PyCAMA report generated by tropl2-proc

tropl2-proc

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1 Short Introduction

1.1 The list of parameters

You may want to keep the list given in table 1 at hand when viewing the results.

2 Definitions

The averages shown here are *unweighed* averages:

$$\bar{x} = \frac{1}{N}\sum_{i=1}^{N} x_i \tag{1}$$

with N the number of observations in the dataset.

The spread of the measurements is indicated with the variance $V(x)$, or rather the standard deviation $\sigma(x) = \sqrt{V(x)}$.

$$V(x) = \frac{1}{N-1}\sum_{i=1}^{N}(x_i - \bar{x})^2 \tag{2}$$

We also report the more robust statistics median, minimum, maximum, various percentiles and inter quartile range.

The median m is the value of parameter x for which half of the observations of x is smaller than m:

$$P(x \leq m) = P(x \geq m) = \int_{-\infty}^{m} f(x)\,\mathrm{d}x = \frac{1}{2} \tag{3}$$

with $f(x)$ the probability density function.

The median is a special case of a percentile. Instead of ½ in equation 3, other threshold values can be used. We report results for 1 %, 5 %, 10 %, 15.9 %, 25 %, 75 %, 84.1 %, 90 %, 95 % and 99 %. The inter quartile range is the difference between the 75 % and 25 % percentiles. Similarly the minimum and maximum values correspond to the 0 % and 100 % percentiles respectively.

For normally distributed parameters the mean and median are the same, while the $\mu \pm \sigma$ values and the 15.9 % and 84.1 % percentiles coincide.

To get a measure for the relation of one variable $x_{(k)}$ with another $x_{(l)}$, we calculate the covariance matrix C_{kl}.

$$C_{kl} = C(x_{(k)}, x_{(l)}) = \frac{1}{N-1}\sum_{i=1}^{N}(x_{(k),i} - \overline{x_{(k)}})(x_{(l),i} - \overline{x_{(l)}}) \tag{4}$$

Rather than a dimensionally dependent covariance, it is often easier to interpret a correlation matrix R_{kl}, a matrix of Pearson's r coefficients:

$$R_{kl} = R(x_{(k)}, x_{(l)}) = \frac{C_{kl}}{\sqrt{C_{kk}C_{ll}}} = \frac{C_{kl}}{\sqrt{V(x_k)V(x_l)}} \tag{5}$$

The diagonal elements of the covariance matrix are the variances of the elements, $V(x_{(k)}) = C_{kk}$ and obviously $R_{kk} = 1$.

Table 1: Parameterlist and basic statistics for the analysis

Variable	mean $\pm\sigma$	Count	Mode	IQR	Median	Minimum	Maximum
qa value [1]	0.507 ± 0.431	24421815	0.995	0.920	0.380	0.0	1.000
sulfurdioxide total vertical column [DU]	-0.549 ± 12.102	24421815	0.328	0.632	5.473×10^{-4}	-1.624×10^{3}	983
sulfurdioxide total vertical column precision [DU]	2.08 ± 6.75	24421815	0.247	0.665	0.411	4.003×10^{-2}	548
sulfurdioxide slant column density corrected [DU]	$(-7.232 \pm 140.532) \times 10^{-2}$	24421815	0.276	0.519	5.443×10^{-4}	-89.5	537
sulfurdioxide slant column density window1 [DU]	-0.186 ± 1.437	24421815	-2.500×10^{-2}	0.866	-8.060×10^{-2}	-89.5	131
sulfurdioxide slant column density window1 precision [DU]	0.546 ± 0.635	24421815	0.213	0.286	0.320	8.043×10^{-2}	23.8
sulfurdioxide slant column density corrected win1 [DU]	$(-6.523 \pm 143.733) \times 10^{-2}$	24421815	2.500×10^{-2}	0.843	1.270×10^{-3}	-89.5	131
background so2 slant column offset window1 [DU]	0.121 ± 0.220	24421815	2.000×10^{-2}	0.209	7.330×10^{-2}	-1.48	8.34
sulfurdioxide slant column density window2 [DU]	2.33 ± 11.44	24421815	1.25	12.3	1.45	-1.073×10^{3}	1.513×10^{3}
sulfurdioxide slant column density window2 precision [DU]	9.07 ± 3.88	24421815	6.97	3.56	8.02	2.25	1.035×10^{3}
sulfurdioxide slant column density corrected win2 [DU]	2.02 ± 11.02	24421815	0.750	11.9	1.42	-1.071×10^{3}	1.516×10^{3}
background so2 slant column offset window2 [DU]	-0.307 ± 2.358	24421815	1.75	3.22	7.925×10^{-7}	-24.4	10.7
sulfurdioxide slant column density window3 [DU]	-5.64 ± 26.03	24421815	-6.16	31.4	-5.31	-1.096×10^{3}	587
sulfurdioxide slant column density window3 precision [DU]	28.3 ± 12.3	24421815	22.5	11.4	25.2	9.48	418
sulfurdioxide slant column density corrected win3 [DU]	-2.96 ± 25.03	24421815	-3.92	29.9	-2.62	-1.100×10^{3}	584
background so2 slant column offset window3 [DU]	2.68 ± 7.21	24421815	-3.92	11.6	2.62	-37.0	70.2
fitted radiance shift [nm]	$(-6.913 \pm 25.045) \times 10^{-4}$	24421815	-5.000×10^{-4}	1.876×10^{-3}	-6.743×10^{-4}	-7.790×10^{-2}	6.913×10^{-2}
fitted radiance squeeze [1]	$(-7.495 \pm 37.584) \times 10^{-5}$	24421815	-3.000×10^{-5}	2.522×10^{-4}	-4.708×10^{-5}	-2.265×10^{-2}	2.675×10^{-2}
fitted root mean square [1]	$(1.825 \pm 1.783) \times 10^{-3}$	24421815	9.750×10^{-4}	8.649×10^{-4}	1.204×10^{-3}	3.081×10^{-4}	8.037×10^{-2}
sulfurdioxide total air mass factor polluted [1]	0.950 ± 0.696	24421815	0.500	0.753	0.772	5.000×10^{-2}	3.55
sulfurdioxide total air mass factor polluted precision [1]	0.133 ± 0.142	24421815	2.500×10^{-2}	0.151	7.954×10^{-2}	2.500×10^{-3}	1.83
sulfurdioxide clear air mass factor polluted [1]	0.867 ± 0.686	24421815	0.500	0.497	0.680	4.466×10^{-3}	3.60
number of spectral points in retrieval [1]	73.4 ± 0.5	24421815	73.0	1.000	73.0	52.0	156

Table 2: Percentile ranges

Variable	1 %	5 %	10 %	15.9 %	25 %	75 %	84.1 %	90 %	95 %	99 %
qa value [1]	0.0	0.0	0.0	2.000×10^{-2}	8.000×10^{-2}	1.000	1.000	1.000	1.000	1.000
sulfurdioxide total vertical column [DU]	−37.6	−4.06	−1.19	−0.623	−0.316	0.316	0.621	1.14	3.08	21.5
sulfurdioxide total vertical column precision [DU]	7.340×10^{-2}	0.119	0.152	0.188	0.241	0.906	1.74	3.70	9.54	35.0
sulfurdioxide slant column density corrected [DU]	−5.53	−1.53	−0.731	−0.449	−0.262	0.257	0.425	0.645	1.19	3.64
sulfurdioxide slant column density window1 [DU]	−5.75	−1.93	−1.15	−0.813	−0.531	0.335	0.562	0.802	1.26	3.33
sulfurdioxide slant column density window1 precision [DU]	0.158	0.185	0.201	0.215	0.236	0.522	0.772	1.16	1.88	3.40
sulfurdioxide slant column density corrected win1 [DU]	−5.53	−1.67	−0.978	−0.680	−0.425	0.419	0.658	0.920	1.44	3.68
background so2 slant column offset window1 [DU]	−0.205	-8.412×10^{-2}	-4.839×10^{-2}	-2.391×10^{-2}	3.074×10^{-8}	0.209	0.269	0.327	0.429	0.882
sulfurdioxide slant column density window2 [DU]	−21.9	−13.7	−10.1	−7.44	−4.51	7.83	11.4	15.1	21.3	39.8
sulfurdioxide slant column density window2 precision [DU]	4.36	5.19	5.69	6.12	6.65	10.2	11.9	13.7	16.9	23.7
sulfurdioxide slant column density corrected win2 [DU]	−22.6	−13.8	−10.1	−7.37	−4.43	7.50	10.8	14.1	19.5	37.1
background so2 slant column offset window2 [DU]	−6.91	−4.74	−3.36	−2.56	−1.72	1.50	1.85	2.13	2.55	4.05
sulfurdioxide slant column density window3 [DU]	−75.3	−48.4	−37.0	−29.2	−21.0	10.4	18.6	26.0	36.1	56.5
sulfurdioxide slant column density window3 precision [DU]	13.8	16.2	17.7	19.1	20.8	32.2	36.9	41.9	50.2	77.7
sulfurdioxide slant column density corrected win3 [DU]	−70.0	−44.0	−33.0	−25.5	−17.6	12.3	20.0	27.1	36.9	57.6
background so2 slant column offset window3 [DU]	−11.1	−8.31	−6.57	−5.16	−3.34	8.22	10.7	12.5	14.2	17.2
fitted radiance shift [nm]	-8.264×10^{-3}	-4.405×10^{-3}	-3.064×10^{-3}	-2.302×10^{-3}	-1.643×10^{-3}	2.324×10^{-4}	8.614×10^{-4}	1.647×10^{-3}	3.040×10^{-3}	7.015×10^{-3}
fitted radiance squeeze [1]	-1.346×10^{-3}	-5.782×10^{-4}	-3.724×10^{-4}	-2.701×10^{-4}	-1.822×10^{-4}	6.997×10^{-5}	1.312×10^{-4}	1.931×10^{-4}	3.033×10^{-4}	8.626×10^{-4}
fitted root mean square [1]	6.140×10^{-4}	7.483×10^{-4}	8.235×10^{-4}	8.850×10^{-4}	9.646×10^{-4}	1.829×10^{-3}	2.434×10^{-3}	3.444×10^{-3}	5.490×10^{-3}	9.929×10^{-3}
sulfurdioxide total air mass factor polluted [1]	5.000×10^{-2}	0.123	0.225	0.328	0.467	1.22	1.62	2.05	2.51	3.00
sulfurdioxide total air mass factor polluted precision [1]	4.483×10^{-3}	1.215×10^{-2}	1.982×10^{-2}	2.638×10^{-2}	3.572×10^{-2}	0.187	0.252	0.316	0.415	0.666
sulfurdioxide clear air mass factor polluted [1]	6.429×10^{-2}	0.172	0.273	0.367	0.464	0.962	1.21	1.89	2.64	3.21
number of spectral points in retrieval [1]	73.0	73.0	73.0	73.0	73.0	74.0	74.0	74.0	74.0	74.0

Table 3: Parameterlist and basic statistics for the analysis for observations in the northern hemisphere

Variable	mean $\pm\sigma$	Count	IQR	Median	Minimum	Maximum	25 % percentile	75 % percentile
qa value [1]	0.559 ± 0.438	9716042	0.920	0.480	0.0	1.000	8.000×10^{-2}	1.000
sulfurdioxide total vertical column [DU]	-1.20 ± 17.95	9716042	1.06	7.228×10^{-3}	-807	983	-0.529	0.529
sulfurdioxide total vertical column precision [DU]	4.01 ± 9.64	9716042	2.17	0.659	5.484×10^{-2}	548	0.349	2.52
sulfurdioxide slant column density corrected [DU]	-0.115 ± 1.838	9716042	0.628	5.227×10^{-3}	-53.4	153	-0.311	0.317
sulfurdioxide slant column density window1 [DU]	-0.203 ± 1.841	9716042	0.995	-3.603×10^{-2}	-53.4	131	-0.553	0.442
sulfurdioxide slant column density window1 precision [DU]	0.703 ± 0.799	9716042	0.464	0.386	8.511×10^{-2}	23.8	0.266	0.730
sulfurdioxide slant column density corrected win1 [DU]	-0.106 ± 1.852	9716042	0.986	7.434×10^{-3}	-53.4	131	-0.488	0.499
background so2 slant column offset window1 [DU]	$(9.622 \pm 27.087) \times 10^{-2}$	9716042	0.135	4.374×10^{-2}	-1.48	8.34	-7.978×10^{-3}	0.127
sulfurdioxide slant column density window2 [DU]	4.11 ± 13.76	9716042	14.8	2.38	-796	973	-4.44	10.4
sulfurdioxide slant column density window2 precision [DU]	10.4 ± 4.4	9716042	4.42	9.24	2.36	1.035×10^{3}	7.55	12.0
sulfurdioxide slant column density corrected win2 [DU]	3.31 ± 13.15	9716042	14.0	2.10	-801	969	-4.56	9.39
background so2 slant column offset window2 [DU]	-0.802 ± 2.859	9716042	4.20	8.621×10^{-7}	-24.4	10.7	-2.81	1.39
sulfurdioxide slant column density window3 [DU]	-6.97 ± 29.38	9716042	35.9	-5.70	-380	255	-24.2	11.7
sulfurdioxide slant column density window3 precision [DU]	31.8 ± 12.7	9716042	12.3	28.9	9.85	238	24.0	36.4
sulfurdioxide slant column density corrected win3 [DU]	-4.05 ± 28.76	9716042	35.1	-3.29	-370	255	-21.0	14.0
background so2 slant column offset window3 [DU]	2.92 ± 6.32	9716042	10.0	2.53	-37.0	70.2	-2.33	7.68
fitted radiance shift [nm]	$(-4.060 \pm 27.276) \times 10^{-4}$	9716042	2.005×10^{-3}	-3.198×10^{-4}	-4.148×10^{-2}	4.420×10^{-2}	-1.378×10^{-3}	6.271×10^{-4}
fitted radiance squeeze [1]	$(-6.921 \pm 453.889) \times 10^{-6}$	9716042	2.689×10^{-4}	-2.586×10^{-6}	-9.380×10^{-3}	1.613×10^{-2}	-1.371×10^{-4}	1.317×10^{-4}
fitted root mean square [1]	$(2.289 \pm 2.245) \times 10^{-3}$	9716042	1.324×10^{-3}	1.417×10^{-3}	3.081×10^{-4}	6.035×10^{-2}	1.062×10^{-3}	2.386×10^{-3}
sulfurdioxide total air mass factor polluted [1]	0.604 ± 0.379	9716042	0.578	0.572	5.000×10^{-2}	2.81	0.289	0.868
sulfurdioxide total air mass factor polluted precision [1]	$(8.251 \pm 11.115) \times 10^{-2}$	9716042	6.828×10^{-2}	4.635×10^{-2}	2.500×10^{-3}	1.83	2.449×10^{-2}	9.277×10^{-2}
sulfurdioxide clear air mass factor polluted [1]	0.573 ± 0.313	9716042	0.514	0.562	4.466×10^{-3}	2.46	0.309	0.823
number of spectral points in retrieval [1]	73.4 ± 0.5	9716042	1.000	73.0	52.0	155	73.0	74.0

Table 4: Parameterlist and basic statistics for the analysis for observations in the southern hemisphere

Variable	mean $\pm\sigma$	Count	IQR	Median	Minimum	Maximum	25 % percentile	75 % percentile
qa value [1]	0.473 ± 0.423	14705773	0.920	0.280	0.0	1.000	8.000×10^{-2}	1.000
sulfurdioxide total vertical column [DU]	-0.119 ± 5.474	14705773	0.474	-1.642×10^{-3}	-1.624×10^{3}	554	-0.240	0.234
sulfurdioxide total vertical column precision [DU]	0.814 ± 3.175	14705773	0.391	0.323	4.003×10^{-2}	484	0.194	0.585
sulfurdioxide slant column density corrected [DU]	$(-4.433 \pm 102.229) \times 10^{-2}$	14705773	0.464	-1.865×10^{-3}	-89.5	537	-0.237	0.227
sulfurdioxide slant column density window1 [DU]	-0.175 ± 1.090	14705773	0.796	-0.105	-89.5	106	-0.519	0.276
sulfurdioxide slant column density window1 precision [DU]	0.442 ± 0.469	14705773	0.219	0.285	8.043×10^{-2}	19.0	0.223	0.441
sulfurdioxide slant column density corrected win1 [DU]	$(-3.810 \pm 107.827) \times 10^{-2}$	14705773	0.769	-2.007×10^{-3}	-89.5	106	-0.392	0.377
background so2 slant column offset window1 [DU]	0.137 ± 0.176	14705773	0.225	0.117	-1.38	4.46	8.250×10^{-3}	0.233
sulfurdioxide slant column density window2 [DU]	1.15 ± 9.42	14705773	11.1	0.972	-1.073×10^{3}	1.513×10^{3}	-4.54	6.58
sulfurdioxide slant column density window2 precision [DU]	8.16 ± 3.13	14705773	2.70	7.40	2.25	628	6.29	9.00
sulfurdioxide slant column density corrected win2 [DU]	1.17 ± 9.25	14705773	10.9	1.06	-1.071×10^{3}	1.516×10^{3}	-4.35	6.51
background so2 slant column offset window2 [DU]	$(1.923 \pm 188.877) \times 10^{-2}$	14705773	2.98	6.110×10^{-7}	-14.0	9.85	-1.39	1.59
sulfurdioxide slant column density window3 [DU]	-4.76 ± 23.52	14705773	28.9	-5.10	-1.096×10^{3}	587	-19.3	9.60
sulfurdioxide slant column density window3 precision [DU]	26.0 ± 11.5	14705773	8.90	23.0	9.48	418	19.6	28.5
sulfurdioxide slant column density corrected win3 [DU]	-2.25 ± 22.21	14705773	27.1	-2.28	-1.100×10^{3}	584	-15.7	11.4
background so2 slant column offset window3 [DU]	2.52 ± 7.73	14705773	13.2	2.67	-24.9	26.0	-4.37	8.82
fitted radiance shift [nm]	$(-8.797 \pm 23.264) \times 10^{-4}$	14705773	1.694×10^{-3}	-8.745×10^{-4}	-7.790×10^{-2}	6.913×10^{-2}	-1.753×10^{-3}	-5.986×10^{-5}
fitted radiance squeeze [1]	$(-1.199 \pm 3.056) \times 10^{-4}$	14705773	2.424×10^{-4}	-7.311×10^{-5}	-2.265×10^{-2}	2.675×10^{-2}	-2.078×10^{-4}	3.455×10^{-5}
fitted root mean square [1]	$(1.518 \pm 1.309) \times 10^{-3}$	14705773	6.016×10^{-4}	1.115×10^{-3}	3.187×10^{-4}	8.037×10^{-2}	9.220×10^{-4}	1.524×10^{-3}
sulfurdioxide total air mass factor polluted [1]	1.18 ± 0.76	14705773	1.05	0.948	5.000×10^{-2}	3.55	0.597	1.65
sulfurdioxide total air mass factor polluted precision [1]	0.167 ± 0.149	14705773	0.188	0.129	2.500×10^{-3}	1.55	4.863×10^{-2}	0.237
sulfurdioxide clear air mass factor polluted [1]	1.06 ± 0.79	14705773	0.690	0.747	1.045×10^{-2}	3.60	0.540	1.23
number of spectral points in retrieval [1]	73.4 ± 0.5	14705773	1.000	73.0	52.0	156	73.0	74.0

Table 5: Parameterlist and basic statistics for the analysis for observations over water

Variable	mean ± σ	Count	IQR	Median	Minimum	Maximum	25 % percentile	75 % percentile
qa value [1]	0.600 ± 0.418	15883987	0.810	1.000	0.0	1.000	0.190	1.000
sulfurdioxide total vertical column [DU]	-0.186 ± 8.479	15883987	0.579	1.170×10^{-2}	-1.624×10^{3}	556	-0.271	0.307
sulfurdioxide total vertical column precision [DU]	1.40 ± 4.85	15883987	0.487	0.385	4.666×10^{-2}	484	0.245	0.732
sulfurdioxide slant column density corrected [DU]	$(-9.483 \pm 1032.781) \times 10^{-3}$	15883987	0.450	1.030×10^{-2}	-89.5	153	-0.213	0.238
sulfurdioxide slant column density window1 [DU]	$(-8.174 \pm 109.918) \times 10^{-2}$	15883987	0.751	-3.468×10^{-2}	-89.5	106	-0.416	0.335
sulfurdioxide slant column density window1 precision [DU]	0.427 ± 0.484	15883987	0.176	0.286	8.043×10^{-2}	19.0	0.226	0.402
sulfurdioxide slant column density corrected win1 [DU]	$(1.676 \pm 109.955) \times 10^{-2}$	15883987	0.739	3.730×10^{-2}	-89.5	106	-0.331	0.408
background so2 slant column offset window1 [DU]	$(9.850 \pm 18.863) \times 10^{-2}$	15883987	0.179	5.915×10^{-2}	-1.48	8.34	-3.706×10^{-3}	0.175
sulfurdioxide slant column density window2 [DU]	1.44 ± 10.03	15883987	11.4	0.957	-1.073×10^{3}	1.513×10^{3}	-4.65	6.76
sulfurdioxide slant column density window2 precision [DU]	8.31 ± 3.26	15883987	2.75	7.56	2.25	1.035×10^{3}	6.41	9.16
sulfurdioxide slant column density corrected win2 [DU]	1.47 ± 9.68	15883987	11.1	1.19	-1.071×10^{3}	1.516×10^{3}	-4.32	6.78
background so2 slant column offset window2 [DU]	$(3.053 \pm 217.521) \times 10^{-2}$	15883987	2.86	0.426	-24.4	10.7	-1.25	1.62
sulfurdioxide slant column density window3 [DU]	-1.39 ± 24.58	15883987	29.9	-1.58	-573	587	-16.2	13.7
sulfurdioxide slant column density window3 precision [DU]	27.4 ± 12.2	15883987	10.3	24.1	9.52	241	20.2	30.5
sulfurdioxide slant column density corrected win3 [DU]	-0.505 ± 23.611	15883987	28.7	-0.664	-572	584	-14.8	13.9
background so2 slant column offset window3 [DU]	0.883 ± 6.275	15883987	9.65	0.755	-37.0	70.2	-4.13	5.52
fitted radiance shift [nm]	$(-5.188 \pm 24.512) \times 10^{-4}$	15883987	1.887×10^{-3}	-5.002×10^{-4}	-4.148×10^{-2}	6.040×10^{-2}	-1.486×10^{-3}	4.012×10^{-4}
fitted radiance squeeze [1]	$(-4.681 \pm 29.053) \times 10^{-5}$	15883987	2.139×10^{-4}	-2.936×10^{-5}	-1.361×10^{-2}	2.675×10^{-2}	-1.405×10^{-4}	7.337×10^{-5}
fitted root mean square [1]	$(1.488 \pm 1.364) \times 10^{-3}$	15883987	5.149×10^{-4}	1.099×10^{-3}	3.187×10^{-4}	7.037×10^{-2}	9.236×10^{-4}	1.438×10^{-3}
sulfurdioxide total air mass factor polluted [1]	0.826 ± 0.486	15883987	0.572	0.753	5.000×10^{-2}	3.13	0.488	1.06
sulfurdioxide total air mass factor polluted precision [1]	0.116 ± 0.112	15883987	0.128	6.855×10^{-2}	2.500×10^{-3}	1.31	3.686×10^{-2}	0.165
sulfurdioxide clear air mass factor polluted [1]	0.707 ± 0.369	15883987	0.386	0.661	4.466×10^{-3}	3.06	0.481	0.867
number of spectral points in retrieval [1]	73.4 ± 0.5	15883987	1.000	73.0	52.0	156	73.0	74.0

Table 6: Parameterlist and basic statistics for the analysis for observations over land

