

1 A Bayesian quantile regresion framework for modeling trends in
2 air temperature: The case for Greece
3 (Supplement)

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7 change, Greece.

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$\alpha = 5\%$												
	NT quantile model						LT quantile model					
	mean	sd.	median	95% CL	MC S.E.	Heidel.diag	mean	sd.	median	95% CL	MC S.E.	Heidel.diag
β_0	-3.1795	0.17639	-3.1668	(-3.5310, -2.8435)	0.0016424	0.342	-2.9401761	0.3364821	-2.9359907	(-3.642397, -2.32666)	0.0086677	0.365
β_1							-0.0007919	0.0009443	-0.0008141	(-0.002566, 0.00112)	0.0000240	0.412
$\log \tau$	-0.6774	0.04059	-0.6778	(-0.7556, -0.5962)	0.0003789	0.832	-0.6767528	0.0404069	-0.6771876	(-0.755421, -0.59672)	0.0003899	0.572
BF	1.943328											
$\alpha = 50\%$												
	NT quantile model						LT quantile model					
	mean	sd.	median	95% CL	MC S.E.	Heidel.diag	mean	sd.	median	95% CL	MC S.E.	Heidel.diag
β_0	5.4877	0.37362	5.4734	(4.8067, 6.254)	0.0034856	0.150	5.080269	0.632178	5.068851	(3.879711, 6.355131)	1.332e-02	0.642
β_1							0.001501	0.001816	0.001529	(-0.002142, 0.004944)	3.769e-05	0.605
$\log \tau$	0.9345	0.04072	0.9343	(0.8547, 1.014)	0.0003862	0.726	0.935363	0.039909	0.934918	(0.857662, 1.014266)	3.718e-04	0.173
BF	1.99131											
$\alpha = 95\%$												
	NT quantile model						LT quantile model					
	mean	sd.	median	95% CL	MC S.E.	Heidel.diag	mean	sd.	median	95% CL	MC S.E.	Heidel.diag
β_0	14.2901	0.11435	14.2877	(14.070, 14.5200)	0.0010762	0.2865	13.223350	0.1695176	13.220574	(12.897349, 13.561965)	0.0039221	0.692
β_1							0.003033	0.0004225	0.003032	(0.002213, 0.003864)	0.0000100	0.592
$\log \tau$	-0.7786	0.04068	-0.7795	(-0.857, -0.6983)	0.0003848	0.0591	-0.809566	0.0405564	-0.810011	(-0.888195, -0.729556)	0.0003709	0.410
BF	0.6766329											

Table S 1: MCMC posterior simulation results for homogenized TN-m series at Kastoria station using alternative quantile models.

Note: Entries in this table represent the sampled mean, standard deviation, median, 95% confidence level, Monte Carlo SE and p-value of the Heidelberger and Welch convergence diagnostic test of stationarity of posterior parameter estimates. Also, they include the BF diagnostic measure when comparing the NT against the LT quantile model.

							$\alpha = 5\%$					
NT quantile model							LT quantile model					
	mean	sd.	median	95% CL	MC S.E.	Heidel.diag	mean	sd.	median	95% CL	MC S.E.	Heidel.diag
β_0	5.7312	0.15100	5.7264	(5.4253, 6.0243)	0.001407	0.427	5.63574	0.3423881	5.6323006	(4.961752, 6.318248)	9.815e-03	0.721
β_1							0.00027	0.0009812	0.0002989	(-0.001743, 0.002146)	2.762e-05	0.730
$\log \tau$	-0.3896	0.04116	-0.3896	(-0.4712, -0.3092)	0.000386	0.373	-0.38831	0.0405608	-0.3885373	(-0.466236, -0.307743)	3.830e-04	0.923
BF	1.968354											
							$\alpha = 50\%$					
NT quantile model							LT quantile model					
	mean	sd.	median	95% CL	MC S.E.	Heidel.diag	mean	sd.	median	95% CL	MC S.E.	Heidel.diag
β_0	18.054	0.38491	18.054	(17.306, 18.834)	0.0037295	0.261	1.803e+01	0.834506	1.802e+01	(16.36307, 19.696371)	2.186e-02	0.197
β_1							1.169e-04	0.002257	1.218e-04	(-0.004383, 0.004624)	5.945e-05	0.217
$\log \tau$	1.316	0.04029	1.316	(1.238, 1.396)	0.0003821	0.921	1.317	0.040458	1.317	(1.238032, 1.397864)	3.768e-04	0.719
BF	1.992798											
							$\alpha = 95\%$					
NT quantile model							LT quantile model					
	mean	sd.	median	95% CL	MC S.E.	Heidel.diag	mean	sd.	median	95% CL	MC S.E.	Heidel.diag
β_0	30.6240	0.18896	30.6298	(30.2333, 30.9757)	0.0017991	0.6456	29.790878	0.3169231	29.802728	(29.1738424, 30.411967)	0.0075731	0.108
β_1							0.002574	0.0009244	0.002552	(0.0007735, 0.004492)	0.0000218	0.130
$\log \tau$	-0.3963	0.03986	-0.3967	(-0.4737, -0.3169)	0.0003648	0.0981	-0.400920	0.0404583	-0.401025	(-0.4798472, -0.321674)	0.0003761	0.556
BF	1.976851											

Table S 2: MCMC posterior simulation results for homogenized TX-m series at Kastoria station using alternative quantile models.

Note: Entries in this table represent the sampled mean, standard deviation, median, 95% confidence level, Monte Carlo SE and p-value of the Heidelberger and Welch convergence diagnostic test of stationarity of posterior parameter estimates. Also, they include the BF diagnostic measure when comparing the NT against the LT quantile model.

NT vs LT quantile model												
Months												
α	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
5%	2.125542	2.121767	2.119388	2.101357	2.102213	2.020833	2.240804	-0.02390679	2.095181	2.325227	2.105232	2.130882
50%	1.531656	1.706543	1.078916	1.794656	1.500397	1.249176	0.6536152	-0.1574314	3.240821	1.653632	1.441838	1.173997
95%	2.102588	2.133112	2.66628	2.133161	2.104914	2.090872	-0.3353592	-1.65297	6.422858	2.096528	2.128412	2.11601
NT vs QT quantile model												
Months												
α	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
5%	5.90918e-05	6.86906e-05	6.378488e-05	8.322523e-05	7.136382e-05	6.897484e-05	6.176855e-05	5.04301e-05	6.934209e-05	5.512767e-05	6.544904e-05	6.312025e-05
50%	-8.25095e-05	-0.0001619893	-3.177938e-05	-0.0001380521	-6.350703e-05	-1.340441e-05	-7.989086e-05	5.178667e-06	2.385785e-05	-5.251335e-05	-5.568871e-05	-3.390436e-05
95%	6.147824e-05	6.994344e-05	6.226533e-05	6.980586e-05	7.620613e-05	7.382908e-05	4.84725e-05	4.743349e-05	4.829724e-05	5.438477e-05	6.259279e-05	6.670212e-05
LT vs QT quantile model												
Months												
α	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
5%	5.560162e-05	6.474848e-05	6.019179e-05	7.921093e-05	6.7894e-05	6.826379e-05	5.513071e-05	-0.004218893	6.619199e-05	4.741702e-05	6.217751e-05	5.924332e-05
50%	-0.0001077389	-0.000189845	-5.890981e-05	-0.0001538479	-8.465365e-05	-2.146119e-05	-0.0002444584	-6.578951e-05	1.472334e-05	-6.351272e-05	-7.724681e-05	-5.775888e-05
95%	5.847863e-05	6.557877e-05	4.670578e-05	6.544829e-05	7.240782e-05	7.062037e-05	-0.0002890781	-5.739183e-05	1.503917e-05	5.18808e-05	5.881643e-05	6.304518e-05

Table S 3: MCMC posterior simulation BF results for homogenized TN-m series at Naxos station using alternative quantile models.

Note: Entries in this table represent the sampled BF diagnostic measures. The BF values in red indicate the negative values of the test.

NT vs LT quantile model												
α	Months											
	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
5%	2.108621	2.126739	2.07414	2.090121	2.080316	2.091891	2.082426	-0.01708895	2.146924	2.113689	2.121361	2.106291
50%	1.880172	1.815102	1.855371	1.620431	1.252839	1.61525	0.1131044	0.08809705	1.499629	1.851772	1.741451	1.690176
95%	2.063425	2.148354	-3.199785	2.054885	2.121801	-2.497216	-0.4482762	-0.4780439	2.102941	2.149503	2.132034	2.153788
NT vs QT quantile model												
α	Months											
	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
5%	6.916311e-05	6.488696e-05	6.368239e-05	7.491412e-05	6.026921e-05	6.397997e-05	6.285095e-05	4.539404e-05	5.744294e-05	6.573887e-05	7.211832e-05	6.270326e-05
50%	-0.0003366598	-0.0003491576	-0.0001712096	-8.574527e-05	-2.823846e-05	-8.632246e-05	-0.000105238	-0.0001577865	-7.462741e-05	-0.0001961742	-0.0002465473	-0.000180193
95%	6.070435e-05	6.826968e-05	5.333717e-05	6.463354e-05	6.917089e-05	5.075488e-05	5.457088e-05	4.66441e-05	6.358612e-05	6.472641e-05	5.286063e-05	7.801785e-05
LT vs QT quantile model												
α	Months											
	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
5%	6.560034e-05	6.102014e-05	6.140607e-05	7.1684e-05	5.794237e-05	6.11695e-05	6.036322e-05	-0.005312677	5.351186e-05	6.220297e-05	6.799251e-05	5.953903e-05
50%	-0.000358116	-0.0003847249	-0.0001845557	-0.0001058302	-4.507913e-05	-0.0001068843	-0.0018609	-0.003582106	-9.952784e-05	-0.0002118773	-0.0002831516	-0.0002132239
95%	5.883844e-05	6.355535e-05	-3.333797e-05	6.290721e-05	6.520018e-05	-4.064918e-05	-0.0002434699	-0.0001951457	6.047352e-05	6.022453e-05	4.958705e-05	7.244712e-05

Table S 4: MCMC posterior simulation BF results for homogenized TN-m series at Chios station using alternative quantile models.

Note: Entries in this table represent the sampled BF diagnostic measures. The BF values in red indicate the negative values of the test.

NT vs LT quantile model												
α	Months											
	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
5%	2.143641	2.210701	2.183988	2.056831	2.079257	2.080551	-0.1215932	-0.04989494	2.087064	2.131799	2.216476	3.505051
50%	1.88212	1.872311	1.77084	1.504499	1.860358	-1.166686	0.05145789	0.09216683	1.277458	1.801799	1.850379	1.833497
95%	2.182462	2.160382	1.956408	2.12844	2.139732	-1.1181	4.952318	-2.87936	2.122052	2.145566	2.161164	2.099884
NT vs QT quantile model												
α	Months											
	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
5%	4.826836e-05	7.08374e-05	6.083338e-05	5.892914e-05	6.134312e-05	5.866913e-05	5.052796e-05	5.631012e-05	5.849915e-05	7.636561e-05	7.000637e-05	4.905475e-05
50%	-0.0007352146	-0.0005570141	-0.0002703335	-5.61849e-05	-9.896037e-05	7.026217e-06	-4.23128e-05	-4.418495e-05	-3.708363e-05	-0.000300489	-0.0003655095	-0.0004099552
95%	7.296758e-05	6.173293e-05	6.162859e-05	7.38984e-05	7.233453e-05	4.967405e-05	5.766885e-05	5.546057e-05	7.216974e-05	7.750211e-05	6.540782e-05	5.855983e-05
LT vs QT quantile model												
α	Months											
	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
5%	4.503399e-05	6.408592e-05	5.570852e-05	5.730089e-05	5.900484e-05	5.639767e-05	-0.0008310984	-0.002257148	5.60588e-05	7.164428e-05	6.316908e-05	2.799089e-05
50%	-0.000781262	-0.0005950017	-0.0003053167	-7.46892e-05	-0.0001063885	-1.204475e-05	-0.00164456	-0.0009588037	-5.805846e-05	-0.0003335433	-0.0003950645	-0.0004471838
95%	6.68672e-05	5.715001e-05	6.300177e-05	6.943904e-05	6.761083e-05	-9.824956e-07	2.328964e-05	-3.840845e-06	6.801881e-05	7.224398e-05	6.053016e-05	5.577435e-05

Table S 5: MCMC posterior simulation BF results for homogenized TN-m series at Kastoria station using alternative quantile models.

