# drc Robust Options Comparison

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Robustification options are provided in the drc package, including median estimation ("median"), least median of squares ("lms"), least trimmed squares ("lts"), metric trimming ("trimmed"), metric winsorizing ("winsor") and Tukey's biweight ("tukey"). In our comparative study, we only used the non-robust least squares estimation ("mean") of drc, so for completeness, we conduct this additional comparative study to compare non-robust least squares estimation and robust options within drc to see which option of drc can best estimate the median effect equation.

#### Scenario 1

Feasibilities:

```
drc_lms
##
       \mathtt{drc}_{\mathtt{mean}}
                   drc_median
                                                   drc_lts drc_trimmed drc_winsor
         0.9980
                        0.5282
                                      0.3065
                                                    0.9296
                                                                                 0.9688
##
                                                                   0.4683
     drc_tukey
##
##
         0.5896
```

Methods	IC5_bias	IC5_SqE	IC50_bias	IC50_SqE	IC95_bias	IC95_RMSE	b0_bias	b0_RMSE	b1_bias	b1_RMSE
$drc\_lms$	0.09 (0.11)	0.02 (0.10)	0.04 (0.16)	0.03 (0.11)	-0.51 (1.03)	1.33 (10.95)	0.20 (4.09)	16.80 (585.60)	0.93 (4.20)	18.49 (541.74)
drc_lts	-0.02 (0.08)	0.01 (0.01)	-0.23 (0.16)	0.08 (0.08)	-1.02 (1.08)	2.20 (3.35)	2.22 (23.11)	101.00 (101.00)	1.62 (50.31)	101.00 (101.00)
drc_mean	0.04 (0.11)	0.01 (0.03)	0.01 (0.15)	0.02 (0.04)	-0.03 (1.35)	1.82 (5.07)	0.10 (0.56)	0.33 (0.78)	0.45 (1.00)	1.19 (3.10)
drc_median	0.10 (0.12)	0.03 (0.04)	0.00 (0.15)	0.02 (0.04)	-0.76 (0.97)	1.53 (1.99)	0.30 (1.42)	2.11 (93.56)	1.35 (12.98)	101.00 (101.00)
$drc\_trimmed$	0.15 (0.34)	0.14 (1.28)	0.10 (0.37)	0.15 (1.13)	-0.45 (1.09)	1.39 (3.04)	0.20 (12.84)	101.00 (101.00)	2.38 (8.56)	78.97 (1193.64)
drc_tukey	0.14 (0.46)	0.23 (1.93)	0.08 (0.46)	0.22 (1.78)	-0.36 (1.22)	1.62 (4.53)	-0.90 (36.21)	101.00 (101.00)	4.22 (25.89)	101.00 (101.00)
$drc\_winsor$	0.08 (0.12)	0.02 (0.06)	0.01 (0.16)	0.03(0.05)	-0.41 (1.14)	1.46 (3.25)	0.26 (2.13)	4.61 (102.25)	1.10 (4.85)	24.78 (427.58)

#### 95% Confidence interval length table (mean (std. dev)):

Methods	IC5_CI.length	IC50_CI.length	IC95_CI.length	b0_CI.length	b1_CI.length
$drc_{lms}$	101.00 (NA)	101.00 (NA)	101.00 (NA)	101.00 (101.00)	101.00 (101.00)
$\mathrm{drc}_{-}\mathrm{lts}$	101.00 (NA)	101.00 (NA)	101.00 (NA)	101.00 (101.00)	101.00 (101.00)
$\mathrm{drc}\_\mathrm{mean}$	$0.26 \ (0.94)$	0.29(0.20)	3.86(5.97)	0.87 (0.65)	1.78(1.97)
$drc\_median$	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	6.99 (507.58)	0.02(0.54)
$drc\_trimmed$	101.00 (NA)	101.00 (NA)	101.00 (NA)	101.00 (101.00)	101.00 (101.00)
${ m drc\_tukey}$	101.00 (NA)	101.00 (NA)	101.00 (NA)	101.00 (101.00)	$19.13 \ (319.23)$
$\mathrm{drc}$ _winsor	$0.00 \ (0.01)$	0.00 (0.01)	$0.04 \ (0.14)$	0.03(1.51)	0.05(1.71)

#### Coverage probability of the true estimation:

	IC5_Cov.prob	IC50_Cov.prob	IC95_Cov.prob	b0_Cov.prob	b1_Cov.prob
drc_mean	0.66	0.59	0.66	0.56	0.65
$drc\_median$	0.00	0.00	0.01	0.00	0.01
$ m drc\_lms$	0.18	0.20	0.18	0.20	0.18
$drc\_lts$	0.14	0.08	0.17	0.09	0.18
$drc\_trimmed$	0.03	0.03	0.03	0.04	0.03
$\mathrm{drc}$ _winsor	0.01	0.01	0.01	0.01	0.01
$\mathrm{drc\_tukey}$	0.01	0.01	0.01	0.01	0.01

### Scenario 2

Feasibilities:

## drc\_mean drc\_median drc\_lms drc\_lts drc\_trimmed drc\_winsor

**##** 1.0000 0.5902 0.4754 0.9912 0.6415 0.9591

## drc\_tukey ## 0.5296

#### Comparison of point estimations (mean(std. dev)):

Methods	IC5_bias	IC5_SqE	IC50_bias	IC50_SqE	IC95_bias	IC95_RMSE	b0_bias	b0_RMSE	b1_bias	b1_RMSE
$drc\_lms$	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	20.87 (1294.61)	101.00 (101.00)	1.40 (26.01)	101.00 (101.00)
$drc\_lts$	0.01 (0.11)	0.01 (0.01)	-0.16 (0.16)	0.05 (0.08)	-0.97 (0.62)	1.33 (1.76)	0.97 (14.00)	101.00 (101.00)	0.66 (3.80)	14.87 (1205.54)
drc_mean	0.02 (0.11)	0.01 (0.02)	-0.00 (0.13)	0.02 (0.03)	0.13 (1.36)	1.85 (27.30)	0.04 (0.36)	0.13 (0.62)	0.26 (0.96)	0.99 (5.13)
drc_median	0.07 (0.11)	0.02 (0.03)	0.02 (0.14)	0.02 (0.04)	-0.42 (0.91)	1.01 (2.53)	20.60 (1523.23)	101.00 (101.00)	0.76 (4.78)	23.41 (1581.81)
drc_trimmed	0.57 (1.60)	2.88 (166.24)	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	-1.96 (5.27)	31.62 (494.20)	3.51 (5.11)	38.40 (185.67)
drc_tukey	0.70 (27.08)	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	-1.07 (6.49)	43.21 (1163.33)	2.40 (8.37)	75.77 (2162.84)
drc_winsor	0.05 (0.11)	0.02 (0.03)	0.00 (0.13)	0.02 (0.03)	0.69 (92.27)	101.00 (101.00)	0.09 (0.57)	0.33 (10.26)	0.55 (1.35)	2.14 (40.46)

#### 95% Confidence interval length table (mean(std. dev)):

Methods	$IC5\_CI.length$	$IC50\_CI.length$	$IC95\_CI.length$	$b0 \_CI.length$	$b1\_CI.length$
$ m drc\_lms$	101.00 (NA)	101.00 (NA)	101.00 (NA)	101.00 (101.00)	101.00 (101.00)
$drc\_lts$	101.00 (NA)	101.00 (NA)	101.00 (NA)	101.00 (101.00)	95.64 (9408.62)
$drc\_mean$	1.00 (55.61)	0.39(0.30)	$10.51 \ (368.76)$	0.87 (0.52)	$2.31\ (1.85)$
$drc\_median$	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	$4.94\ (253.35)$	0.15(1.54)
$drc\_trimmed$	101.00 (NA)	101.00 (NA)	101.00 (NA)	101.00 (101.00)	101.00 (101.00)
$drc\_tukey$	101.00 (NA)	101.00 (NA)	101.00 (NA)	38.48 (1446.04)	$25.54 \ (828.62)$
$drc\_winsor$	0.01 (0.01)	$0.01 \ (0.02)$	$2.34\ (212.23)$	$0.03 \ (0.12)$	0.05 (0.18)

	IC5_Cov.prob	IC50_Cov.prob	IC95_Cov.prob	b0_Cov.prob	b1_Cov.prob
${\mathrm{drc\_mean}}$	0.83	0.83	0.87	0.79	0.84
$drc\_median$	0.02	0.02	0.04	0.02	0.03
$ m drc\_lms$	0.08	0.05	0.18	0.11	0.14
$\mathrm{drc}$ _lts	0.41	0.21	0.26	0.11	0.37
$drc\_trimmed$	0.07	0.07	0.14	0.12	0.11
$\mathrm{drc}$ _winsor	0.04	0.04	0.05	0.03	0.03
$\mathrm{drc\_tukey}$	0.01	0.01	0.02	0.02	0.01

Feasibilities:

## drc\_mean drc\_median drc\_lms drc\_lts drc\_trimmed drc\_winsor
## 1.0000 0.7597 0.6606 0.9974 0.7525 0.9993
## drc\_tukey
## 0.8352

Comparison of point estimations (mean(std. dev)):

Methods	IC5_bias	IC5_SqE	IC50_bias	IC50_SqE	IC95_bias	IC95_RMSE	b0_bias	b0_RMSE	b1_bias	b1_RMSE
$drc\_lms$	0.04 (0.07)	0.01 (0.01)	-0.15 (0.20)	0.06 (1.99)	-1.20 (4.44)	21.12 (1540.30)	1.04 (0.86)	1.84 (3.57)	1.07 (0.93)	2.00 (3.60)
$drc\_lts$	-0.00 (0.07)	0.01 (0.01)	-0.23 (0.11)	0.07 (0.05)	-1.23 (1.25)	3.07 (20.94)	1.64 (2.00)	6.67 (23.01)	1.16 (1.75)	4.40 (12.67)
drc_mean	0.03 (0.09)	0.01 (0.02)	0.01 (0.13)	0.02 (0.03)	0.15 (1.58)	2.52 (11.87)	0.06 (0.45)	0.20 (0.59)	0.30 (0.91)	0.91 (3.63)
drc_median	0.06 (0.08)	0.01 (0.02)	0.01 (0.14)	0.02 (0.05)	-0.34 (1.29)	1.78 (9.33)	0.15 (0.54)	0.31 (0.64)	0.59 (0.86)	1.08 (3.36)
$drc\_trimmed$	0.20 (6.76)	45.69 (3745.83)	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	1.28 (5.26)	29.26 (619.38)	1.91 (3.77)	17.83 (202.85)
drc_tukey	0.06(0.51)	0.26 (20.95)	93.60 (8392.44)	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	0.76 (3.16)	10.56 (298.49)	1.10 (3.56)	13.88 (434.75)
$drc\_winsor$	0.05 (0.09)	0.01 (0.02)	0.02 (0.14)	0.02 (0.05)	-0.09 (1.55)	2.42 (15.93)	0.11 (0.53)	0.29 (0.78)	0.49 (0.99)	1.22 (4.24)

95% Confidence interval length table (mean (std. dev)):

Methods	IC5_CI.length	IC50_CI.length	IC95_CI.length	b0_CI.length	b1_CI.length
$drc\_lms$	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	1.22 (23.43)	2.00 (43.51)
$\mathrm{drc}_{-}\mathrm{lts}$	0.08(0.12)	0.14(0.28)	1.92(14.30)	1.88(7.69)	1.84(6.49)
$drc\_mean$	0.29(0.27)	0.34 (0.20)	$5.71\ (10.85)$	0.97(0.60)	2.02(1.94)
$drc\_median$	0.01 (0.02)	0.01 (0.02)	0.11 (0.51)	0.02(0.04)	0.04 (0.10)
$drc\_trimmed$	101.00 (NA)	101.00 (NA)	101.00 (NA)	101.00 (101.00)	101.00 (101.00)
${ m drc\_tukey}$	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	1.20(61.73)	0.56 (19.71)
$\mathrm{drc}$ _winsor	0.01 (0.01)	0.01 (0.02)	$0.16 \ (0.58)$	$0.03 \ (0.04)$	$0.04 \ (0.06)$

	IC5_Cov.prob	IC50_Cov.prob	IC95_Cov.prob	b0_Cov.prob	b1_Cov.prob
drc_mean	0.81	0.75	0.81	0.73	0.81
$drc\_median$	0.03	0.01	0.02	0.01	0.02
$drc\_lms$	0.20	0.10	0.09	0.09	0.15

	IC5_Cov.prob	IC50_Cov.prob	IC95_Cov.prob	b0_Cov.prob	b1_Cov.prob
drc_lts	0.35	0.12	0.24	0.16	0.33
$drc\_trimmed$	0.08	0.06	0.05	0.08	0.07
$drc\_winsor$	0.04	0.03	0.04	0.03	0.02
$drc\_tukey$	0.02	0.01	0.02	0.01	0.01

Feasibilities:

```
drc_median
                              drc_lms
                                          drc_lts drc_trimmed drc_winsor
##
      drc_mean
        1.0000
                                           0.9800
##
                    0.4197
                               0.3525
                                                       0.9191
                                                                   0.9998
     drc_tukey
##
       0.9885
##
```

Comparison of point estimations (mean(std. dev)):

Methods	IC5_bias	IC5_SqE	IC50_bias	IC50_SqE	IC95_bias	IC95_RMSE	b0_bias	b0_RMSE	b1_bias	b1_RMSE
$drc\_lms$	0.02 (0.03)	0.00 (0.00)	0.01 (0.07)	0.00 (0.01)	-0.08 (0.41)	0.18 (0.33)	-0.01 (0.19)	0.04 (0.06)	0.10 (0.20)	0.05 (0.09)
$drc\_lts$	-0.02 (0.03)	0.00 (0.00)	-0.09 (0.07)	0.01 (0.02)	-0.35 (0.45)	0.32 (0.43)	0.29 (0.27)	0.15 (0.92)	0.05 (0.26)	0.07 (0.27)
drc_mean	0.00 (0.03)	0.00 (0.00)	0.00 (0.05)	0.00 (0.00)	-0.00 (0.41)	0.17 (0.26)	0.01 (0.14)	0.02 (0.03)	0.04 (0.21)	0.05 (0.08)
drc_median	0.01 (0.03)	0.00 (0.00)	-0.00 (0.05)	0.00 (0.00)	-0.09 (0.44)	0.20 (0.30)	0.03 (0.17)	0.03 (0.04)	0.09 (0.25)	0.07 (0.16)
$drc\_trimmed$	0.03 (0.11)	0.01 (0.37)	0.02 (0.15)	0.02 (0.40)	-0.13 (0.53)	0.30 (0.70)	0.02 (1.68)	2.83 (111.51)	0.24 (1.23)	1.56 (44.36)
drc_tukey	0.02 (0.08)	0.01 (0.20)	0.01 (0.10)	0.01 (0.15)	-0.08 (0.47)	0.23 (0.44)	-0.05 (2.89)	8.38 (498.33)	0.16 (2.30)	5.33 (310.38)
drc_winsor	0.01 (0.03)	0.00 (0.00)	0.00 (0.05)	0.00 (0.00)	-0.06 (0.41)	0.17 (0.26)	0.02 (0.16)	0.02 (0.04)	0.07 (0.22)	0.05 (0.12)

95% Confidence interval length table (mean(std. dev)):

