

Dependence of cosmic shear covariances on cosmology

Fit-coefficients to calculate the linear term of the 2PCF covariance depending on Ω_m and σ_8

Table 1. The fit-coefficients for the linear term of the \mathbf{C}_{++} covariance. For each bin the upper value corresponds to α , the lower to β . The maximum standard error of the fit is smaller than 0.04 % for β , smaller than 0.02% for α . In most cases the standard error is ≈ 0.02 % for β and ≈ 0.01 % for α .

$\vartheta_{i,j}$ [arcmin]	1.0	4.9	10.3	15.7	33.0	45.4	69.3	85.7	106.0	131.0	162.0	180.0
1.0	1.1892	1.3888	1.4163	1.4212	1.4485	1.4726	1.5186	1.5485	1.5841	1.6262	1.6768	1.7063
	2.689	2.4905	2.1437	2.0102	1.9220	1.9198	1.9322	1.9418	1.9522	1.9627	1.9734	1.9781
4.9	1.3888	1.2955	1.4126	1.4214	1.4483	1.4723	1.5183	1.5483	1.5838	1.6260	1.6767	1.7061
	2.4905	2.5137	2.1993	2.0283	1.9232	1.9201	1.9322	1.9417	1.9520	1.9628	1.9731	1.9782
10.3	1.4163	1.4126	1.3243	1.4190	1.4476	1.4712	1.5173	1.5474	1.5830	1.6253	1.6761	1.7055
	2.1437	2.1993	2.3725	2.1168	1.9283	1.9210	1.9319	1.9414	1.9518	1.9625	1.9729	1.9781
15.7	1.4212	1.4214	1.4190	1.3395	1.4465	1.4695	1.5156	1.5458	1.5816	1.6240	1.6750	1.7045
	2.0102	2.0283	2.1168	2.3110	1.9401	1.9230	1.9314	1.9408	1.9513	1.9621	1.9728	1.9778
33.0	1.4493	1.4483	1.4476	1.4465	1.3677	1.4607	1.5055	1.5365	1.5733	1.6166	1.6684	1.6982
	1.9222	1.9232	1.9283	1.9401	2.2460	1.9614	1.9301	1.9377	1.9484	1.9598	1.9710	1.9765
45.4	1.4726	1.4723	1.4712	1.4695	1.4607	1.3802	1.4944	1.5259	1.5637	1.6082	1.6609	1.6911
	1.9198	1.9201	1.9210	1.9230	1.9614	2.2323	1.9340	1.9351	1.9451	1.9571	1.9691	1.9749
69.3	1.5186	1.5183	1.5173	1.5156	1.5055	1.4944	1.396	1.4976	1.5370	1.5845	1.6399	1.6712
	1.9322	1.9322	1.9319	1.9314	1.9301	1.9334	2.2234	1.9491	1.9381	1.9496	1.9634	1.9701
85.7	1.5485	1.5483	1.5474	1.5458	1.5365	1.5259	1.4976	1.4023	1.5135	1.5629	1.6208	1.6532
	1.9418	1.9417	1.9414	1.9408	1.9377	1.9351	1.9491	2.2219	1.9433	1.943	1.9580	1.9655
106.6	1.5841	1.5838	1.5830	1.5816	1.5733	1.5637	1.5370	1.5135	1.4078	1.5308	1.5922	1.6264
	1.9522	1.9520	1.9518	1.9513	1.9484	1.9451	1.9381	1.9433	2.2218	1.94082	1.9497	1.9583
131.0	1.6262	1.6260	1.6253	1.6240	1.6166	1.6082	1.5845	1.5629	1.5308	1.4120	1.5496	1.5864
	1.9627	1.9628	1.9625	1.9621	1.9598	1.9571	1.9496	1.9433	1.9408	2.2226	1.9409	1.9473
162.0	1.6768	1.6767	1.6761	1.6750	1.6684	1.6609	1.6399	1.6208	1.5922	1.5496	1.4148	1.5279
	1.9734	1.9731	1.9729	1.9728	1.9710	1.9691	1.9634	1.9580	1.9497	1.9409	2.2242	1.9495
180.0	1.7063	1.7061	1.7055	1.7045	1.6982	1.6911	1.6712	1.6532	1.6264	1.5864	1.5279	1.4157
	1.9781	1.9782	1.9781	1.9778	1.9765	1.9749	1.9701	1.9655	1.9583	1.9473	1.9495	2.225

Table 2. The fit-coefficients for the linear term of the \mathbf{C}_{--} covariance. For each bin the upper value corresponds to α , the lower to β . The maximum standard error of the fit is smaller than 0.04 % for β , smaller than 0.02 % for α . In most cases the standard error is ≈ 0.02 % for β and ≈ 0.01 % for α .

