

MODELING EXTREME PRECIPITATION EVENTS A BACHELOR THESIS FOR THE DEGREE OF BACHELOR OF SCIENCE

Wintersemester 2022

By

Ekin Gülhan

Guardian: Dr. Isa Marques Enrolment number: 21675680

e-mail: ekin.guelhan(at)stud.uni-goettingen.de Address: Hannoversche Straße 134, 37077 Göttingen

Date: 2022-11-17

Contents

Session Info

Session Info

```
## R version 4.2.2 (2022-10-31 ucrt)
## Platform: x86 64-w64-mingw32/x64 (64-bit)
## Running under: Windows 10 x64 (build 22000)
##
## Matrix products: default
##
## locale:
## [1] LC COLLATE=German Germany.utf8 LC CTYPE=German Germany.utf8
## [3] LC MONETARY=German Germany.utf8 LC NUMERIC=C
## [5] LC TIME=German Germany.utf8
##
## attached base packages:
## [1] stats
                graphics grDevices datasets utils
                                                        methods
                                                                  base
##
## other attached packages:
   [1] GADMTools_3.9-1 rgdal_1.6-2 sf_1.0-9 classInt_0.4-8
   [5] sp 1.5-1
                      forcats_0.5.2 stringr_1.4.1
                                                       dplyr_1.0.10
##
   [9] purrr 0.3.5
##
                      readr 2.1.3
                                       tidyr 1.2.1
                                                       tibble 3.1.8
## [13] ggplot2 3.4.0 tidyverse 1.3.2 pacman 0.5.1
##
## loaded via a namespace (and not attached):
##
   [1] httr 1.4.4
                           jsonlite 1.8.3
                                               modelr 0.1.10
##
   [4] assertthat_0.2.1 renv_0.16.0
                                               googlesheets4_1.0.1
    [7] cellranger 1.1.0
                           yam1_2.3.6
                                               pillar 1.8.1
## [10] backports 1.4.1
                           lattice_0.20-45
                                               glue_1.6.2
## [13] digest 0.6.30
                           rvest 1.0.3
                                               colorspace_2.0-3
## [16] plyr 1.8.8
                           htmltools 0.5.3
                                               pkgconfig 2.0.3
## [19] ggspatial_1.1.6
                           broom 1.0.1
                                               haven 2.5.1
```

##	[22]	scales_1.2.1	jpeg_0.1-9	tzdb_0.3.0
##	[25]	ggmap_3.0.1	timechange_0.1.1	proxy_0.4-27
##	[28]	<pre>googledrive_2.0.0</pre>	generics_0.1.3	ellipsis_0.3.2
##	[31]	withr_2.5.0	cli_3.4.1	magrittr_2.0.3
##	[34]	crayon_1.5.2	readxl_1.4.1	maptools_1.1-5
##	[37]	evaluate_0.18	fs_1.5.2	fansi_1.0.3
##	[40]	xml2_1.3.3	foreign_0.8-83	class_7.3-20
##	[43]	rosm_0.2.6	tools_4.2.2	RgoogleMaps_1.4.5.3
##	[46]	hms_1.1.2	gargle_1.2.1	lifecycle_1.0.3
##	[49]	munsell_0.5.0	reprex_2.0.2	compiler_4.2.2
##	[52]	e1071_1.7-12	rlang_1.0.6	units_0.8-0
##	[55]	grid_4.2.2	rstudioapi_0.14	bitops_1.0-7
##	[58]	rmarkdown_2.18	gtable_0.3.1	DBI_1.1.3
##	[61]	R6_2.5.1	gridExtra_2.3	<pre>lubridate_1.9.0</pre>
##	[64]	knitr_1.40	rgeos_0.5-9	fastmap_1.1.0
##	[67]	utf8_1.2.2	KernSmooth_2.23-20	stringi_1.7.8
##	[70]	Rcpp_1.0.9	png_0.1-7	vctrs_0.5.1
##	[73]	dbplyr_2.2.1	tidyselect_1.2.0	xfun_0.35