drc Robust Options Comparison

Xinying Fang

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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

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)

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	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)
$\operatorname{drc_tukey}$	101.00 (NA)	101.00 (NA)	101.00 (NA)	101.00 (101.00)	$19.13 \ (319.23)$
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
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
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

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)

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)
$\mathrm{drc_lts}$	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)

Coverage probability of the true estimation:

	IC5_Cov.prob	IC50_Cov.prob	IC95_Cov.prob	b0_Cov.prob	b1_Cov.prob
drc_mean	0.83	0.83	0.87	0.79	0.84
drc_median	0.02	0.02	0.04	0.02	0.03
drc_lms	0.08	0.05	0.18	0.11	0.14
drc_lts	0.41	0.21	0.26	0.11	0.37
$drc_trimmed$	0.07	0.07	0.14	0.12	0.11
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

Methods	IC5 bias	IC5 SqE	IC50 bias	IC50 SqE	IC95 bias	IC95 RMSE	b0 bias	b0 RMSE	b1 bias	b1 RMSE
Methods					_	_	DU_DIAS	_	D1_Dlas	
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)

C5_CI.length	$IC50_CI.length$	$IC95_CI.length$	$b0_CI.length$	b1_CI.length
01.00 (101.00)	101.00 (101.00)	101.00 (101.00)	1.22 (23.43)	2.00 (43.51)
0.08(0.12)	0.14 (0.28)	1.92(14.30)	1.88(7.69)	1.84(6.49)
0.29(0.27)	0.34(0.20)	$5.71\ (10.85)$	0.97(0.60)	2.02(1.94)
$0.01 \ (0.02)$	0.01 (0.02)	0.11 (0.51)	0.02(0.04)	0.04(0.10)
101.00 (NA)	101.00 (NA)	101.00 (NA)	101.00 (101.00)	101.00 (101.00)
01.00 (101.00)	101.00 (101.00)	101.00 (101.00)	1.20(61.73)	0.56 (19.71)
$0.01 \ (0.01)$	$0.01 \ (0.02)$	$0.16 \ (0.58)$	$0.03 \ (0.04)$	0.04 (0.06)
(01.00 (101.00) 0.08 (0.12) 0.29 (0.27) 0.01 (0.02) 101.00 (NA) 01.00 (101.00)	01.00 (101.00) 101.00 (101.00) 0.08 (0.12) 0.14 (0.28) 0.29 (0.27) 0.34 (0.20) 0.01 (0.02) 0.01 (0.02) 101.00 (NA) 101.00 (NA) 01.00 (101.00) 101.00 (101.00)	01.00 (101.00) 101.00 (101.00) 101.00 (101.00) 0.08 (0.12) 0.14 (0.28) 1.92 (14.30) 0.29 (0.27) 0.34 (0.20) 5.71 (10.85) 0.01 (0.02) 0.01 (0.02) 0.11 (0.51) 101.00 (NA) 101.00 (NA) 101.00 (NA) 01.00 (101.00) 101.00 (101.00)	01.00 (101.00) 101.00 (101.00) 101.00 (101.00) 1.22 (23.43) 0.08 (0.12) 0.14 (0.28) 1.92 (14.30) 1.88 (7.69) 0.29 (0.27) 0.34 (0.20) 5.71 (10.85) 0.97 (0.60) 0.01 (0.02) 0.01 (0.02) 0.11 (0.51) 0.02 (0.04) 101.00 (NA) 101.00 (NA) 101.00 (NA) 101.00 (101.00) 01.00 (101.00) 101.00 (101.00) 101.00 (101.00) 1.20 (61.73)

Coverage probability of the true estimation:

	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
$ m drc_lms$	0.20	0.10	0.09	0.09	0.15
$\mathrm{drc_lts}$	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
$\mathrm{drc_tukey}$	0.02	0.01	0.02	0.01	0.01

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)

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)
$\mathrm{drc}_{-}\mathrm{lts}$	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)
${ m drc_tukey}$	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)

Coverage probability of the true estimation:

	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
$ m drc_lms$	0.20	0.21	0.20	0.20	0.18
$\mathrm{drc_lts}$	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
$\mathrm{drc_tukey}$	0.00	0.00	0.00	0.00	0.00

