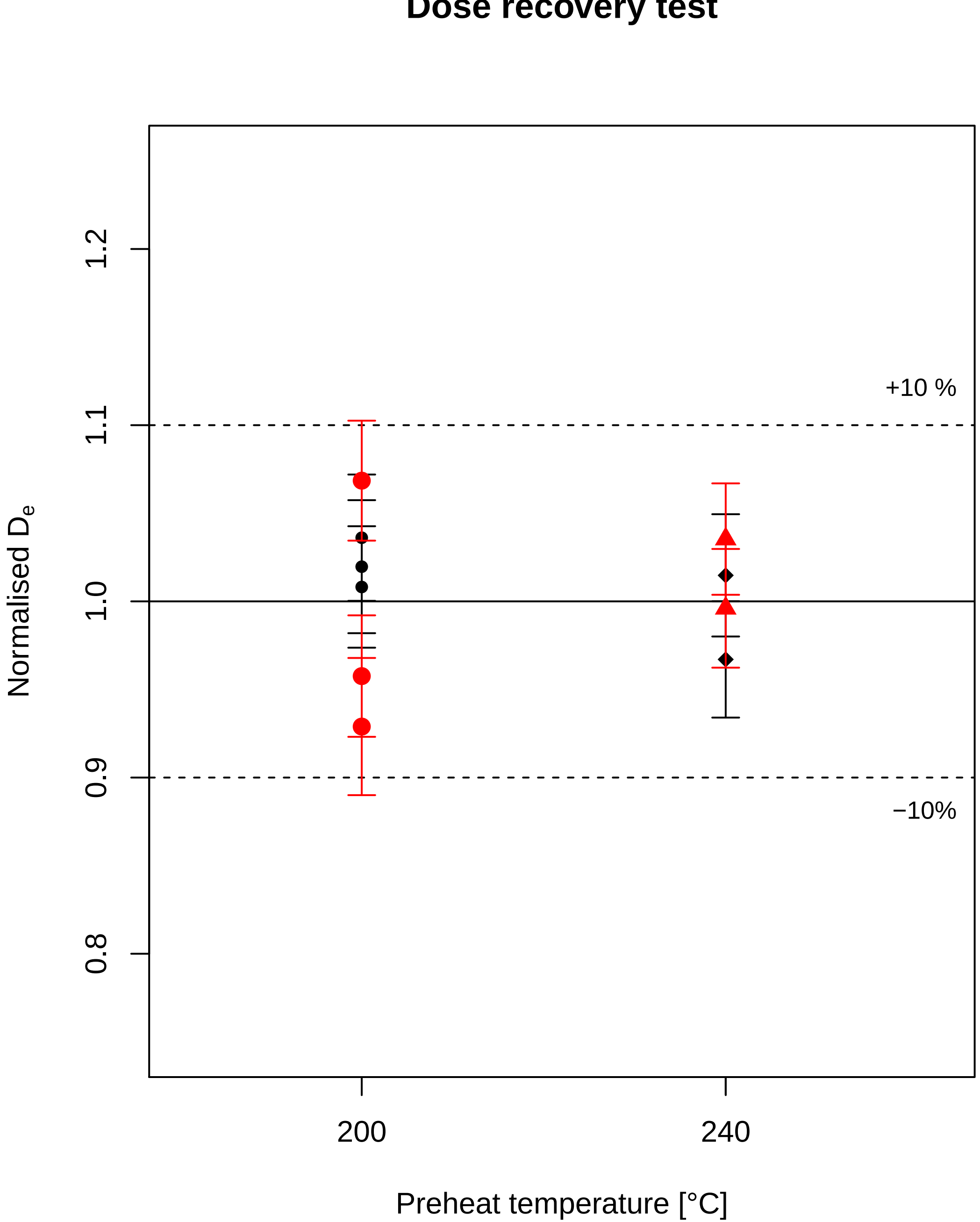

Dose recovery test
n = 5
weighted mean = 1.01
n = 5
weighted mean = 1
+10 %
−10%
1.2
1.1
1.0
0.9
0.8
Normalised D_e
1
2
3
4
5
6
Aliquot

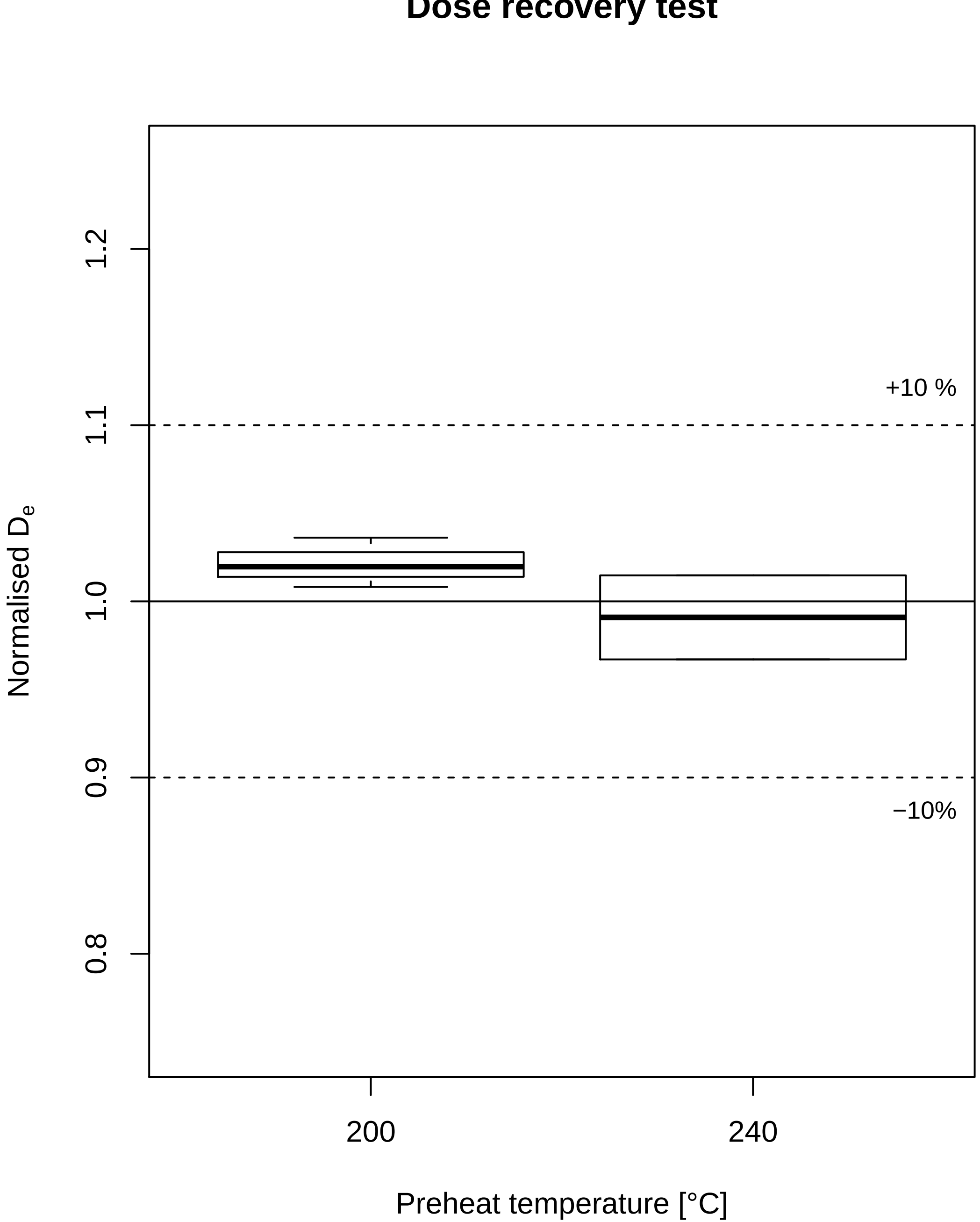

Dose recovery test
| n = 5 | weighted mean = 1.01 |
| n = 5 | weighted mean = 1 |
+10 %
−10%
Normalised D_e
Aliquot
0.8
0.9
1.0
1.1
1.2
1
2
3
4
5
6

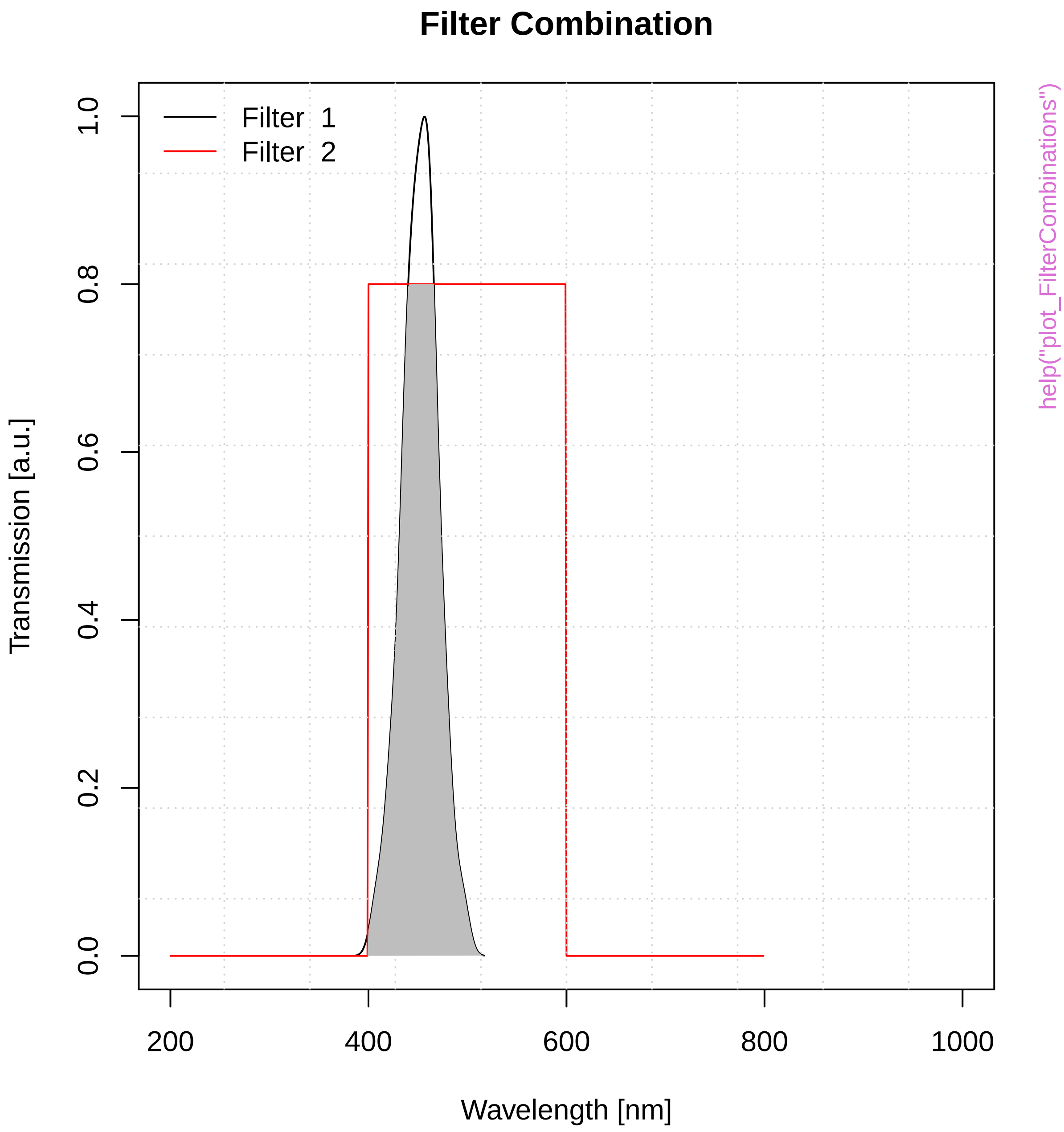


Dose recovery test
+10 %
−10%
1.2
1.1
1.0
0.9
0.8
Normalised D_e
200
240
Preheat temperature [°C]

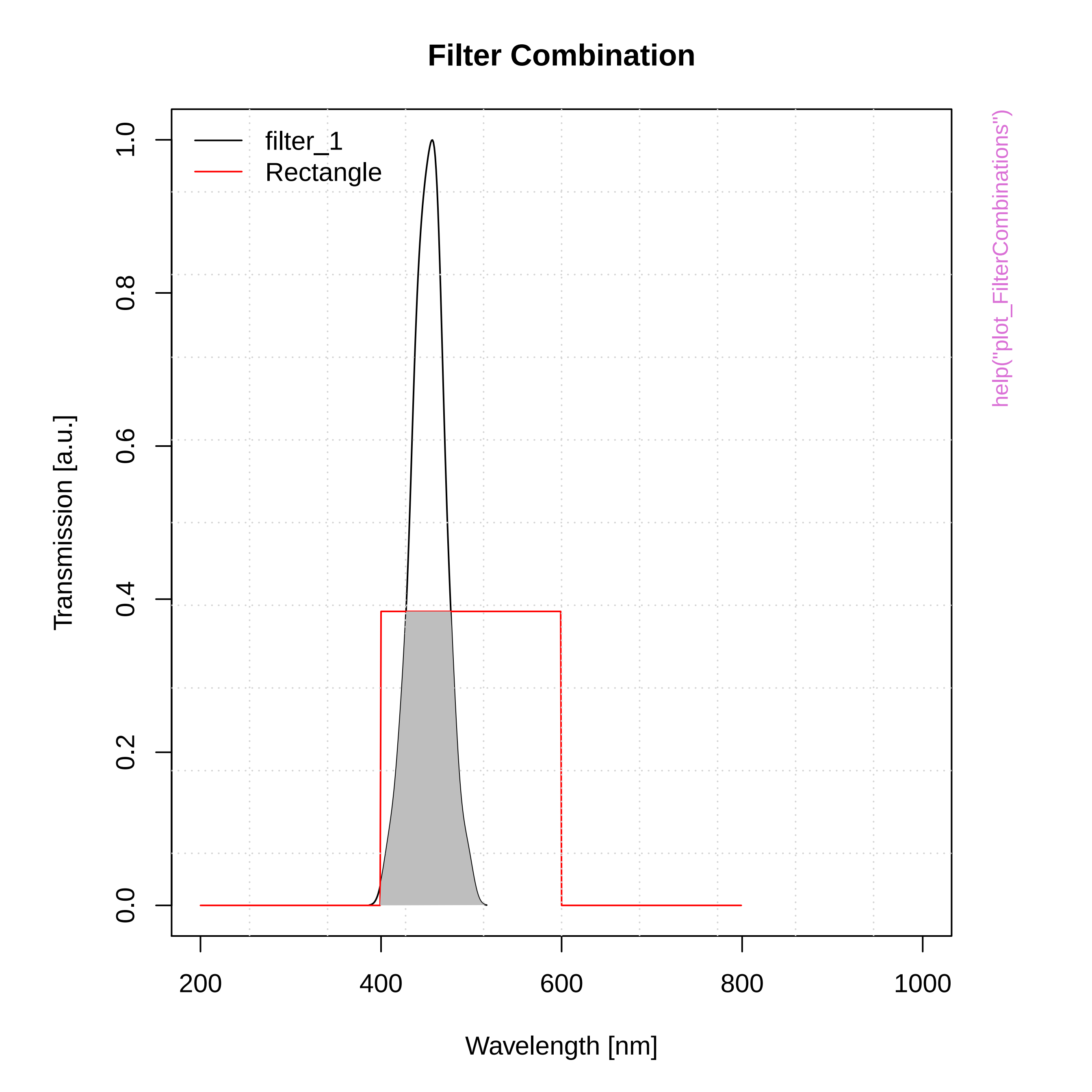

Dose recovery test
Example data
+10 %
−10%
1.2
1.1
1.0
0.9
0.8
Normalised D_e
1
2
3
4
5
6
Aliquot

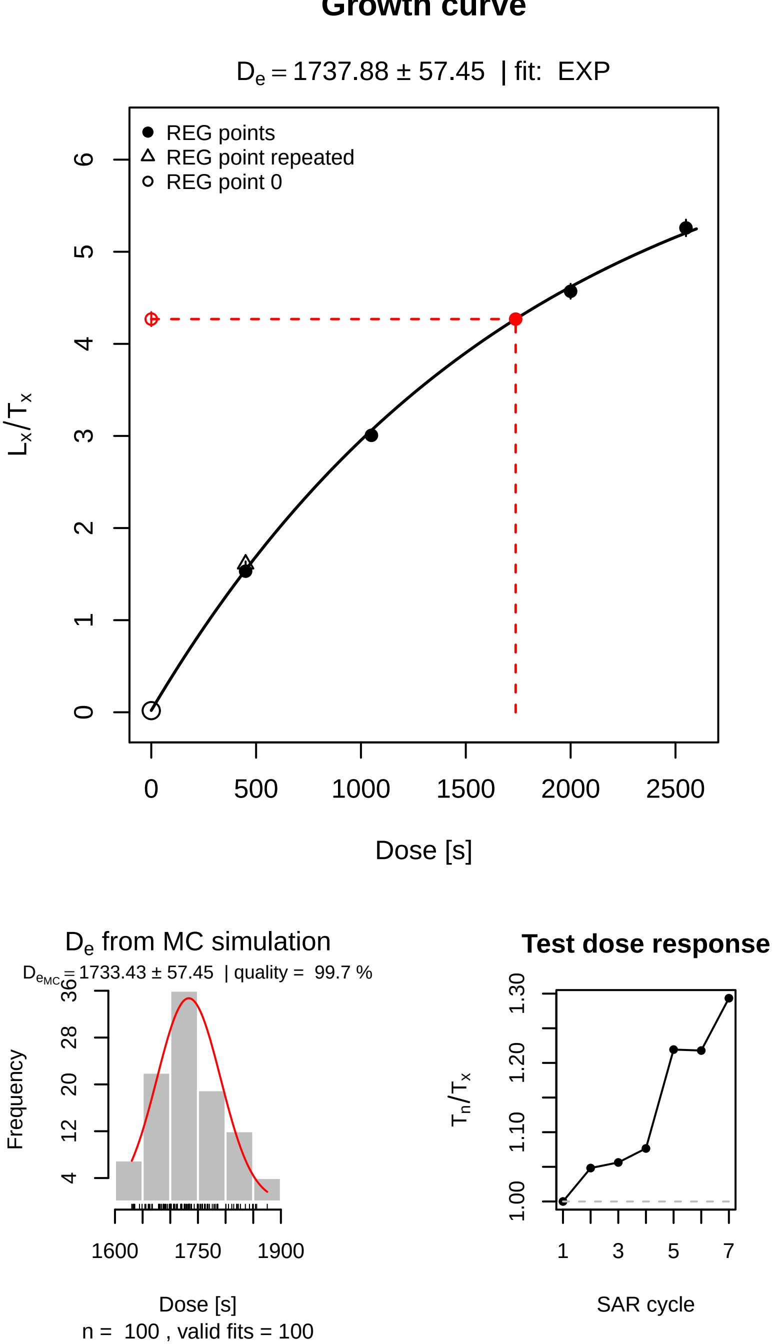

Dose recovery test
+10 %
−10%
1.2
1.1
1.0
0.9
0.8
Normalised D_e
200
240
Preheat temperature [°C]

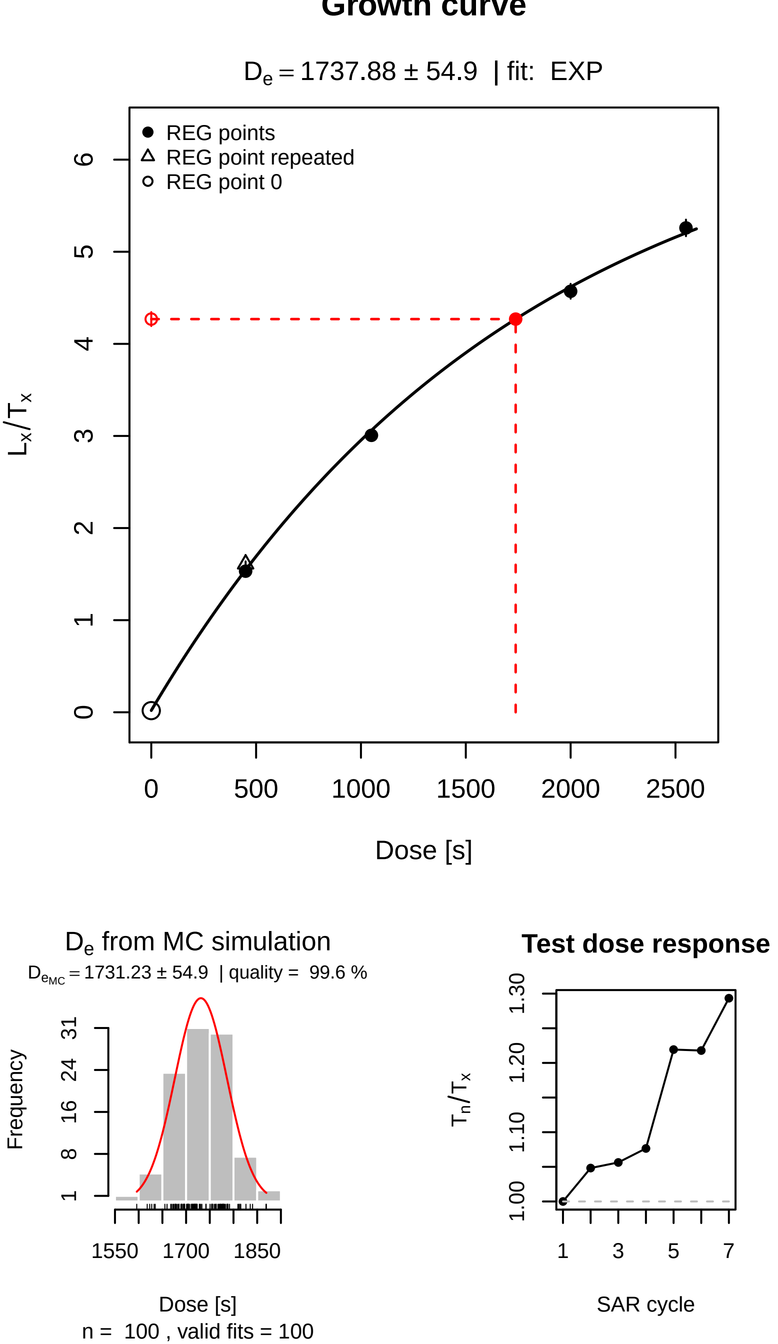

Dose recovery test
Normalised D_e
1.2
1.1
1.0
0.9
0.8
+10 %
−10%
200
240
Preheat temperature [°C]



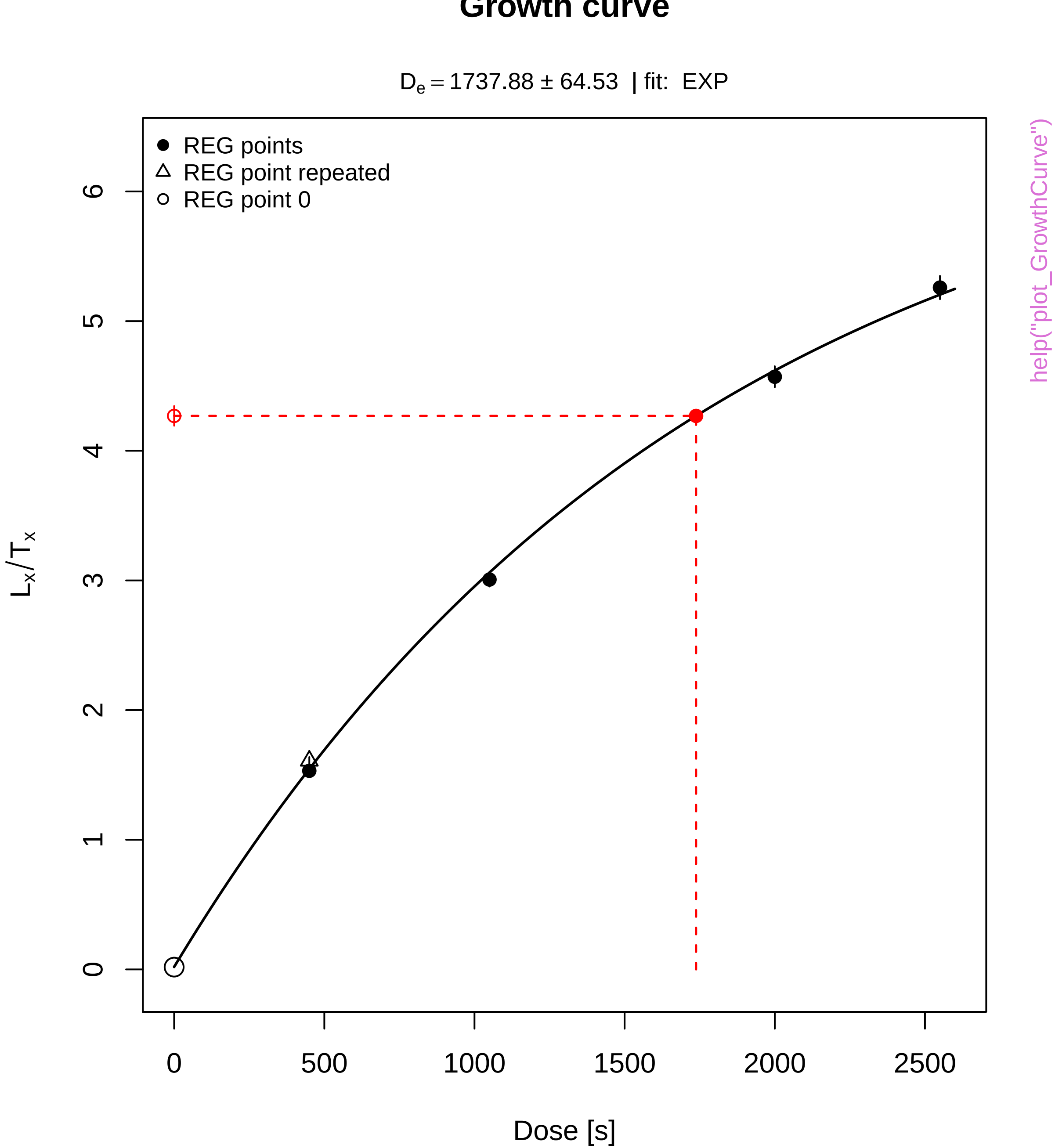
Filter Combination
Filter 1
Filter 2
1.0
0.8
0.6
0.4
0.2
0.0
Transmission [a.u.]
200
400
600
800
1000
Wavelength [nm]
help("plot_FilterCombinations")


Filter Combination
filter_1
Rectangle
help("plot_FilterCombinations")
Transmission [a.u.]
0.0
0.2
0.4
0.6
0.8
1.0
200
400
600
800
1000
Wavelength [nm]

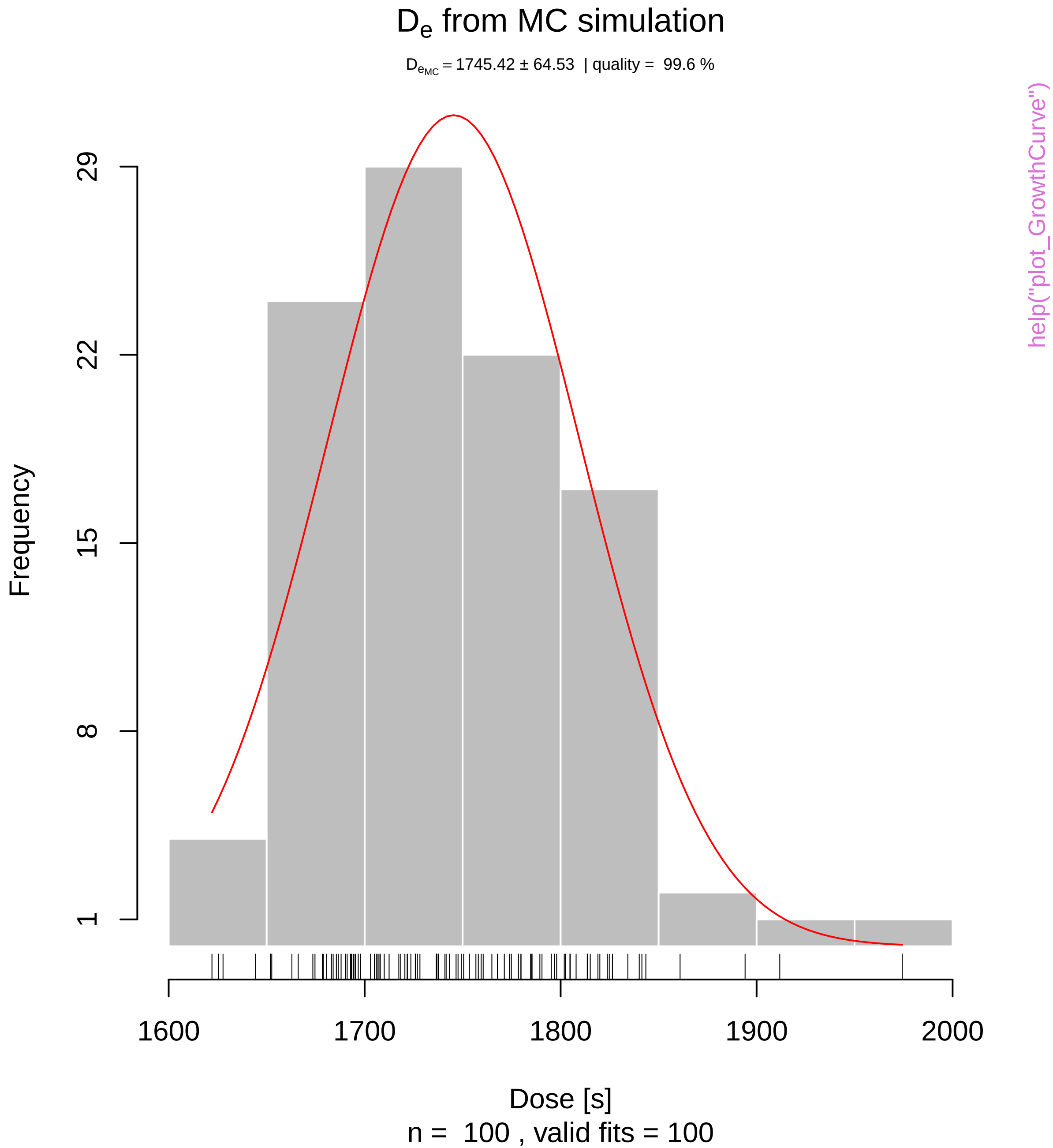

Growth curve
$D_e = 1737.88 \pm 57.45$ | fit: EXP
REG points
REG point repeated
REG point 0
L_x/T_x
Dose [s]
D_e from MC simulation
$D_{e_{MC}} = 1733.43 \pm 57.45$ | quality = 99.7 %
Frequency
Dose [s]
n = 100 , valid fits = 100
Test dose response
T_n/T_x
SAR cycle