Variable	mean $\pm\sigma$	Count	IQR	Median	Minimum	Maximum	25 % percentile	75 % percentile
qa value [1]	0.338 ± 0.399	7236654	0.560	0.130	0.0	1.000	4.000×10^{-2}	0.600
sulfurdioxide total vertical column [DU]	-0.879 ± 14.260	7236654	0.676	-2.021×10^{-2}	-755	983	-0.389	0.287
sulfurdioxide total vertical column precision [DU]	2.56 ± 7.84	7236654	0.933	0.432	4.003×10^{-2}	548	0.204	1.14
sulfurdioxide slant column density corrected [DU]	-0.168 ± 1.726	7236654	0.703	-2.779×10^{-2}	-37.8	362	-0.410	0.293
sulfurdioxide slant column density window1 [DU]	-0.364 ± 1.740	7236654	1.12	-0.218	-37.8	47.9	-0.814	0.305
sulfurdioxide slant column density window1 precision [DU]	0.711 ± 0.733	7236654	0.546	0.446	8.633×10^{-2}	23.8	0.268	0.814
sulfurdioxide slant column density corrected win1 [DU]	-0.202 ± 1.742	7236654	1.07	-0.105	-37.8	48.2	-0.652	0.417
background so2 slant column offset window1 [DU]	0.162 ± 0.244	7236654	0.255	0.121	-1.48	8.34	1.350×10^{-2}	0.268
sulfurdioxide slant column density window2 [DU]	3.25 ± 12.77	7236654	13.9	2.17	-796	973	-4.42	9.44
sulfurdioxide slant column density window2 precision [DU]	10.2 ± 4.2	7236654	4.52	9.10	2.34	597	7.30	11.8
sulfurdioxide slant column density corrected win2 [DU]	2.49 ± 12.39	7236654	13.4	1.66	-801	969	-4.81	8.59
background so2 slant column offset window2 [DU]	-0.751 ± 2.389	7236654	3.42	-0.547	-24.4	10.7	-2.31	1.11
sulfurdioxide slant column density window3 [DU]	-13.6 ± 26.1	7236654	31.3	-13.0	-1.096×10^{3}	234	-28.9	2.41
sulfurdioxide slant column density window3 precision [DU]	29.4 ± 12.2	7236654	11.7	26.9	9.48	418	21.9	33.6
sulfurdioxide slant column density corrected win3 [DU]	-7.35 ± 26.18	7236654	31.3	-6.56	-1.100×10^{3}	234	-22.5	8.74
background so2 slant column offset window3 [DU]	6.25 ± 7.70	7236654	12.5	8.20	-37.0	70.2	4.026×10^{-8}	12.5
fitted radiance shift [nm]	$(-1.047 \pm 2.486) \times 10^{-3}$	7236654	1.627×10^{-3}	-1.011×10^{-3}	-7.790×10^{-2}	6.913×10^{-2}	-1.866×10^{-3}	-2.386×10^{-4}
fitted radiance squeeze [1]	$(-1.511 \pm 4.579) \times 10^{-4}$	7236654	3.363×10^{-4}	-1.123×10^{-4}	-2.265×10^{-2}	1.478×10^{-2}	-2.974×10^{-4}	3.889×10^{-5}
fitted root mean square [1]	$(2.294 \pm 2.052) \times 10^{-3}$	7236654	1.373×10^{-3}	1.565×10^{-3}	3.081×10^{-4}	8.037×10^{-2}	1.128×10^{-3}	2.501×10^{-3}
sulfurdioxide total air mass factor polluted [1]	1.30 ± 0.94	7236654	1.68	1.02	5.000×10^{-2}	3.55	0.493	2.18
sulfurdioxide total air mass factor polluted precision [1]	0.179 ± 0.183	7236654	0.211	0.127	2.500×10^{-3}	1.83	3.747×10^{-2}	0.248
sulfurdioxide clear air mass factor polluted [1]	1.29 ± 1.00	7236654	1.67	0.888	5.742×10^{-3}	3.60	0.476	2.15
number of spectral points in retrieval [1]	73.4 ± 0.5	7236654	1.000	73.0	52.0	74.0	73.0	74.0

Table 7: Correlation matrix

Viewing zenith angle	Solar zenith angle	Latitude	SO_2 vertical column	SO_2 vertical column precision	Corrected SO_2 slant column	SO_2 slant column (window 1)	SO_2 slant column precision (window 1)	SO_2 slant column background correction (window 1)	SO_2 slant column precision (window2)	Corrected SO_2 slant column (window 2)	SO_2 slant column background correction (window 2)	SO_2 slant column (window 3)	SO_2 slant column precision (window 3)	Corrected SO_2 slant column (window 3)	SO_2 slant column background correction (window 3)	DOAS fit wavelength shift	DOAS fit wavelength squeeze	SO_2 RMS	Total AMF (polluted)	Precision of total AMF (polluted)	Clear AMF (polluted)
1.000	8.352×10^{-4}	-1.474×10^{-3}	-2.760×10^{-2}	0.127	-8.635×10^{-3}	-7.853×10^{-3}	7.271×10^{-2}	1.023×10^{-2}	6.875×10^{-2}	-1.749×10^{-2}	0.125	1.213×10^{-2}	1.303×10^{-2}	-2.654×10^{-2}	−0.136	-7.246×10^{-3}	-9.910×10^{-3}	8.655×10^{-2}	−0.167	−0.171	−0.137
8.352×10^{-4}	1.000	4.188×10^{-2}	-8.671×10^{-2}	0.372	−0.117	−0.197	0.628	0.408	0.560	0.168	−0.640	−0.288	0.120	-8.033×10^{-2}	0.762	−0.171	−0.199	0.620	0.103	8.749×10^{-2}	0.175
-1.474×10^{-3}	4.188×10^{-2}	1.000	-5.989×10^{-2}	0.299	-2.509×10^{-2}	1.183×10^{-2}	0.211	−0.165	0.297	0.124	−0.115	1.641×10^{-2}	0.267	-3.858×10^{-2}	−0.193	0.124	0.236	0.221	−0.600	−0.392	−0.571
-2.760×10^{-2}	-8.671×10^{-2}	-5.989×10^{-2}	1.000	−0.284	0.712	0.680	−0.205	7.704×10^{-2}	−0.161	-8.612×10^{-2}	6.775×10^{-3}	2.933×10^{-2}	-6.072×10^{-2}	3.182×10^{-2}	4.592×10^{-3}	-5.245×10^{-4}	0.159	−0.209	5.325×10^{-2}	3.937×10^{-2}	4.780×10^{-2}
0.127	0.372	0.299	−0.284	1.000	−0.176	−0.200	0.706	0.156	0.583	0.240	−0.231	−0.113	0.223	-9.008×10^{-2}	9.394×10^{-2}	-9.888×10^{-2}	2.721×10^{-2}	0.705	−0.305	−0.212	−0.260
-8.635×10^{-3}	−0.117	-2.509×10^{-2}	0.712	−0.176	1.000	0.932	−0.224	7.895×10^{-2}	−0.170	-8.485×10^{-2}	6.996×10^{-3}	3.878×10^{-2}	-6.106×10^{-2}	3.553×10^{-2}	-1.665×10^{-2}	1.674×10^{-3}	0.247	−0.233	2.298×10^{-2}	2.950×10^{-2}	7.375×10^{-3}
-7.853×10^{-3}	−0.197	1.183×10^{-2}	0.680	−0.200	0.932	1.000	−0.263	-7.324×10^{-2}	−0.200	-9.877×10^{-2}	7.157×10^{-2}	6.538×10^{-2}	-5.804×10^{-2}	3.874×10^{-2}	−0.102	1.152×10^{-2}	0.296	−0.266	-1.708×10^{-2}	-6.124×10^{-3}	-3.198×10^{-2}
7.271×10^{-2}	0.628	0.211	−0.205	0.706	−0.224	−0.263	1.000	0.261	0.835	0.304	−0.348	−0.186	0.339	−0.114	0.276	−0.200	−0.135	0.992	−0.229	−0.203	−0.152
1.023×10^{-2}	0.408	−0.165	7.704×10^{-2}	0.156	7.895×10^{-2}	-7.324×10^{-2}	0.261	1.000	0.233	6.758×10^{-2}	−0.377	−0.133	3.900×10^{-2}	-1.540×10^{-2}	0.427	−0.111	−0.152	0.254	6.719×10^{-2}	6.349×10^{-2}	8.027×10^{-2}
6.875×10^{-2}	0.560	0.297	−0.161	0.583	−0.170	−0.200	0.835	0.233	1.000	0.244	−0.327	−0.177	0.551	−0.110	0.257	−0.148	-7.728×10^{-2}	0.842	−0.263	−0.258	−0.187
-1.749×10^{-2}	0.168	0.124	-8.612×10^{-2}	0.240	-8.485×10^{-2}	-9.877×10^{-2}	0.304	6.758×10^{-2}	0.244	1.000	-7.583×10^{-2}	-7.403×10^{-2}	9.736×10^{-2}	-6.097×10^{-2}	5.563×10^{-2}	5.486×10^{-2}	-5.173×10^{-3}	0.303	-9.636×10^{-2}	-7.229×10^{-2}	-8.253×10^{-2}
0.125	−0.640	−0.115	6.775×10^{-3}	−0.231	6.996×10^{-3}	7.157×10^{-2}	−0.348	−0.377	−0.327	-7.583×10^{-2}	1.000	0.220	-8.758×10^{-2}	3.662×10^{-2}	−0.667	8.152×10^{-2}	8.195×10^{-2}	−0.347	6.405×10^{-3}	−0.110	2.634×10^{-2}
1.213×10^{-2}	−0.288	1.641×10^{-2}	2.933×10^{-2}	−0.113	3.878×10^{-2}	6.538×10^{-2}	−0.186	−0.133	−0.177	-7.403×10^{-2}	0.220	1.000	-5.644×10^{-2}	0.961	−0.274	-3.157×10^{-2}	4.533×10^{-2}	−0.191	-4.946×10^{-2}	-5.712×10^{-2}	-6.126×10^{-2}
1.303×10^{-2}	0.120	0.267	-6.072×10^{-2}	0.223	-6.106×10^{-2}	-5.804×10^{-2}	0.339	3.900×10^{-2}	0.551	9.736×10^{-2}	-8.758×10^{-2}	-5.644×10^{-2}	1.000	-5.681×10^{-2}	6.557×10^{-3}	-2.055×10^{-2}	9.030×10^{-3}	0.354	−0.174	−0.158	−0.173
-2.654×10^{-2}	-8.033×10^{-2}	-3.858×10^{-2}	3.182×10^{-2}	-9.008×10^{-2}	3.553×10^{-2}	3.874×10^{-2}	−0.114	-1.540×10^{-2}	−0.110	-6.097×10^{-2}	3.662×10^{-2}	0.961	-5.681×10^{-2}	1.000	2.548×10^{-3}	-6.916×10^{-2}	-5.718×10^{-3}	−0.121	4.173×10^{-2}	2.041×10^{-2}	3.793×10^{-2}
−0.136	0.762	−0.193	4.592×10^{-3}	9.394×10^{-2}	-1.665×10^{-2}	−0.102	0.276	0.427	0.257	5.563×10^{-2}	−0.667	−0.274	6.557×10^{-3}	2.548×10^{-3}	1.000	−0.126	−0.184	0.269	0.324	0.277	0.353
-7.246×10^{-3}	−0.171	0.124	-5.245×10^{-4}	-9.888×10^{-2}	1.674×10^{-3}	1.152×10^{-2}	−0.200	−0.111	−0.148	5.486×10^{-2}	8.152×10^{-2}	-3.157×10^{-2}	-2.055×10^{-2}	-6.916×10^{-2}	−0.126	1.000	-9.089×10^{-2}	−0.198	-4.310×10^{-2}	-1.115×10^{-2}	-6.118×10^{-2}
-9.910×10^{-3}	−0.199	0.236	0.159	2.721×10^{-2}	0.247	0.296	−0.135	−0.152	-7.728×10^{-2}	-5.173×10^{-3}	8.195×10^{-2}	4.533×10^{-2}	9.030×10^{-3}	-5.718×10^{-3}	−0.184	-9.089×10^{-2}	1.000	−0.130	−0.130	-5.399×10^{-2}	−0.156
8.655×10^{-2}	0.620	0.221	−0.209	0.705	−0.233	−0.266	0.992	0.254	0.842	0.303	−0.347	−0.191	0.354	−0.121	0.269	−0.198	−0.130	1.000	−0.239	−0.211	−0.171
−0.167	0.103	−0.600	5.325×10^{-2}	−0.305	2.298×10^{-2}	-1.708×10^{-2}	−0.229	6.719×10^{-2}	−0.263	-9.636×10^{-2}	6.405×10^{-3}	-4.946×10^{-2}	−0.174	4.173×10^{-2}	0.324	-4.310×10^{-2}	−0.130	−0.239	1.000	0.675	0.860
−0.171	8.749×10^{-2}	−0.392	3.937×10^{-2}	−0.212	2.950×10^{-2}	-6.124×10^{-3}	−0.203	6.349×10^{-2}	−0.258	-7.229×10^{-2}	−0.110	-5.712×10^{-2}	−0.158	2.041×10^{-2}	0.277	-1.115×10^{-2}	-5.399×10^{-2}	−0.211	0.675	1.000	0.446
−0.137	0.175	−0.571	4.780×10^{-2}	−0.260	7.375×10^{-3}	-3.198×10^{-2}	−0.152	8.027×10^{-2}	−0.187	-8.253×10^{-2}	2.634×10^{-2}	-6.126×10^{-2}	−0.173	3.793×10^{-2}	0.353	-6.118×10^{-2}	−0.156	−0.171	0.860	0.446	1.000

Table 8: Covariance matrix

Viewing zenith angle	Solar zenith angle	Latitude	SO_2 vertical column	SO_2 vertical column precision	Corrected SO_2 slant column	SO_2 slant column (window 1)	SO_2 slant column precision (window 1)	SO_2 slant column background correction (window 1)	SO_2 slant column precision (window2)	Corrected SO_2 slant column (window 2)	SO_2 slant column background correction (window 2)	SO_2 slant column (window 3)	SO_2 slant column precision (window 3)	Corrected SO_2 slant column (window 3)	SO_2 slant column background correction (window 3)	DOAS fit wavelength shift	DOAS fit wavelength squeeze	SO_2 RMS	Total AMF (polluted)	Precision of total AMF (polluted)	Clear AMF (polluted)
384	0.298	−1.32	−6.55	16.8	−0.238	−0.221	0.904	4.404×10^{-2}	5.22	−3.78	5.79	6.19	3.15	−13.0	−19.2	-3.556×10^{-4}	-7.299×10^{-5}	3.025×10^{-3}	−2.28	−0.475	−1.84
0.298	331	34.8	−19.1	45.7	−2.98	−5.14	7.25	1.63	39.5	33.6	−27.5	−136	26.9	−36.6	99.8	-7.807×10^{-3}	-1.361×10^{-3}	2.010×10^{-2}	1.30	0.225	2.18
−1.32	34.8	2.089×10^{3}	−33.1	92.1	−1.61	0.777	6.13	−1.66	52.7	62.5	−12.4	19.5	150	−44.2	−63.7	1.419×10^{-2}	4.058×10^{-3}	1.805×10^{-2}	−19.1	−2.54	−17.9
−6.55	−19.1	−33.1	146	−23.2	12.1	11.8	−1.58	0.205	−7.53	−11.5	0.193	9.24	−9.06	9.64	0.400	-1.590×10^{-5}	7.219×10^{-4}	-4.515×10^{-3}	0.449	6.745×10^{-2}	0.397
16.8	45.7	92.1	−23.2	45.5	−1.67	−1.93	3.02	0.232	15.2	17.9	−3.67	−19.8	18.6	−15.2	4.57	-1.671×10^{-3}	6.900×10^{-5}	8.484×10^{-3}	−1.43	−0.203	−1.20
−0.238	−2.98	−1.61	12.1	−1.67	1.97	1.88	−0.200	2.438×10^{-2}	−0.924	−1.31	2.319×10^{-2}	1.42	−1.06	1.25	−0.169	5.893×10^{-6}	1.307×10^{-4}	-5.845×10^{-4}	2.248×10^{-2}	5.870×10^{-3}	7.109×10^{-3}
−0.221	−5.14	0.777	11.8	−1.93	1.88	2.06	−0.240	-2.312×10^{-2}	−1.11	−1.56	0.242	2.45	−1.03	1.39	−1.05	4.146×10^{-5}	1.600×10^{-4}	-6.816×10^{-4}	-1.709×10^{-2}	-1.246×10^{-3}	-3.151×10^{-2}
0.904	7.25	6.13	−1.58	3.02	−0.200	−0.240	0.403	3.638×10^{-2}	2.05	2.13	−0.521	−3.08	2.66	−1.82	1.26	-3.172×10^{-4}	-3.224×10^{-5}	1.122×10^{-3}	−0.101	-1.823×10^{-2}	-6.617×10^{-2}
4.404×10^{-2}	1.63	−1.66	0.205	0.232	2.438×10^{-2}	-2.312×10^{-2}	3.638×10^{-2}	4.829×10^{-2}	0.199	0.164	−0.195	−0.761	0.106	-8.475×10^{-2}	0.676	-6.085×10^{-5}	-1.252×10^{-5}	9.949×10^{-5}	1.028×10^{-2}	1.975×10^{-3}	1.210×10^{-2}
5.22	39.5	52.7	−7.53	15.2	−0.924	−1.11	2.05	0.199	15.0	10.4	−2.99	−17.8	26.4	−10.6	7.19	-1.439×10^{-3}	-1.126×10^{-4}	5.824×10^{-3}	−0.710	−0.142	−0.497
−3.78	33.6	62.5	−11.5	17.9	−1.31	−1.56	2.13	0.164	10.4	121	−1.97	−21.2	13.2	−16.8	4.42	1.514×10^{-3}	-2.143×10^{-5}	5.954×10^{-3}	−0.739	−0.113	−0.624
5.79	−27.5	−12.4	0.193	−3.67	2.319×10^{-2}	0.242	−0.521	−0.195	−2.99	−1.97	5.56	13.5	−2.55	2.16	−11.3	4.815×10^{-4}	7.264×10^{-5}	-1.461×10^{-3}	1.052×10^{-2}	-3.674×10^{-2}	4.261×10^{-2}
6.19	−136	19.5	9.24	−19.8	1.42	2.45	−3.08	−0.761	−17.8	−21.2	13.5	678	−18.1	626	−51.5	-2.058×10^{-3}	4.435×10^{-4}	-8.855×10^{-3}	−0.897	−0.211	−1.09
3.15	26.9	150	−9.06	18.6	−1.06	−1.03	2.66	0.106	26.4	13.2	−2.55	−18.1	152	−17.5	0.583	-6.348×10^{-4}	4.186×10^{-5}	7.794×10^{-3}	−1.50	−0.277	−1.46
−13.0	−36.6	−44.2	9.64	−15.2	1.25	1.39	−1.82	-8.475×10^{-2}	−10.6	−16.8	2.16	626	−17.5	627	0.460	-4.336×10^{-3}	-5.380×10^{-5}	-5.394×10^{-3}	0.727	7.233×10^{-2}	0.651
−19.2	99.8	−63.7	0.400	4.57	−0.169	−1.05	1.26	0.676	7.19	4.42	−11.3	−51.5	0.583	0.460	51.9	-2.278×10^{-3}	-4.973×10^{-4}	3.460×10^{-3}	1.62	0.283	1.75
-3.556×10^{-4}	-7.807×10^{-3}	1.419×10^{-2}	-1.590×10^{-5}	-1.671×10^{-3}	5.893×10^{-6}	4.146×10^{-5}	-3.172×10^{-4}	-6.085×10^{-5}	-1.439×10^{-3}	1.514×10^{-3}	4.815×10^{-4}	-2.058×10^{-3}	-6.348×10^{-4}	-4.336×10^{-3}	-2.278×10^{-3}	6.273×10^{-6}	-8.556×10^{-8}	-8.855×10^{-7}	-7.516×10^{-5}	-3.953×10^{-6}	-1.051×10^{-4}
-7.299×10^{-5}	-1.361×10^{-3}	4.058×10^{-3}	7.219×10^{-4}	6.900×10^{-5}	1.307×10^{-4}	1.600×10^{-4}	-3.224×10^{-5}	-1.252×10^{-5}	-1.126×10^{-4}	-2.143×10^{-5}	7.264×10^{-5}	4.435×10^{-4}	4.186×10^{-5}	-5.380×10^{-5}	-4.973×10^{-4}	-8.556×10^{-8}	1.413×10^{-7}	-8.729×10^{-8}	-3.390×10^{-5}	-2.873×10^{-6}	-4.014×10^{-5}
3.025×10^{-3}	2.010×10^{-2}	1.805×10^{-2}	-4.515×10^{-3}	8.484×10^{-3}	-5.845×10^{-4}	-6.816×10^{-4}	1.122×10^{-3}	9.949×10^{-5}	5.824×10^{-3}	5.954×10^{-3}	-1.461×10^{-3}	-8.855×10^{-3}	7.794×10^{-3}	-5.394×10^{-3}	3.460×10^{-3}	-8.855×10^{-7}	-8.729×10^{-8}	3.180×10^{-6}	-2.971×10^{-4}	-5.317×10^{-5}	-2.097×10^{-4}
−2.28	1.30	−19.1	0.449	−1.43	2.248×10^{-2}	-1.709×10^{-2}	−0.101	1.028×10^{-2}	−0.710	−0.739	1.052×10^{-2}	−0.897	−1.50	0.727	1.62	-7.516×10^{-5}	-3.390×10^{-5}	-2.971×10^{-4}	0.485	6.652×10^{-2}	0.411
−0.475	0.225	−2.54	6.745×10^{-2}	−0.203	5.870×10^{-3}	-1.246×10^{-3}	-1.823×10^{-2}	1.975×10^{-3}	−0.142	−0.113	-3.674×10^{-2}	−0.211	−0.277	7.233×10^{-2}	0.283	-3.953×10^{-6}	-2.873×10^{-6}	-5.317×10^{-5}	6.652×10^{-2}	2.004×10^{-2}	4.330×10^{-2}
−1.84	2.18	−17.9	0.397	−1.20	7.109×10^{-3}	-3.151×10^{-2}	-6.617×10^{-2}	1.210×10^{-2}	−0.497	−0.624	4.261×10^{-2}	−1.09	−1.46	0.651	1.75	-1.051×10^{-4}	-4.014×10^{-5}	-2.097×10^{-4}	0.411	4.330×10^{-2}	0.470

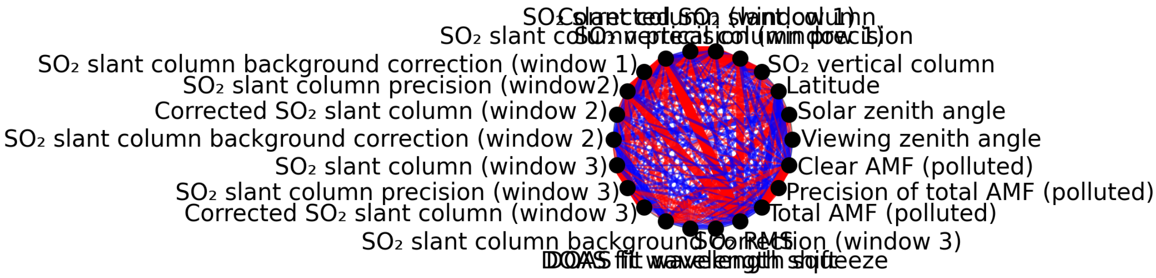


Figure 1: Map of correlation graph for 2024-11-15 to 2024-11-17.

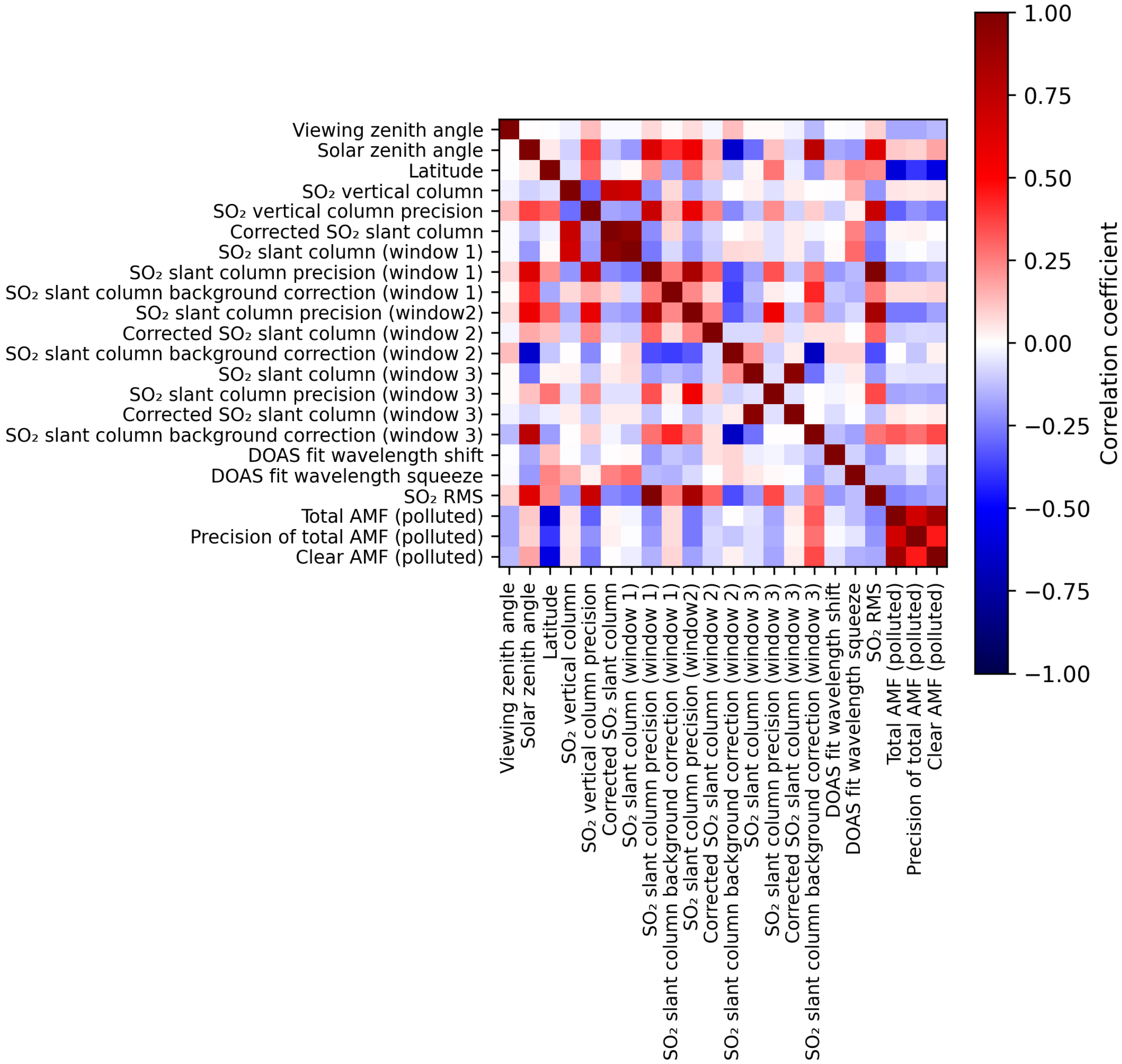


Figure 2: Map of correlation matrix for 2024-11-15 to 2024-11-17.

