220906-annex 1 - final-prediction-tests-russ-tariq-macad22

modell	trained data	prediction images	GT - Render DS BATCH	nr	simulation	scaling	prediction	% (inaccuracy)
OUR	8-F-SFB-1-TEX-2050	0-GT-render						
			SOLAR_IRR_TOTAL					
				2002	278740000	2787.4	2814.0369	-0.92
				2003	286030000	2860.3	2797.2712	2.17
				2004	273440000	2734.4	2803.7158	-2.39
				2005	290340000	2903.4	2791.6782	3.85
				2006	276630000	2766.3	2783.117	-0.58
				2007	275850000	2758.5	2821.3137	-2.17
			v2					
			SOLAR_IRR_TOTAL					
				2002	278740000	27874	28140.61	0.92
				2003	286030000	28603	27979.047	2.15
				2004	273440000	27344	28043.52	2.41
				2005	290340000	29034	27918.521	3.85
				2006	276630000	27663	27839.791	0.61
				2007	275850000	27585	28215.03	2.17
RES			**v3 - RESNET50**					
			SOLAR_IRR_TOTAL					
				2002	278740000	2787.4	2741.5447	1.58
				2003	286030000	2860.3	2734.2954	4.34
				2004	273440000	2734.4	2711.8188	0.78
				2005	290340000	2903.4	2712.5466	6.58
				2006	276630000	2766.3	2731.9841	1.18
				2007	275850000	2758.5	2740.2642	0.63

colour coding

	new test
	new model
XX	resluts clore to or above 90%

modell	trained data	prediction images	GT - Real Render	nr	simulation	scaling	prediction	%	
OUR	8-F-SFB-1-TEX-2050	0-GT-render							
			SOLAR_IRR_TOTAL					30.4 = 1 %	
			1-SFB-TEX	2002	278740000	2787.4	2814.6	0.89	99.11
			2-SFB-TEX	2003	286030000	2860.3	2700.9	5.24	94.76
			3-SFB-TEX	2004	273440000	2734.4	2586.6	4.86	95.14
			4-SFB-TEX	2005	290340000	2903.4	2918.1	0.48	99.52
			5-SFB-TEX	2006	276630000	2766.3	2821.6	1.82	98.18
			6-SFB-TEX	2007	275850000	2758.5	2879.1	3.97	96.03
			7-RR-brunomarekallee		25382	2538.2	2641.5	3.40	96.60
			8-RR-brunomarekallee		25382	2538.2	2797.4	8.53	91.47
			9-RR-engerthstrasse		27842	2784.2	2803.9	0.65	99.35
			10-RR-dresdnerstrasse		30543	3054.3	2791.7	8.64	91.36
			11-RR-laboratoryV1		29575	2957.5	2782.7	5.75	94.25
			12-RR-laboratoryV2		29913	2991.3	2821.6	5.58	94.42
			13-RR-laboratoryV3		30971	3097.1	2973.5	4.07	95.93
			14-RR-online1-X		27457	2745.7	2973.5	7.49	92.51
			15-RR-online2 - II		29266	2926.6	2902.0	0.81	99.19
			average prediction accuracy					4.15	95.85

modell	trained data	prediction images	GT - Real Images	simulation	scaling	prediction	%	
OUR	8-F-SFB-1-TEX-2050	0-GT-real						
			6-RR-brunomarekallee	25382	2538.2	2372.5	5.45	94.55
			7-RR-brunomarekallee	25382	2538.2	1390.7	37.75	62.25
			8-RR-brunomarekallee	25382	2538.2	1656.7	29.00	71.00
			9-RR-engerthstrasse	27842	2784.2	1550.2	40.59	59.41
			10-RR-dresdnerstrasse	30543	3054.3	2569.0	15.96	84.04
			11-RR-laboratoryV1	29575	2957.5	2125.1	27.38	72.62
			12-RR-laboratoryV2	29913	2991.3	2209.0	25.73	74.27
			13-RR-laboratoryV3	30971	3097.1	2209.0	29.21	70.79
			14-RR-online1-X	27457	2745.7	2455.6	9.54	90.46
			15-RR-online2 - II	29266	2926.6	1851.7	35.36	64.64
			average prediction accuracy				25.60	74.40

modell	trained data	prediction images	GT - Real Images	simulation	scaling	prediction	%	
OUR	8-F-SFB-1-TEX-2050	a1-GT-real-HIST						
			6-RR-brunomarekallee	25382	2538.2	2077.2	15.17	84.83
			7-RR-brunomarekallee	25382	2538.2	2016.7	17.15	82.85
			8-RR-brunomarekallee	25382	2538.2	2059.7	15.74	84.26
			9-RR-engerthstrasse	27842	2784.2	2048.7	24.19	75.81
			10-RR-dresdnerstrasse	30543	3054.3	2124.2	30.60	69.40
			11-RR-laboratoryV1	29575	2957.5	2097.9	28.27	71.73
			12-RR-laboratoryV2	29913	2991.3	2137.6	28.08	71.92
			13-RR-laboratoryV3	30971	3097.1	2137.6	31.56	68.44
			14-RR-online1-X	27457	2745.7	2192.2	18.21	81.79
			15-RR-online2 - II	29266	2926.6	2113.1	26.76	73.24
			average prediction accuracy				23.57	76.43

modell	trained data	prediction images	GT - Real Images				
OUR	8-F-SFB-1-TEX-2050	a1-GT-real-CLAHE					
			6-RR-brunomarekallee	25382	2538.2	2221.1	10.43	89.57
			7-RR-brunomarekallee	25382	2538.2	1782.9	24.84	75.16
			8-RR-brunomarekallee	25382	2538.2	1886.6	21.43	78.57
			9-RR-engerthstrasse	27842	2784.2	1877.4	29.83	70.17
			10-RR-dresdnerstrasse	30543	3054.3	2337.0	23.59	76.41
			11-RR-laboratoryV1	29575	2957.5	2111.4	27.83	72.17
			12-RR-laboratoryV2	29913	2991.3	2077.8	30.05	69.95
			13-RR-laboratoryV3	30971	3097.1	2077.8	33.53	66.47
			14-RR-online1-X	27457	2745.7	2229.8	16.97	83.03
			15-RR-online2 - II	29266	2926.6	2058.6	28.55	71.45
	no texture	clahe	average prediction accuracy				24.71	75.29