Note: Entries in this table represent the sampled BF diagnostic measures. The BF values in red indicate the negative values of the test.

NT vs LT quantile model												
α	Months											
	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
5%	2.064026	2.095268	2.085596	2.015965	2.089754	2.079996	2.087414	2.080075	2.089756	2.125905	2.067906	3.327507
50%	1.690644	1.60796	1.596019	-0.5390251	1.138187	1.545097	1.505143	1.587225	1.333648	1.757346	1.555342	1.589193
95%	2.223709	2.109958	2.050208	2.069044	2.095737	-1.69015	-2.092585	-4.818479	2.084456	2.123944	2.04773	2.121421
NT vs QT quantile model												
α	Months											
	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
5%	6.258754e-05	6.890333e-05	7.308666e-05	5.523517e-05	5.821539e-05	6.488905e-05	6.053052e-05	6.83154e-05	7.612994e-05	6.818058e-05	5.651683e-05	6.656862e-05
50%	-0.0001694704	-9.088122e-05	-0.0001137554	3.477162e-06	-1.817839e-05	-2.403528e-05	-4.179803e-05	-4.937449e-05	-3.240273e-05	-0.0002010015	-9.3412e-05	-0.0001087033
95%	5.365536e-05	6.600012e-05	6.891568e-05	6.68551e-05	6.175846e-05	5.23604e-05	6.016757e-05	5.049074e-05	6.265274e-05	6.795906e-05	8.282161e-05	7.295071e-05
LT vs QT quantile model												
α	Months											
	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
5%	6.064608e-05	6.577042e-05	7.008708e-05	5.479776e-05	5.571507e-05	6.239344e-05	5.799569e-05	6.568552e-05	7.286013e-05	6.414264e-05	5.466092e-05	4.00111e-05
50%	-0.0002004803	-0.0001130392	-0.0001425489	-1.290167e-05	-3.194271e-05	-3.111169e-05	-5.554027e-05	-6.221488e-05	-4.859261e-05	-0.0002287558	-0.0001201176	-0.0001368031
95%	4.825753e-05	6.25606e-05	6.7228e-05	6.462414e-05	5.893721e-05	-6.274407e-06	-5.75055e-05	-2.095713e-05	6.011423e-05	6.399327e-05	8.089115e-05	6.877532e-05

Table S 6: MCMC posterior simulation BF results for homogenized TN-m series at Kasteli station using alternative quantile models.

Note: Entries in this table represent the sampled BF diagnostic measures. The BF values in red indicate the negative values of the test.

NT vs LT quantile model												
α	Months											
	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
5%	2.103439	1.987266	2.219427	2.08543	2.030914	2.087419	2.077327	2.105478	2.100668	2.079897	2.021029	2.127626
50%	1.836872	1.794829	1.603781	2.35894	1.304706	-4.884604	-0.5222912	1.564318	1.066237	1.726938	1.758191	1.770924
95%	2.131596	2.124532	2.141049	2.13184	2.112339	2.084673	2.067588	2.078712	3.157039	2.146372	2.029307	2.103296
NT vs QT quantile model												
α	Months											
	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
5%	5.876331e-05	6.715346e-05	6.060963e-05	5.278568e-05	6.65094e-05	6.190717e-05	6.714039e-05	6.870906e-05	6.913933e-05	5.92362e-05	6.250292e-05	6.752651e-05
50%	-0.0004038634	-0.0003271972	-0.0001171355	2.756401e-05	-1.985627e-05	7.868368e-06	2.09561e-06	-3.94877e-05	-1.77799e-05	-0.0001976412	-0.0002845889	-0.0002185254
95%	6.745789e-05	7.746829e-05	6.107224e-05	5.752483e-05	6.200257e-05	6.227576e-05	6.281697e-05	6.359484e-05	5.684597e-05	6.717637e-05	5.646904e-05	6.866548e-05
LT vs QT quantile model												
α	Months											
	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
5%	5.587356e-05	6.758376e-05	5.461737e-05	5.062331e-05	6.549701e-05	5.931455e-05	6.464113e-05	6.526696e-05	6.582605e-05	5.69607e-05	6.185258e-05	6.347592e-05
50%	-0.0004397295	-0.0003645998	-0.0001460742	2.36004e-06	-3.043793e-05	-3.221702e-06	-8.024682e-06	-5.048553e-05	-3.335073e-05	-0.000228892	-0.0003237293	-0.0002467925
95%	6.329332e-05	7.292739e-05	5.70489e-05	5.396732e-05	5.870513e-05	5.974631e-05	6.076354e-05	6.118677e-05	3.601221e-05	6.259527e-05	5.565352e-05	6.529321e-05

Table S 7: MCMC posterior simulation BF results for homogenized TN-m series at Pyrgos station using alternative quantile models.

Note: Entries in this table represent the sampled BF diagnostic measures. The BF values in red indicate the negative values of the test.

NT vs LT quantile model												
α	Months											
	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
5%	2.114167	2.169649	2.092311	2.110584	2.100162	2.031206	2.188378	2.089331	2.102691	2.062576	2.125609	2.109493
50%	1.722757	1.794454	1.741826	1.794564	1.503964	1.204077	1.238289	0.1129963	0.5616905	1.85986	1.77019	1.800533
95%	2.112019	2.139117	1.991451	2.134623	2.104303	2.088858	-0.3943804	-0.7834572	-0.3747101	2.134299	2.03131	2.154101
NT vs QT quantile model												
α	Months											
	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
5%	7.725775e-05	5.080712e-05	7.399354e-05	6.126072e-05	5.825246e-05	6.885979e-05	6.714105e-05	6.356195e-05	6.986836e-05	6.506443e-05	7.457807e-05	5.862653e-05
50%	-0.0001818696	-0.0003015614	-0.0001537313	-0.0001468785	-5.912953e-05	-1.165265e-05	-8.781268e-05	-8.718088e-05	-0.000163476	-0.0004789534	-0.0003085224	-0.0001760776
95%	6.334725e-05	6.850473e-05	6.928815e-05	7.062467e-05	6.49471e-05	6.661851e-05	4.739359e-05	5.648211e-05	5.512125e-05	6.32808e-05	6.796891e-05	6.221256e-05
LT vs QT quantile model												
α	Months											
	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
5%	7.308574e-05	4.683441e-05	7.072902e-05	5.805098e-05	5.547424e-05	6.780187e-05	6.136146e-05	6.08443e-05	6.645613e-05	6.309045e-05	7.017102e-05	5.558353e-05
50%	-0.0002111377	-0.0003361037	-0.0001765173	-0.0001636927	-7.863158e-05	-1.935533e-05	-0.0001418291	-0.001543075	-0.0005820856	-0.0005150425	-0.0003485755	-0.0001955838
95%	5.998739e-05	6.404954e-05	6.958561e-05	6.617061e-05	6.17279e-05	6.378463e-05	-0.0002403445	-0.0001441868	-0.0002942074	5.929892e-05	6.692127e-05	5.776196e-05

Table S 8: MCMC posterior simulation BF results for homogenized TX-m series at Naxos station using alternative quantile models.

Note: Entries in this table represent the sampled BF diagnostic measures. The BF values in red indicate the negative values of the test.

NT vs LT quantile model												
α	Months											
	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
5%	2.116299	2.066363	2.101797	2.138145	2.115894	2.090882	2.08436	2.099702	2.114315	2.093779	2.161148	2.095878
50%	1.82299	1.820363	1.841725	1.744495	1.650537	8.42728	1.397686	1.821345	1.192719	1.832135	1.807324	1.754395
95%	2.113226	2.174122	2.070468	2.093691	2.365918	2.053104	2.114828	2.133785	2.130203	2.02561	2.087348	2.141144
NT vs QT quantile model												
α	Months											
	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
5%	6.802334e-05	6.780652e-05	6.835333e-05	7.21054e-05	7.532328e-05	7.309644e-05	6.911844e-05	7.324542e-05	6.934957e-05	6.225601e-05	6.681566e-05	6.04241e-05
50%	-0.0002133437	-0.000382096	-0.0002586084	-0.0002267233	-0.0001446107	3.018507e-05	-7.408042e-05	-0.0001872189	-3.794739e-05	-0.0004503551	-0.0003980844	-0.0002489624
95%	6.456405e-05	7.357593e-05	7.134432e-05	6.98012e-05	6.728964e-05	5.275353e-05	5.633693e-05	7.413841e-05	6.986729e-05	6.238933e-05	6.04811e-05	7.841751e-05
LT vs QT quantile model												
α	Months											
	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
5%	6.428517e-05	6.562885e-05	6.504274e-05	6.744668e-05	7.119758e-05	6.991925e-05	6.55637e-05	6.976744e-05	6.560004e-05	5.946761e-05	6.183349e-05	5.765995e-05
50%	-0.000234059	-0.000419802	-0.0002808328	-0.00025993	-0.0001752287	7.163656e-06	-0.0001060044	-0.0002055831	-6.363174e-05	-0.0004916178	-0.0004405235	-0.0002838157
95%	6.110473e-05	6.768335e-05	6.891612e-05	6.667766e-05	5.688248e-05	5.138906e-05	5.327801e-05	6.949004e-05	6.559685e-05	6.160052e-05	5.795019e-05	7.324826e-05

Table S 9: MCMC posterior simulation BF results for homogenized TX-m series at Chios station using alternative quantile models.

Note: Entries in this table represent the sampled BF diagnostic measures. The BF values in red indicate the negative values of the test.

NT vs LT quantile model												
α	Months											
	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
5%	2.11786	2.168503	2.14651	2.133067	2.136881	2.126378	2.09889	2.107099	2.121057	2.123462	2.140317	2.083558
50%	1.749573	1.814219	1.809357	1.866114	1.929478	1.584653	1.767833	1.700482	1.605792	1.854687	1.914629	1.896561
95%	2.138786	2.184935	9.425744	2.201652	2.08672	-0.818658	2.114325	2.041595	2.113486	2.131849	2.198002	2.156467
NT vs QT quantile model												
α	Months											
	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
5%	6.98672e-05	6.522181e-05	6.451127e-05	7.22106e-05	6.958665e-05	7.029612e-05	6.68743e-05	7.054417e-05	7.845139e-05	7.847819e-05	7.960578e-05	6.83551e-05
50%	-0.0002288305	-0.0003795266	-0.0003280734	-0.0003121759	-0.0002914694	-5.09741e-05	-0.0002216239	-0.0001291363	-0.0001314499	-0.0005536416	-0.0005277356	-0.0002954448
95%	7.723313e-05	6.427172e-05	5.311101e-05	5.894881e-05	6.6483e-05	5.342191e-05	7.46386e-05	6.763793e-05	5.688679e-05	5.018582e-05	7.231469e-05	7.04671e-05
LT vs QT quantile model												
α	Months											
	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
5%	6.597907e-05	6.015376e-05	6.010805e-05	6.770589e-05	6.512917e-05	6.611819e-05	6.37235e-05	6.695858e-05	7.397386e-05	7.391533e-05	7.438691e-05	6.561382e-05
50%	-0.0002615844	-0.0004183911	-0.000362641	-0.0003345733	-0.0003021225	-6.43347e-05	-0.0002507295	-0.0001518821	-0.0001637197	-0.0005970187	-0.0005512668	-0.0003115584
95%	7.222145e-05	5.883169e-05	1.126935e-05	5.354962e-05	6.372009e-05	-0.0001305109	7.060275e-05	6.625988e-05	5.383218e-05	4.708196e-05	6.580038e-05	6.535421e-05

Table S 10: MCMC posterior simulation BF results for homogenized TX-m series at Kasteli station using alternative quantile models.