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)

Methods	IC5_CI.length	IC50_CI.length	IC95_CI.length	b0_CI.length	b1_CI.length
drc_lms	37.69 (1072.14)	0.94 (8.94)	1.12 (3.38)	1.48 (3.33)	1.84 (3.51)
$\mathrm{drc}_\mathrm{lts}$	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)
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)	$0.01 \ (0.24)$	$0.01 \ (0.47)$

Coverage probability of the true estimation:

	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

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)

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)
drc_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)
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
$ m drc_lms$	0.16	0.09	0.12	0.08	0.13
$\mathrm{drc_lts}$	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
$\mathrm{drc_tukey}$	0.02	0.01	0.01	0.01	0.01

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)

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)
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)
drc_tukey	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	1.66 (119.20)	$0.20\ (16.68)$
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
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
$\mathrm{drc_lts}$	0.23	0.11	0.21	0.10	0.25
$drc_trimmed$	0.01	0.01	0.01	0.01	0.01
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

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)

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)
$\mathrm{drc_lts}$	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)

Coverage probability of the true estimation:

	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
drc_lms	0.10	0.07	0.14	0.08	0.13
drc_lts	0.24	0.11	0.33	0.08	0.30
$drc_trimmed$	0.05	0.04	0.03	0.07	0.05
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

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)

$IC5_CI.length$	$IC50_CI.length$	$IC95_CI.length$	$b0 _CI.length$	b1_CI.length
101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	0.37(1.29)	0.44 (1.12)
0.07(0.10)	0.16 (0.30)	3.77 (191.36)	1.24(3.55)	1.30(3.48)
0.10(0.04)	0.12 (0.05)	1.49(0.83)	0.33(0.13)	$0.61 \ (0.26)$
0.00(0.01)	0.00(0.01)	0.05 (0.14)	0.01 (0.02)	0.02 (0.06)
101.00 (NA)	101.00 (NA)	101.00 (NA)	101.00 (101.00)	101.00 (101.00)
101.00 (NA)	101.00 (NA)	101.00 (NA)	$75.95 \ (6699.23)$	7.41 (566.13)
$0.00 \ (0.00)$	0.00(0.00)	$0.03 \ (0.05)$	0.01 (0.01)	0.01 (0.01)
	101.00 (101.00) 0.07 (0.10) 0.10 (0.04) 0.00 (0.01) 101.00 (NA) 101.00 (NA)	101.00 (101.00) 101.00 (101.00) 0.07 (0.10) 0.16 (0.30) 0.10 (0.04) 0.12 (0.05) 0.00 (0.01) 0.00 (0.01) 101.00 (NA) 101.00 (NA) 101.00 (NA) 101.00 (NA)	101.00 (101.00) 101.00 (101.00) 101.00 (101.00) 0.07 (0.10) 0.16 (0.30) 3.77 (191.36) 0.10 (0.04) 0.12 (0.05) 1.49 (0.83) 0.00 (0.01) 0.00 (0.01) 0.05 (0.14) 101.00 (NA) 101.00 (NA) 101.00 (NA) 101.00 (NA) 101.00 (NA) 101.00 (NA)	101.00 (101.00) 101.00 (101.00) 101.00 (101.00) 0.37 (1.29) 0.07 (0.10) 0.16 (0.30) 3.77 (191.36) 1.24 (3.55) 0.10 (0.04) 0.12 (0.05) 1.49 (0.83) 0.33 (0.13) 0.00 (0.01) 0.00 (0.01) 0.05 (0.14) 0.01 (0.02) 101.00 (NA) 101.00 (NA) 101.00 (NA) 101.00 (101.00) 101.00 (NA) 101.00 (NA) 101.00 (NA) 75.95 (6699.23)

Coverage probability of the true estimation:

	IC5_Cov.prob	IC50_Cov.prob	IC95_Cov.prob	b0_Cov.prob	b1_Cov.prob
$\frac{1}{\text{drc_mean}}$	0.86	0.86	0.92	0.86	0.85
drc_median	0.03	0.03	0.04	0.03	0.04
$ m drc_lms$	0.14	0.12	0.15	0.11	0.13
$\mathrm{drc_lts}$	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
$\mathrm{drc_tukey}$	0.02	0.02	0.02	0.02	0.01