Methods	$IC5\_CI.length$	$IC50\_CI.length$	IC95_CI.length	$b0 \_CI. length$	b1_CI.length
$drc\_lms$	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	0.73(3.77)	0.57 (4.06)
$\mathrm{drc\_lts}$	0.02(0.03)	0.05 (0.09)	0.41(1.28)	0.17(0.35)	0.19(0.27)
$drc\_mean$	0.07 (0.03)	0.10 (0.04)	1.05 (0.52)	0.25(0.11)	0.46 (0.21)
$drc\_median$	0.00(0.00)	0.00(0.01)	0.02(0.06)	0.01 (0.02)	0.01 (0.01)
$drc\_trimmed$	101.00 (NA)	101.00 (NA)	101.00 (NA)	42.80 (2420.32)	9.37(474.76)
$drc\_tukey$	101.00 (NA)	101.00 (NA)	101.00 (NA)	3.75 (362.28)	0.34(30.20)
$drc\_winsor$	0.00 (0.00)	$0.00 \ (0.00)$	$0.01 \ (0.01)$	0.00(0.00)	0.00 (0.00)

	IC5_Cov.prob	IC50_Cov.prob	IC95_Cov.prob	b0_Cov.prob	b1_Cov.prob
drc_mean	0.74	0.65	0.74	0.60	0.69
$drc\_median$	0.01	0.01	0.01	0.00	0.01
$drc\_lms$	0.20	0.21	0.20	0.20	0.18
$drc\_lts$	0.21	0.11	0.24	0.10	0.26
$drc\_trimmed$	0.01	0.01	0.01	0.01	0.01
$drc\_winsor$	0.01	0.01	0.01	0.01	0.01
drc_tukey	0.00	0.00	0.00	0.00	0.00

#### Scenario 5

Feasibilities:

```
## drc_mean drc_median drc_lms drc_lts drc_trimmed drc_winsor
## 1.0000 0.7067 0.2408 0.9963 0.8759 0.9991
## drc_tukey
## 0.8006
```

Comparison of point estimations (mean(std. dev)):

Methods	IC5_bias	IC5_SqE	IC50_bias	IC50_SqE	IC95_bias	IC95_RMSE	b0_bias	b0_RMSE	b1_bias	b1_RMSE
$drc\_lms$	0.15 (0.17)	0.05 (0.08)	0.20 (0.18)	0.07 (0.10)	-0.05 (0.54)	0.29 (0.49)	-0.56 (0.58)	0.66 (1.06)	0.70 (0.87)	1.25 (1.98)
$drc\_lts$	-0.01 (0.04)	0.00 (0.00)	-0.07 (0.05)	0.01 (0.01)	-0.34 (0.31)	0.21 (0.22)	0.22 (0.14)	0.07 (0.08)	0.08 (0.24)	0.07 (0.10)
drc_mean	0.00 (0.03)	0.00 (0.00)	0.00 (0.04)	0.00 (0.00)	0.01 (0.36)	0.13 (0.20)	0.00 (0.10)	0.01 (0.01)	0.02 (0.21)	0.04 (0.07)
drc_median	0.01 (0.03)	0.00 (0.00)	0.00 (0.05)	0.00 (0.00)	-0.05 (0.36)	0.13 (0.21)	0.01 (0.12)	0.01 (0.02)	0.07 (0.22)	0.05 (0.09)
$drc\_trimmed$	0.68 (21.97)	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	-1.87 (3.69)	17.09 (349.55)	1.58 (2.52)	8.86 (75.50)
drc_tukey	3.67 (244.62)	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	-0.87 (2.02)	4.85 (20.24)	1.14 (2.36)	6.86 (40.19)
drc_winsor	0.01 (0.03)	0.00 (0.00)	-0.00 (0.04)	0.00 (0.00)	-0.04 (0.34)	0.12 (0.19)	0.01 (0.17)	0.03 (1.77)	0.05 (0.43)	0.19 (14.32)

95% Confidence interval length table (mean (std. dev)):

Methods	IC5_CI.length	IC50_CI.length	IC95_CI.length	b0_CI.length	b1_CI.length
$\mathrm{drc\_lms}$	$37.69\ (1072.14)$	0.94 (8.94)	1.12(3.38)	1.48(3.33)	1.84 (3.51)
$\mathrm{drc\_lts}$	$0.04 \ (0.04)$	0.05 (0.05)	0.49 (0.38)	0.13 (0.11)	0.29 (0.24)
$drc\_mean$	0.10 (0.03)	0.11(0.04)	1.26 (0.53)	0.26 (0.09)	0.59(0.21)

Methods	IC5_CI.length	IC50_CI.length	IC95_CI.length	b0_CI.length	b1_CI.length
$drc\_median$	0.00(0.00)	0.00(0.01)	0.05 (0.09)	0.01 (0.02)	0.02 (0.03)
$drc\_trimmed$	101.00 (NA)	101.00 (NA)	101.00 (NA)	101.00 (101.00)	101.00 (101.00)
${ m drc\_tukey}$	101.00 (NA)	101.00 (NA)	101.00 (NA)	7.37(449.33)	5.95 (346.80)
$drc\_winsor$	0.00(0.00)	0.00(0.00)	0.02 (0.02)	$0.01 \ (0.24)$	$0.01 \ (0.47)$

	IC5_Cov.prob	IC50_Cov.prob	IC95_Cov.prob	b0_Cov.prob	b1_Cov.prob
drc mean	0.84	0.80	0.88	0.76	0.81
$drc\_median$	0.03	0.02	0.04	0.02	0.03
$ m drc\_lms$	0.08	0.06	0.12	0.08	0.11
$\mathrm{drc}$ _lts	0.41	0.17	0.35	0.11	0.39
$drc\_trimmed$	0.09	0.08	0.09	0.17	0.14
$drc\_winsor$	0.01	0.01	0.02	0.01	0.01
$\mathrm{drc\_tukey}$	0.00	0.00	0.02	0.01	0.01

#### Scenario 6

Feasibilities:

```
## drc_mean drc_median drc_lms drc_lts drc_trimmed drc_winsor
## 1.0000 0.8089 0.6143 0.9950 0.9512 1.0000
## drc_tukey
## 0.9444
```

Methods	IC5_bias	IC5_SqE	IC50_bias	IC50_SqE	IC95_bias	IC95_RMSE	b0_bias	b0_RMSE	b1_bias	b1_RMSE
drc_lms	0.01 (0.03)	0.00 (0.00)	-0.09 (0.10)	0.02 (0.04)	-0.67 (0.88)	1.22 (6.68)	0.51 (0.56)	0.57(0.98)	0.43 (0.54)	0.47 (0.76)
drc_lts	-0.00 (0.03)	0.00 (0.00)	-0.12 (0.07)	0.02 (0.02)	-0.71 (0.64)	0.91 (1.05)	0.54 (0.55)	0.60 (1.35)	0.37 (0.55)	0.44 (1.08)
drc_mean	0.00 (0.02)	0.00 (0.00)	0.00 (0.04)	0.00 (0.00)	0.02 (0.39)	0.15 (0.26)	0.00 (0.12)	0.01 (0.02)	0.02 (0.19)	0.03 (0.06)
drc_median	0.01 (0.03)	0.00 (0.00)	0.01 (0.05)	0.00 (0.00)	-0.03 (0.43)	0.19 (0.32)	0.00 (0.14)	0.02 (0.03)	0.06 (0.21)	0.05 (0.08)
$drc\_trimmed$	0.04 (3.66)	13.38 (1304.36)	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	1.50 (2.92)	10.75 (191.18)	1.01 (1.45)	3.12 (22.11)
$drc\_tukey$	0.01 (0.08)	0.01 (0.10)	-0.07 (0.19)	0.04 (0.86)	-0.48 (3.53)	12.71 (1057.82)	0.52 (1.26)	1.86 (21.50)	0.47 (1.13)	1.50 (24.52)
drc_winsor	0.00 (0.02)	0.00 (0.00)	0.00 (0.04)	0.00 (0.00)	-0.00 (0.40)	0.16 (0.27)	0.01 (0.13)	0.02(0.03)	0.04 (0.19)	0.04 (0.06)

95% Confidence interval length table (mean(std. dev)):

Methods	IC5_CI.length	IC50_CI.length	IC95_CI.length	b0_CI.length	b1_CI.length
$drc_{lms}$	0.03(0.10)	0.08 (1.19)	5.29 (274.04)	0.27(0.66)	0.31 (0.57)
$\mathrm{drc}_{-}\mathrm{lts}$	0.05 (0.04)	0.11(0.14)	0.94(1.41)	0.59(1.00)	0.63 (0.96)
$\mathrm{drc}\_\mathrm{mean}$	0.08 (0.03)	0.11(0.04)	$1.26 \ (0.56)$	0.28(0.10)	0.53 (0.19)
$drc\_median$	0.00(0.01)	0.00(0.01)	0.04 (0.09)	0.01 (0.01)	0.02(0.04)
$drc\_trimmed$	101.00 (NA)	101.00 (NA)	101.00 (NA)	101.00 (101.00)	35.48 (1896.09)
$\mathrm{drc\_tukey}$	101.00 (NA)	101.00 (NA)	101.00 (NA)	2.99 (203.68)	1.67 (111.40)
$\mathrm{drc}$ _winsor	0.00(0.00)	0.00 (0.00)	$0.02 \ (0.02)$	$0.00 \ (0.00)$	$0.01 \ (0.00)$

Coverage probability of the true estimation:

	IC5_Cov.prob	IC50_Cov.prob	IC95_Cov.prob	b0_Cov.prob	b1_Cov.prob
drc_mean	0.86	0.79	0.85	0.74	0.81
$drc\_median$	0.04	0.02	0.03	0.02	0.03
$drc\_lms$	0.16	0.09	0.12	0.08	0.13
$drc\_lts$	0.44	0.20	0.33	0.21	0.39
$drc\_trimmed$	0.10	0.04	0.05	0.09	0.07
$drc\_winsor$	0.02	0.01	0.02	0.01	0.01
$drc\_tukey$	0.02	0.01	0.01	0.01	0.01

### Scenario 7

Feasibilities:

```
## drc_mean drc_median drc_lms drc_lts drc_trimmed drc_winsor
## 1.0000 0.4333 0.3503 0.9828 0.9126 0.9994
## drc_tukey
## 0.9840
```

Methods	IC5_bias	IC5_SqE	IC50_bias	IC50_SqE	IC95_bias	IC95_RMSE	b0_bias	b0_RMSE	b1_bias	b1_RMSE
drc_lms	0.01 (0.03)	0.00 (0.00)	0.01 (0.07)	0.00 (0.01)	-0.10 (0.47)	0.23 (0.48)	0.02 (0.21)	0.05 (0.09)	0.10 (0.21)	0.06 (0.11)
drc_lts	-0.02 (0.03)	0.00 (0.00)	-0.10 (0.07)	0.01 (0.02)	-0.43 (0.48)	0.42 (0.56)	0.34 (0.38)	0.26 (2.15)	0.10 (0.29)	0.09 (0.48)
drc_mean	0.00 (0.03)	0.00 (0.00)	0.00 (0.05)	0.00 (0.00)	0.00 (0.45)	0.20 (0.32)	0.01 (0.15)	0.02 (0.03)	0.04 (0.22)	0.05 (0.09)
drc_median	0.01 (0.03)	0.00 (0.00)	-0.00 (0.05)	0.00 (0.00)	-0.09 (0.49)	0.25 (0.37)	0.03 (0.18)	0.03 (0.05)	0.10 (0.27)	0.08 (0.21)
$drc\_trimmed$	0.03 (0.11)	0.01 (0.32)	0.01 (0.15)	0.02 (0.31)	-0.21 (0.59)	0.39 (0.87)	0.11 (2.87)	8.26 (444.04)	0.31 (1.92)	3.78 (146.28)
drc_tukey	0.02 (0.09)	0.01 (0.43)	0.00 (0.11)	0.01 (0.36)	-0.13 (0.53)	0.29 (0.55)	-0.04 (10.44)	101.00 (101.00)	0.21 (5.53)	30.64 (2875.18)
drc_winsor	0.01 (0.03)	0.00 (0.00)	-0.00 (0.05)	0.00 (0.00)	-0.06 (0.45)	0.20 (0.32)	0.02 (0.17)	0.03 (0.04)	0.07 (0.24)	0.06 (0.15)

#### 95% Confidence interval length table (mean (std. dev)):

Methods	IC5_CI.length	IC50_CI.length	IC95_CI.length	b0_CI.length	b1_CI.length
drc_lms	2.25 (85.61)	10.23 (403.55)	101.00 (101.00)	0.59 (1.57)	0.45 (0.84)
$\mathrm{drc\_lts}$	$0.02 \ (0.03)$	$0.05 \ (0.08)$	$0.40 \ (0.75)$	$0.18 \; (0.47)$	0.19 (0.31)
$\operatorname{drc\_mean}$	$0.08 \; (0.03)$	$0.10 \ (0.05)$	$1.10 \ (0.58)$	$0.26 \ (0.12)$	$0.48 \ (0.22)$
$drc\_median$	$0.00 \ (0.00)$	0.00(0.01)	0.02(0.09)	$0.01 \ (0.03)$	0.01 (0.02)
$drc\_trimmed$	101.00 (NA)	101.00 (NA)	101.00 (NA)	$97.02 \ (3538.87)$	22.29 (845.54)
$\mathrm{drc\_tukey}$	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	1.66 (119.20)	0.20 (16.68)
$\mathrm{drc}$ _winsor	0.00(0.00)	0.00(0.00)	$0.01 \ (0.01)$	0.00(0.00)	0.00(0.00)

#### Coverage probability of the true estimation:

	IC5_Cov.prob	IC50_Cov.prob	IC95_Cov.prob	b0_Cov.prob	b1_Cov.prob
$\frac{1}{\text{drc\_mean}}$	0.76	0.66	0.72	0.59	0.69
$drc\_median$	0.01	0.01	0.01	0.00	0.01
$ m drc\_lms$	0.20	0.21	0.19	0.19	0.17
$drc\_lts$	0.23	0.11	0.21	0.10	0.25
$drc\_trimmed$	0.01	0.01	0.01	0.01	0.01
$\mathrm{drc}$ _winsor	0.01	0.01	0.01	0.00	0.00
$\mathrm{drc\_tukey}$	0.00	0.00	0.00	0.00	0.00

### Scenario 8

Feasibilities:

## drc\_mean drc\_median drc\_lms drc\_lts drc\_trimmed drc\_winsor

**##** 1.0000 0.6863 0.2035 0.9931 0.9943 0.9993

## drc\_tukey ## 0.9907

#### Comparison of point estimations (mean(std. dev)):

			I	T			T			
Methods	IC5_bias	IC5_SqE	IC50_bias	$IC50\_SqE$	IC95_bias	IC95_RMSE	b0_bias	b0_RMSE	b1_bias	b1_RMSE
$drc\_lms$	0.12 (0.14)	0.03 (0.06)	0.16 (0.16)	0.05 (0.08)	-0.05 (0.31)	0.10 (0.14)	-0.45 (0.51)	0.45 (0.84)	0.50 (0.71)	0.76 (1.50)
$drc\_lts$	-0.02 (0.03)	0.00 (0.00)	-0.06 (0.05)	0.01 (0.01)	-0.19 (0.20)	0.08 (0.10)	0.17 (0.12)	0.04 (0.05)	-0.02 (0.18)	0.03 (0.05)
drc_mean	0.00 (0.03)	0.00 (0.00)	-0.00 (0.04)	0.00 (0.00)	0.01 (0.29)	0.08 (0.13)	0.00 (0.09)	0.01 (0.01)	0.02 (0.19)	0.04 (0.05)
drc_median	0.00 (0.03)	0.00 (0.00)	0.00 (0.04)	0.00 (0.00)	-0.02 (0.23)	0.05 (0.09)	-0.00 (0.10)	0.01 (0.01)	0.03 (0.17)	0.03 (0.05)
$drc\_trimmed$	0.20 (0.23)	0.10 (0.82)	0.35 (0.35)	0.24 (0.90)	0.28 (1.04)	1.16 (92.20)	-0.89 (1.58)	3.28 (114.39)	0.59 (0.91)	1.17 (29.36)
drc_tukey	0.11 (0.15)	0.03 (0.09)	0.17 (0.24)	0.09 (0.21)	0.03 (0.34)	0.11 (0.41)	-0.41 (0.85)	0.88 (5.86)	0.45 (1.12)	1.46 (15.79)
drc_winsor	0.00 (0.03)	0.00 (0.00)	-0.00 (0.04)	0.00 (0.01)	0.14 (15.74)	101.00 (101.00)	0.00 (0.10)	0.01 (0.02)	0.03 (0.17)	0.03 (0.07)

