

Table 0.1: Simulations results, 10,000 iterations, $\lambda_Z = 1$. 22 November 2020.

model	n=100					n=200					n=500					n=1000				
	Bias	MAE	RMSE	Cov. rate	q_{95}	Bias	MAE	RMSE	Cov. rate	q_{95}	Bias	MAE	RMSE	Cov. rate	q_{95}	Bias	MAE	RMSE	Cov. rate	q_{95}
$\lambda_X=0.4, \alpha_Y=2 - b_2 + d_2=1.1$																				
standard	0.008	0.049	0.064	0.999	1.236	0.005	0.034	0.043	0.999	1.148	0.002	0.021	0.027	0.999	1.072	0.001	0.015	0.019	0.999	1.079
smoothed	0.008	0.049	0.062	0.999	1.206	0.005	0.034	0.043	0.999	1.142	0.002	0.021	0.027	0.999	1.071	0.001	0.015	0.019	0.999	1.076
$\lambda_X=0.4, \alpha_Y=3 - b_2 + d_2=0.93$																				
standard	0.005	0.028	0.036	0.996	0.693	0.002	0.02	0.025	0.996	0.662	0.001	0.012	0.015	0.995	0.605	0.0	0.009	0.011	0.991	0.609
smoothed	0.005	0.028	0.036	0.996	0.684	0.002	0.02	0.025	0.997	0.66	0.001	0.012	0.015	0.995	0.607	0.0	0.009	0.011	0.991	0.607
$\lambda_X=0.4, \alpha_Y=4 - b_2 + d_2=0.85$																				
standard	0.003	0.02	0.025	0.994	0.483	0.002	0.014	0.018	0.993	0.456	0.001	0.009	0.011	0.989	0.443	0.0	0.006	0.008	0.986	0.424
smoothed	0.003	0.02	0.025	0.995	0.478	0.002	0.014	0.017	0.993	0.457	0.001	0.009	0.011	0.989	0.443	0.0	0.006	0.008	0.987	0.425
$\lambda_X=0.4, \alpha_Y=5 - b_2 + d_2=0.8$																				
standard	0.003	0.015	0.019	0.993	0.376	0.001	0.011	0.013	0.99	0.344	0.0	0.007	0.008	0.986	0.33	0.0	0.005	0.006	0.984	0.324
smoothed	0.003	0.015	0.019	0.993	0.374	0.001	0.011	0.013	0.99	0.344	0.0	0.007	0.008	0.986	0.331	0.0	0.005	0.006	0.984	0.324
$\lambda_X=0.4, \alpha_Y=8 - b_2 + d_2=0.72$																				
standard	0.001	0.009	0.011	0.991	0.217	0.001	0.006	0.008	0.989	0.201	0.0	0.004	0.005	0.983	0.197	0.0	0.003	0.004	0.98	0.196
smoothed	0.002	0.009	0.011	0.991	0.218	0.001	0.006	0.008	0.989	0.201	0.0	0.004	0.005	0.983	0.196	0.0	0.003	0.004	0.98	0.197
$\lambda_X=0.5, \alpha_Y=2 - b_2 + d_2=1.0$																				
standard	0.013	0.068	0.092	0.995	1.74	0.006	0.048	0.062	0.993	1.611	0.002	0.029	0.038	0.994	1.473	0.002	0.021	0.027	0.993	1.501
smoothed	0.01	0.066	0.089	0.995	1.661	0.005	0.047	0.061	0.994	1.57	0.001	0.029	0.037	0.995	1.451	0.002	0.021	0.026	0.993	1.483
$\lambda_X=0.5, \alpha_Y=3 - b_2 + d_2=0.83$																				
standard	0.006	0.037	0.047	0.991	0.888	0.003	0.026	0.032	0.988	0.846	0.001	0.016	0.02	0.986	0.79	0.0	0.011	0.014	0.979	0.783
smoothed	0.005	0.036	0.046	0.992	0.852	0.003	0.025	0.032	0.989	0.83	0.001	0.016	0.02	0.986	0.781	0.0	0.011	0.014	0.979	0.778
$\lambda_X=0.5, \alpha_Y=4 - b_2 + d_2=0.75$																				
standard	0.004	0.025	0.032	0.987	0.611	0.002	0.018	0.022	0.981	0.587	0.001	0.011	0.014	0.979	0.546	0.001	0.008	0.009	0.977	0.52
