Table 1. Seasonal precipitation over the Baltic Sea in the CTRL simulation and projected relative precipitation change in the A2 scenario experiment. Units: mm/month for CTRL and % for A2-CTRL response.

|	DJF		MAM		JJA		SON	
	CTRL	A2-CTRL	CTRL	A2-CTRL	CTRL	A2-CTRL	CTRL	A2-CTRL
Observations								
GPCP	68	-	49	-	73	-	76	-
GCM								
HadAM3H	53	33	45	-7	50	39	65	14
RCMs								
Arpège	66	21	40	10	38	78	72	53
CHRM	53	37	44	7	49	96	66	29
CLM	52	36	39	0	41	78	65	17
HadRM3H	52	35	45	0	51	44	68	21
HIRHAM-DK	51	38	37	9	39	92	67	32
HIRHAM-NO	71	31	50	15	61	88	94	15
RACMO	54	27	43	-0	49	6	65	-9
RCAO	55	34	40	7	54	-10	65	-1
REMO	65	29	45	2	50	89	77	25
Average	58	31	43	5	48	60	71	21
Standard deviation	7.5	11	4.0	28	7.5	280	9.5	87
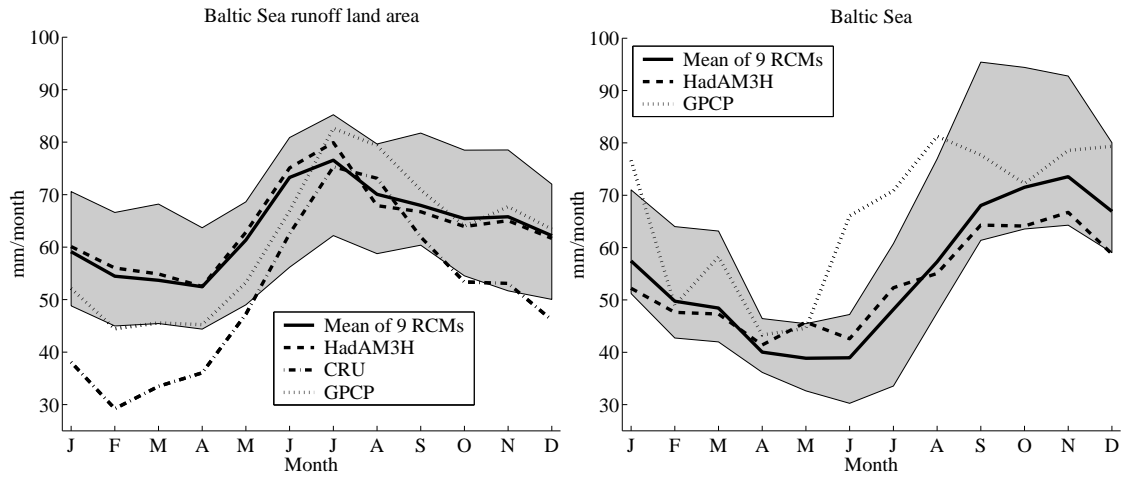
Figure 1. Seasonal cycle of precipitation over the Baltic Sea runoff land area (left) and over the Baltic Sea (right). The shaded area and full line represent the maximum, minimum and mean of the common CTRL experiments. The dashed line shows the HadAM3H simulation. The dash-dotted line depicts the CRU and the dotted line the GPCP observations. Unit: mm/month.