#### 95% Confidence interval length table (mean(std. dev)):

Methods	IC5_CI.length	IC50_CI.length	IC95_CI.length	b0_CI.length	b1_CI.length
$drc_{lms}$	24.14 (658.25)	0.92 (11.11)	33.76 (1363.80)	1.29 (2.89)	1.62 (2.95)
$drc\_lts$	0.02(0.02)	$0.03 \ (0.03)$	0.28 (0.22)	0.07(0.06)	0.15(0.13)
$drc\_mean$	0.08 (0.03)	0.09(0.04)	1.01 (0.47)	0.21(0.09)	0.48(0.20)
$drc\_median$	0.00(0.01)	0.00(0.01)	$0.03 \ (0.06)$	0.01 (0.01)	0.01 (0.04)
$drc\_trimmed$	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	1.43 (7.03)	0.64(3.16)
$drc\_tukey$	$1.61\ (114.78)$	0.17 (9.57)	$0.03 \ (0.85)$	0.18(1.73)	0.22(3.20)
$drc\_winsor$	0.00(0.00)	0.00(0.00)	0.09 (8.35)	$0.00 \ (0.00)$	0.00(0.00)

	IC5_Cov.prob	IC50_Cov.prob	IC95_Cov.prob	b0_Cov.prob	b1_Cov.prob
drc_mean	0.76	0.70	0.88	0.72	0.75
$drc\_median$	0.02	0.01	0.03	0.02	0.02
$ m drc\_lms$	0.10	0.07	0.14	0.08	0.13
$\mathrm{drc\_lts}$	0.24	0.11	0.33	0.08	0.30
$drc\_trimmed$	0.05	0.04	0.03	0.07	0.05
$\mathrm{drc}$ _winsor	0.00	0.00	0.01	0.00	0.01
$\mathrm{drc\_tukey}$	0.00	0.00	0.01	0.00	0.00

Feasibilities:

## drc\_mean drc\_median drc\_lms drc\_lts drc\_trimmed drc\_winsor ## 1.0000 0.7733 0.6269 0.9967 0.8086 0.9995 ## drc\_tukey ## 0.9064

Comparison of point estimations (mean(std. dev)):

Methods	IC5_bias	IC5_SqE	IC50_bias	IC50_SqE	IC95_bias	IC95_RMSE	b0_bias	b0_RMSE	b1_bias	b1_RMSE
drc_lms	0.02 (0.05)	0.00 (0.00)	-0.10 (0.50)	0.26 (14.23)	1.50 (155.03)	101.00 (101.00)	0.71 (0.85)	1.23 (2.43)	0.66 (0.85)	1.16 (2.15)
drc_lts	-0.00 (0.05)	0.00 (0.00)	-0.14 (0.09)	0.03 (0.03)	-0.69 (1.05)	1.59 (7.46)	0.84 (1.05)	1.81 (5.13)	0.61 (1.12)	1.62 (4.27)
drc_mean	0.00 (0.03)	0.00 (0.00)	0.00 (0.04)	0.00 (0.00)	0.01 (0.34)	0.12 (0.20)	0.00 (0.10)	0.01 (0.01)	0.02 (0.19)	0.04 (0.05)
drc_median	0.01 (0.03)	0.00 (0.00)	0.01 (0.04)	0.00 (0.00)	-0.06 (0.35)	0.13 (0.22)	-0.00 (0.11)	0.01 (0.02)	0.08 (0.21)	0.05 (0.08)
$drc\_trimmed$	0.03 (0.13)	0.02 (0.13)	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	1.95 (3.81)	18.29 (199.41)	1.67 (2.35)	8.30 (36.10)
drc_tukey	0.18 (15.21)	101.00 (101.00)	0.34 (36.40)	101.00 (101.00)	2.99 (167.67)	101.00 (101.00)	0.63 (1.87)	3.89 (59.09)	0.59 (1.55)	2.75 (35.20)
drc_winsor	0.01 (0.03)	0.00 (0.00)	0.00 (0.04)	0.00 (0.00)	-0.02 (0.34)	0.11 (0.19)	0.00 (0.10)	0.01 (0.02)	0.04 (0.20)	0.04 (0.06)

95% Confidence interval length table (mean (std. dev)):

Methods	IC5_CI.length	IC50_CI.length	IC95_CI.length	b0_CI.length	b1_CI.length
$drc_{lms}$	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	0.37(1.29)	0.44 (1.12)
$\mathrm{drc}_{-}\mathrm{lts}$	0.07(0.10)	0.16(0.30)	3.77 (191.36)	1.24(3.55)	1.30(3.48)
$drc\_mean$	0.10(0.04)	$0.12 \ (0.05)$	1.49(0.83)	0.33(0.13)	$0.61 \ (0.26)$
$drc\_median$	0.00(0.01)	0.00(0.01)	0.05 (0.14)	0.01 (0.02)	0.02(0.06)
$\operatorname{drc\_trimmed}$	101.00 (NA)	101.00 (NA)	101.00 (NA)	101.00 (101.00)	101.00 (101.00)
$\mathrm{drc\_tukey}$	101.00 (NA)	101.00 (NA)	101.00 (NA)	$75.95 \ (6699.23)$	7.41 (566.13)
$\mathrm{drc}$ _winsor	$0.00 \ (0.00)$	0.00(0.00)	$0.03 \ (0.05)$	$0.01 \ (0.01)$	$0.01 \ (0.01)$

	IC5_Cov.prob	IC50_Cov.prob	IC95_Cov.prob	b0_Cov.prob	b1_Cov.prob
$\frac{1}{\mathrm{drc\_mean}}$	0.86	0.86	0.92	0.86	0.85
$drc\_median$	0.03	0.03	0.04	0.03	0.04
drc lms	0.14	0.12	0.15	0.11	0.13

	IC5_Cov.prob	IC50_Cov.prob	IC95_Cov.prob	b0_Cov.prob	b1_Cov.prob
drc_lts	0.37	0.26	0.45	0.34	0.37
$drc\_trimmed$	0.12	0.07	0.08	0.12	0.10
$drc\_winsor$	0.03	0.03	0.04	0.03	0.02
$drc\_tukey$	0.02	0.02	0.02	0.02	0.01

Feasibilities:

```
## drc_mean drc_median drc_lms drc_lts drc_trimmed drc_winsor ## 0.9998 0.5881 0.4781 0.9921 0.9772 0.9996 ## drc_tukey ## 0.9934
```

Comparison of point estimations (mean(std. dev)):

Methods	IC5_bias	IC5_SqE	IC50_bias	IC50_SqE	IC95_bias	IC95_RMSE	b0_bias	b0_RMSE	b1_bias	b1_RMSE
$drc\_lms$	0.06 (0.06)	0.01 (0.01)	0.06 (0.22)	0.05 (0.14)	-3.64 (11.94)	101.00 (101.00)	0.09 (3.83)	14.70 (1006.24)	0.40 (2.05)	4.37 (282.59)
$drc\_lts$	0.00 (0.04)	0.00 (0.01)	-0.29 (0.19)	0.12 (0.10)	-2.46 (37.15)	101.00 (101.00)	0.75 (0.94)	1.45 (10.03)	0.25 (1.38)	1.96 (156.99)
drc_mean	0.02 (0.05)	0.00 (0.01)	0.03 (0.24)	0.06 (0.11)	2.17 (15.31)	101.00 (101.00)	0.03 (0.35)	0.13 (0.34)	0.12 (0.38)	0.16 (0.86)
drc_median	0.03 (0.06)	0.00 (0.02)	0.03 (0.26)	0.07 (0.17)	0.20 (17.10)	101.00 (101.00)	0.06 (0.40)	0.17 (0.36)	0.20 (0.38)	0.18 (0.74)
$drc\_trimmed$	0.07 (0.09)	0.01 (0.10)	0.09 (0.26)	0.08 (0.27)	-2.22 (44.79)	101.00 (101.00)	0.01 (0.73)	0.54 (22.39)	0.44 (0.76)	0.77 (9.26)
drc_tukey	0.04 (0.09)	0.01 (0.10)	0.04 (0.28)	0.08 (0.22)	-0.58 (16.39)	101.00 (101.00)	0.05 (1.13)	1.29 (65.53)	0.30 (1.24)	1.64 (73.11)
drc_winsor	0.03 (0.06)	0.00 (0.02)	0.02 (0.25)	0.06 (0.14)	0.22 (14.83)	101.00 (101.00)	0.06 (0.40)	0.16 (0.42)	0.19 (0.41)	0.20 (0.93)

95% Confidence interval length table (mean(std. dev)):

Methods	$IC5\_CI.length$	IC50_CI.length	IC95_CI.length	$b0$ _CI.length	b1_CI.length
$ m drc\_lms$	101.00 (NA)	101.00 (NA)	101.00 (NA)	67.86 (4550.52)	32.98 (2234.11)
$\mathrm{drc\_lts}$	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	3.22(114.37)	1.37 (40.73)
$drc\_mean$	0.30(6.04)	$0.80 \ (0.46)$	98.67 (541.60)	0.93(0.46)	0.96 (0.87)
$drc\_median$	0.01(0.17)	0.05 (0.11)	$6.15\ (200.83)$	0.06 (0.10)	0.06 (0.09)
$drc\_trimmed$	101.00 (NA)	101.00 (NA)	101.00 (NA)	101.00 (101.00)	$21.31 \ (833.02)$
$drc\_tukey$	0.31(30.07)	0.05(1.77)	2.03(10.01)	0.10(2.87)	0.06(1.19)
$drc\_winsor$	0.01 (0.01)	$0.05 \ (0.06)$	3.57 (16.44)	$0.06 \ (0.06)$	$0.04 \ (0.04)$

	IC5_Cov.prob	IC50_Cov.prob	IC95_Cov.prob	b0_Cov.prob	b1_Cov.prob
drc_mean	0.88	0.83	0.87	0.82	0.88
$drc\_median$	0.05	0.04	0.06	0.03	0.05
$drc\_lms$	0.14	0.21	0.15	0.21	0.13
$drc\_lts$	0.46	0.21	0.41	0.19	0.43
$drc\_trimmed$	0.05	0.08	0.06	0.07	0.03
$drc\_winsor$	0.09	0.08	0.09	0.07	0.06
drc_tukey	0.05	0.04	0.05	0.04	0.03

#### Scenario 11

Feasibilities:

```
## drc_mean drc_median drc_lms drc_lts drc_trimmed drc_winsor
## 0.9994 0.7784 0.6837 0.9968 0.7413 0.9697
## drc_tukey
## 0.6549
```

Comparison of point estimations (mean(std. dev)):

Methods	IC5_bias	IC5_SqE	IC50_bias	IC50_SqE	IC95_bias	IC95_RMSE	b0_bias	b0_RMSE	b1_bias	b1_RMSE
$drc\_lms$	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	-0.55 (42.81)	101.00 (101.00)	0.94 (2.11)	5.35 (288.08)
$drc\_lts$	0.04 (0.08)	0.01 (0.02)	-0.23 (0.25)	0.11 (0.15)	0.77 (382.66)	101.00 (101.00)	0.54 (0.63)	0.69 (19.65)	0.38 (0.62)	0.52 (1.21)
drc_mean	0.03 (0.07)	0.01 (0.02)	0.01 (0.27)	0.07 (0.11)	5.13 (38.03)	101.00 (101.00)	0.00 (0.80)	0.64 (52.77)	0.11 (0.45)	0.22 (1.20)
drc_median	0.06 (0.09)	0.01 (0.03)	0.04 (0.30)	0.09 (0.15)	23.43 (1737.09)	101.00 (101.00)	-0.01 (0.41)	0.17(0.30)	0.27(0.49)	0.31 (0.80)
$drc\_trimmed$	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	101.00 (NA)	-1.62 (3.45)	14.55 (108.12)	1.24 (1.64)	4.22 (13.69)
drc_tukey	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	101.00 (NA)	-0.92 (3.60)	13.77 (387.39)	0.81 (2.21)	5.55 (154.85)
$drc\_winsor$	0.04 (0.08)	0.01 (0.02)	0.02 (0.28)	0.08 (0.12)	101.00 (101.00)	101.00 (101.00)	0.01 (0.64)	0.41 (15.23)	$0.21\ (0.50)$	0.29 (1.24)

95% Confidence interval length table (mean(std. dev)):

Methods	IC5_CI.length	IC50_CI.length	IC95_CI.length	b0_CI.length	b1_CI.length
$\mathrm{drc\_lms}$	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	$2.64\ (77.70)$	1.13 (2.39)
$\mathrm{drc}$ _lts	101.00 (101.00)	$101.00 \ (101.00)$	101.00 (101.00)	0.55 (4.41)	0.85 (0.96)
$drc\_mean$	101.00 (101.00)	1.18(4.99)	101.00 (101.00)	0.97(7.10)	1.25(0.97)

Methods	IC5_CI.length	IC50_CI.length	IC95_CI.length	b0_CI.length	b1_CI.length
drc_median	0.13 (9.33)	0.04 (0.07)	101.00 (101.00)	0.04 (0.07)	0.08 (0.14)
$drc\_trimmed$	101.00 (NA)	101.00 (NA)	101.00 (NA)	101.00 (101.00)	101.00 (101.00)
$\mathrm{drc\_tukey}$	101.00 (NA)	101.00 (NA)	101.00 (NA)	12.72(624.49)	8.45 (447.85)
$\mathrm{drc}$ _winsor	101.00 (NA)	101.00  (NA)	101.00  (NA)	$43.39\ (2475.73)$	$0.05 \ (0.05)$

	${\rm IC5\_Cov.prob}$	$IC50\_Cov.prob$	${\rm IC95\_Cov.prob}$	$b0\_Cov.prob$	b1_Cov.prob
drc_mean	0.86	0.87	0.90	0.80	0.88
$drc\_median$	0.06	0.04	0.08	0.03	0.06
$drc\_lms$	0.09	0.06	0.18	0.08	0.14
$drc\_lts$	0.51	0.39	0.34	0.20	0.46
$drc\_trimmed$	0.06	0.05	0.13	0.09	0.07
$drc\_winsor$	0.07	0.07	0.09	0.06	0.05
$drc\_tukey$	0.03	0.03	0.04	0.03	0.02

### Scenario 12

Feasibilities:

```
## drc_mean drc_median drc_lms drc_lts drc_trimmed drc_winsor
## 1.0000 0.7494 0.7118 0.9990 0.9851 0.9997
## drc_tukey
## 0.9985
```

