

Reproducibility package for the article:

Reaction times and other skewed distributions: problems with the mean and the median

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Content

folder	description
code	R .Rmd files to run simulations and create figures
notebooks	pdf versions of the code, with embedded figures
data	simulation results and FLP data needed to run the code
figures	all the figures used in the article, in pdf format
functions	extra R functions defined in text files

List of notebooks in the order of the article

#	name	analyses	figures
1	illustrate_bias	effect of sample size on sampling distributions, bias estimation, bias correction	1, 4, 5
2	miller1988	replicate Miller 1988 + median bias + apply bias correction + detailed look at the effect of bias correction	2, 3, table 1
3	samp_dist	graphical representations of the sampling distributions of the mean and the median + SD + HDI	6, 7
4	bias_diff	group difference bias	8
5	sim_gp_fp	false positives for group comparisons of means, medians and deciles (shift function)	9, 10, 11
6	sim_gp_g&h	false and true positives simulations using g & h distributions: means, medians and 20% trimmed means	12, 13
7	sim_gp_tp	true positives for group comparisons of means, medians and deciles: uniform, spread, early, late differences	14, 15, 16
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10	flp_sim_precision	group level estimation accuracy using LFP data	20
11	flp_exg_parameters	fit ex-Gaussians to all conditions/participants	NA
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14	flp_dec_samp_dist	individual and group shift functions	23

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3	figure_miller_bias_summary.pdf	miller1988
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5	figure_mdbc_examples_n10.pdf	illustrate_bias
6	figure_samp_dist_summary.pdf	samp_dist
7	figure_samp_dist_hdi_summary.pdf	samp_dist
8	figure_bias_diff_summary.pdf	bias_diff
9	figure_sim_gp_fp1_summary.pdf	sim_gp_fp
10	figure_sim_gp_fp2_part1.pdf	sim_gp_fp
11	figure_sim_gp_fp2_part2.pdf	sim_gp_fp
12	figure_gdist_sim.pdf	sim_gp_g&h
13	figure_hdist_sim.pdf	sim_gp_g&h
14	figure_sim_gp_tp_uni_summary.pdf	sim_gp_tp
15	figure_sim_gp_tp_early_summary.pdf	sim_gp_tp
16	figure_sim_gp_tp_tau_summary.pdf	sim_gp_tp
17	figure_flp_100.pdf	flp_illustrate_dataset
18	figure_flp_dist.pdf	flp_illustrate_dataset
19	figure_flp_sim.pdf	flp_bias_sim
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