Scenario 10

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)

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)	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)
$\mathrm{drc}_\mathrm{mean}$	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)	$21.31 \ (833.02)$
$\mathrm{drc_tukey}$	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)

Coverage probability of the true estimation:

	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
$\mathrm{drc_tukey}$	0.05	0.04	0.05	0.04	0.03

Scenario 11 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)

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)	$2.64\ (77.70)$	1.13 (2.39)
$\mathrm{drc}_{-}\mathrm{lts}$	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)
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)
drc _winsor	101.00 (NA)	101.00 (NA)	101.00 (NA)	$43.39\ (2475.73)$	0.05 (0.05)
	` '	` '	` '	'	` /

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	0.87	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

Scenario 12

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)

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)	0.42(1.05)	0.48 (0.95)
$\mathrm{drc_lts}$	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)	$16.67 \ (770.55)$
${ m drc_tukey}$	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
$\frac{1}{\text{drc_mean}}$	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 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)	-0.11 (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)

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)
$\mathrm{drc_lts}$	0.02(0.01)	0.13 (0.07)	5.66(3.67)	0.19(0.12)	0.15(0.08)
$\mathrm{drc}_\mathrm{mean}$	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)
$\mathrm{drc_tukey}$	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
$\overline{\mathrm{drc_mean}}$	0.92	0.85	0.93	0.80	0.90
drc_median	0.08	0.06	0.07	0.05	0.07
drc_lms	0.25	0.26	0.27	0.24	0.22
drc_lts	0.51	0.21	0.48	0.18	0.49
$drc_trimmed$	0.05	0.05	0.05	0.05	0.04
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 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)

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)
drc_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)
drc_winsor	0.00(0.00)	0.01 (0.01)	0.37 (0.33)	0.01 (0.01)	0.01 (0.01)

Coverage probability of the true estimation:

	IC5_Cov.prob	IC50_Cov.prob	IC95_Cov.prob	b0_Cov.prob	b1_Cov.prob
$\frac{1}{\text{drc_mean}}$	0.91	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

Scenario 15 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)

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)	0.17 (0.75)	0.17 (0.41)
drc_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)
$\mathrm{drc_tukey}$	101.00 (NA)	101.00 (101.00)	101.00 (NA)	0.35 (12.18)	0.14(3.80)
drc_winsor	0.00(0.00)	$0.01 \ (0.01)$	0.37 (0.32)	0.01 (0.01)	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
$\overline{\mathrm{drc_mean}}$	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
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
$\mathrm{drc_tukey}$	0.03	0.02	0.03	0.02	0.02

Scenario 16 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)

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)
${ m drc_tukey}$	101.00 (NA)	101.00 (101.00)	101.00 (NA)	0.05(2.89)	0.06(3.80)
drc_winsor	0.00(0.00)	0.01 (0.01)	0.32(0.30)	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	0.93	0.85	0.91	0.78	0.89
drc_median	0.08	0.05	0.07	0.04	0.07
$\mathrm{drc}_\mathrm{lms}$	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

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_I
$ m 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
$\mathrm{drc}_{-}\mathrm{lts}$	-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
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 (

Methods	$IC5_bias$	$IC5_SqE$	$IC50_bias$	$IC50_SqE$	$IC95_bias$	$IC95_RMSE$	b0_bias	$b0$ _RMSE	b1_bias	b1_l
drc_tukey drc_winsor	0.17 (1.48) 0.00 (0.01)	2.22 (34.70) 0.00 (0.00)	2.23 (167.33) -0.00 (0.09)	101.00 (101.00) 0.01 (0.01)	101.00 (101.00) -0.06 (1.45)	101.00 (NA) 2.11 (3.54)	-0.03 (1.68) 0.00 (0.10)	2.81 (41.92) 0.01 (0.01)	0.03 (0.70) 0.01 (0.08)	$0.49 \\ 0.01$