Methods	IC5_bias	IC5_SqE	IC50_bias	IC50_SqE	IC95_bias	IC95_RMSE	b0_bias	b0_RMSE	b1_bias	b1_RMSE
drc_lms	0.04 (0.05)	0.00 (0.01)	-0.15 (0.20)	0.06 (0.11)	101.00 (101.00)	101.00 (101.00)	0.47 (0.46)	0.44 (0.64)	0.42 (0.38)	0.32 (0.48)
drc_lts	0.01 (0.04)	0.00 (0.00)	-0.31 (0.15)	0.12 (0.09)	65.36 (6049.27)	101.00 (101.00)	0.82 (0.81)	1.32 (5.99)	0.30 (0.53)	0.37 (1.35)
drc_mean	0.02 (0.05)	0.00 (0.02)	0.04 (0.23)	0.06 (0.12)	3.82 (24.02)	101.00 (101.00)	0.01 (0.33)	0.11 (0.35)	0.10 (0.36)	0.14 (0.88)
drc_median	0.03 (0.06)	0.00 (0.01)	0.03 (0.26)	0.07 (0.15)	1.65 (77.86)	101.00 (101.00)	0.07 (0.41)	0.17 (0.32)	0.23 (0.38)	0.20 (0.65)
$drc\_trimmed$	0.05 (0.22)	0.05 (2.72)	68.51 (5258.44)	101.00 (101.00)	101.00 (101.00)	101.00 (NA)	0.38 (1.34)	1.93 (44.70)	0.48 (0.83)	0.92 (9.40)
drc_tukey	0.03 (0.07)	0.01 (0.10)	-0.00 (0.73)	0.53 (42.91)	6.67 (544.36)	101.00 (101.00)	0.17 (0.76)	0.61 (13.51)	0.26 (0.74)	0.61 (13.99)
drc_winsor	0.02 (0.06)	0.00 (0.02)	0.03 (0.25)	0.06 (0.14)	2.15 (22.92)	101.00 (101.00)	0.04 (0.37)	0.14 (0.45)	0.15 (0.37)	0.16 (0.78)

#### 95% Confidence interval length table (mean(std. dev)):

Methods	IC5_CI.length	IC50_CI.length	IC95_CI.length	b0_CI.length	b1_CI.length
$\frac{-}{\mathrm{drc\_lms}}$	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	0.42 (1.05)	0.48 (0.95)
$drc\_lts$	33.74 (3365.59)	0.27(0.33)	101.00 (101.00)	0.96(2.42)	0.68(1.37)
$drc\_mean$	0.27(2.87)	0.82(0.49)	101.00 (101.00)	0.92(0.45)	0.97(0.85)
$drc\_median$	101.00 (101.00)	0.18 (12.09)	101.00 (101.00)	0.05 (0.17)	$0.06 \ (0.16)$
$drc\_trimmed$	101.00 (NA)	101.00 (NA)	101.00 (NA)	101.00 (101.00)	$16.67 \ (770.55)$
$\mathrm{drc\_tukey}$	$0.01 \ (0.03)$	0.04 (0.49)	$11.71 \ (650.62)$	0.08(1.55)	0.05 (0.86)
$drc\_winsor$	0.01 (0.01)	$0.06 \ (0.07)$	5.85(29.21)	0.07 (0.06)	0.05 (0.06)

#### Coverage probability of the true estimation:

	IC5_Cov.prob	IC50_Cov.prob	IC95_Cov.prob	b0_Cov.prob	b1_Cov.prob
drc_mean	0.89	0.85	0.89	0.83	0.90
$drc\_median$	0.07	0.04	0.06	0.04	0.06
$ m drc\_lms$	0.20	0.13	0.14	0.12	0.16
$\mathrm{drc\_lts}$	0.52	0.18	0.39	0.19	0.47
$drc\_trimmed$	0.08	0.07	0.06	0.06	0.05
$drc\_winsor$	0.12	0.10	0.11	0.08	0.07
$\mathrm{drc\_tukey}$	0.06	0.06	0.06	0.04	0.04

### Scenario 13

Feasibilities:

```
## drc_mean drc_median drc_lms drc_lts drc_trimmed drc_winsor
## 1.0000 0.6732 0.5678 0.9872 0.9259 1.0000
## drc_tukey
## 0.9977
```

Methods	IC5_bias	IC5_SqE	IC50_bias	IC50_SqE	IC95_bias	IC95_RMSE	b0_bias	b0_RMSE	b1_bias	b1_RMSE
drc_lms	0.01 (0.02)	0.00 (0.00)	0.05 (0.10)	0.01 (0.02)	-0.11 (4.39)	19.28 (50.39)	-0.04 (0.13)	0.02 (0.03)	0.06 (0.13)	0.02 (0.04)
drc_lts	-0.00 (0.01)	0.00 (0.00)	-0.12 (0.09)	0.02 (0.02)	-1.73 (3.46)	14.95 (20.29)	0.18 (0.15)	0.06 (0.07)	0.02 (0.11)	0.01 (0.03)
drc_mean	0.00 (0.01)	0.00 (0.00)	0.01 (0.08)	0.01 (0.01)	0.31 (2.92)	8.63 (16.31)	-0.01 (0.10)	0.01 (0.02)	0.01 (0.07)	0.01 (0.01)
drc_median	0.00 (0.01)	0.00 (0.00)	0.02 (0.09)	0.01 (0.01)	0.34 (3.30)	11.01 (23.41)	-0.01 (0.12)	0.01 (0.02)	0.01 (0.08)	0.01 (0.01)
$drc\_trimmed$	0.02 (0.05)	0.00 (0.11)	0.05 (0.13)	0.02 (0.22)	101.00 (101.00)	101.00 (101.00)	-0.03 (0.39)	0.15(7.20)	0.06 (0.66)	0.44 (18.20)
drc_tukey	0.00 (0.01)	0.00 (0.00)	0.00 (0.09)	0.01 (0.05)	101.00 (101.00)	101.00 (101.00)	-0.01 (1.44)	2.07 (205.26)	0.01 (0.43)	0.18 (16.70)
drc_winsor	0.00 (0.01)	0.00 (0.00)	0.00 (0.08)	0.01 (0.01)	0.00 (2.83)	7.99 (15.16)	0.01 (0.10)	0.01 (0.02)	0.01 (0.07)	0.01 (0.01)

95% Confidence interval length table (mean (std. dev)):

Methods	IC5_CI.length	IC50_CI.length	IC95_CI.length	b0_CI.length	b1_CI.length
$drc_{lms}$	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	0.28 (0.75)	0.17 (0.31)
$\mathrm{drc}_{-}\mathrm{lts}$	0.02(0.01)	0.13 (0.07)	5.66(3.67)	0.19(0.12)	0.15(0.08)
$drc\_mean$	0.05(0.02)	0.25 (0.09)	$12.31\ (5.91)$	0.28(0.09)	0.26 (0.08)
$drc\_median$	0.00(0.01)	0.02(0.03)	1.00(1.92)	0.02(0.03)	0.02(0.03)
$drc\_trimmed$	101.00 (NA)	101.00 (NA)	101.00 (NA)	3.22(54.97)	3.83(72.68)
$drc\_tukey$	101.00 (NA)	101.00 (101.00)	101.00 (NA)	0.09(7.11)	0.04(1.88)
$drc\_winsor$	0.00(0.00)	0.01 (0.01)	$0.31\ (0.27)$	0.01(0.01)	0.00(0.00)

Coverage probability of the true estimation:

	IC5_Cov.prob	IC50_Cov.prob	IC95_Cov.prob	b0_Cov.prob	b1_Cov.prob
drc_mean	0.92	0.85	0.93	0.80	0.90
$drc\_median$	0.08	0.06	0.07	0.05	0.07
$ m drc\_lms$	0.25	0.26	0.27	0.24	0.22
$\mathrm{drc}$ _lts	0.51	0.21	0.48	0.18	0.49
$drc\_trimmed$	0.05	0.05	0.05	0.05	0.04
$\mathrm{drc}$ _winsor	0.04	0.04	0.04	0.03	0.02
$\mathrm{drc\_tukey}$	0.02	0.02	0.02	0.02	0.01

### Scenario 14

Feasibilities:

 $\verb| ## drc_mean drc_median drc_lms drc_lts drc_trimmed drc_winsor| \\$ 

**##** 1.0000 0.8317 0.5457 0.9967 0.9637 0.9974

## drc\_tukey ## 0.9899

#### Comparison of point estimations (mean(std. dev)):

Methods	IC5_bias	IC5_SqE	IC50_bias	IC50_SqE	IC95_bias	IC95_RMSE	b0_bias	b0_RMSE	b1_bias	b1_RMSE
$drc\_lms$	0.19 (0.22)	0.09 (0.13)	0.49 (0.44)	0.43 (0.56)	-2.60 (4.15)	23.98 (34.29)	-0.72 (0.73)	1.06 (1.54)	0.54 (0.59)	0.64 (0.92)
$drc\_lts$	0.01 (0.03)	0.00 (0.00)	-0.09 (0.12)	0.02 (0.04)	-2.64 (2.93)	15.55 (19.47)	0.15 (0.15)	0.05 (0.08)	0.08 (0.17)	0.04 (0.07)
drc_mean	0.00 (0.02)	0.00 (0.00)	0.00 (0.09)	0.01 (0.01)	0.34 (2.98)	8.96 (18.31)	-0.00 (0.10)	0.01 (0.02)	0.01 (0.11)	0.01 (0.02)
drc_median	0.00 (0.02)	0.00 (0.00)	0.00 (0.10)	0.01 (0.02)	0.05 (3.26)	10.62 (28.11)	0.00 (0.12)	0.02 (0.02)	0.02 (0.12)	0.01 (0.02)
drc_trimmed	0.48 (1.98)	4.15 (96.50)	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	101.00 (NA)	-1.02 (2.36)	6.63 (52.10)	0.49 (0.97)	1.17 (6.26)
drc_tukey	0.10 (0.38)	0.16 (4.11)	0.28 (0.86)	0.82 (13.36)	101.00 (101.00)	101.00 (101.00)	-0.31 (1.60)	2.67 (172.21)	0.17 (0.72)	0.54 (31.82)
drc_winsor	0.00 (0.02)	0.00 (0.00)	-0.00 (0.09)	0.01 (0.01)	-0.03 (2.85)	8.10 (15.74)	0.01 (0.11)	0.01 (0.02)	0.02 (0.11)	0.01 (0.02)

#### 95% Confidence interval length table (mean(std. dev)):

Methods	IC5_CI.length	IC50_CI.length	IC95_CI.length	b0_CI.length	b1_CI.length
$drc_{lms}$	101.00 (101.00)	45.12 (2118.63)	101.00 (101.00)	0.65 (1.38)	0.59 (1.13)
$\mathrm{drc}_{-}\mathrm{lts}$	0.06(0.37)	0.18(0.31)	6.06(6.00)	0.19(0.18)	0.25(0.17)
$\mathrm{drc}\_\mathrm{mean}$	0.08(0.03)	0.29(0.09)	13.76 (6.88)	0.29 (0.08)	0.36(0.11)
$drc\_median$	0.01 (0.19)	0.02(0.03)	$1.21\ (15.65)$	0.02(0.02)	0.03 (0.05)
$drc\_trimmed$	101.00 (NA)	101.00 (NA)	101.00 (NA)	$32.90\ (2027.93)$	12.66 (826.92)
$\mathrm{drc\_tukey}$	101.00 (NA)	101.00 (101.00)	101.00 (NA)	0.23(3.66)	0.08(1.09)
$\mathrm{drc}$ _winsor	0.00(0.00)	$0.01 \ (0.01)$	0.37 (0.33)	$0.01 \ (0.01)$	$0.01 \ (0.01)$

	IC5_Cov.prob	IC50_Cov.prob	IC95_Cov.prob	b0_Cov.prob	b1_Cov.prob
drc_mean	0.91	0.86	0.94	0.80	0.89
$drc\_median$	0.07	0.05	0.10	0.04	0.07
$ m drc\_lms$	0.14	0.09	0.21	0.08	0.16
$\mathrm{drc}$ _lts	0.53	0.43	0.44	0.29	0.47
$drc\_trimmed$	0.07	0.07	0.22	0.11	0.09
$drc\_winsor$	0.04	0.04	0.05	0.03	0.03
$\mathrm{drc\_tukey}$	0.02	0.02	0.04	0.02	0.02

Feasibilities:

```
## drc_mean drc_median drc_lms drc_lts drc_trimmed drc_winsor
## 1.0000 0.8286 0.7647 0.9972 0.9463 1.0000
## drc_tukey
## 0.9989
```

Comparison of point estimations (mean(std. dev)):

Methods	IC5_bias	IC5_SqE	IC50_bias	IC50_SqE	IC95_bias	IC95_RMSE	b0_bias	b0_RMSE	b1_bias	b1_RMSE
drc_lms	0.00 (0.02)	0.00 (0.00)	-0.08 (0.11)	0.02 (0.02)	-2.04 (4.57)	24.99 (60.38)	0.15(0.19)	0.06 (0.10)	0.07 (0.15)	0.03 (0.06)
$drc\_lts$	-0.00 (0.01)	0.00 (0.00)	-0.14 (0.07)	0.02 (0.02)	-2.96 (3.65)	22.12 (27.13)	0.24(0.17)	0.09 (0.14)	0.07 (0.15)	0.03 (0.06)
drc_mean	0.00 (0.01)	0.00 (0.00)	0.00 (0.07)	0.01 (0.01)	0.28 (3.04)	9.32 (20.61)	0.00 (0.10)	0.01 (0.01)	0.01 (0.07)	0.01 (0.01)
drc_median	0.00 (0.01)	0.00 (0.00)	0.00 (0.08)	0.01 (0.01)	0.06 (3.45)	11.91 (27.15)	0.01 (0.11)	0.01 (0.02)	0.02 (0.08)	0.01 (0.01)
$drc\_trimmed$	0.01 (0.11)	0.01 (0.26)	0.92 (98.54)	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	0.19 (2.03)	4.16 (178.83)	0.12 (0.75)	0.58 (12.78)
drc_tukey	0.00 (0.05)	0.00 (0.14)	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	-0.02 (2.04)	4.17 (251.18)	0.01 (0.63)	0.40 (21.31)
drc_winsor	0.00 (0.01)	0.00 (0.00)	-0.00 (0.07)	0.01 (0.01)	0.14 (3.06)	9.41 (20.64)	0.01 (0.10)	0.01 (0.01)	0.01 (0.08)	0.01 (0.01)

95% Confidence interval length table (mean (std. dev)):

Methods	IC5_CI.length	IC50_CI.length	IC95_CI.length	b0_CI.length	b1_CI.length
$ m drc\_lms$	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	0.17(0.75)	0.17 (0.41)
$\mathrm{drc}_{-}\mathrm{lts}$	0.03(0.02)	0.16 (0.09)	6.45 (12.48)	0.29(0.31)	0.22(0.22)
$drc\_mean$	0.05 (0.02)	0.24 (0.08)	12.71 (6.09)	$0.28 \ (0.08)$	0.27(0.08)
$drc\_median$	0.00(0.00)	0.01 (0.02)	0.82(1.42)	0.02(0.02)	0.02(0.03)
$drc\_trimmed$	101.00 (NA)	101.00 (NA)	101.00 (NA)	7.97 (86.33)	5.57 (103.48)
$drc\_tukey$	101.00 (NA)	101.00 (101.00)	101.00 (NA)	0.35(12.18)	0.14(3.80)
$\mathrm{drc}$ _winsor	$0.00 \ (0.00)$	$0.01 \ (0.01)$	0.37 (0.32)	$0.01 \ (0.01)$	$0.01\ (0.00)$