$\vartheta_{i,j}$ [arcmin]	1.0	4.9	10.3	15.7	33.0	45.4	69.3	85.7	106.0	131.0	162.0	180.0
1.0	0.8146	1.1532	1.331	1.4036	0.6502	0.7446	0.6435	1.4427	0.8483	1.115	0.900	0.8539
	2.3102	2.9769	3.1407	3.0122	1.4087	1.5601	0.7488	4.3083	2.0481	5.0329	1.8159	2.6019
4.9	1.1532	0.9987	1.3058	1.3935	1.3981	1.3473	0.6796	1.1596	1.1655	1.1080	1.1260	1.063
	2.9769	2.5973	3.1406	2.9523	2.2487	2.0178	3.0619	2.5425	3.0956	3.9419	3.3497	3.2596
10.3	1.3307	1.3058	1.0946	1.3548	1.4015	1.375	1.3997	1.4481	1.3982	0.6967	1.2972	1.1362
	3.1407	3.1406	2.777	3.0472	2.280	2.053	1.8821	1.708	1.9703	6.7254	3.6954	7.0468
15.7	1.4036	1.3935	1.3548	1.1431	1.4052	1.3816	1.3711	1.3803	1.3884	1.3681	1.4430	1.4899
	3.0122	2.9523	3.0472	2.8242	2.3463	2.0730	1.9219	1.8869	1.8507	2.1066	1.8902	0.8581
33.0	0.6519	1.3981	1.4015	1.4052	1.2103	1.3983	1.3711	1.3728	1.3832	1.4006	1.4284	1.4404
	1.4122	2.2487	2.280	2.3463	2.7801	2.2915	1.9407	1.8973	1.8868	1.898	1.8862	1.9033
45.4	0.7447	1.3473	1.3750	1.3816	1.3983	1.2321	1.3761	1.3724	1.3813	1.40	1.4244	1.4405
	1.5601	2.0178	2.0530	2.0730	2.2915	2.7192	1.9933	1.910	1.8879	1.8913	1.9095	1.9213
69.3	0.64346	0.67964	1.3997	1.3711	1.3711	1.3761	1.2562	1.3808	1.3775	1.3931	1.4193	1.4355
	0.7488	3.0619	1.8821	1.9219	1.9407	1.9933	2.6167	2.0248	1.9049	1.8889	1.8982	1.9059
85.7	1.4427	1.1596	1.4481	1.3803	1.3728	1.3724	1.3808	1.2668	1.3793	1.3878	1.4133	1.4298
	4.3084	2.5425	1.7080	1.8869	1.8973	1.910	2.0248	2.5626	1.961	1.8931	1.8964	1.9045
106.6	0.8482	1.1655	1.3982	1.3884	1.3832	1.3813	1.3775	1.3793	1.2770	1.3833	1.4045	1.4211
	2.0481	3.0956	1.9703	1.8507	1.8868	1.8879	1.9050	1.961	2.5101	1.9236	1.8944	1.9005
131.0	1.1150	1.1080	0.69672	1.3681	1.4006	1.3995	1.3931	1.3878	1.3833	1.2871	1.3931	1.4081
	5.0329	3.9419	6.7254	2.1067	1.898	1.8913	1.8889	1.8930	1.9237	2.4610	1.9060	1.8975
162.0	0.90	1.1260	1.2972	1.4430	1.4284	1.4244	1.4193	1.4133	1.4045	1.3931	1.2973	1.3944
	1.8159	3.3497	3.6954	1.8902	1.8862	1.9095	1.8982	1.8964	1.8944	1.9060	2.4166	1.9428
180.0	0.8539	1.063	1.1362	1.4899	1.4404	1.4405	1.4354	1.4298	1.4211	1.4081	1.3944	1.3025
	2.6019	3.2596	7.0468	0.8581	1.9033	1.9213	1.906	1.9045	1.9005	1.8975	1.943	2.3965

Table 3. The fit-coefficients for the linear term of the \mathbf{C}_{+-} covariance. For each bin the upper value corresponds to α , the lower to β . In contrast to \mathbf{C}_{++} and \mathbf{C}_{--} the standard error here is higher and the fit is less accurate. For most of the coefficients the standard error is still below 0.1% for both α and β , however there are outliers (marked in red) where the standard error exceeds 1%.