Methods	$IC5_CI.length$	$IC50_CI.length$	$IC95_CI.length$	$b0 _CI.length$	b1_CI.length
drc_lms drc_lts	101.00 (101.00) 0.02 (0.02)	1.14 (34.42) 0.08 (0.07)	36.52 (1015.59) 2.99 (1.88)	$0.52 (1.02) \\ 0.09 (0.07)$	0.49 (0.82) 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)	$0.08 \; (0.07)$	$0.00 \ (0.00)$	$0.00 \ (0.00)$

Coverage probability of the true estimation:

	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
$ m drc_lms$	0.20	0.13	0.32	0.11	0.24
$\mathrm{drc_lts}$	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
$\mathrm{drc_tukey}$	0.03	0.03	0.05	0.05	0.04

Scenario 18

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)):

Methods	$IC5_CI.length$	IC50_CI.length	$IC95_CI.length$	$b0 _CI.length$	b1_CI.length
drc_lms	101.00 (101.00)	0.29 (9.47)	101.00 (101.00)	$0.21\ (0.52)$	0.24 (0.47)
$\mathrm{drc_lts}$	101.00 (101.00)	101.00 (101.00)	101.00 (101.00)	0.53(1.12)	0.42(0.80)
drc_mean	$0.11\ (1.89)$	0.37 (0.23)	101.00 (101.00)	0.42(0.20)	0.40 (0.20)
drc_median	0.00(0.01)	0.02 (0.03)	1.01(2.26)	0.02(0.03)	0.03(0.04)
$drc_trimmed$	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)	$64.35 \ (6310.25)$	0.24 (8.50)	0.10(2.74)
drc_winsor	0.00(0.00)	0.02 (0.02)	1.32(3.57)	$0.02 \ (0.02)$	0.02(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
$ m drc_lms$	0.27	0.20	0.35	0.20	0.28
$\mathrm{drc_lts}$	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

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)

(continued)

Methods	IC5_bias	IC5_SqE	IC50_bias	IC50_SqE	IC95_bias	IC95_RMSE	b0_bias	b0_RMSE	b1_bias	b1_RMSE
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)
$\mathrm{drc}_\mathrm{lts}$	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)
$\mathrm{drc_tukey}$	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
drc_lms	0.38	0.37	0.38	0.36	0.38
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

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)

(continued)

Methods	IC5_bias	IC5_SqE	IC50_bias	IC50_SqE	IC95_bias	IC95_RMSE	b0_bias	b0_RMSE	b1_bias	b1_RMSE
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)
$\operatorname{drc_trimmed}$	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	101.00 (NA)	101.00 (NA)	101.00 (NA)	0.55 (44.06)	$0.21\ (12.56)$

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	0.87	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
$\mathrm{drc_tukey}$	0.03	0.03	0.04	0.03	0.02

Scenario 21

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)

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)
$\mathrm{drc}_\mathrm{mean}$	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)
$\mathrm{drc_tukey}$	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)	$0.01 \ (0.05)$	$0.01 \ (0.02)$	$0.01 \ (0.06)$

Coverage probability of the true estimation:

	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
drc_lms	0.24	0.18	0.18	0.17	0.24
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
$\mathrm{drc_tukey}$	0.01	0.01	0.01	0.01	0.01

Scenario 22

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)

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)
$\mathrm{drc}_{-}\mathrm{lts}$	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)

Coverage probability of the true estimation:

	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
$ m drc_lms$	0.18	0.19	0.16	0.17	0.15
$\mathrm{drc_lts}$	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
$\mathrm{drc_tukey}$	0.01	0.01	0.01	0.01	0.01

Scenario 23

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)

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)
$\mathrm{drc}_\mathrm{mean}$	0.08(0.04)	$0.06 \ (0.03)$	$0.46 \ (0.22)$	0.27(0.12)	0.74(0.33)
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)	101.00 (101.00)	44.49 (862.01)
drc_winsor	0.00(0.00)	0.00(0.00)	0.00(0.00)	$0.00 \ (0.00)$	$0.00 \ (0.00)$

Coverage probability of the true estimation:

	IC5_Cov.prob	IC50_Cov.prob	IC95_Cov.prob	b0_Cov.prob	b1_Cov.prob
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
drc _lts	0.17	0.07	0.15	0.06	0.18
$drc_trimmed$	0.07	0.07	0.06	0.09	0.08
drc _winsor	0.00	0.00	0.00	0.00	0.00
drc_tukey	0.00	0.00	0.00	0.01	0.01