3 Granule outlines

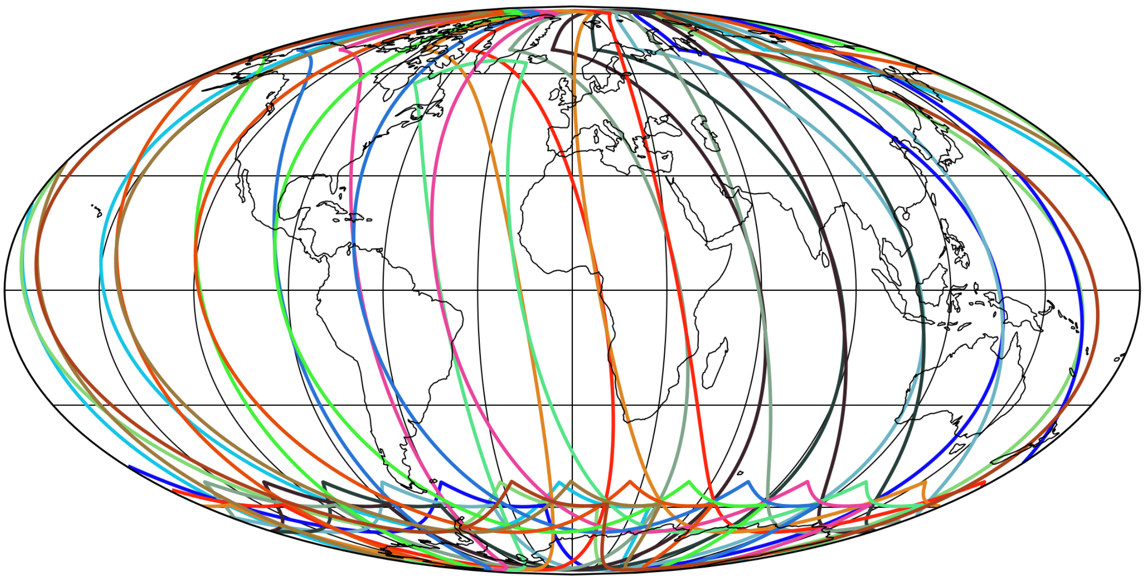


Figure 3: Outline of the granules.

