The following supplement accompanies the article

A transient high-resolution regional climate simulation for Greece over the period 1960–2100: evaluation and future projections

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Supplement

Fig. S1. Mean annual near surface temperature and total annual precipitation in 1995 for simulation RCM10 with modified Emanuel convective scheme (a, c) and RCM10G with Grell-FC convective scheme (b, d). The difference of the fields are shown in e) for temperature and in f) for precipitation.

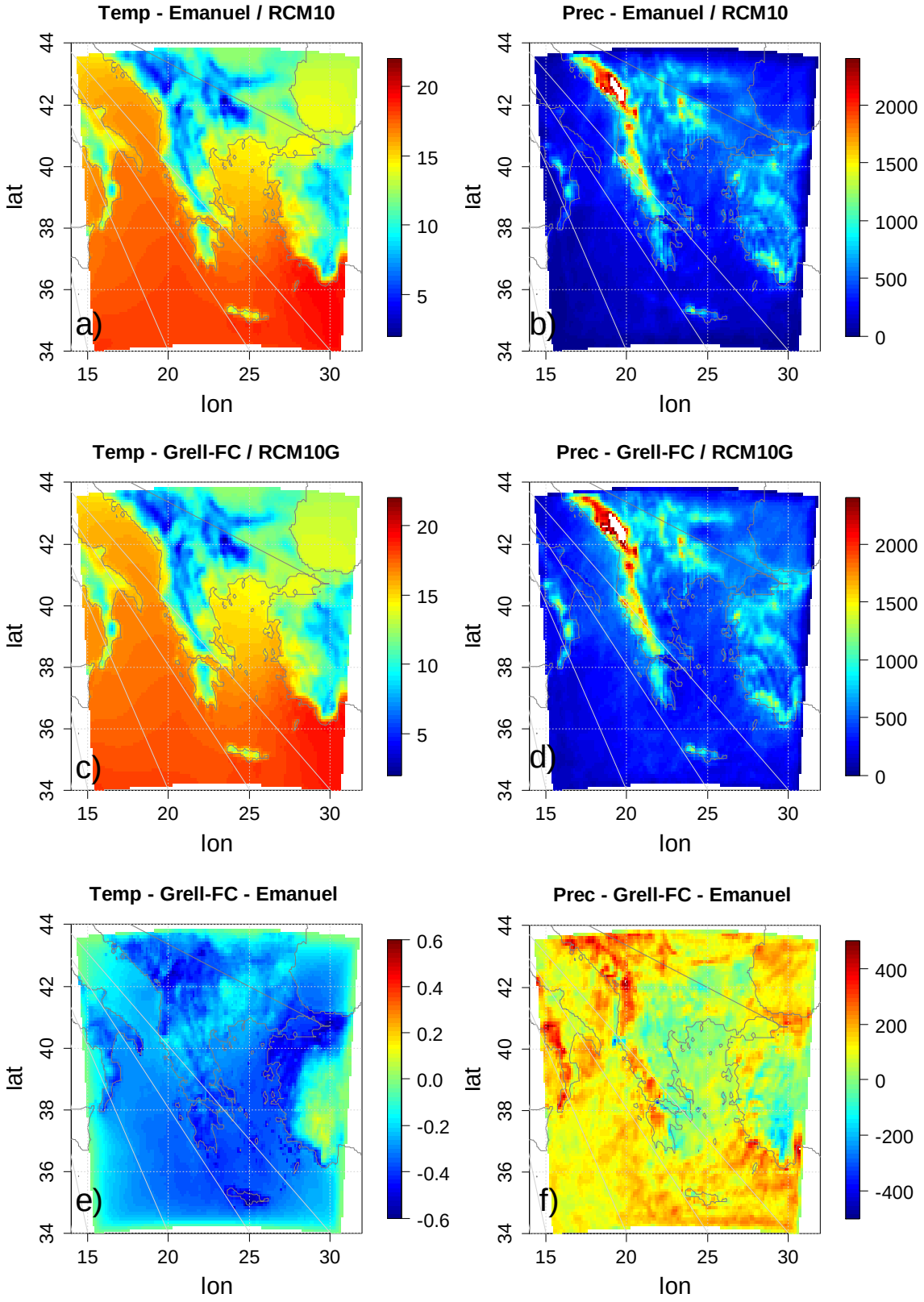
Temp - Emanuel / RCM10
Prec - Emanuel / RCM10
Temp - Grell-FC / RCM10G
Prec - Grell-FC / RCM10G
Temp - Grell-FC - Emanuel
Prec - Grell-FC - Emanuel
a)
b)
c)
d)
e)
f)
lat
lon
34
36
38
40
42
44
15
20
25
30
5
10
15
20
0
500
1000
1500
2000
-0.6
-0.4
-0.2
0.0
0.2
0.4
0.6
-400
-200
0
200
400