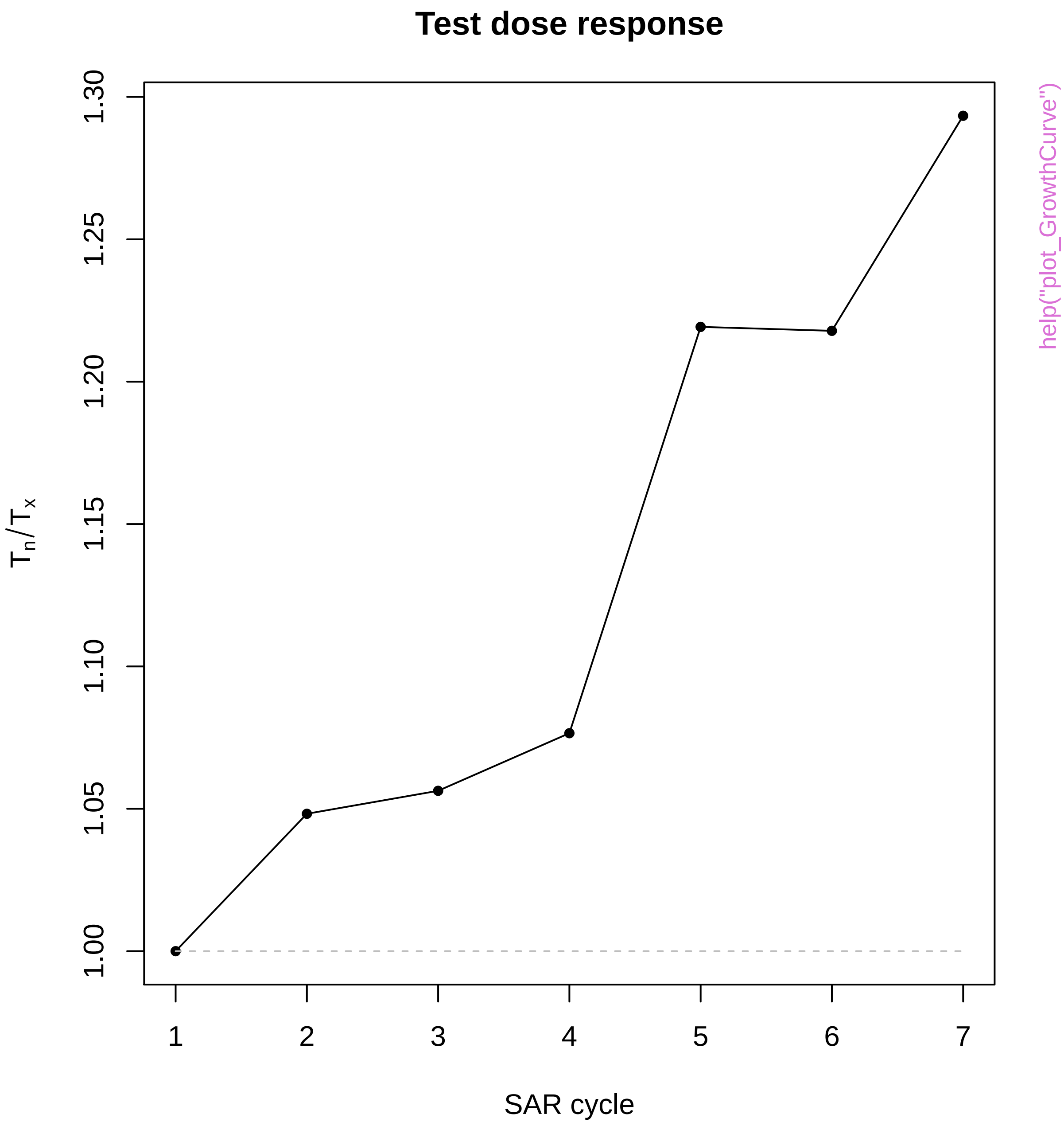
Growth curve
$D_e = 1737.88 \pm 54.9$ | fit: EXP
REG points
REG point repeated
REG point 0
L_x/T_x
Dose [s]
D_e from MC simulation
$D_{e_{MC}} = 1731.23 \pm 54.9$ | quality = 99.6 %
Frequency
Dose [s]
n = 100 , valid fits = 100
Test dose response
T_n/T_x
SAR cycle

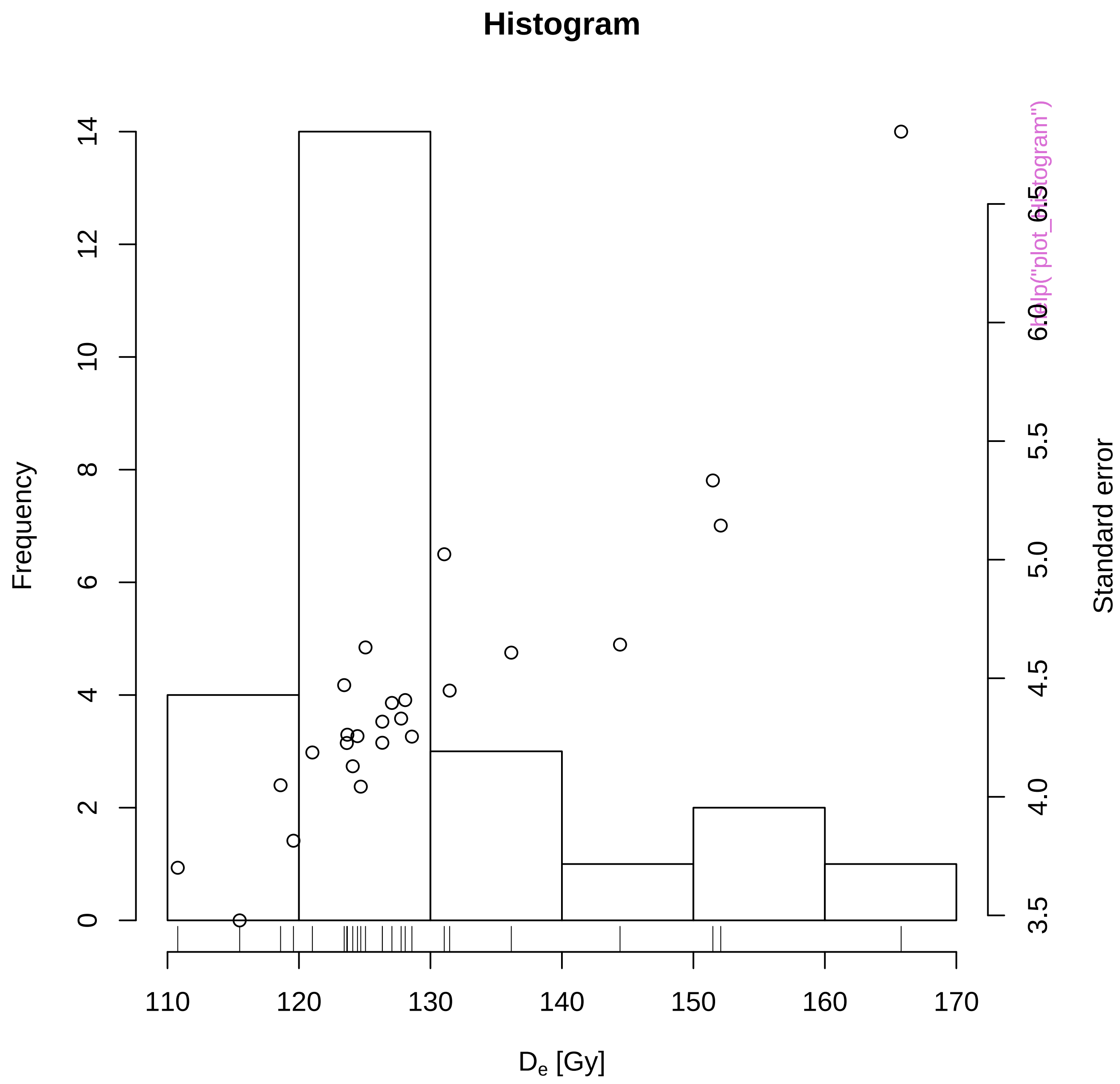


Growth curve
$D_e = 1737.88 \pm 64.53$ | fit: EXP
REG points
REG point repeated
REG point 0
L_x/T_x
0
1
2
3
4
5
6
0
500
1000
1500
2000
2500
Dose [s]
help("plot_GrowthCurve")

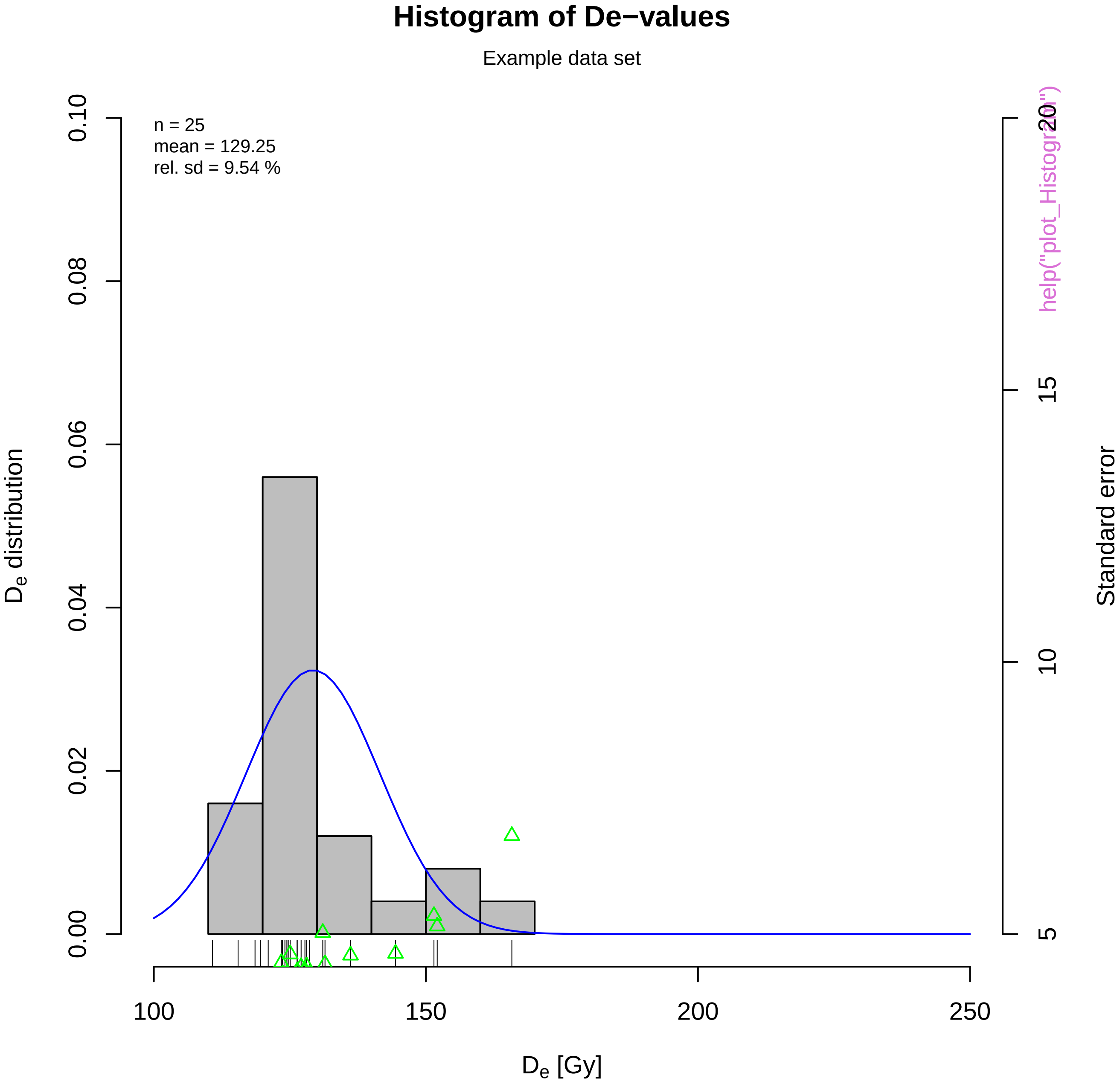


D_e from MC simulation
$D_{e_{MC}} = 1745.42 \pm 64.53$ | quality = 99.6 %
Frequency
1
8
15
22
29
1600
1700
1800
1900
2000
Dose [s]
n = 100 , valid fits = 100
help("plot_GrowthCurve")

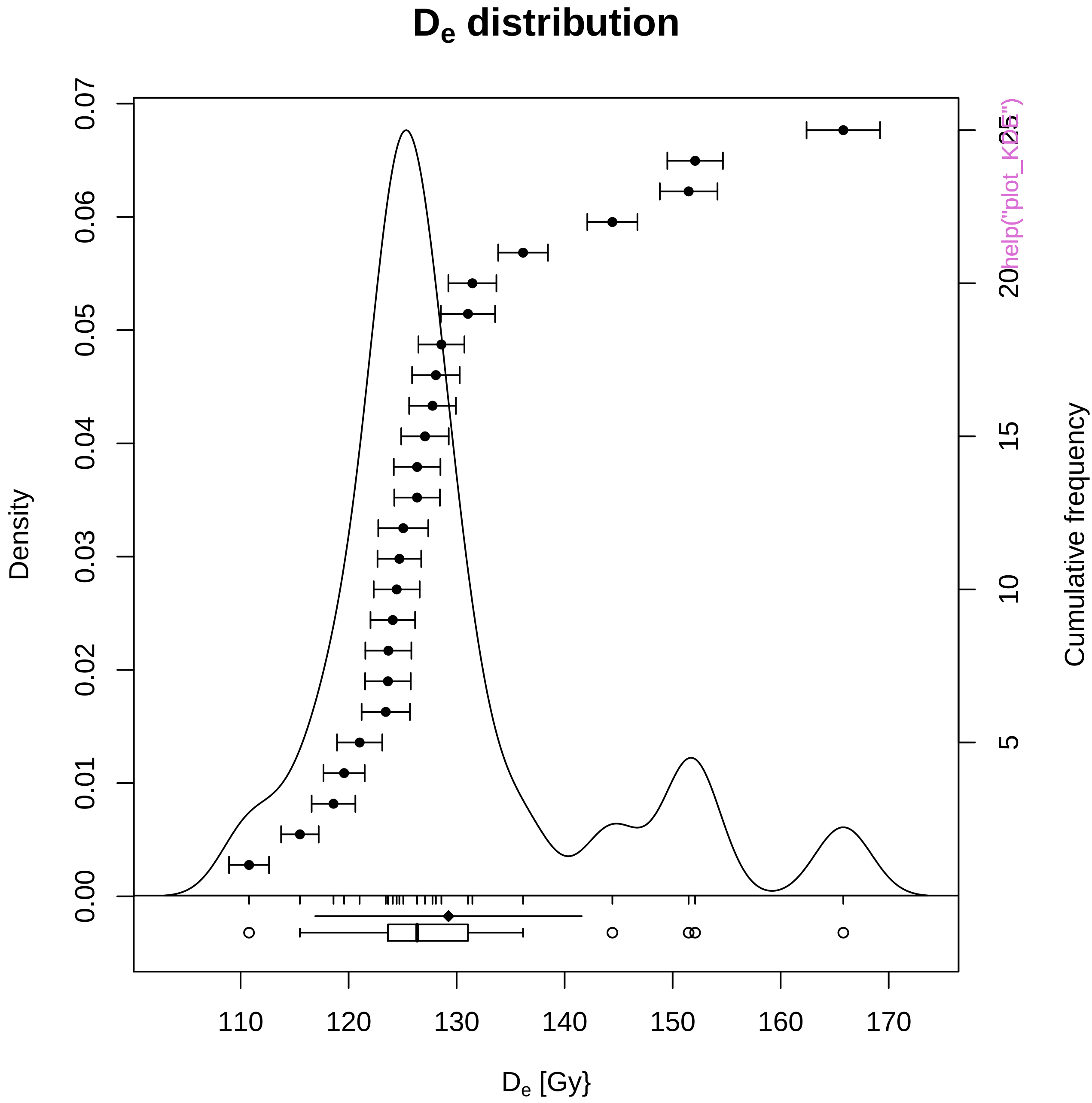

Test dose response
1.30
1.25
1.20
1.15
1.10
1.05
1.00
T_n/T_x
1
2
3
4
5
6
7
SAR cycle
help("plot_GrowthCurve")



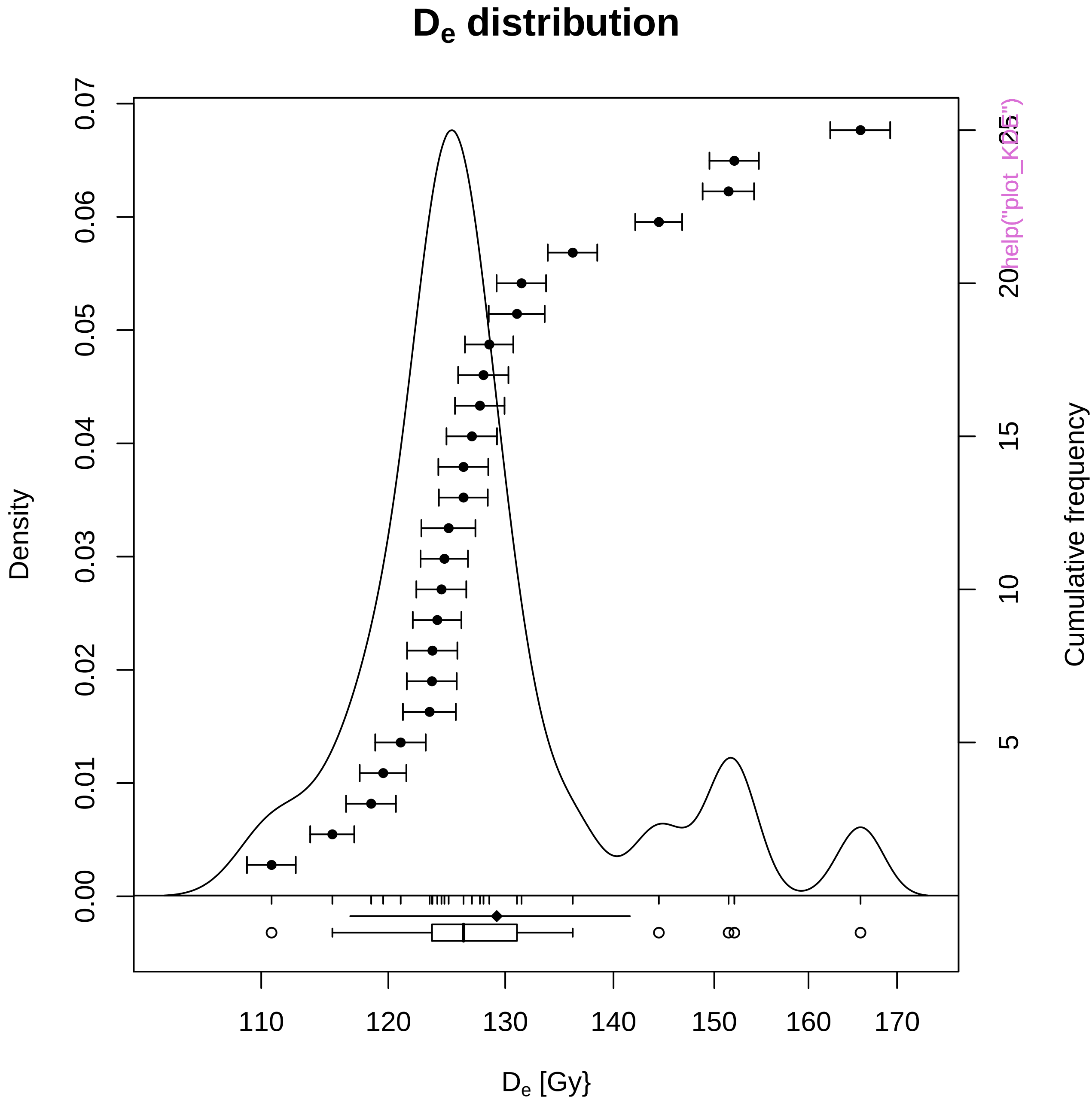
Histogram
Frequency
0
2
4
6
8
10
12
14
110
120
130
140
150
160
170
D_e [Gy]
Standard error
3.5
4.0
4.5
5.0
5.5
6.0
6.5
help("plot_Histogram")



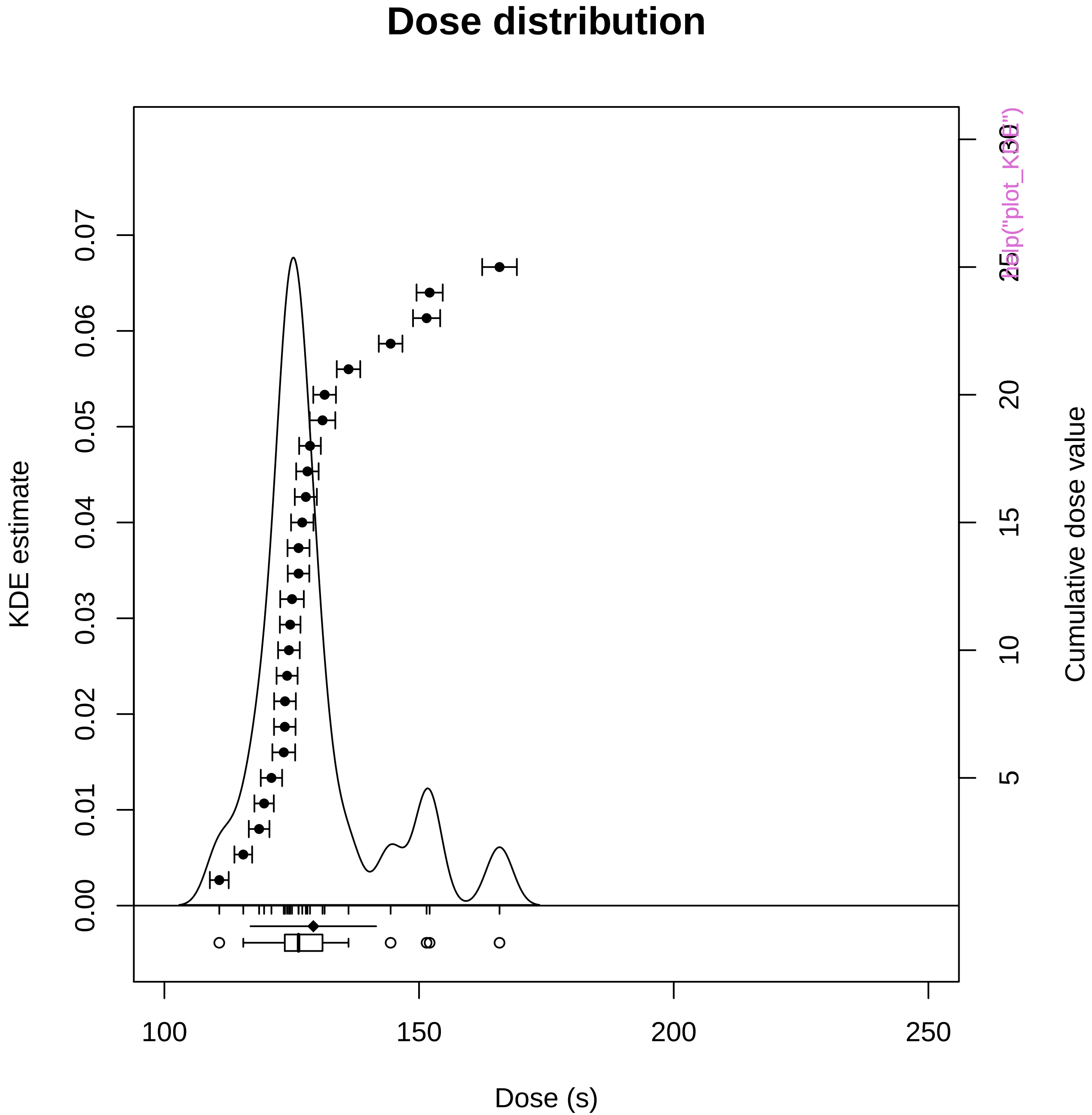
Histogram of De−values
Example data set
n = 25
mean = 129.25
rel. sd = 9.54 %
0.00
0.02
0.04
0.06
0.08
0.10
D_e distribution
5
10
15
20
Standard error
help("plot_Histogram")
100
150
200
250
D_e [Gy]



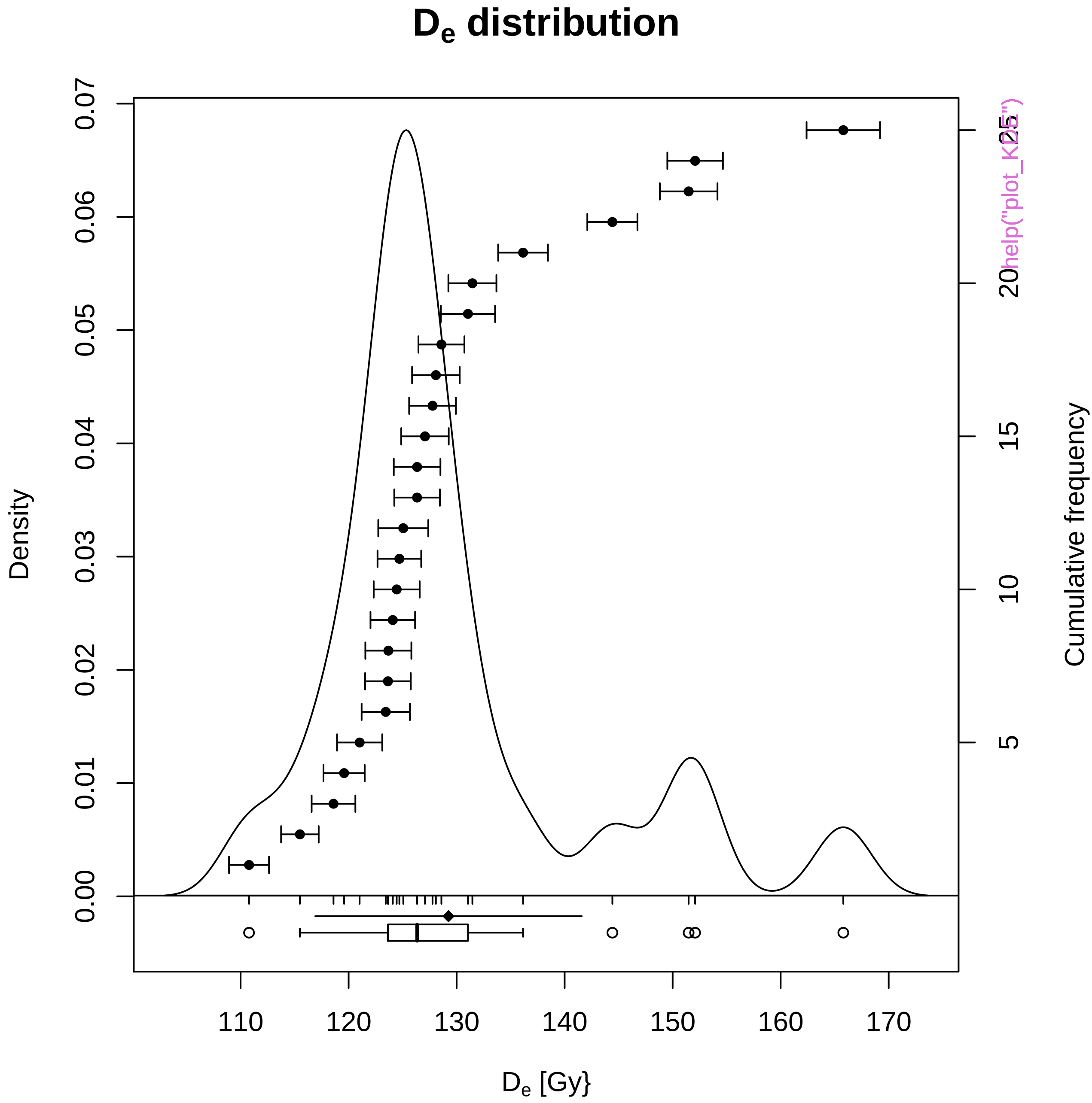
D_e distribution
Density
0.00
0.01
0.02
0.03
0.04
0.05
0.06
0.07
Cumulative frequency
5
10
15
20
25
help("plot_KDE")
110
120
130
140
150
160
170
D_e [Gy}



