

Challenge II: Spatial continuity and weather prediction

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1 Libraries

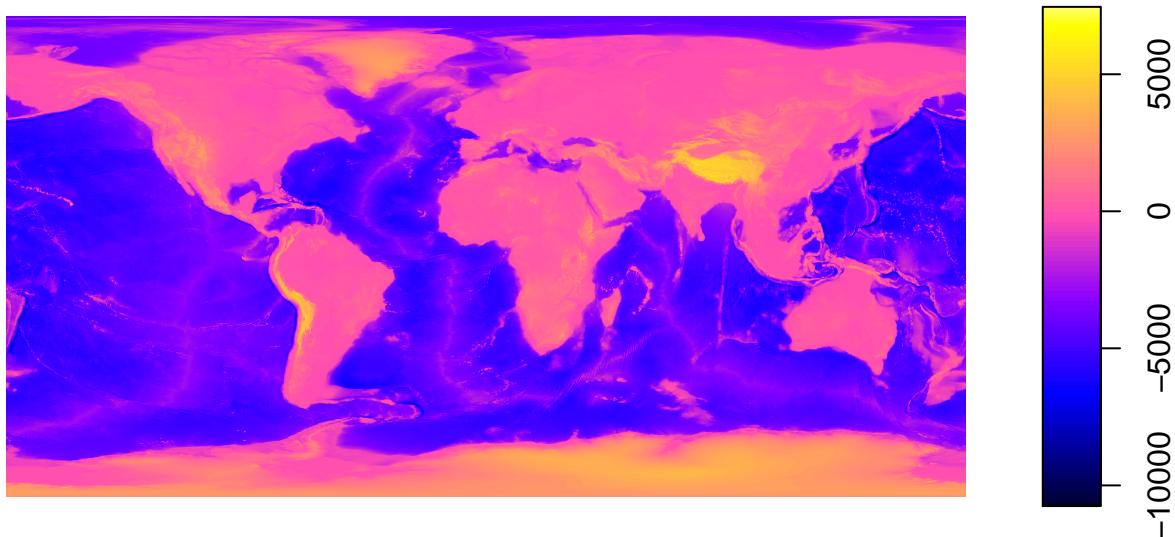
The following libraries are needed, to execute the code:

- **ggplot2** – Plots – [@ggplot2]
- **plyr** – Splitting, applying and combining data – [@plyr]
- **rgdal** – Open Shapefiles – [@rgdal]
- **sp** – Spatial datatypes – [@sp2; @sp1]
- **gstat** – Spatial statistics –[@gstat]
- **FNN** – Spatial statistics –[@FNN]

2 Data



id	meanWi_before1970	meanSu_before1970	meanWi_after1990	meanSu_after1990	elev
1	11.83	23.27	13.09	24.75	7
2	10.21	22.43	11.35	23.94	4
3	10.83	22.78	11.32	24.76	25
4	10.30	22.00	11.44	24.02	2
5	6.13	22.37	7.00	24.56	694
6	8.14	24.90	9.35	26.15	715