	IC5_Cov.prob	IC50_Cov.prob	IC95_Cov.prob	b0_Cov.prob	b1_Cov.prob
drc_mean	0.93	0.88	0.93	0.83	0.90
$drc\_median$	0.08	0.06	0.07	0.05	0.07
$drc\_lms$	0.32	0.16	0.26	0.14	0.27

	IC5_Cov.prob	IC50_Cov.prob	IC95_Cov.prob	b0_Cov.prob	b1_Cov.prob
drc_lts	0.58	0.23	0.45	0.20	0.51
$drc\_trimmed$	0.09	0.05	0.06	0.05	0.05
$drc\_winsor$	0.05	0.04	0.05	0.03	0.03
$drc\_tukey$	0.03	0.02	0.03	0.02	0.02

Feasibilities:

```
drc_median
                              drc_lms
                                          drc_lts drc_trimmed drc_winsor
##
      drc_mean
        1.0000
                                           0.9903
##
                    0.6554
                               0.5529
                                                       0.9349
                                                                   1.0000
     drc_tukey
##
       0.9984
##
```

Comparison of point estimations (mean(std. dev)):

Methods	IC5_bias	IC5_SqE	IC50_bias	IC50_SqE	IC95_bias	IC95_RMSE	b0_bias	b0_RMSE	b1_bias	b1_RMSE
drc_lms	0.01 (0.02)	0.00 (0.00)	0.05 (0.10)	0.01 (0.02)	0.07 (5.12)	26.18 (93.58)	-0.05 (0.14)	0.02 (0.04)	0.06 (0.14)	0.02 (0.05)
$drc\_lts$	-0.00 (0.01)	0.00 (0.00)	-0.12 (0.10)	0.02 (0.02)	-2.64 (3.49)	19.20 (22.96)	0.20 (0.17)	0.07 (0.08)	0.05 (0.11)	0.01 (0.02)
drc_mean	0.00 (0.01)	0.00 (0.00)	0.01 (0.08)	0.01 (0.01)	0.43 (3.34)	11.31 (21.23)	-0.01 (0.11)	0.01 (0.02)	0.01 (0.08)	0.01 (0.01)
drc_median	0.00 (0.01)	0.00 (0.00)	0.02 (0.10)	0.01 (0.01)	0.52 (3.93)	15.71 (35.01)	-0.01 (0.13)	0.02 (0.02)	0.01 (0.09)	0.01 (0.01)
$drc\_trimmed$	0.02 (0.31)	0.09 (5.70)	0.05 (0.36)	0.13 (6.60)	101.00 (101.00)	101.00 (NA)	-0.06 (1.55)	2.40 (144.43)	0.09 (0.65)	0.43 (16.44)
drc_tukey	0.00 (0.01)	0.00 (0.00)	0.00 (0.09)	0.01 (0.02)	101.00 (101.00)	101.00 (101.00)	0.01 (0.22)	0.05 (2.96)	0.03 (0.17)	0.03 (1.83)
drc_winsor	0.00 (0.01)	0.00 (0.00)	0.00 (0.08)	0.01 (0.01)	-0.02 (3.25)	10.56 (19.33)	0.01 (0.11)	0.01 (0.02)	0.02 (0.08)	0.01 (0.01)

95% Confidence interval length table (mean(std. dev)):

Methods	IC5_CI.length	IC50_CI.length	IC95_CI.length	b0_CI.length	b1_CI.length
$drc_{lms}$	0.27 (8.51)	20.74 (1482.17)	101.00 (101.00)	0.27 (0.63)	0.17 (0.28)
$\mathrm{drc\_lts}$	0.02(0.01)	0.13 (0.07)	5.27(3.56)	0.21(0.14)	0.16 (0.09)
$drc\_mean$	0.05 (0.02)	0.27(0.10)	13.23 (6.99)	0.30(0.09)	0.28 (0.09)
$drc\_median$	0.00(0.01)	0.02(0.03)	1.10(2.25)	0.02(0.03)	0.02(0.04)
$drc\_trimmed$	101.00 (NA)	101.00 (NA)	101.00 (NA)	$5.96\ (182.61)$	5.39(234.10)
$drc\_tukey$	101.00 (NA)	101.00 (101.00)	101.00 (NA)	0.05(2.89)	0.06(3.80)
$\mathrm{drc}$ _winsor	$0.00 \ (0.00)$	$0.01 \ (0.01)$	0.32 (0.30)	$0.01\ (0.01)$	$0.00 \ (0.00)$

	IC5_Cov.prob	IC50_Cov.prob	IC95_Cov.prob	b0_Cov.prob	b1_Cov.prob
drc_mean	0.93	0.85	0.91	0.78	0.89
$drc\_median$	0.08	0.05	0.07	0.04	0.07
$drc\_lms$	0.25	0.24	0.25	0.22	0.20
$drc\_lts$	0.58	0.20	0.38	0.16	0.47
$drc\_trimmed$	0.05	0.05	0.05	0.05	0.04
$drc\_winsor$	0.04	0.03	0.04	0.03	0.02
$\mathrm{drc\_tukey}$	0.02	0.02	0.02	0.02	0.01

#### Scenario 17

Feasibilities:

```
## drc_mean drc_median drc_lms drc_lts drc_trimmed drc_winsor
## 1.0000 0.8379 0.4618 0.9932 0.7216 0.9977
## drc_tukey
## 0.9767
```

Comparison of point estimations (mean(std. dev)):

Methods	$IC5\_bias$	$IC5\_SqE$	$IC50\_bias$	$IC50\_SqE$	$IC95\_bias$	$IC95\_RMSE$	b0_bias	b0_RMSE	b1_bias	b1_F
$drc\_lms$	0.13 (0.21)	0.06 (0.12)	0.35(0.40)	0.29(0.51)	-1.88 (2.69)	10.80 (17.54)	-0.53 (0.69)	0.76(1.45)	0.37 (0.55)	0.44
$drc\_lts$	-0.00 (0.02)	0.00(0.00)	-0.10 (0.11)	0.02(0.03)	-0.88 (1.90)	4.40(7.93)	0.13(0.13)	0.03(0.04)	-0.01 (0.12)	0.01
$\operatorname{drc\_mean}$	0.00(0.02)	0.00(0.00)	-0.00 (0.08)	0.01 (0.01)	0.14(1.90)	3.63 (6.13)	-0.00(0.09)	0.01 (0.01)	0.00(0.09)	0.01
$drc\_median$	0.00(0.01)	0.00(0.00)	0.00(0.09)	0.01(0.01)	0.02(1.25)	1.55(5.61)	0.00(0.10)	0.01(0.02)	0.00(0.07)	0.00
$drc\_trimmed$	0.59(2.36)	5.90 (99.24)	101.00 (101.00)	101.00 (101.00)	101.00 (NA)	101.00 (NA)	-0.99(3.18)	11.09 (323.97)	0.54(1.28)	1.92 (
$drc\_tukey$	0.17(1.48)	2.22(34.70)	$2.23\ (167.33)$	101.00 (101.00)	101.00 (101.00)	101.00 (NA)	-0.03 (1.68)	2.81(41.92)	0.03(0.70)	0.49
$drc\_winsor$	$0.00 \ (0.01)$	0.00(0.00)	-0.00 (0.09)	$0.01\ (0.01)$	-0.06 (1.45)	2.11 (3.54)	0.00(0.10)	$0.01 \ (0.01)$	$0.01 \ (0.08)$	0.01

95% Confidence interval length table (mean(std. dev)):

Methods	$IC5\_CI.length$	$IC50\_CI.length$	IC95_CI.length	$b0$ _CI.length	b1_CI.length
$drc\_lms$	101.00 (101.00)	1.14 (34.42)	36.52 (1015.59)	0.52(1.02)	0.49 (0.82)
$\mathrm{drc}$ _lts	0.02(0.02)	0.08(0.07)	2.99(1.88)	0.09(0.07)	0.11(0.09)
$drc\_mean$	0.05 (0.02)	0.19(0.07)	8.40(4.18)	0.19(0.07)	0.24 (0.09)
$drc\_median$	0.00(0.00)	0.01 (0.01)	0.36 (0.43)	0.01(0.01)	0.01 (0.01)
$drc\_trimmed$	101.00 (NA)	101.00 (NA)	101.00 (NA)	41.07 (113.23)	$14.36 \ (47.83)$
$drc\_tukey$	101.00 (NA)	101.00 (101.00)	101.00 (NA)	1.65 (13.87)	0.68 (11.76)
$drc\_winsor$	0.00 (0.00)	0.00 (0.00)	$0.08 \ (0.07)$	$0.00 \ (0.00)$	0.00 (0.00)

	IC5_Cov.prob	IC50_Cov.prob	IC95_Cov.prob	b0_Cov.prob	b1_Cov.prob
drc_mean	0.80	0.70	0.96	0.64	0.80
$drc\_median$	0.04	0.03	0.10	0.02	0.05
$drc\_lms$	0.20	0.13	0.32	0.11	0.24
$drc\_lts$	0.27	0.20	0.55	0.16	0.29
$drc\_trimmed$	0.30	0.31	0.34	0.32	0.31
$drc\_winsor$	0.01	0.01	0.02	0.01	0.01
$drc\_tukey$	0.03	0.03	0.05	0.05	0.04

#### Scenario 18

Feasibilities:

```
## drc_mean drc_median drc_lms drc_lts drc_trimmed drc_winsor
## 1.0000 0.8094 0.7276 0.9982 0.9589 1.0000
## drc_tukey
## 0.9959
```

Methods	IC5_bias	IC5_SqE	IC50_bias	IC50_SqE	IC95_bias	IC95_RMSE	b0_bias	b0_RMSE	b1_bias	b1_RMSE
$drc\_lms$	0.01 (0.03)	0.00 (0.00)	-0.05 (0.13)	0.02 (0.03)	-1.73 (5.35)	31.63 (175.48)	0.12 (0.26)	0.08 (0.21)	0.11 (0.25)	0.07 (0.18)
$drc\_lts$	-0.01 (0.04)	0.00 (0.00)	-0.18 (0.13)	0.05 (0.07)	101.00 (101.00)	101.00 (101.00)	0.30 (0.35)	0.21 (0.87)	0.02 (0.39)	0.15 (0.40)
drc_mean	0.00 (0.02)	0.00 (0.00)	-0.00 (0.07)	0.01 (0.01)	0.66 (4.97)	25.09 (192.80)	0.00 (0.09)	0.01 (0.01)	0.01 (0.11)	0.01 (0.02)

(continued)

Methods	IC5_bias	IC5_SqE	IC50_bias	IC50_SqE	IC95_bias	IC95_RMSE	b0_bias	b0_RMSE	b1_bias	b1_RMSE
drc_median	0.01 (0.02)	0.00 (0.00)	0.01 (0.08)	0.01 (0.01)	-0.50 (2.76)	7.84 (48.91)	-0.01 (0.10)	0.01 (0.02)	0.04 (0.10)	0.01 (0.02)
drc_trimmed	0.05 (0.20)	0.04 (0.78)	-0.07 (0.31)	0.10 (1.07)	-0.95 (217.39)	101.00 (101.00)	0.38 (1.47)	2.30 (39.25)	0.46 (0.94)	1.10 (11.70)
drc_tukey	0.01 (0.08)	0.01 (0.19)	-0.00 (0.18)	0.03 (1.25)	4.77 (478.47)	101.00 (101.00)	0.06 (2.59)	6.74 (654.79)	0.07 (1.05)	1.11 (96.31)
drc_winsor	0.00 (0.02)	0.00 (0.00)	0.00 (0.08)	0.01 (0.01)	0.31 (3.98)	15.96 (87.79)	-0.00 (0.09)	0.01 (0.01)	0.01 (0.11)	0.01 (0.02)

95% Confidence interval length table (mean(std. dev)):

I.length
(0.47)
(0.80)
(0.20)
(0.04)
(101.00)
(2.74)
(0.02)
)

Coverage probability of the true estimation:

	IC5_Cov.prob	IC50_Cov.prob	IC95_Cov.prob	b0_Cov.prob	b1_Cov.prob
drc_mean	0.89	0.94	0.97	0.94	0.90
$drc\_median$	0.08	0.06	0.12	0.06	0.08
$drc\_lms$	0.27	0.20	0.35	0.20	0.28
$drc\_lts$	0.29	0.30	0.56	0.31	0.28
$drc\_trimmed$	0.10	0.11	0.12	0.12	0.09
$drc\_winsor$	0.07	0.10	0.11	0.10	0.05
$\mathrm{drc\_tukey}$	0.04	0.06	0.06	0.06	0.03

#### Scenario 19

Feasibilities:

```
## drc_mean drc_median drc_lms drc_lts drc_trimmed drc_winsor
## 0.9915 0.6934 0.4553 0.7013 0.0892 0.8202
## drc_tukey
## 0.0806
```

#### Comparison of point estimations (mean(std. dev)):

Methods	IC5_bias	IC5_SqE	IC50_bias	IC50_SqE	IC95_bias	IC95_RMSE	b0_bias	b0_RMSE	b1_bias	b1_RMSE
$drc\_lms$	0.11 (0.14)	0.03 (0.18)	0.04 (0.15)	0.02 (0.18)	-0.23 (0.52)	0.32 (0.60)	0.32 (7.62)	58.16 (3424.76)	1.80 (5.58)	34.35 (1059.77)
$drc\_lts$	-0.03 (0.10)	0.01 (0.01)	-0.20 (0.14)	0.06 (0.07)	-0.68 (0.49)	0.70 (0.77)	5.68 (81.75)	101.00 (101.00)	3.99 (61.78)	101.00 (101.00)
drc_mean	0.04 (0.11)	0.01 (0.02)	0.01 (0.12)	0.01 (0.02)	-0.03 (0.65)	0.42 (1.04)	0.16 (1.57)	2.50 (175.81)	0.80 (4.46)	20.49 (1440.23)
$drc\_median$	0.09 (0.11)	0.02 (0.04)	0.01 (0.13)	0.02 (0.03)	-0.32 (0.41)	0.27 (0.44)	0.29 (1.02)	1.12 (19.90)	1.45 (1.73)	5.11 (52.92)
$drc\_trimmed$	0.40 (3.24)	10.63 (241.03)	0.43 (6.51)	42.50 (890.40)	0.39 (14.85)	101.00 (101.00)	2.11 (27.31)	101.00 (101.00)	7.60 (15.22)	101.00 (101.00)
drc_tukey	0.29 (0.99)	1.06 (7.63)	0.21 (0.97)	0.99 (7.08)	0.05 (1.21)	1.47 (5.71)	-0.98 (126.17)	101.00 (101.00)	21.69 (80.97)	101.00 (101.00)
$drc\_winsor$	0.10 (0.16)	0.03 (0.08)	0.01 (0.15)	0.02 (0.03)	-0.25 (0.57)	0.39 (0.69)	2.04 (10.91)	101.00 (101.00)	6.08 (23.17)	101.00 (101.00)