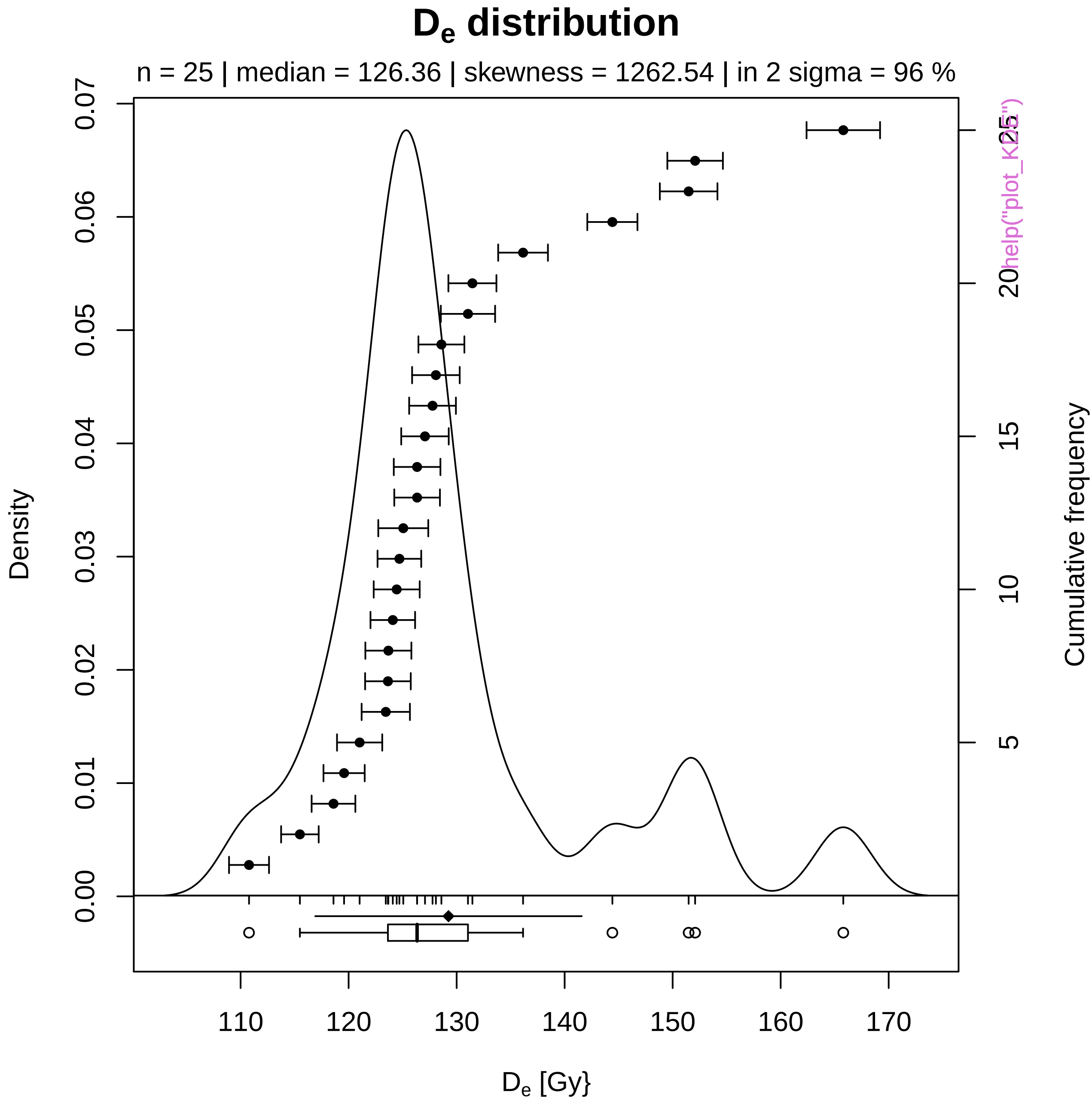
De distribution
Density
0.00
0.01
0.02
0.03
0.04
0.05
0.06
0.07
Cumulative frequency
5
10
15
20
25
help("plot_KDE")
110
120
130
140
150
160
170
De [Gy}



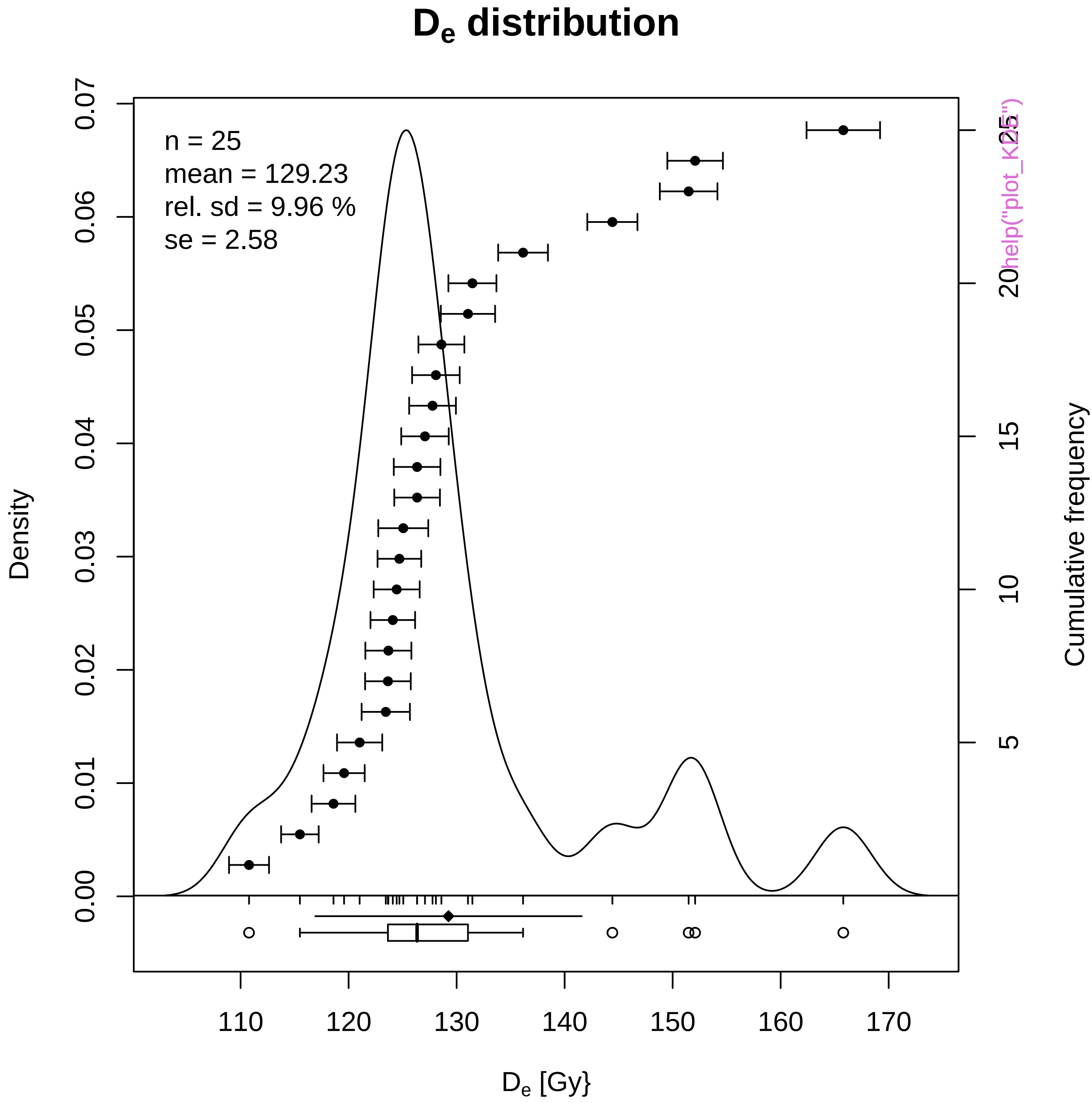
Dose distribution
KDE estimate
0.00
0.01
0.02
0.03
0.04
0.05
0.06
0.07
Cumulative dose value
5
10
15
20
25
30
help("plot_KDE")
100
150
200
250
Dose (s)



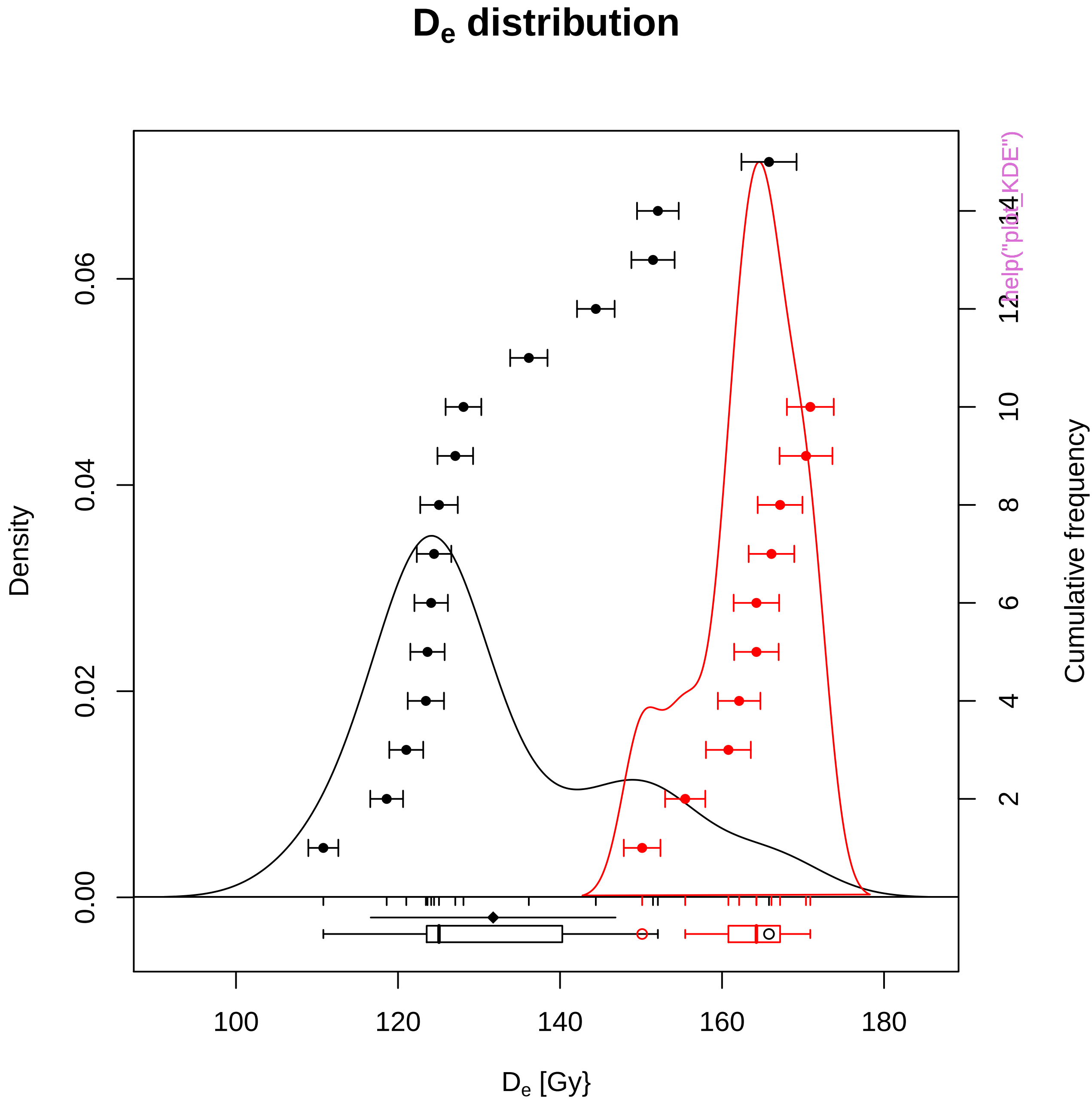
D_e distribution
Density
Cumulative frequency
help("plot_KDE")
D_e [Gy}
0.00
0.01
0.02
0.03
0.04
0.05
0.06
0.07
5
10
15
20
25
110
120
130
140
150
160
170



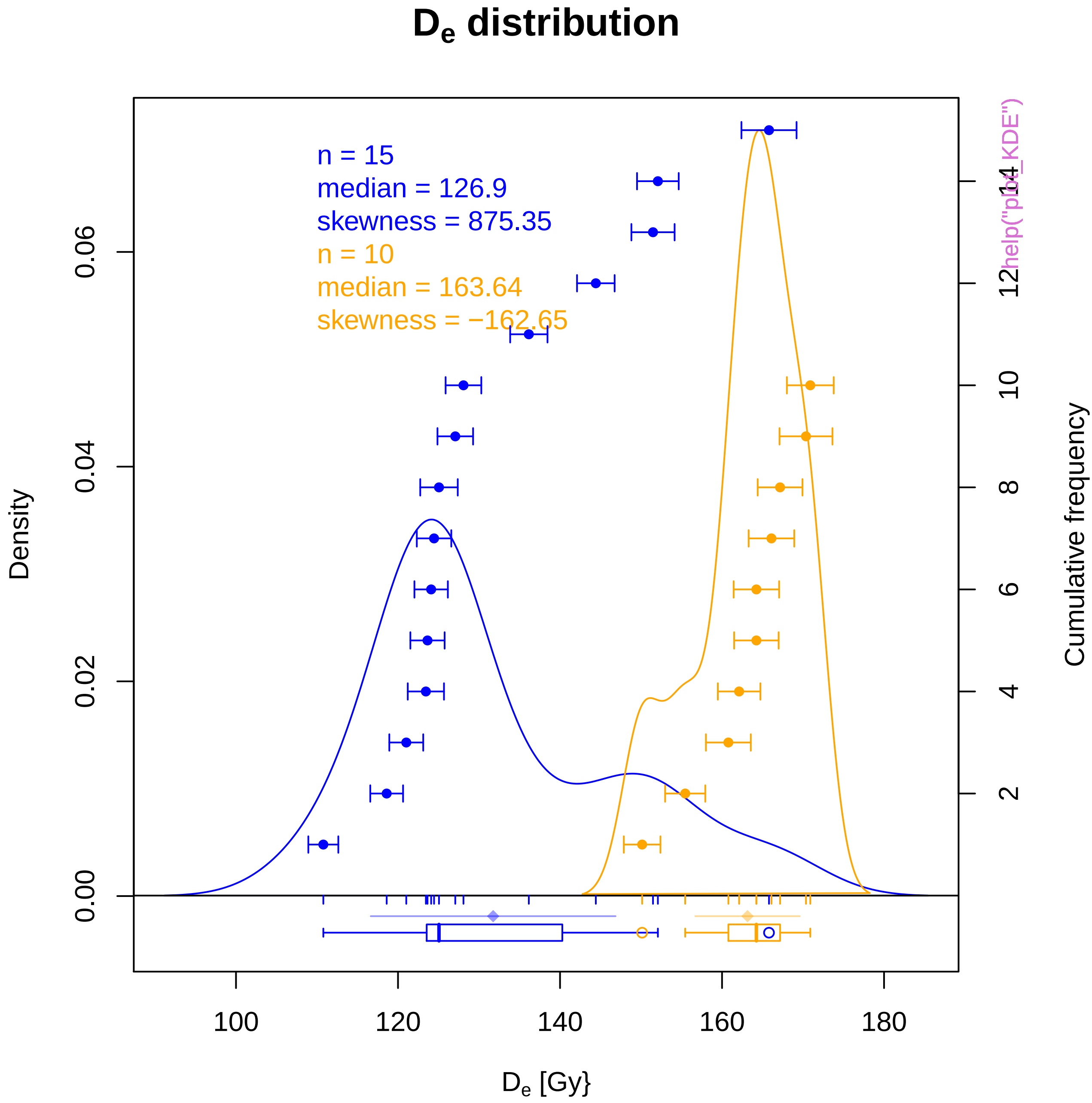
D$_e$ distribution
n = 25 | median = 126.36 | skewness = 1262.54 | in 2 sigma = 96 %
Density
0.00
0.01
0.02
0.03
0.04
0.05
0.06
0.07
Cumulative frequency
5
10
15
20
25
help("plot_KDE")
110
120
130
140
150
160
170
D$_e$ [Gy}



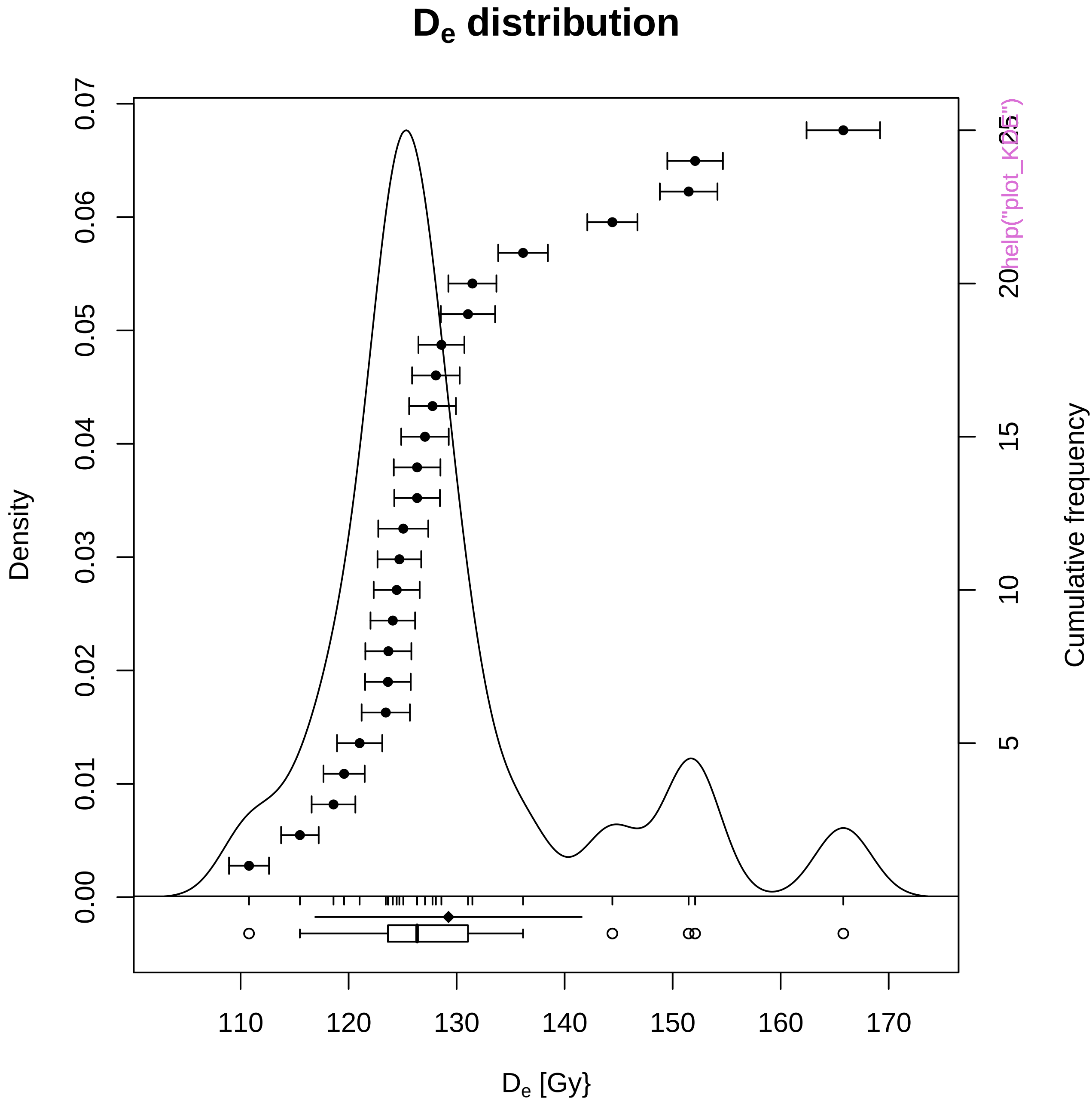
De distribution
n = 25
mean = 129.23
rel. sd = 9.96 %
se = 2.58
Density
Cumulative frequency
help("plot_KDE")
0.00
0.01
0.02
0.03
0.04
0.05
0.06
0.07
5
10
15
20
25
110
120
130
140
150
160
170
De [Gy}



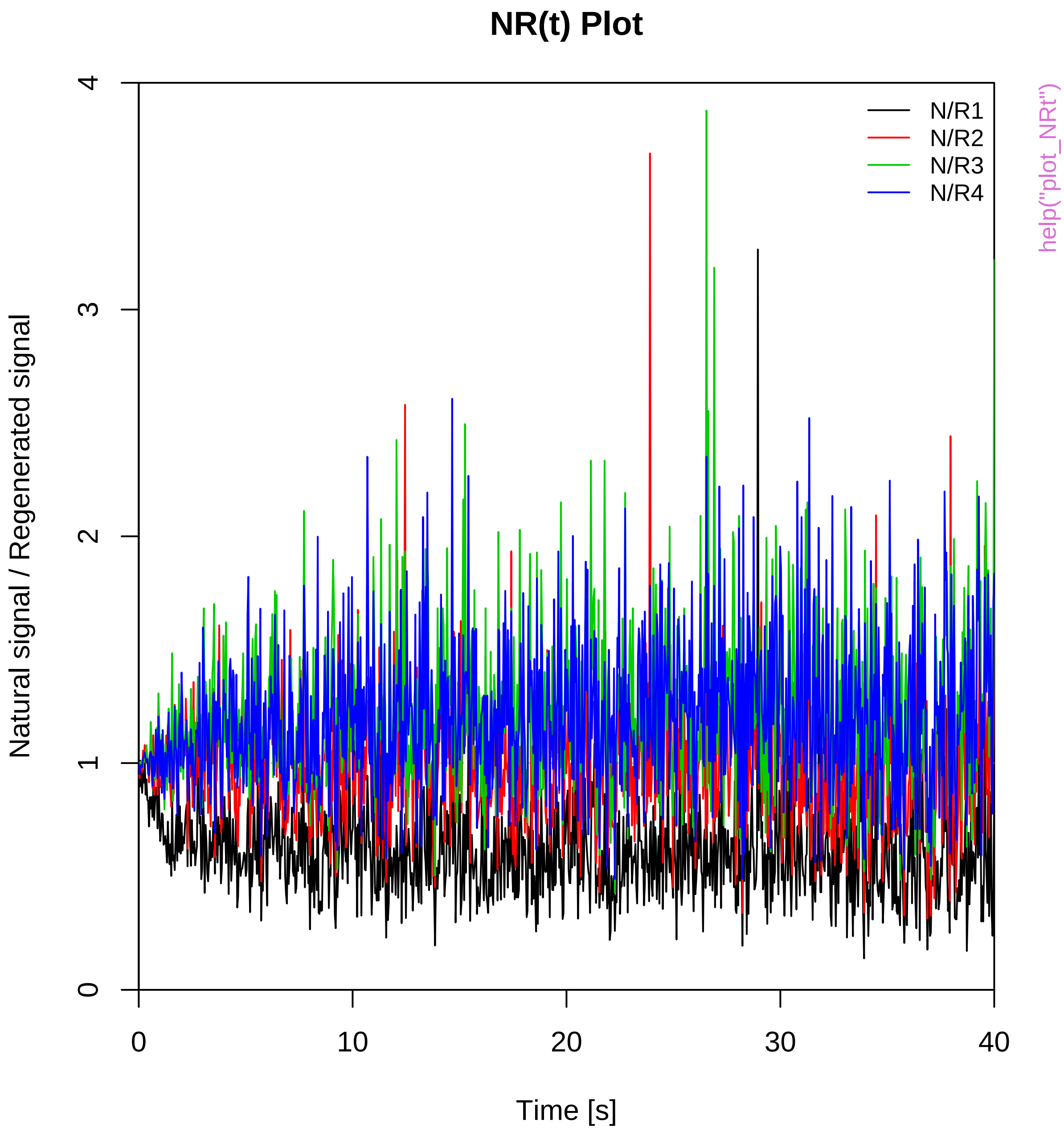
De distribution
Density
0.00
0.02
0.04
0.06
Cumulative frequency
2
4
6
8
10
12
14
help("plot_KDE")
100
120
140
160
180
De [Gy}

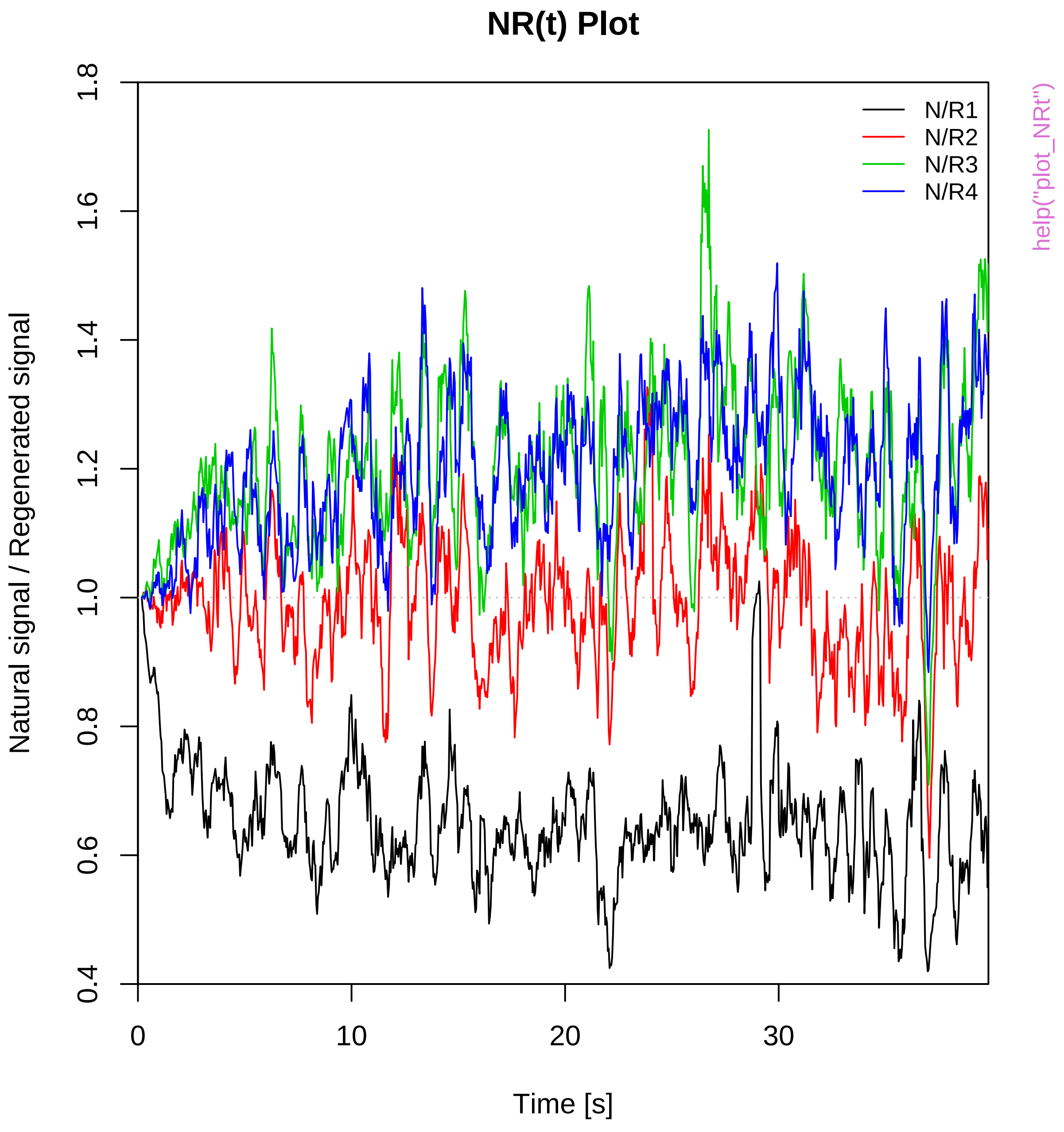


De distribution
n = 15
median = 126.9
skewness = 875.35
n = 10
median = 163.64
skewness = −162.65
help("plot_KDE")
Density
Cumulative frequency
De [Gy}
0.00
0.02
0.04
0.06
100
120
140
160
180
2
4
6
8
10
12
14