3 Spatial continuity

3.1 First impressions of spatial variation

3.1.1 Winter before 1970

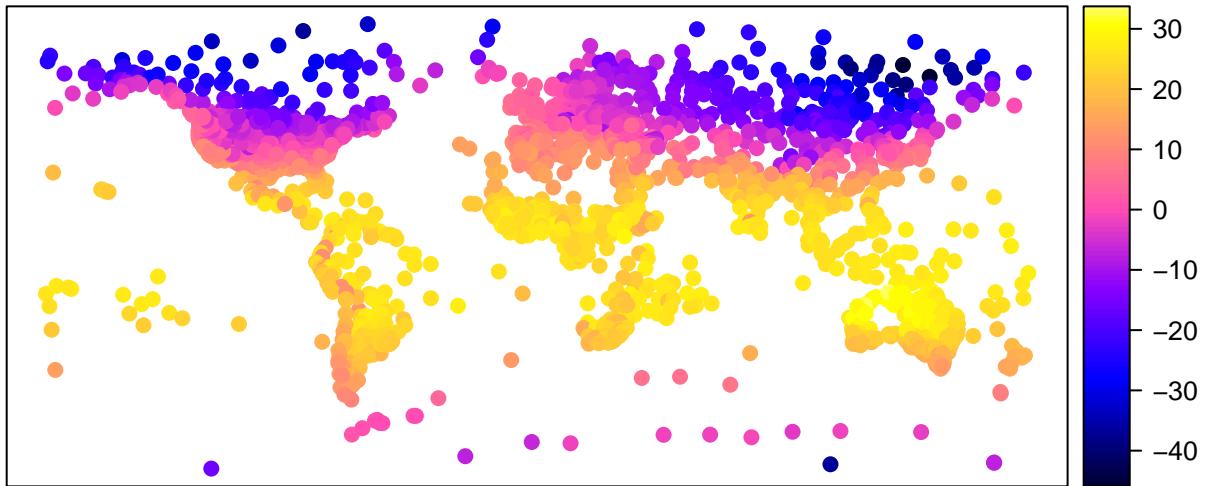


Figure 1: Mean temperature Winter from 1950 to 1970