Note: Entries in this table represent the sampled BF diagnostic measures. The BF values in red indicate the negative values of the test.

NT vs LT quantile model												
α	Months											
	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
5%	2.17081	2.269854	2.248158	2.112064	2.174387	2.09845	2.074165	2.166019	2.087672	2.16037	2.209391	2.000987
50%	1.880533	1.891987	1.903116	1.86643	1.936937	1.95648	1.847865	1.887409	1.891402	1.814753	1.929961	1.85266
95%	2.080823	2.461903	2.444759	2.13424	2.120711	2.103025	2.185087	2.160649	2.159168	2.186705	2.168294	2.158952
NT vs QT quantile model												
α	Months											
	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
5%	5.325994e-05	6.228063e-05	4.402554e-05	5.562361e-05	5.940334e-05	7.107816e-05	7.682563e-05	6.342028e-05	7.142953e-05	6.333845e-05	5.154571e-05	4.595326e-05
50%	-0.0006595834	-0.0007783757	-0.0007571008	-0.0005058081	-0.0004661952	-0.0001226623	-0.0002712051	-0.0004380252	-0.0002885817	-0.0003565391	-0.0005952525	-0.0004699337
95%	5.613282e-05	3.521605e-05	4.124895e-05	6.827287e-05	6.860532e-05	6.719635e-05	6.278964e-05	7.762118e-05	5.716978e-05	6.725854e-05	6.491668e-05	7.300107e-05
LT vs QT quantile model												
α	Months											
	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
5%	4.90692e-05	5.487634e-05	3.916587e-05	5.267228e-05	5.463916e-05	6.774347e-05	7.40786e-05	5.855929e-05	6.842984e-05	5.863668e-05	4.666056e-05	4.593058e-05
50%	-0.0007014857	-0.0008228128	-0.0007956433	-0.0005420059	-0.0004813736	-0.0001253908	-0.0002935335	-0.0004641551	-0.0003051511	-0.000392934	-0.0006168543	-0.0005073069
95%	5.395253e-05	2.860881e-05	3.37448e-05	6.397864e-05	6.470031e-05	6.390446e-05	5.747108e-05	7.184988e-05	5.295537e-05	6.151588e-05	5.987811e-05	6.76264e-05

Table S 11: MCMC posterior simulation BF results for homogenized TX-m series at Kastoria station using alternative quantile models.

Note: Entries in this table represent the sampled BF diagnostic measures. The BF values in red indicate the negative values of the test.

NT vs LT quantile model												
α	Months											
	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
5%	2.123891	2.054035	2.120618	2.124753	2.149329	2.103282	3.076575	2.077724	2.115835	2.328493	2.095766	2.271885
50%	1.396203	1.70091	1.651855	1.722067	1.603678	1.512735	1.929255	1.897371	1.434203	1.660498	1.815751	1.505027
95%	2.132254	2.153262	2.171351	2.145303	2.140305	-0.5149442	2.255743	2.061617	2.103821	2.13949	2.109004	2.074081
NT vs QT quantile model												
α	Months											
	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
5%	5.284796e-05	7.383823e-05	5.938991e-05	6.581829e-05	6.609125e-05	7.445308e-05	5.783035e-05	6.582334e-05	7.172252e-05	7.088694e-05	-0.0002083596	6.002844e-05
50%	-5.770006e-05	-0.000204117	-0.0001998814	-0.0001146898	-0.0001465788	-5.422956e-05	-6.802034e-05	-0.0002622761	-6.84893e-05	-0.0001258311	-0.0002083596	-8.050597e-05
95%	6.356524e-05	6.76796e-05	6.05016e-05	5.748335e-05	6.768037e-05	5.673264e-05	6.886735e-05	6.042506e-05	6.230858e-05	7.388885e-05	7.562722e-05	6.485637e-05
LT vs QT quantile model												
α	Months											
	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
5%	4.976523e-05	7.189579e-05	5.60119e-05	6.195382e-05	6.149942e-05	7.079705e-05	3.759398e-05	6.336101e-05	6.779596e-05	6.764777e-05	-0.0002295023	5.284461e-05
50%	-8.265282e-05	-0.0002400091	-0.0002420084	-0.0001332002	-0.0001828033	-7.169738e-05	-7.051463e-05	-0.0002764626	-9.550853e-05	-0.0001515583	-0.0002295023	-0.0001069828
95%	5.962259e-05	6.286238e-05	5.572715e-05	5.358996e-05	6.324367e-05	-0.0002203448	6.105956e-05	5.861908e-05	5.923372e-05	6.907148e-05	7.171843e-05	6.253986e-05

Table S 12: MCMC posterior simulation BF results for homogenized TX-m series at Pyrgos station using alternative quantile models.

Note: Entries in this table represent the sampled BF diagnostic measures. The BF values in red indicate the negative values of the test.

2 Figures

2.1 The TN-m figures

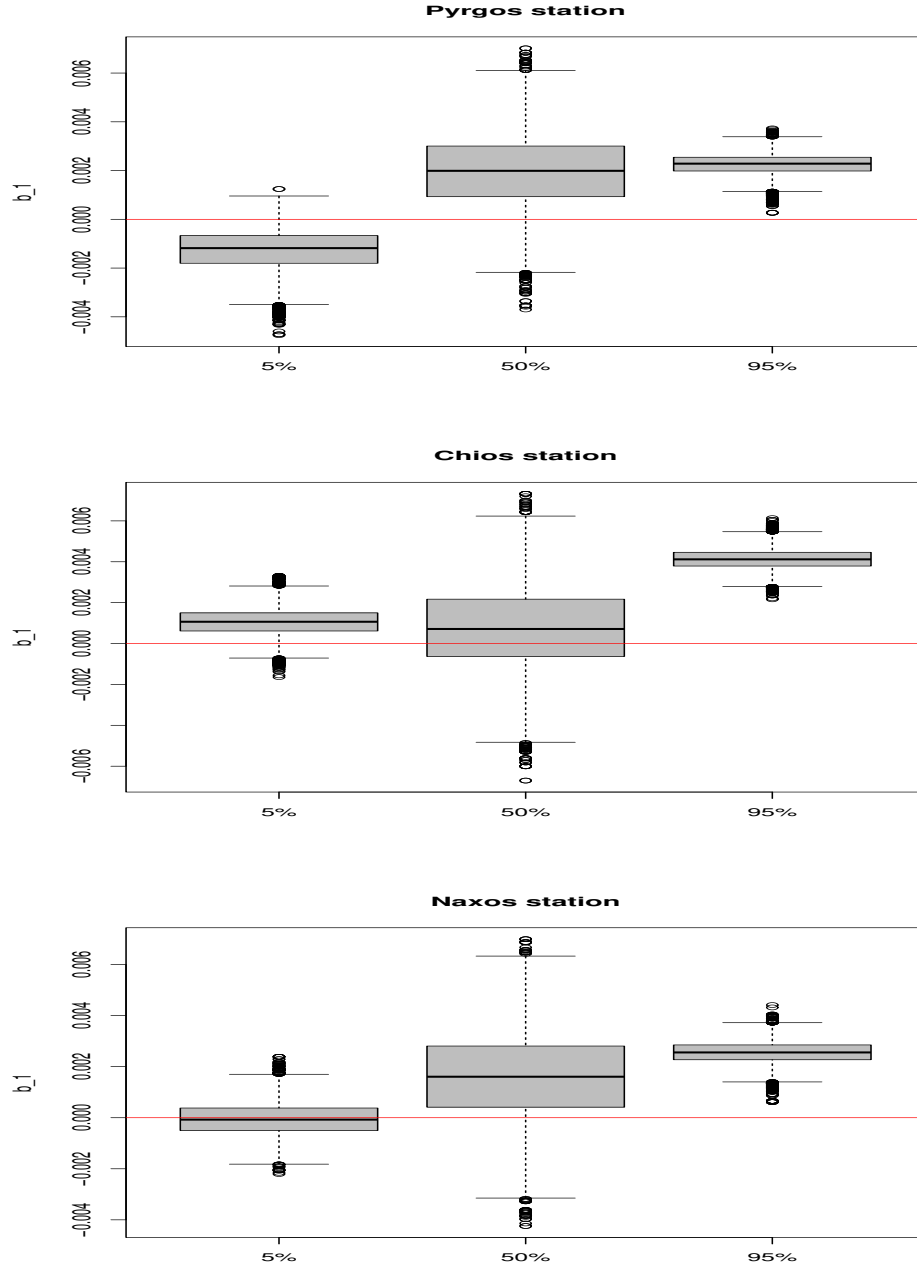


Figure S 1: Box-plots of MCMC posterior results for the β_1 parameter under a the 5%, 50% and 95% QT quantile model using TN-m series in Pyrgos, Chios and Naxos stations of the 1960-2010 period.