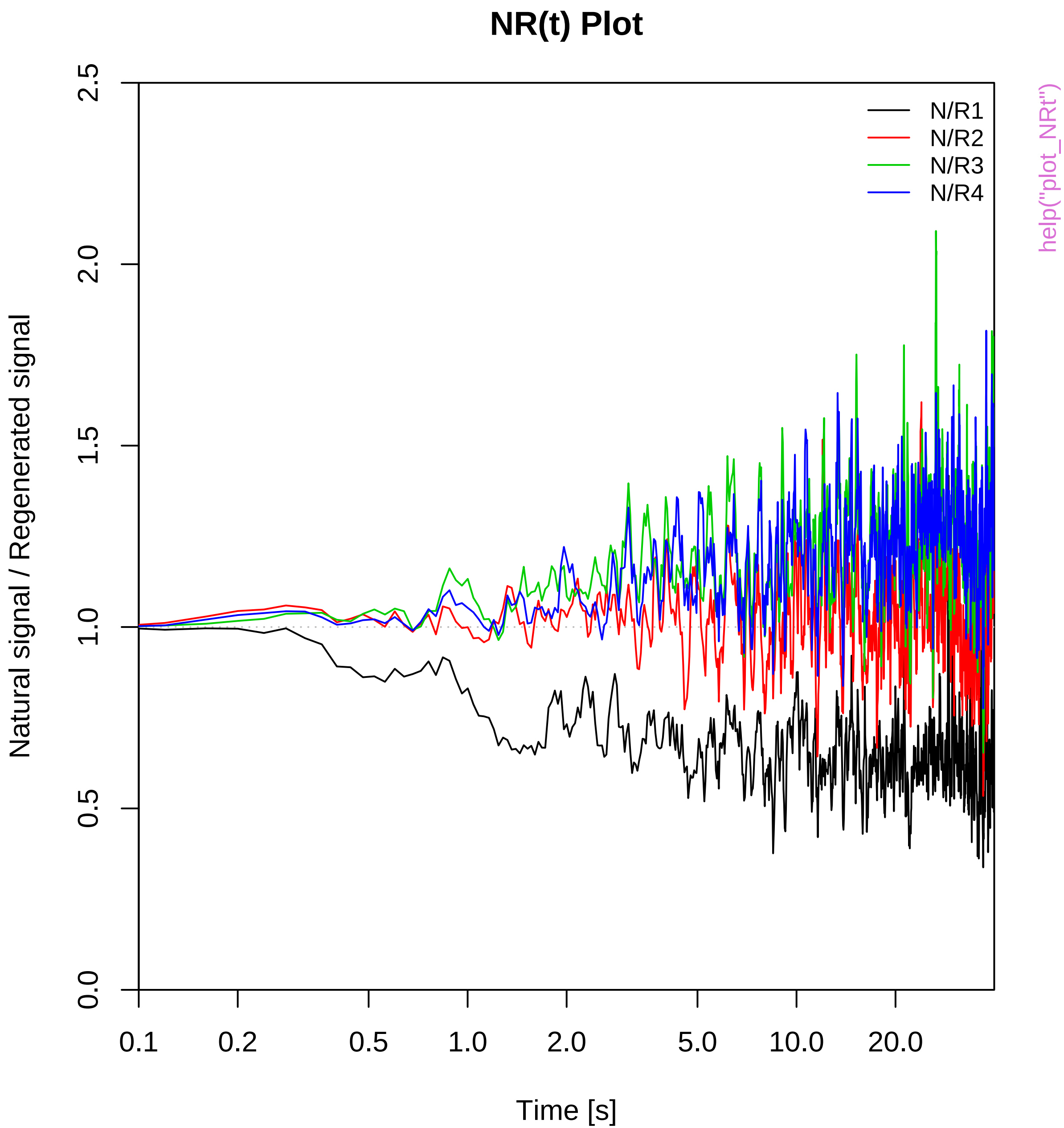


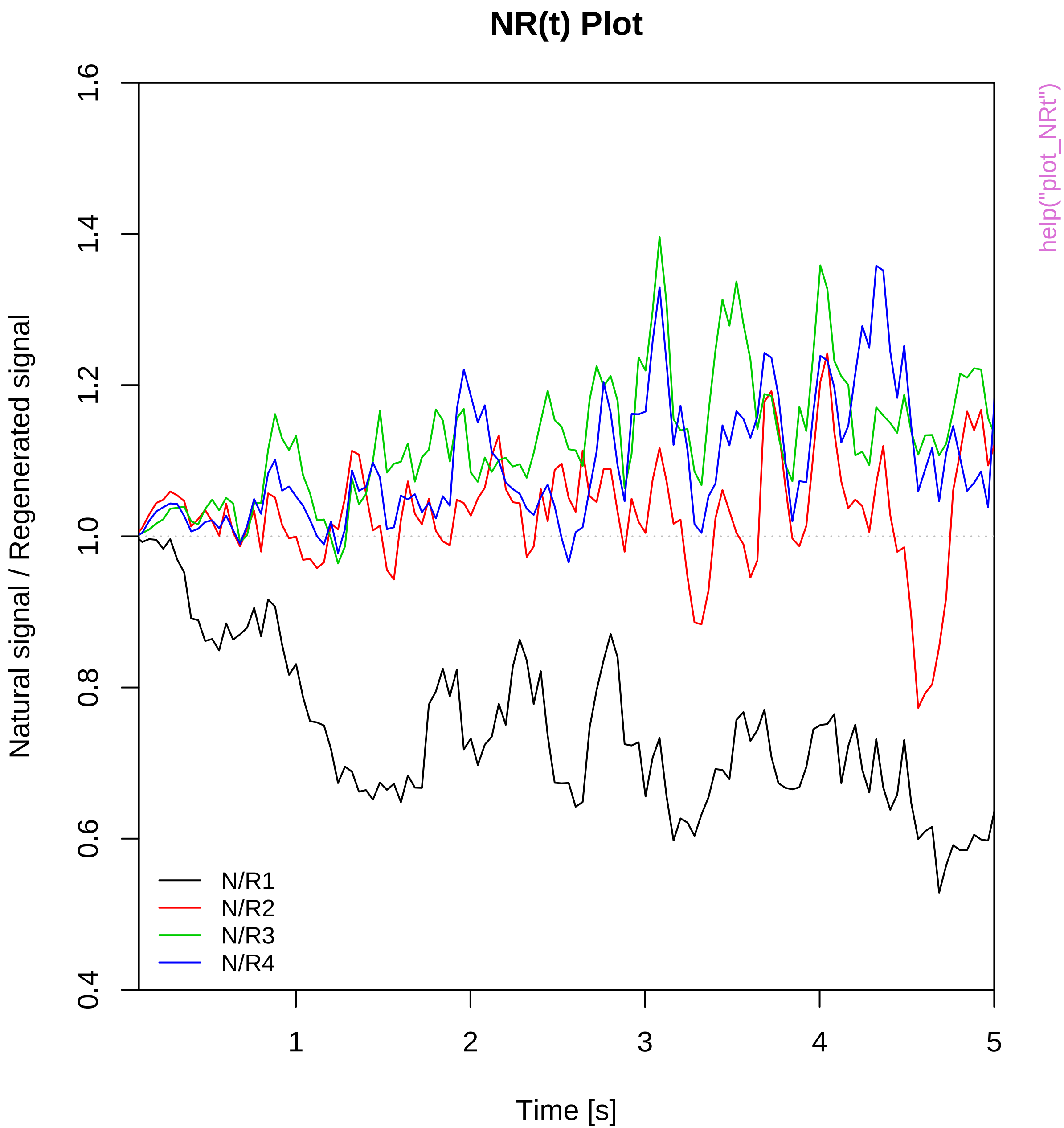
D_e distribution
Density
Cumulative frequency
help("plot_KDE")
0.00
0.01
0.02
0.03
0.04
0.05
0.06
0.07
5
10
15
20
25
110
120
130
140
150
160
170
D_e [Gy}


NR(t) Plot
N/R1
N/R2
N/R3
N/R4
help("plot_NRt")
Natural signal / Regenerated signal
0
1
2
3
4
0
10
20
30
40
Time [s]

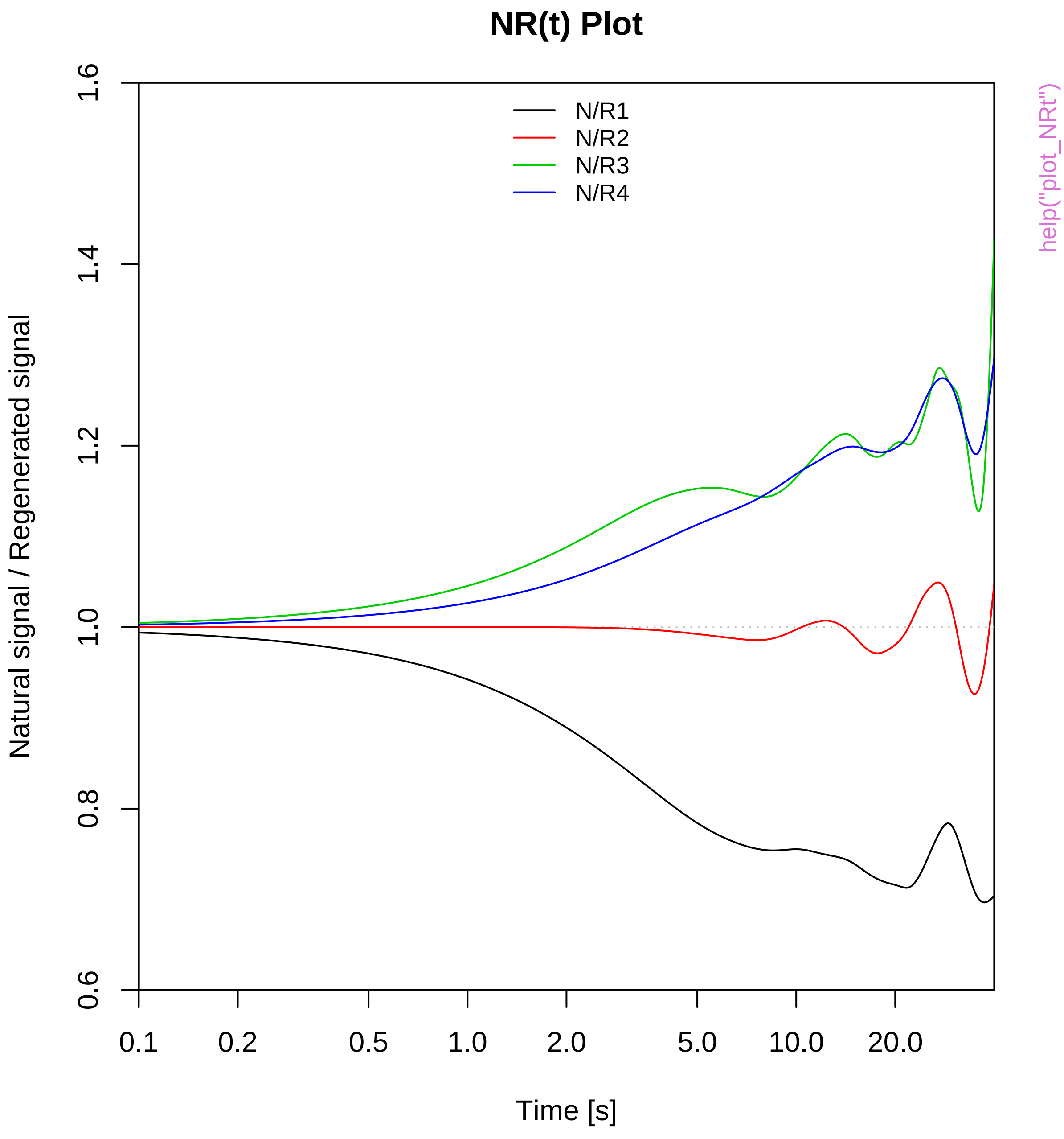


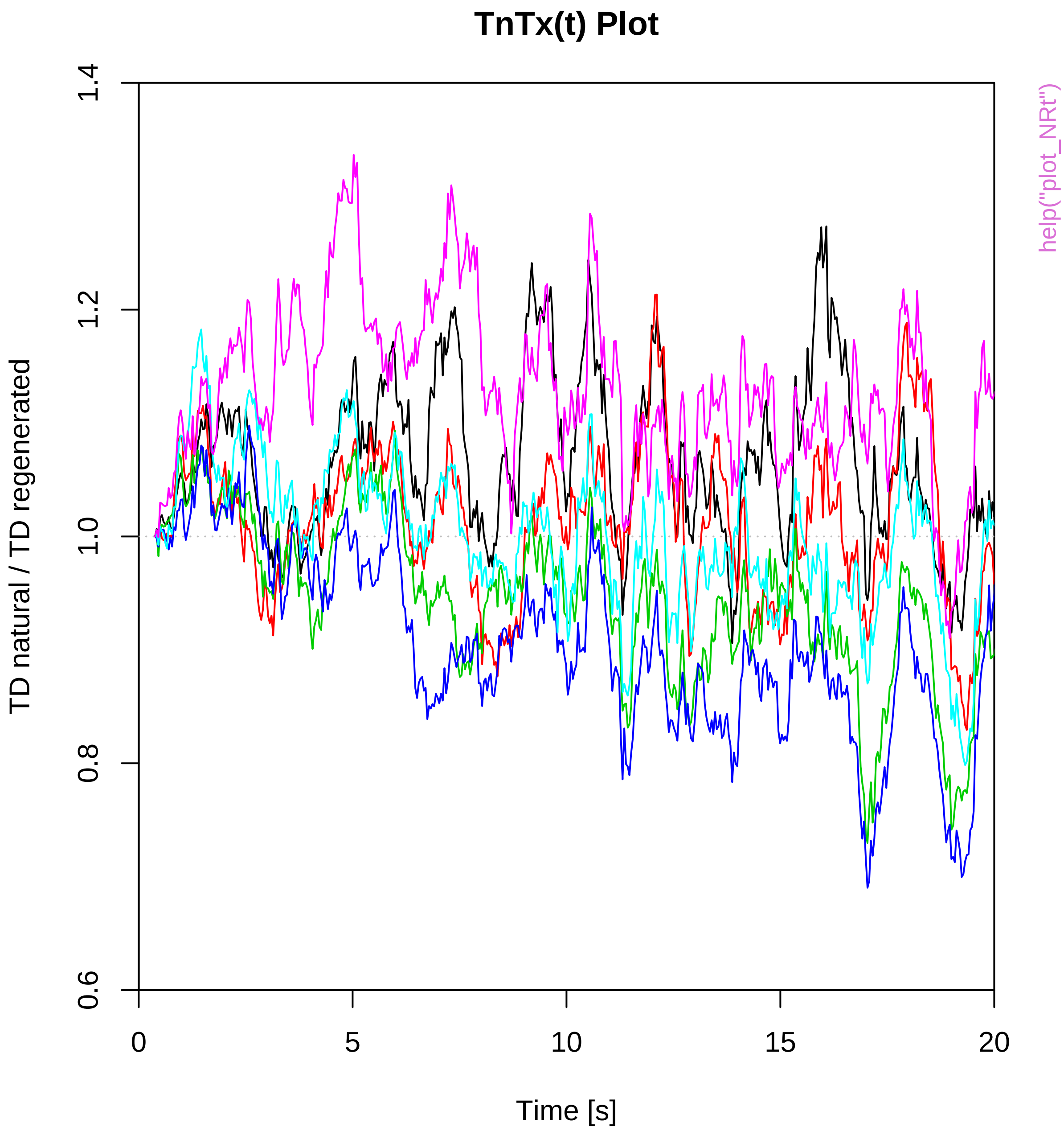
NR(t) Plot
Natural signal / Regenerated signal
Time [s]
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
0
10
20
30
N/R1
N/R2
N/R3
N/R4
help("plot_NRt")

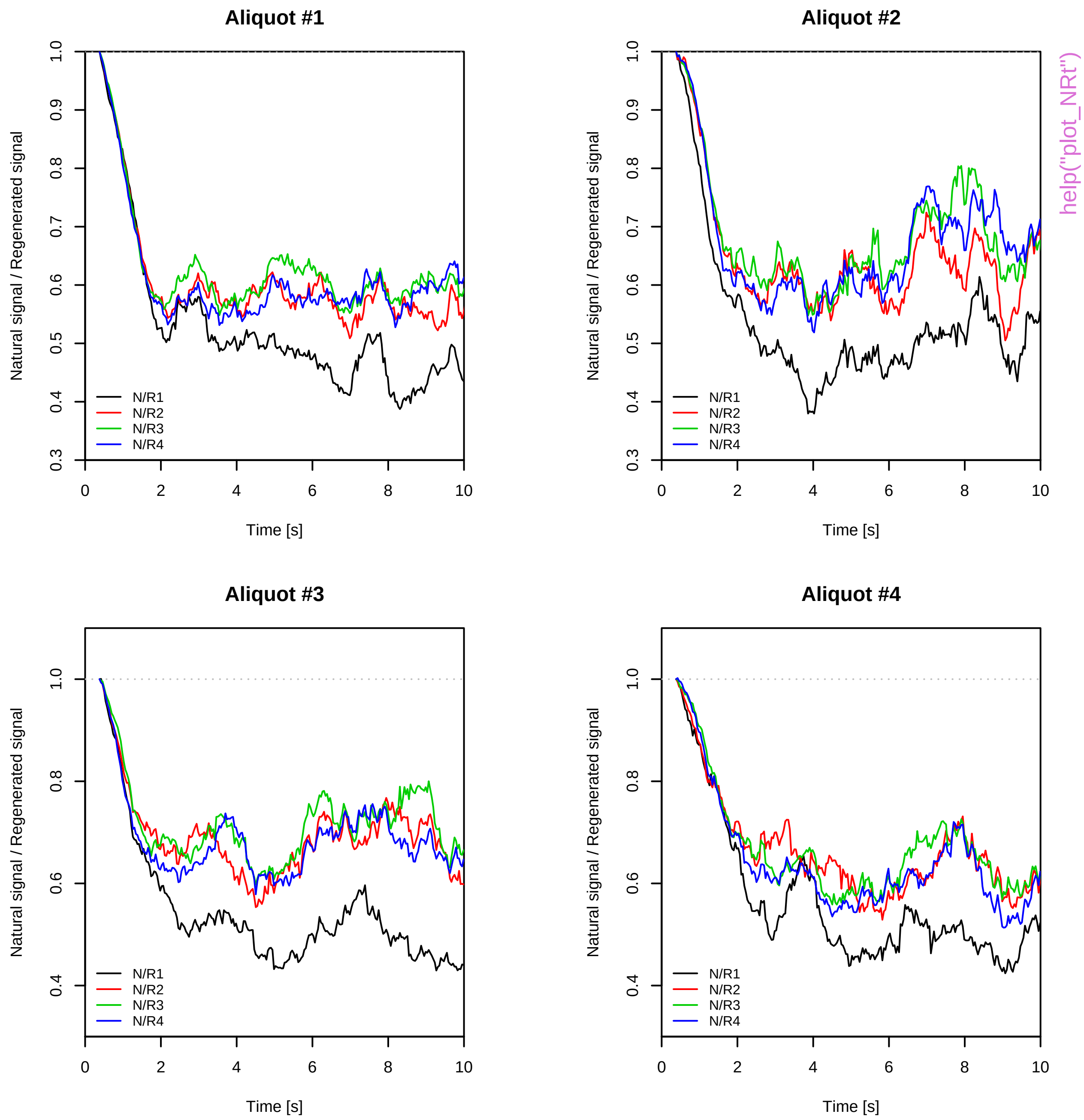

NR(t) Plot
N/R1
N/R2
N/R3
N/R4
help("plot_NRt")
Natural signal / Regenerated signal
0.0
0.5
1.0
1.5
2.0
2.5
0.1
0.2
0.5
1.0
2.0
5.0
10.0
20.0
Time [s]



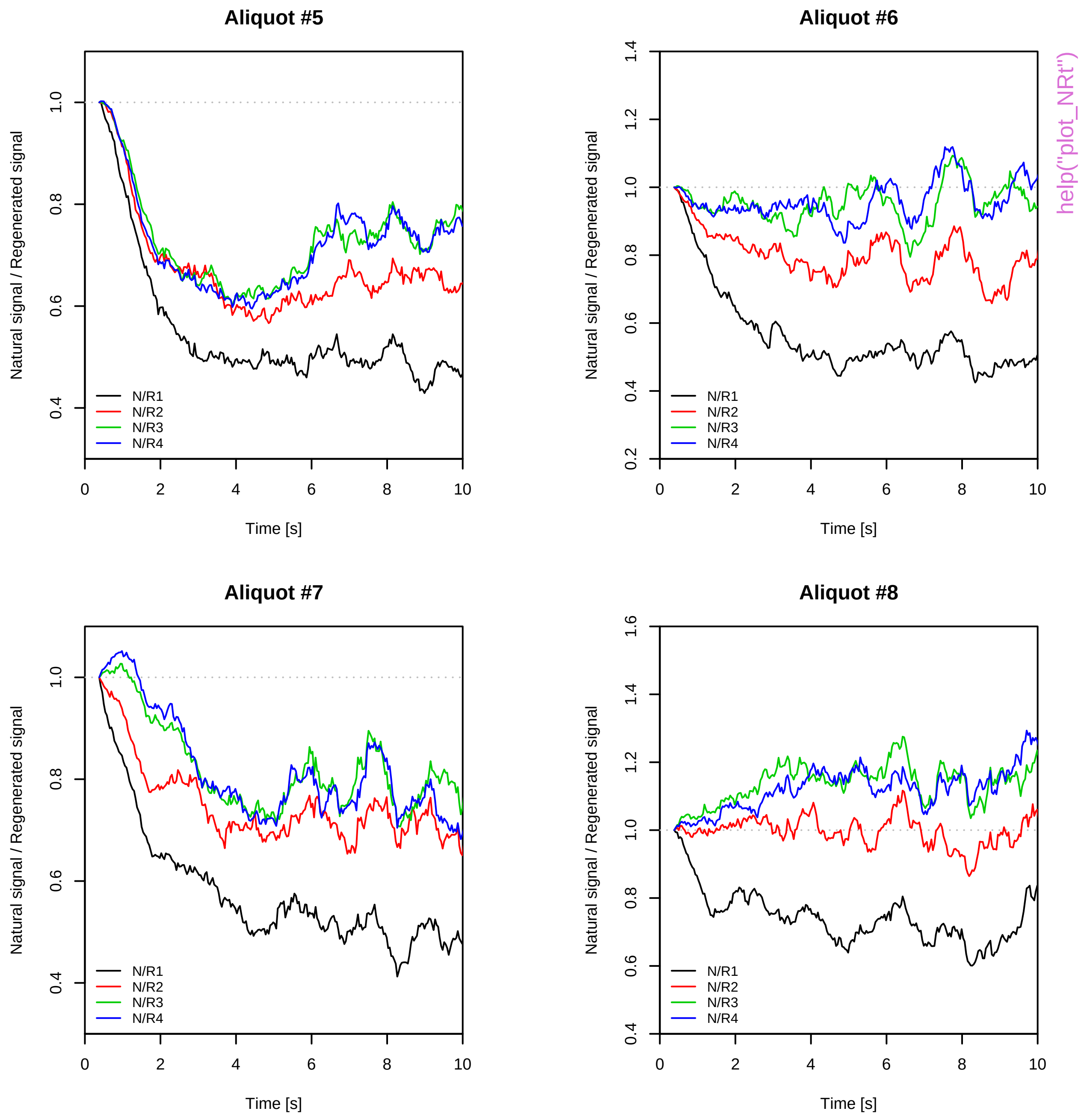
NR(t) Plot
Natural signal / Regenerated signal
Time [s]
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1
2
3
4
5
N/R1
N/R2
N/R3
N/R4
help("plot_NRt")

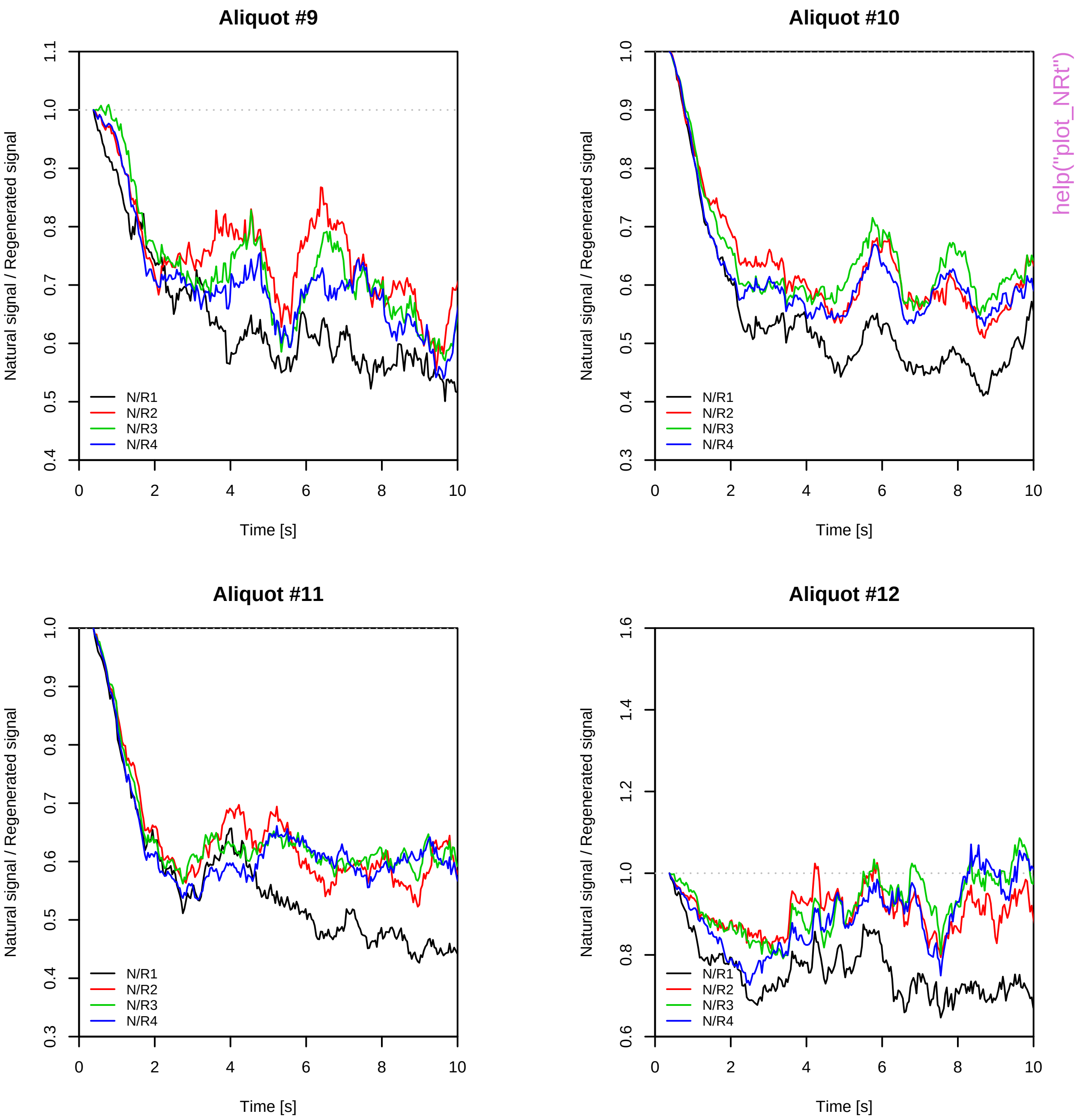

NR(t) Plot
N/R1
N/R2
N/R3
N/R4
help("plot_NRt")
Natural signal / Regenerated signal
Time [s]
0.6
0.8
1.0
1.2
1.4
1.6
0.1
0.2
0.5
1.0
2.0
5.0
10.0
20.0


TnTx(t) Plot
1.4
1.2
1.0
0.8
0.6
TD natural / TD regenerated
0
5
10
15
20
Time [s]
help("plot_NRt")

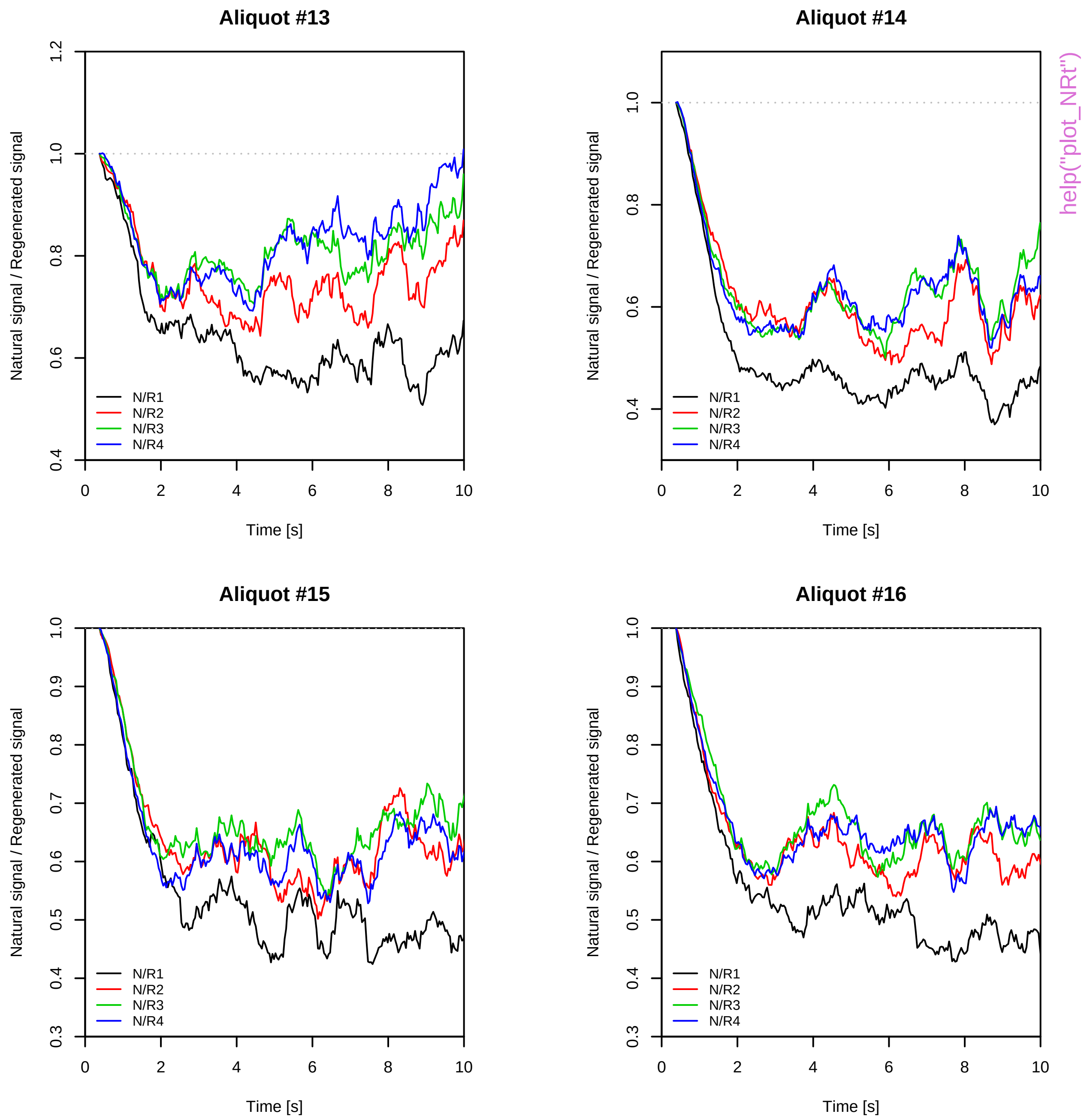


Aliquot #1
Aliquot #2
Aliquot #3
Aliquot #4
Natural signal / Regenerated signal
Time [s]
N/R1
N/R2
N/R3
N/R4
help("plot_NRt")