OUR	8-F-SFB-1-TEX-2050-CLAHE	0-GT-real					
			6-RR-brunomarekallee	25382	2538.2	2566.8	0.94	99.06
			7-RR-brunomarekallee	25382	2538.2	1524.9	33.33	66.67
			8-RR-brunomarekallee	25382	2538.2	1808.7	24.00	76.00
			9-RR-engerthstrasse	27842	2784.2	1694.5	35.85	64.15
			10-RR-dresdnerstrasse	30543	3054.3	2776.4	9.14	90.86
			11-RR-laboratoryV1	29575	2957.5	2302.9	21.53	78.47
			12-RR-laboratoryV2	29913	2991.3	2396.0	19.58	80.42
			13-RR-laboratoryV3	30971	3097.1	2396.0	23.06	76.94
			14-RR-online1-X	27457	2745.7	2659.4	2.84	97.16
			15-RR-online2 - II	29266	2926.6	2018.9	29.86	70.14
	no texture		average prediction accuracy				20.01	79.99

modell	trained data	prediction images	GT - Real Images				
OUR	8-F-SFB-1-TEX-2050-CLAHE	a1-GT-real-HIST					
			6-RR-brunomarekallee	25382	2538.2	2255.2	9.31	90.69
			7-RR-brunomarekallee	25382	2538.2	2189.9	11.46	88.54
			8-RR-brunomarekallee	25382	2538.2	2238.0	9.87	90.13
			9-RR-engerthstrasse	27842	2784.2	2225.1	18.39	81.61
			10-RR-dresdnerstrasse	30543	3054.3	2306.9	24.59	75.41
			11-RR-laboratoryV1	29575	2957.5	2274.1	22.48	77.52
			12-RR-laboratoryV2	29913	2991.3	2326.2	21.88	78.12
			13-RR-laboratoryV3	30971	3097.1	2326.2	25.36	74.64
			14-RR-online1-X	27457	2745.7	2387.4	11.79	88.21
			15-RR-online2 - II	29266	2926.6	2297.6	20.69	79.31
	no texture	HIST	average prediction accuracy				17.58	82.42

modell	trained data	prediction images	GT - Real Images				
OUR	8-F-SFB-1-TEX-2050-CLAHE	a1-GT-real-CLAHE					
			6-RR-brunomarekallee	25382	2538.2	2407.5	4.30	95.70
			7-RR-brunomarekallee	25382	2538.2	1942.8	19.59	80.41
			8-RR-brunomarekallee	25382	2538.2	2055.5	15.88	84.12
			9-RR-engerthstrasse	27842	2784.2	2043.7	24.36	75.64
			10-RR-dresdnerstrasse	30543	3054.3	2532.8	17.16	82.84
			11-RR-laboratoryV1	29575	2957.5	2288.6	22.00	78.00
			12-RR-laboratoryV2	29913	2991.3	2260.4	24.04	75.96
			13-RR-laboratoryV3	30971	3097.1	2260.4	27.52	72.48
			14-RR-online1-X	27457	2745.7	2425.3	10.54	89.46
			15-RR-online2 - II	29266	2926.6	2240.5	22.57	77.43
	no texture	CLAHE	average prediction accuracy				18.80	81.20

modell	trained data	prediction images	GT - Real Images				
OUR	8-F-SFB-1-TEX-2050-CLAHE	a1-GT-real-ADAME					
			6-RR-brunomarekallee	25382	2538.2	2875.1	11.08	88.92
			7-RR-brunomarekallee	25382	2538.2	3034.8	16.34	83.66
			8-RR-brunomarekallee	25382	2538.2	2887.1	11.48	88.52
			9-RR-engerthstrasse	27842	2784.2	3029.4	8.07	91.93
			10-RR-dresdnerstrasse	30543	3054.3	2946.3	3.55	96.45
			11-RR-laboratoryV1	29575	2957.5	2907.2	1.65	98.35
			12-RR-laboratoryV2	29913	2991.3	2605.5	12.69	87.31
			13-RR-laboratoryV3	30971	3097.1	2605.5	16.17	83.83
			14-RR-online1-X	27457	2745.7	2698.3	1.56	98.44
			15-RR-online2 - II	29266	2926.6	2717.8	6.87	93.13
	no texture	ADAME	average prediction accuracy				8.95	91.05

modell	trained data	prediction images	GT - Real Images				
OUR	8-F-SFB-1-TEX-2050-CLAHE	a1-GT-real-BI-GLOBAL					
			6-RR-brunomarekallee	25382	2538.2	2995.7	15.05	84.95
			7-RR-brunomarekallee	25382	2538.2	1138.1	46.06	53.94
			8-RR-brunomarekallee	25382	2538.2	1268.5	41.77	58.23
			9-RR-engerthstrasse	27842	2784.2	1075.0	56.22	43.78
			10-RR-dresdnerstrasse	30543	3054.3	3408.2	11.64	88.36
			11-RR-laboratoryV1	29575	2957.5	2888.4	2.27	97.73
			12-RR-laboratoryV2	29913	2991.3	3227.8	7.78	92.22
			13-RR-laboratoryV3	30971	3097.1	3227.8	4.30	95.70
			14-RR-online1-X	27457	2745.7	3379.1	20.83	79.17
			15-RR-online2 - II	29266	2926.6	2275.8	21.41	78.59
	no texture	GLOBAL	average prediction accuracy				22.73	77.27
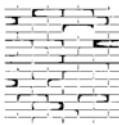
OUR — trained data: 8-F-SFB-1-TEX-2050-CLAHE — prediction images: a1-GT-real-BI-ADAGA (ADAGA, no texture)