$\vartheta_{i,j}$ [arcmin]	1.0	4.9	10.3	15.7	33.0	45.4	69.3	85.7	106.0	131.0	162.0	180.0
1.0	0.9198	1.0776	1.2039	1.2690	1.3444	1.3588	1.3680	1.3720	1.3776	1.3857	1.3968	1.4036
	2.1759	2.7594	2.9587	2.9510	2.6699	2.4892	2.2673	2.1796	2.1105	2.0591	2.0232	2.0098
4.9	0.7385	1.8641	1.2002	1.2616	1.3433	1.3585	1.368	1.3721	1.3776	1.3857	1.3968	1.4036
	2.1639	4.6092	2.8784	2.9351	2.6728	2.4916	2.2684	2.1802	2.1109	2.0594	2.0232	2.0099
10.3	1.1172	1.0939	0.3245	1.2212	1.3388	1.3572	1.3679	1.3729	1.3777	1.3857	1.3968	1.4036
	3.3921	3.2594	1.5224	3.0572	2.6790	2.4998	2.2725	2.1827	2.1123	2.0601	2.0236	2.0102
15.7	1.0298	1.2851	1.2017	0.7253	1.3241	1.3544	1.3678	1.3721	1.3777	1.3857	1.3968	1.4036
	3.9545	3.7686	3.5351	2.2997	2.6384	2.5113	2.2797	2.1871	2.1147	2.0614	2.0243	2.0106
33.0	0.7624	1.5316	1.4728	1.4719	0.9712	1.3427	1.3660	1.3730	1.3785	1.3861	1.3968	1.4035
	1.5130	3.5641	3.7076	3.7696	2.8402	2.7344	2.321	2.2166	2.1312	2.0699	2.0284	2.0135
45.4	0.7845	1.0214	1.3619	1.4555	1.4584	1.0303	1.3650	1.3824	1.3810	1.3871	1.3970	1.4034
	1.5519	2.2561	3.0393	3.1508	3.6129	2.9527	2.4350	2.2705	2.1564	2.0818	2.0340	2.0173
69.3	0.5863	0.9360	-5.4805	1.3951	1.3855	1.4222	1.0895	1.3595	1.3635	1.4203	1.4007	1.4049
	0.6329	2.6217	5.1207	2.3331	2.4026	2.6896	3.0243	2.4258	2.1906	2.1918	2.0579	2.0318
85.7	1.1916	1.0523	0.8196	1.4040	1.3075	1.3291	1.4146	1.1132	1.3654	1.3648	1.4387	1.4129
	3.7856	2.9128	3.4400	1.9722	2.0450	2.1320	2.7362	3.0278	2.3185	2.1055	2.1568	2.060
106.6	0.8716	1.0998	1.4396	1.3243	1.2660	1.2710	1.3063	1.3641	1.1337	1.3707	1.3699	1.3430
	2.0595	3.5045	2.8142	0.8366	1.8996	1.9017	2.040	2.3663	3.0103	2.2253	2.0447	1.9414
131.0	1.1017	1.1333	1.1835	1.1471	1.2451	1.2547	1.2624	1.2748	1.3179	1.1518	1.3768	1.3791
	4.6080	3.7127	3.7228	3.1046	1.9377	1.8477	1.8426	1.8956	2.0997	2.9732	2.1490	2.0619
162.0	0.8894	1.1091	1.2446	1.4713	1.2692	1.2635	1.2663	1.2652	1.2674	1.2897	1.1679	1.3794
	1.8539	3.4068	4.2135	1.9034	1.6319	1.9126	1.8088	1.8213	1.8395	1.9450	2.9192	2.2337
180.0	1.0537	1.0673	1.3307	1.2411	1.2369	1.2882	1.2774	1.2751	1.2713	1.2731	1.3207	1.1755
	2.5585	3.1909	5.2090	5.6088	1.7140	1.9389	1.8113	1.8261	1.8255	1.8484	2.1093	2.8872