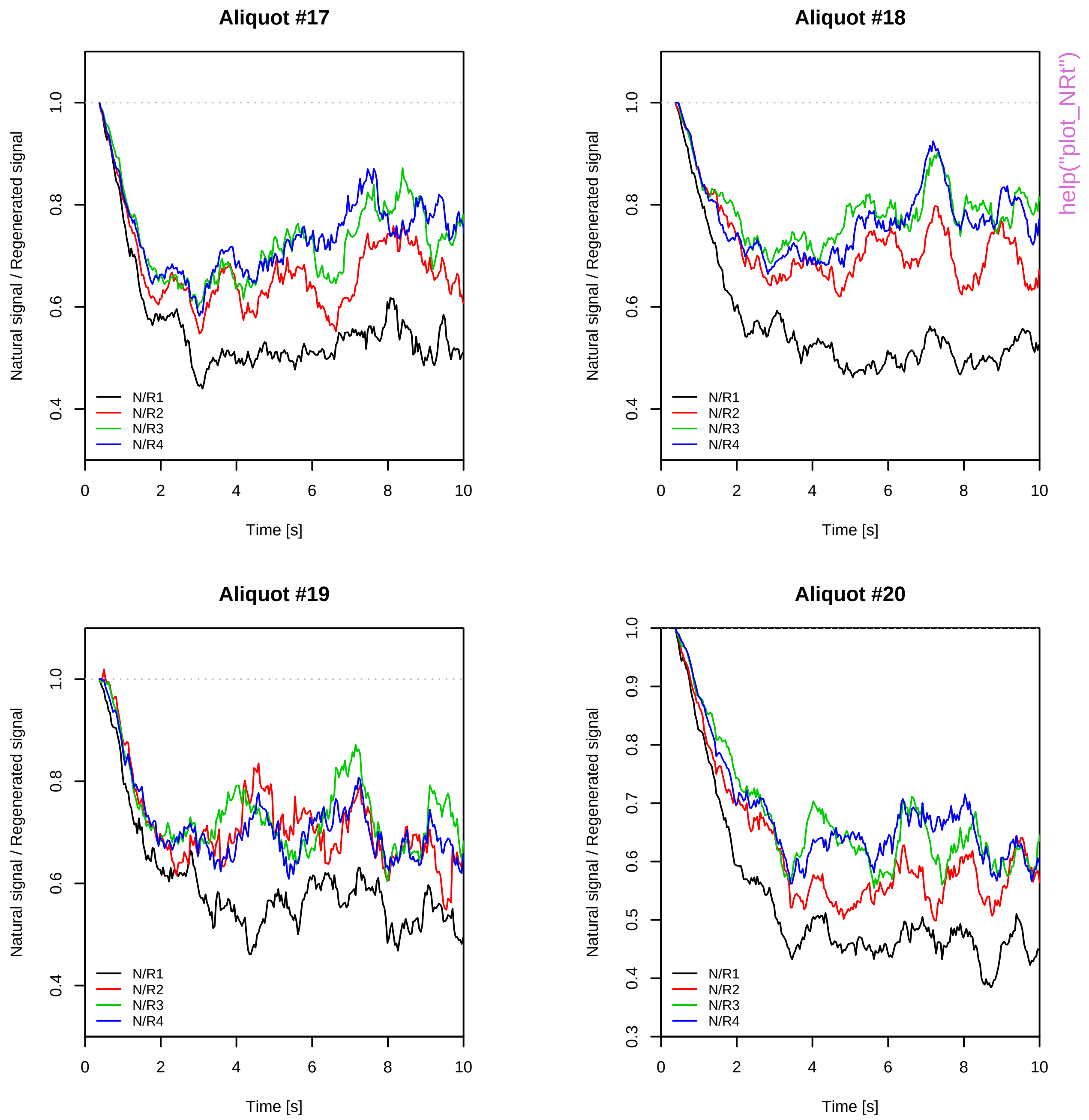

Aliquot #5
Aliquot #6
Aliquot #7
Aliquot #8
Natural signal / Regenerated signal
Time [s]
N/R1
N/R2
N/R3
N/R4
help("plot_NRt")



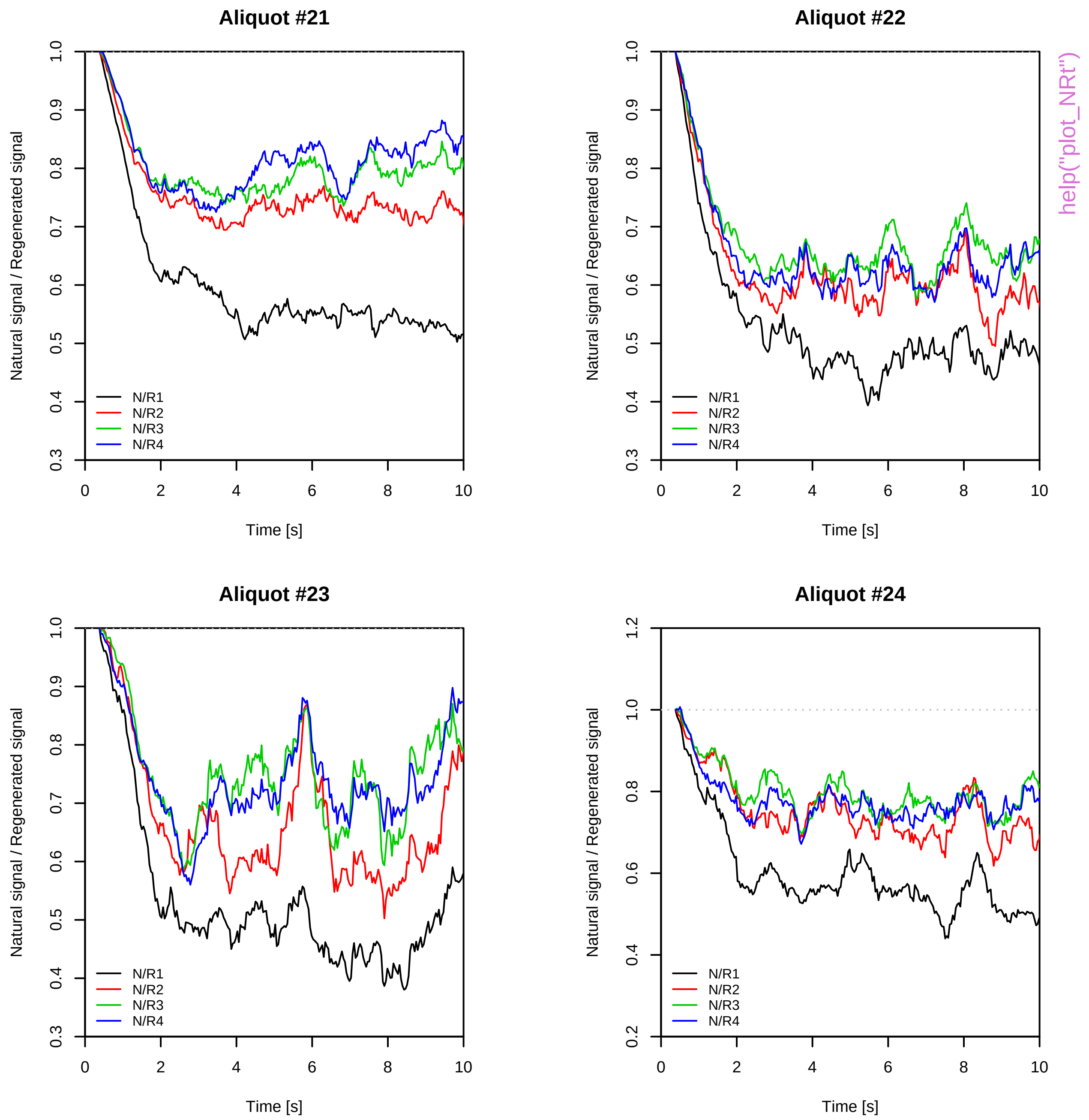
Aliquot #9
Aliquot #10
Aliquot #11
Aliquot #12
Natural signal / Regenerated signal
Time [s]
N/R1
N/R2
N/R3
N/R4
help("plot_NRt")



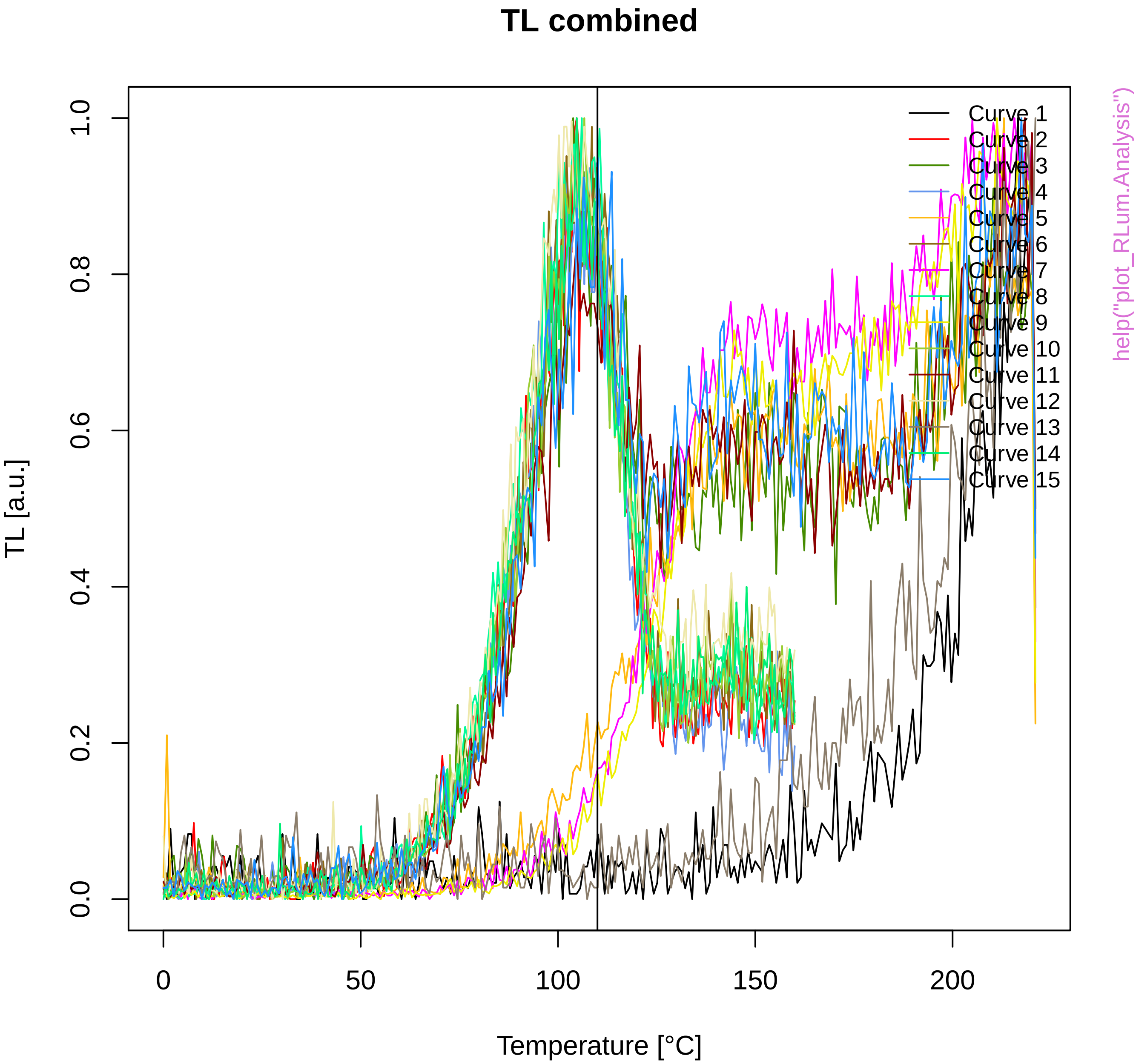
Aliquot #13
Aliquot #14
Aliquot #15
Aliquot #16
Natural signal / Regenerated signal
Time [s]
N/R1
N/R2
N/R3
N/R4
help("plot_NRt")



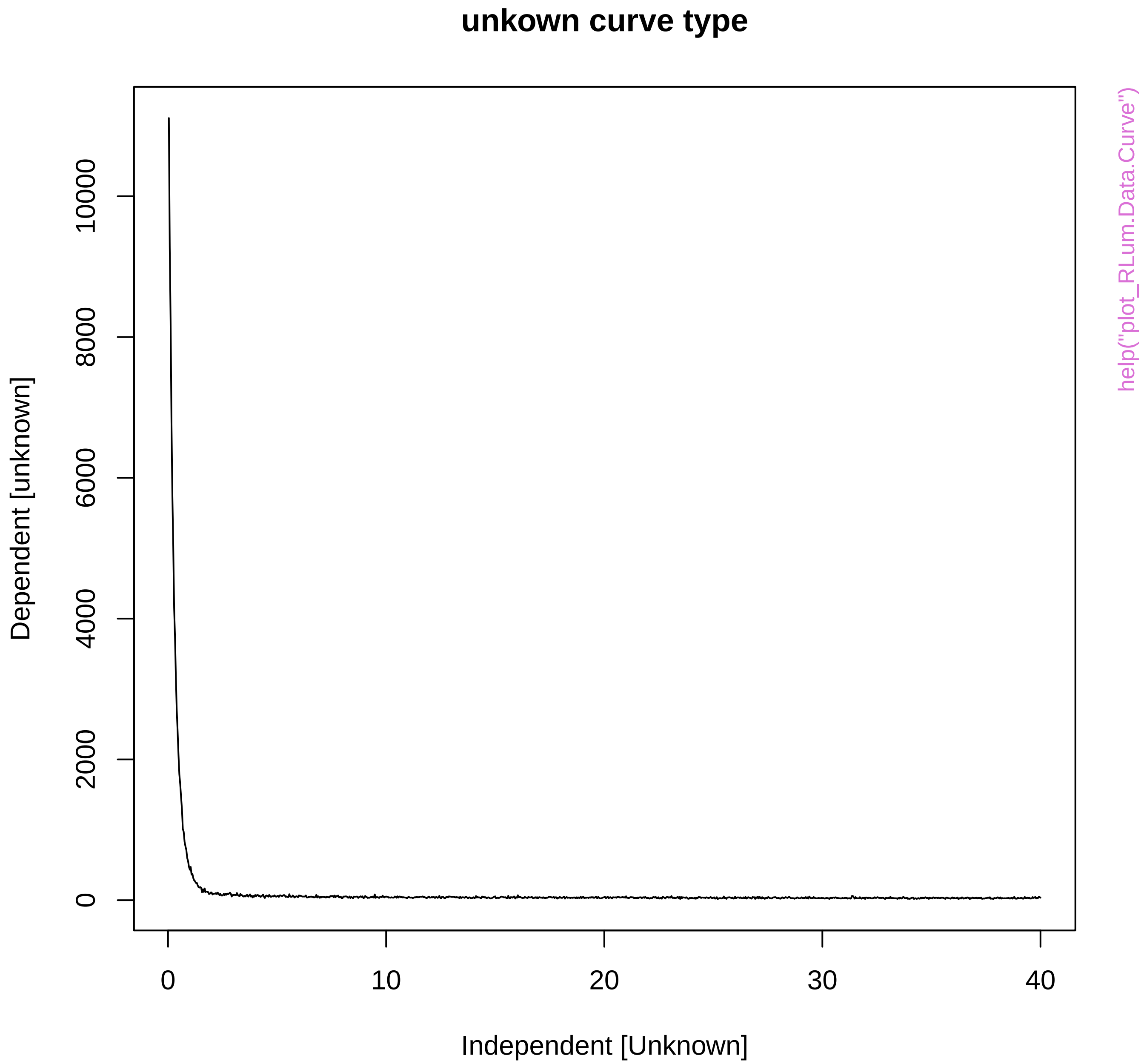
Aliquot #17
Aliquot #18
Aliquot #19
Aliquot #20
Natural signal / Regenerated signal
Time [s]
N/R1
N/R2
N/R3
N/R4
help("plot_NRt")

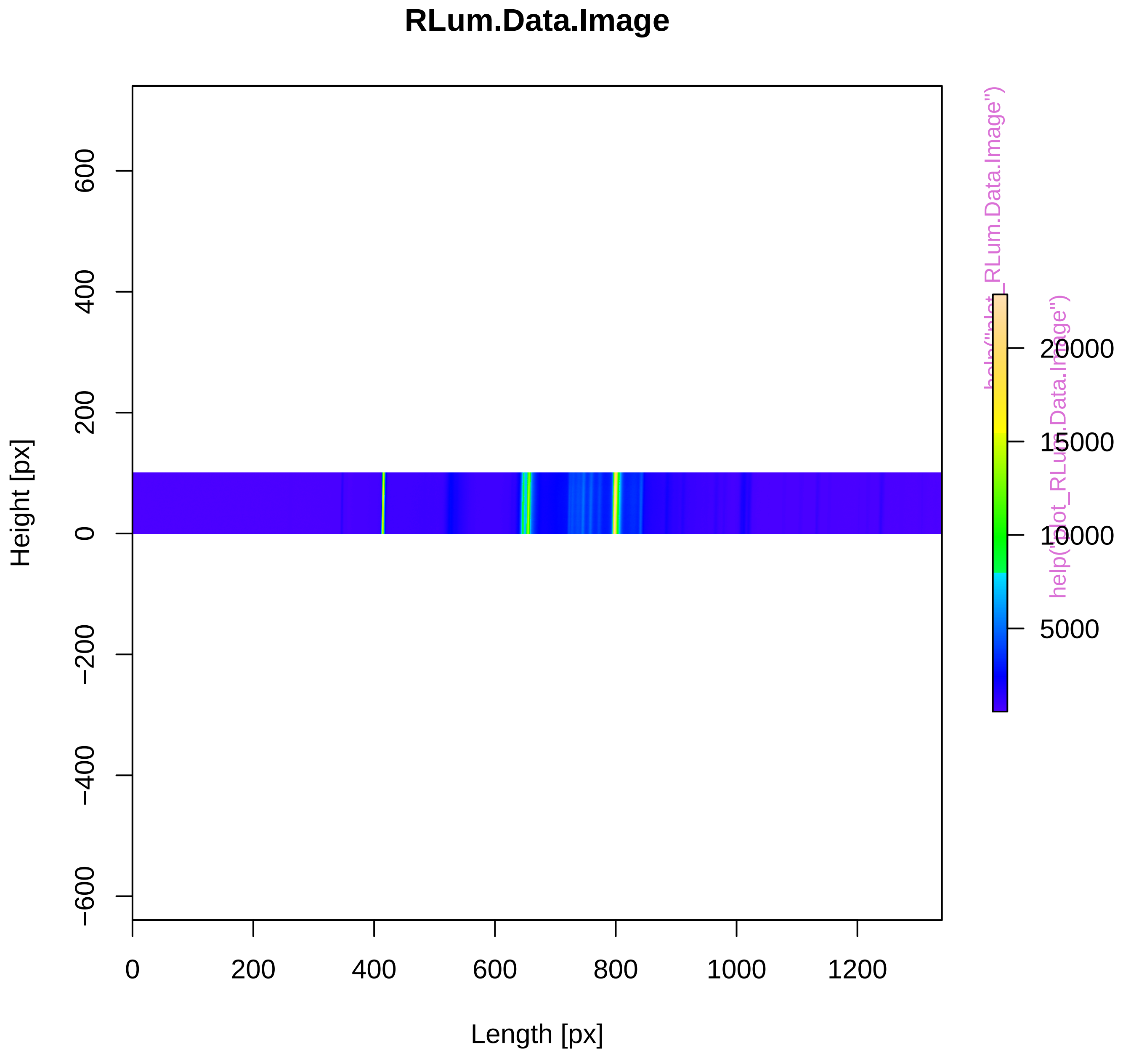


Aliquot #21
Aliquot #22
Aliquot #23
Aliquot #24
Natural signal / Regenerated signal
Time [s]
N/R1
N/R2
N/R3
N/R4
help("plot_NRt")

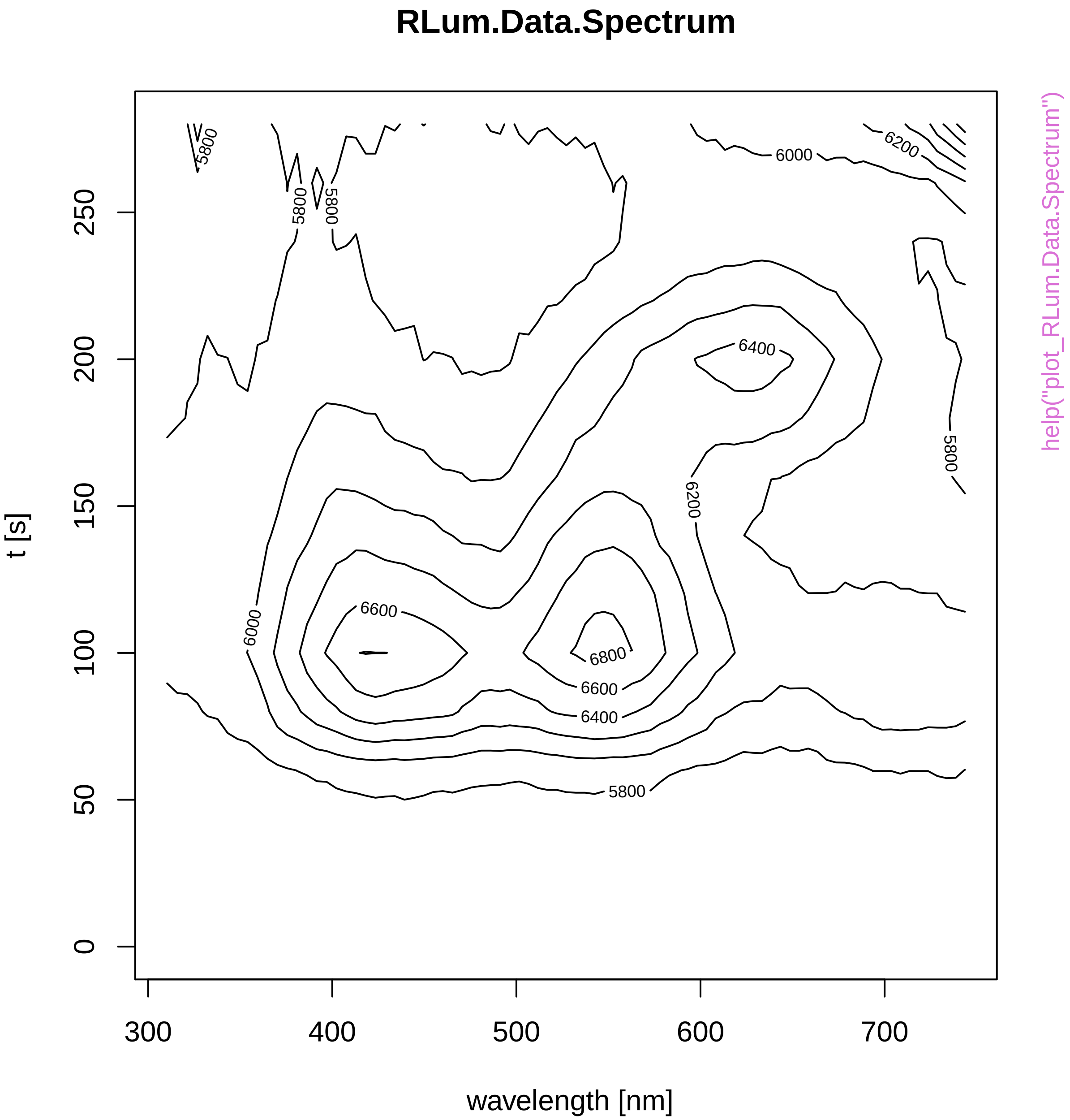


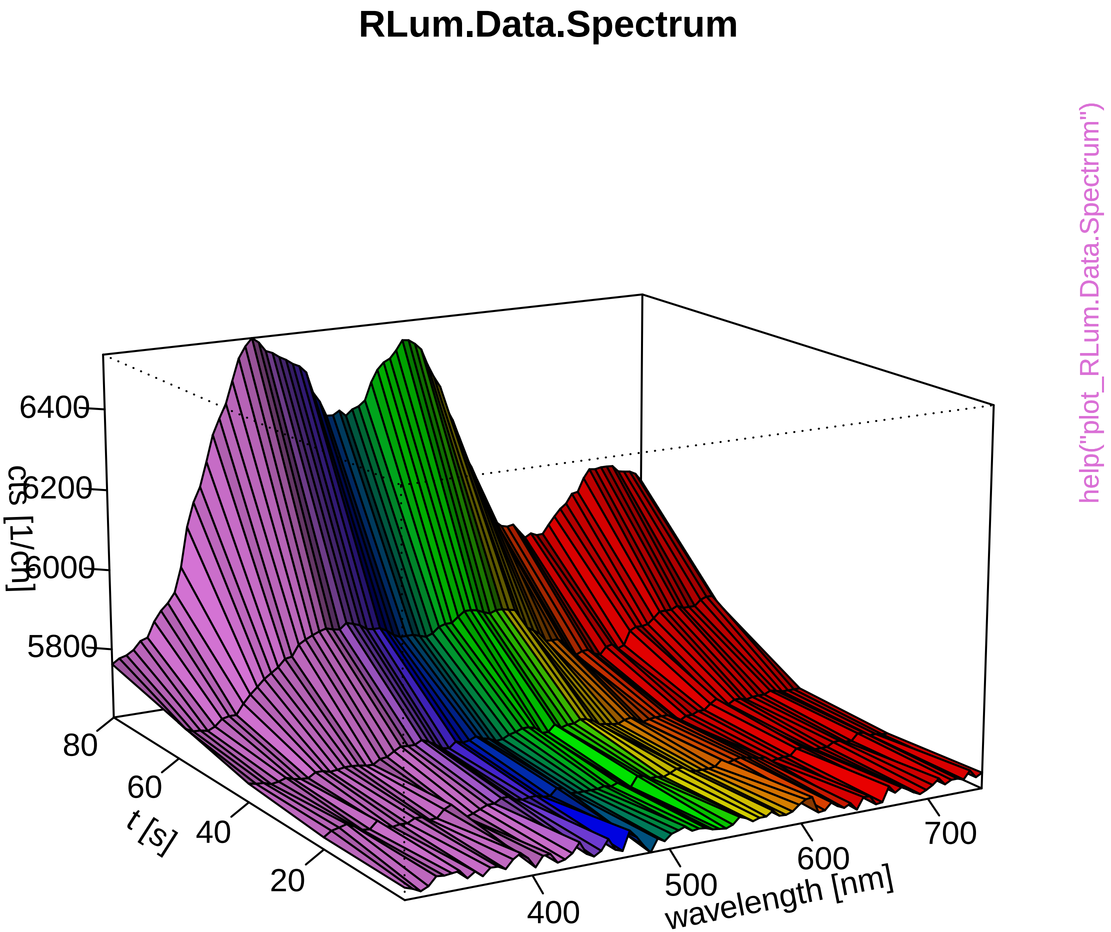
TL combined
TL [a.u.]
Temperature [°C]
0.0
0.2
0.4
0.6
0.8
1.0
0
50
100
150
200
Curve 1
Curve 2
Curve 3
Curve 4
Curve 5
Curve 6
Curve 7
Curve 8
Curve 9
Curve 10
Curve 11
Curve 12
Curve 13
Curve 14
Curve 15
help("plot_RLum.Analysis")


unkown curve type
Dependent [unknown]
0
2000
4000
6000
8000
10000
0
10
20
30
40
Independent [Unknown]
help("plot_RLum.Data.Curve")