smoothed	0.003	0.025	0.031	0.988	0.596	0.002	0.018	0.022	0.981	0.575	0.001	0.011	0.014	0.979	0.542	0.0	0.008	0.009	0.977	0.517
$\lambda_X=0.5, \alpha_Y=5 - b_2 + d_2=0.7$																				
standard	0.003	0.019	0.024	0.984	0.454	0.001	0.013	0.017	0.982	0.441	0.001	0.008	0.01	0.977	0.409	0.0	0.006	0.007	0.97	0.404
smoothed	0.002	0.019	0.024	0.984	0.445	0.001	0.013	0.017	0.983	0.436	0.001	0.008	0.01	0.977	0.407	0.0	0.006	0.007	0.97	0.403
$\lambda_X=0.5, \alpha_Y=8 - b_2 + d_2=0.62$																				
standard	0.002	0.011	0.014	0.981	0.257	0.001	0.008	0.01	0.979	0.248	0.0	0.005	0.006	0.972	0.232	0.0	0.003	0.004	0.969	0.231
smoothed	0.002	0.011	0.014	0.981	0.253	0.001	0.008	0.01	0.98	0.245	0.0	0.005	0.006	0.972	0.23	0.0	0.003	0.004	0.969	0.23
$\lambda_X=0.6, \alpha_Y=2 - b_2 + d_2=0.9$																				
standard	0.015	0.092	0.125	0.984	2.353	0.007	0.062	0.083	0.985	2.102	0.003	0.04	0.052	0.984	2.042	0.001	0.028	0.036	0.981	1.958
smoothed	0.007	0.088	0.118	0.984	2.141	0.003	0.061	0.08	0.985	1.98	0.002	0.04	0.051	0.984	1.969	-0.0	0.028	0.035	0.981	1.915
$\lambda_X=0.6, \alpha_Y=3 - b_2 + d_2=0.73$																				
standard	0.006	0.046	0.06	0.978	1.122	0.003	0.032	0.041	0.978	1.048	0.001	0.02	0.025	0.973	0.99	0.001	0.014	0.018	0.971	0.965
smoothed	0.003	0.044	0.058	0.98	1.058	0.001	0.031	0.04	0.979	1.007	-0.0	0.02	0.025	0.972	0.965	0.0	0.014	0.018	0.971	0.949
$\lambda_X=0.6, \alpha_Y=4 - b_2 + d_2=0.65$																				
standard	0.004	0.03	0.038	0.978	0.708	0.002	0.021	0.027	0.974	0.709	0.001	0.013	0.017	0.971	0.651	0.0	0.009	0.012	0.962	0.637
smoothed	0.002	0.029	0.037	0.978	0.675	0.001	0.021	0.027	0.974	0.684	0.001	0.013	0.016	0.972	0.64	0.0	0.009	0.012	0.963	0.629
$\lambda_X=0.6, \alpha_Y=5 - b_2 + d_2=0.6$																				
standard	0.003	0.023	0.029	0.973	0.54	0.001	0.016	0.02	0.972	0.499	0.001	0.01	0.013	0.964	0.495	0.0	0.007	0.009	0.961	0.49
smoothed	0.002	0.022	0.028	0.974	0.519	0.001	0.016	0.02	0.972	0.488	0.0	0.01	0.013	0.964	0.485	0.0	0.007	0.009	0.961	0.484
$\lambda_X=0.6, \alpha_Y=8 - b_2 + d_2=0.53$																				

standard	0.002	0.013	0.016	0.972	0.304	0.001	0.009	0.011	0.968	0.29	0.0	0.006	0.007	0.965	0.277	0.0	0.004	0.005	0.962	0.272
smoothed	0.001	0.013	0.016	0.972	0.295	0.0	0.009	0.011	0.969	0.284	0.0	0.006	0.007	0.965	0.274	0.0	0.004	0.005	0.962	0.27
$\lambda_X=0.7, \alpha_Y=2 - b_2 + d_2=0.8$																				
standard	0.015	0.121	0.173	0.964	3.077	0.008	0.084	0.114	0.971	2.961	0.001	0.054	0.071	0.966	2.696	0.0	0.038	0.049	0.964	2.62
smoothed	0.002	0.115	0.164	0.964	2.745	-0.0	0.082	0.11	0.971	2.686	-0.003	0.053	0.07	0.966	2.532	-0.002	0.037	0.048	0.965	2.502
$\lambda_X=0.7, \alpha_Y=3 - b_2 + d_2=0.63$																				