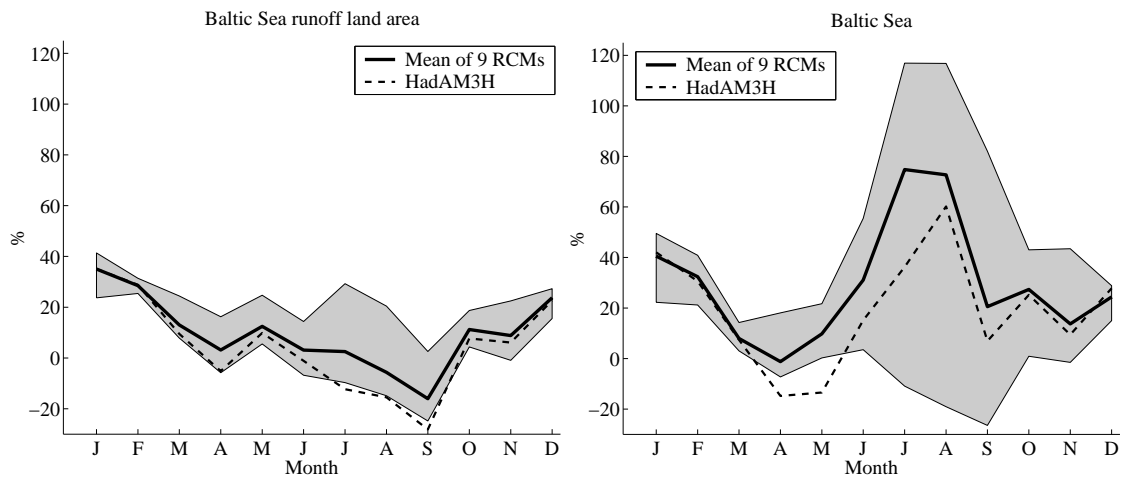

Figure 2. Change in the seasonal cycle of precipitation over the Baltic Sea runoff land area (left) and over the Baltic Sea (right) in the common A2 experiment. The shaded area and full line show the maximum, minimum and mean of the ensemble. The dashed line shows the HadAM3H simulation. Unit: %.
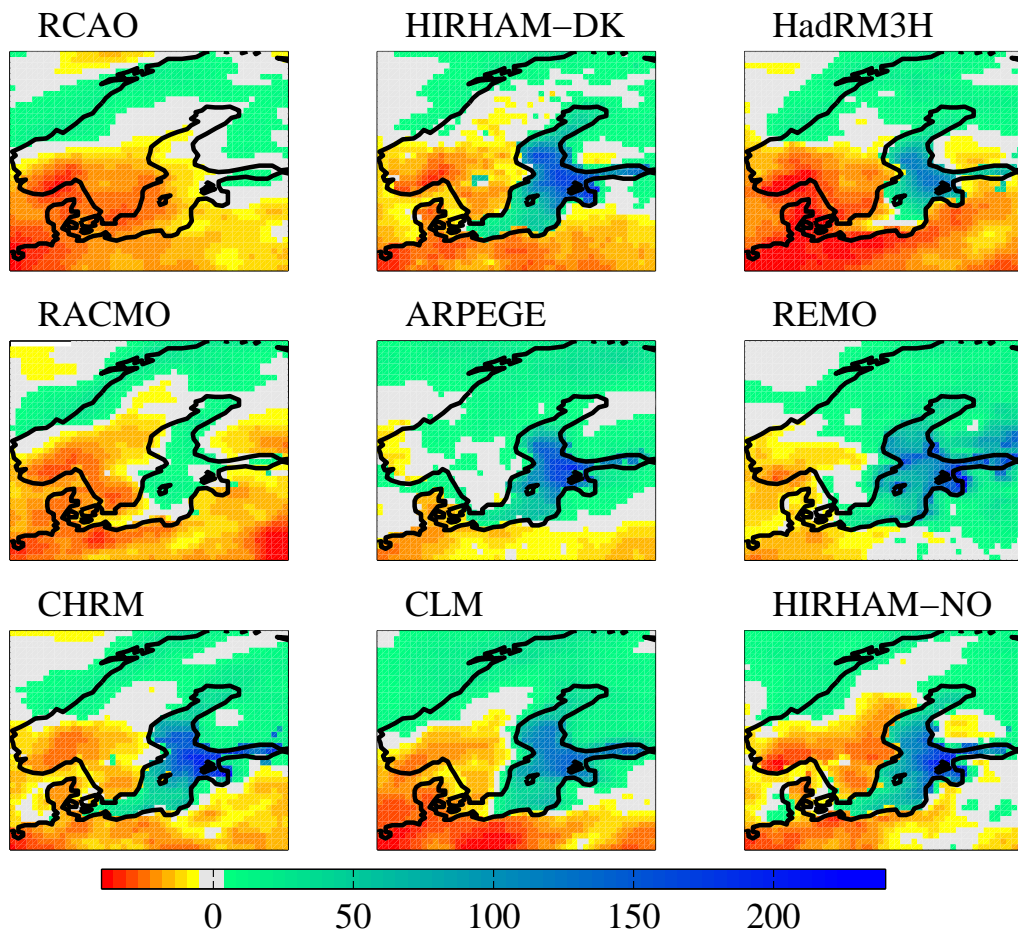
Figure 3. Relative changes in summer (JJA) precipitation from CTRL to A2 in the common experiment in various RCMs. Changes in the gray areas are less than 5%. Unit: %.