4 Input data monitoring

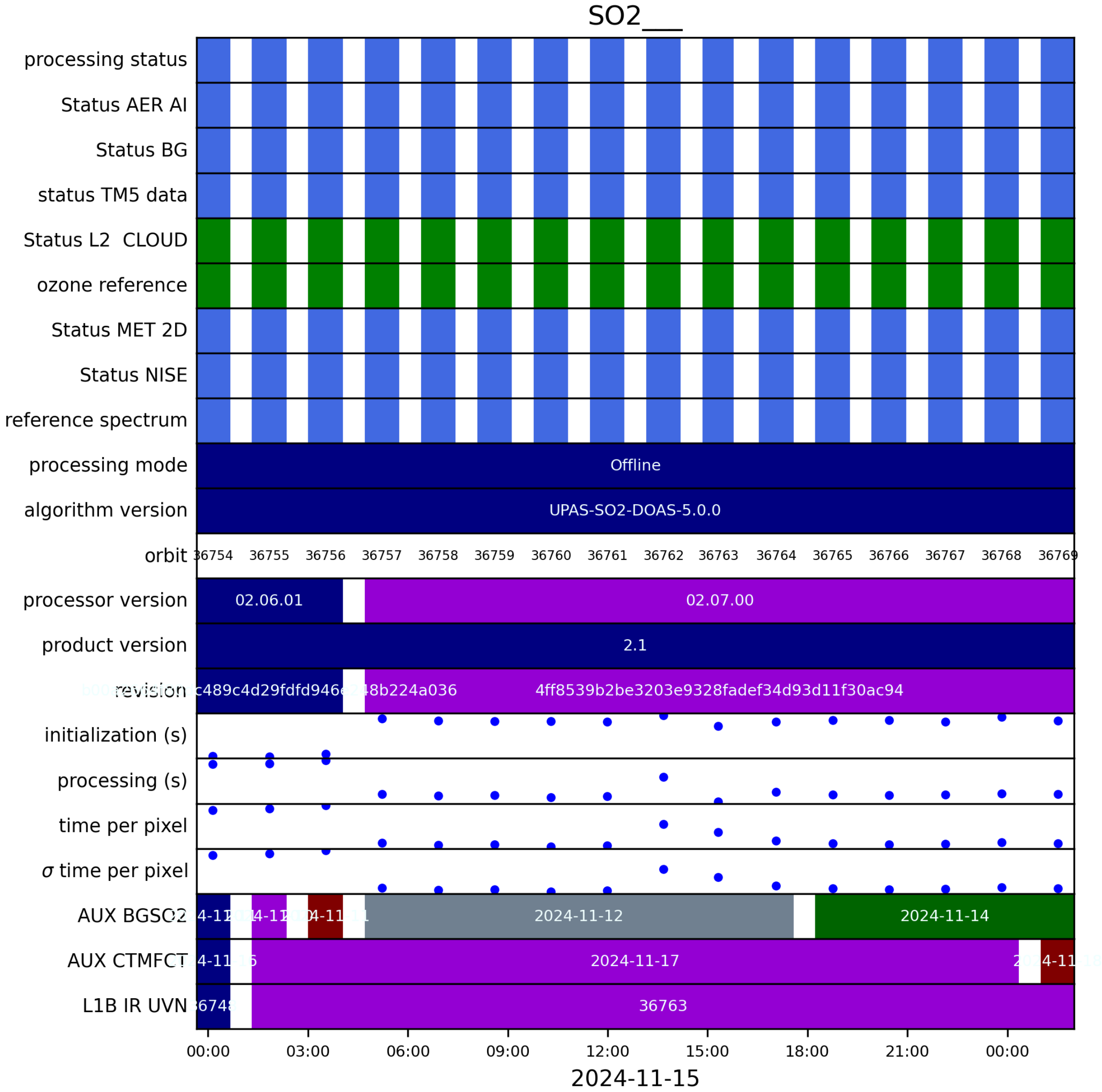


Figure 4: Input data per granule

5 Warnings and errors

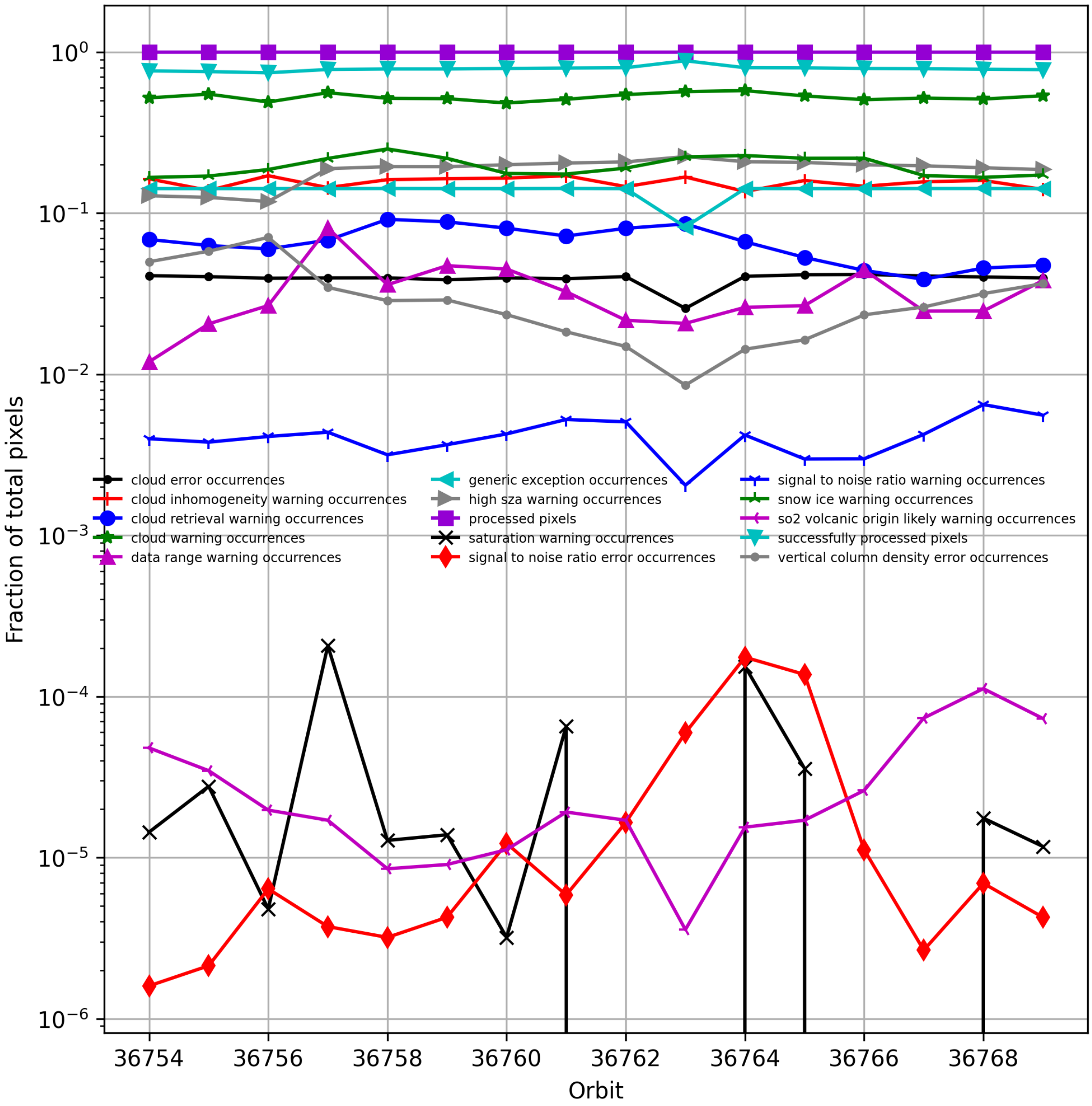


Figure 5: Fraction of pixels with specific warnings and errors during processing

6 World maps

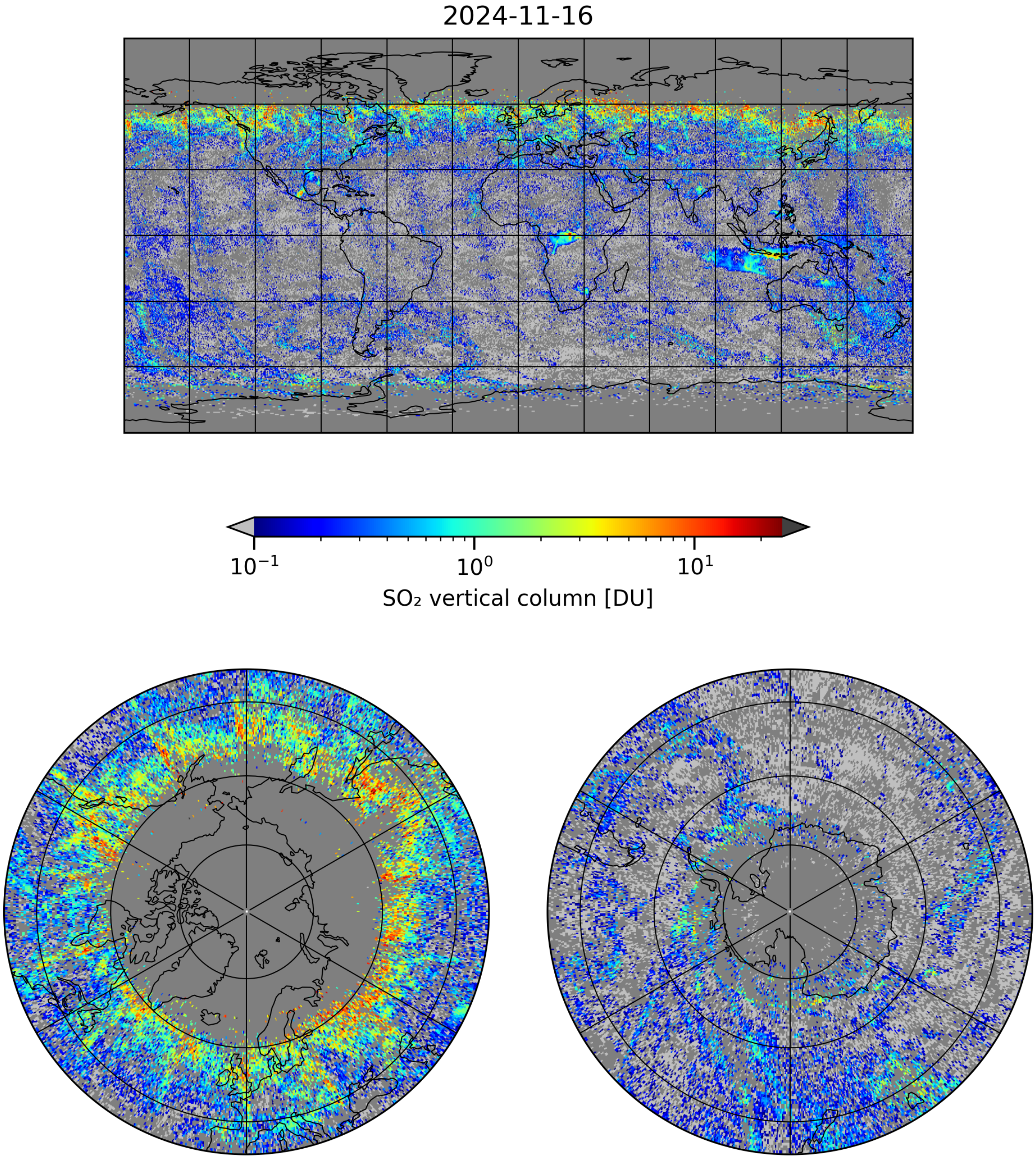


Figure 6: Map of "SO_2 vertical column" for 2024-11-15 to 2024-11-17

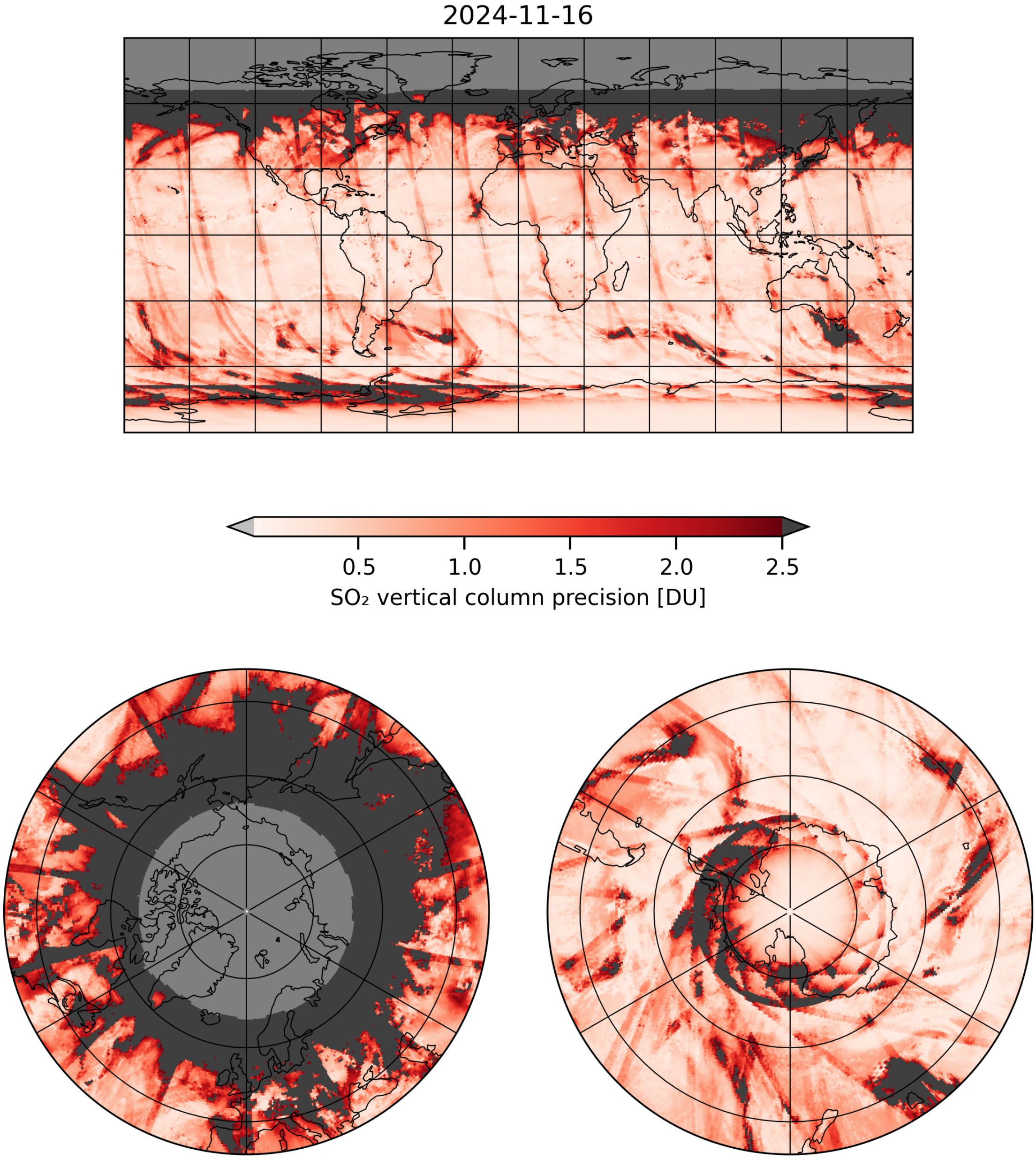


Figure 7: Map of "SO_2 vertical column precision" for 2024-11-15 to 2024-11-17

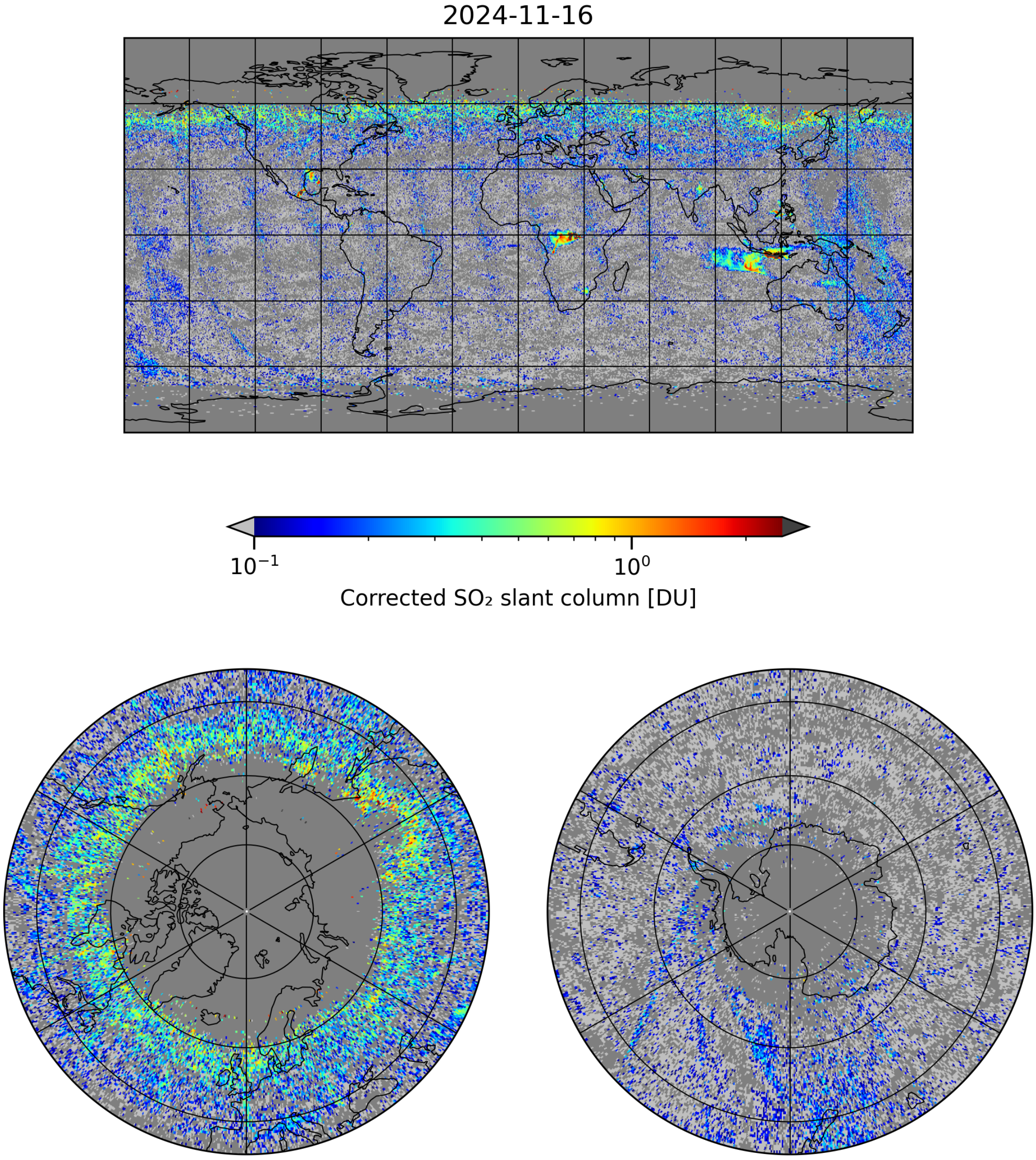


Figure 8: Map of “Corrected SO_2 slant column” for 2024-11-15 to 2024-11-17

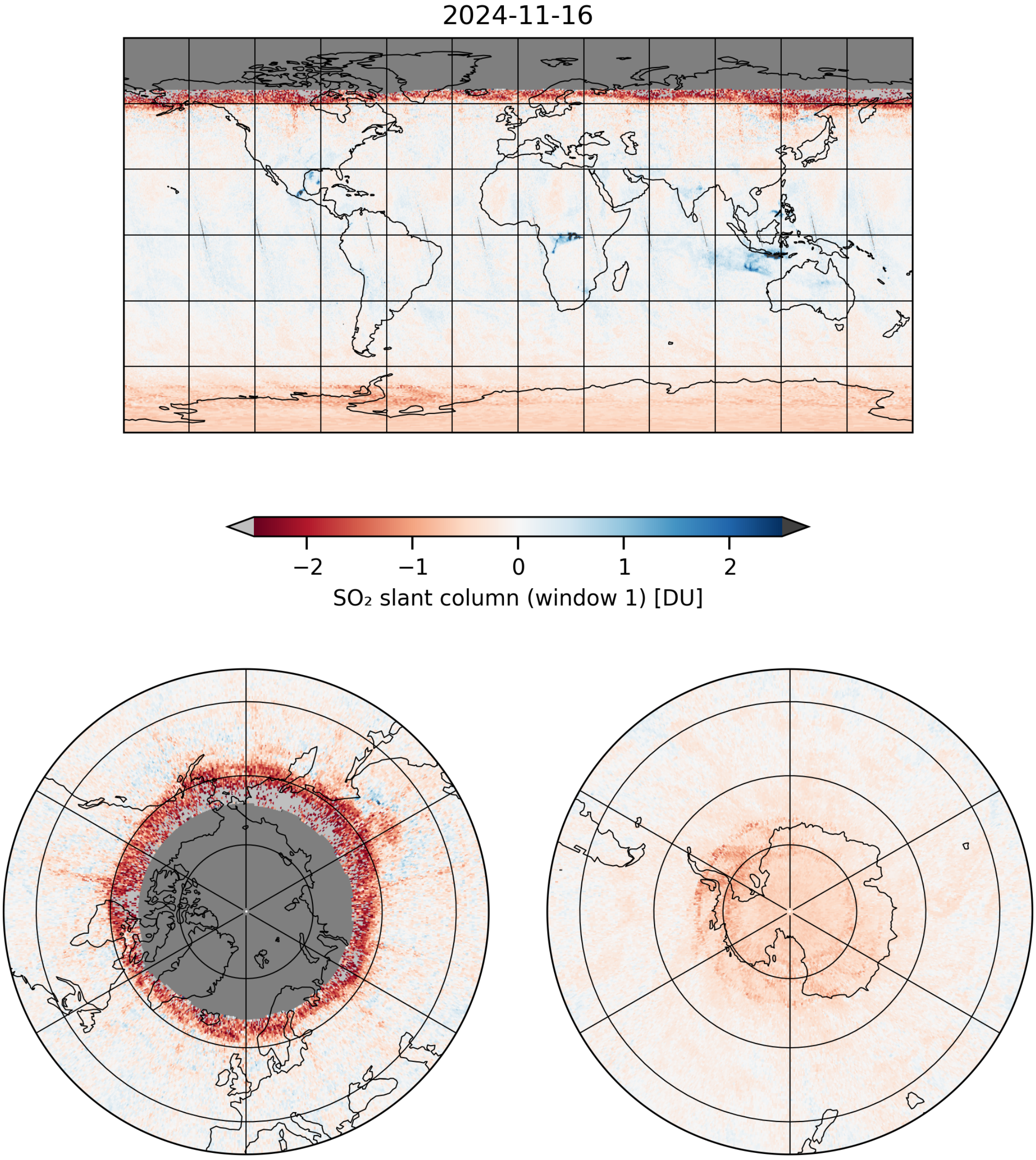


Figure 9: Map of “SO_2 slant column (window 1)” for 2024-11-15 to 2024-11-17

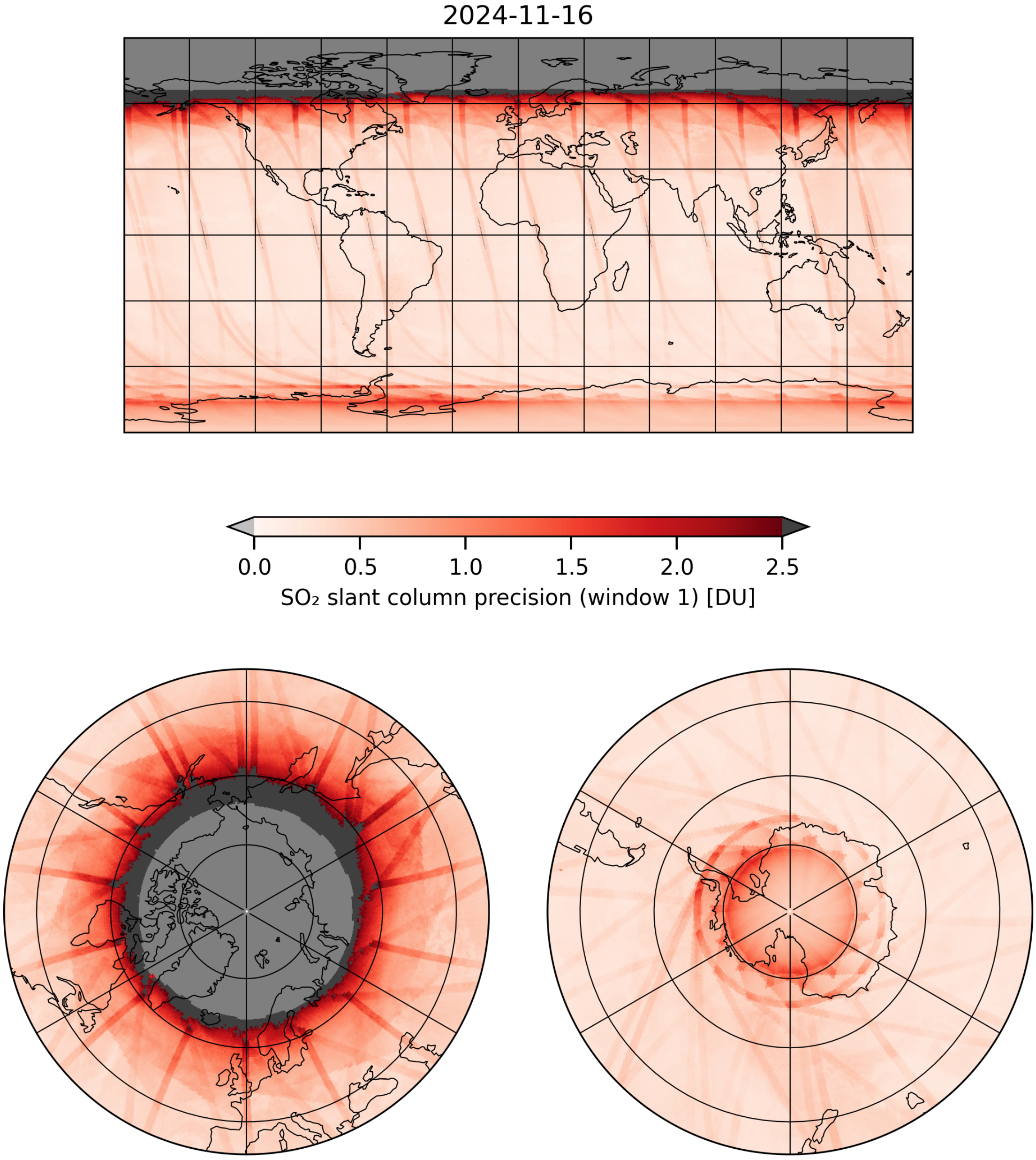


Figure 10: Map of “SO_2 slant column precision (window 1)” for 2024-11-15 to 2024-11-17

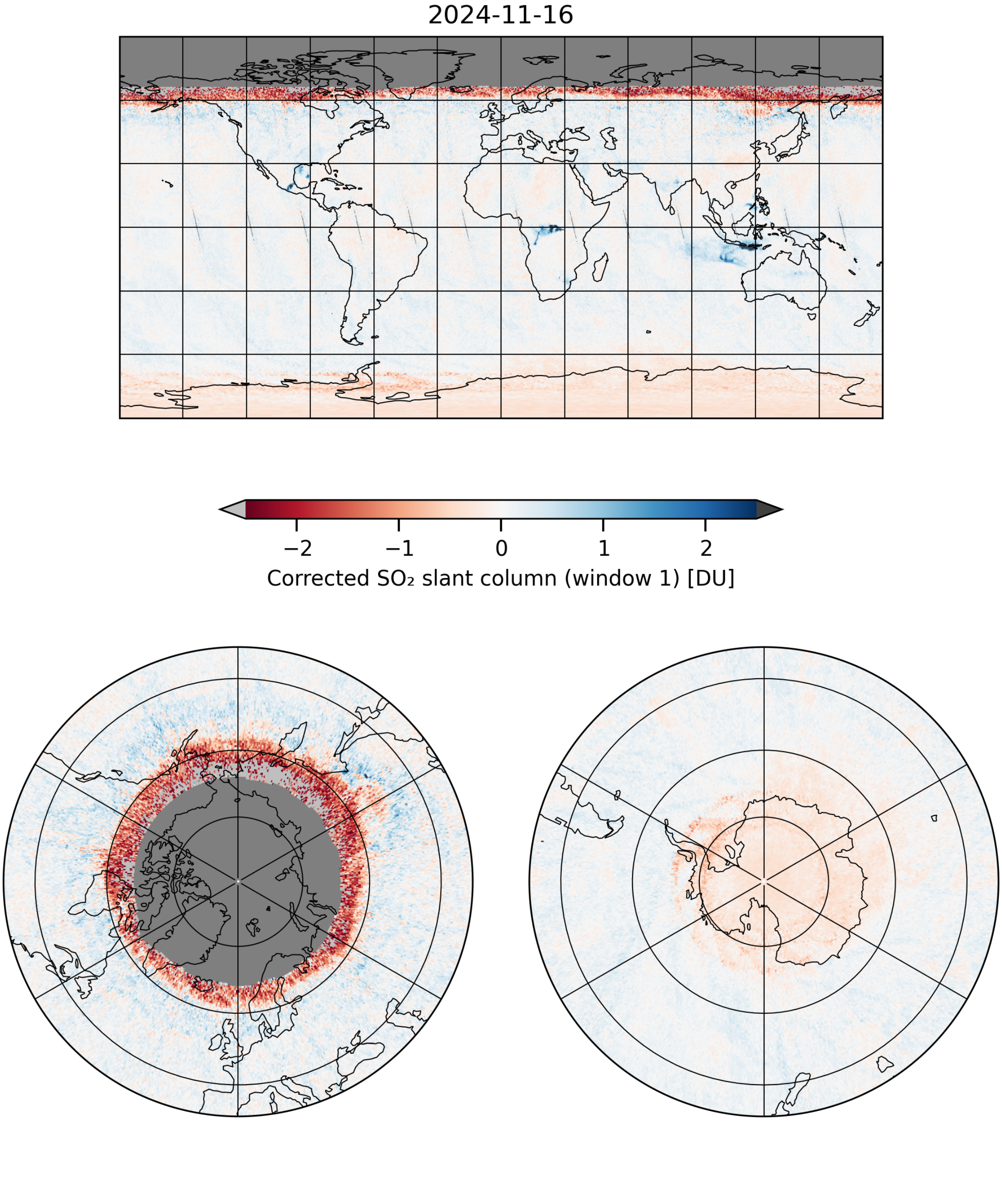


Figure 11: Map of "Corrected SO_2 slant column (window 1)" for 2024-11-15 to 2024-11-17

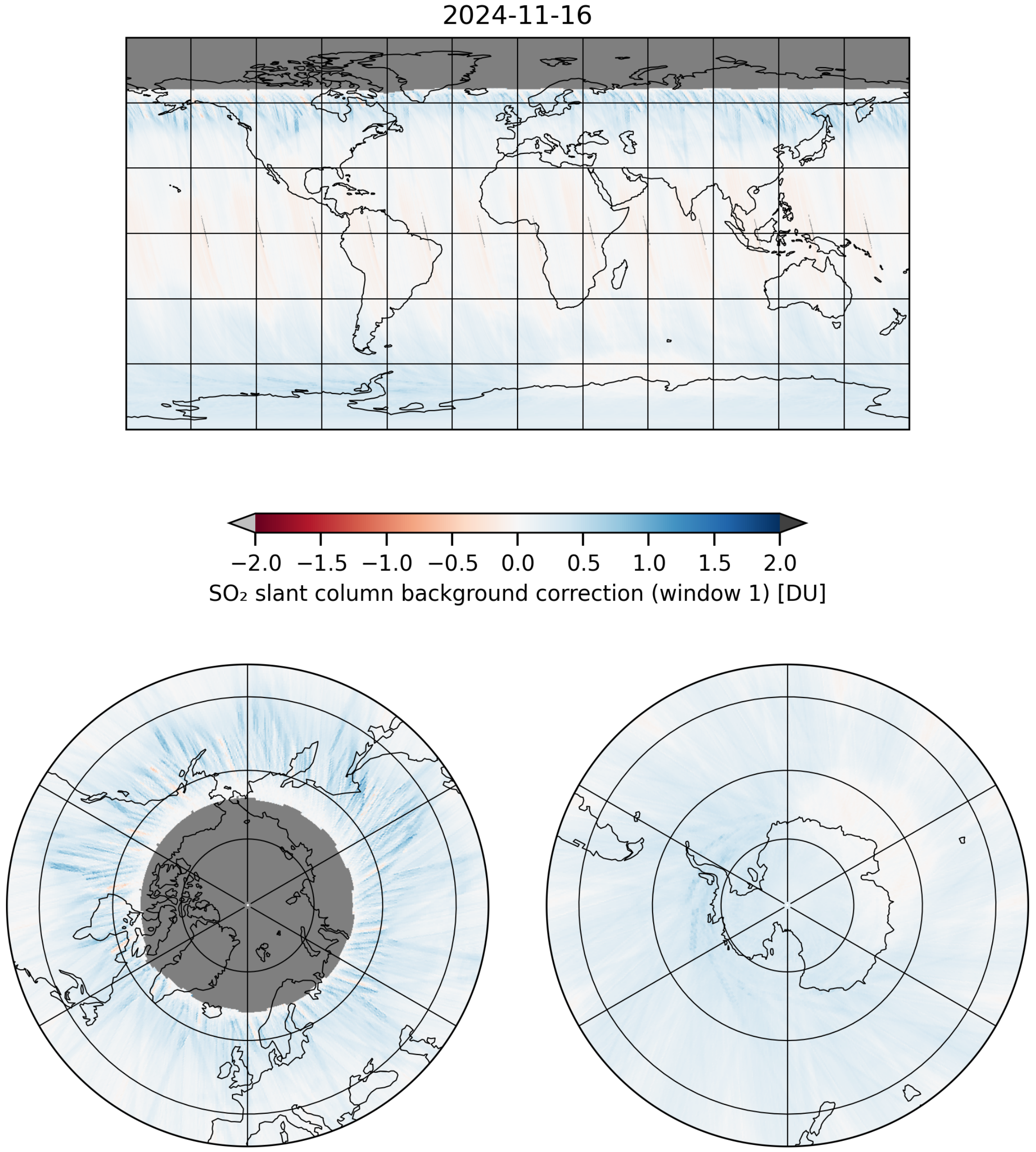


Figure 12: Map of "SO_2 slant column background correction (window 1)" for 2024-11-15 to 2024-11-17

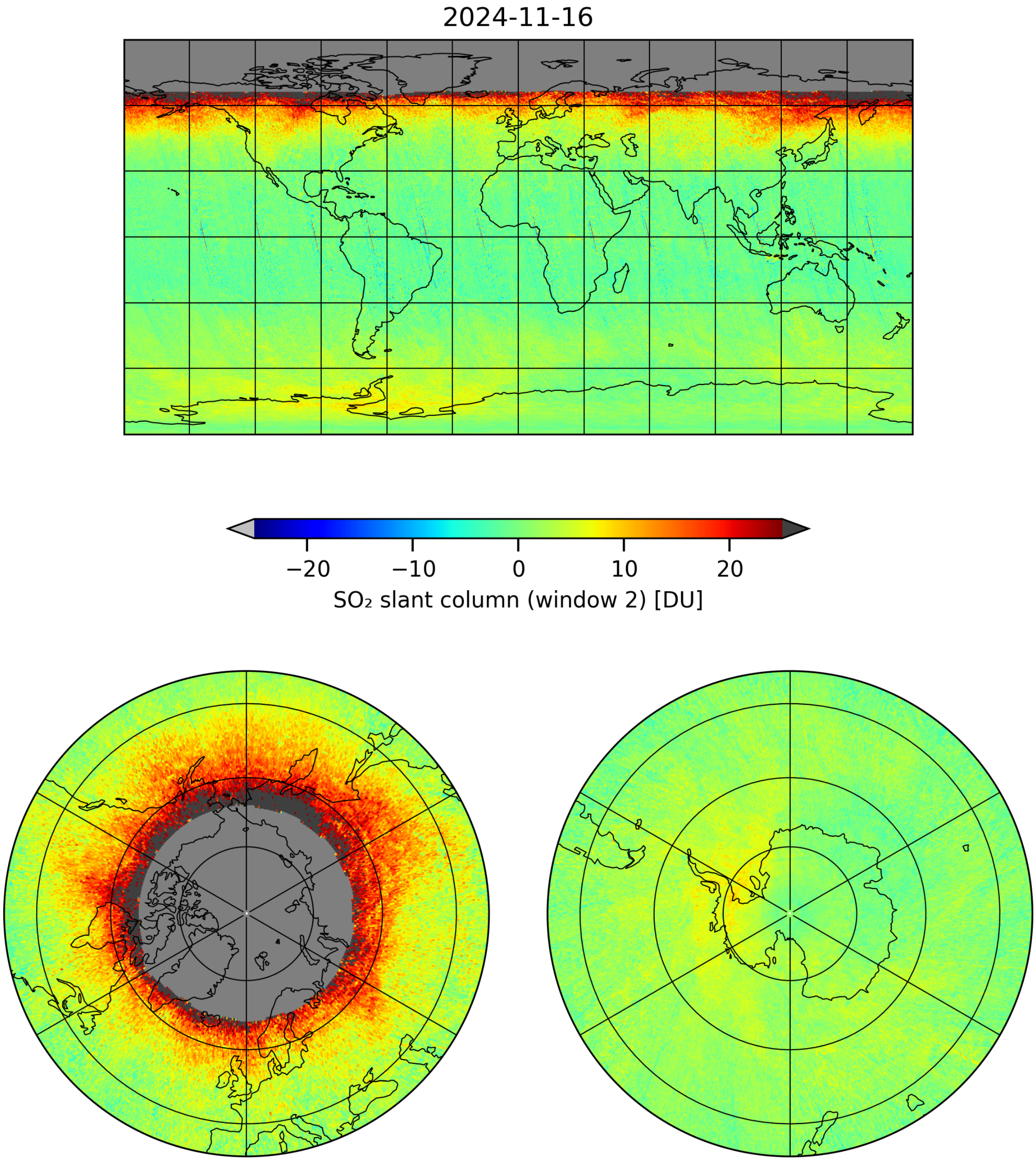


Figure 13: Map of “SO_2 slant column (window 2)” for 2024-11-15 to 2024-11-17

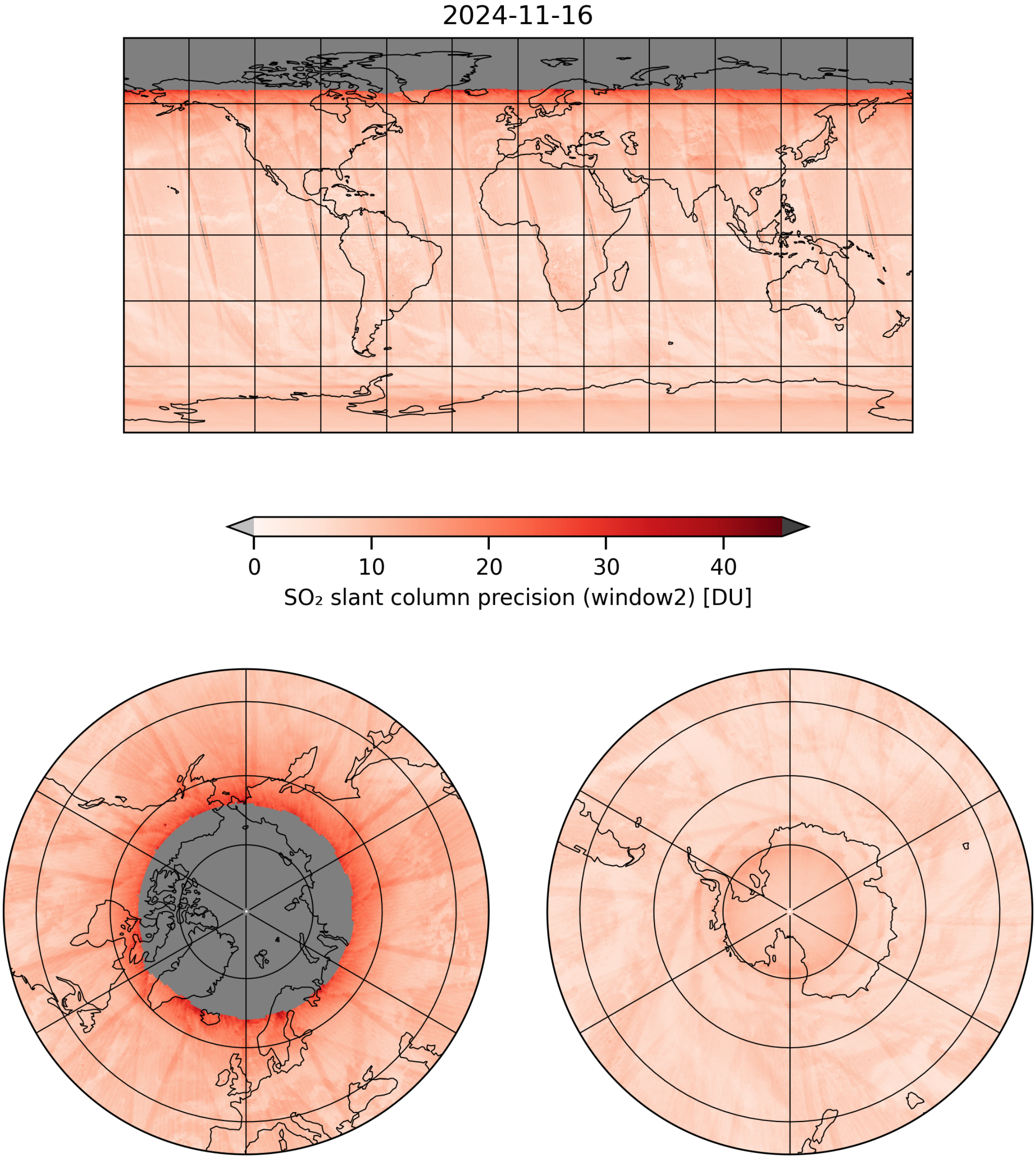


Figure 14: Map of “SO_2 slant column precision (window2)” for 2024-11-15 to 2024-11-17

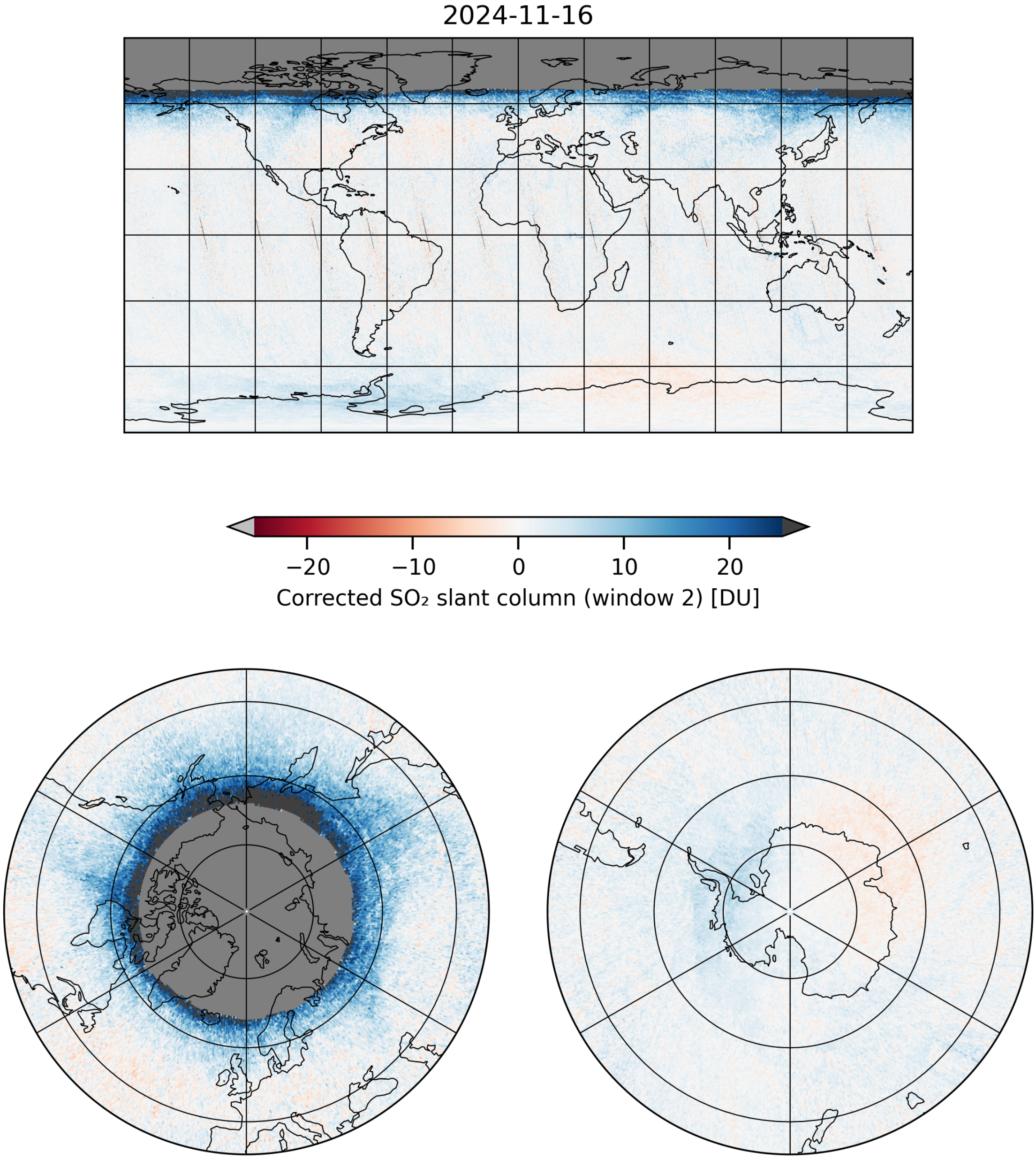


Figure 15: Map of “Corrected SO_2 slant column (window 2)” for 2024-11-15 to 2024-11-17