GT - Real Images					
6-RR-brunomarekallee	25382	2538.2	2956.8	13.77	86.23
7-RR-brunomarekallee	25382	2538.2	3136.9	19.69	80.31
8-RR-brunomarekallee	25382	2538.2	3028.6	16.13	83.87
9-RR-engerthstrasse	27842	2784.2	3183.3	13.13	86.87
10-RR-dresdnerstrasse	30543	3054.3	2929.6	4.10	95.90
11-RR-laboratoryV1	29575	2957.5	2957.5	0.00	100.00
12-RR-laboratoryV2	29913	2991.3	2659.1	10.93	89.07
13-RR-laboratoryV3	30971	3097.1	2659.1	14.41	85.59
14-RR-online1-X	27457	2745.7	2710.2	1.17	98.83
15-RR-online2 - II	29266	2926.6	2778.5	4.87	95.13
average prediction accuracy				9.82	90.18

OUR — trained data: 8-F-SFB-1-TEX-2050-CLAHE — prediction images: a1-GT-real-BI-GAU-OTSU (OTSU, no texture)

GT - Real Images					
6-RR-brunomarekallee	25382	2538.2	2999.7	15.18	84.82
7-RR-brunomarekallee	25382	2538.2	2545.1	0.23	99.77
8-RR-brunomarekallee	25382	2538.2	3308.3	25.33	74.67
9-RR-engerthstrasse	27842	2784.2	2963.2	5.89	94.11
10-RR-dresdnerstrasse	30543	3054.3	3351.9	9.79	90.21
11-RR-laboratoryV1	29575	2957.5	2633.5	10.66	89.34
12-RR-laboratoryV2	29913	2991.3	1999.2	32.63	67.37
13-RR-laboratoryV3	30971	3097.1	1999.2	36.11	63.89
14-RR-online1-X	27457	2745.7	3314.0	18.69	81.31
15-RR-online2 - II	29266	2926.6	2485.2	14.52	85.48
average prediction accuracy				16.90	83.10

RES — trained data: 8-F-SFB-1-TEX-2050-CLAHE (no texture)

GT - Real Images			real			hist			CLAHE		
6-RR-brunomarekallee	25382	2538.2	2386.9	4.98	95.02	2390.6	4.85	95.15	2389.3	4.90	95.10
7-RR-brunomarekallee	25382	2538.2	2399.2	4.57	95.43	2390.3	4.87	95.13	2392.9	4.78	95.22
8-RR-brunomarekallee	25382	2538.2	2406.5	4.33	95.67	2403.4	4.43	95.57	2405.0	4.38	95.62
9-RR-engerthstrasse	27842	2784.2	2403.3	12.53	87.47	2395.5	12.79	87.21	2396.7	12.75	87.25
10-RR-dresdnerstrasse	30543	3054.3	2388.9	21.89	78.11	2394.9	21.69	78.31	2392.1	21.78	78.22
11-RR-laboratoryV1	29575	2957.5	2394.1	18.53	81.47	2394.1	18.51	81.49	2394.1	18.53	81.47
12-RR-laboratoryV2	29913	2991.3	2387.6	19.86	80.14	2385.8	19.92	80.08	2383.9	19.98	80.02
13-RR-laboratoryV3	30971	3097.1	2387.6	23.34	76.66	2385.8	23.40	76.60	2383.9	23.46	76.54
14-RR-online1-X	27457	2745.7	2393.1	11.60	88.40	2410.9	11.01	88.99	2405.5	11.19	88.81
15-RR-online2 - II	29266	2926.6	2399.0	17.36	82.64	2396.7	17.43	82.57	2398.6	17.37	82.63
average prediction accuracy				13.90	86.10		13.89	86.11		13.91	86.09

RES — trained data: 8-F-SFB-1-TEX-2050-HIST (no texture)

GT - Real Images			real			hist			CLAHE			adame			Bi-global			adaga			otsu		
6-RR-brunomarekallee	25382	2538.2	3052.1	16.91	83.09	3049.9	16.83	83.17	3051.2	16.87	83.13	3038.6	16.46	83.54	3054.9	17.00	83.00	3036.2	16.38	83.62	3054.8	16.99	83.01
7-RR-brunomarekallee	25382	2538.2	3031.9	16.24	83.76	3049.3	16.81	83.19	3047.6	16.76	83.24	3029.4	16.16	83.84	3047.6	16.76	83.24	3031.8	16.24	83.76	3057.8	17.09	82.91
8-RR-brunomarekallee	25382	2538.2	3031.5	16.22	83.78	3042.2	16.58	83.42	3040.2	16.51	83.49	3029.8	16.17	83.83	3038.6	16.46	83.54	3029.2	16.15	83.85	3046.7	16.73	83.27
9-RR-engerthstrasse	27842	2784.2	3029.1	8.05	91.95	3046.1	8.61	91.39	3045.0	8.58	91.42	3032.8	8.18	91.82	3043.3	8.52	91.48	3034.6	8.24	91.76	3053.0	8.84	91.16
10-RR-dresdnerstrasse	30543	3054.3	3043.5	0.35	99.65	3045.1	0.30	99.70	3045.2	0.30	99.70	3027.9	0.87	99.13	3041.8	0.41	99.59	3029.9	0.80	99.20	3039.8	0.48	99.52
11-RR-laboratoryV1	29575	2957.5	3039.7	2.70	97.30	3039.3	2.69	97.31	3037.9	2.65	97.35	3032.6	2.47	97.53	3042.7	2.80	97.20	3032.9	2.48	97.52	3040.5	2.73	97.27
12-RR-laboratoryV2	29913	2991.3	3045.8	1.79	98.21	3043.4	1.71	98.29	3044.4	1.75	98.25	3033.6	1.39	98.61	3041.5	1.65	98.35	3035.6	1.46	98.54	3039.9	1.60	98.40
13-RR-laboratoryV3	30971	3097.1	3045.8	1.69	98.31	3043.4	1.77	98.23	3044.4	1.73	98.27	3033.6	2.09	97.91	3041.5	1.83	98.17	3035.6	2.02	97.98	3039.9	1.88	98.12
14-RR-online1-X	27457	2745.7	3044.3	9.82	90.18	3041.5	9.73	90.27	3042.2	9.75	90.25	3031.4	9.40	90.60	3044.9	9.84	90.16	3031.7	9.41	90.59	3044.6	9.83	90.17
15-RR-online2 - II	29266	2926.6	3041.2	3.77	96.23	3044.0	3.86	96.14	3043.0	3.83	96.17	3031.1	3.44	96.56	3045.4	3.91	96.09	3028.4	3.35	96.65	3040.7	3.75	96.25
average prediction accuracy				7.75	92.25		7.89	92.11		7.87	92.13		7.66	92.34		7.92	92.08		7.65	92.35		7.99	92.01

