

Supplement of Atmos. Meas. Tech., 13, 731–745, 2020
<https://doi.org/10.5194/amt-13-731-2020-supplement>
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Supplement of

Spectral sizing of a coarse-spectral-resolution satellite sensor for XCO₂

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TCCON site	N			Bias / ppm			σ / ppm		
	FP	SWIR-1	SWIR-2	FP	SWIR-1	SWIR-2	FP	SWIR-1	SWIR-2
Sodankylä	217	211	217	-0.38	-0.83	2.55	2.08	2.71	3.47
Bialystok	714	673	708	-0.76	-0.88	-0.6	2.14	2.82	3.46
Bremen	229	218	229	-0.28	-0.75	1.49	2.43	3.11	3.47
Karlsruhe	512	478	512	-0.82	-0.66	0.39	2.49	3.26	3.86
Paris01	215	211	214	-1.52	-1.37	-0.52	2.61	3.4	3.2
Orléans	740	712	736	-0.77	-1.02	0.28	2.06	3.13	3.52
Garmisch	493	462	493	-0.4	-0.47	0.39	2.14	2.93	3.7
Zugspitze	69	66	69	-1.47	-1.24	0.83	2.85	3.04	4.24
Park Falls	940	905	896	-0.53	-0.35	-0.21	2.09	2.84	3.41
Rikubetsu	68	60	68	-1.47	-1.52	-1.02	1.82	2.87	3.12
Indianapolis01	195	193	188	0.18	-0.15	1.24	1.84	2.62	2.99
Four Corners	45	30	34	-0.6	0.14	0.29	3.36	2.24	2.19
Lamont	5047	4939	4208	-0.62	-0.02	-1.15	1.98	2.83	2.62
Anmyeondo	9	9	9	-1.1	0.53	1.05	2.75	2.29	2.63
Tsukuba	837	731	830	1.15	0.16	0.63	2.81	3.38	3.83
Edwards	1666	1575	1462	1.98	2.07	2.31	2.64	2.95	3.0
JPL02	713	652	659	0.52	0.15	0.36	1.95	2.77	2.79
Pasadena01	2209	2084	1979	0.27	0.09	0.7	2.58	2.97	3.05
Saga	293	264	287	-0.2	-1.21	-0.96	2.29	3.31	3.53
Hefei	159	148	159	-0.96	-0.09	-0.77	2.24	3.2	3.0
Darwin	1521	1510	1404	1.07	0.63	-0.51	1.59	2.14	2.43
Wollongong	1029	975	974	-0.4	-1.05	-0.58	2.22	2.7	3.12
Lauder02	65	61	65	-2.22	-1.92	-0.06	2.04	2.61	3.48
Lauder01	17	15	17	-1.48	-3.11	-0.25	2.7	2.67	4.1

Table 1: Comparison of full-physics (FP), SWIR-1 and SWIR-2 retrievals for soundings colocated with individual TCCON stations. Stations are sorted north to south (TCCON site). Number of soundings (N), mean differences between the present retrievals and TCCON (Bias) and standard deviation (σ).