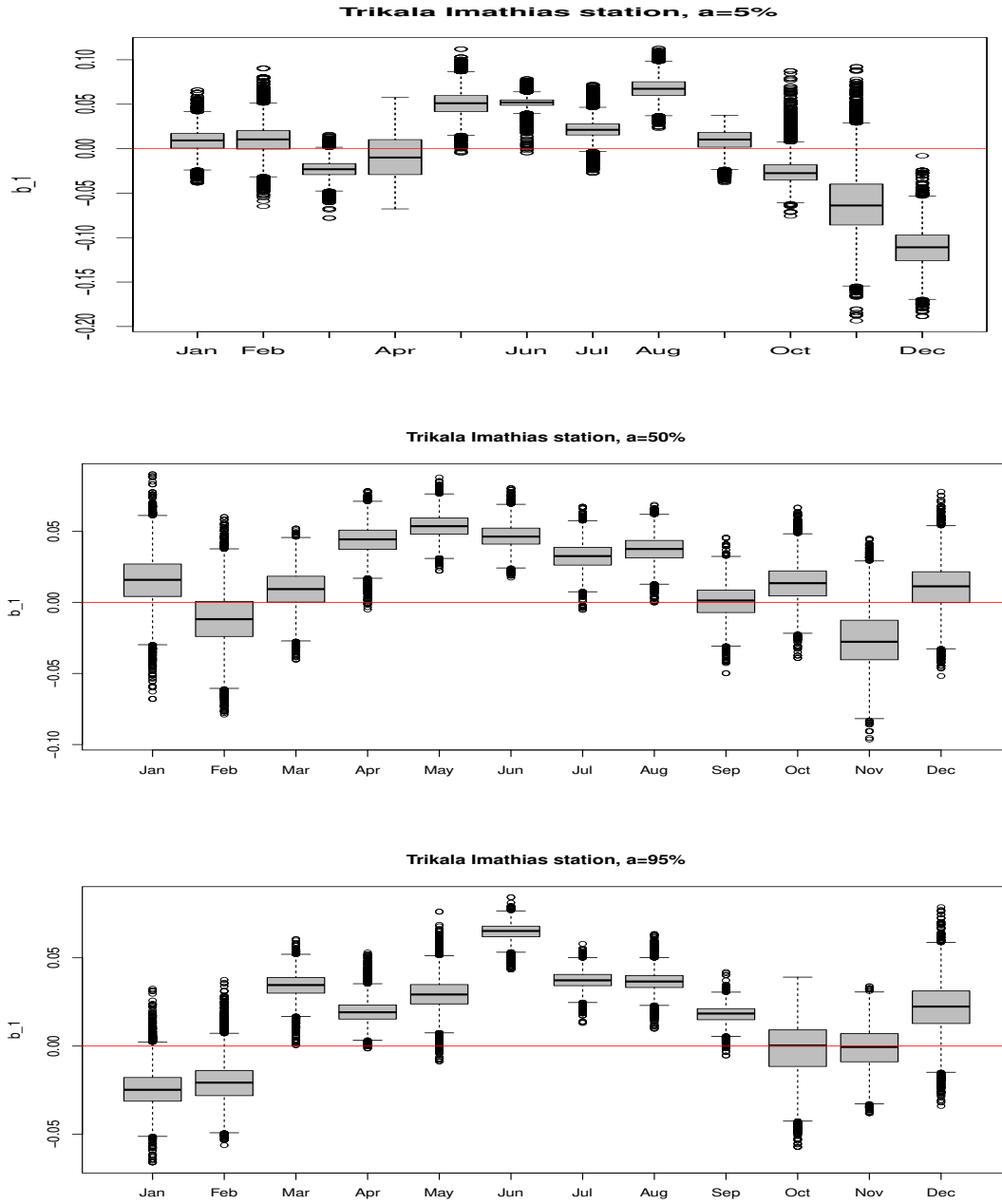


Figure S 2: Box-plots of MCMC posterior results for the β_1 parameter by months using TN-m temperature series of the 1960-2010 period at Trikala Imathias station.

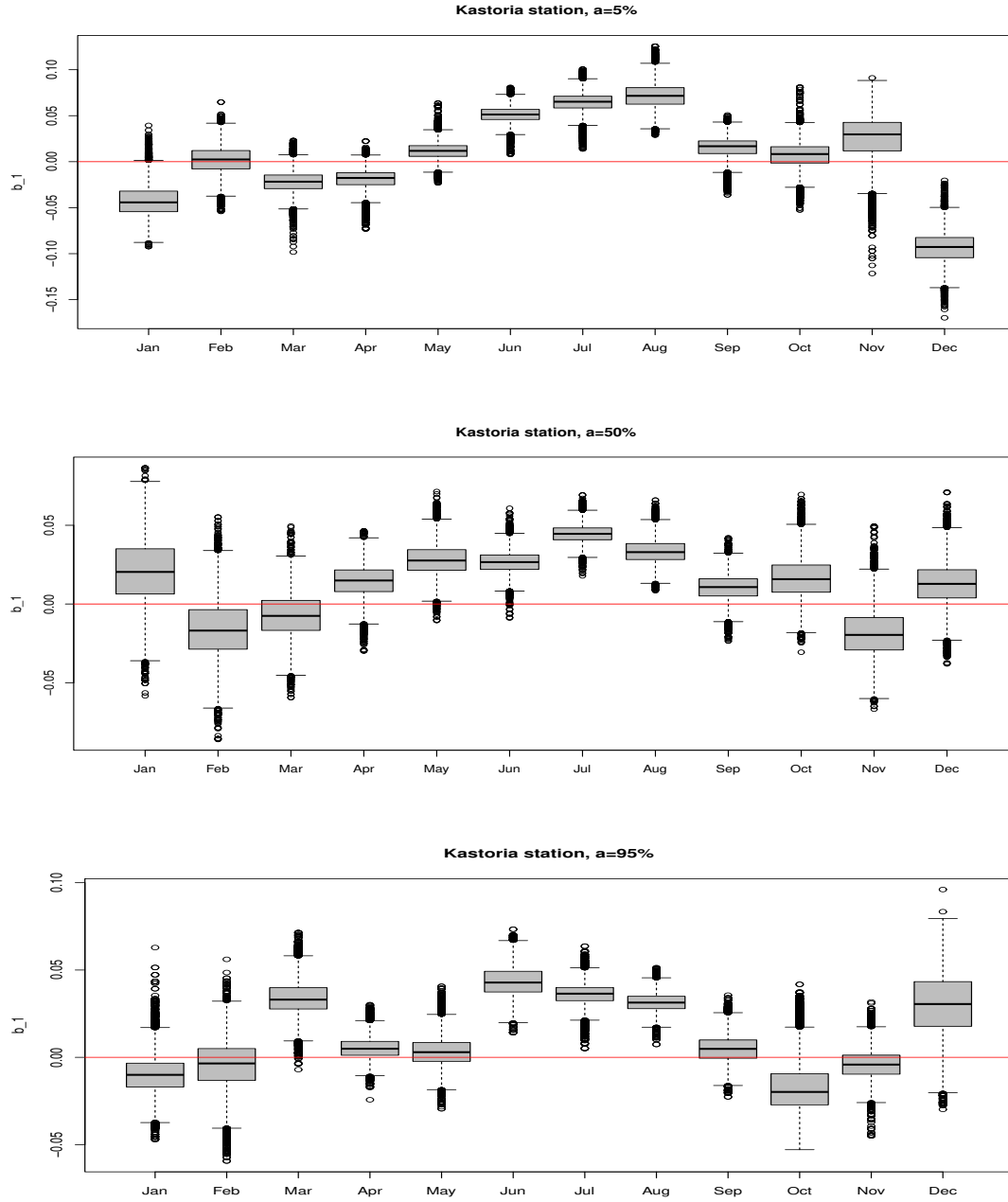


Figure S 3: Box-plots of MCMC posterior results for the β_1 parameter by months using TN-m temperature series of the 1960-2010 period at Kastoria station.

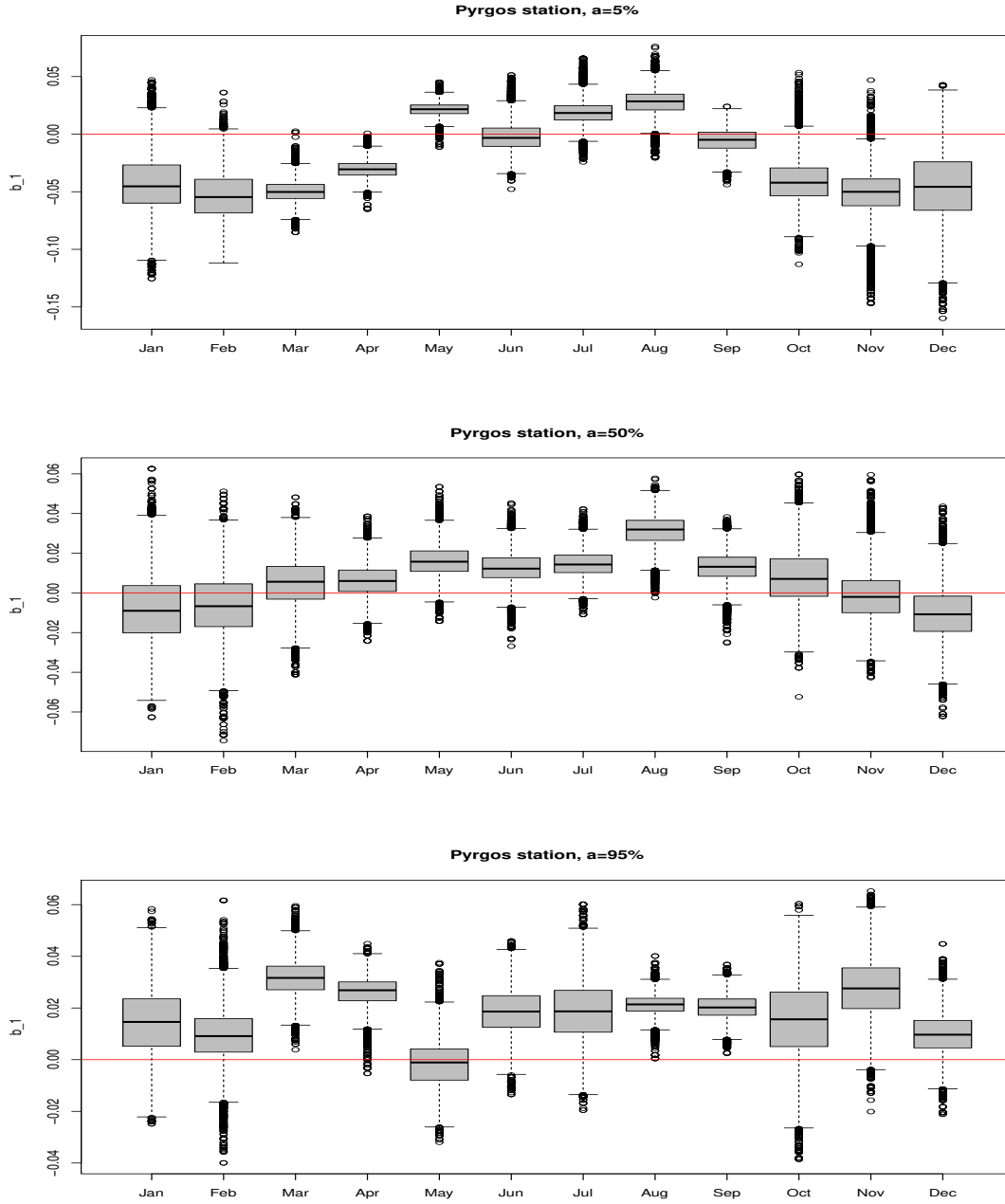


Figure S 4: Box-plots of MCMC posterior results for the β_1 parameter by months using TN-m temperature series of the 1960-2010 period at Pyrgos station.