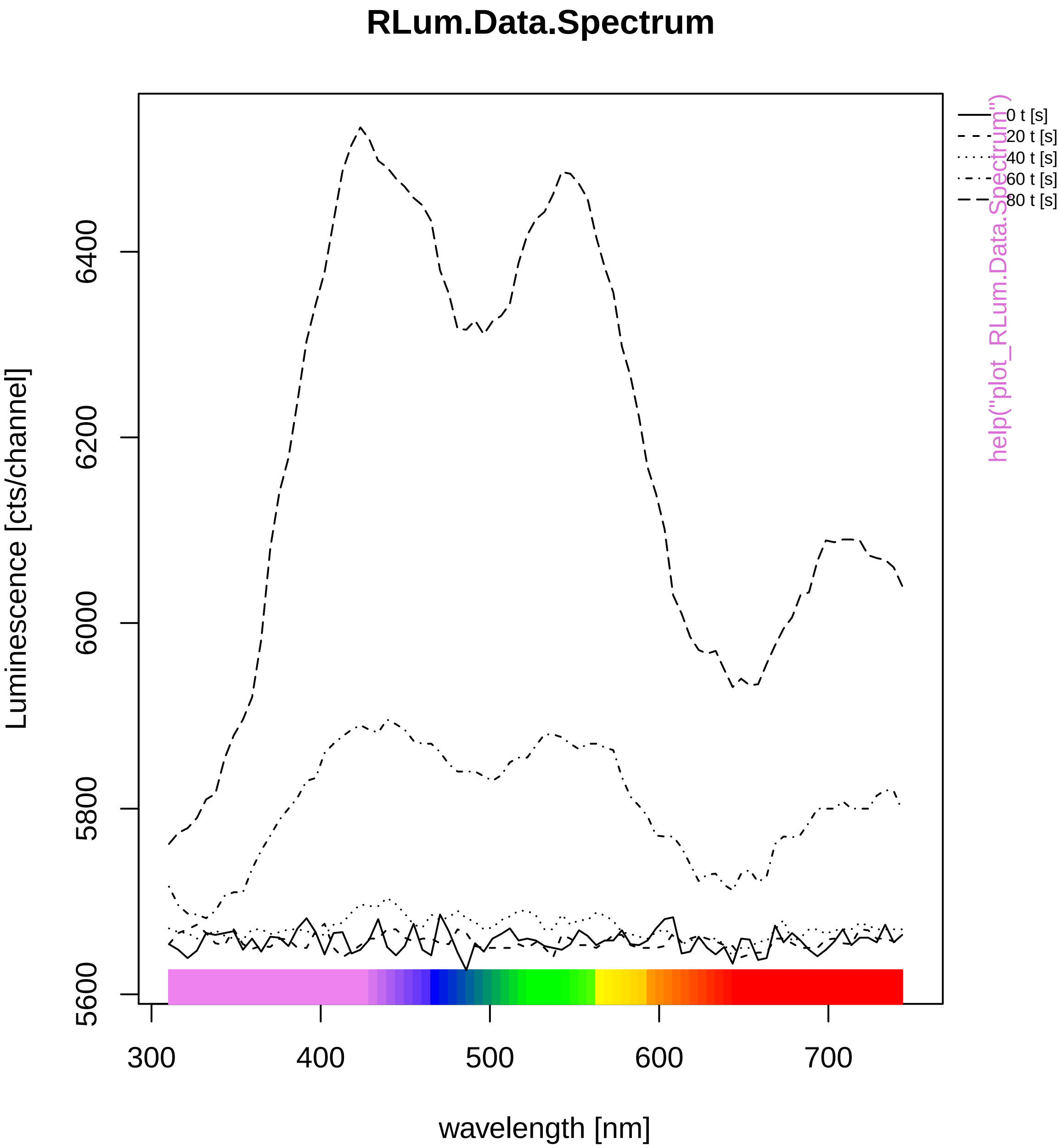


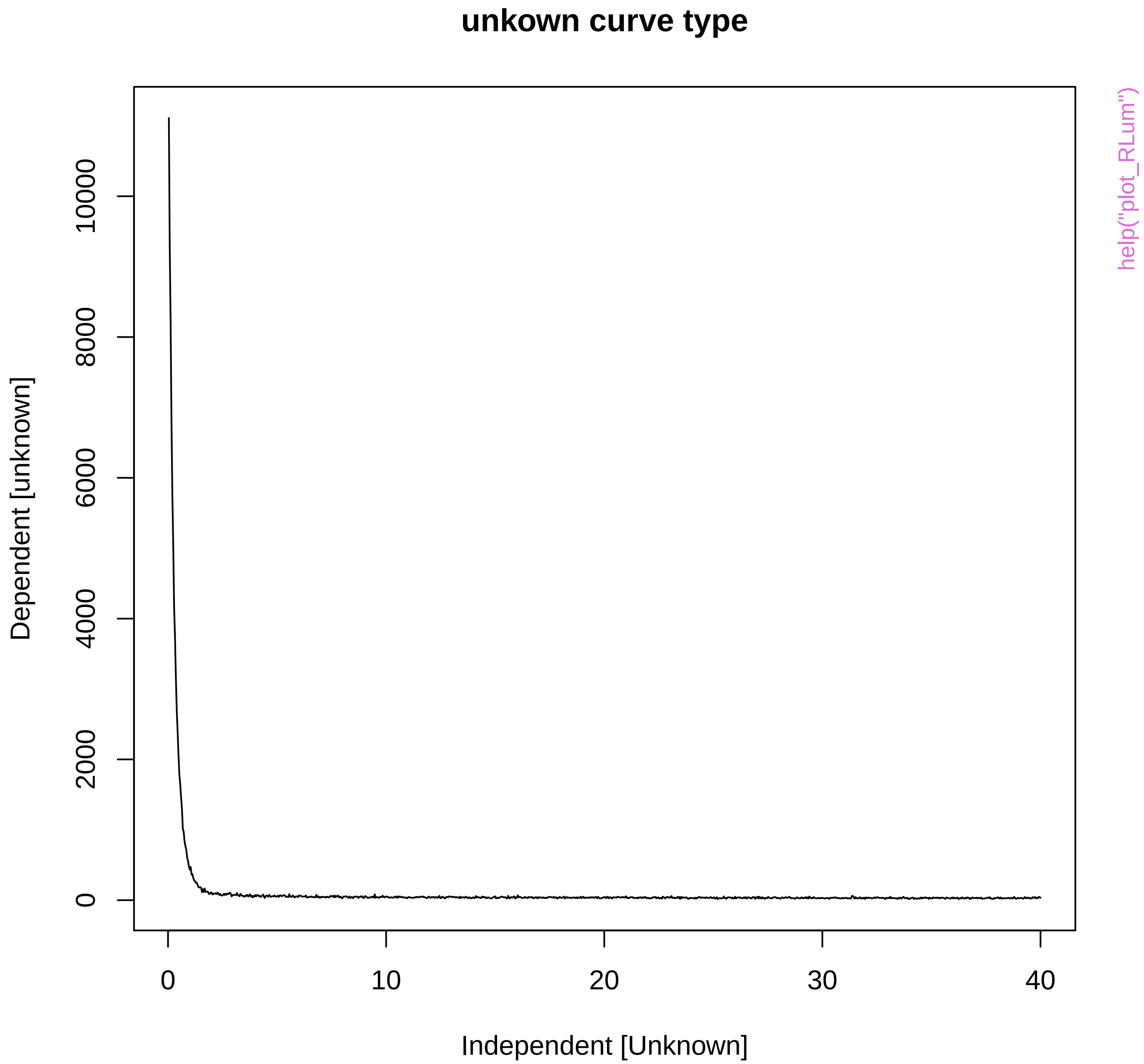
RLum.Data.Image
Height [px]
Length [px]
600
400
200
0
−200
−400
−600
0
200
400
600
800
1000
1200
20000
15000
10000
5000
help("plot_RLum.Data.Image")
help("plot_RLum.Data.Image")

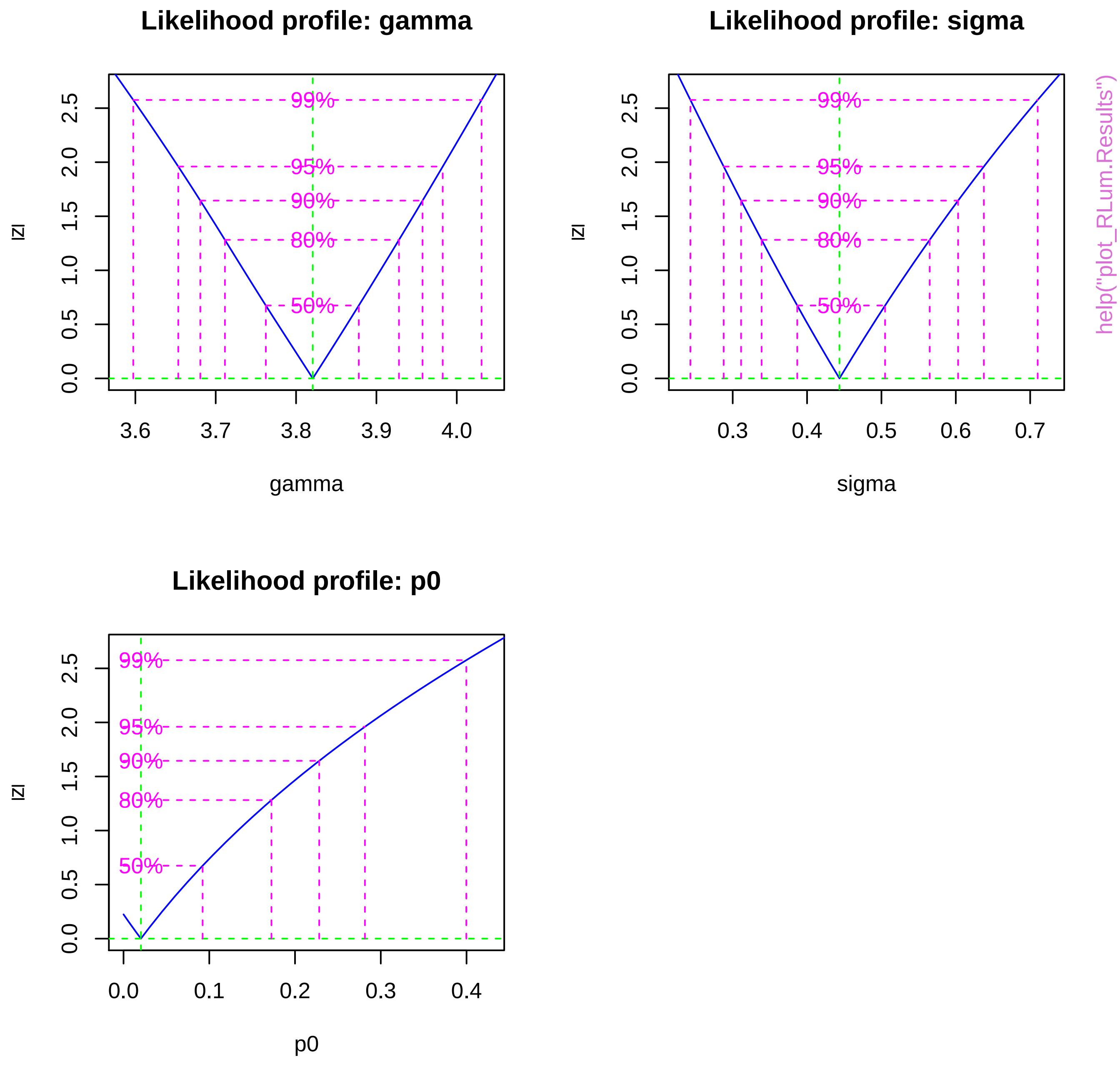

RLum.Data.Spectrum
help("plot_RLum.Data.Spectrum")
wavelength [nm]
t [s]
300
400
500
600
700
0
50
100
150
200
250
5800
6000
6200
6400
6600
6800

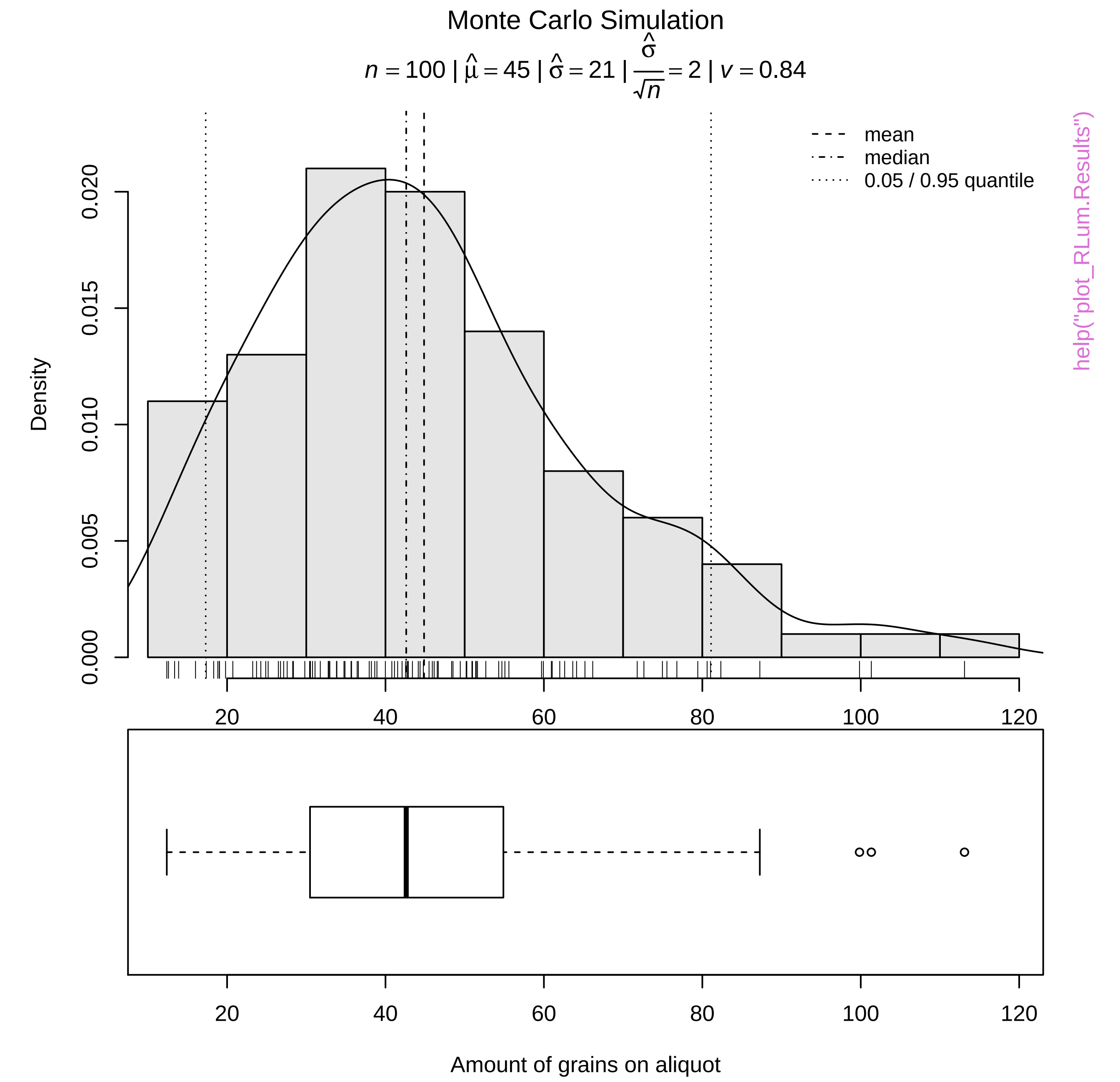


RLum.Data.Spectrum
cts [1/ch]
6400
6200
6000
5800
80
60
40
20
t [s]
400
500
600
700
wavelength [nm]
help("plot_RLum.Data.Spectrum")

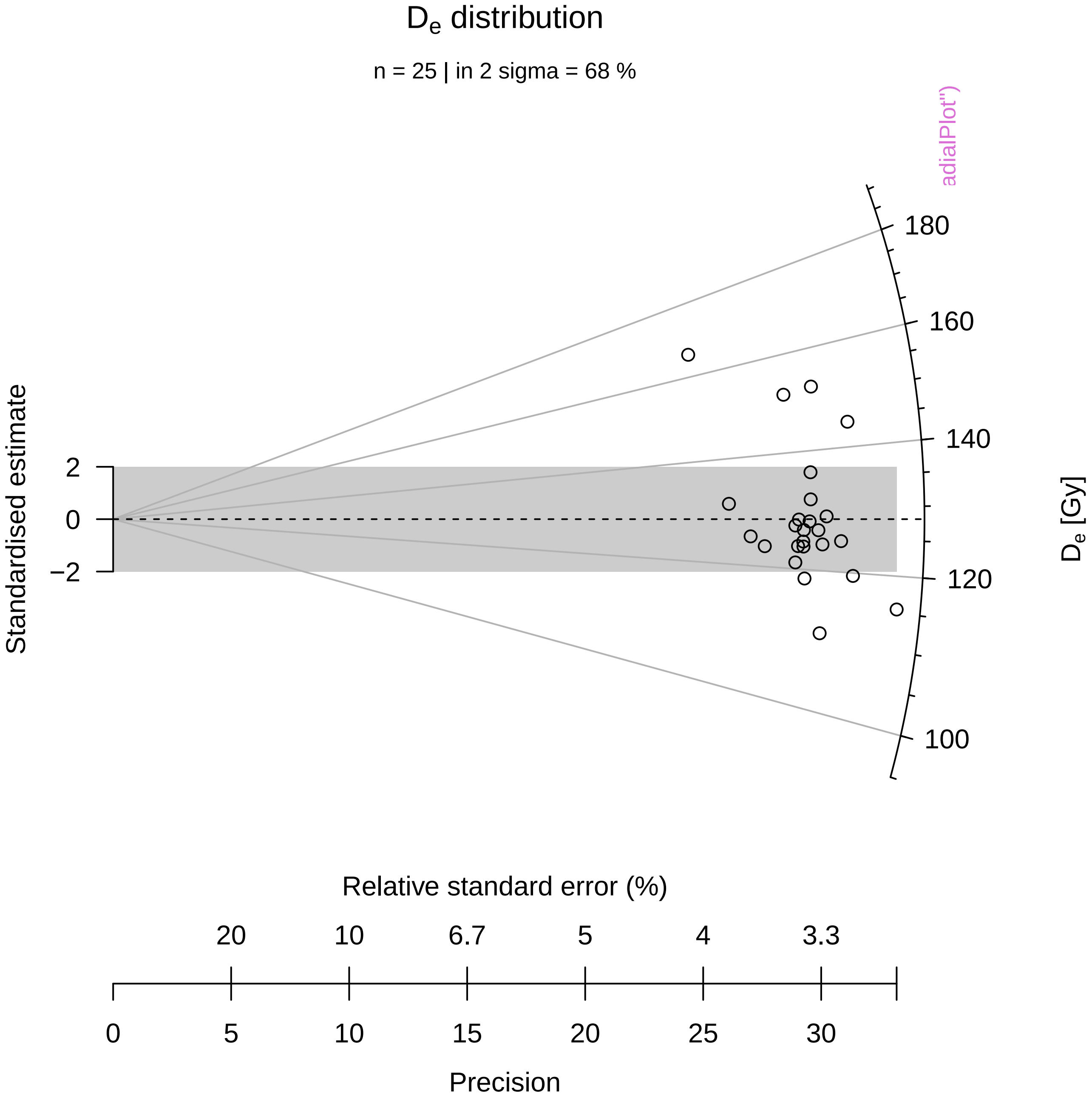

RLum.Data.Spectrum
Luminescence [cts/channel]
wavelength [nm]
5600
5800
6000
6200
6400
300
400
500
600
700
0 t [s]
20 t [s]
40 t [s]
60 t [s]
80 t [s]
help("plot_RLum.Data.Spectrum")


unkown curve type
Dependent [unknown]
Independent [Unknown]
0
2000
4000
6000
8000
10000
0
10
20
30
40
help("plot_RLum")

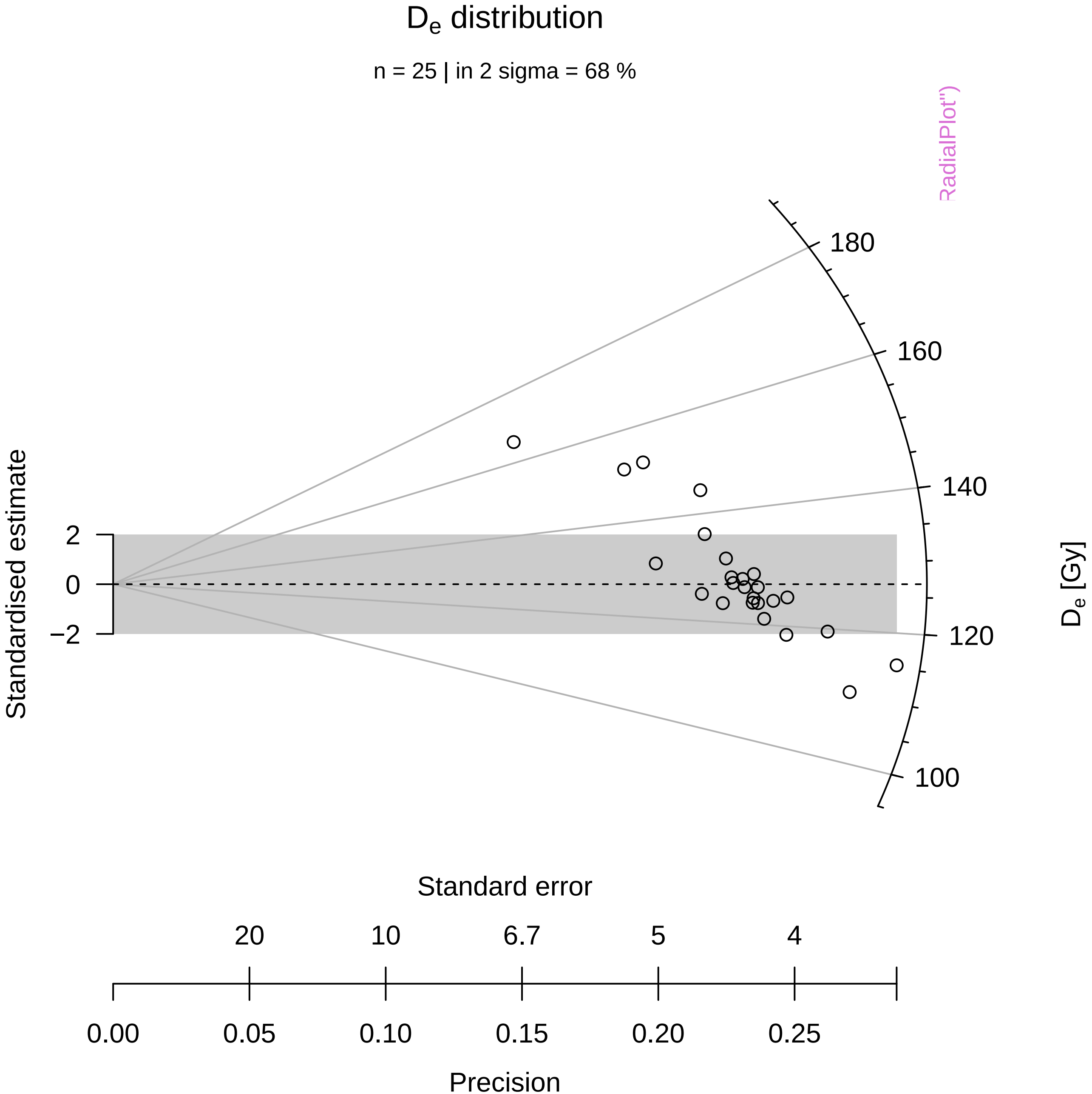

Likelihood profile: gamma
Likelihood profile: sigma
Likelihood profile: p0
|z|
gamma
sigma
p0
99%
95%
90%
80%
50%
0.0
0.5
1.0
1.5
2.0
2.5
3.6
3.7
3.8
3.9
4.0
0.3
0.4
0.5
0.6
0.7
0.1
0.2
0.3
0.4
help("plot_RLum.Results")



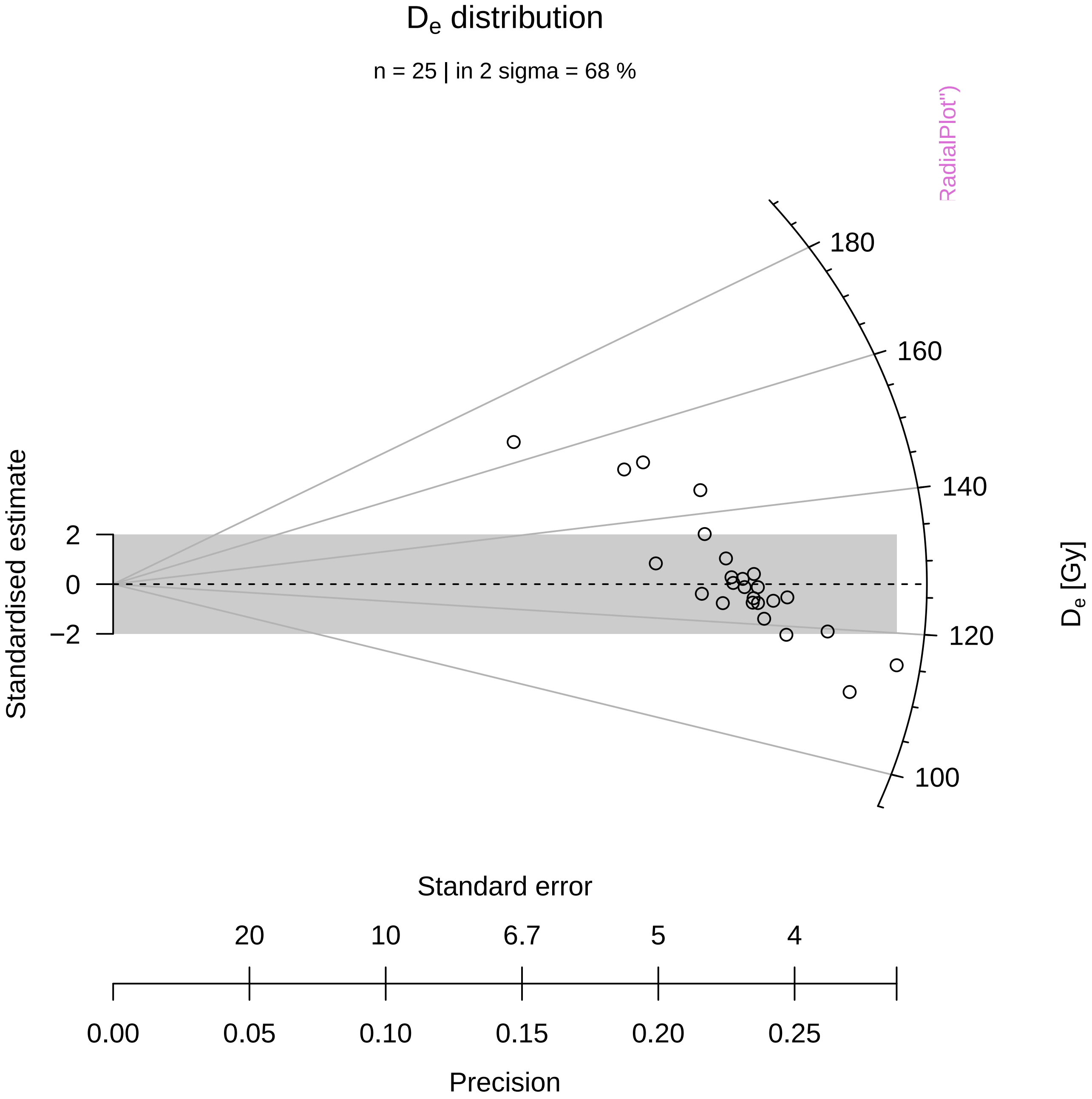
Monte Carlo Simulation
$n = 100 \mid \hat{\mu} = 45 \mid \hat{\sigma} = 21 \mid \frac{\hat{\sigma}}{\sqrt{n}} = 2 \mid v = 0.84$
mean
median
0.05 / 0.95 quantile
help("plot_RLum.Results")
Density
0.000
0.005
0.010
0.015
0.020
20
40
60
80
100
120
Amount of grains on aliquot



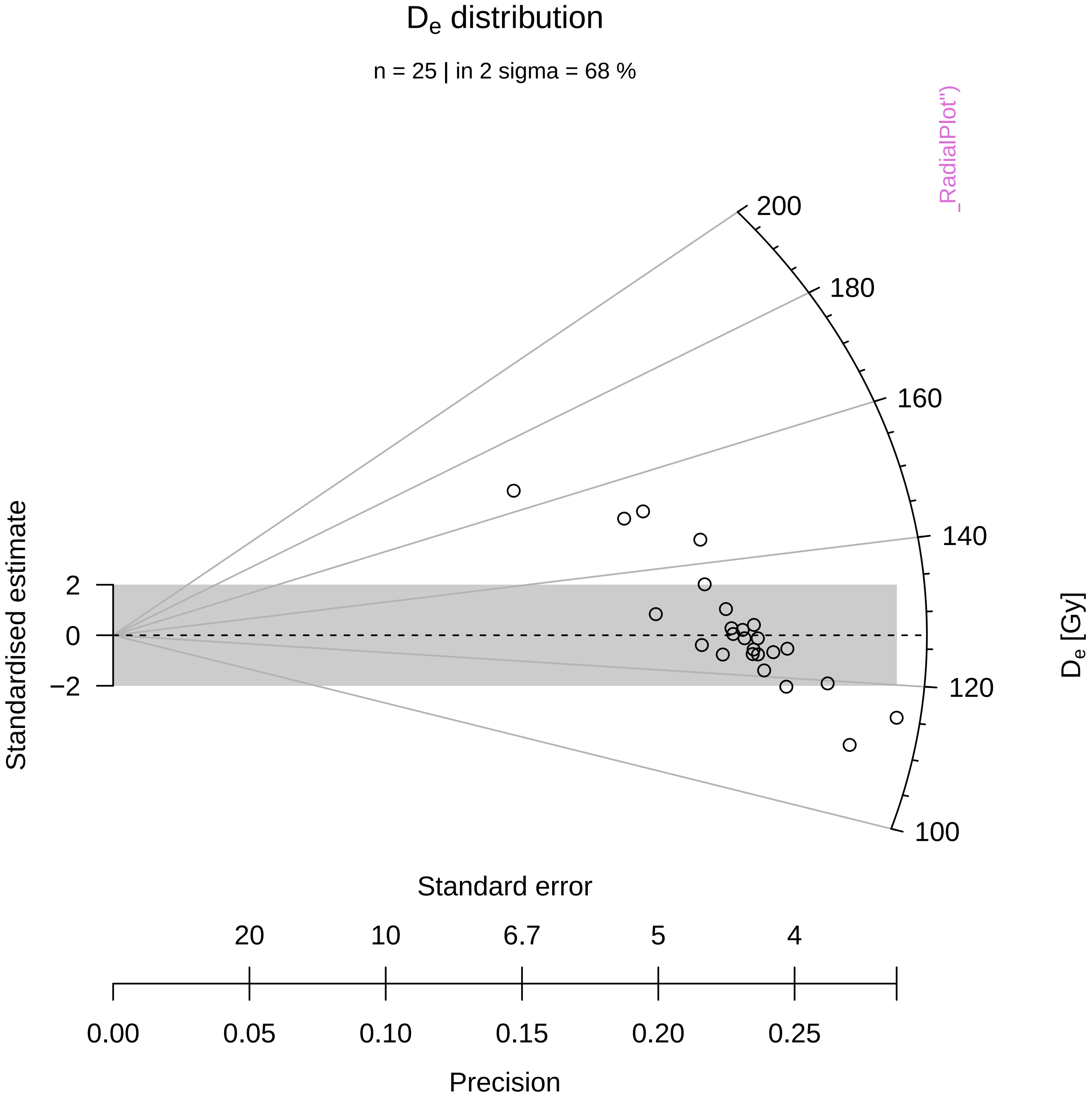
D_e distribution
n = 25 | in 2 sigma = 68 %
adialPlot")
Standardised estimate
2
0
−2
180
160
140
120
100
D_e [Gy]
Relative standard error (%)
20
10
6.7
5
4
3.3
0
5
10
15
20
25
30
Precision