3.1.2 Summer before 1970

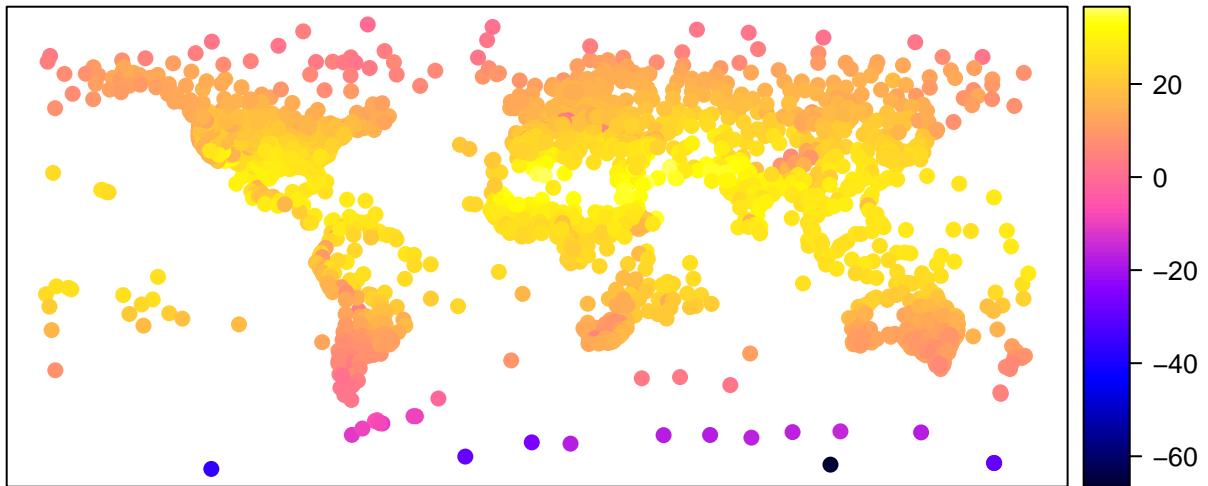


Figure 2: Mean temperature Winter from 1950 to 1970

3.1.3 Winter before 2010

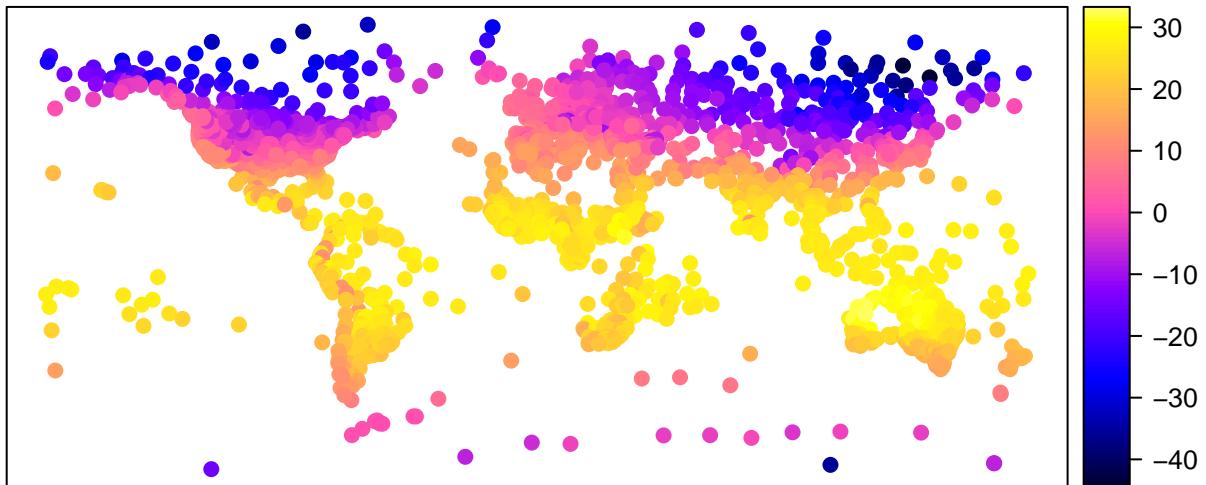