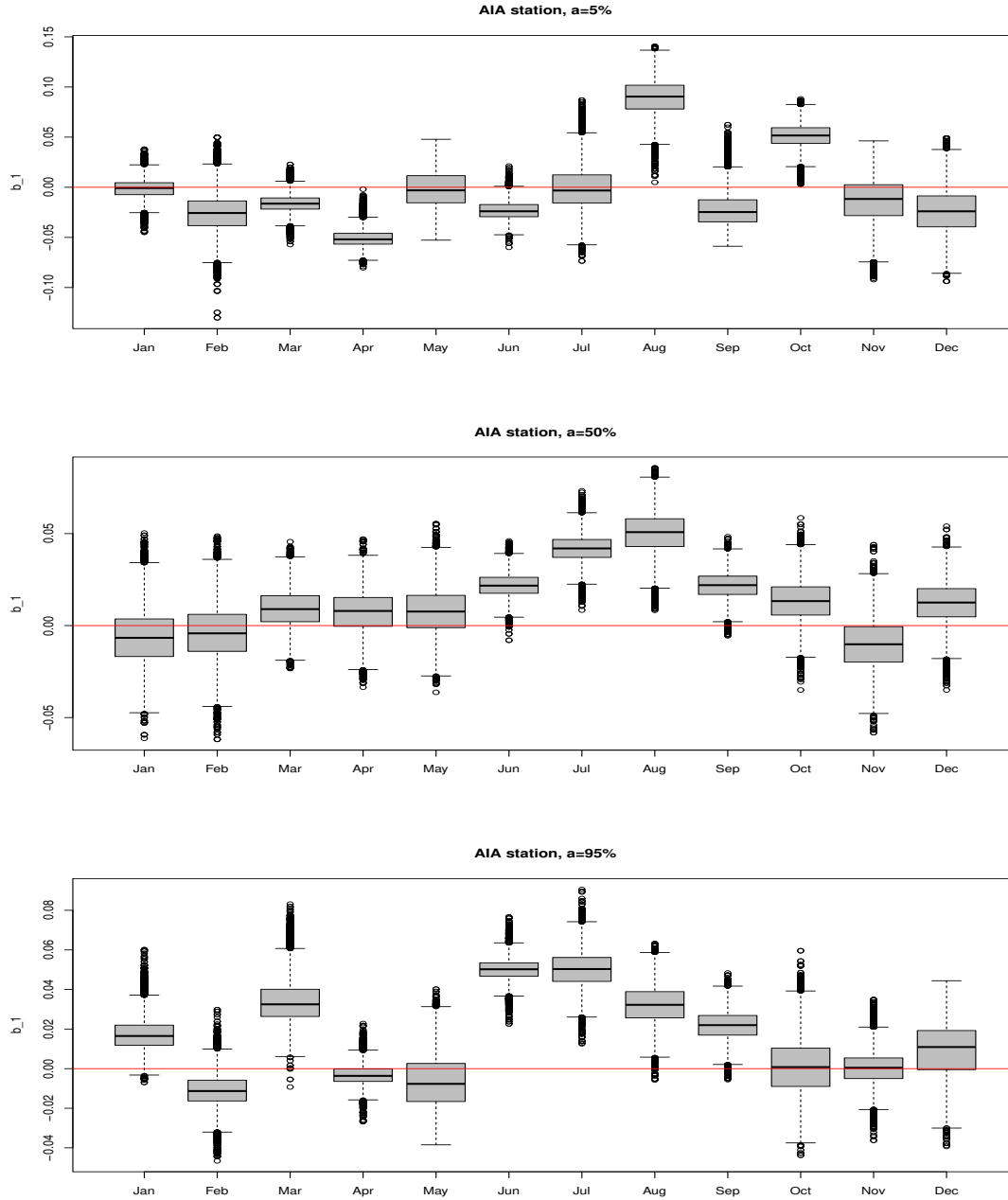


Figure S 5: Box-plots of MCMC posterior results for the β_1 parameter by months using TN-m temperature series of the 1960-2010 period at AIA station.

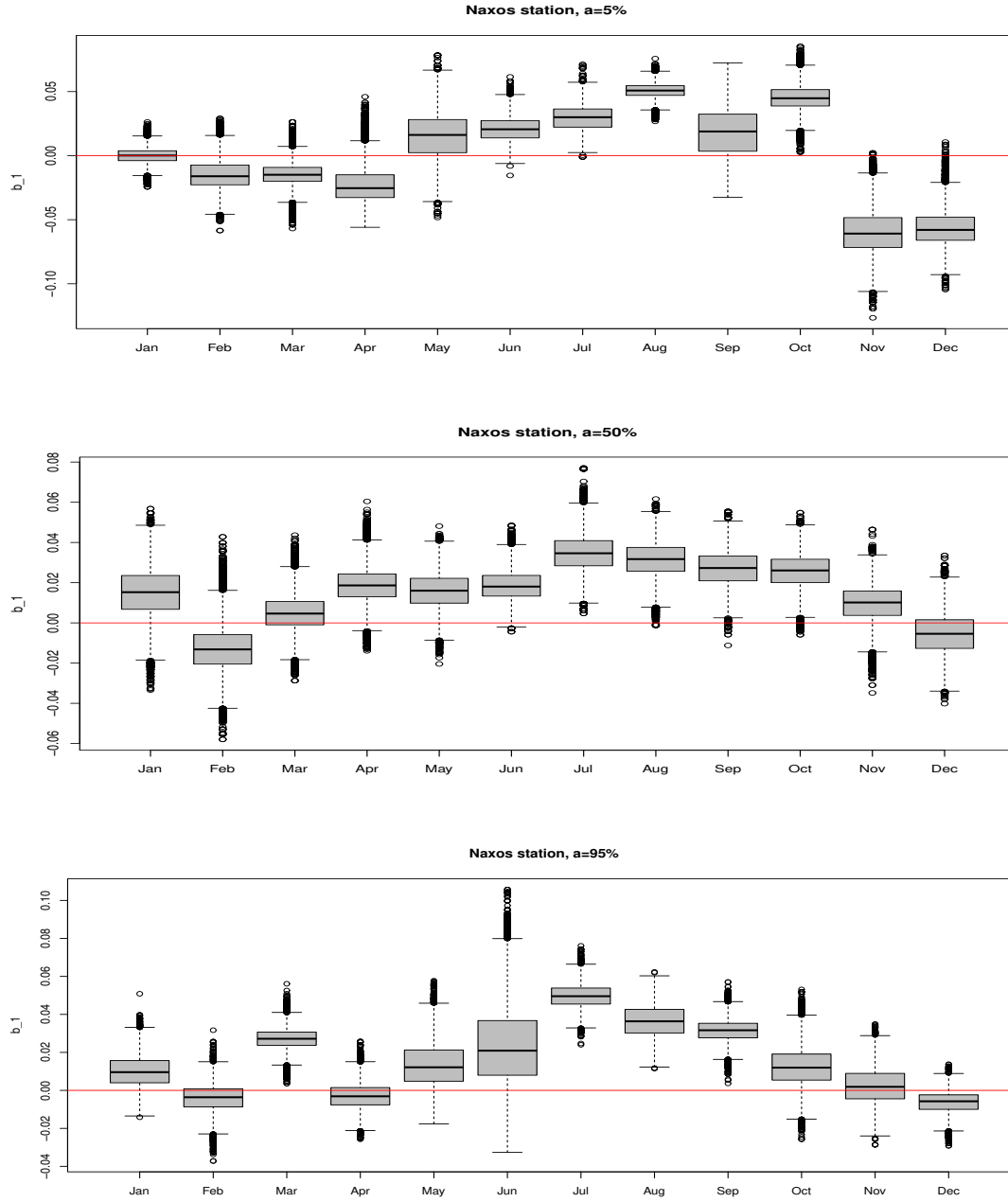


Figure S 6: Box-plots of MCMC posterior results for the β_1 parameter by months using TN-m temperature series of the 1960-2010 period at Naxos station.

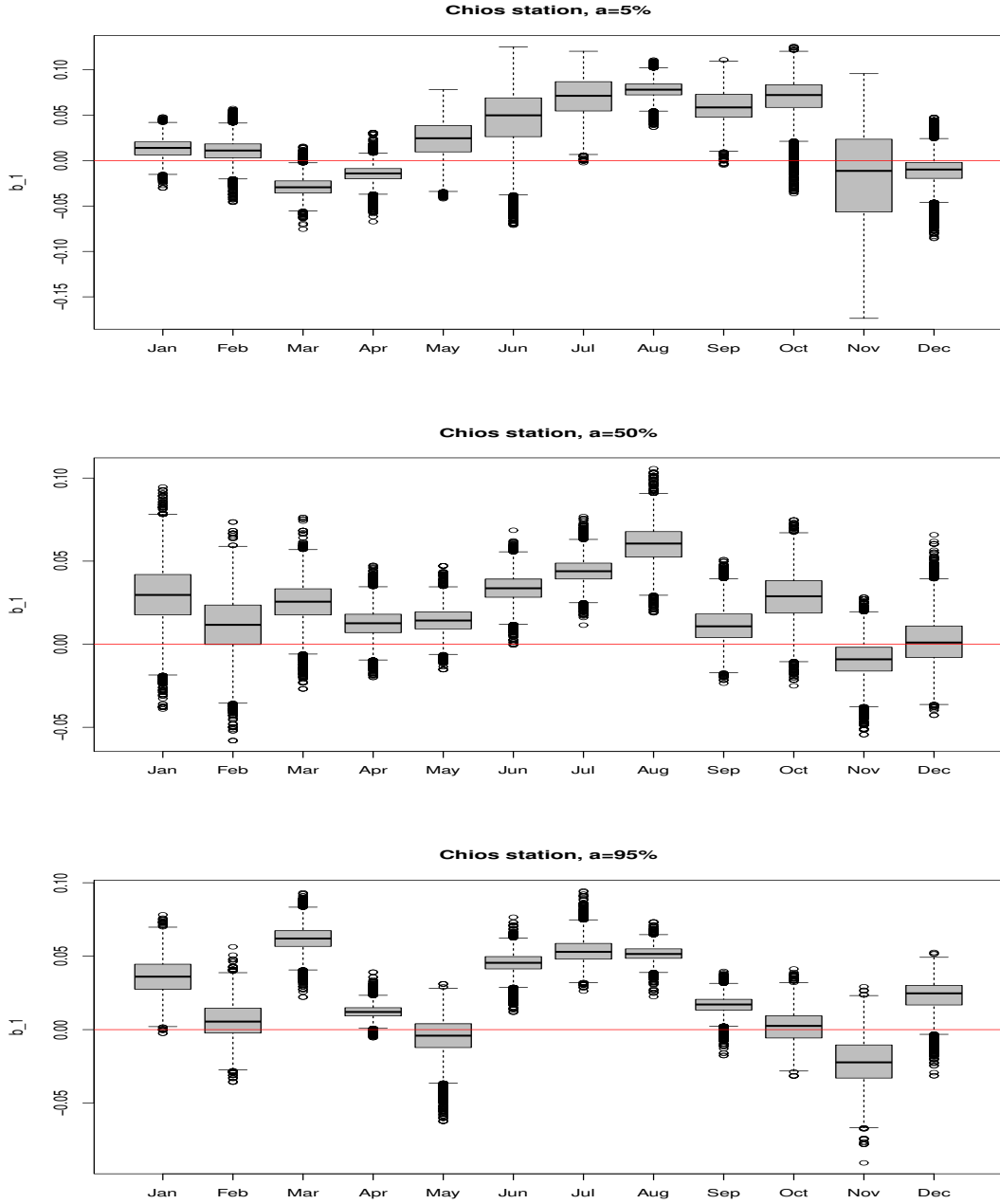


Figure S 7: Box-plots of MCMC posterior results for the β_1 parameter by months using TN-m temperature series of the 1960-2010 period at Chios station.