Scenario 24

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)

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)
$\mathrm{drc}_{-}\mathrm{lts}$	0.03(0.04)	0.06(0.15)	0.29(2.99)	0.51(1.73)	0.60(1.78)
$\mathrm{drc}_\mathrm{mean}$	$0.08 \; (0.03)$	$0.06 \ (0.03)$	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)
${ m drc_tukey}$	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
$\frac{1}{\text{drc_mean}}$	0.75	0.66	0.75	0.62	0.70
drc_median	0.01	0.01	0.01	0.01	0.01
$ m drc_lms$	0.15	0.10	0.12	0.09	0.14
drc_lts	0.21	0.11	0.18	0.11	0.23
$drc_trimmed$	0.04	0.05	0.06	0.08	0.07
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

Scenario 25

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)

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)
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
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 26

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)

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)
$\mathrm{drc_lts}$	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)
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)	$0.00 \ (0.00)$	$0.00 \ (0.00)$

Coverage probability of the true estimation:

	IC5_Cov.prob	IC50_Cov.prob	IC95_Cov.prob	b0_Cov.prob	b1_Cov.prob
drc_mean	0.67	0.64	0.76	0.66	0.65
drc_median	0.00	0.01	0.01	0.00	0.00
$\mathrm{drc}_\mathrm{lms}$	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
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 27

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)
$\mathrm{drc}_\mathrm{mean}$	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)
${ m drc_tukey}$	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)	$0.01 \ (0.13)$	$0.02 \ (0.03)$	$0.08 \ (0.30)$

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 (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)
$\mathrm{drc_tukey}$	101.00 (NA)	101.00 (NA)	101.00 (NA)	$33.44 \ (1084.73)$	9.16 (355.13)
drc _winsor	0.00(0.00)	0.00(0.00)	$0.00 \ (0.01)$	$0.00 \ (0.00)$	$0.00 \ (0.01)$

Coverage probability of the true estimation:

	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
$\mathrm{drc_tukey}$	0.00	0.00	0.00	0.00	0.00

Scenario 28

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)

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)
$\mathrm{drc}_{-}\mathrm{lts}$	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)
drc_tukey	0.00(0.00)	0.00(0.00)	0.00(0.00)	0.00(0.00)	0.00(0.00)
drc_winsor	0.00(0.00)	0.00(0.00)	0.00(0.00)	0.00(0.00)	0.00(0.03)

Coverage probability of the true estimation:

	IC5_Cov.prob	IC50_Cov.prob	IC95_Cov.prob	b0_Cov.prob	b1_Cov.prob
$\frac{1}{\text{drc_mean}}$	0.63	0.47	0.64	0.42	0.63
drc_median	0.00	0.00	0.00	0.00	0.00
$ m 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
$\mathrm{drc_tukey}$	0.00	0.00	0.00	0.00	0.00

Scenario 29

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)

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)	0.38 (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)	$6.00\ (73.43)$
$\mathrm{drc_tukey}$	101.00 (NA)	101.00 (101.00)	101.00 (NA)	0.18(12.31)	0.25 (16.29)
drc _winsor	0.00(0.00)	$0.01 \ (0.01)$	$0.44 \ (0.50)$	$0.01 \ (0.01)$	$0.01 \ (0.01)$

Coverage probability of the true estimation:

	IC5_Cov.prob	IC50_Cov.prob	IC95_Cov.prob	b0_Cov.prob	b1_Cov.prob
$\frac{1}{\text{drc_mean}}$	0.91	0.77	0.91	0.72	0.92
drc_median	0.07	0.03	0.07	0.03	0.07
$ m 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

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)
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)

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)
$\mathrm{drc}_{-}\mathrm{lts}$	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)
$\operatorname{drc_trimmed}$	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)	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)	$0.00 \ (0.00)$

Coverage probability of the true estimation:

	IC5_Cov.prob	IC50_Cov.prob	IC95_Cov.prob	b0_Cov.prob	b1_Cov.prob
$\frac{1}{\text{drc_mean}}$	0.32	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