Figure 3: Mean temperature Winter from 1990 to 2010

3.1.4 Summer before 2010

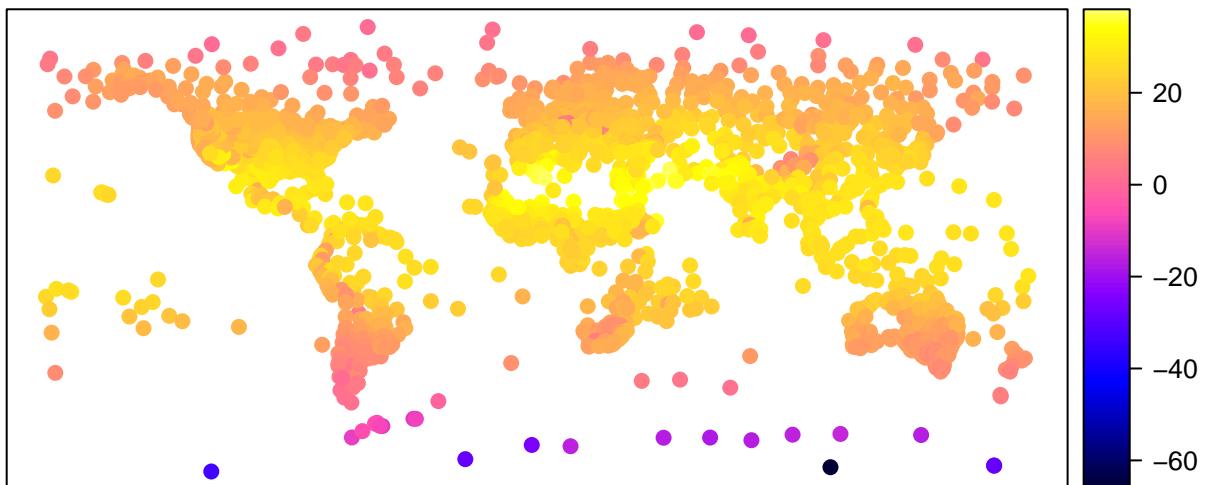
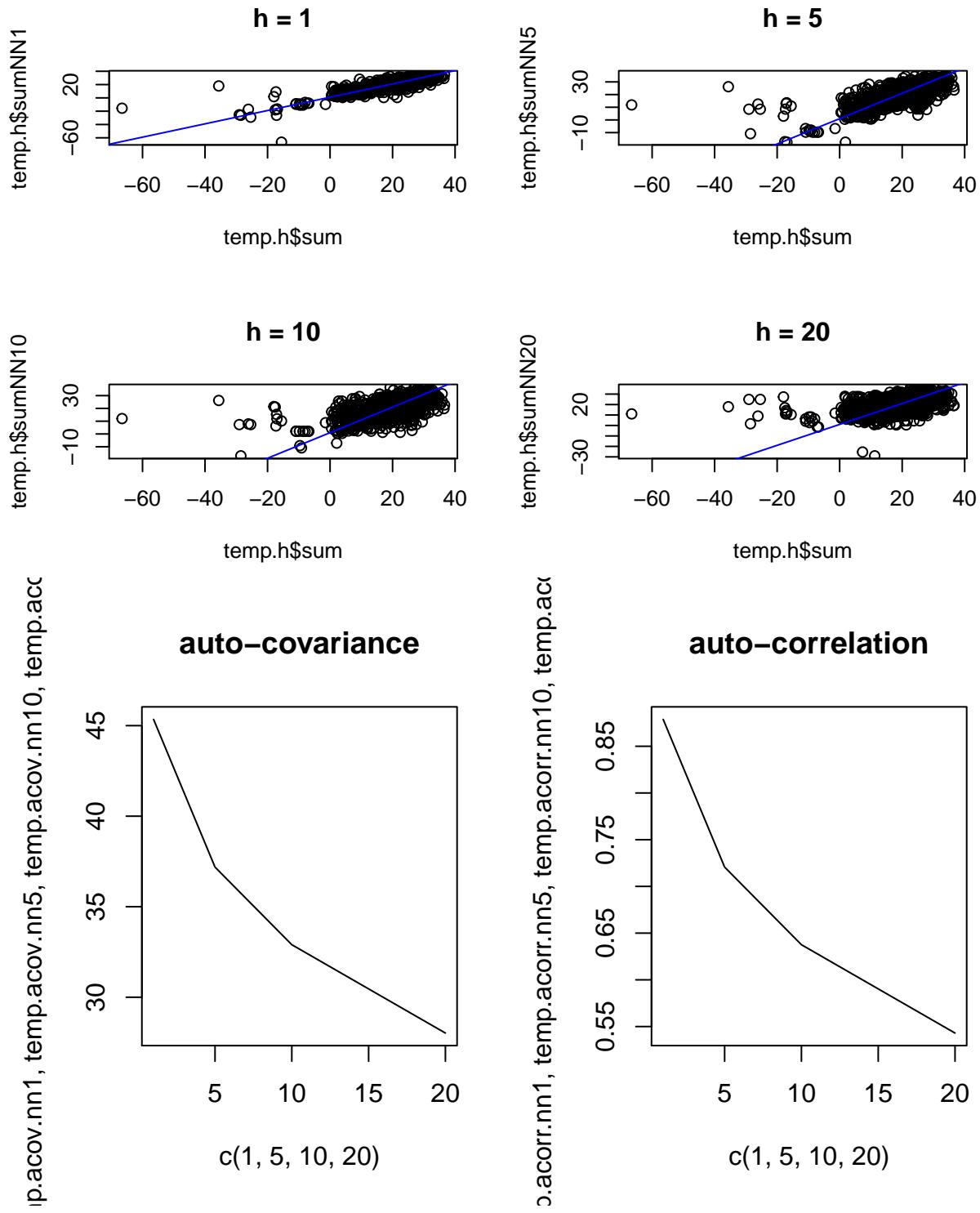