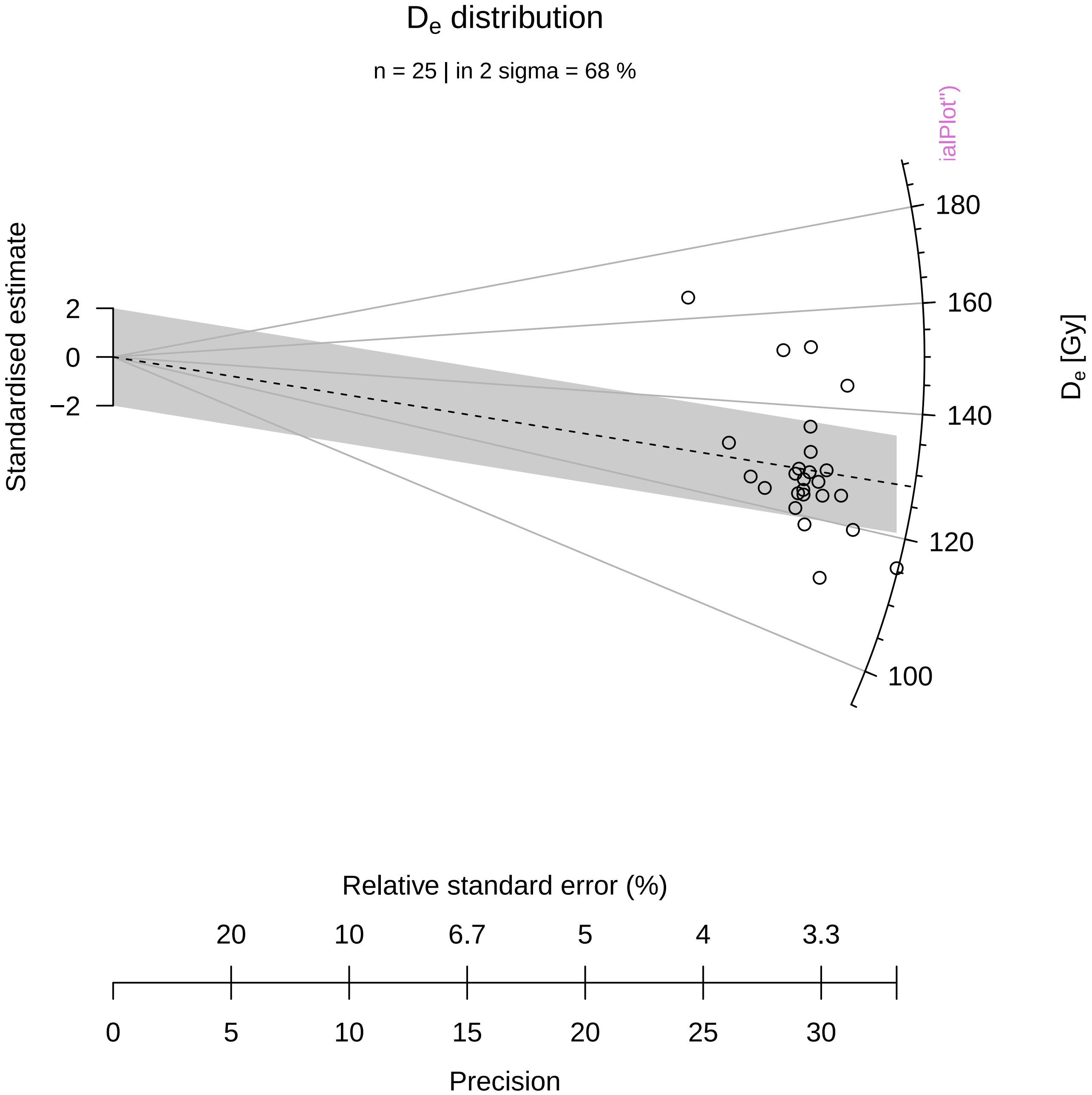
De distribution
n = 25 | in 2 sigma = 68 %
RadialPlot")
180
160
140
120
100
De [Gy]
Standardised estimate
2
0
−2
Standard error
20
10
6.7
5
4
0.00
0.05
0.10
0.15
0.20
0.25
Precision



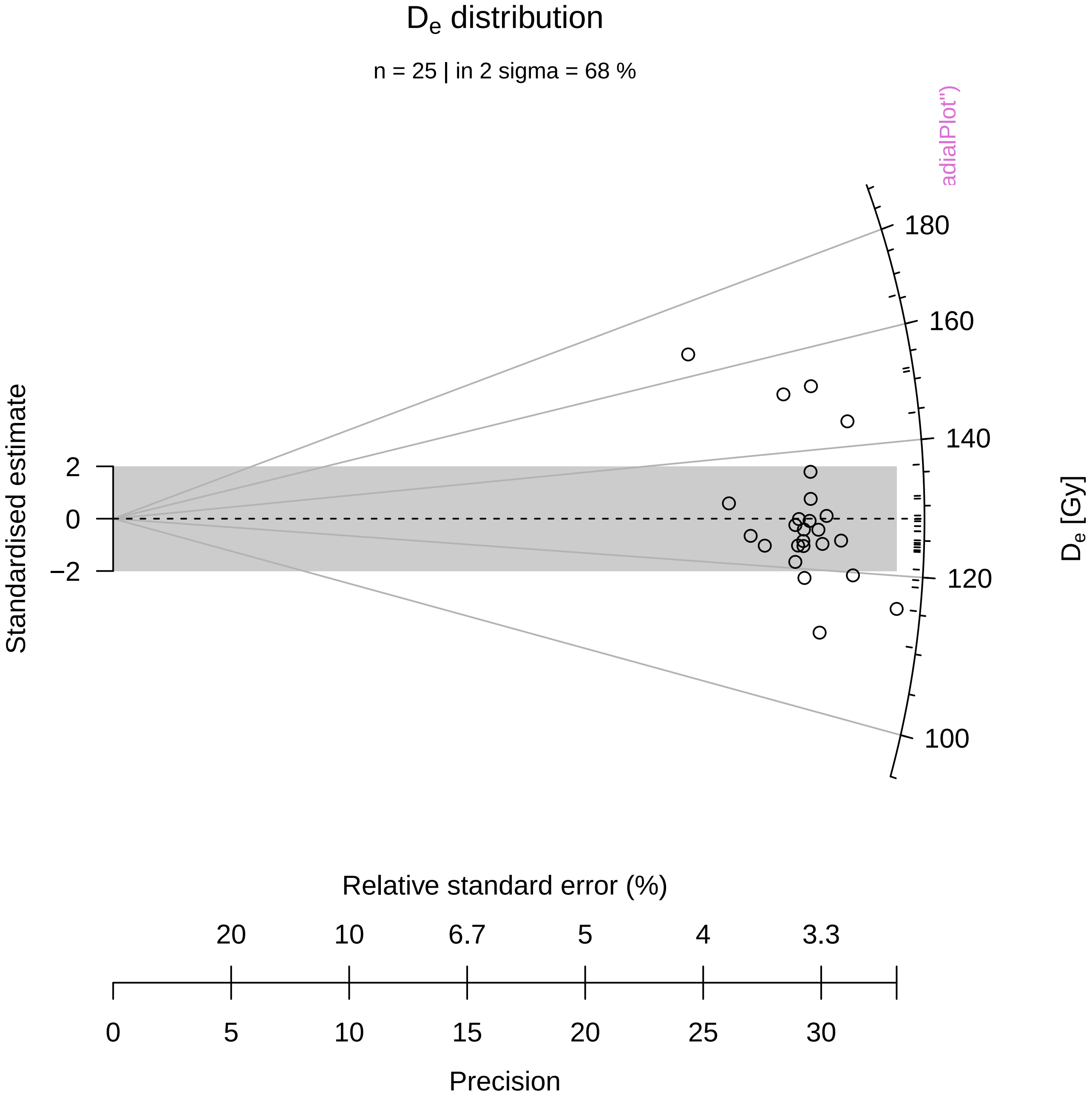
De distribution
n = 25 | in 2 sigma = 68 %
RadialPlot")
180
160
140
120
100
De [Gy]
Standardised estimate
2
0
−2
Standard error
20
10
6.7
5
4
0.00
0.05
0.10
0.15
0.20
0.25
Precision



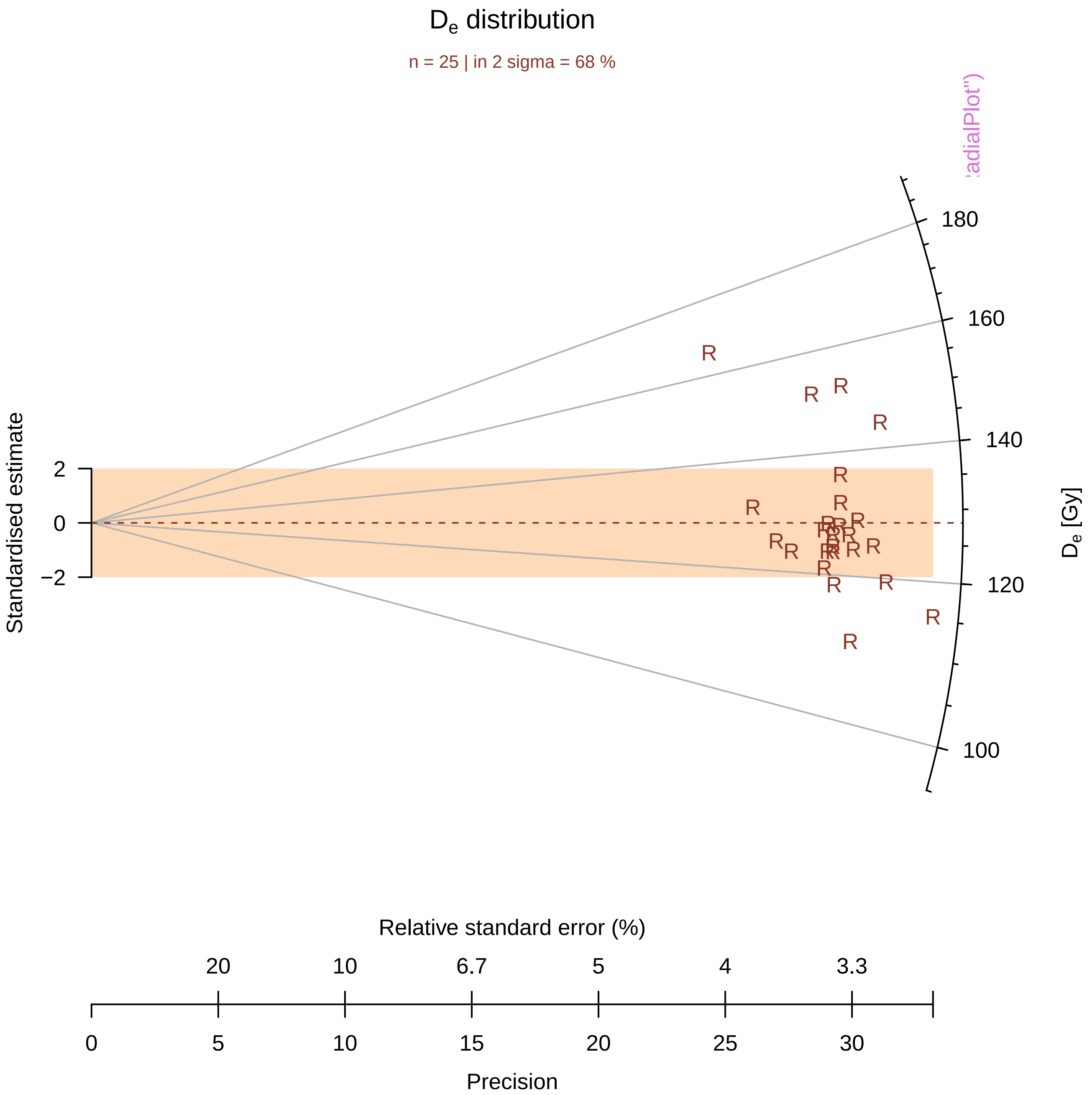
D_e distribution
n = 25 | in 2 sigma = 68 %
_RadialPlot")
200
180
160
140
120
100
D_e [Gy]
Standardised estimate
2
0
−2
Standard error
20
10
6.7
5
4
0.00
0.05
0.10
0.15
0.20
0.25
Precision

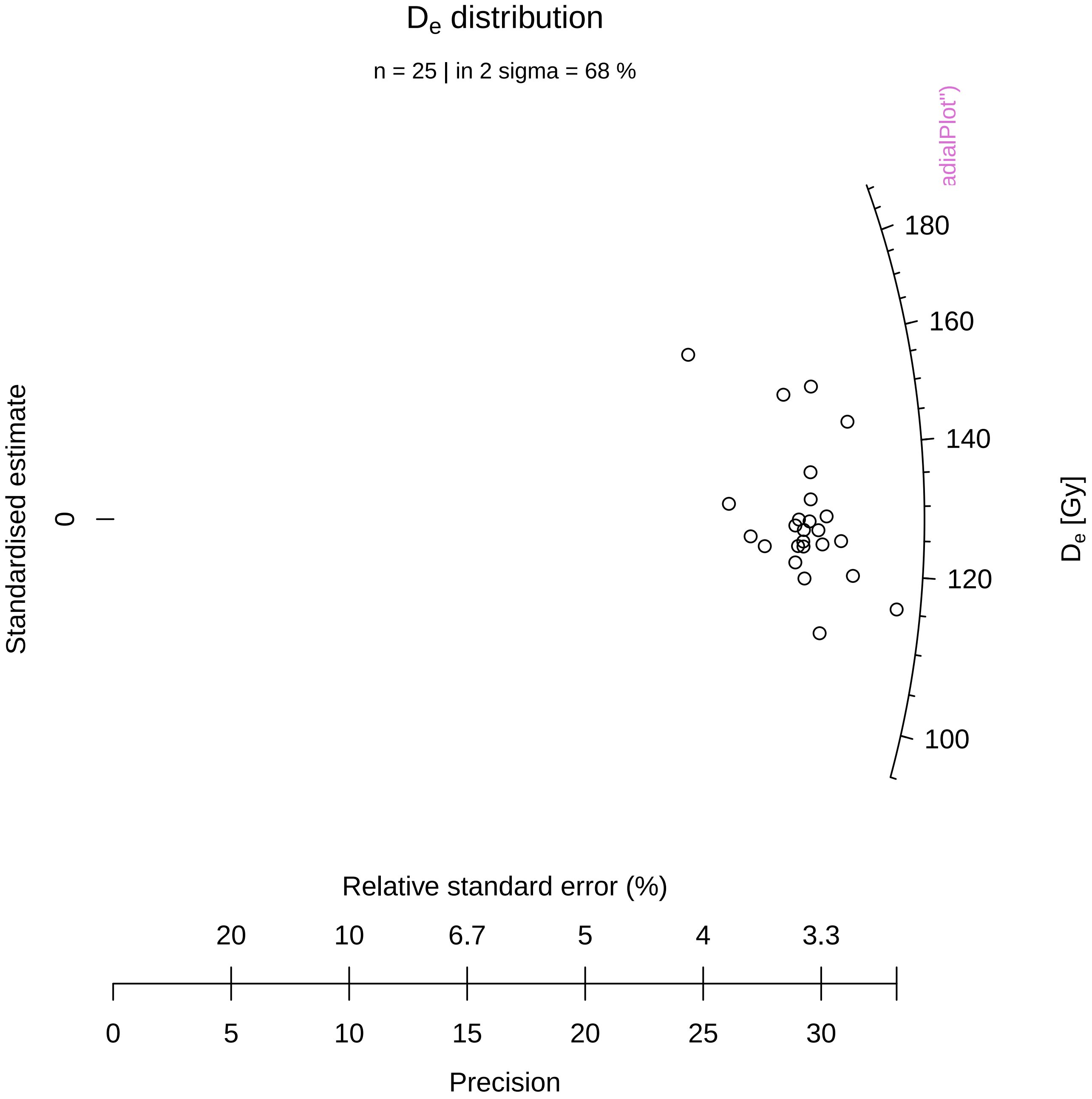


D_e distribution
n = 25 | in 2 sigma = 68 %
ialPlot")
Standardised estimate
2
0
−2
180
160
140
120
100
D_e [Gy]
Relative standard error (%)
20
10
6.7
5
4
3.3
0
5
10
15
20
25
30
Precision

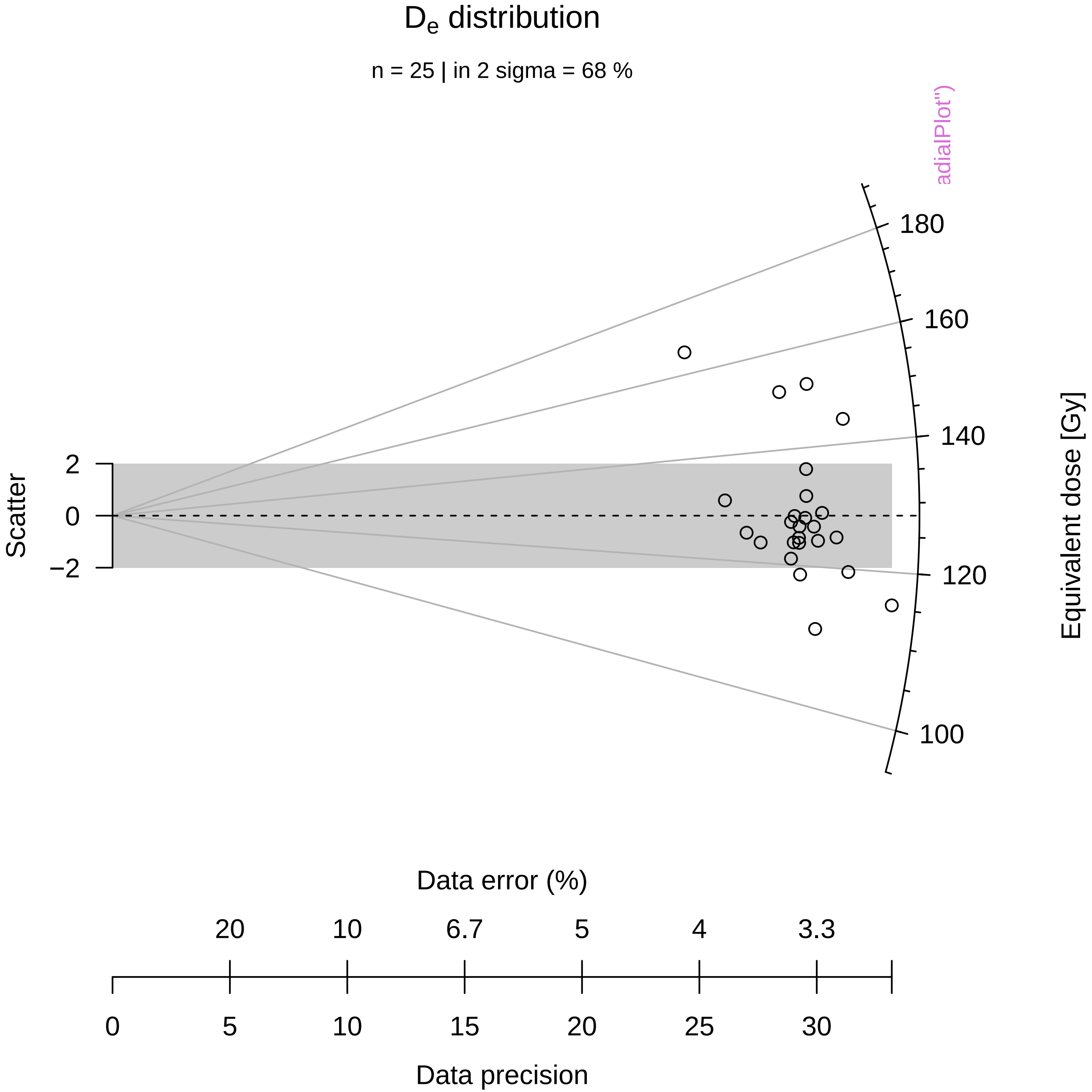


D_e distribution
n = 25 | in 2 sigma = 68 %
adialPlot")
Standardised estimate
2
0
−2
180
160
140
120
100
D_e [Gy]
Relative standard error (%)
20
10
6.7
5
4
3.3
0
5
10
15
20
25
30
Precision

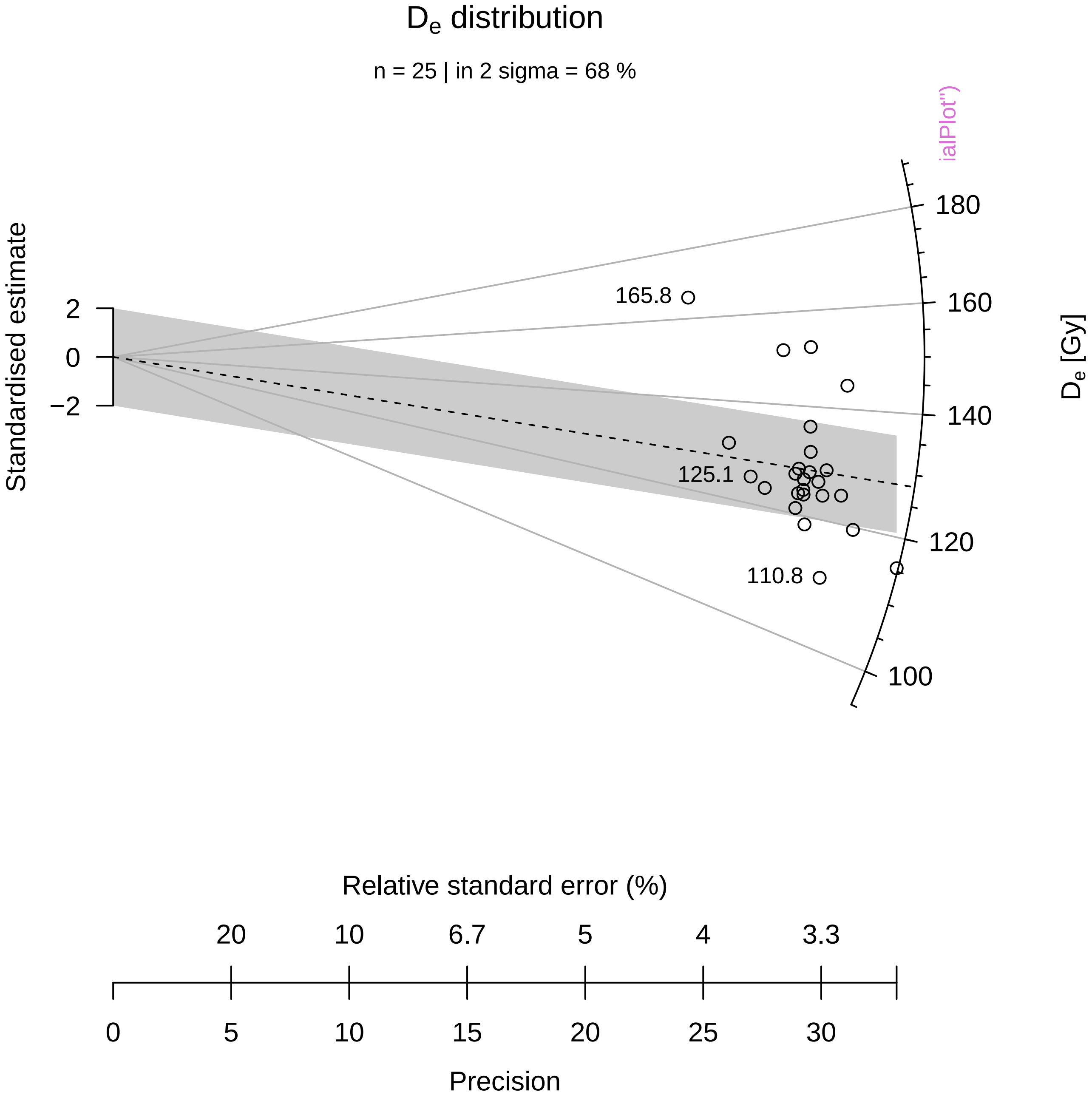

D_e distribution
n = 25 | in 2 sigma = 68 %
Standardised estimate
2
0
−2
180
160
140
120
100
D_e [Gy]
Relative standard error (%)
20
10
6.7
5
4
3.3
0
5
10
15
20
25
30
Precision



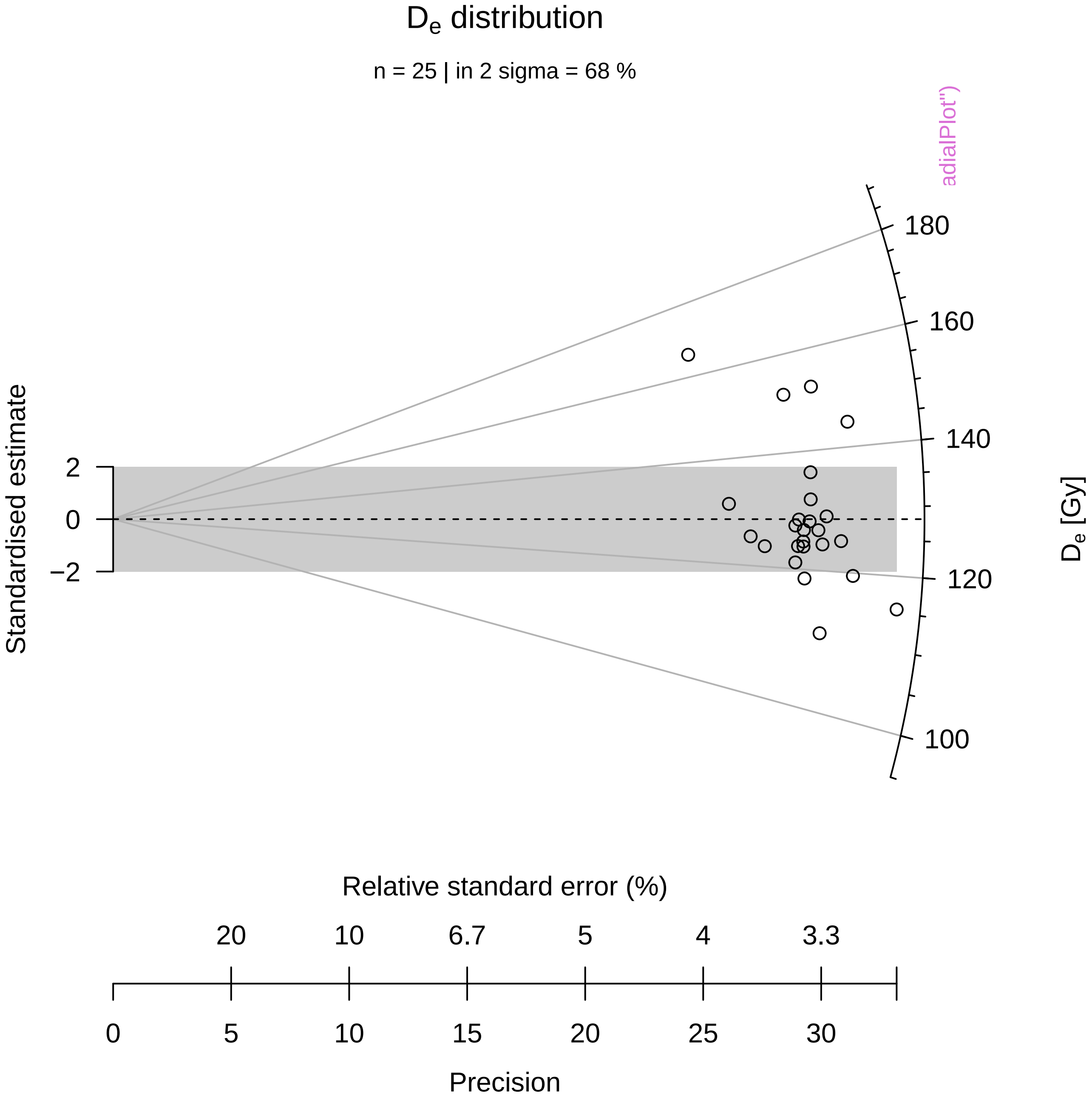
D_e distribution
n = 25 | in 2 sigma = 68 %
adialPlot")
Standardised estimate
0
180
160
140
120
100
D_e [Gy]
Relative standard error (%)
20
10
6.7
5
4
3.3
0
5
10
15
20
25
30
Precision