GT - Real Images			HIST-CLAHE			HIST-GLOB			HIST-ADAME		
6-RR-brunomarekallee	25382	2538.2	3049.1	16.80	83.20	3053.4	16.95	83.05	3038.8	16.47	83.53
7-RR-brunomarekallee	25382	2538.2	3051.0	16.87	83.13	3057.6	17.09	82.91	3028.4	16.12	83.88
8-RR-brunomarekallee	25382	2538.2	3041.1	16.54	83.46	3039.2	16.48	83.52	3029.7	16.17	83.83
9-RR-engerthstrasse	27842	2784.2	3047.6	8.67	91.33	3049.9	8.74	91.26	3030.1	8.09	91.91
10-RR-dresdnerstrasse	30543	3054.3	3043.0	0.37	99.63	3039.4	0.49	99.51	3029.2	0.82	99.18
11-RR-laboratoryV1	29575	2957.5	3037.7	2.64	97.36	3042.2	2.79	97.21	3032.5	2.47	97.53
12-RR-laboratoryV2	29913	2991.3	3042.0	1.67	98.33	3037.3	1.51	98.49	3034.5	1.42	98.58
13-RR-laboratoryV3	30971	3097.1	3042.0	1.81	98.19	3037.3	1.97	98.03	3034.5	2.06	97.94
14-RR-online1-X	27457	2745.7	3041.2	9.72	90.28	3030.0	9.35	90.65	3034.0	9.49	90.51
15-RR-online2 - II	29266	2926.6	3043.3	3.84	96.16	3040.4	3.74	96.26	3031.7	3.46	96.54
average prediction accuracy				7.89	92.11		7.91	92.09		7.66	92.34

8-F-SFB-1-TEX-2050-BI_GLOBAL (OUR)

modell	trained data	GT1	GT2	real			hist			CLAHE		adame			BI-global			adaga			otsu		
OUR	8-F-SFB-1-TEX-2050-BI_GLOBAL																						
	6-RR-brunomarekallee	25382	2538.2	2124.4	13.61	86.39	1867.6	22.06	77.94	83.49	16.51	2392.4	4.80	95.20	2481.0	1.88	98.12	2454.7	2.75	97.25	2483.5	1.80	98.20
	7-RR-brunomarekallee	25382	2538.2	1260.1	42.04	57.96	1811.4	23.91	76.09	83.49	16.51	2520.4	0.59	99.41	945.7	52.39	47.61	2604.8	2.19	97.81	2106.0	14.22	85.78
	8-RR-brunomarekallee	25382	2538.2	1494.4	34.33	65.67	1850.9	22.61	77.39	83.49	16.51	2393.0	4.78	95.22	1053.3	48.85	51.15	2512.9	0.83	99.17	2737.1	6.54	93.46
	9-RR-engerthstrasse	27842	2784.2	1400.0	45.53	54.47	1840.5	31.04	68.96	91.59	8.41	2512.2	8.95	91.05	890.7	62.29	37.71	2641.5	4.69	95.31	2452.2	10.92	89.08
	10-RR-dresdnerstrasse	30543	3054.3	2296.0	24.94	75.06	1907.9	37.71	62.29	100.47	-0.47	2448.6	19.92	80.08	2819.9	7.71	92.29	2430.7	20.51	79.49	2772.9	9.26	90.74
	11-RR-laboratoryV1	29575	2957.5	1904.5	34.64	65.36	1881.2	35.40	64.60	97.29	2.71	2409.1	18.03	81.97	2391.2	18.63	81.37	2455.7	16.51	83.49	2179.4	25.59	74.41
	12-RR-laboratoryV2	29913	2991.3	1985.2	33.10	66.90	1933.0	34.81	65.19	98.40	1.60	2169.5	27.03	72.97	2678.7	10.28	89.72	2213.9	25.57	74.43	1665.8	43.60	56.40
	13-RR-laboratoryV3	30971	3097.1	1985.2	36.58	63.42	1933.0	38.29	61.71	101.88	-1.88	2169.5	2.53	97.47	2678.7	13.76	86.24	2213.9	29.05	70.95	1665.8	47.08	52.92
no texture	14-RR-online1-X	27457	2745.7	2203.3	17.84	82.16	1983.2	25.08	74.92	90.32	9.68	2244.9	16.47	83.53	2799.1	1.76	98.24	2255.1	16.14	83.86	2746.4	0.02	99.98
	15-RR-online2 - II	29266	2926.6	1672.8	41.24	58.76	1904.8	33.61	66.39	96.27	3.73	2262.8	21.83	78.17	1891.0	34.06	65.94	2312.4	20.20	79.80	2061.7	28.45	71.55
	average prediction accuracy				32.39	67.61		30.45	69.55	92.67	7.33		15.29	84.71		25.16	74.84		13.85	86.15		18.75	81.25

8-F-SFB-1-TEX-2050-HIST (OUR)