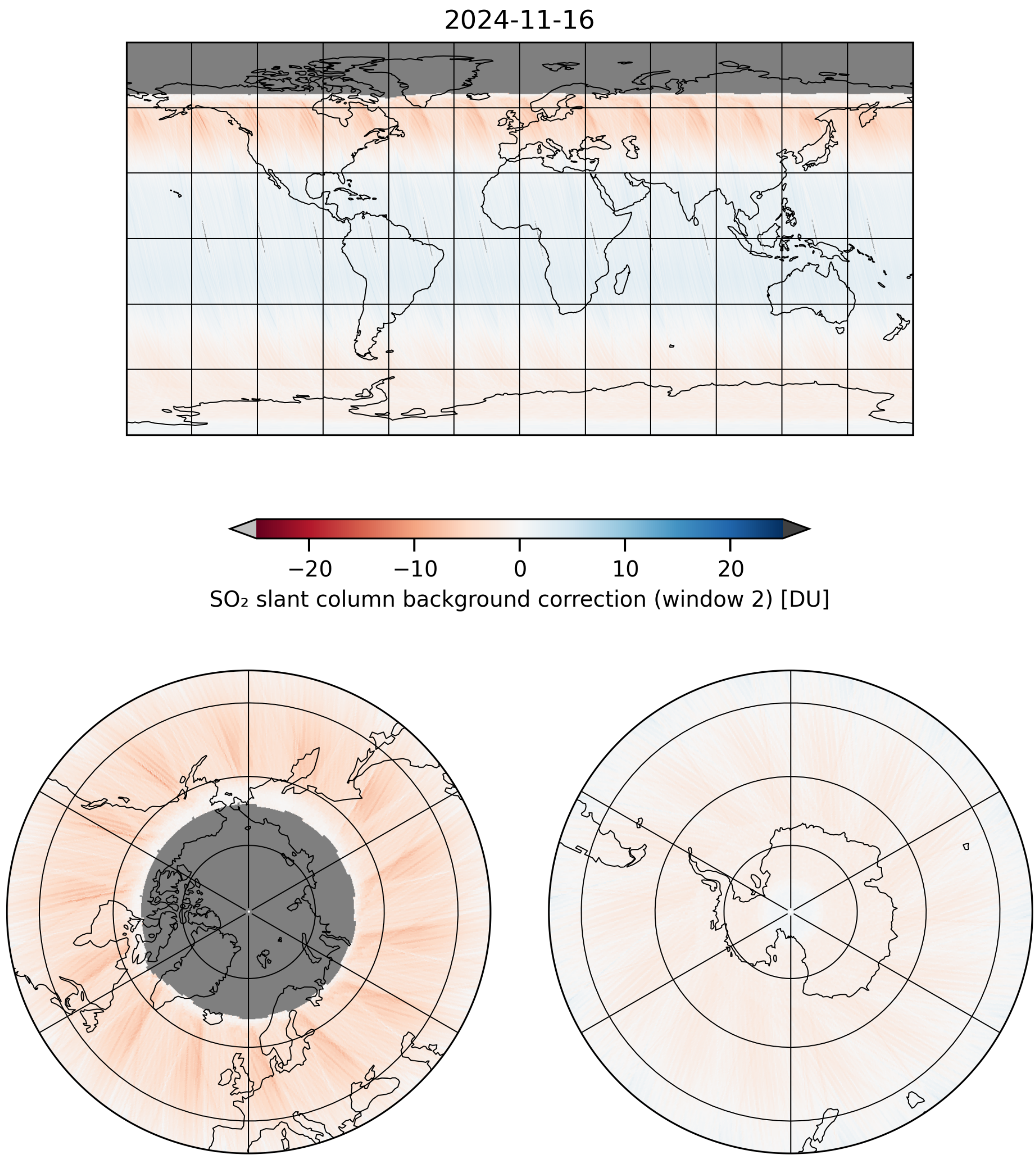


Figure 16: Map of “SO_2 slant column background correction (window 2)” for 2024-11-15 to 2024-11-17

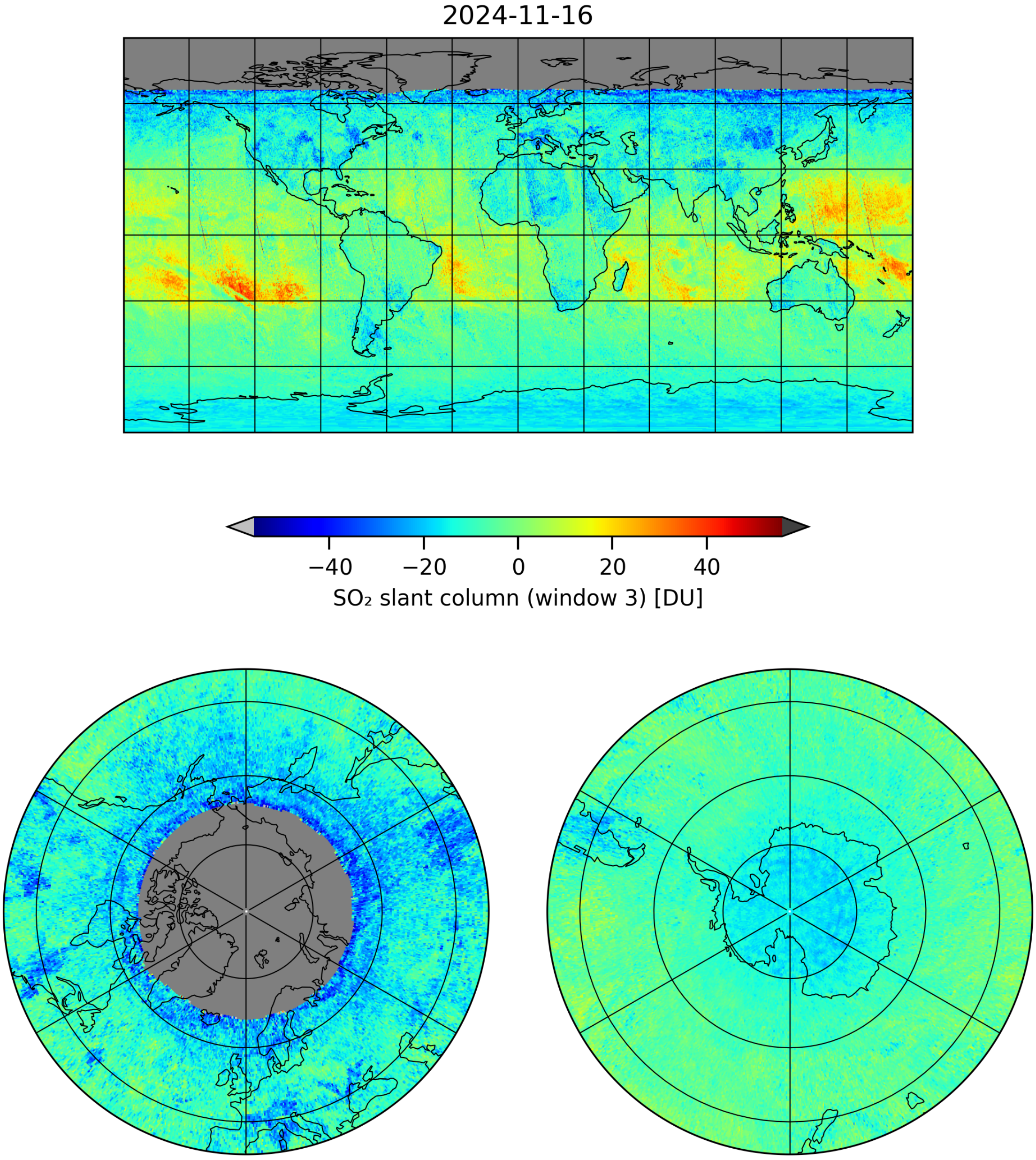


Figure 17: Map of “SO_2 slant column (window 3)” for 2024-11-15 to 2024-11-17

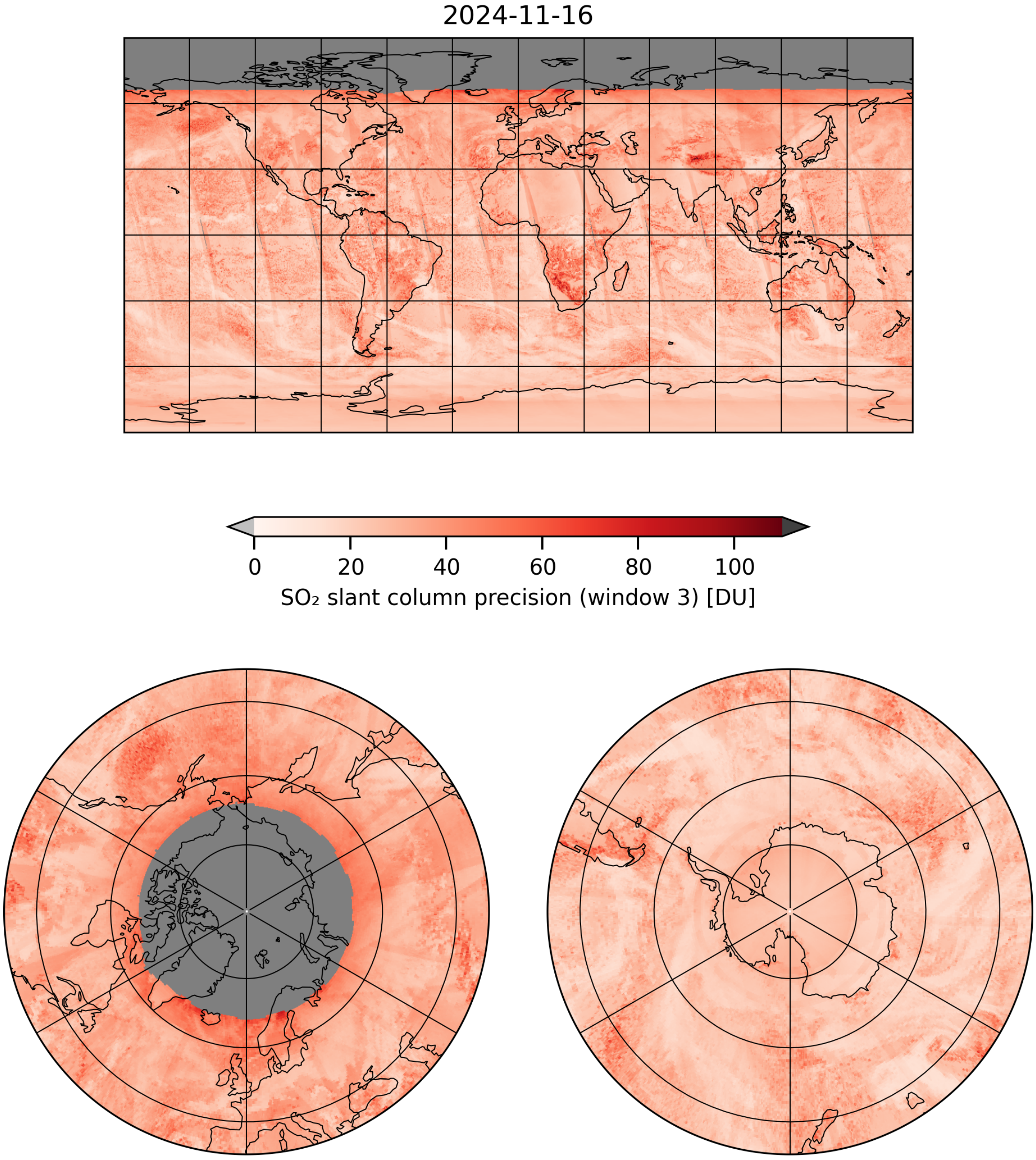


Figure 18: Map of "SO_2 slant column precision (window 3)" for 2024-11-15 to 2024-11-17

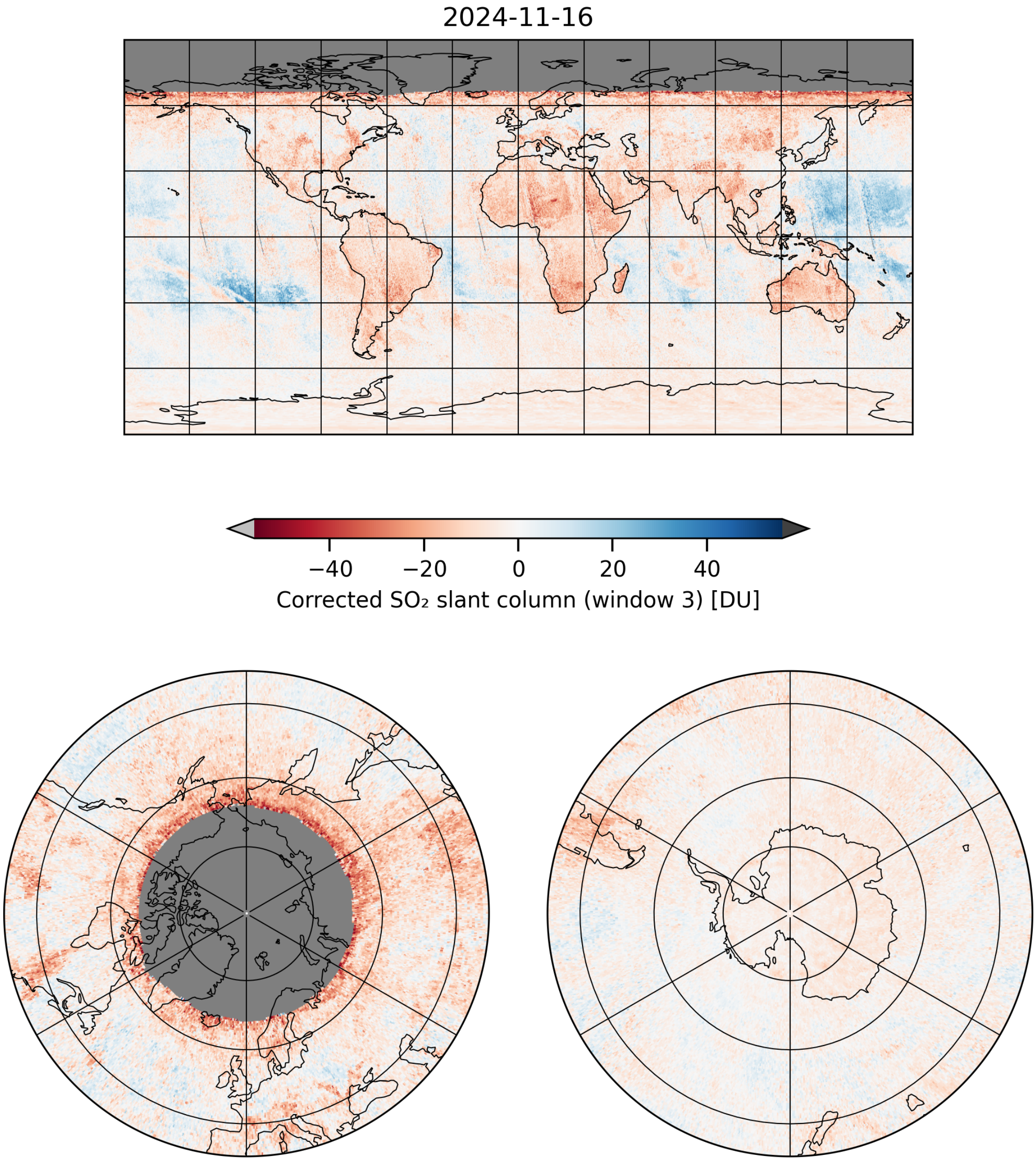


Figure 19: Map of "Corrected SO_2 slant column (window 3)" for 2024-11-15 to 2024-11-17

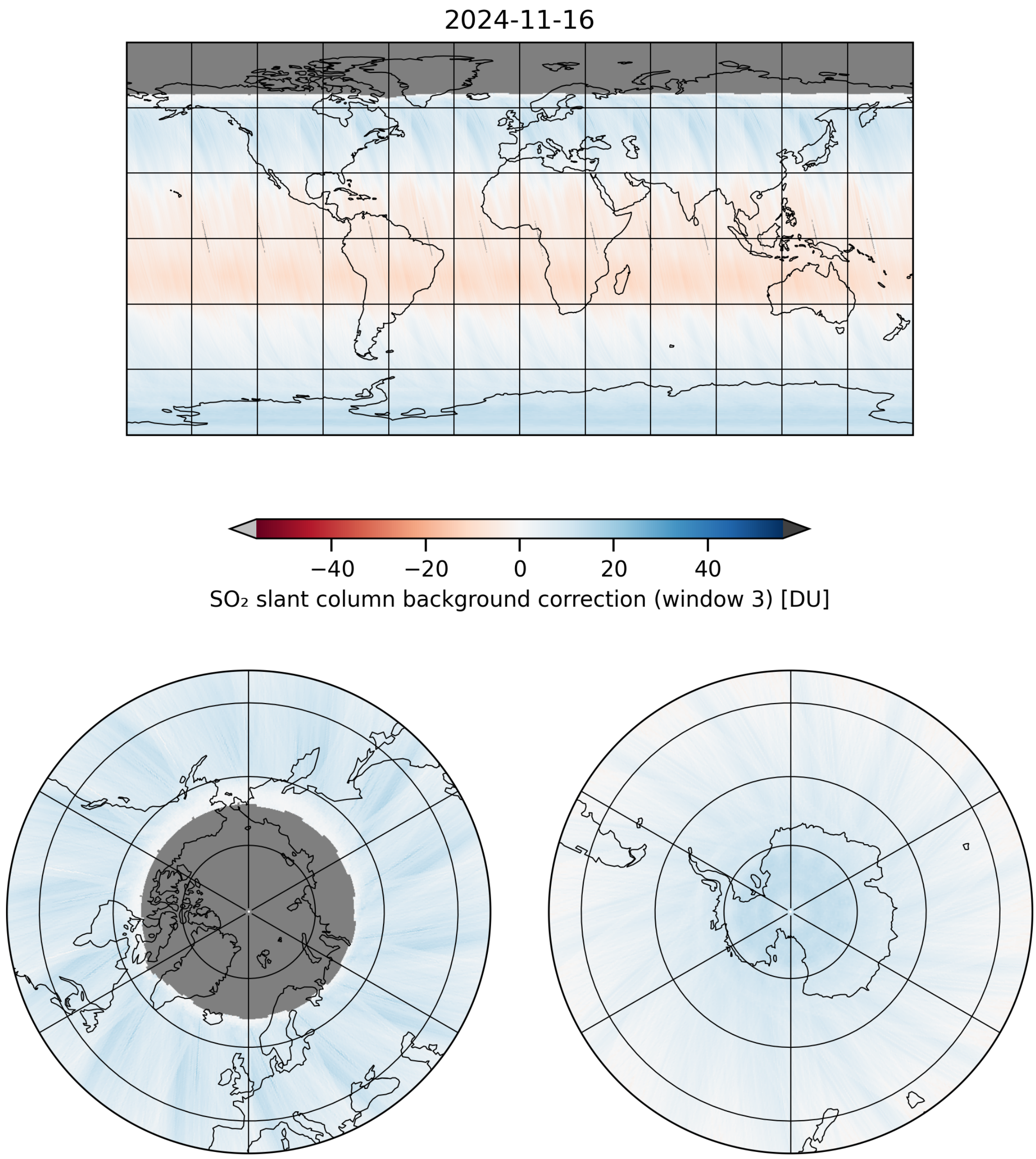


Figure 20: Map of "SO_2 slant column background correction (window 3)" for 2024-11-15 to 2024-11-17