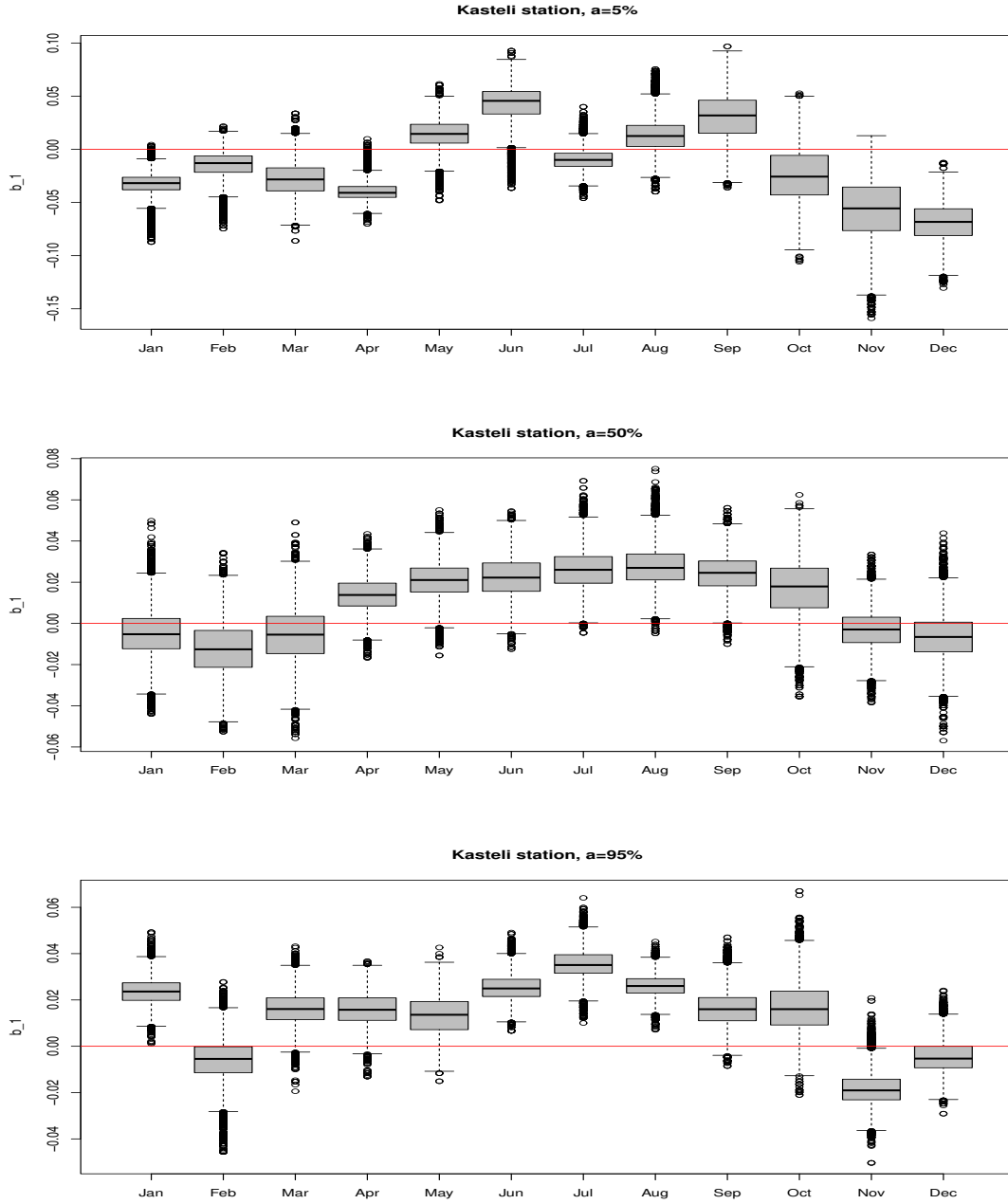


Figure S 8: Box-plots of MCMC posterior results for the β_1 parameter by months using TN-m temperature series of the 1960-2010 period at Kasteli station.

¹¹ 2.2 The TX-m figures

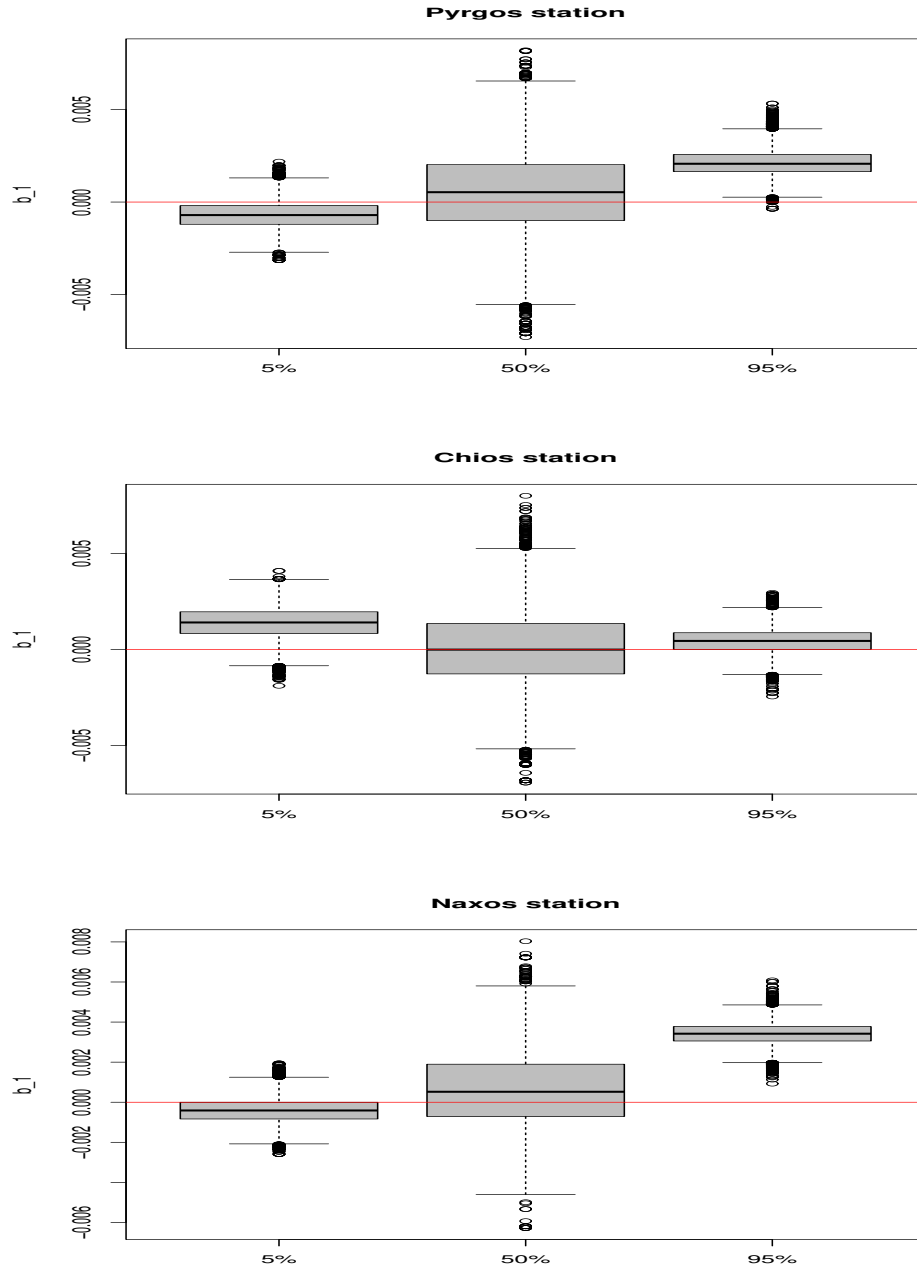


Figure S 9: Box-plots of MCMC posterior results for the β_1 parameter under a the 5%, 50% and 95% QT quantile model using TX-m series at Pyrgos, Chios and Naxos stations of the 1960-2010 period.

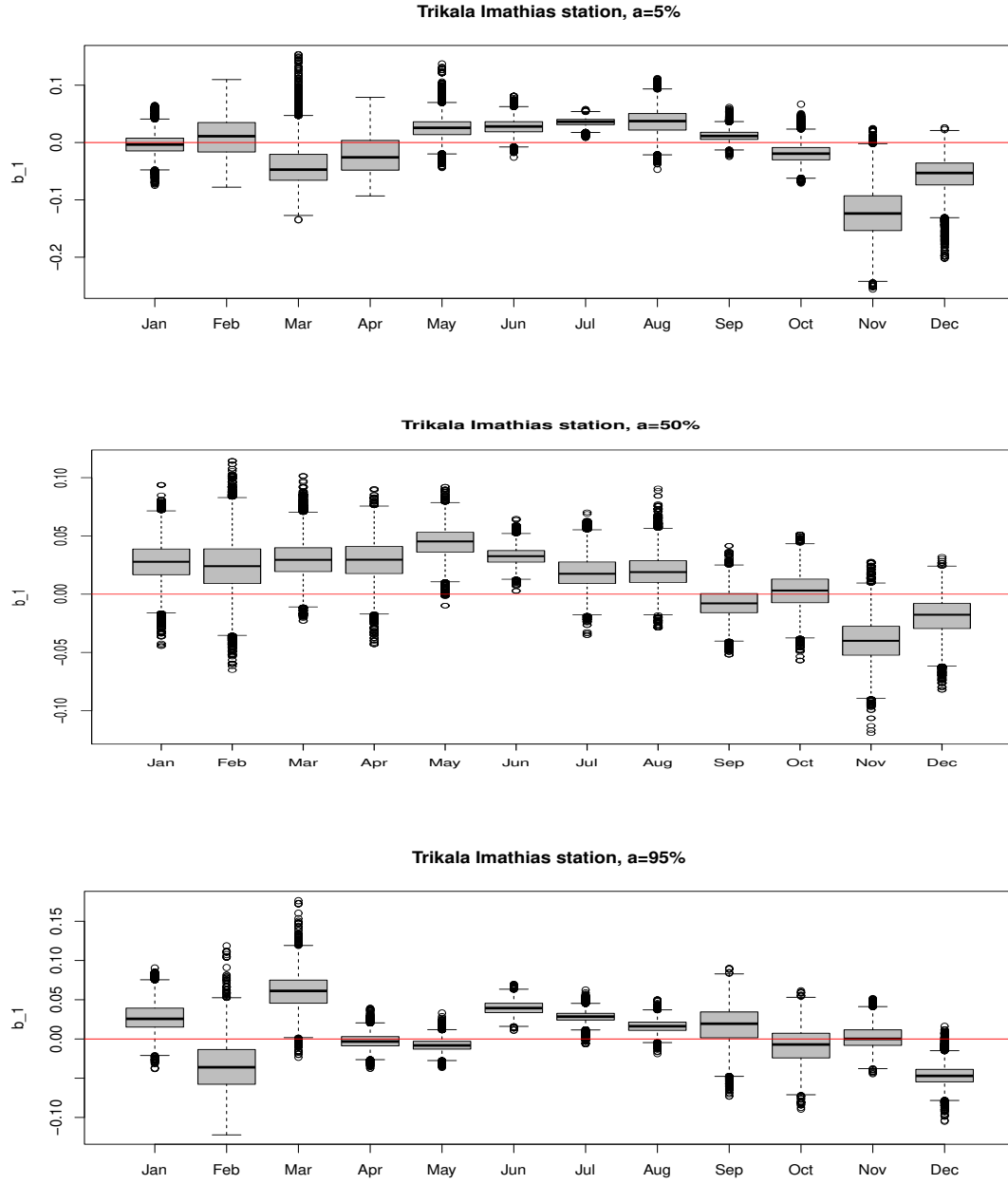


Figure S 10: Box-plots of MCMC posterior results for the β_1 parameter by months using TX-m temperature series of the 1960-2010 period at Trikala Imathias station.