modell	trained data	GT1	GT2	real			hist			CLAHE			adame			BI-global			adaga			otsu		
OUR	8-F-SFB-1-TEX-2050-HIST																							
	6-RR-brunomarekallee	25382	2538.2	3441.8	29.72	70.28	3018.9	15.81	84.19	3225.2	22.60	77.40	3828.1	42.44	57.56	4022.4	48.82	51.18	3931.0	45.82	54.18	4028.2	49.01	50.99
	7-RR-brunomarekallee	25382	2538.2	2032.1	16.65	83.35	2930.7	12.91	87.09	2595.5	1.88	98.12	4047.3	49.64	50.36	1496.7	34.26	65.74	4189.2	54.31	45.69	3412.5	28.76	71.24
	8-RR-brunomarekallee	25382	2538.2	2413.3	4.11	95.89	2991.9	14.92	85.08	2743.4	6.75	93.25	3822.5	42.25	57.75	1664.6	28.74	71.26	4025.1	48.91	51.09	4443.5	62.68	37.32
	9-RR-engerthstrasse	27842	2784.2	2261.0	17.21	82.79	2976.7	6.33	93.67	2730.6	1.76	98.24	4027.4	40.89	59.11	1407.6	45.28	54.72	4246.0	48.09	51.91	3977.8	39.26	60.74
	10-RR-dresdnerstrasse	30543	3054.3	3723.8	22.02	77.98	3085.9	1.04	98.96	3391.3	11.09	88.91	3938.5	29.08	70.92	4579.6	50.17	49.83	3901.0	27.85	72.15	4503.9	47.69	52.31
	11-RR-laboratoryV1	29575	2957.5	3087.0	4.26	95.74	3048.2	2.98	97.02	3067.7	3.62	96.38	3901.3	31.05	68.95	3877.3	30.26	69.74	3969.0	33.27	66.73	3532.5	18.91	81.09
	12-RR-laboratoryV2	29913	2991.3	3207.0	7.12	92.88	3106.3	3.78	96.22	3020.3	0.95	99.05	3454.3	15.23	84.77	4318.7	43.66	56.34	3525.5	17.57	82.43	2659.1	10.93	89.07
	13-RR-laboratoryV3	30971	3097.1	3207.7	3.64	96.36	3106.3	0.30	99.70	3020.3	2.53	97.47	3454.3	11.75	88.25	4318.7	40.18	59.82	3525.5	14.09	85.91	2659.1	14.41	85.59
no texture	14-RR-online1-X	27457	2745.7	3561.7	26.84	73.16	3185.2	14.46	85.54	3238.8	16.22	83.78	3580.3	27.46	72.54	4536.0	58.89	41.11	3595.1	27.94	72.06	4452.8	56.15	43.85
	15-RR-online2 - II	29266	2926.6	2696.9	7.56	92.44	3072.6	4.80	95.20	2994.9	2.25	97.75	3608.3	22.42	77.58	3036.4	3.61	96.39	3689.4	25.09	74.91	3327.3	13.18	86.82
	average prediction accuracy				13.91	86.09		7.73	92.27		6.97	93.03		31.22	68.78		38.39	61.61		34.29	65.71		34.10	65.90

GT - Real Images	GT1	GT2	HIST-CLAHE			HIST-GLOB			HIST-ADAME		
6-RR-brunomarekallee	25382	2538.2	2952.8	13.64	86.36	3222.3	22.50	77.50	3631.7	35.97	64.03
7-RR-brunomarekallee	25382	2538.2	2988.5	14.81	85.19	3408.1	28.61	71.39	3911.2	45.16	54.84
8-RR-brunomarekallee	25382	2538.2	3073.1	17.60	82.40	4110.4	51.72	48.28	3629.7	35.90	64.10
9-RR-engerthstrasse	27842	2784.2	3104.7	10.54	89.46	3897.9	36.63	63.37	3755.3	31.94	68.06
10-RR-dresdnerstrasse	30543	3054.3	3080.6	0.86	99.14	3846.0	26.04	73.96	3770.0	23.54	76.46
11-RR-laboratoryV1	29575	2957.5	3032.1	2.46	97.54	3632.4	22.20	77.80	3885.1	30.53	69.47
12-RR-laboratoryV2	29913	2991.3	3111.2	3.94	96.06	3469.7	15.74	84.26	3514.8	17.22	82.78
13-RR-laboratoryV3	30971	3097.1	3111.2	0.46	99.54	3469.7	12.26	87.74	3514.8	13.74	86.26
14-RR-online1-X	27457	2745.7	3133.1	12.74	87.26	3606.2	28.32	71.68	3459.7	23.49	76.51
15-RR-online2 - II	29266	2926.6	3051.7	4.12	95.88	3332.5	13.35	86.65	3588.0	21.76	78.24
average prediction accuracy				8.12	91.88		25.74	74.26		27.93	72.07

8-F-SFB-1-TEX-2050-CLAHE-BI-GLO (OUR)

modell	trained data	GT1	GT2	real			hist			CLAHE			adame			BI-global			adaga			otsu		
OUR	8-F-SFB-1-TEX-2050-CLAHE-BI-GLO																							
	6-RR-brunomarekallee	25382	2538.2	2374.4	5.39	94.61	2085.9	14.88	85.12	2226.9	10.24	89.76	2648.5	3.63	96.37	2772.3	7.70	92.30	2721.6	6.03	93.97	2775.9	7.82	92.18
	7-RR-brunomarekallee	25382	2538.2	1408.9	37.15	62.85	2024.7	16.89	83.11	1795.8	24.42	75.58	2802.7	8.70	91.30	1048.5	49.00	51.00	2899.4	11.88	88.12	2354.6	6.04	93.96
	8-RR-brunomarekallee	25382	2538.2	1669.3	28.58	71.42	2066.3	15.52	84.48	1896.3	21.11	78.89	2650.8	3.70	96.30	1163.8	45.21	54.79	2790.5	8.30	91.70	3059.2	17.14	82.86
	9-RR-engerthstrasse	27842	2784.2	1565.0	40.11	59.89	2055.8	23.96	76.04	1887.4	29.50	70.50	2790.4	0.20	99.80	985.3	59.17	40.83	2939.8	5.12	94.88	2740.8	1.43	98.57
	10-RR-dresdnerstrasse	30543	3054.3	2566.4	16.05	83.95	2129.8	30.41	69.59	2339.0	23.53	76.47	2719.7	11.01	88.99	3153.1	3.25	96.75	2694.3	11.84	88.16	3101.1	1.54	98.46
	11-RR-laboratoryV1	29575	2957.5	2130.8	27.19	72.81	2104.5	28.06	71.94	2118.0	27.61	72.39	2691.8	8.74	91.26	2672.9	9.36	90.64	2739.7	7.16	92.84	2436.9	17.13	82.87
	12-RR-laboratoryV2	29913	2991.3	2215.6	25.51	74.49	2150.5	27.66	72.34	2090.0	29.65	70.35	2403.0	19.35	80.65	2985.3	0.20	99.80	2452.6	17.72	82.28	1846.2	37.67	62.33
	13-RR-laboratoryV3	30971	3097.1	2215.7	29.00	71.01	2150.5	31.14	68.86	2090.0	33.13	66.87	2403.0	22.83	77.17	2985.3	3.68	96.32	2452.6	21.20	78.80	1846.2	41.15	58.85
	14-RR-online1-X	27457	2745.7	2459.2	9.43	90.57	2206.9	17.72	82.28	2242.1	16.56	83.44	2488.2	8.47	91.53	3124.7	12.47	87.53	2499.5	8.10	91.90	3066.3	10.55	89.45
no texture	15-RR-online2 - II	29266	2926.6	1865.9	34.89	65.11	2124.0	26.40	73.60	2071.0	28.15	71.85	2509.1	13.74	86.26	2104.3	27.05	72.95	2564.7	11.90	88.10	2299.5	20.63	79.37
	average prediction accuracy				25.33	74.67		23.26	76.74		24.39	75.61		10.04	89.96		21.71	78.29		10.93	89.07		16.11	83.89