Fig. S2. Seasonal precipitation percentage change (%) between 2071-2100 and 1961-1990 for a) winter, b) spring, c) summer and d) autumn based on the high resolution RCM10. The line shading indicates areas in which the differences between future runs and control run are not statistically significant at the 95% confidence level according to a 2-tailed paired t-test.

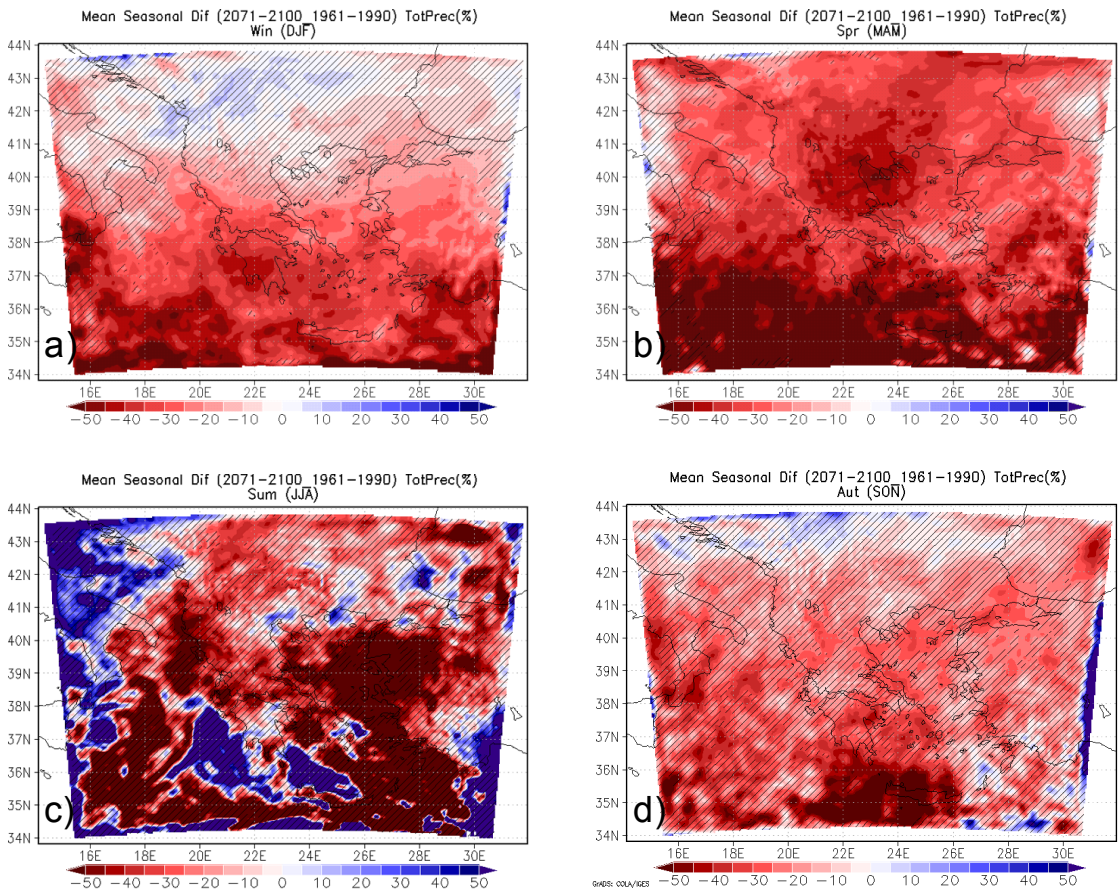

Fig. S3. Seasonal convective precipitation change (mm/day) between 2071-2100 and 1961-1990 for a) winter, b) spring, c) summer and d) autumn based on the high resolution RCM10. The line shading indicates areas in which the differences between future runs and control run are not statistically significant at the 95% confidence level according to a 2-tailed paired t-test.

