

Appendix 9: Metadata for code.

Code and data used for the analysis are attached (Appendix 10) and are publicly available at the author's GitHub page:

https://github.com/GatesDupont/scr_design_sims.

The R code, found in the R subdirectory, operates within the file structure of this repository (outline below). Simulations are performed in the `6_sims.r` file, which pulls other files from the directory that are conveniently compiled into the R data file: `workspace/sims_ws.RData`. The simulations file is currently parameterized to run all simulations simultaneously, and for sake of efficiency, the simulations are distributed across several cores.

File structure for the code repository:

File	Description
R	Sub-directory containing code for design generations and simulations.
R/0_functions.R	R code containing functions for simulations, including the <code>simulator()</code> function, which contains the data-generating model.
R/1_SS_regular.R	R code to generate the regular, square statespace.
R/2_SS_irregular.R	R code to generate the irregular statespace.
R/3_designs_regular.R	R code to generate the designs for the regular area.
R/4_designs_irregular.R	R code to generate the designs for the irregular area.
R/5_sims_gather_ws.R	R code for gathering data into a single workspace for the simulations.
R/6_sims.R	R code to run the simulations. Outputs csv file containing rows for each simulation run.
R/7_results	R code to analyze the results of the simulation.
statespaces	Sub-directory containing csv files of the statespaces generated in R scripts 1 and 2.
traps	Sub-directory containing csv files of the possible trapping locations for the regular and irregular statespaces.
designs	Sub-directory containing csv files of all of the designs evaluated in the simulations.
workspace	Sub-directory containing an RData file of the workspace compiled in R script 5.
it_out	Sub-directory that is used to print out each iteration of the simulations.
output	Sub-directory that is used to print out plots of each simulation as well as the final results file.