GT - Real Images	GT1	GT2	CLA-GLOB			CLAHE	
6-RR-brunomarekallee	25382	2538.2	2477.0	2.01	97.99	83.49	16.51
7-RR-brunomarekallee	25382	2538.2	2155.1	12.60	87.40	83.49	16.51
8-RR-brunomarekallee	25382	2538.2	2402.2	4.47	95.53	83.49	16.51
9-RR-engerthstrasse	27842	2784.2	2533.7	8.24	91.76	91.59	8.41
10-RR-dresdnerstrasse	30543	3054.3	2844.4	6.90	93.10	100.47	-0.47
11-RR-laboratoryV1	29575	2957.5	2337.3	20.40	79.60	97.29	2.71
12-RR-laboratoryV2	29913	2991.3	2316.1	22.21	77.79	98.40	1.60
13-RR-laboratoryV3	30971	3097.1	2316.1	25.69	74.31	101.88	-1.88
14-RR-online1-X	27457	2745.7	2651.6	3.09	96.91	90.32	9.68
15-RR-online2 - II	29266	2926.6	2229.3	22.94	77.06	96.27	3.73
average prediction accuracy				12.86	87.14	92.67	7.33

8-F-SFB-1-TEX-2050-ADAME — OUR (no texture)

GT - Real Images			real			hist			CLAHE			adame			BI-global			adaga			otsu		
6-RR-brunomarekallee	25382	2538.2	2358.1	5.92	94.08	2068.7	15.45	84.55	2210.0	10.79	89.21	2651.1	3.72	96.28	2757.6	7.22	92.78	2726.7	6.20	93.80	2760.7	7.32	92.68
7-RR-brunomarekallee	25382	2538.2	1391.8	37.71	62.29	2008.6	17.42	82.58	1779.1	24.97	75.03	2796.5	8.50	91.50	1032.3	49.54	50.46	2892.4	11.65	88.35	2339.0	6.55	93.45
8-RR-brunomarekallee	25382	2538.2	1655.4	29.04	70.96	2053.3	15.95	84.05	1884.1	21.52	78.48	2659.5	3.99	96.01	1152.2	45.59	54.41	2790.8	8.31	91.69	3046.5	16.72	83.28
9-RR-engerthstrasse	27842	2784.2	1549.1	40.63	59.37	2040.9	24.45	75.55	1872.7	29.98	70.02	2791.5	0.24	99.76	972.5	59.60	40.40	2936.8	5.02	94.98	2726.4	1.90	98.10
10-RR-dresdnerstrasse	30543	3054.3	2552.1	16.52	83.48	2116.0	30.87	69.13	2325.5	23.97	76.03	2709.1	11.36	88.64	3139.4	2.80	97.20	2695.7	11.79	88.21	3086.7	1.07	98.93
11-RR-laboratoryV1	29575	2957.5	2112.5	27.79	72.21	2085.5	28.68	71.32	2098.8	28.25	71.75	2672.9	9.36	90.64	2656.5	9.90	90.10	2719.6	7.83	92.17	2420.4	17.67	82.33
12-RR-laboratoryV2	29913	2991.3	2198.8	26.07	73.93	2133.6	28.22	71.78	2072.5	30.22	69.78	2392.2	19.71	80.29	2977.0	0.47	99.53	2442.6	18.05	81.95	1830.4	38.19	61.81
13-RR-laboratoryV3	30971	3097.1	2198.8	29.55	70.45	2133.6	31.70	68.30	2072.5	33.71	66.29	2392.2	23.19	76.81	2977.0	3.95	96.05	2442.6	21.53	78.47	1830.4	41.67	58.33
14-RR-online1-X	27457	2745.7	2444.1	9.92	90.08	2191.3	18.24	81.76	2226.5	17.08	82.92	2480.0	8.74	91.26	3114.8	12.14	87.86	2490.4	8.40	91.60	3051.7	10.06	89.94
15-RR-online2 - II	29266	2926.6	1850.1	35.41	64.59	2108.5	26.91	73.09	2055.4	28.66	71.34	2497.4	14.12	85.88	2089.8	27.53	72.47	2554.2	12.25	87.75	2285.1	21.10	78.90
average prediction accuracy				25.86	74.14		23.79	76.21		24.92	75.08		10.29	89.71		21.87	78.13		11.10	88.90		16.22	83.78

GT - Real Images			HIST-ADAME					
6-RR-brunomarekallee	25382	2538.2	2516.7	0.71	99.29		83.49	16.51
7-RR-brunomarekallee	25382	2538.2	2705.8	5.51	94.49		83.49	16.51
8-RR-brunomarekallee	25382	2538.2	2527.5	0.35	99.65		83.49	16.51
9-RR-engerthstrasse	27842	2784.2	2607.5	5.81	94.19		91.59	8.41
10-RR-dresdnerstrasse	30543	3054.3	2593.6	15.15	84.85		100.47	-0.47
11-RR-laboratoryV1	29575	2957.5	2662.3	9.71	90.29		97.29	2.71
12-RR-laboratoryV2	29913	2991.3	2434.2	18.33	81.67		98.40	1.60
13-RR-laboratoryV3	30971	3097.1	2434.2	21.81	78.19		101.88	-1.88
14-RR-online1-X	27457	2745.7	2397.0	11.47	88.53		90.32	9.68
15-RR-online2 - II	29266	2926.6	2483.2	14.58	85.42		96.27	3.73
average prediction accuracy				10.34	89.66		92.67	7.33