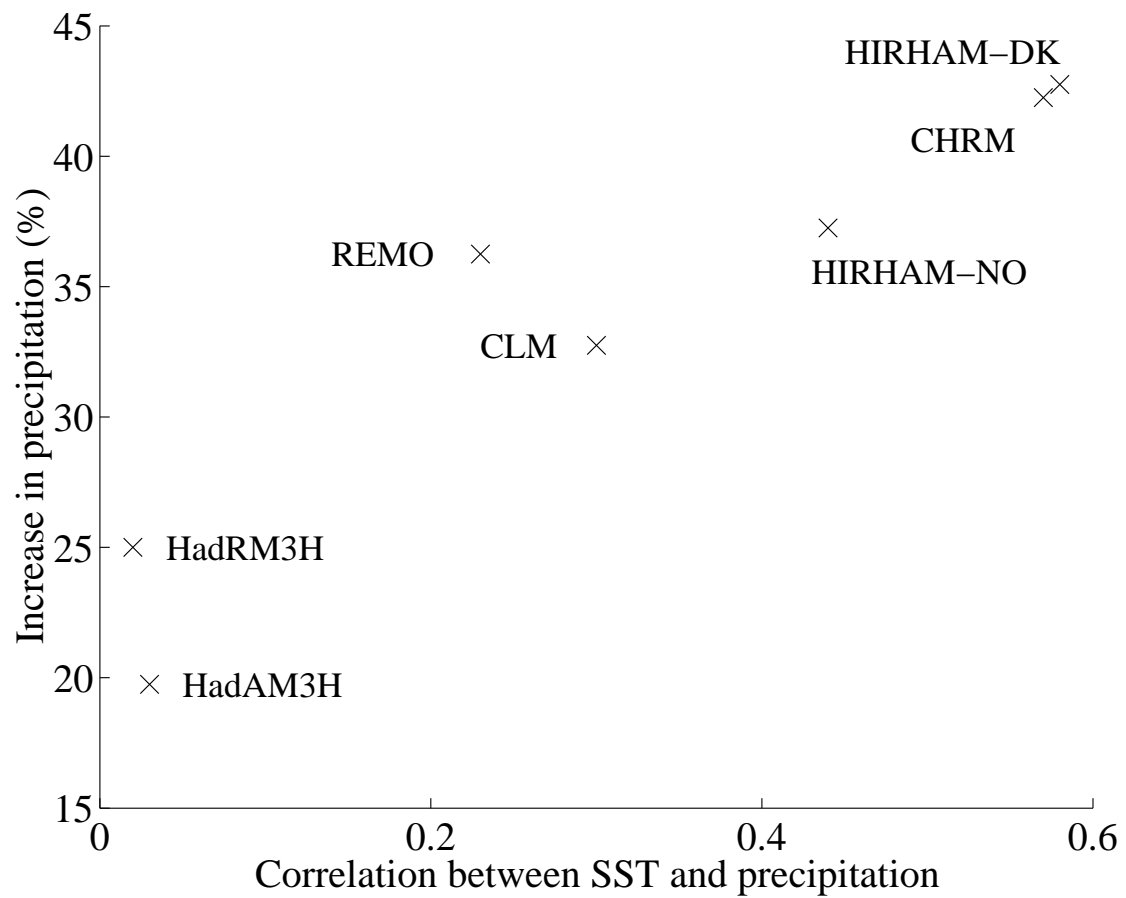
Figure 4. Annual increase in precipitation over the Baltic Sea for the seven RCMs using SSTs from HCSST. The increase is plotted against the correlation between interannual variability in SST and precipitation over the Baltic Sea in CTRL.