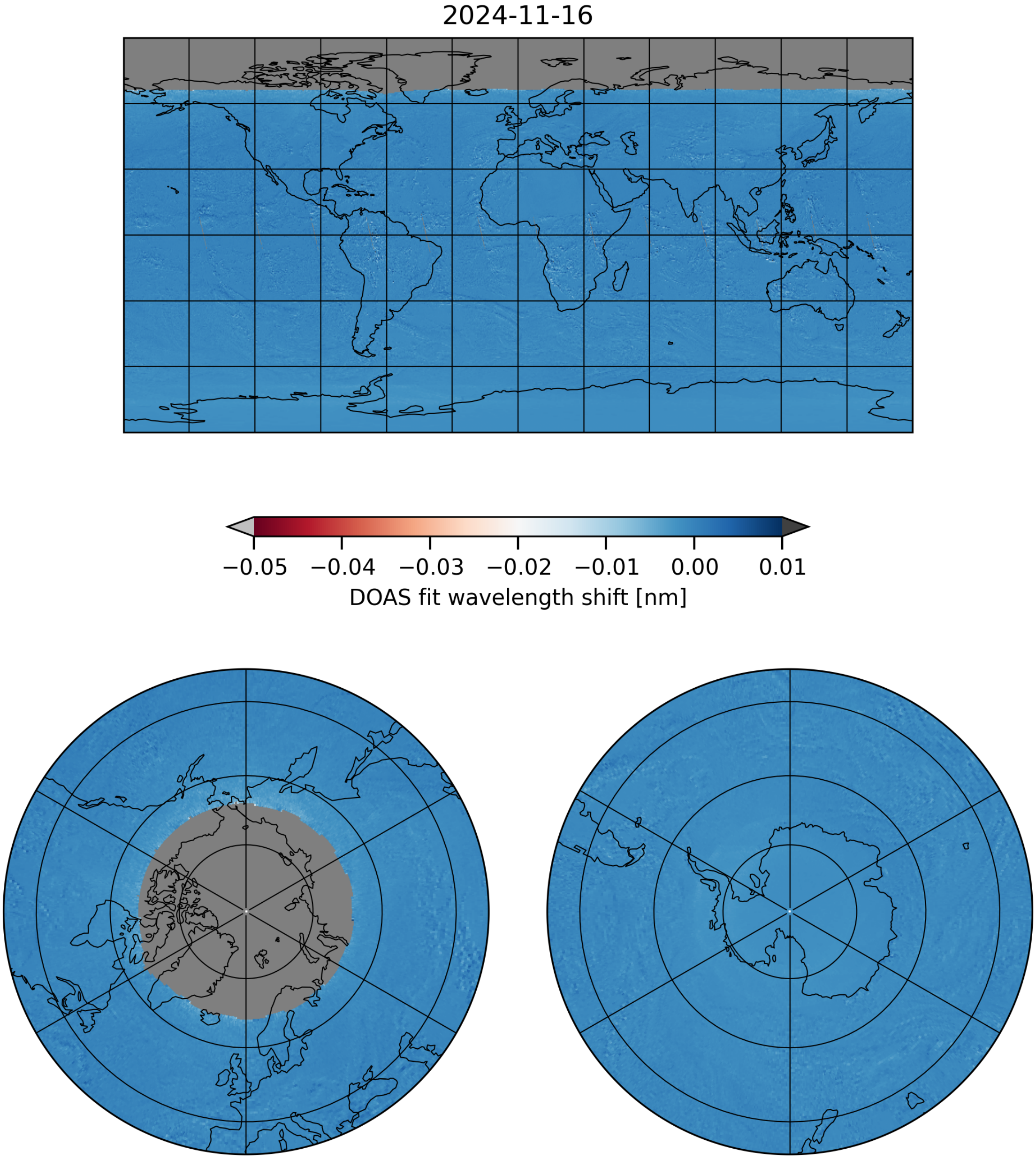


Figure 21: Map of “DOAS fit wavelength shift” for 2024-11-15 to 2024-11-17

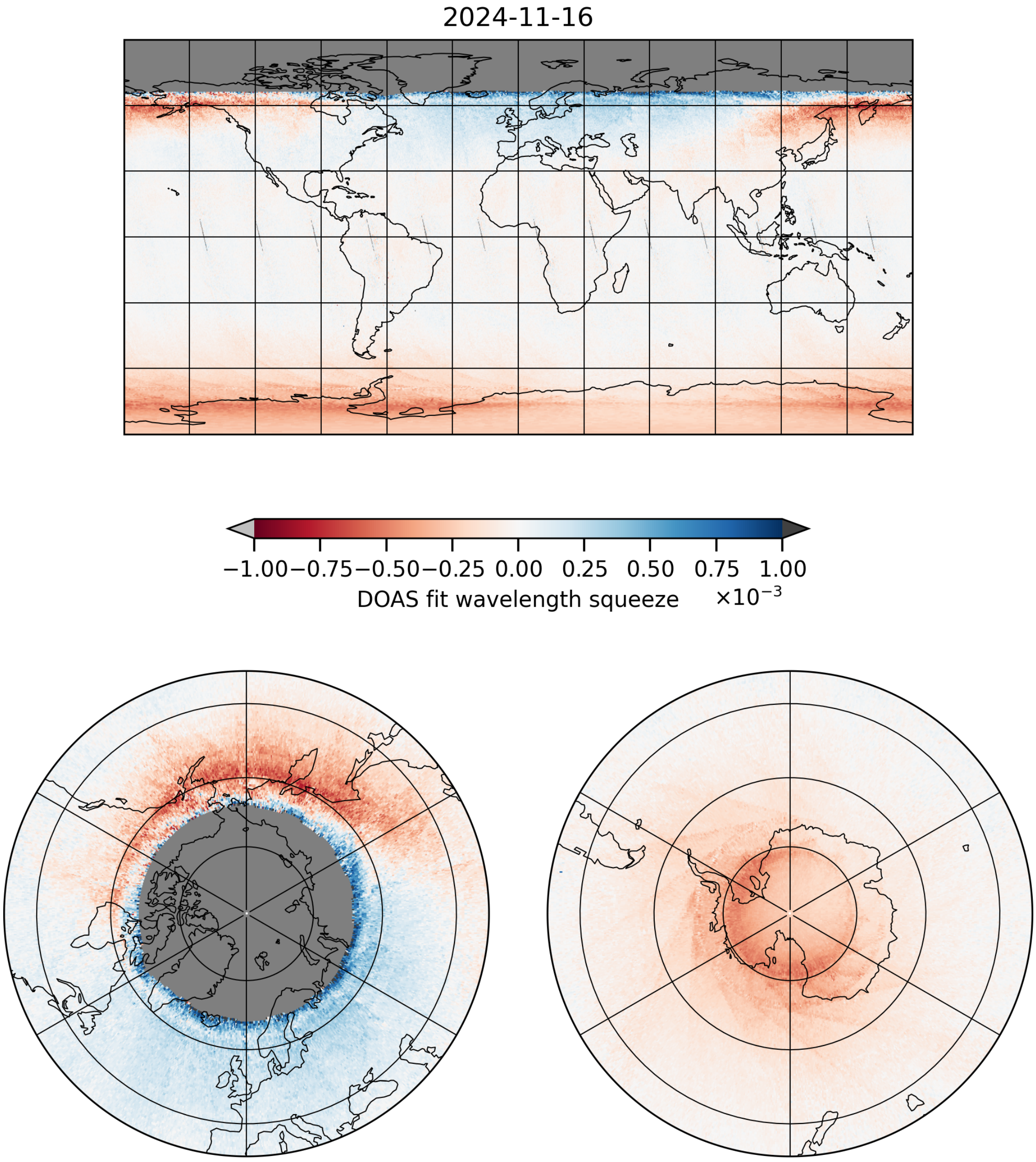


Figure 22: Map of “DOAS fit wavelength squeeze” for 2024-11-15 to 2024-11-17

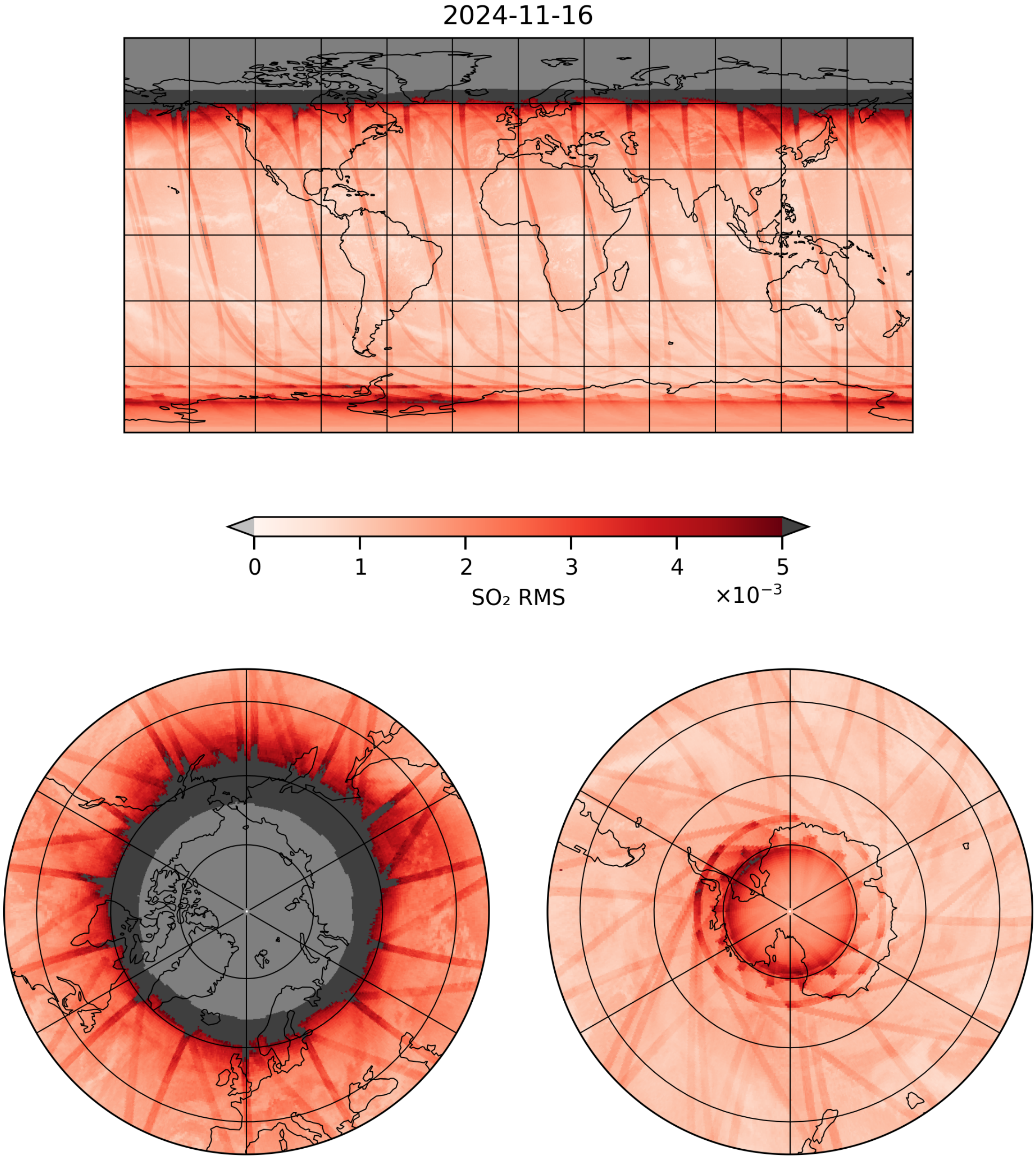


Figure 23: Map of “SO_2 RMS” for 2024-11-15 to 2024-11-17

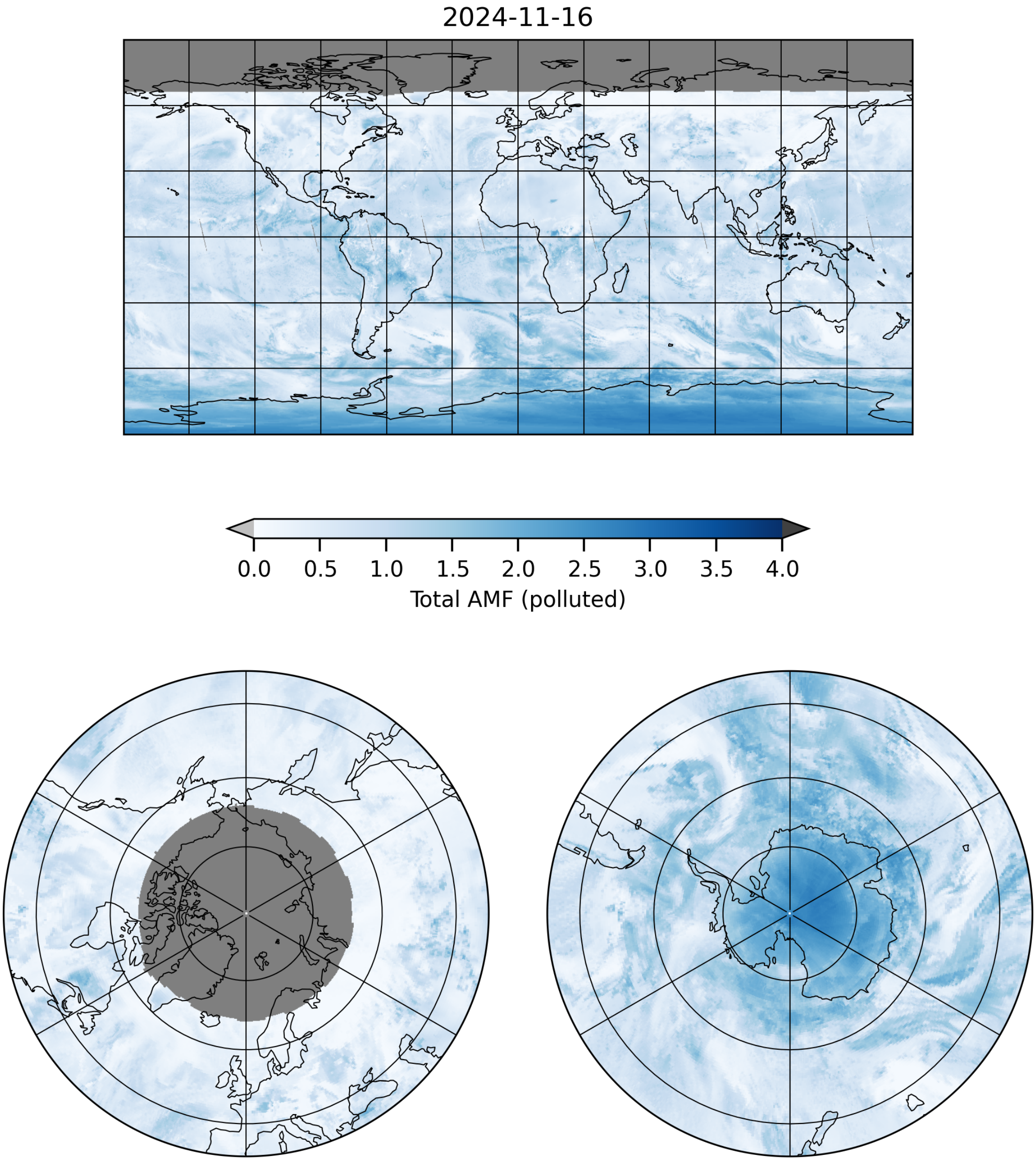


Figure 24: Map of “Total AMF (polluted)” for 2024-11-15 to 2024-11-17

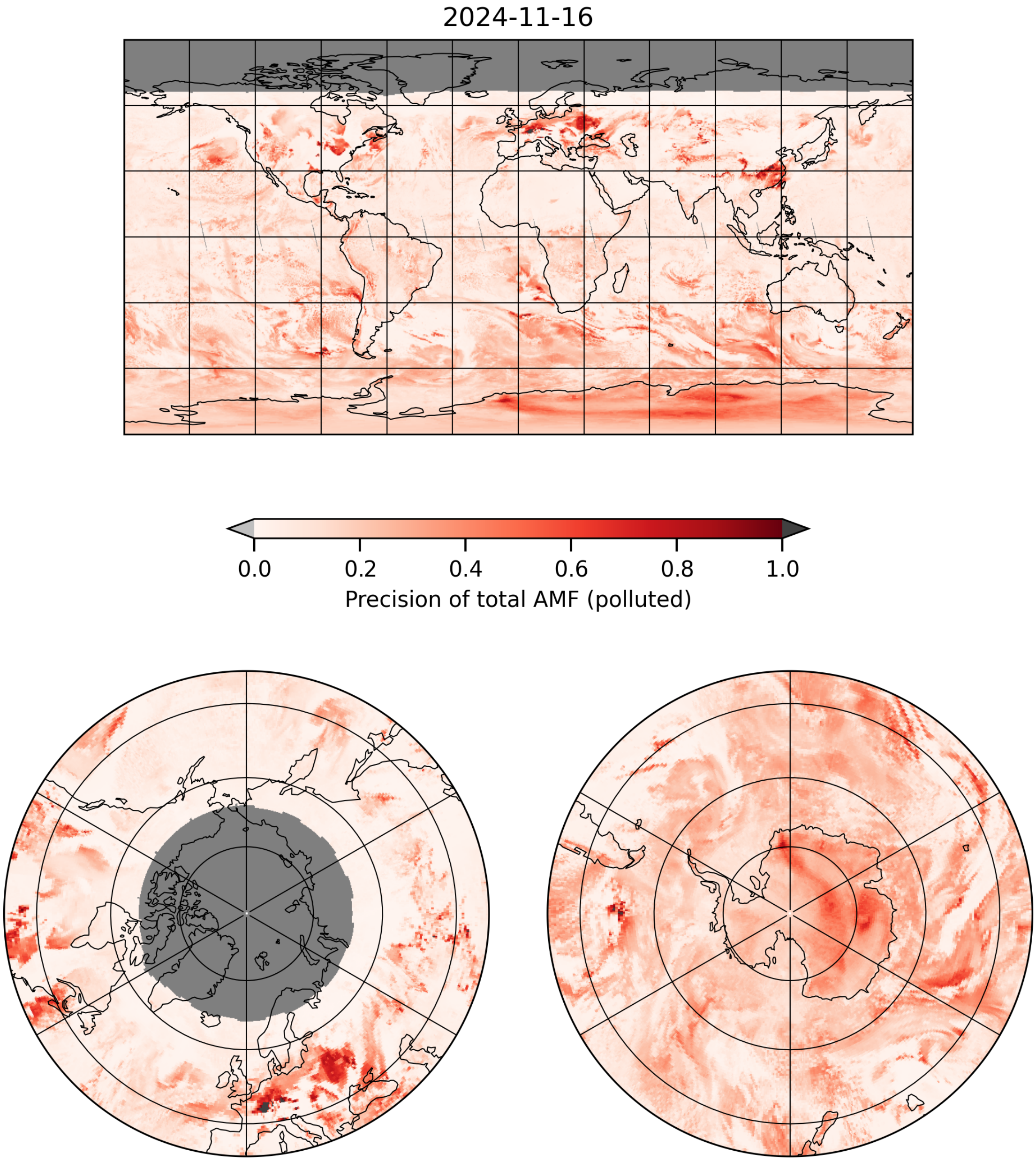


Figure 25: Map of “Precision of total AMF (polluted)” for 2024-11-15 to 2024-11-17

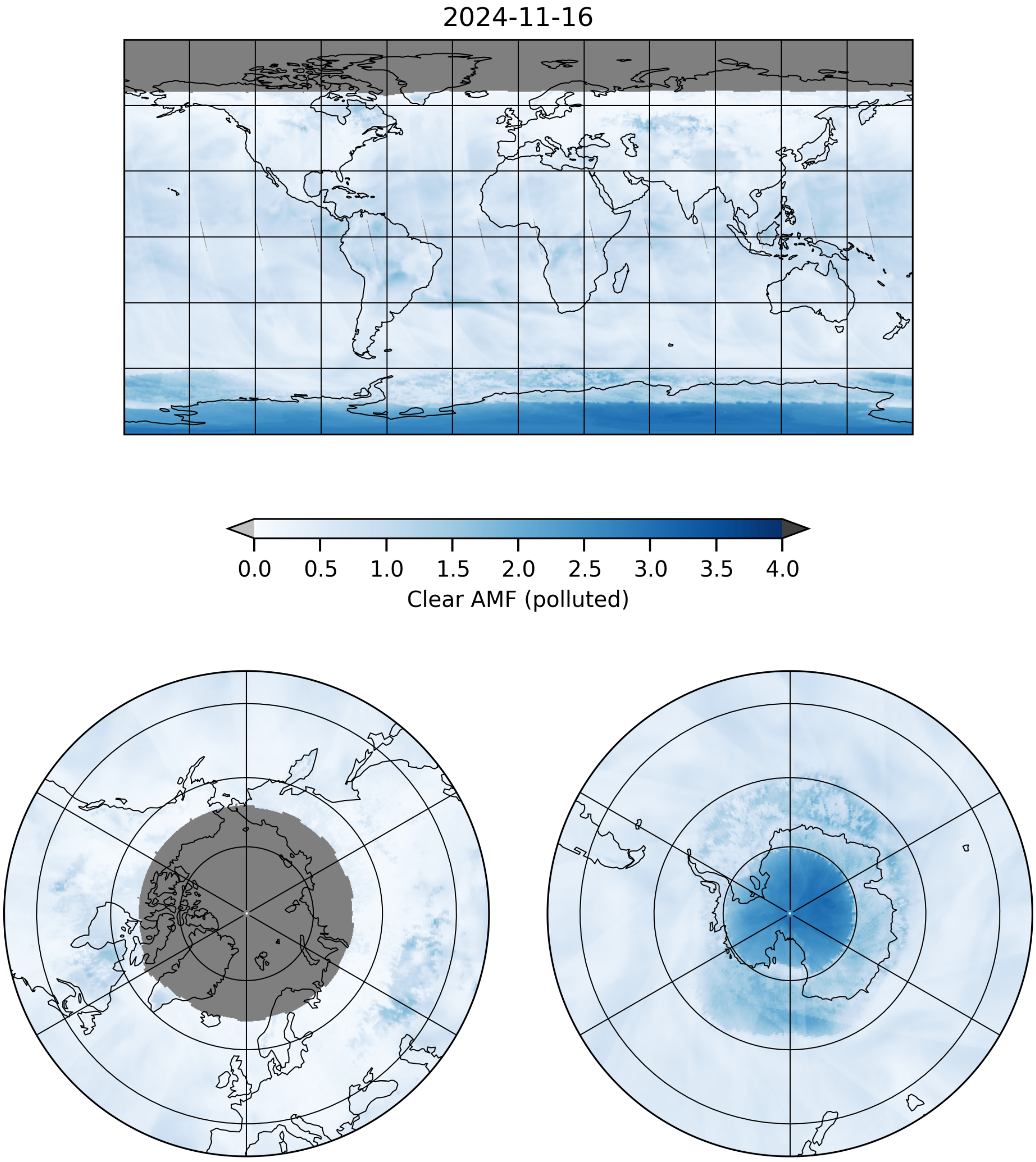


Figure 26: Map of “Clear AMF (polluted)” for 2024-11-15 to 2024-11-17

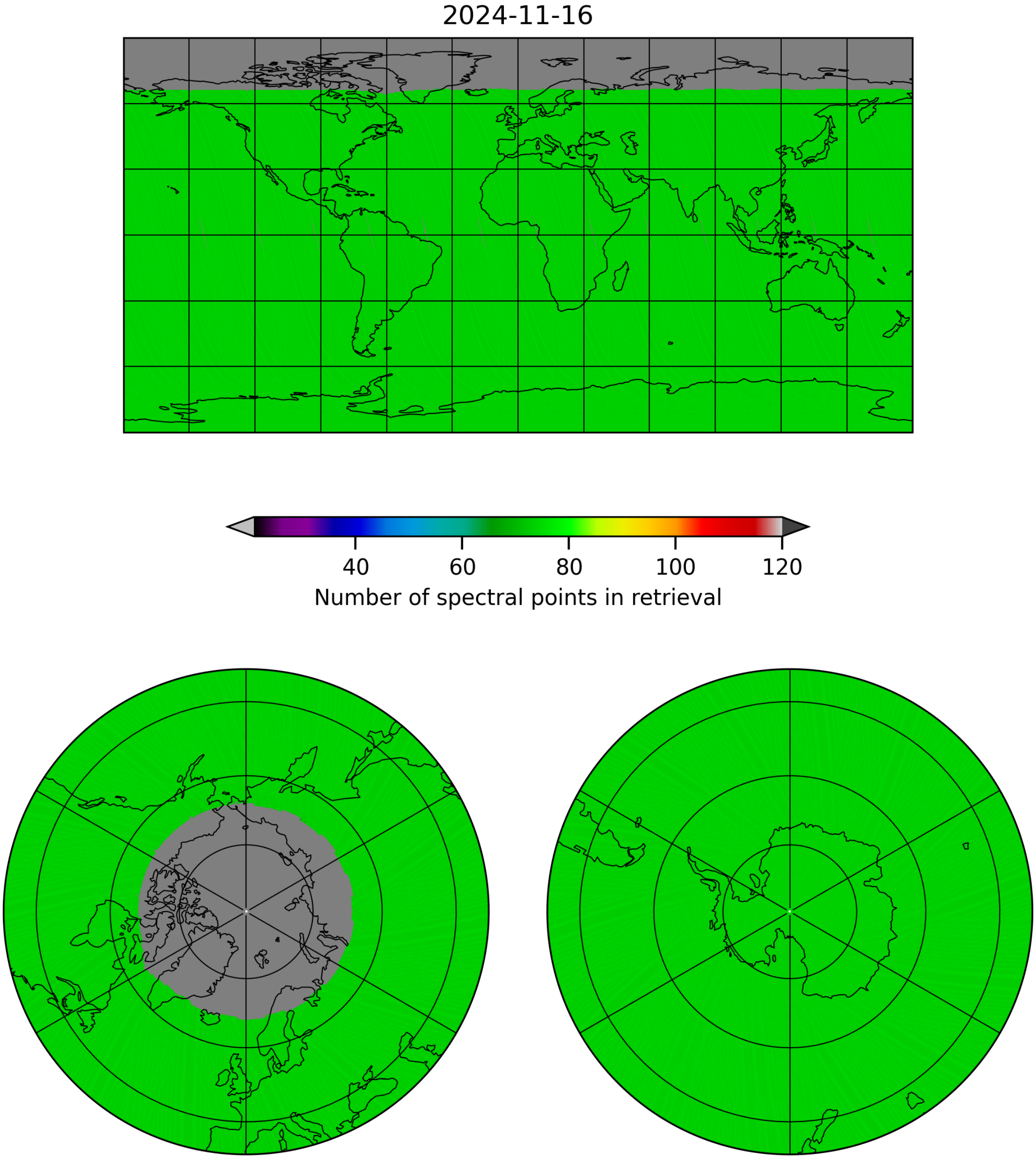


Figure 27: Map of “Number of spectral points in retrieval” for 2024-11-15 to 2024-11-17

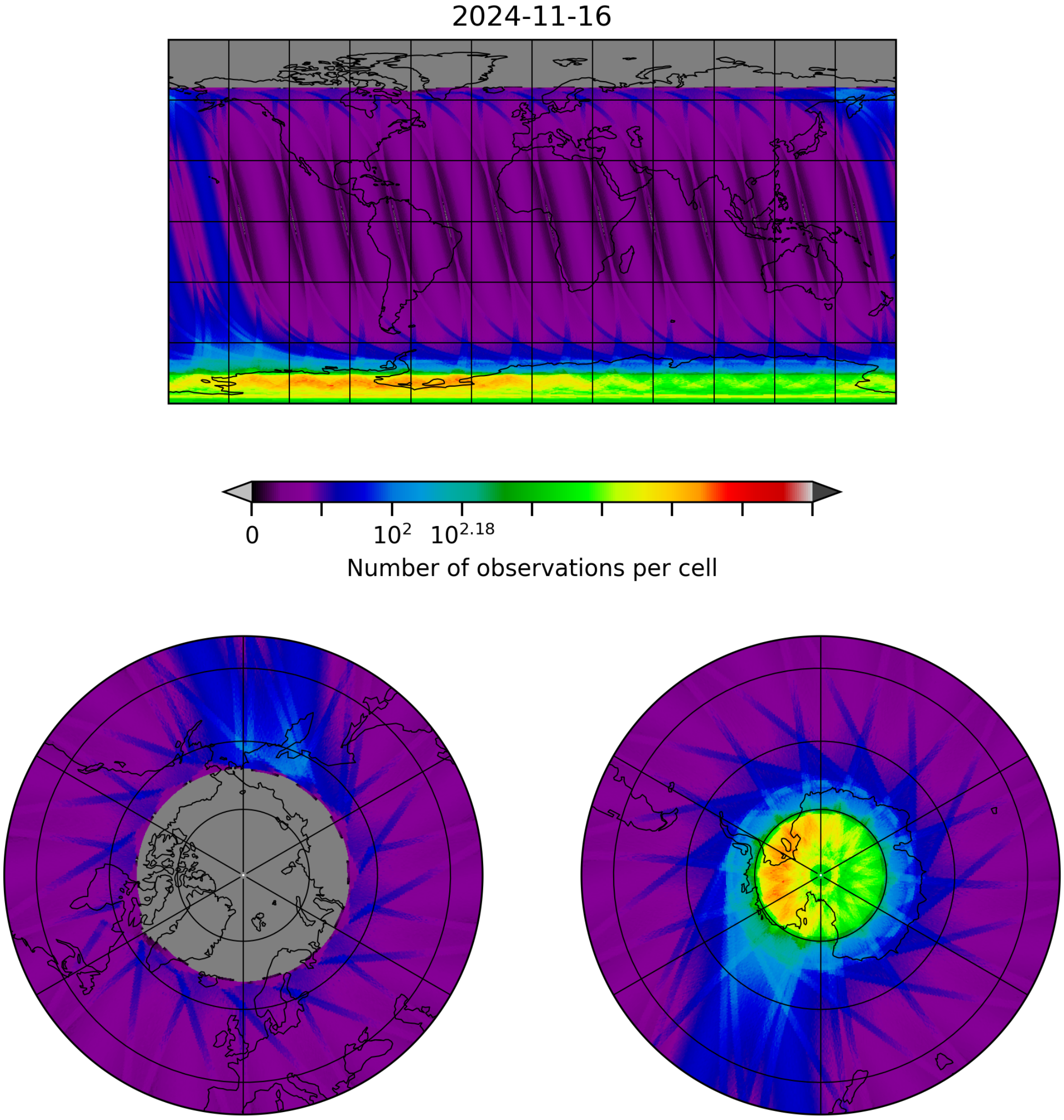


Figure 28: Map of the number of observations for 2024-11-15 to 2024-11-17

7 Zonal average

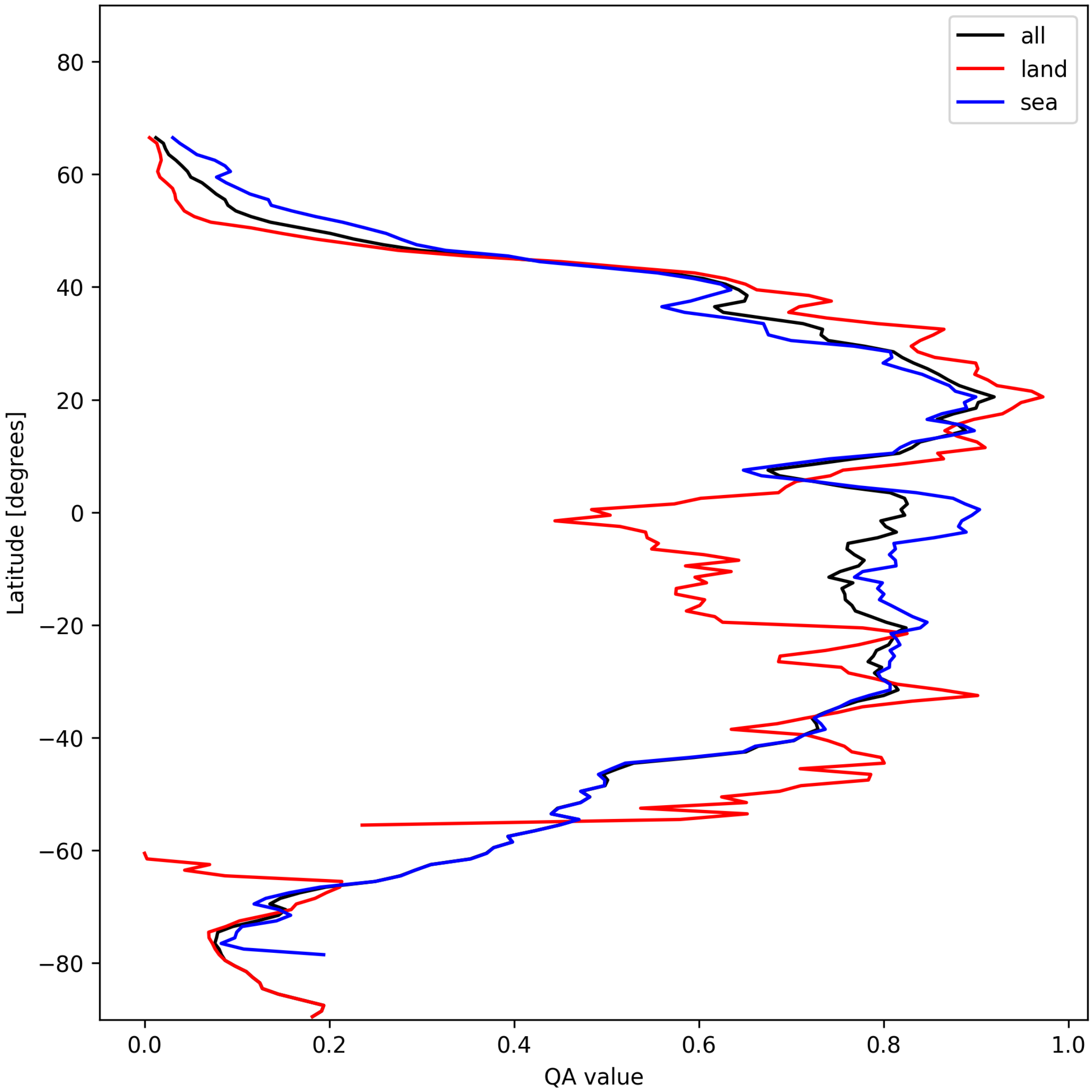


Figure 29: Zonal average of “QA value” for 2024-11-15 to 2024-11-17.

