## FIGURES DESCRIPTION

Figures generated by pyClim-SDM are listed and explained below:

id	experiment	figType	var	climdex/pred	method/model/ scene	season
1	PRECONTROL	correlationMap	\$var	\$pred	None	\$season
2	PRECONTROL	correlationBoxplot	\$var	None	None	\$season
3	PRECONTROL	nansMap	\$var	\$pred	\$model-\$scene	None
4	PRECONTROL	nansMatrix	\$var	None	\$scene	\$season
5	PRECONTROL	biasBoxplot	\$var	\$pred	\$scene	\$season
6	PRECONTROL	evolSpaghetti	\$var	\$pred	\$scene	\$season
7	PRECONTROL	qqPlot	\$var	\$pred	None	\$season
8	PRECONTROL	annualCycle	\$var	\$pred	\$scene	None
9	PRECONTROL	evolTube	\$var	\$pred	\$scene	\$season
10	EVALUATION	annualCycle	\$var	None	all	None
11	EVALUATION	rmseBoxplot	\$var	None	all	\$season
12	EVALUATION	correlationBoxplot	\$var	None	all	\$season
13	EVALUATION	varianceBoxplot	\$var	None	all	\$season
14	EVALUATION	qqPlot	\$var	None	\$method	\$season
15	EVALUATION	r2Map	\$var	None	\$method	\$season
16	EVALUATION	rmseMap	\$var	None	\$method	\$season
17	EVALUATION	accuracyMap	\$var	None	\$method	\$season
18	EVALUATION	correlationMapMo nthly	\$var	None	\$method	None
19	EVALUATION	r2MapMonthly	\$var	None	\$method	None
20	EVALUATION	biasClimdexBoxplo t	\$var	\$climdex	\$method	\$season
21	EVALUATION	obsMap	\$var	\$climdex	None	\$season
22	EVALUATION	estMap	\$var	\$climdex	\$method	\$season

23	EVALUATION	biasMap	\$var	\$climdex	\$method	\$season
24	EVALUATION	scatterPlot	\$var	\$climdex	\$method	\$season
25	PROJECTIONS	evolSpaghetti	\$var	\$climdex	\$method	\$season
26	PROJECTIONS	evolTube	\$var	\$climdex	\$method	\$season
27	PROJECTIONS	meanChangeMap	\$var	\$climdex	\$method-\$scene -\$years	\$season
28	PROJECTIONS	spreadChangeMap	\$var	\$climdex	\$method-\$scene -\$years	\$season
29	PROJECTIONS	evolTrendRaw	\$var	\$climdex	all-\$scene	\$season

- 1. Correlation of the temporal daily series between one predictor and one predictand (Pearson coefficient for tmax/tmin and Spearman for pcp).
- 2. Correlation of the temporal daily series between all predictors and one predictand (Pearson coefficient for tmax/tmin and Spearman for pcp). Each box contains one value per grid point.
- 3. Map with percentage of missing data for one predictor, model and scene.
- 4. Percentage of missing data (spatially averaged) for one scene (all predictors and models).
- 5. Bias of all models compared to the reanalysis (in the mean value) in a historical period. For tmax/tmin absolute bias, for pcp relative bias and the rest standardized and absolute bias. Each box contains one value per grid point.
- 6. Evolution of one predictor by all models in the form of anomaly with respect to the reference period (absolute anomaly for tmax/tmin, relative anomaly for pcp and absolute anomaly of the standardized variables for the rest).
- 7. QQ-plot for one variable by one model in historical vs. reanalysis.
- 8. Annual cycle for one variable by all models in historical and reanalysis (monthly means for tmax/tmin, monthly accumulations for pcp and monthly means of the standardized variable for the rest).
- 9. Evolution graph for one variable by multimodel ensemble (the central line represents 50th percentile and the shaded area represents IQR), in the form of anomaly with respect to the reference period (absolute anomaly for tmax/tmin, relative anomaly for pcp and absolute anomaly of the standardized variables for the rest).
- 10. Annual cycle for one variable, downscaled by all methods vs. observation (monthly means for tmax/tmin and monthly accumulations for pcp).
- 11. RMSE of the daily series (downscaled and observed) by all methods. Boxes contain one value per grid point.

- 12. Correlation (Pearson for temperature and Spearman for precipitation) of the daily series (downscaled and observed) by all methods. Boxes contain one value per grid point.
- 13. Bias (relative, %) in the variance of the daily series (downscaled and observed) by all methods. Boxes contain one value per grid point.
- 14. QQ-plot for one variable by one method vs. observations.
- 15. R2 score of the daily series (coefficient of determination) by one method.
- 16. RMSE of the daily series by one method.
- 17. Accuracy score for the daily series (only for wet/dry classification. Acc=corrects/total) by one method.
- 18. Correlation for the monthly (mean for tmax/tmin and accumulated for pcp) series by one method with observations. Pearson coefficient for tmax/tmin and Spearman for pcp.
- 19. R2 score (coefficient of determination) for the monthly (mean for tmax/tmin and accumulated for pcp) series by one method with observations.
- 20. Bias (absolute/relative) for the mean climdex in the whole testing period by all methods. Boxes contain one value per grid point.
- 21. Mean observed values in the whole period.
- 22. Mean estimated (downscaled) values in the whole period by one method.
- 23. Bias (absolute/relative) in the whole period by one method.
- 24. Downscaled vs. observed climdex in the whole period each scatter point corresponds to a grid point.
- 25. Evolution of one variable by all models in the form of anomaly with respect to the reference period (absolute anomaly for tmax/tmin and relative anomaly for pcp).
- 26. Evolution graph of one variable by the multimodel ensemble (the central line represents 50th percentile and the shaded area represents IQR), in the form of anomaly with respect to the reference period (absolute anomaly for tmax/tmin and relative anomaly for pcp).
- 27. Anomaly in a future period with respect to a reference period given by the multimodel ensemble median (mean change). Absolute anomaly for tmax/tmin and relative anomaly for pcp.
- 28. Multimodel ensemble spread in the anomaly given by the difference between the 75th and 25th percentiles..
- 29. Evolution graph, by one method vs. raw models, of one variable by the multimodel ensemble (the central line represents 50th percentile and the shaded area represents IQR), in the form of anomaly with respect to the reference period (absolute anomaly for tmax/tmin and relative anomaly for pcp).