#### 95% Confidence interval length table (mean(std. dev)):

Methods	IC5_CI.length	IC50_CI.length	IC95_CI.length	b0_CI.length	b1_CI.length
$drc_{lms}$	101.00 (NA)	101.00 (NA)	101.00 (NA)	101.00 (101.00)	101.00 (101.00)
$drc\_lts$	101.00 (NA)	101.00 (NA)	101.00 (NA)	101.00 (101.00)	101.00 (101.00)
$drc\_mean$	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	4.64 (222.06)	5.34(232.56)
$drc\_median$	0.00(0.00)	$0.00 \ (0.00)$	0.00(0.01)	0.00(0.01)	0.00(0.02)
$drc\_trimmed$	101.00 (NA)	101.00 (NA)	101.00 (NA)	101.00 (101.00)	101.00 (101.00)
$drc\_tukey$	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)
$drc\_winsor$	0.00(0.01)	0.00 (0.01)	$0.00 \ (0.02)$	0.02(1.59)	$0.01 \ (0.31)$

#### Coverage probability of the true estimation:

	IC5_Cov.prob	IC50_Cov.prob	IC95_Cov.prob	b0_Cov.prob	b1_Cov.prob
drc_mean	0.41	0.36	0.46	0.31	0.39
$drc\_median$	0.00	0.00	0.00	0.00	0.00
$ m drc\_lms$	0.38	0.37	0.38	0.36	0.38
$\mathrm{drc}$ _lts	0.08	0.04	0.04	0.03	0.03
$drc\_trimmed$	0.02	0.02	0.02	0.02	0.01
$drc\_winsor$	0.00	0.00	0.00	0.00	0.00
$\mathrm{drc\_tukey}$	0.00	0.00	0.00	0.01	0.00

### Scenario 20

Feasibilities:

```
## drc_mean drc_median drc_lms drc_lts drc_trimmed drc_winsor ## 0.9999 0.4602 0.3794 0.9207 0.2802 0.8498 ## drc_tukey ## 0.1842
```

Comparison of point estimations (mean(std. dev)):

Methods	IC5_bias	IC5_SqE	IC50_bias	IC50_SqE	IC95_bias	IC95_RMSE	b0_bias	b0_RMSE	b1_bias	b1_RMSE
$drc\_lms$	0.78 (23.62)	101.00 (101.00)	0.73 (23.69)	101.00 (101.00)	0.38 (23.77)	101.00 (101.00)	24.98 (1199.53)	101.00 (101.00)	4.86 (62.47)	101.00 (101.00)
$drc\_lts$	0.01 (0.11)	0.01 (0.02)	-0.13 (0.13)	0.03 (0.07)	-0.57 (0.32)	0.42 (0.39)	101.00 (101.00)	101.00 (101.00)	10.22 (439.86)	101.00 (101.00)
drc_mean	0.02 (0.11)	0.01 (0.02)	-0.00 (0.09)	0.01 (0.01)	0.02 (0.54)	0.29 (0.60)	0.13 (1.68)	2.82 (254.33)	0.56 (4.30)	18.80 (1596.65)
$drc\_median$	0.06 (0.13)	0.02 (0.04)	-0.00 (0.15)	0.02 (0.08)	-0.22 (0.48)	0.28 (0.57)	16.14 (216.11)	101.00 (101.00)	2.28 (9.99)	101.00 (101.00)
$drc\_trimmed$	0.54 (0.57)	0.61 (3.90)	0.46 (0.60)	0.56 (4.62)	0.00(0.76)	0.58 (5.05)	-2.51 (7.98)	69.91 (1294.58)	7.29 (10.58)	101.00 (101.00)
$drc\_tukey$	0.84 (20.15)	101.00 (101.00)	29.70 (1260.40)	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	-0.95 (21.08)	101.00 (101.00)	7.99 (34.47)	101.00 (101.00)
drc_winsor	0.07 (0.12)	0.02 (0.04)	0.01 (0.09)	0.01 (0.02)	-0.18 (0.44)	0.23 (0.37)	0.25 (1.52)	2.38 (41.46)	1.68 (7.91)	65.33 (1394.17)

95% Confidence interval length table (mean(std. dev)):

Methods	IC5_CI.length	IC50_CI.length	IC95_CI.length	b0_CI.length	b1_CI.length
$drc\_lms$	101.00 (NA)	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)
$\mathrm{drc\_lts}$	101.00 (NA)	101.00 (NA)	101.00 (NA)	101.00 (101.00)	101.00 (101.00)
$drc\_mean$	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	$2.55 \ (157.93)$	3.13(2.96)
$drc\_median$	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	42.29 (403.41)	0.79(5.37)
$drc\_trimmed$	101.00 (NA)	101.00 (NA)	101.00 (NA)	101.00 (101.00)	101.00 (101.00)
$\mathrm{drc\_tukey}$	101.00 (NA)	101.00 (NA)	101.00 (NA)	101.00 (101.00)	101.00 (101.00)
$drc\_winsor$	101.00 (NA)	101.00 (NA)	101.00 (NA)	0.55 (44.06)	$0.21\ (12.56)$

	IC5_Cov.prob	IC50_Cov.prob	IC95_Cov.prob	b0_Cov.prob	b1_Cov.prob
drc_mean	0.86	0.87	0.90	0.80	0.88
$drc\_median$	0.06	0.04	0.08	0.03	0.06
$ m drc\_lms$	0.09	0.06	0.18	0.08	0.14
$\mathrm{drc\_lts}$	0.51	0.39	0.34	0.20	0.46
$drc\_trimmed$	0.06	0.05	0.13	0.09	0.07
$drc\_winsor$	0.07	0.07	0.09	0.06	0.05
${\rm drc\_tukey}$	0.03	0.03	0.04	0.03	0.02

Feasibilities:

```
## drc_mean drc_median drc_lms drc_lts drc_trimmed drc_winsor
## 1.0000 0.7376 0.5418 0.9715 0.4298 0.9863
## drc_tukey
## 0.4553
```

Comparison of point estimations (mean(std. dev)):

Methods	IC5_bias	IC5_SqE	IC50_bias	IC50_SqE	IC95_bias	IC95_RMSE	b0_bias	b0_RMSE	b1_bias	b1_RMSE
drc_lms	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	-38.66 (2245.44)	101.00 (101.00)	1.03 (22.22)	101.00 (101.00)
drc_lts	-0.03 (0.08)	0.01 (0.01)	-0.18 (0.11)	0.05 (0.05)	-0.57 (0.46)	0.54 (1.05)	1.65 (2.17)	7.44 (25.52)	1.15 (1.95)	5.14 (13.50)
drc_mean	0.04 (0.10)	0.01 (0.02)	0.01 (0.10)	0.01 (0.01)	-0.03 (0.60)	0.36 (1.17)	0.15 (0.62)	0.41 (1.10)	0.67 (1.52)	2.78 (7.49)
drc_median	0.07 (0.10)	0.02 (0.03)	0.00 (0.11)	0.01 (0.02)	-0.25 (0.50)	0.31 (0.60)	0.32 (0.76)	0.68 (1.82)	1.28 (1.85)	5.06 (24.03)
$drc\_trimmed$	0.33 (7.81)	61.06 (3786.67)	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	1.20 (11.50)	101.00 (101.00)	5.65 (10.17)	101.00 (101.00)
drc_tukey	0.14 (6.72)	45.21 (3047.52)	76.70 (5176.92)	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	2.29 (15.52)	101.00 (101.00)	3.42 (13.05)	101.00 (101.00)
drc_winsor	0.07 (0.11)	0.02 (0.03)	0.01 (0.11)	0.01 (0.02)	-0.19 (0.57)	0.36(0.90)	0.30 (1.31)	1.79 (61.12)	1.33 (3.22)	12.14 (238.58)

95% Confidence interval length table (mean (std. dev)):

Methods	IC5_CI.length	IC50_CI.length	IC95_CI.length	b0_CI.length	b1_CI.length
$drc\_lms$	101.00 (NA)	101.00 (NA)	101.00 (NA)	101.00 (101.00)	101.00 (101.00)
$\mathrm{drc}_{-}\mathrm{lts}$	0.37(31.85)	101.00 (101.00)	101.00 (101.00)	0.98(7.49)	1.01(5.61)
$drc\_mean$	0.24(0.30)	0.19(0.12)	1.53(1.79)	0.98(0.82)	2.76(2.97)
$drc\_median$	0.00(0.01)	0.00(0.00)	0.01 (0.08)	0.01(0.01)	0.02 (0.05)
$drc\_trimmed$	101.00 (NA)	101.00 (NA)	101.00 (NA)	101.00 (101.00)	101.00 (101.00)
${ m drc\_tukey}$	101.00 (NA)	101.00 (NA)	101.00 (NA)	101.00 (101.00)	35.09 (622.86)
$drc\_winsor$	0.00(0.00)	0.00(0.00)	$0.01 \ (0.05)$	$0.01 \ (0.02)$	$0.01 \ (0.06)$

	$cp\_ic5$	$cp\_ic50$	$cp\_ic95$	$cp\_b0$	cp_b1
drc_mean	0.67	0.58	0.67	0.58	0.66
$drc\_median$	0.01	0.00	0.00	0.00	0.01
$ m drc\_lms$	0.24	0.18	0.18	0.17	0.24

	$cp\_ic5$	$cp\_ic50$	$cp\_ic95$	$cp\_b0$	cp_b1
drc_lts	0.13	0.04	0.13	0.06	0.18
$drc\_trimmed$	0.06	0.07	0.07	0.09	0.07
$drc\_winsor$	0.01	0.01	0.01	0.01	0.00
$drc\_tukey$	0.01	0.01	0.01	0.01	0.01

Feasibilities:

```
drc_median
                              drc_lms
                                          drc_lts drc_trimmed drc_winsor
##
     drc_mean
       1.0000
                               0.2746
                                           0.8875
                                                       0.1052
##
                   0.7591
                                                                   0.9572
    drc_tukey
##
       0.1588
##
```

Comparison of point estimations (mean(std. dev)):

Methods	IC5_bias	IC5_SqE	IC50_bias	IC50_SqE	IC95_bias	IC95_RMSE	b0_bias	b0_RMSE	b1_bias	b1_RMSE
$drc\_lms$	0.00 (0.07)	0.00 (0.08)	0.03 (0.08)	0.01 (0.05)	0.18 (0.35)	0.15 (0.30)	0.03 (3.41)	11.62 (259.19)	0.18 (4.62)	21.32 (482.69)
$drc\_lts$	-0.03 (0.05)	0.00 (0.01)	-0.11 (0.09)	0.02 (0.03)	-0.31 (0.31)	0.19 (0.30)	0.67 (2.06)	4.68 (291.46)	0.27 (1.33)	1.85 (95.57)
drc_mean	0.00 (0.04)	0.00 (0.00)	0.00 (0.04)	0.00 (0.00)	0.00 (0.22)	0.05 (0.07)	0.01 (0.19)	0.03 (0.05)	0.07 (0.39)	0.16 (0.27)
drc_median	0.02 (0.04)	0.00 (0.00)	-0.00 (0.04)	0.00 (0.00)	-0.07 (0.21)	0.05 (0.06)	0.06 (0.20)	0.04 (0.07)	0.22 (0.42)	0.23 (0.39)
$drc\_trimmed$	0.20 (1.17)	1.42 (24.09)	0.13 (1.32)	1.75 (32.68)	0.00 (1.75)	3.06 (45.68)	0.81 (25.63)	101.00 (101.00)	4.89 (15.37)	101.00 (101.00)
drc_tukey	0.19 (0.87)	0.79 (4.55)	0.14 (0.88)	0.80 (4.43)	0.04 (1.06)	1.12 (3.70)	-1.64 (98.11)	101.00 (101.00)	11.20 (54.27)	101.00 (101.00)
drc_winsor	0.01 (0.04)	0.00 (0.00)	0.00 (0.04)	0.00 (0.00)	-0.01 (0.23)	0.06 (0.08)	0.02 (0.21)	0.04 (0.06)	0.12 (0.43)	0.20 (0.35)

95% Confidence interval length table (mean(std. dev)):

Methods	$IC5\_CI.length$	IC50_CI.length	IC95_CI.length	$b0$ _CI.length	b1_CI.length
$drc\_lms$	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	25.64 (255.27)	13.34 (217.70)
$\mathrm{drc\_lts}$	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	0.64(33.26)	0.23(3.86)
$drc\_mean$	0.05 (0.03)	0.05 (0.03)	0.31(0.21)	0.19(0.11)	0.47 (0.28)
$drc\_median$	0.00(0.00)	0.00 (0.00)	0.00(0.00)	0.00(0.00)	0.00(0.00)
$drc\_trimmed$	101.00 (NA)	101.00 (NA)	101.00 (NA)	101.00 (101.00)	101.00 (101.00)
$drc\_tukey$	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)
$drc\_winsor$	0.00(0.00)	0.00(0.00)	$0.00 \ (0.00)$	0.00(0.00)	$0.00 \ (0.00)$

	IC5_Cov.prob	IC50_Cov.prob	IC95_Cov.prob	b0_Cov.prob	b1_Cov.prob
drc_mean	0.50	0.42	0.47	0.36	0.43
$drc\_median$	0.00	0.00	0.00	0.00	0.00
$drc\_lms$	0.18	0.19	0.16	0.17	0.15
$drc\_lts$	0.05	0.03	0.06	0.03	0.07
$drc\_trimmed$	0.02	0.02	0.02	0.03	0.02
$drc\_winsor$	0.00	0.00	0.00	0.00	0.00
drc_tukey	0.01	0.01	0.01	0.01	0.01

#### Scenario 23

Feasibilities:

```
## drc_mean drc_median drc_lms drc_lts drc_trimmed drc_winsor ## 1.0000 0.4865 0.1960 0.9874 0.2530 0.9923 ## drc_tukey ## 0.1246
```

Comparison of point estimations (mean(std. dev)):

Methods	IC5_bias	$IC5\_SqE$	IC50_bias	$IC50\_SqE$	IC95_bias	IC95_RMSE	b0_bias	b0_RMSE	b1_bias	b1_RMSE
drc_lms	17.94 (786.39)	101.00 (101.00)	18.38 (805.10)	101.00 (101.00)	18.68 (824.24)	101.00 (101.00)	-0.11 (29.75)	101.00 (101.00)	1.14 (3.28)	12.05 (373.11)
$drc\_lts$	-0.01 (0.05)	0.00 (0.01)	-0.06 (0.06)	0.01 (0.02)	-0.21 (0.18)	0.08 (0.09)	0.34 (0.69)	0.60 (42.17)	0.21 (0.83)	0.73 (45.76)
drc_mean	0.00 (0.03)	0.00 (0.00)	0.00 (0.03)	0.00 (0.00)	0.00 (0.17)	0.03 (0.04)	0.01 (0.13)	0.02 (0.03)	0.04 (0.32)	0.11 (0.17)
drc_median	0.01 (0.04)	0.00 (0.00)	0.00 (0.03)	0.00 (0.00)	-0.01 (0.17)	0.03 (0.05)	0.00 (0.15)	0.02 (0.04)	0.08 (0.35)	0.13 (0.23)
$drc\_trimmed$	0.57 (0.63)	0.72 (3.38)	0.58 (0.68)	0.80 (3.33)	0.32(0.78)	0.71 (2.77)	-2.72 (17.35)	101.00 (101.00)	4.61 (10.09)	101.00 (101.00)
drc_tukey	0.40 (0.76)	0.74 (6.00)	0.43 (0.78)	0.79 (5.93)	0.33(0.75)	0.67 (5.16)	-1.21 (20.57)	101.00 (101.00)	3.02 (15.88)	101.00 (101.00)
$drc\_winsor$	0.01 (0.03)	0.00 (0.00)	0.00 (0.03)	0.00 (0.00)	-0.02 (0.17)	0.03 (0.05)	0.02 (0.20)	0.04 (1.67)	$0.10 \ (0.50)$	0.26 (13.27)