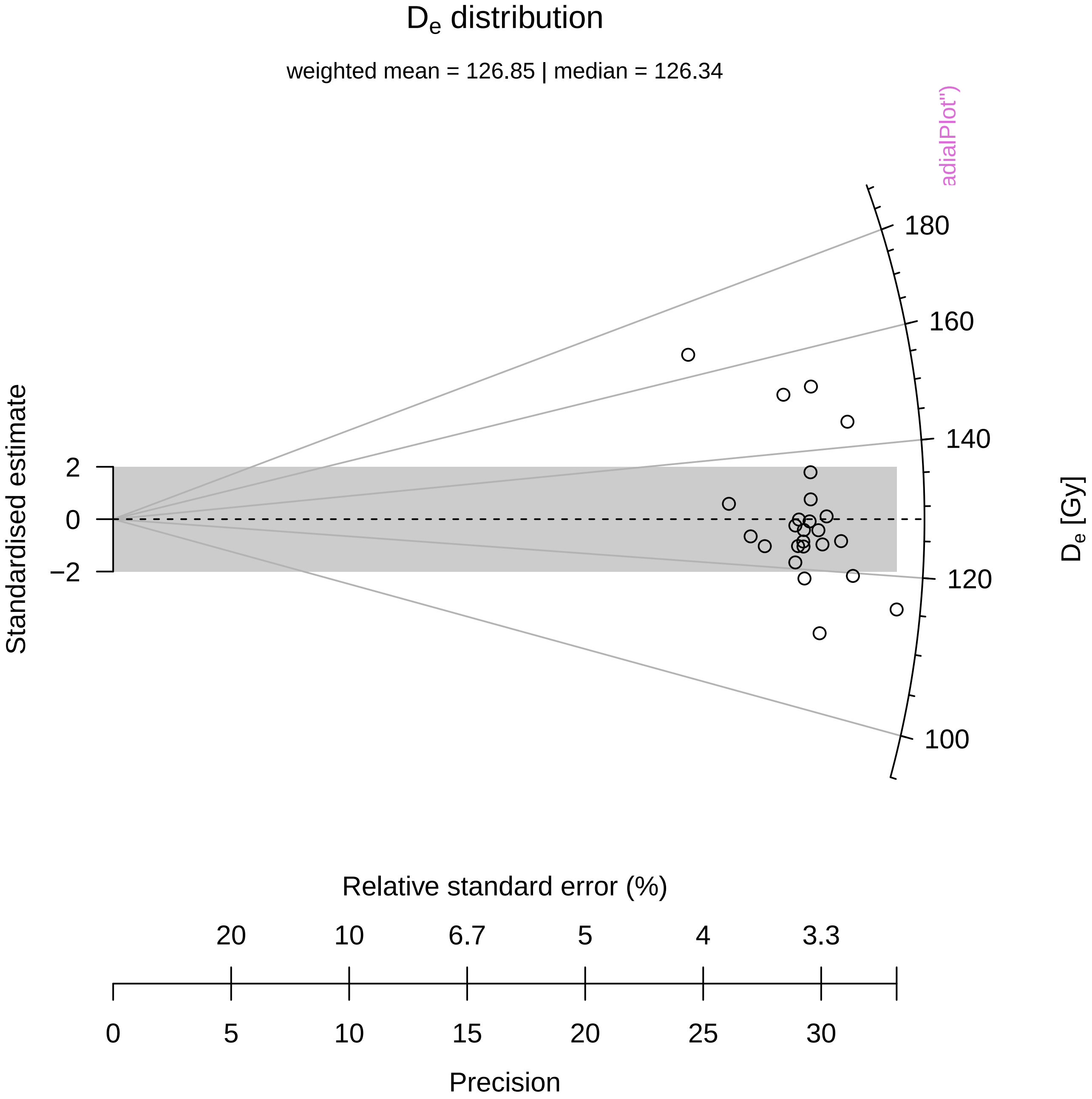
D_e distribution
n = 25 | in 2 sigma = 68 %
adialPlot")
Scatter
2
0
−2
180
160
140
120
100
Equivalent dose [Gy]
Data error (%)
20
10
6.7
5
4
3.3
0
5
10
15
20
25
30
Data precision



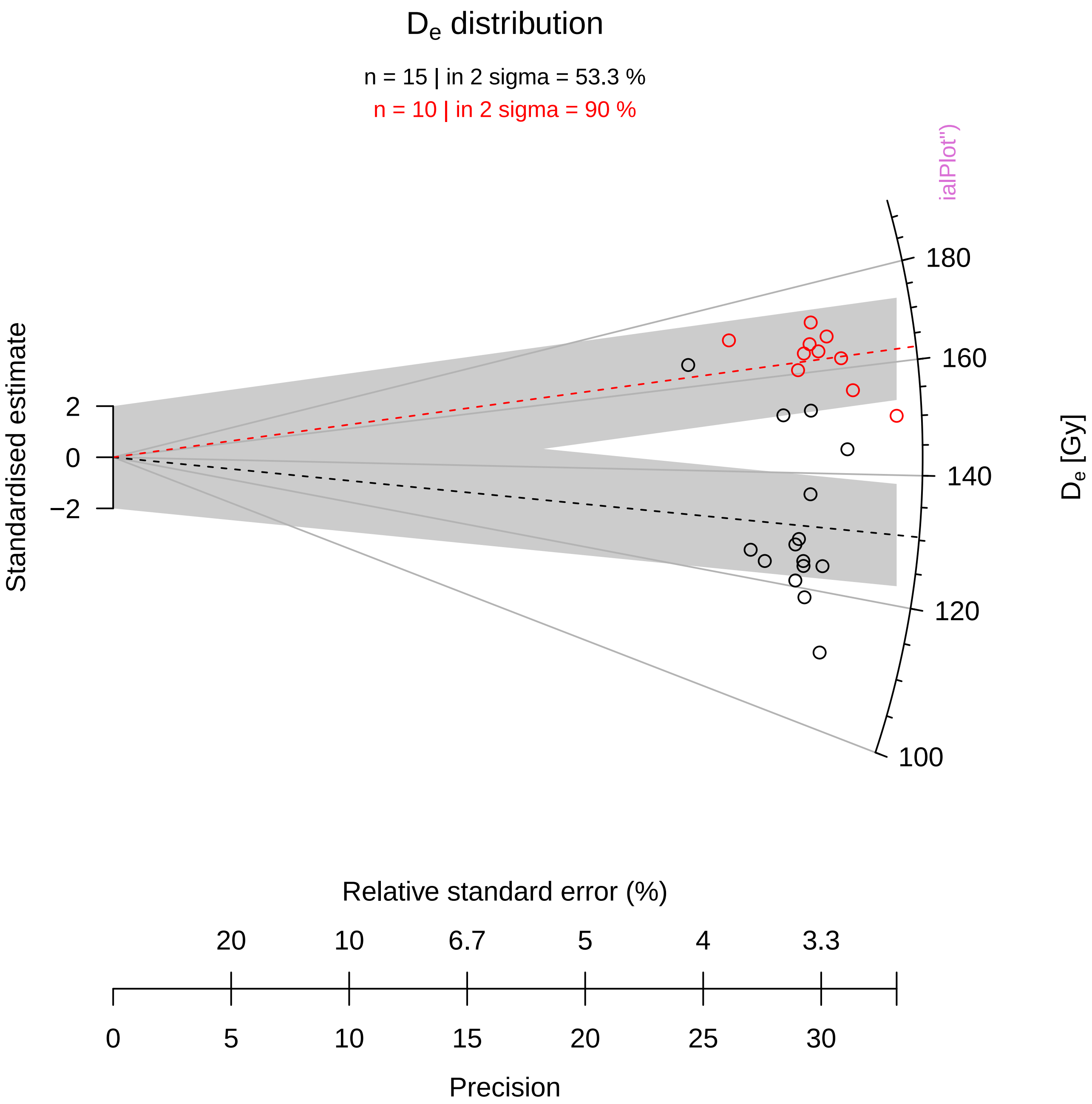
De distribution
n = 25 | in 2 sigma = 68 %
ialPlot")
Standardised estimate
2
0
−2
165.8
125.1
110.8
180
160
140
120
100
De [Gy]
Relative standard error (%)
20
10
6.7
5
4
3.3
0
5
10
15
20
25
30
Precision



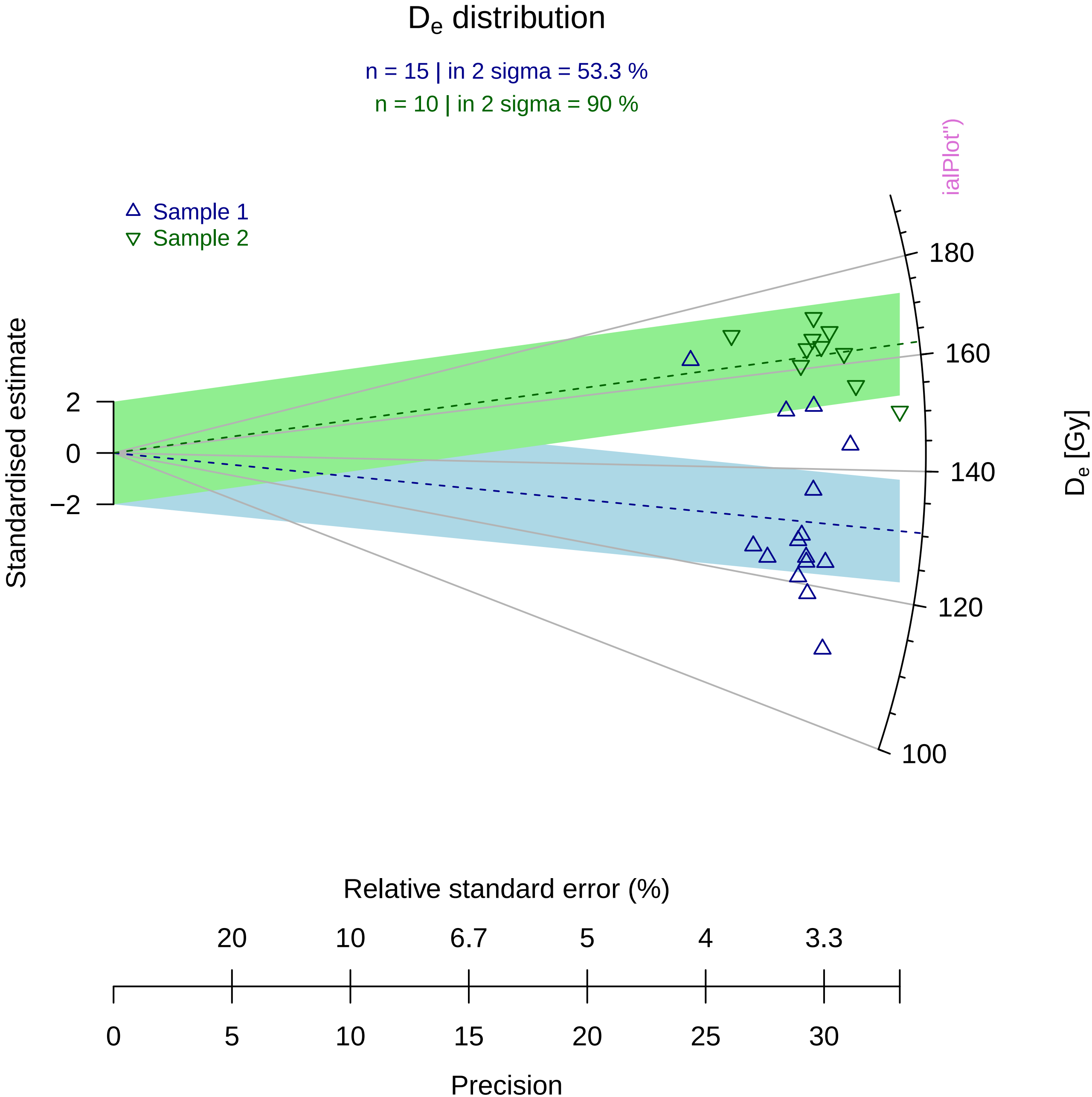
D_e distribution
n = 25 | in 2 sigma = 68 %
adialPlot")
Standardised estimate
2
0
−2
180
160
140
120
100
D_e [Gy]
Relative standard error (%)
20
10
6.7
5
4
3.3
0
5
10
15
20
25
30
Precision



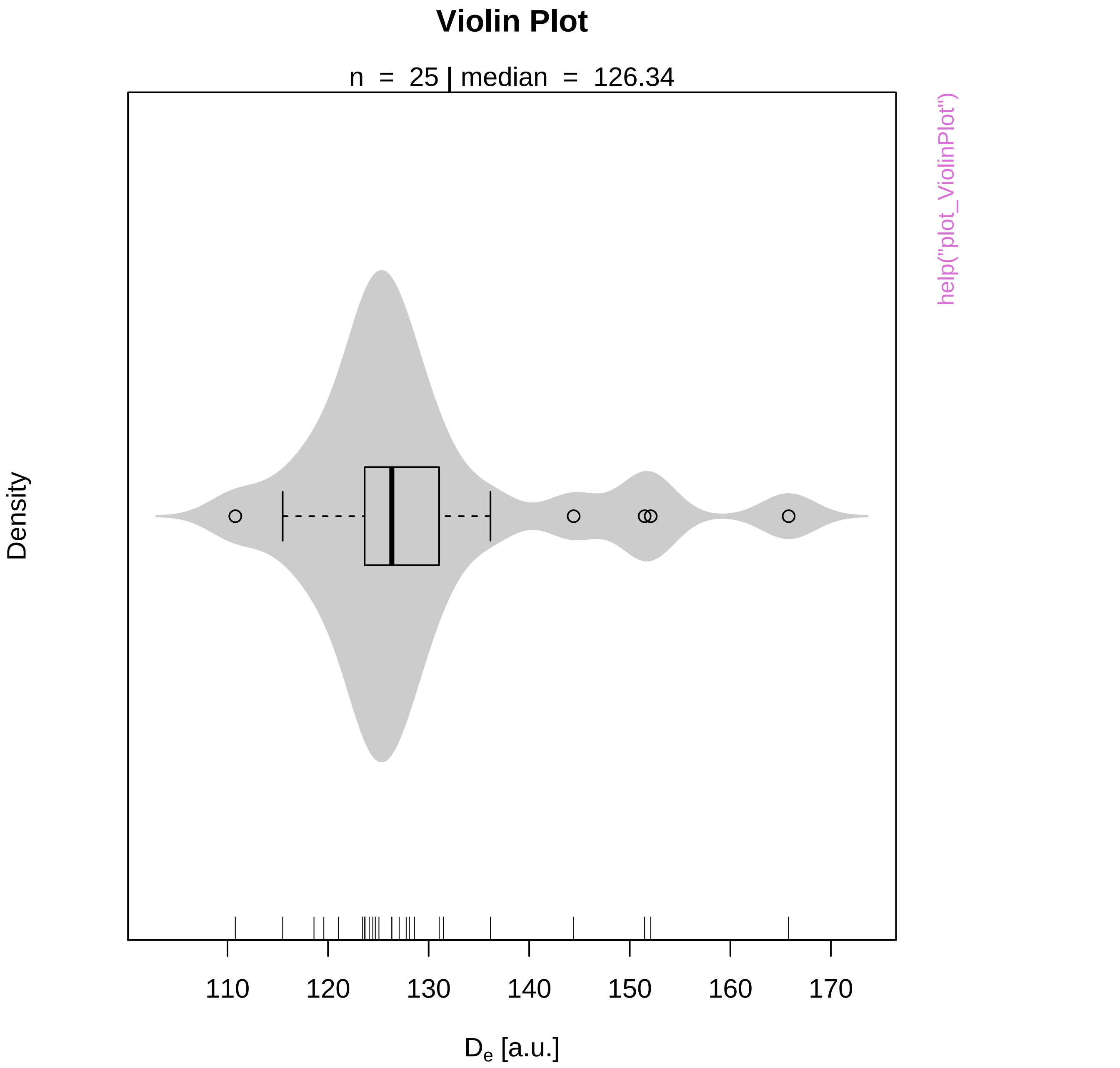
De distribution
weighted mean = 126.85 | median = 126.34
adialPlot")
180
160
140
120
100
De [Gy]
Standardised estimate
2
0
−2
Relative standard error (%)
20
10
6.7
5
4
3.3
0
5
10
15
20
25
30
Precision



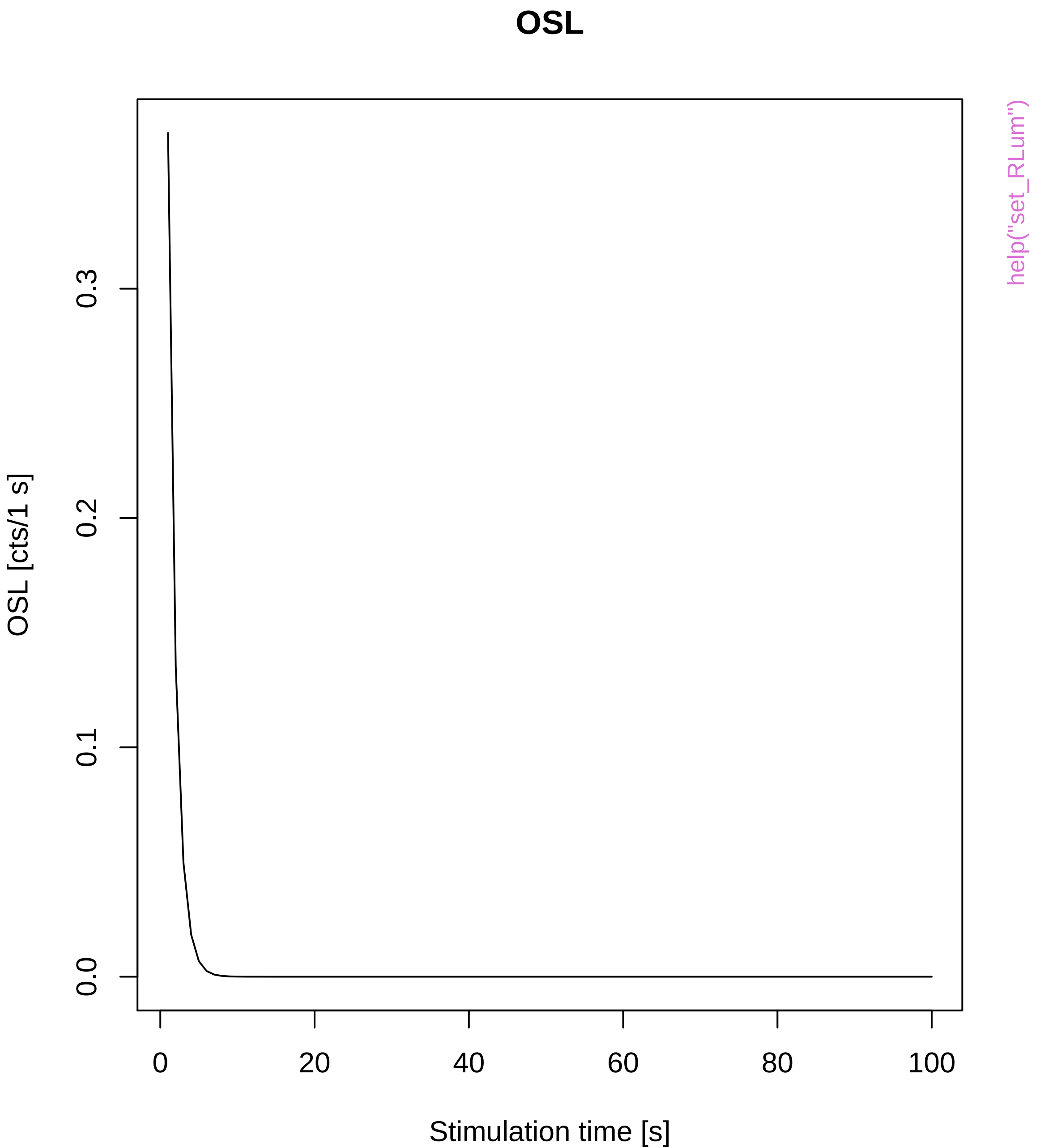
De distribution
n = 15 | in 2 sigma = 53.3 %
n = 10 | in 2 sigma = 90 %
ialPlot")
Standardised estimate
2
0
−2
180
160
140
120
100
De [Gy]
Relative standard error (%)
20
10
6.7
5
4
3.3
0
5
10
15
20
25
30
Precision



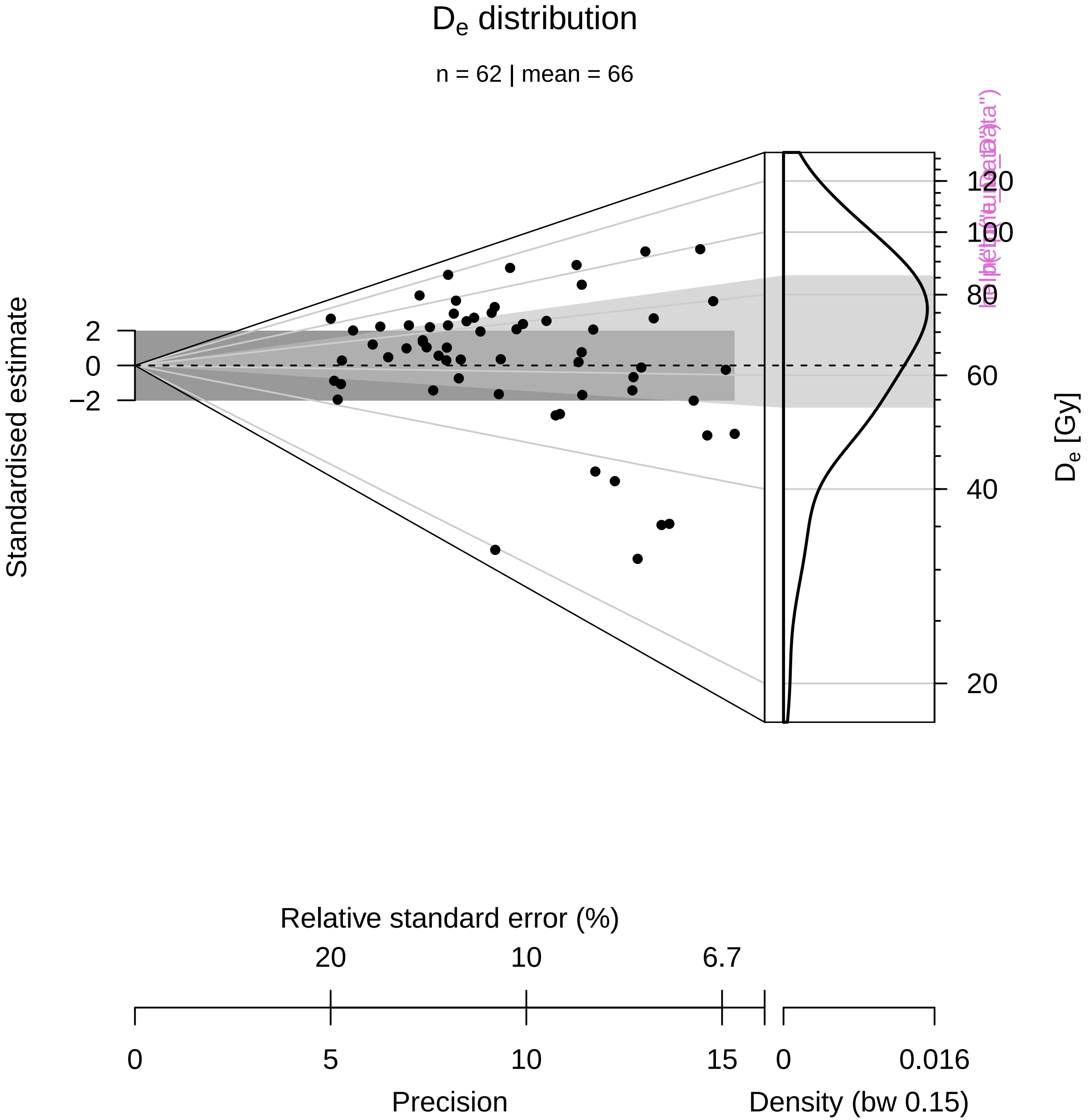
D_e distribution
n = 15 | in 2 sigma = 53.3 %
n = 10 | in 2 sigma = 90 %
ialPlot")
Sample 1
Sample 2
Standardised estimate
2
0
−2
180
160
140
120
100
D_e [Gy]
Relative standard error (%)
20
10
6.7
5
4
3.3
0
5
10
15
20
25
30
Precision



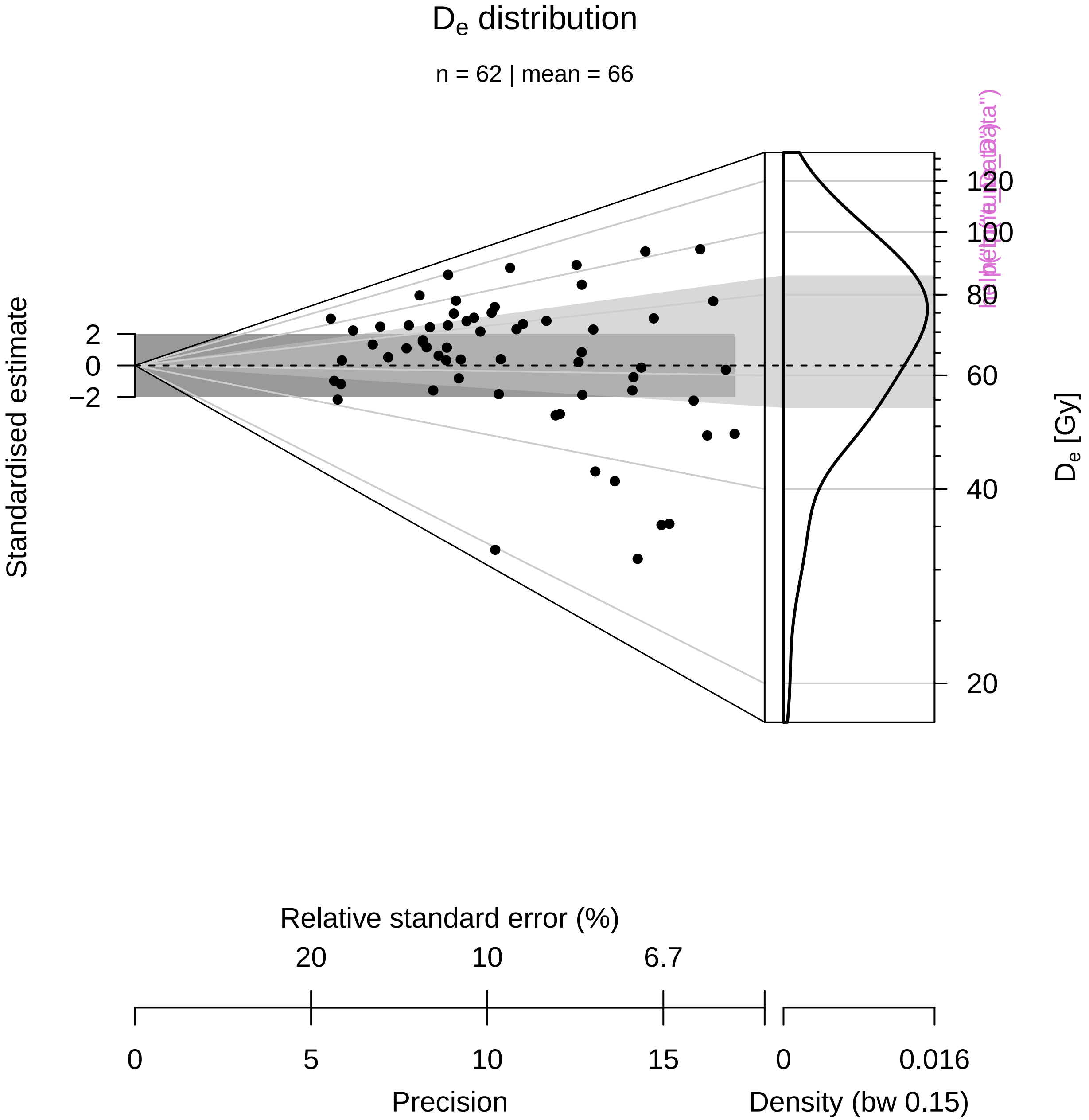
Violin Plot
n = 25 | median = 126.34
Density
110
120
130
140
150
160
170
De [a.u.]
help("plot_ViolinPlot")



OSL
OSL [cts/1 s]
0.0
0.1
0.2
0.3
0
20
40
60
80
100
Stimulation time [s]
help("set_RLum")



D_e distribution
n = 62 | mean = 66
Standardised estimate
2
0
−2
120
100
80
60
40
20
D_e [Gy]
Relative standard error (%)
20
10
6.7
0
5
10
15
Precision
0
0.016
Density (bw 0.15)


D_e distribution
n = 62 | mean = 66
Standardised estimate
2
0
−2
120
100
80
60
40
20
D_e [Gy]
Relative standard error (%)
20
10
6.7
0
5
10
15
Precision
0
0.016
Density (bw 0.15)