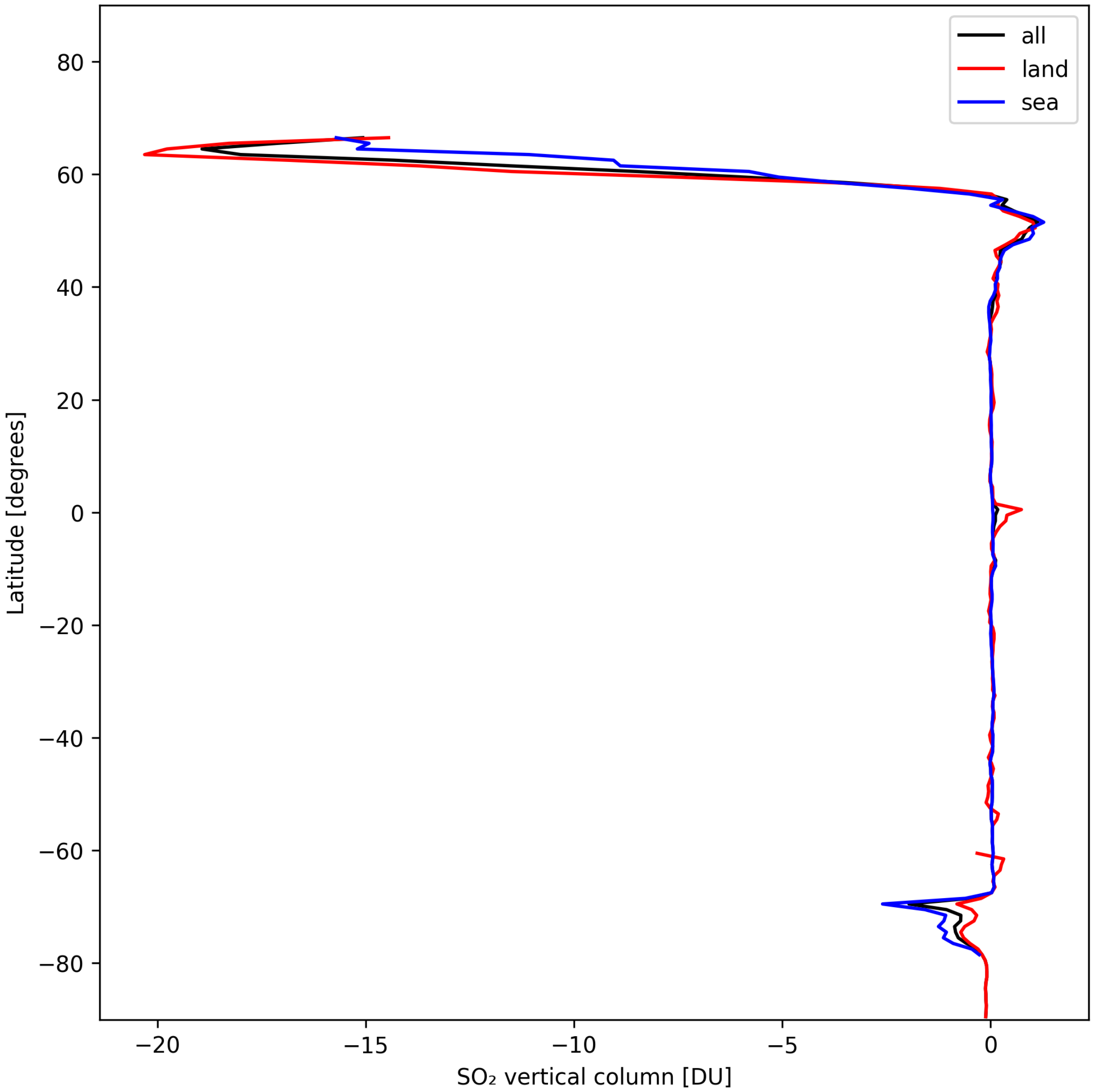


Figure 30: Zonal average of "SO_2 vertical column" for 2024-11-15 to 2024-11-17.

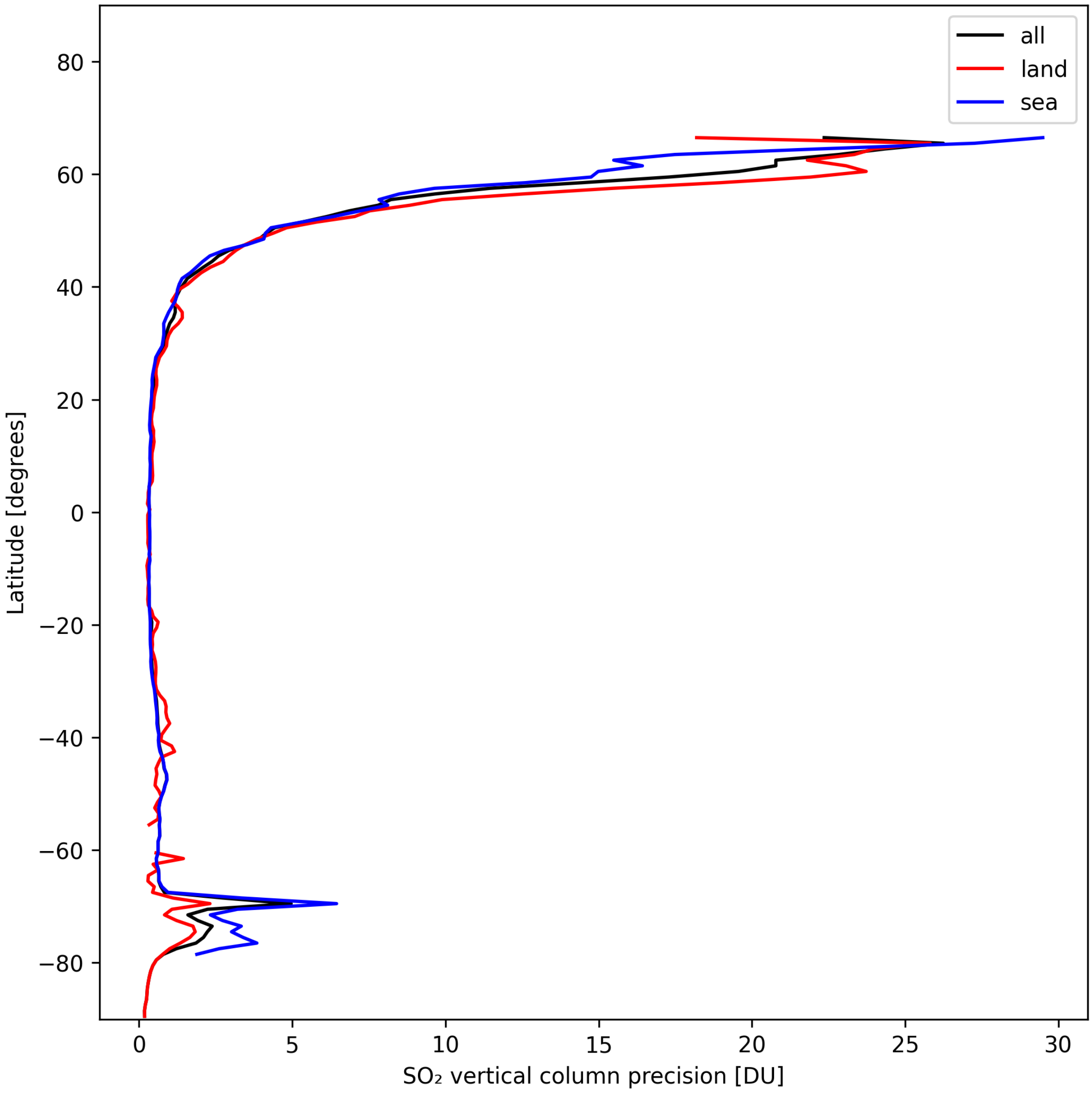


Figure 31: Zonal average of “SO_2 vertical column precision” for 2024-11-15 to 2024-11-17.

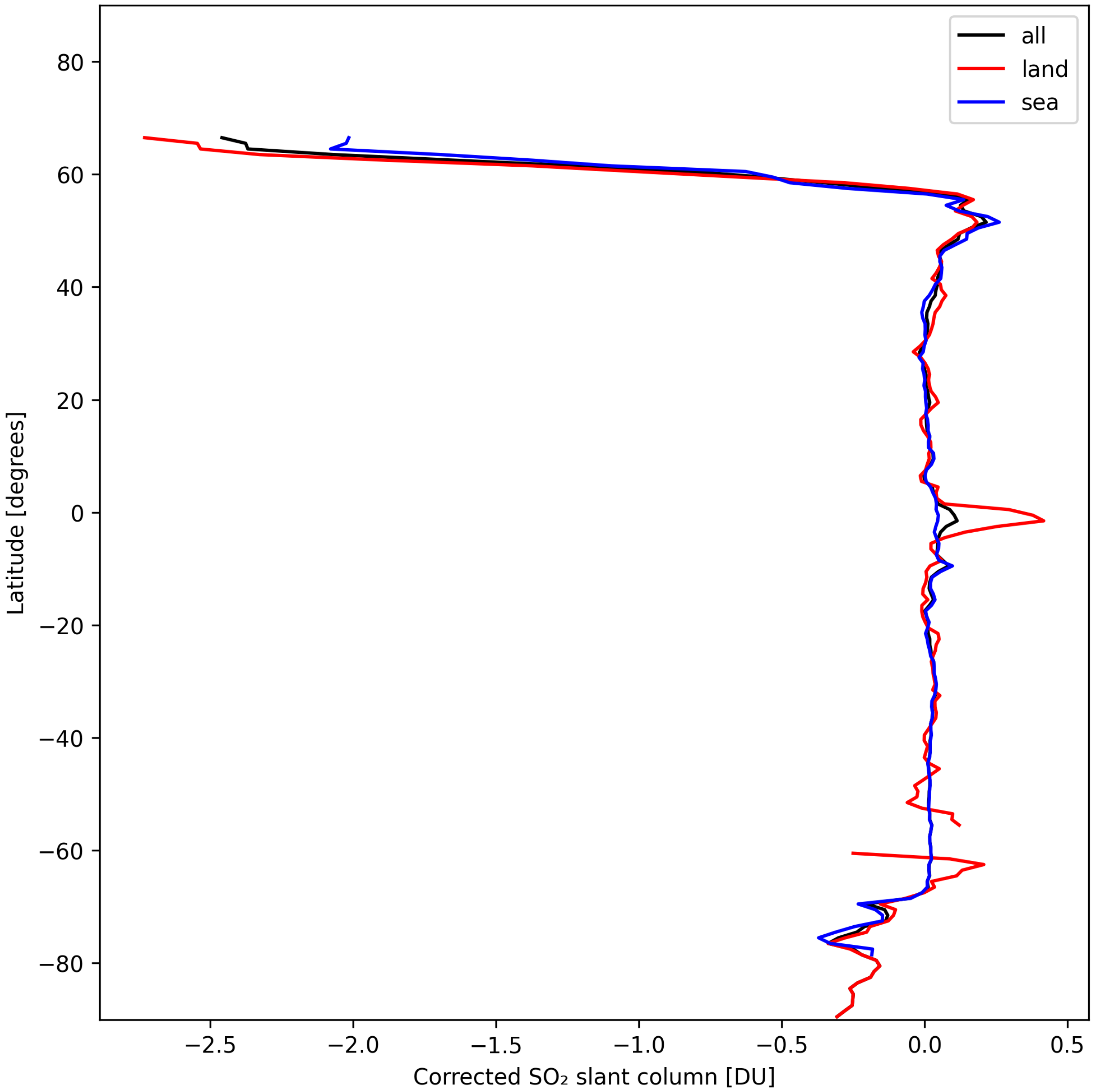


Figure 32: Zonal average of "Corrected SO_2 slant column" for 2024-11-15 to 2024-11-17.

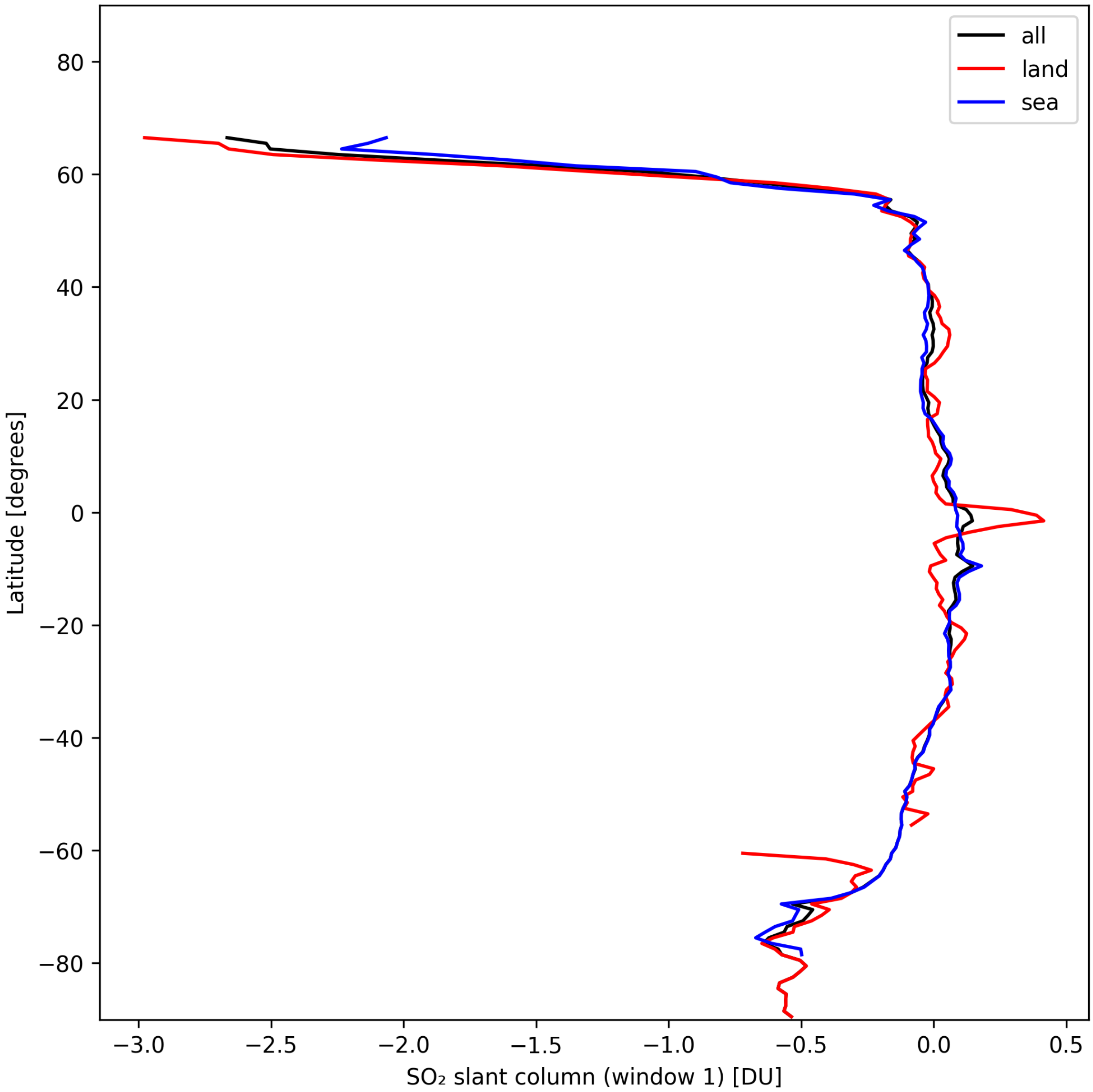


Figure 33: Zonal average of “SO_2 slant column (window 1)” for 2024-11-15 to 2024-11-17.

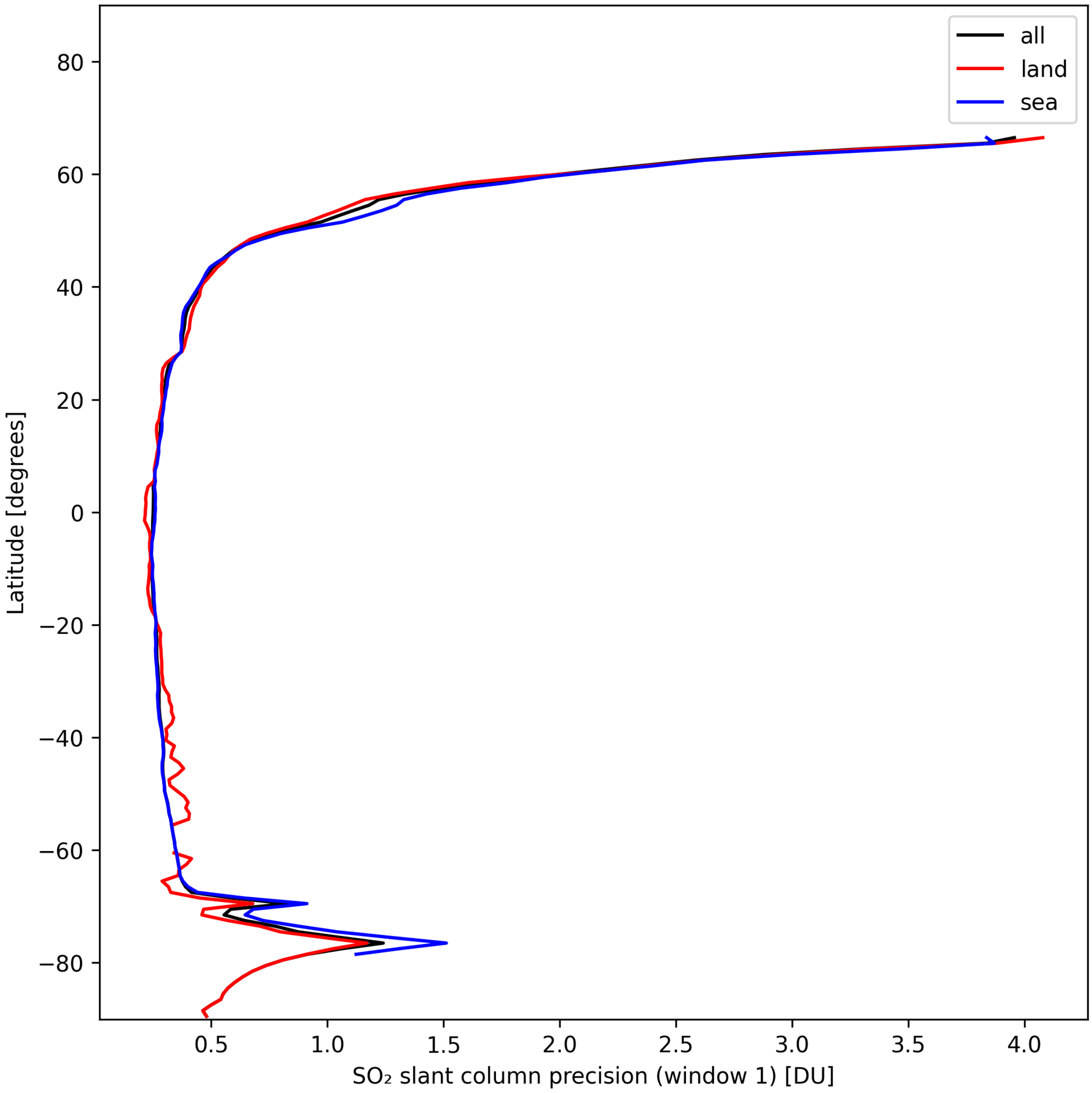


Figure 34: Zonal average of “SO_2 slant column precision (window 1)” for 2024-11-15 to 2024-11-17.

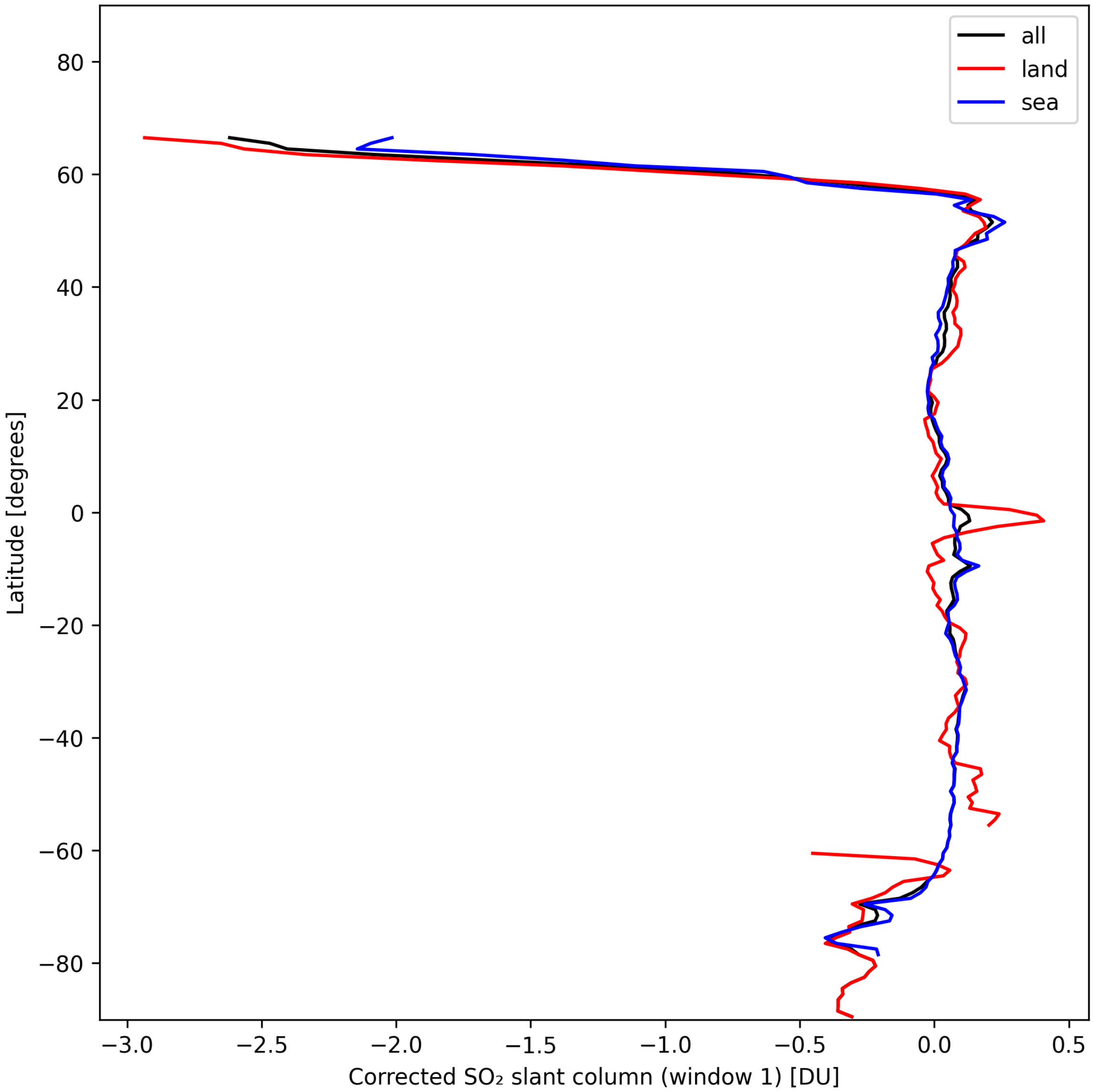


Figure 35: Zonal average of “Corrected SO_2 slant column (window 1)” for 2024-11-15 to 2024-11-17.