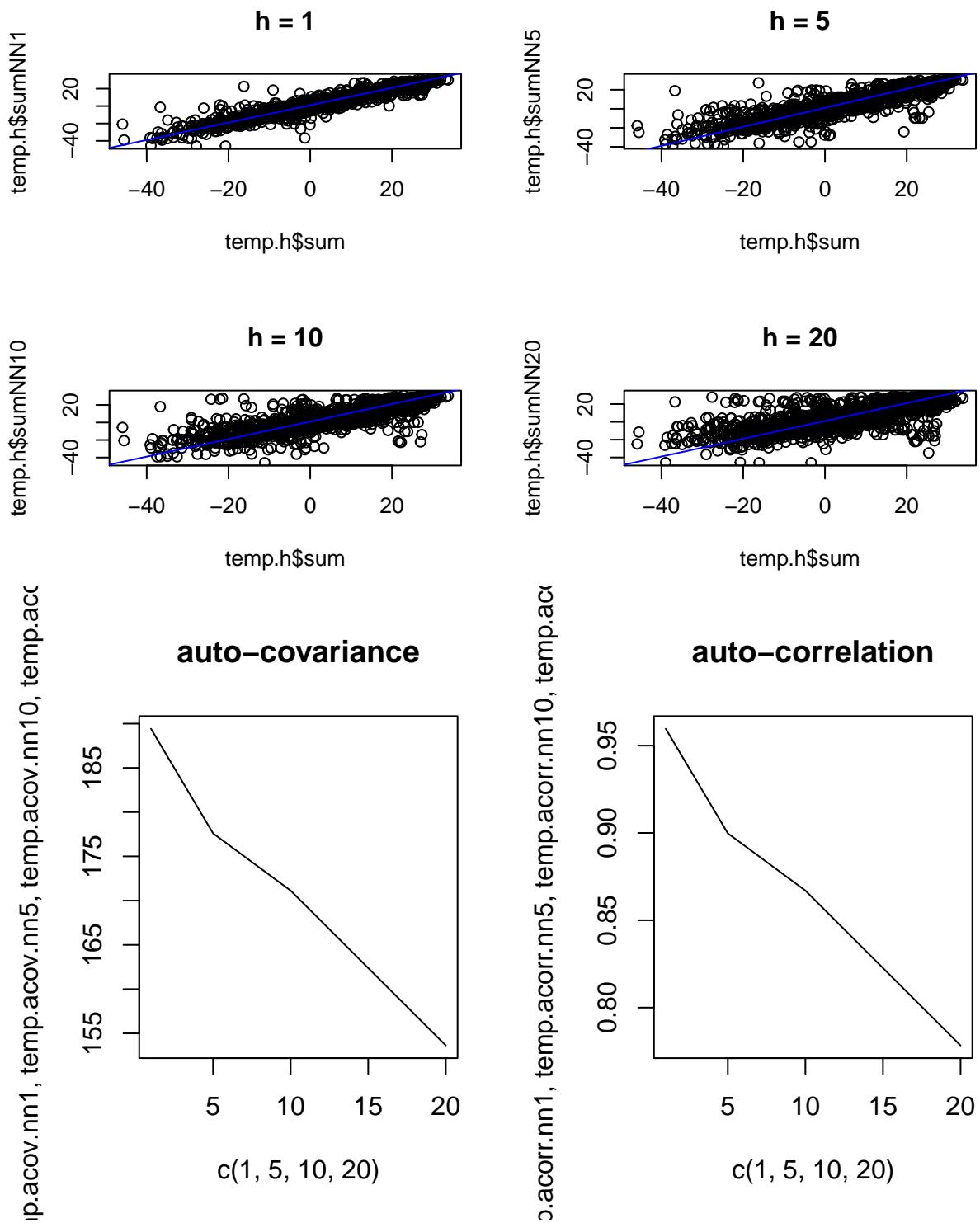
Figure 4: Mean temperature Winter from 1990 to 2010