standard	0.006	0.056	0.074	0.965	1.362	0.004	0.04	0.051	0.966	1.306	0.001	0.025	0.032	0.959	1.256	0.0	0.018	0.022	0.958	1.225
smoothed	0.001	0.054	0.07	0.964	1.256	0.001	0.039	0.05	0.967	1.23	-0.0	0.025	0.032	0.96	1.209	-0.0	0.018	0.022	0.959	1.188
$\lambda_X=0.7, \alpha_Y=4 - b_2 + d_2=0.55$																				
standard	0.004	0.037	0.047	0.962	0.869	0.001	0.025	0.032	0.961	0.804	0.001	0.016	0.02	0.958	0.784	0.0	0.011	0.014	0.958	0.777
smoothed	0.001	0.036	0.045	0.963	0.814	-0.0	0.025	0.032	0.962	0.764	-0.0	0.016	0.02	0.958	0.761	-0.0	0.011	0.014	0.958	0.759
$\lambda_X=0.7, \alpha_Y=5 - b_2 + d_2=0.5$																				
standard	0.003	0.027	0.035	0.96	0.629	0.001	0.019	0.024	0.96	0.612	0.0	0.012	0.015	0.958	0.577	0.0	0.009	0.011	0.951	0.585
smoothed	0.001	0.026	0.034	0.962	0.596	0.0	0.019	0.024	0.961	0.583	-0.0	0.012	0.015	0.959	0.56	0.0	0.008	0.011	0.951	0.575
$\lambda_X=0.7, \alpha_Y=8 - b_2 + d_2=0.43$																				
standard	0.001	0.015	0.019	0.958	0.35	0.001	0.011	0.013	0.957	0.343	0.0	0.007	0.008	0.957	0.32	0.0	0.005	0.006	0.954	0.316
smoothed	0.0	0.015	0.019	0.959	0.332	0.0	0.01	0.013	0.957	0.329	0.0	0.007	0.008	0.957	0.313	-0.0	0.005	0.006	0.954	0.312
$\lambda_X=0.8, \alpha_Y=2 - b_2 + d_2=0.7$																				
standard	0.006	0.153	0.222	0.935	3.716	-0.002	0.112	0.161	0.93	3.673	-0.001	0.074	0.106	0.932	3.644	-0.002	0.053	0.073	0.919	3.711
smoothed	-0.014	0.147	0.208	0.931	3.28	-0.015	0.109	0.154	0.927	3.339	-0.008	0.072	0.102	0.929	3.356	-0.007	0.053	0.071	0.918	3.422
$\lambda_X=0.8, \alpha_Y=3 - b_2 + d_2=0.53$																				
standard	0.004	0.068	0.091	0.943	1.678	0.001	0.049	0.063	0.947	1.593	0.0	0.031	0.04	0.942	1.551	-0.0	0.022	0.028	0.938	1.517
smoothed	-0.004	0.066	0.087	0.942	1.525	-0.003	0.048	0.061	0.946	1.46	-0.002	0.031	0.039	0.943	1.464	-0.002	0.022	0.027	0.939	1.442
$\lambda_X=0.8, \alpha_Y=4 - b_2 + d_2=0.45$																				
standard	0.003	0.043	0.056	0.946	0.998	0.002	0.03	0.039	0.951	0.998	-0.0	0.019	0.025	0.943	0.937	-0.0	0.014	0.017	0.943	0.919
smoothed	-0.001	0.042	0.054	0.946	0.915	-0.001	0.03	0.038	0.951	0.929	-0.001	0.019	0.024	0.945	0.892	-0.001	0.014	0.017	0.945	0.885
$\lambda_X=0.8, \alpha_Y=5 - b_2 + d_2=0.4$																				
standard	0.002	0.031	0.04	0.948	0.732	0.001	0.022	0.028	0.948	0.716	0.0	0.014	0.017	0.951	0.68	-0.0	0.01	0.013	0.944	0.673
smoothed	-0.001	0.03	0.039	0.949	0.675	-0.0	0.022	0.028	0.95	0.674	-0.0	0.014	0.017	0.95	0.656	-0.0	0.01	0.012	0.945	0.657
$\lambda_X=0.8, \alpha_Y=8 - b_2 + d_2=0.32$																				
standard	0.001	0.017	0.022	0.95	0.389	0.001	0.012	0.015	0.954	0.379	-0.0	0.008	0.01	0.95	0.361	0.0	0.005	0.007	0.949	0.37
smoothed	-0.0	0.017	0.021	0.952	0.362	-0.0	0.012	0.015	0.954	0.359	-0.0	0.007	0.009	0.95	0.349	-0.0	0.005	0.007	0.949	0.359