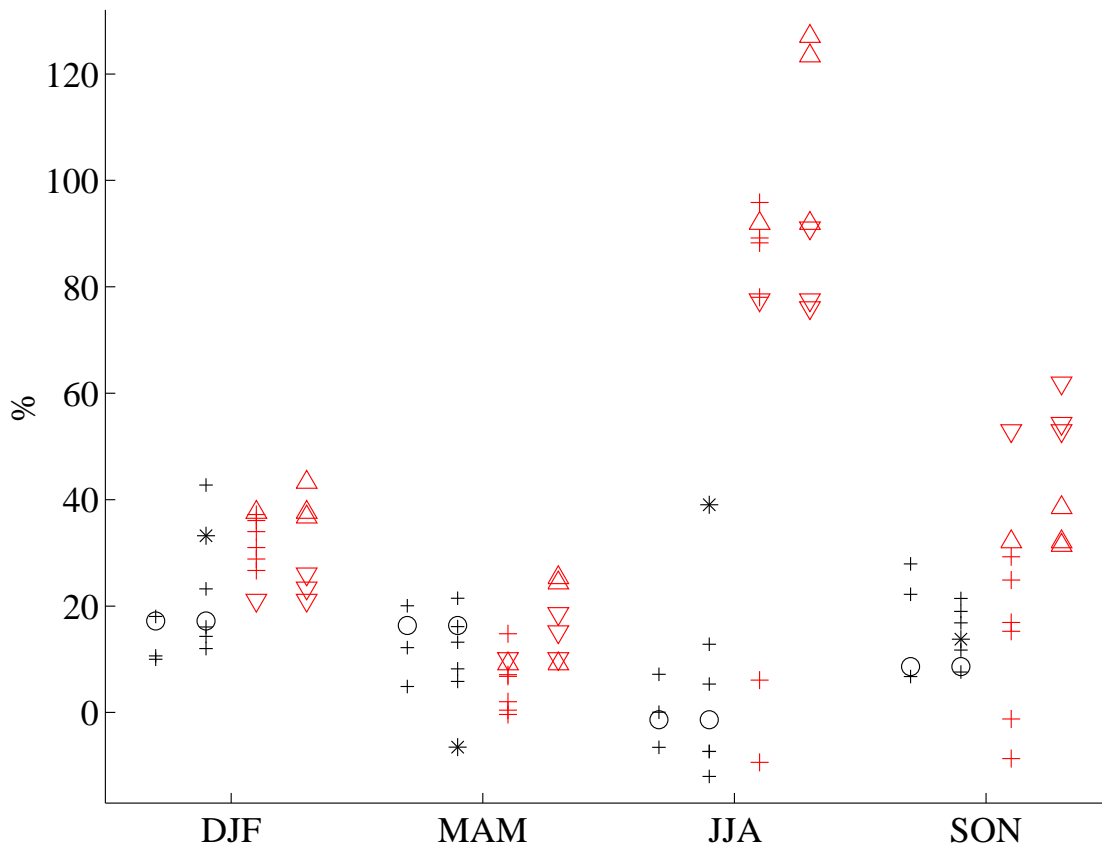
Figure 5. Area-averaged seasonal precipitation projections for the Baltic Sea. From left to right, the columns of symbols present: i) precipitation responses to A1FI, A2, B2 and B1 scenarios simulated by HadCM3, ii) precipitation responses to A2 scenario simulated by six GCMs, iii) precipitation responses to A2 scenario in various RCM simulations driven by HadAM3H and iv) the three HIRHAM-DK and Arpège ensemble responses to A2 scenario, driven by HadAM3H. To facilitate interpretation, all GCM projections are denoted by black, RCM projections by red symbols. (o) Refers to the A2-forced HadCM3, (*) to the corresponding HadAM3H experiment, (Δ) to HIRHAM-DK and (∇) to Arpège. All other model projections are denoted by (+).Unit: %.