3.2 H - Scatterplots and autocovariance plots

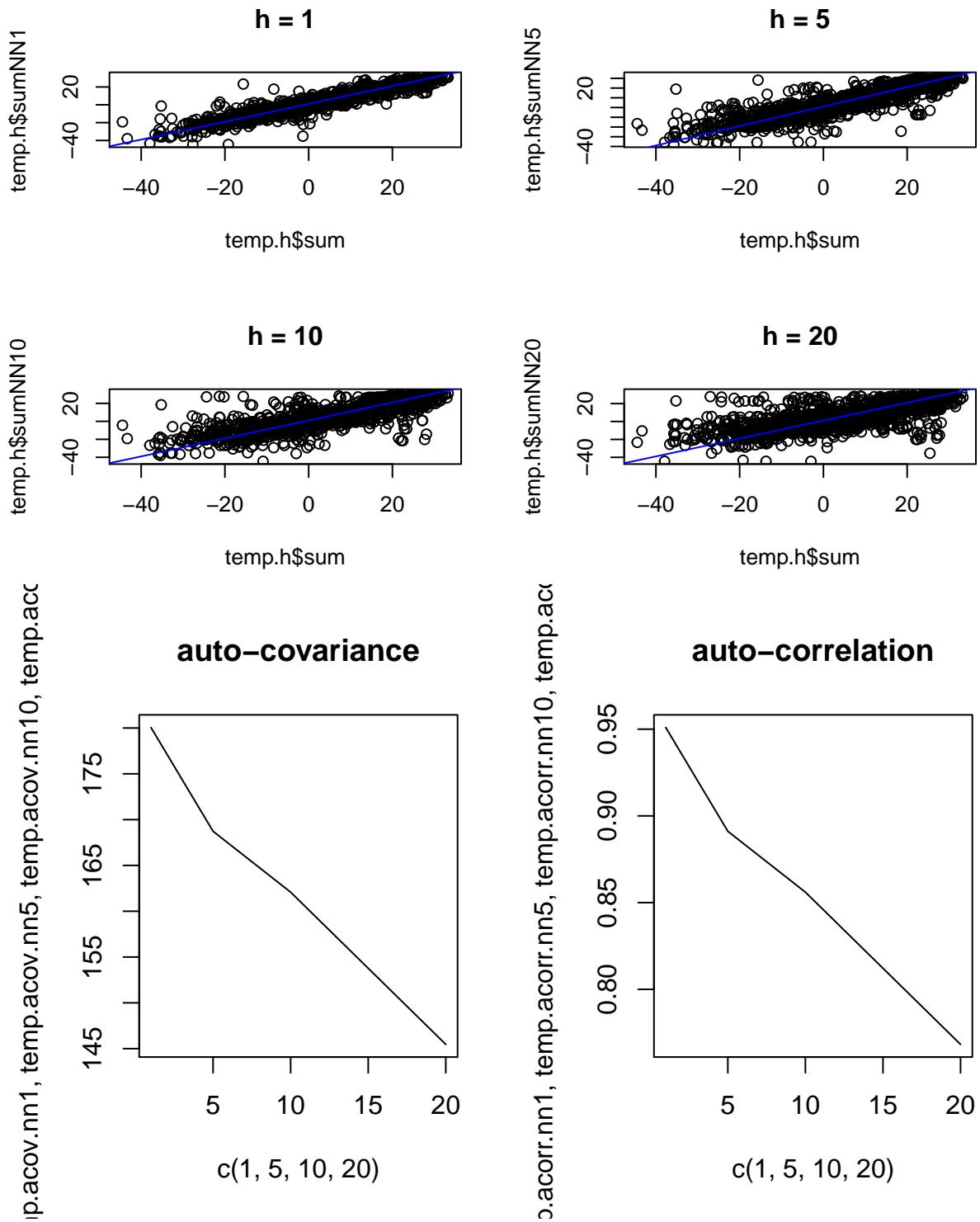
3.2.1 Summer before 1970



3.2.2 Winter before 1970



3.2.3 Winter after 1990



3.2.4 Summer after 1990