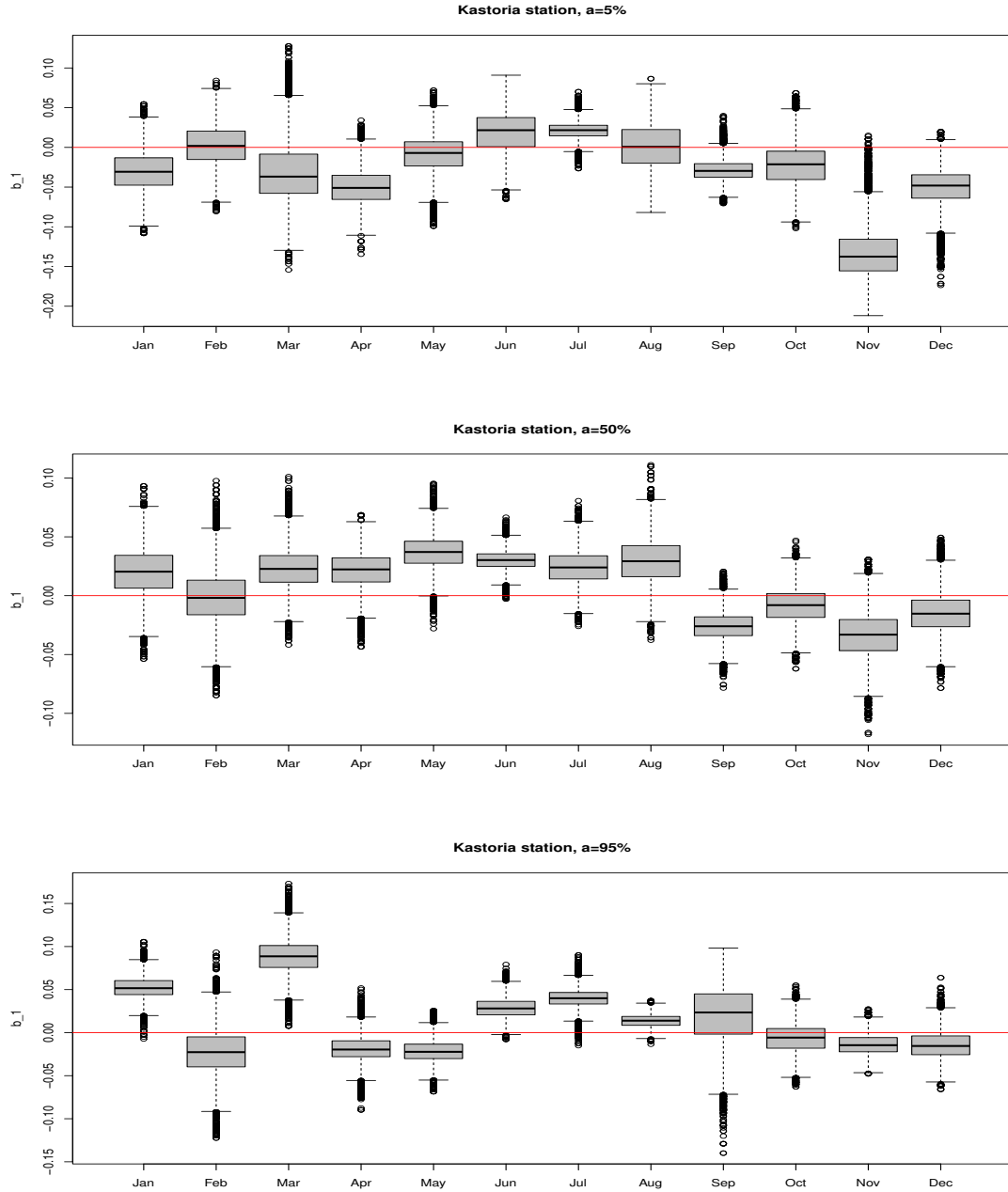


Figure S 11: Box-plots of MCMC posterior results for the β_1 parameter by months using TX-m temperature series of the 1960-2010 period at Kastoria station.

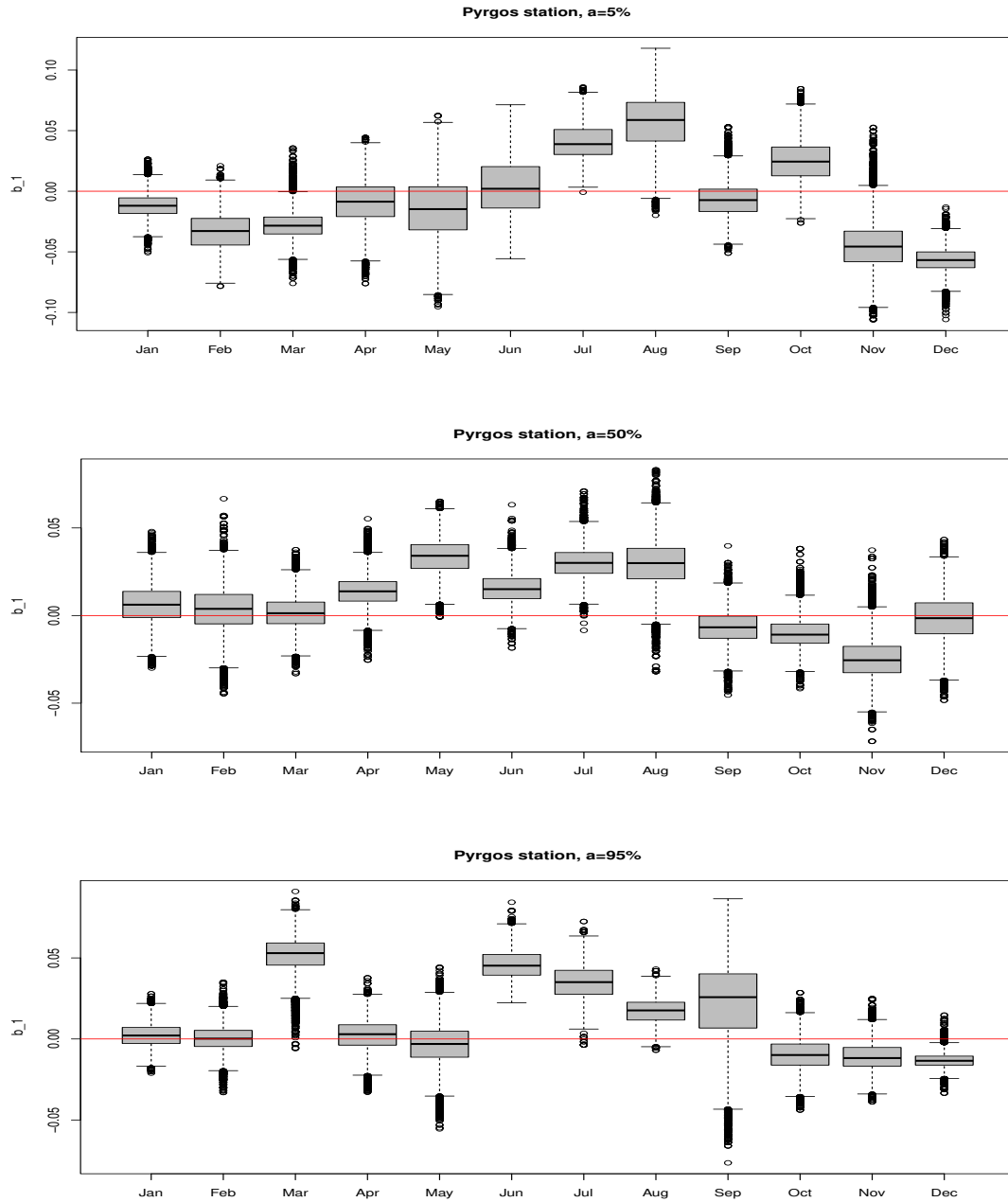


Figure S 12: Box-plots of MCMC posterior results for the β_1 parameter by months using TX-m temperature series of the 1960-2010 period at Pyrgos station.

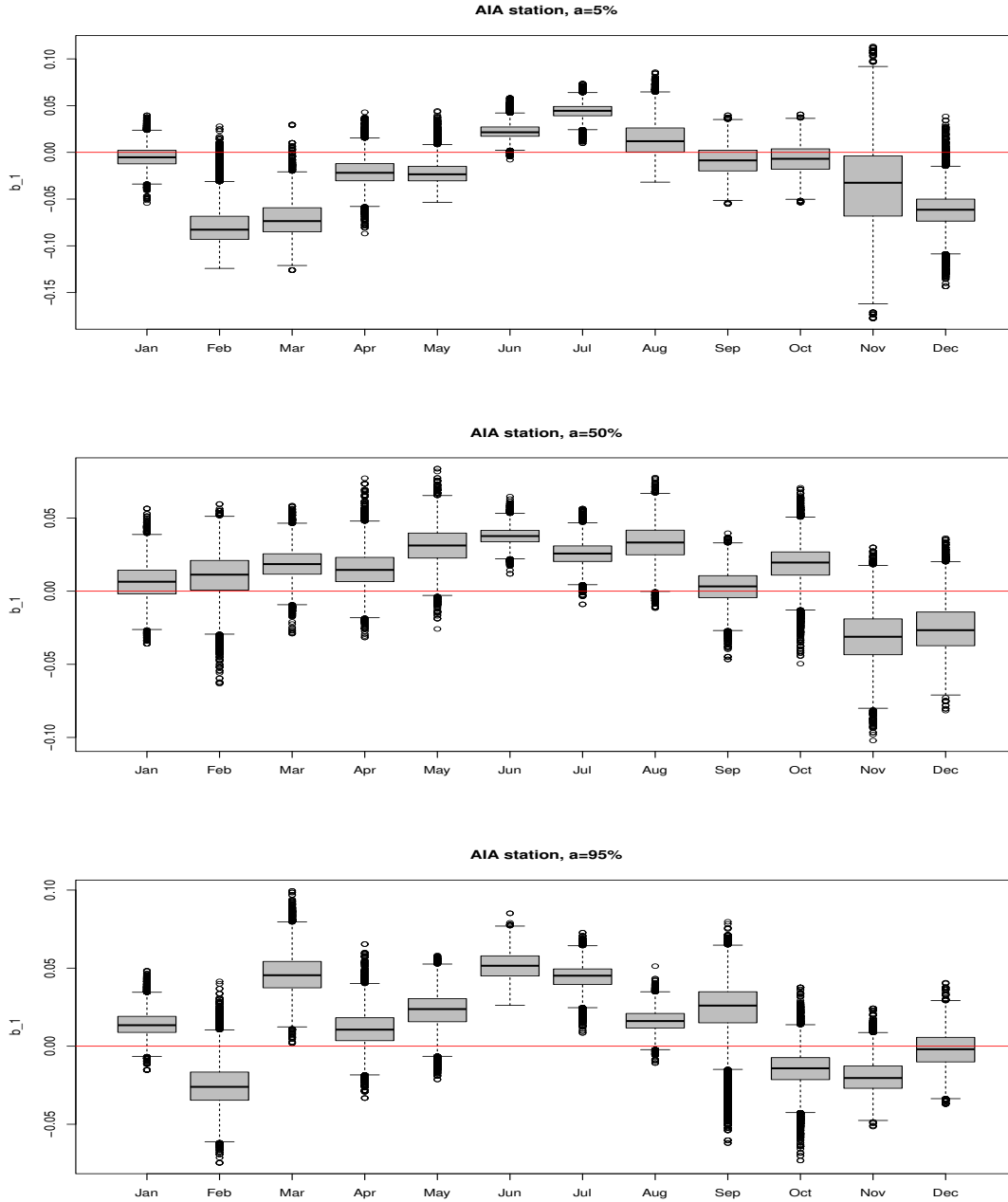


Figure S 13: Box-plots of MCMC posterior results for the β_1 parameter by months using TX-m temperature series of the 1960-2010 period at AIA station.