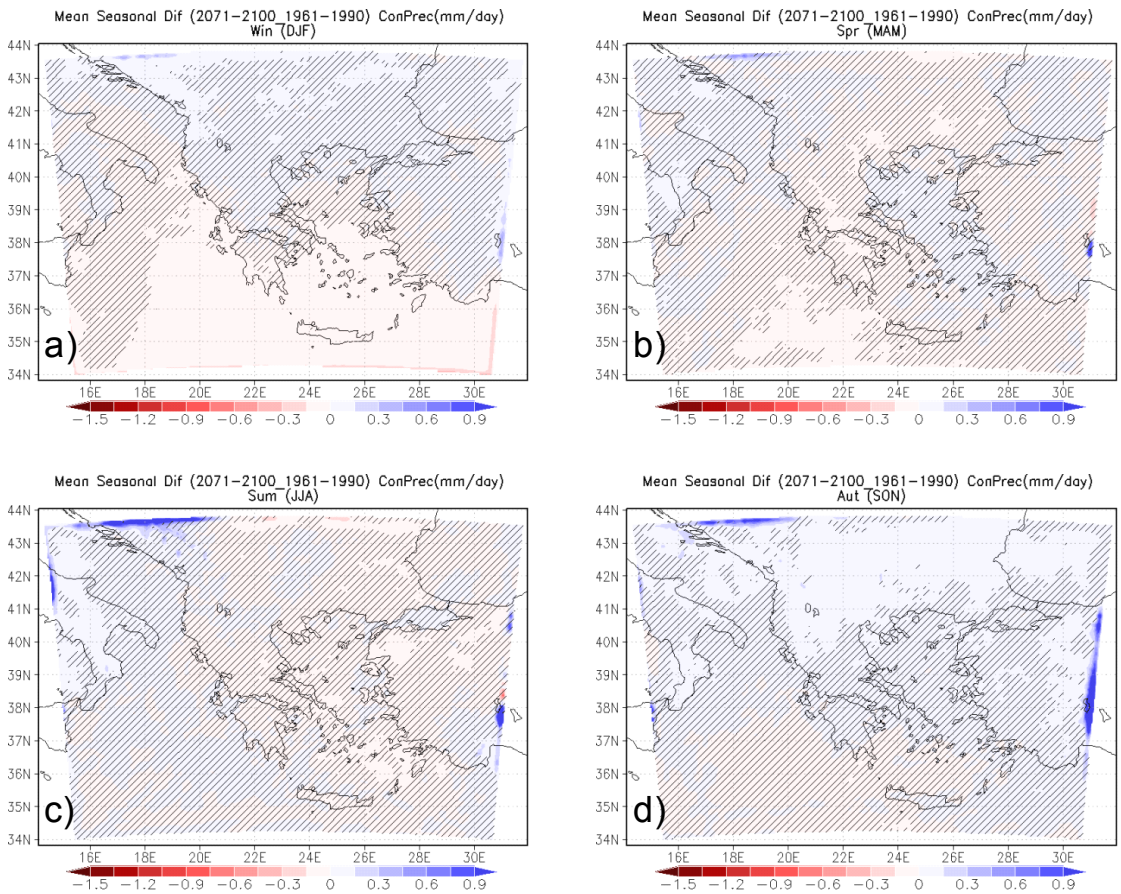

Table S1. Summary statistics of the bias in near surface temperature and precipitation (25th, 50th and 75th percentiles and min/mean/max values) for winter (DJF), spring MAM), summer (JJA) and autumn (SON) based on the comparison of RCM10 with the respective values from the 79 stations of Hellenic National Meteorological Service (HNMS).

Temperature bias (^{o}C)				
	DJF	**MAM**	**JJA**	**SON**
P25	-1.64	-3.32	-4.85	-3.81
P50	-0.71	-2.17	-3.28	-2.51
P75	-0.05	-1.44	-1.69	-1.48
Mean	-0.83	-2.61	-3.63	-2.88
Min	-10.35	-11.16	-12.3	-12.63
Max	4.2	2.58	2.26	2.43
Precipitation bias (mm)				
	DJF	**MAM**	**JJA**	**SON**
P25	-35.95	-18.57	-12.85	-30.45
P50	-1.23	-9.16	-3.29	-15.02
P75	30.22	3.72	2.86	1.4
Mean	-0.91	-7.46	-9.66	-15.23
Min	-123.42	-71.25	-63.85	-113.42
Max	160.08	56.36	2.86	80.37