95% Confidence interval length table (mean(std. dev)):

Methods	IC5_CI.length	IC50_CI.length	IC95_CI.length	b0_CI.length	b1_CI.length
$drc\_lms$	101.00 (NA)	101.00 (NA)	101.00 (NA)	101.00 (101.00)	101.00 (101.00)
$\mathrm{drc}\_\mathrm{lts}$	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	0.40(27.92)	$0.26 \ (0.66)$
$drc\_mean$	0.08(0.04)	0.06 (0.03)	0.46(0.22)	0.27(0.12)	0.74(0.33)

Methods	IC5_CI.length	IC50_CI.length	IC95_CI.length	b0_CI.length	b1_CI.length
$drc\_median$	0.00(0.00)	0.00(0.00)	0.01 (0.02)	0.00(0.01)	0.01 (0.02)
$drc\_trimmed$	101.00 (NA)	101.00 (NA)	101.00 (NA)	101.00 (101.00)	101.00 (101.00)
${ m drc\_tukey}$	101.00 (NA)	101.00 (NA)	101.00 (NA)	101.00 (101.00)	44.49 (862.01)
$drc\_winsor$	0.00(0.00)	0.00(0.00)	0.00(0.00)	0.00(0.00)	0.00(0.00)

	IC5_Cov.prob	IC50_Cov.prob	IC95_Cov.prob	b0_Cov.prob	b1_Cov.prob
$\frac{1}{\mathrm{drc\_mean}}$	0.75	0.69	0.77	0.65	0.71
$drc\_median$	0.01	0.01	0.01	0.01	0.01
$ m drc\_lms$	0.13	0.13	0.16	0.13	0.14
$\mathrm{drc\_lts}$	0.17	0.07	0.15	0.06	0.18
$drc\_trimmed$	0.07	0.07	0.06	0.09	0.08
$\mathrm{drc}$ _winsor	0.00	0.00	0.00	0.00	0.00
$\mathrm{drc\_tukey}$	0.00	0.00	0.00	0.01	0.01

#### Scenario 24

Feasibilities:

```
## drc_mean drc_median drc_lms drc_lts drc_trimmed drc_winsor
## 1.0000 0.8373 0.5469 0.9921 0.4616 0.9986
## drc_tukey
## 0.5223
```

Methods	IC5_bias	IC5_SqE	IC50_bias	IC50_SqE	IC95_bias	IC95_RMSE	b0_bias	b0_RMSE	b1_bias	b1_RMSE
drc_lms	-0.02 (0.04)	0.00 (0.00)	-0.07 (0.11)	0.02 (0.19)	-0.21 (0.76)	0.63 (23.33)	0.51 (0.76)	0.84 (2.32)	0.31 (0.79)	0.72 (2.00)
drc_lts	-0.02 (0.04)	0.00 (0.00)	-0.11 (0.07)	0.02 (0.02)	-0.35 (0.36)	0.26 (0.35)	0.80 (0.97)	1.58 (4.48)	0.53 (1.07)	1.42 (4.27)
drc_mean	0.00 (0.03)	0.00 (0.00)	0.00 (0.03)	0.00 (0.00)	-0.00 (0.17)	0.03 (0.05)	0.01 (0.15)	0.02 (0.03)	0.05 (0.31)	0.10 (0.16)
drc_median	0.01 (0.03)	0.00 (0.00)	0.00 (0.03)	0.00 (0.00)	-0.02 (0.18)	0.03 (0.06)	0.02 (0.17)	0.03 (0.04)	0.09 (0.33)	0.11 (0.20)
$drc\_trimmed$	0.09 (2.47)	6.13 (279.22)	13.08 (518.10)	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	2.64 (7.67)	65.83 (622.62)	2.38 (4.79)	28.58 (161.19)
drc_tukey	0.31 (21.30)	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	0.89 (6.17)	38.87 (495.65)	1.13 (5.25)	28.85 (475.56)
drc_winsor	0.01 (0.03)	0.00 (0.00)	0.00 (0.03)	0.00 (0.00)	-0.02 (0.18)	0.03 (0.05)	0.02 (0.16)	0.03 (0.05)	0.08 (0.32)	0.11 (0.24)

#### 95% Confidence interval length table (mean(std. dev)):

Methods	$IC5\_CI.length$	$IC50\_CI.length$	IC95_CI.length	$b0 \_CI.length$	b1_CI.length
$drc\_lms$	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	0.32(1.47)	0.55 (4.55)
$\mathrm{drc\_lts}$	0.03 (0.04)	0.06 (0.15)	0.29(2.99)	0.51(1.73)	0.60(1.78)
$drc\_mean$	0.08 (0.03)	0.06 (0.03)	0.45 (0.21)	0.28(0.12)	0.70(0.32)
$drc\_median$	0.00(0.00)	0.00 (0.00)	0.01 (0.02)	0.00(0.01)	0.01 (0.02)
$drc\_trimmed$	101.00 (NA)	101.00 (NA)	101.00 (NA)	101.00 (101.00)	101.00 (101.00)
$drc\_tukey$	101.00 (NA)	101.00 (NA)	101.00 (NA)	$37.34\ (1612.86)$	5.73 (164.72)
$drc\_winsor$	0.00(0.00)	0.00(0.00)	0.00(0.00)	0.00(0.00)	$0.00 \ (0.00)$

### Coverage probability of the true estimation:

	IC5_Cov.prob	IC50_Cov.prob	IC95_Cov.prob	b0_Cov.prob	b1_Cov.prob
$\frac{1}{\mathrm{drc\_mean}}$	0.75	0.66	0.75	0.62	0.70
$\operatorname{drc}_{-}\operatorname{median}$	0.01	0.01	0.01	0.01	0.01
$ m drc\_lms$	0.15	0.10	0.12	0.09	0.14
$\mathrm{drc\_lts}$	0.21	0.11	0.18	0.11	0.23
$drc\_trimmed$	0.04	0.05	0.06	0.08	0.07
$\mathrm{drc}$ _winsor	0.00	0.00	0.00	0.00	0.00
$drc\_tukey$	0.00	0.00	0.00	0.00	0.00

### Scenario 25

Feasibilities:

##	$\mathtt{drc}\mathtt{\_mean}$	drc_median	$\mathtt{drc\_lms}$	${ t drc\_lts}$	drc_trimmed	${ t drc\_winsor}$
##	1.0000	0.7752	0.2827	0.8823	0.1026	0.9575
##	drc_tukey					
##	0.1502					

Methods	IC5_bias	IC5_SqE	IC50_bias	IC50_SqE	IC95_bias	IC95_RMSE	b0_bias	b0_RMSE	b1_bias	b1_RMSE
$drc\_lms$	-0.00 (0.06)	0.00 (0.02)	0.02 (0.08)	0.01 (0.02)	0.16 (0.37)	0.16 (0.31)	0.13 (6.89)	47.48 (1794.83)	0.13 (4.75)	22.56 (725.77)
$drc\_lts$	-0.03 (0.05)	0.00 (0.01)	-0.12 (0.10)	0.02 (0.04)	-0.37 (0.34)	0.26 (0.36)	0.81 (1.21)	2.12 (41.75)	0.36 (0.71)	0.63 (6.44)
drc_mean	0.00 (0.04)	0.00 (0.00)	0.00 (0.04)	0.00 (0.00)	0.00(0.23)	0.05 (0.08)	0.02 (0.20)	0.04 (0.06)	0.07 (0.39)	0.16 (0.27)
drc_median	0.02 (0.04)	0.00 (0.00)	-0.00 (0.04)	0.00 (0.00)	-0.07 (0.22)	0.05 (0.07)	0.06 (0.22)	0.05 (0.07)	0.21 (0.42)	0.22 (0.38)
$drc\_trimmed$	0.28(2.47)	6.18 (170.62)	0.34 (6.60)	43.63 (1371.05)	0.55 (18.59)	101.00 (101.00)	-2.32 (35.41)	101.00 (101.00)	5.89 (20.04)	101.00 (101.00)
drc_tukey	0.45(5.83)	34.22 (1269.68)	0.59 (14.16)	101.00 (101.00)	0.97 (34.86)	101.00 (101.00)	-4.13 (129.33)	101.00 (101.00)	19.33 (73.25)	101.00 (101.00)
drc_winsor	0.01 (0.04)	0.00 (0.00)	0.00 (0.04)	0.00 (0.00)	-0.01 (0.24)	0.06 (0.08)	0.02 (0.53)	0.28 (22.44)	0.13 (0.85)	0.75 (53.45)

95% Confidence interval length table (mean (std. dev)):

Methods	IC5_CI.length	IC50_CI.length	IC95_CI.length	b0_CI.length	b1_CI.length
$ m drc\_lms$	101.00 (NA)	101.00 (NA)	101.00 (NA)	101.00 (101.00)	101.00 (101.00)
$\mathrm{drc}_{-}\mathrm{lts}$	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	0.61(22.04)	0.36 (9.08)
$\mathrm{drc}\_\mathrm{mean}$	$0.06 \ (0.03)$	0.05 (0.03)	0.32(0.21)	0.20(0.11)	0.49(0.28)
$drc\_median$	0.00(0.00)	0.00 (0.00)	0.00 (0.00)	0.00(0.00)	0.00(0.00)
$drc\_trimmed$	101.00 (NA)	101.00 (NA)	101.00 (NA)	101.00 (101.00)	101.00 (101.00)
${ m drc\_tukey}$	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)
$\mathrm{drc}$ _winsor	0.00(0.00)	0.00(0.00)	0.00(0.00)	0.00(0.00)	$0.00 \ (0.00)$

Coverage probability of the true estimation:

	IC5_Cov.prob	IC50_Cov.prob	IC95_Cov.prob	b0_Cov.prob	b1_Cov.prob
drc_mean	0.52	0.43	0.47	0.36	0.44
$drc\_median$	0.00	0.00	0.00	0.00	0.00
$ m drc\_lms$	0.18	0.19	0.16	0.17	0.14
$\mathrm{drc}$ _lts	0.06	0.03	0.05	0.03	0.07
$drc\_trimmed$	0.02	0.02	0.02	0.02	0.02
$\mathrm{drc}$ _winsor	0.00	0.00	0.00	0.00	0.00
$\mathrm{drc\_tukey}$	0.01	0.01	0.01	0.01	0.01

### Scenario 26

Feasibilities:

## drc\_mean drc\_median drc\_lms drc\_lts drc\_trimmed drc\_winsor

**##** 1.0000 0.5182 0.1647 0.9860 0.3199 0.9957

## drc\_tukey ## 0.1064

#### Comparison of point estimations (mean(std. dev)):

Methods	IC5_bias	IC5_SqE	IC50_bias	IC50_SqE	IC95_bias	IC95_RMSE	b0_bias	b0_RMSE	b1_bias	b1_RMSE
drc_lms	0.12 (0.12)	0.03 (0.04)	0.13 (0.12)	0.03 (0.05)	0.04 (0.15)	0.02 (0.06)	-0.51 (0.52)	0.54 (0.86)	0.68 (0.77)	1.05 (1.66)
drc_lts	-0.03 (0.04)	0.00 (0.00)	-0.06 (0.05)	0.01 (0.01)	-0.12 (0.11)	0.03 (0.03)	0.25 (0.17)	0.09 (0.13)	-0.03 (0.29)	0.09 (0.15)
drc_mean	0.00 (0.03)	0.00 (0.00)	-0.00 (0.03)	0.00 (0.00)	-0.00 (0.15)	0.02 (0.03)	0.01 (0.11)	0.01 (0.02)	0.04 (0.31)	0.10 (0.15)
drc_median	0.01 (0.03)	0.00 (0.00)	0.00 (0.03)	0.00 (0.00)	-0.01 (0.13)	0.02 (0.03)	-0.00 (0.13)	0.02 (0.03)	0.06 (0.29)	0.09 (0.17)
$drc\_trimmed$	0.31 (0.44)	0.29 (0.87)	0.35 (0.52)	0.39 (1.16)	0.26 (0.61)	0.44 (1.15)	-1.63 (2.77)	10.34 (38.94)	2.21 (4.75)	27.41 (172.11)
drc_tukey	0.15(0.35)	0.14 (0.64)	0.18 (0.40)	0.19 (0.81)	0.14 (0.42)	0.20 (0.74)	-0.74 (2.86)	8.71 (65.02)	1.00 (5.06)	26.63 (444.10)
drc_winsor	0.00 (0.03)	0.00 (0.00)	0.00 (0.03)	0.00 (0.00)	-0.01 (0.13)	0.02 (0.03)	0.01 (0.12)	0.01 (0.03)	0.06 (0.61)	0.37 (28.35)

#### 95% Confidence interval length table (mean(std. dev)):

Methods	IC5_CI.length	IC50_CI.length	IC95_CI.length	b0_CI.length	b1_CI.length
drc lms	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	3.04 (15.94)	3.87 (15.19)
$drc\_lts$	0.02(0.04)	0.02(0.05)	0.07(0.08)	0.07(0.12)	$0.16\ (0.22)$
$drc\_mean$	0.07(0.03)	$0.06 \ (0.03)$	0.40(0.20)	0.24(0.11)	0.64(0.31)
$\operatorname{drc\_median}$	0.00(0.00)	0.00(0.00)	0.00(0.01)	0.00(0.01)	$0.01 \ (0.02)$
$drc\_trimmed$	101.00 (NA)	101.00 (NA)	101.00 (NA)	101.00 (101.00)	101.00 (101.00)
$drc\_tukey$	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	$16.32\ (470.30)$	2.57 (55.75)
$drc\_winsor$	0.00(0.00)	0.00(0.00)	0.00(0.00)	0.00(0.00)	0.00(0.00)

	IC5_Cov.prob	IC50_Cov.prob	IC95_Cov.prob	b0_Cov.prob	b1_Cov.prob
${\mathrm{drc\_mean}}$	0.67	0.64	0.76	0.66	0.65
$drc\_median$	0.00	0.01	0.01	0.00	0.00
$ m drc\_lms$	0.11	0.12	0.15	0.12	0.13
$\mathrm{drc\_lts}$	0.13	0.05	0.15	0.04	0.18
$drc\_trimmed$	0.06	0.05	0.04	0.06	0.06
$\mathrm{drc}$ _winsor	0.00	0.00	0.00	0.00	0.00
$\mathrm{drc\_tukey}$	0.00	0.00	0.00	0.00	0.00

Feasibilities:

##	$\mathtt{drc}_{\mathtt{mean}}$	${\tt drc\_median}$	$\mathtt{drc\_lms}$	${\tt drc\_lts}$	drc_trimmed	drc_winsor
##	1.0000	0.8006	0.6068	0.9927	0.3861	0.9925
##	drc_tukey					
##	0.4986					

Comparison of point estimations (mean(std. dev)):