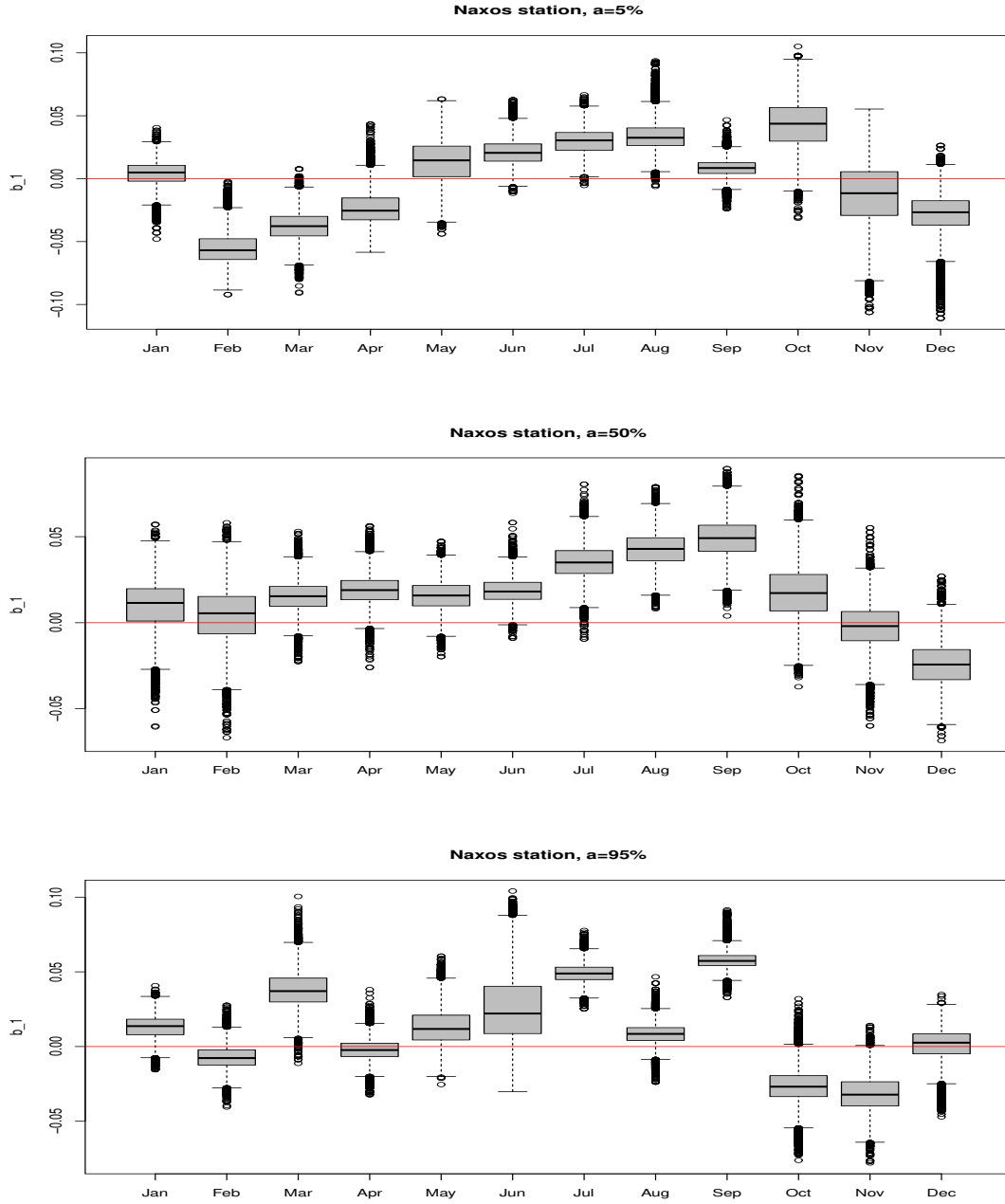


Figure S 14: Box-plots of MCMC posterior results for the β_1 parameter by months using TX-m temperature series of the 1960-2010 period at Naxos station.

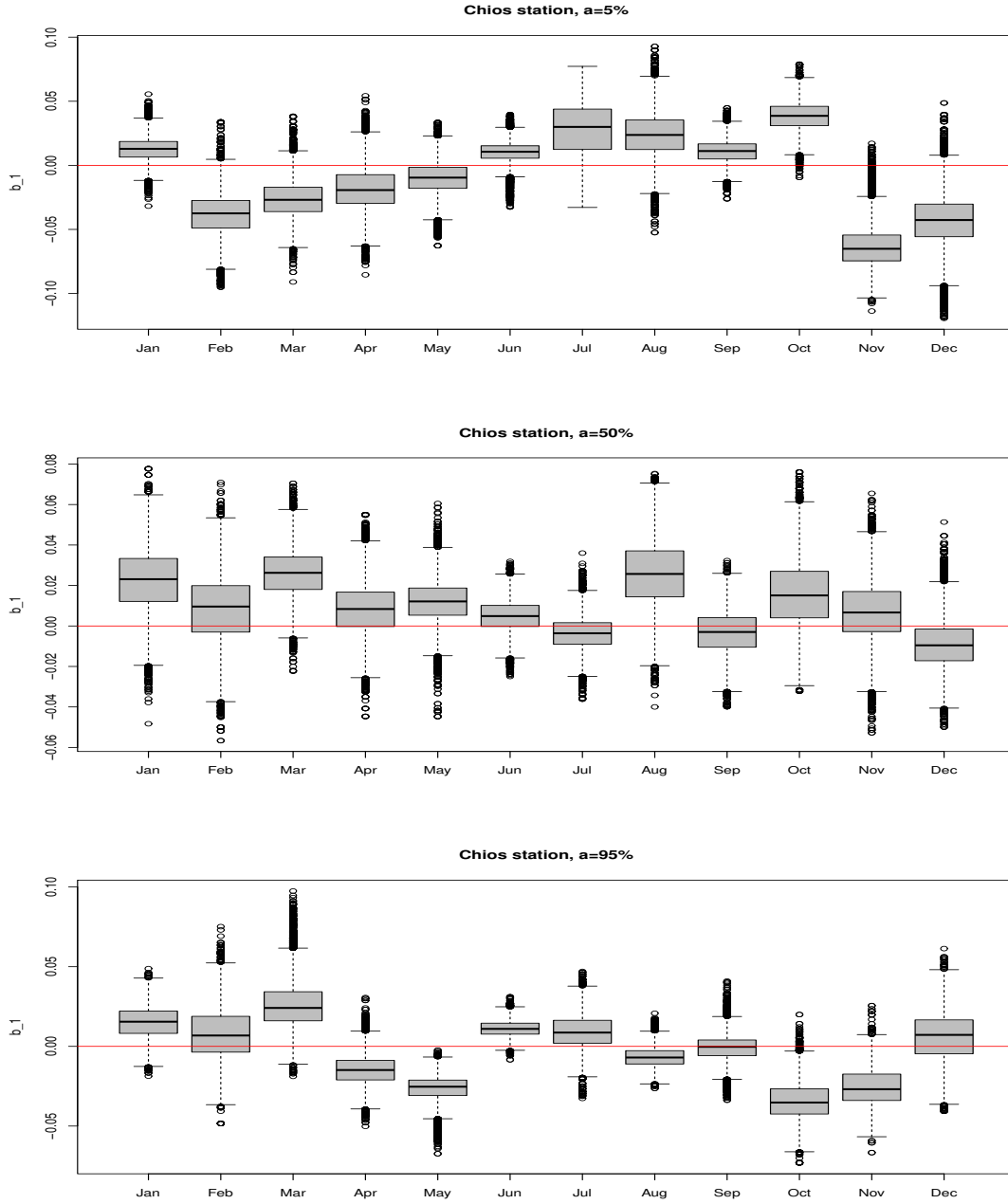


Figure S 15: Box-plots of MCMC posterior results for the β_1 parameter by months using TX-m temperature series of the 1960-2010 period at Chios station.

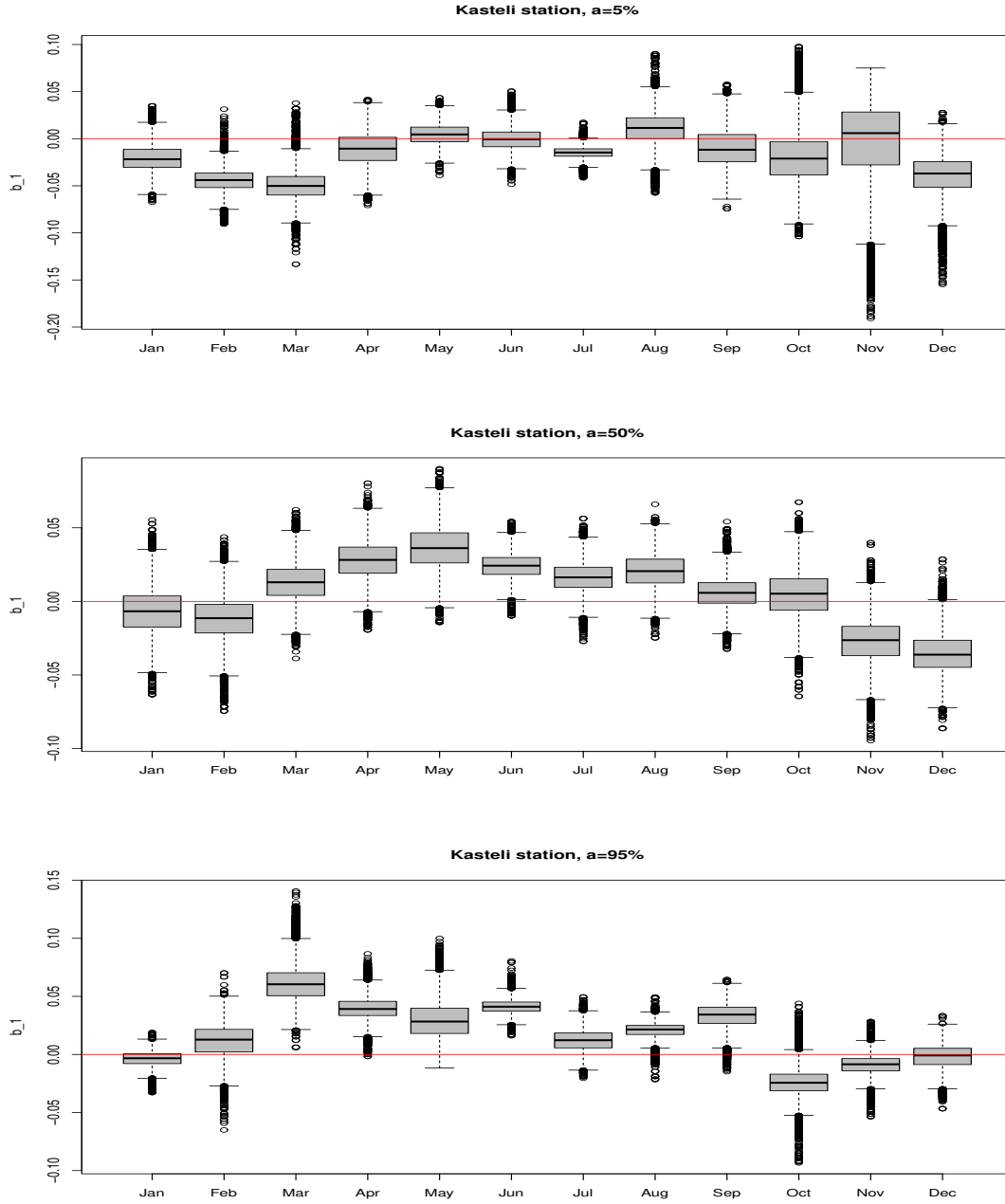


Figure S 16: Box-plots of MCMC posterior results for the β_1 parameter by months using TX-m temperature series of the 1960-2010 period at Kasteli station.