8-F-SFB-1-TEX-2050-OTSU — OUR (no texture)

GT - Real Images			real			hist			CLAHE			adame			BI-global			adaga			otsu		
6-RR-brunomarekallee	25382	2538.2	2645.0	3.51	96.49	2318.9	7.21	92.79	2477.7	1.99	98.01	2923.7	12.68	87.32	3090.0	18.15	81.85	3008.5	15.47	84.53	3095.0	18.32	81.68
7-RR-brunomarekallee	25382	2538.2	1562.1	32.11	67.89	2252.7	9.39	90.61	1994.5	17.88	82.12	3100.5	18.50	81.50	1147.1	45.76	54.24	3211.1	22.13	77.87	2622.9	2.79	97.21
8-RR-brunomarekallee	25382	2538.2	1854.9	22.48	77.52	2298.9	7.87	92.13	2107.7	14.16	85.84	2931.1	12.92	87.08	1273.7	41.60	58.40	3086.4	18.03	81.97	3414.5	28.83	71.17
9-RR-engerthstrasse	27842	2784.2	1737.8	34.42	65.58	2287.2	16.35	83.65	2098.1	22.57	77.43	3086.1	9.93	90.07	1077.6	56.14	43.86	3254.8	15.48	84.52	3056.4	8.95	91.05
10-RR-dresdnerstrasse	30543	3054.3	2862.0	6.33	93.67	2370.3	22.50	77.50	2605.2	14.77	85.23	3016.8	1.23	98.77	3520.3	15.33	84.67	2986.4	2.23	97.77	3462.1	13.41	86.59
11-RR-laboratoryV1	29575	2957.5	2373.1	19.22	80.78	2343.1	20.21	79.79	2358.0	19.72	80.28	2996.5	1.28	98.72	2980.1	0.74	99.26	3043.9	2.84	97.16	2716.8	7.92	92.08
12-RR-laboratoryV2	29913	2991.3	2463.6	17.36	82.64	2383.2	20.00	80.00	2317.6	22.16	77.84	2645.0	11.39	88.61	3314.4	10.63	89.37	2700.5	9.57	90.43	2036.8	31.40	68.60
13-RR-laboratoryV3	30971	3097.1	2463.6	20.84	79.16	2383.2	23.48	76.52	2317.6	25.64	74.36	2645.0	14.87	85.13	3314.4	7.15	92.85	2700.5	13.05	86.95	2036.8	34.88	65.12
14-RR-online1-X	27457	2745.7	2735.5	0.34	99.66	2443.2	9.95	90.05	2485.2	8.57	91.43	2741.3	0.15	99.85	3482.5	24.24	75.76	2752.9	0.24	99.76	3418.9	22.15	77.85
15-RR-online2 - II	29266	2926.6	2069.9	28.18	71.82	2358.1	18.70	81.30	2297.8	20.68	79.32	2763.7	5.36	94.64	2327.4	19.71	80.29	2827.0	3.28	96.72	2552.4	12.31	87.69
average prediction accuracy				18.48	81.52		15.57	84.43		16.82	83.18		8.83	91.17		23.94	76.06		10.23	89.77		18.09	81.91

GT - Real Images			HIST-ADAME			HIST-GLOBAL			CLAHE-GLOBAL		
6-RR-brunomarekallee	25382	2538.2	2771.7	7.68	92.32	2473.9	2.12	97.88	2753.7	7.09	92.91
7-RR-brunomarekallee	25382	2538.2	2995.1	15.03	84.97	2619.2	2.67	97.33	2391.4	4.83	95.17
8-RR-brunomarekallee	25382	2538.2	2782.1	8.02	91.98	3153.7	20.25	79.75	2657.9	3.94	96.06
9-RR-engerthstrasse	27842	2784.2	2878.4	3.10	96.90	2993.8	6.90	93.10	2814.4	0.99	99.01
10-RR-dresdnerstrasse	30543	3054.3	2886.4	5.52	94.48	2951.3	3.39	96.61	3167.5	3.72	96.28
11-RR-laboratoryV1	29575	2957.5	2984.1	0.87	99.13	2792.0	5.44	94.56	2603.5	11.65	88.35
12-RR-laboratoryV2	29913	2991.3	2692.5	9.83	90.17	2659.8	10.90	89.10	2557.2	14.28	85.72
13-RR-laboratoryV3	30971	3097.1	2692.5	13.31	86.69	2659.8	14.38	85.62	2557.2	17.76	82.24
14-RR-online1-X	27457	2745.7	2647.8	3.22	96.78	2763.0	0.57	99.43	2929.2	6.04	93.96
15-RR-online2 - II	29266	2926.6	2747.9	5.88	94.12	2556.0	12.19	87.81	2469.3	15.04	84.96
average prediction accuracy				7.25	92.75		7.88	92.12		8.53	91.47

OUR — prediction images 0-GT-render (with texture / no texture)

GT - Real Images		SOLAR_IRR_TOTAL			30.4 = 1 %	
1-SFB-TEX	2002	278740000	2787.4	2797.6	0.34	99.66
2-SFB-TEX	2003	286030000	2860.3	2684.4	5.78	94.22
3-SFB-TEX	2004	273440000	2734.4	2572.6	5.32	94.68
4-SFB-TEX	2005	290340000	2903.4	2900.5	0.10	99.90
5-SFB-TEX	2006	276630000	2766.3	2804.7	1.26	98.74
6-SFB-TEX	2007	275850000	2758.5	2861.5	3.39	96.61
7-RR-brunomarekallee	25382	2538.2	2627.6	2.94	97.06	
8-RR-brunomarekallee	25382	2538.2	2781.0	7.99	92.01	
9-RR-engerthstrasse	27842	2784.2	2787.3	0.10	99.90	
10-RR-dresdnerstrasse	30543	3054.3	2775.1	9.18	90.82	
11-RR-laboratoryV1	29575	2957.5	2766.7	6.28	93.72	
12-RR-laboratoryV2	29913	2991.3	2804.6	6.14	93.86	
13-RR-laboratoryV3	30971	3097.1	2954.5	4.69	95.31	
14-RR-online1-X	27457	2745.7	2954.5	6.87	93.13	
15-RR-online2 - II	29266	2926.6	2883.1	1.43	98.57	
average prediction accuracy				4.12	95.88	