Methods	IC5_bias	IC5_SqE	IC50_bias	IC50_SqE	IC95_bias	IC95_RMSE	b0_bias	b0_RMSE	b1_bias
$drc_{lms}$	-0.01 (0.05)	0.00(0.00)	-0.08 (0.14)	0.03(0.46)	-0.23 (1.19)	1.48 (58.41)	0.67(1.14)	1.75(5.04)	0.50(1.19)
$drc\_lts$	-0.03(0.05)	0.00(0.01)	-0.12 (0.09)	0.02(0.03)	-0.35(0.44)	0.31(0.48)	1.06(1.60)	3.67(10.36)	0.74(1.75)
$drc\_mean$	0.00(0.03)	0.00(0.00)	-0.00 (0.03)	0.00(0.00)	-0.00 (0.15)	0.02(0.03)	0.01(0.13)	0.02(0.02)	0.04(0.30)
$drc\_median$	0.01(0.03)	0.00(0.00)	0.00(0.03)	0.00(0.00)	-0.02 (0.15)	0.02(0.03)	0.01(0.14)	0.02(0.03)	0.09(0.31)
$drc\_trimmed$	0.11(2.02)	$4.11\ (187.58)$	20.14 (1094.54)	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	2.14(11.72)	101.00 (101.00)	2.76(5.72)
$drc\_tukey$	0.16 (10.81)	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	0.72(7.15)	51.68 (1427.70)	0.81(3.95)
$drc\_winsor$	$0.01\ (0.03)$	0.00(0.00)	0.00(0.03)	0.00(0.00)	-0.02 (0.14)	$0.02 \ (0.03)$	$0.01 \ (0.13)$	$0.02 \ (0.03)$	$0.08 \ (0.30)$

95% Confidence interval length table (mean (std. dev)):

Methods	IC5_CI.length	IC50_CI.length	IC95_CI.length	b0_CI.length	b1_CI.length
$ m drc\_lms$	101.00 (101.00)	101.00 (101.00)	101.00 (NA)	1.04 (46.63)	1.15 (31.86)
$\mathrm{drc}_{-}\mathrm{lts}$	0.04 (0.05)	0.08(0.21)	0.44(3.67)	0.71(2.95)	0.81(3.04)
$drc\_mean$	0.08 (0.04)	0.07 (0.03)	0.47(0.24)	0.29(0.13)	0.72(0.34)
$drc\_median$	0.00(0.00)	0.00(0.00)	0.01(0.01)	0.00(0.01)	$0.01 \ (0.02)$
$drc\_trimmed$	101.00 (NA)	101.00 (NA)	101.00 (NA)	101.00 (101.00)	101.00 (101.00)
${ m drc\_tukey}$	101.00 (NA)	101.00 (NA)	101.00 (NA)	$33.44 \ (1084.73)$	9.16 (355.13)
$\mathrm{drc}$ _winsor	0.00(0.00)	0.00(0.00)	$0.00 \ (0.01)$	0.00 (0.00)	$0.00 \ (0.01)$

	IC5_Cov.prob	IC50_Cov.prob	IC95_Cov.prob	b0_Cov.prob	b1_Cov.prob
drc_mean	0.73	0.69	0.81	0.71	0.72
$drc\_median$	0.01	0.01	0.01	0.01	0.01
$drc\_lms$	0.16	0.13	0.20	0.13	0.20
$drc\_lts$	0.19	0.13	0.31	0.15	0.25
$drc\_trimmed$	0.06	0.06	0.07	0.08	0.07
$drc\_winsor$	0.01	0.01	0.01	0.01	0.00
$drc\_tukey$	0.00	0.00	0.00	0.00	0.00

Feasibilities:

```
## drc_mean drc_median drc_lms drc_lts drc_trimmed drc_winsor
## 1.0000 0.4238 0.4769 0.9790 0.9978 0.9997
## drc_tukey
## 0.9998
```

Comparison of point estimations (mean(std. dev)):

Methods	IC5_bias	IC5_SqE	IC50_bias	IC50_SqE	IC95_bias	IC95_RMSE	b0_bias	b0_RMSE	b1_bias	b1_RMSE
$drc\_lms$	0.00 (0.01)	0.00 (0.00)	0.00 (0.03)	0.00 (0.00)	-0.01 (0.16)	0.03 (0.04)	-0.00 (0.09)	0.01 (0.01)	0.01 (0.06)	0.00 (0.01)
$drc\_lts$	-0.02 (0.03)	0.00 (0.00)	-0.10 (0.07)	0.02 (0.02)	-0.45 (0.45)	0.40 (0.54)	0.35 (0.44)	0.31 (11.86)	0.10 (0.33)	0.12 (3.08)
drc_mean	0.02 (0.06)	0.00 (0.01)	0.01 (0.10)	0.01 (0.02)	-0.10 (0.70)	0.50 (0.67)	0.04 (0.32)	0.11 (0.17)	0.18 (0.45)	0.24 (0.62)
drc_median	0.02 (0.05)	0.00 (0.01)	0.00 (0.08)	0.01 (0.01)	-0.12 (0.55)	0.32 (0.59)	0.04 (0.29)	0.08 (0.19)	0.16 (0.44)	0.22 (0.84)
$drc\_trimmed$	0.00 (0.01)	0.00 (0.00)	0.01 (0.04)	0.00 (0.00)	0.00 (0.18)	0.03 (0.07)	-0.01 (0.10)	0.01 (0.02)	0.02 (0.07)	0.00 (0.01)
drc_tukey	0.01 (0.02)	0.00 (0.00)	0.01 (0.05)	0.00 (0.01)	-0.03 (0.27)	0.07 (0.13)	-0.00 (0.14)	0.02 (0.04)	0.04 (0.12)	0.02 (0.04)
drc_winsor	0.02 (0.05)	0.00 (0.01)	0.00 (0.08)	0.01 (0.01)	-0.13 (0.51)	0.27 (0.53)	0.04 (0.28)	0.08 (0.17)	0.14 (0.44)	0.21 (3.74)

95% Confidence interval length table (mean (std. dev)):

Methods	IC5_CI.length	IC50_CI.length	IC95_CI.length	b0_CI.length	b1_CI.length
$drc\_lms$	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	1.49 (2.90)	1.01 (1.74)
$drc\_lts$	0.02(0.02)	0.03(0.17)	0.28 (5.89)	0.24 (15.20)	0.20(7.73)
$drc\_mean$	0.12(0.08)	0.14 (0.09)	1.55(1.21)	0.42(0.27)	$0.80 \ (0.61)$
$drc\_median$	0.00(0.00)	0.00 (0.00)	0.01 (0.03)	0.00(0.01)	0.00(0.01)
$drc\_trimmed$	0.00(0.00)	0.00(0.00)	0.00(0.01)	0.00(0.01)	0.00(0.00)

Methods	IC5_CI.length	IC50_CI.length	IC95_CI.length	b0_CI.length	b1_CI.length
drc_tukey	0.00 (0.00)	0.00 (0.00)	0.00(0.00)	0.00(0.00)	0.00 (0.00)
$\mathrm{drc}$ _winsor	0.00(0.00)	0.00 (0.00)	$0.00 \ (0.00)$	0.00(0.00)	0.00(0.03)

	IC5_Cov.prob	IC50_Cov.prob	IC95_Cov.prob	b0_Cov.prob	b1_Cov.prob
drc_mean	0.63	0.47	0.64	0.42	0.63
$drc\_median$	0.00	0.00	0.00	0.00	0.00
$drc\_lms$	0.43	0.43	0.44	0.42	0.44
$drc\_lts$	0.13	0.03	0.13	0.03	0.12
$drc\_trimmed$	0.00	0.00	0.01	0.00	0.00
$drc\_winsor$	0.00	0.00	0.00	0.00	0.00
$drc\_tukey$	0.00	0.00	0.00	0.00	0.00

#### Scenario 29

Feasibilities:

```
## drc_mean drc_median drc_lms drc_lts drc_trimmed drc_winsor
## 1.0000 0.6976 0.5648 0.9938 0.9030 0.9999
## drc_tukey
## 0.9978
```

Comparison of point estimations (mean(std. dev)):

Methods	IC5_bias	IC5_SqE	IC50_bias	$IC50\_SqE$	IC95_bias	IC95_RMSE	b0_bias	b0_RMSE	b1_bias	b1_RMSE
drc_lms	0.02 (0.02)	0.00 (0.00)	0.05 (0.10)	0.01 (0.02)	-1.08 (3.62)	14.25 (24.05)	-0.04 (0.15)	0.02 (0.04)	0.09 (0.14)	0.03 (0.06)
$drc\_lts$	-0.00 (0.02)	0.00 (0.00)	-0.19 (0.13)	0.06 (0.05)	-3.55 (4.73)	34.98 (58.45)	0.37 (0.31)	0.23 (0.38)	0.09 (0.21)	0.05 (0.15)
drc_mean	0.01 (0.02)	0.00 (0.00)	0.02 (0.15)	0.02 (0.04)	0.00 (4.77)	22.74 (42.94)	0.01 (0.21)	0.05 (0.07)	0.04 (0.13)	0.02 (0.05)
$drc\_median$	0.00 (0.02)	0.00 (0.00)	0.02 (0.13)	0.02 (0.02)	-0.16 (3.33)	11.10 (20.60)	-0.00 (0.18)	0.03 (0.06)	0.03 (0.09)	0.01 (0.03)
$drc\_trimmed$	0.02 (0.29)	0.08 (6.91)	0.06 (0.50)	0.25 (18.39)	101.00 (NA)	101.00 (NA)	-0.04 (0.78)	0.61 (31.88)	0.08 (0.69)	0.48 (15.10)
drc_tukey	0.01 (0.09)	0.01 (0.68)	0.01 (0.21)	0.05 (1.09)	101.00 (101.00)	101.00 (101.00)	0.01 (0.51)	0.26 (18.13)	0.05 (0.27)	0.07 (3.31)
drc_winsor	0.01 (0.02)	0.00 (0.00)	0.01 (0.15)	0.02 (0.04)	-0.42 (3.97)	15.96 (26.73)	0.02 (0.21)	0.04 (0.07)	0.04 (0.11)	0.01 (0.03)

95% Confidence interval length table (mean (std. dev)):

Methods	$IC5\_CI.length$	$IC50\_CI.length$	IC95_CI.length	$b0$ _CI.length	b1_CI.length
$ m drc\_lms$	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	$0.38 \; (0.82)$	0.26 (0.43)
$\mathrm{drc}$ _lts	0.03 (0.03)	0.14 (0.09)	$6.91\ (22.80)$	0.29(0.27)	0.23(0.21)
$drc\_mean$	0.09(0.06)	0.42(0.20)	$22.28 \ (16.93)$	0.49(0.19)	0.47(0.23)
$drc\_median$	0.13(10.46)	0.03(1.12)	101.00 (101.00)	0.02(0.12)	0.02(0.12)
$drc\_trimmed$	101.00 (NA)	101.00 (NA)	101.00 (NA)	3.72(54.89)	6.00(73.43)
${ m drc\_tukey}$	101.00 (NA)	101.00 (101.00)	101.00 (NA)	0.18(12.31)	0.25 (16.29)
$drc\_winsor$	0.00(0.00)	$0.01 \ (0.01)$	0.44 (0.50)	$0.01\ (0.01)$	$0.01 \ (0.01)$

	IC5_Cov.prob	IC50_Cov.prob	IC95_Cov.prob	b0_Cov.prob	b1_Cov.prob
drc_mean	0.91	0.77	0.91	0.72	0.92
$drc\_median$	0.07	0.03	0.07	0.03	0.07
$drc\_lms$	0.32	0.32	0.34	0.31	0.30
$drc\_lts$	0.48	0.12	0.33	0.10	0.39
$drc\_trimmed$	0.07	0.07	0.07	0.06	0.06
$drc\_winsor$	0.04	0.03	0.04	0.02	0.02
$\mathrm{drc\_tukey}$	0.02	0.02	0.02	0.02	0.02

#### Scenario 30

Feasibilities:

```
## drc_mean drc_median drc_lms drc_lts drc_trimmed drc_winsor ## 1.0000 0.7109 0.4117 0.9018 0.0067 0.9465 ## drc_tukey ## 0.0185
```

Methods	IC5_bias	IC5_SqE	IC50_bias	$IC50\_SqE$	IC95_bias	IC95_RMSE	b0_bias	b0_RMSE	b1_bias	b1_RMSE
$drc\_lms$	0.00 (0.01)	0.00 (0.00)	0.01 (0.03)	0.00 (0.00)	0.07 (0.12)	0.02 (0.05)	-0.06 (0.12)	0.02 (0.07)	-0.05 (0.13)	0.02 (0.06)
$drc\_lts$	-0.02 (0.03)	0.00 (0.00)	-0.07 (0.05)	0.01 (0.01)	-0.19 (0.17)	0.06 (0.09)	0.32(0.26)	0.17 (0.26)	0.09 (0.28)	0.09 (0.15)
drc_mean	0.02 (0.05)	0.00 (0.00)	0.01 (0.08)	0.01 (0.01)	-0.03 (0.37)	0.14 (0.18)	0.06(0.40)	0.16 (0.24)	0.25 (0.67)	0.51 (0.92)

(continued)

Methods	IC5_bias	IC5_SqE	IC50_bias	IC50_SqE	IC95_bias	IC95_RMSE	b0_bias	b0_RMSE	b1_bias	b1_RMSE
drc_median	0.04 (0.05)	0.00 (0.01)	-0.01 (0.07)	0.00 (0.01)	-0.20 (0.30)	0.13 (0.13)	0.20 (0.40)	0.20 (0.28)	0.58 (0.67)	0.79 (1.23)
drc_trimmed	0.26 (0.94)	0.94 (4.04)	0.21 (0.97)	0.96 (4.03)	0.14 (1.10)	1.22 (3.00)	1.13 (20.88)	101.00 (101.00)	4.85 (10.09)	101.00 (101.00)
drc_tukey	1.81 (3.05)	12.52 (26.11)	1.64 (2.94)	11.30 (24.29)	1.17 (2.67)	8.48 (19.34)	-226.17 (428.85)	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)
drc_winsor	0.03 (0.06)	0.00 (0.01)	0.01 (0.08)	0.01 (0.01)	-0.08 (0.36)	0.13 (0.20)	0.43 (4.14)	17.35 (197.79)	0.95 (6.39)	41.66 (468.81)

#### 95% Confidence interval length table (mean (std. dev)):

Methods	IC5_CI.length	IC50_CI.length	IC95_CI.length	b0_CI.length	b1_CI.length
$drc\_lms$	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	8.17 (12.44)	5.62 (8.16)
$\mathrm{drc\_lts}$	0.00(0.01)	0.01 (0.01)	0.02(0.04)	0.02(0.06)	$0.04 \ (0.07)$
$drc\_mean$	0.07 (0.06)	$0.06 \ (0.05)$	0.39(0.42)	0.25 (0.17)	0.61 (0.43)
$drc\_median$	0.00(0.00)	0.00 (0.00)	0.00 (0.00)	0.00(0.00)	0.00(0.00)
$drc\_trimmed$	101.00 (NA)	101.00 (NA)	101.00 (NA)	101.00 (101.00)	101.00 (101.00)
$drc\_tukey$	101.00 (NA)	101.00 (NA)	101.00 (NA)	101.00 (101.00)	101.00 (101.00)
$drc\_winsor$	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	$0.00 \ (0.00)$

	IC5_Cov.prob	IC50_Cov.prob	IC95_Cov.prob	b0_Cov.prob	b1_Cov.prob
drc_mean	0.32	0.25	0.23	0.16	0.25
$drc\_median$	0.00	0.00	0.00	0.00	0.00
$ m drc\_lms$	0.38	0.36	0.37	0.35	0.37
$\mathrm{drc\_lts}$	0.03	0.01	0.03	0.01	0.02
$drc\_trimmed$	0.00	0.00	0.00	0.00	0.00
$drc\_winsor$	0.00	0.00	0.00	0.00	0.00
$\mathrm{drc\_tukey}$	0.00	0.00	0.00	0.00	0.00