Table 3.16: Annual trend in circulation indices and principal components. Trends significant at the 0.05% level are in bold. Trends are split by season.

Predictor	DJF	MAM	JJA	SON
NAO	**+0.038**	-0.009	-0.003	-0.018
SOI	-0.010	-0.008	-0.021	-0.012
MO1	**+0.017**	-0.009	**-0.008**	+0.000
MO2	**+0.024**	-0.007	**-0.009**	-0.003
NSCP	+0.010	+0.006	-0.007	-0.012
SHI	-0.008	**+0.015**	-	**+0.017**
ABI	-0.011	-0.001	-0.013	-0.010
EBI	**-0.035**	-0.008	0.000	**+0.010**
SLP1	**-0.043**	**-0.026**	**+0.051**	0.001
SLP2	-0.009	-0.009	+0.016	-0.020
SLP3	-0.003	**+0.044**	**-0.024**	0.023
SLP4	-0.017	+0.020	-0.001	**+0.051**
SLP5	-	-0.025	-0.023	+0.004
Z5001	**-0.043**	**-0.038**	**+0.054**	+0.003
Z5002	-0.003	+0.006	-0.018	-0.021
Z5003	-0.006	+0.001	-0.025	+0.017
Z5004	-0.021	**+0.022**	+0.003	**-0.041**
Z5005	-	**+0.043**	-0.025	+**0.026**
Z5006	-	-0.011	-0.016	+0.014
Z5007	-	-0.003	-0.001	-
SHM1	**-0.064**	**-0.064**	**-0.060**	**-0.057**
SHM2	-0.006	**-0.015**	+**0.009**	-0.008
SHM3	-0.001	-0.003	+0.004	0.009
SHM4	+0.016	-0.022	**-0.036**	-0.010
SHM5	-0.002	-	-	-
SHM6	-0.028	-	-	-

Table 3.17: Loadings patterns for Principal Component predictors.

Season	Variable	PC	Loading pattern
Winter	SLP	1	Deep European depression / winter dry
		2	East Atlantic Pattern / North Atlantic depression
		3	Shifted Icelandic low / Iberian SW
		4	Extended Icelandic low, North European Depression
	Z500	1	Arctic Oscillation
		2	East Atlantic Pattern
		3	Euro-Atlantic Blocking
		4	Siberian Blocking
	SHM	1	Strong SE Tropical Plume + Mediterranean moisture track
		2	Eastward Atlantic flow
		3	Flow toward Iberian interior, Mediterranean oscillation
		4	North east African uplift
		5	Extended Azores low
		6	Low variance over Mediterranean
Spring	SLP	1	Weakened European depression
		2	North Atlantic depression
		3	Shifted Icelandic low, Siberian low
		4	Extended Icelandic low blocking
		5	East Atlantic low, Siberian low
	Z500	1	East Atlantic Pattern, strong Siberian blocking
		2	North eastern European Blocking
		3	NAO, deep European depression
		4	Easterlies over north east Iberia
		5	Weak east Atlantic / west Russia pattern
		6	Oscillation between central Atlantic and Mediterranean Sea
		7	Iberian high pressure, strong Asiatic low
	SHM	1	North easterly shifted Tropical Plume
		2	Low variance over Mediterranean
		3	North east Atlantic flow over north Africa
		4	Extended Azores low into Africa
Summer	SLP	1	Continental pressure systems
		2	NAO, weak East Atlantic Pattern
		3	Depression to the north of Europe
		4	Weak East Atlantic high
		5	Weak East Atlantic low and Siberian low
	Z500	1	Continental pressure system, westerly flow over basin
		2	Weak E.A. Pattern, developed Iceland low, Balkan low
		3	Euro-Atlantic Blocking
		4	Weakened Arctic Oscillation
		5	Low pressure gradient over Mediterranean
		6	Low pressure gradient over Mediterranean

Table 3.17: Continued.

Summer	SHM	1	Eastern Tropical Plume, African extension into basin
		2	Dry air incursions into west and east Mediterranean
		3	Asiatic system
		4	Small humidity gradient, strong across eastern Greece
Autumn	SLP	1	Induction of continental air into west central Mediterranean
		2	North Atlantic depression
		3	Extended Icelandic low and Siberian blocking
		4	Shifted Icelandic low
		5	East Atlantic low, Siberian low
	Z500	1	North Sea Caspian Pattern
		2	East Atlantic Pattern
		3	Icelandic low and Siberian blocking
		4	Siberian Blocking
		5	Weak east Atlantic / west Russia pattern
		6	Small gradient over Mediterranean
	SHM	1	Strong Tropical band and eastern Plume
		2	North African / Middle Eastern dry band
		3	North eastward Atlantic flow
		4	Small humidity gradient