Section 1

modell	trained data	prediction images	GT - Real Images					
OUR	8-F-SFB-1-2050	0-GT-real						
			6-RR-brunomarekallee	25382	2538.2	2363.7	5.74	94.26
			7-RR-brunomarekallee	25382	2538.2	1398.7	37.48	62.52
			8-RR-brunomarekallee	25382	2538.2	1660.4	28.87	71.13
			9-RR-engerthstrasse	27842	2784.2	1555.3	40.43	59.57
			10-RR-dresdnerstrasse	30543	3054.3	2556.1	16.39	83.61
			11-RR-laboratoryV1	29575	2957.5	2119.5	27.56	72.44
			12-RR-laboratoryV2	29913	2991.3	2204.2	25.89	74.11
			13-RR-laboratoryV3	30971	3097.1	2204.2	29.37	70.63
	with texture		14-RR-online1-X	27457	2745.7	2447.6	9.81	90.19
			15-RR-online2 - II	29266	2926.6	1854.2	35.28	64.72
			average prediction accuracy				25.68	74.32

Section 2

modell	trained data	prediction images	GT - Real Images					
RESNET50	8-F-SFB-1-TEX-2050	0-GT-render		SOLAR_IRR_TOTAL			30.4 = 1 %	
			1-SFB-TEX	2002	278740000	2787.4	2755.6	1.05	98.95
			2-SFB-TEX	2003	286030000	2860.3	2756.3	3.42	96.58
			3-SFB-TEX	2004	273440000	2734.4	2755.5	0.69	99.31
			4-SFB-TEX	2005	290340000	2903.4	2756.0	4.85	95.15
			5-SFB-TEX	2006	276630000	2766.3	2757.1	0.30	99.70
			6-SFB-TEX	2007	275850000	2758.5	2755.0	0.12	99.88
			7-RR-brunomarekallee	25382	2538.2	2755.9	7.16	92.84
			8-RR-brunomarekallee	25382	2538.2	2755.6	7.15	92.85
	no texture	no texture	9-RR-engerthstrasse	27842	2784.2	2755.0	0.96	99.04
			10-RR-dresdnerstrasse	30543	3054.3	2755.7	9.82	90.18
			11-RR-laboratoryV1	29575	2957.5	2756.3	6.62	93.38
			12-RR-laboratoryV2	29913	2991.3	2804.6	6.14	93.86
			13-RR-laboratoryV3	30971	3097.1	2757.1	11.18	88.82
			14-RR-online1-X	27457	2745.7	2757.1	0.38	99.62
			15-RR-online2 - II	29266	2926.6	2757.6	5.56	94.44
			average prediction accuracy				4.36	95.64

Section 3

modell	trained data	prediction images	GT - Real Images					
RESNET50	8-F-SFB-1-TEX-2050	0-GT-real						
			6-RR-brunomarekallee	25382	2538.2	2755.4	7.14	92.86
			7-RR-brunomarekallee	25382	2538.2	2753.2	7.07	92.93
			8-RR-brunomarekallee	25382	2538.2	2754.6	7.12	92.88
			9-RR-engerthstrasse	27842	2784.2	2754.6	0.97	99.03
			10-RR-dresdnerstrasse	30543	3054.3	2756.2	9.81	90.19
			11-RR-laboratoryV1	29575	2957.5	2754.8	6.67	93.33
			12-RR-laboratoryV2	29913	2991.3	2754.7	7.78	92.22
			13-RR-laboratoryV3	30971	3097.1	2754.7	11.26	88.74
			14-RR-online1-X	27457	2745.7	2756.5	0.36	99.64
			15-RR-online2 - II	29266	2926.6	2753.6	5.69	94.31
			average prediction accuracy				6.39	93.61

Section 4

modell	trained data	prediction images	GT - Real Images					
RESNET50	8-F-SFB-1-TEX-2050	a1-GT-real-HIST						
			6-RR-brunomarekallee	25382	2538.2	2755.2	7.14	92.86
			7-RR-brunomarekallee	25382	2538.2	2754.4	7.11	92.89
			8-RR-brunomarekallee	25382	2538.2	2755.4	7.15	92.85
			9-RR-engerthstrasse	27842	2784.2	2754.5	0.98	99.02
			10-RR-dresdnerstrasse	30543	3054.3	2754.5	9.86	90.14
			11-RR-laboratoryV1	29575	2957.5	2754.0	6.69	93.31
			12-RR-laboratoryV2	29913	2991.3	2750.9	7.91	92.09
			13-RR-laboratoryV3	30971	3097.1	2750.9	11.39	88.61
			14-RR-online1-X	27457	2745.7	2755.2	0.31	99.69
			15-RR-online2 - II	29266	2926.6	2753.2	5.70	94.30
			average prediction accuracy				6.42	93.58

Section 5

modell	trained data	prediction images	GT - Real Images					
RESNET50	8-F-SFB-1-TEX-2050	a1-GT-real-CLAHE						
			6-RR-brunomarekallee	25382	2538.2	2755.2	7.14	92.86
			7-RR-brunomarekallee	25382	2538.2	2753.6	7.08	92.92
			8-RR-brunomarekallee	25382	2538.2	2754.8	7.13	92.87
			9-RR-engerthstrasse	27842	2784.2	2754.4	0.98	99.02
			10-RR-dresdnerstrasse	30543	3054.3	2755.0	9.85	90.15
			11-RR-laboratoryV1	29575	2957.5	2753.6	6.71	93.29
			12-RR-laboratoryV2	29913	2991.3	2752.0	7.87	92.13
			13-RR-laboratoryV3	30971	3097.1	2752.0	11.35	88.65
			14-RR-online1-X	27457	2745.7	2755.7	0.33	99.67
			15-RR-online2 - II	29266	2926.6	2753.0	5.71	94.29
			average prediction accuracy				6.41	93.59