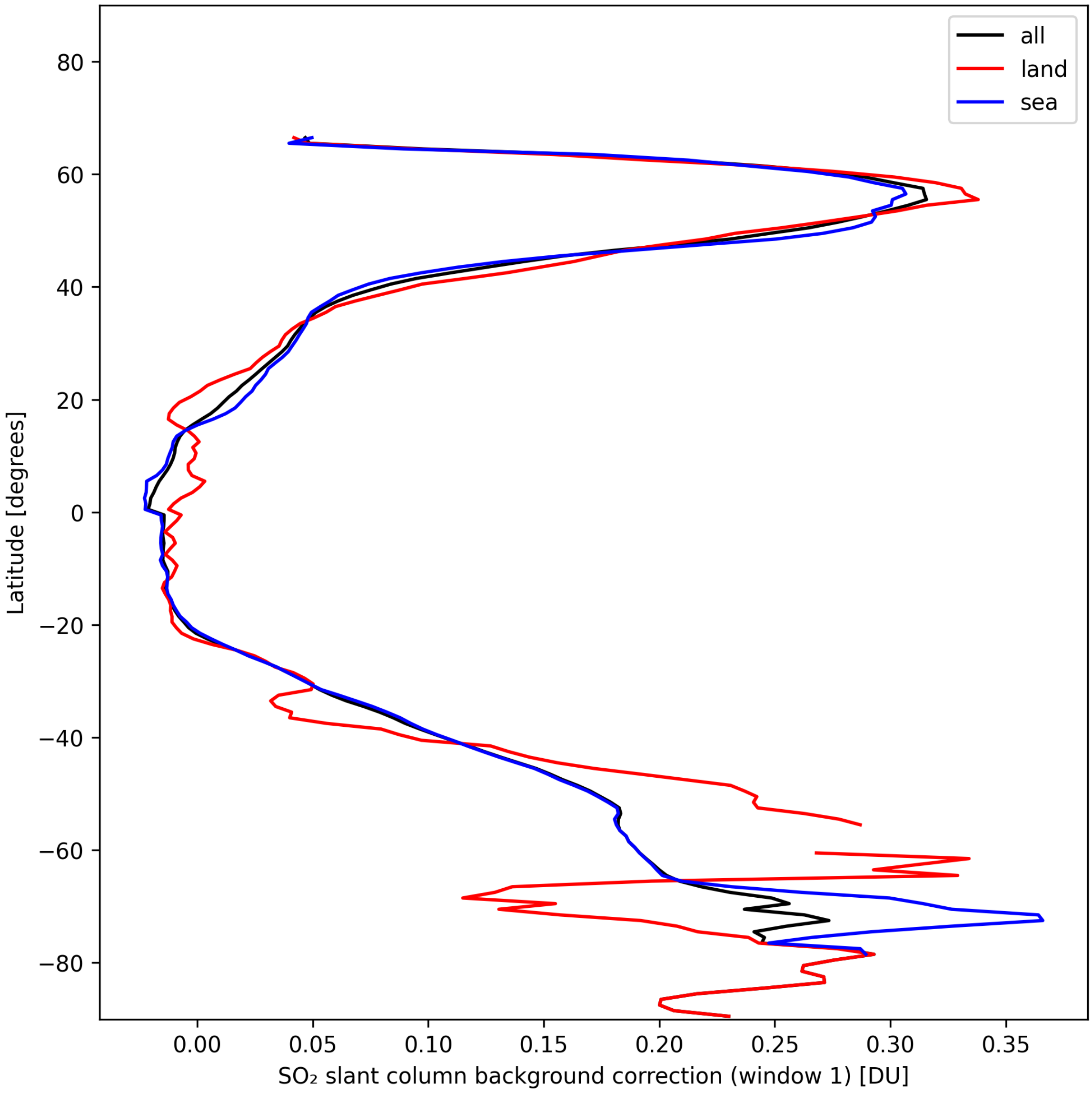


Figure 36: Zonal average of “SO_2 slant column background correction (window 1)” for 2024-11-15 to 2024-11-17.

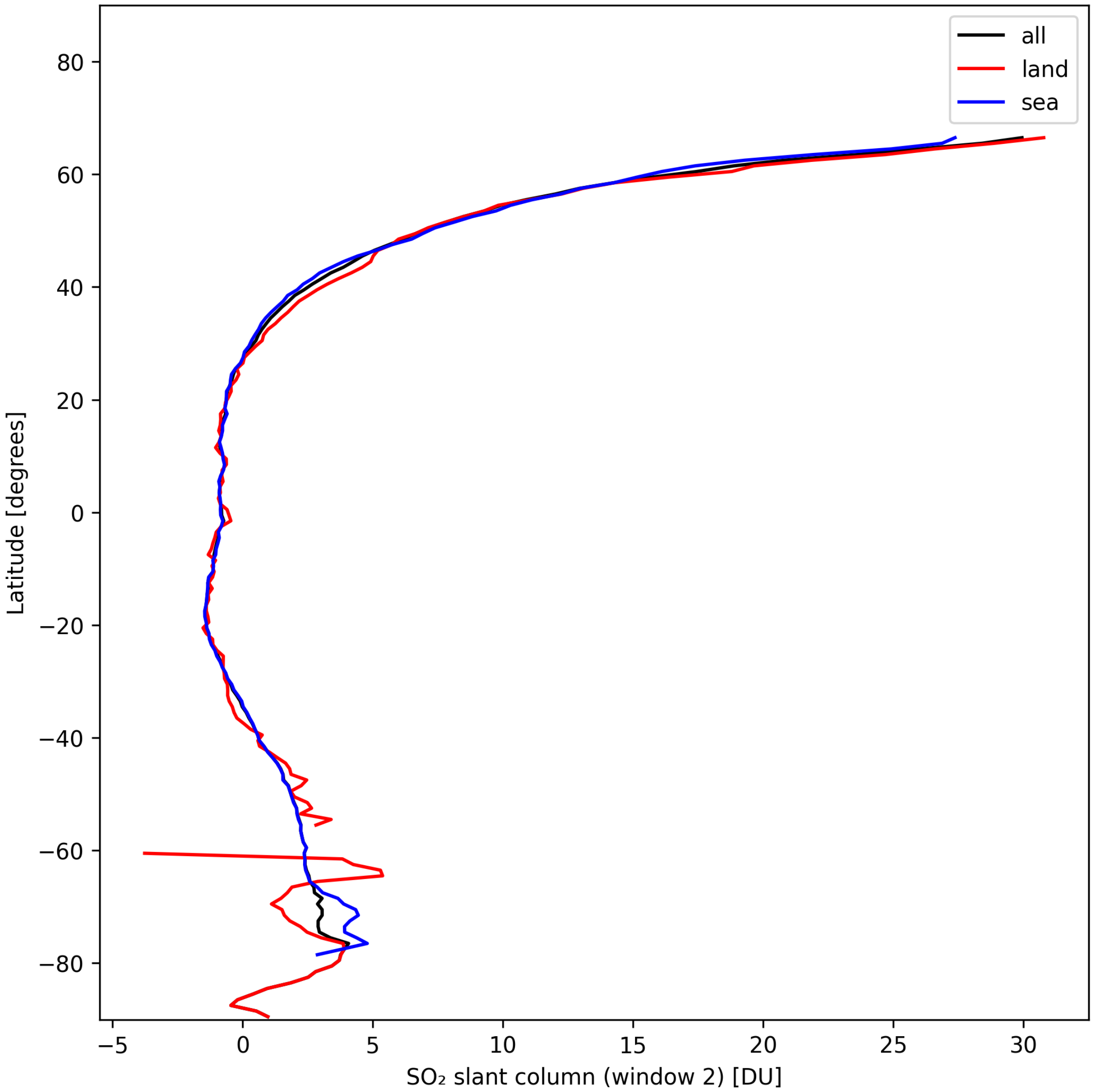


Figure 37: Zonal average of "SO_2 slant column (window 2)" for 2024-11-15 to 2024-11-17.

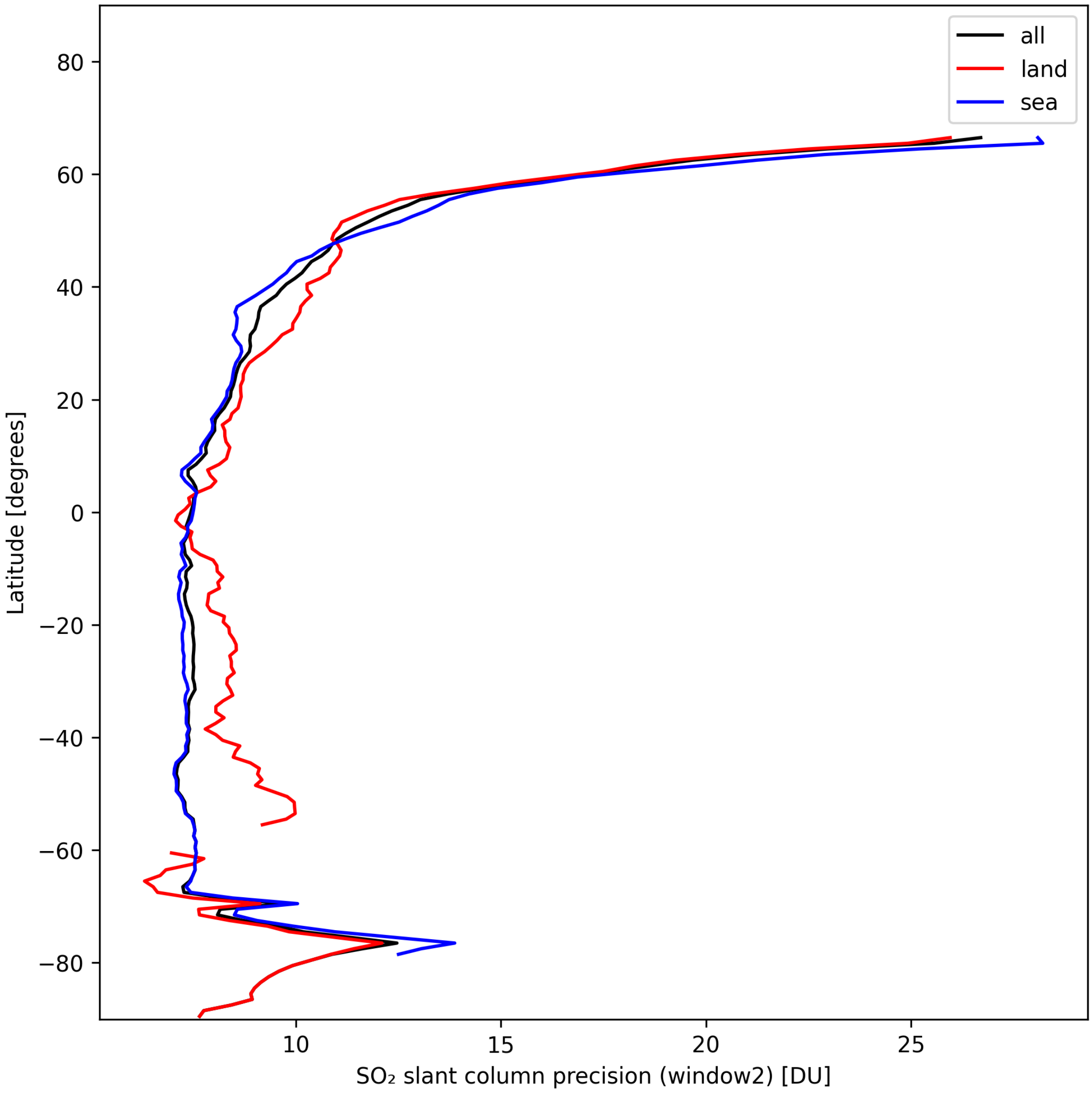


Figure 38: Zonal average of “SO_2 slant column precision (window2)” for 2024-11-15 to 2024-11-17.

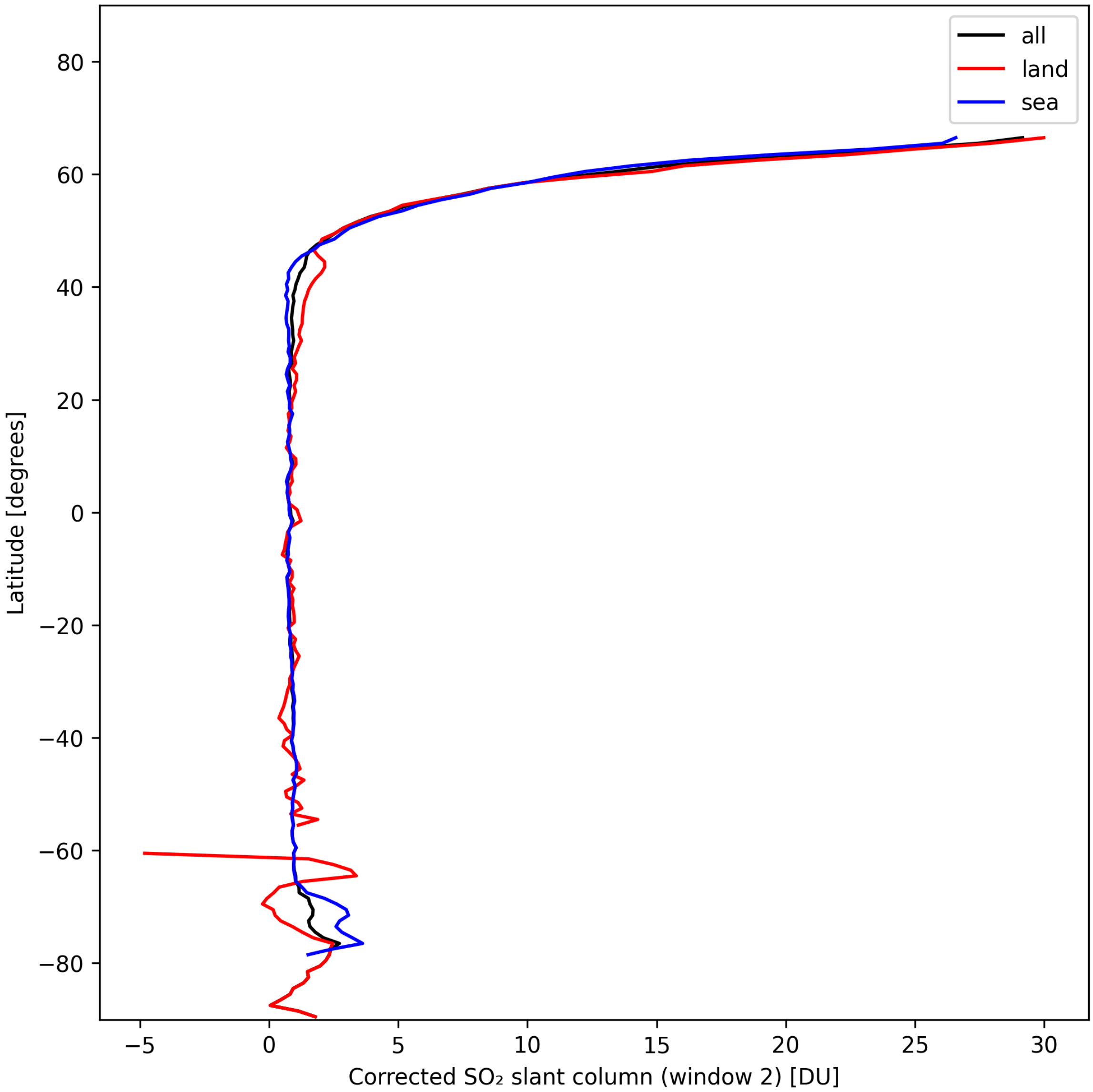


Figure 39: Zonal average of “Corrected SO_2 slant column (window 2)” for 2024-11-15 to 2024-11-17.

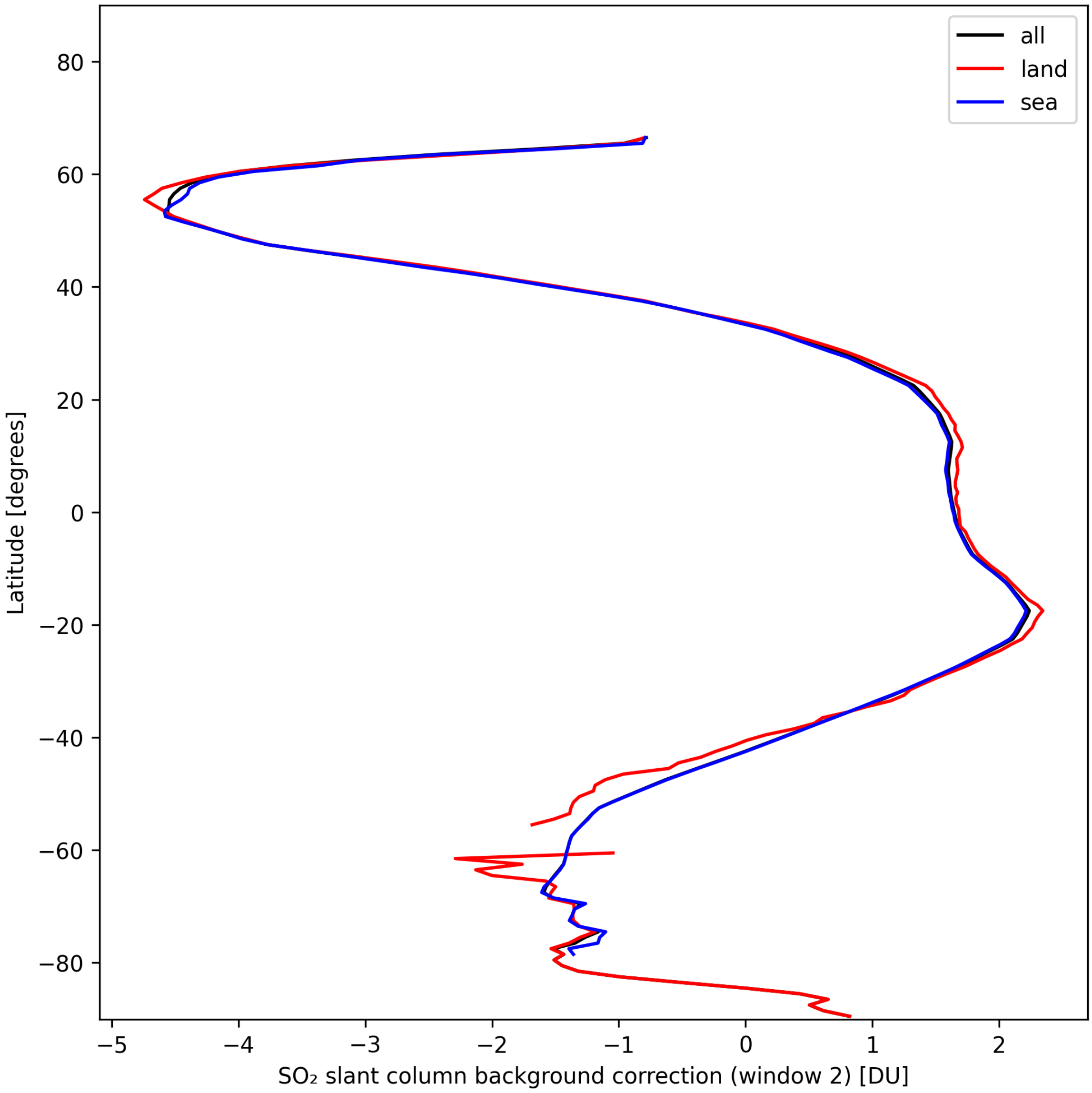


Figure 40: Zonal average of "SO_2 slant column background correction (window 2)" for 2024-11-15 to 2024-11-17.

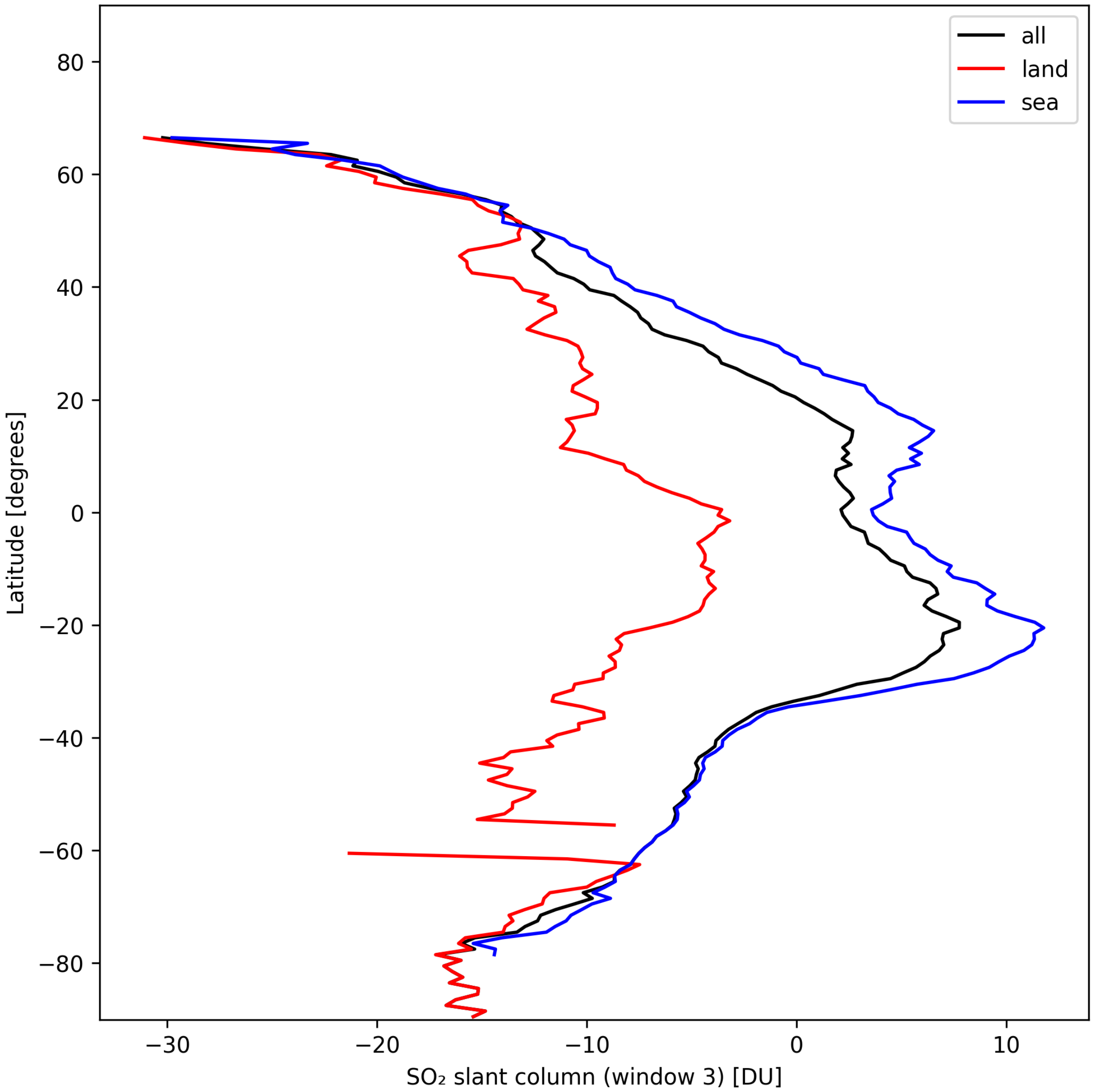


Figure 41: Zonal average of “SO_2 slant column (window 3)” for 2024-11-15 to 2024-11-17.

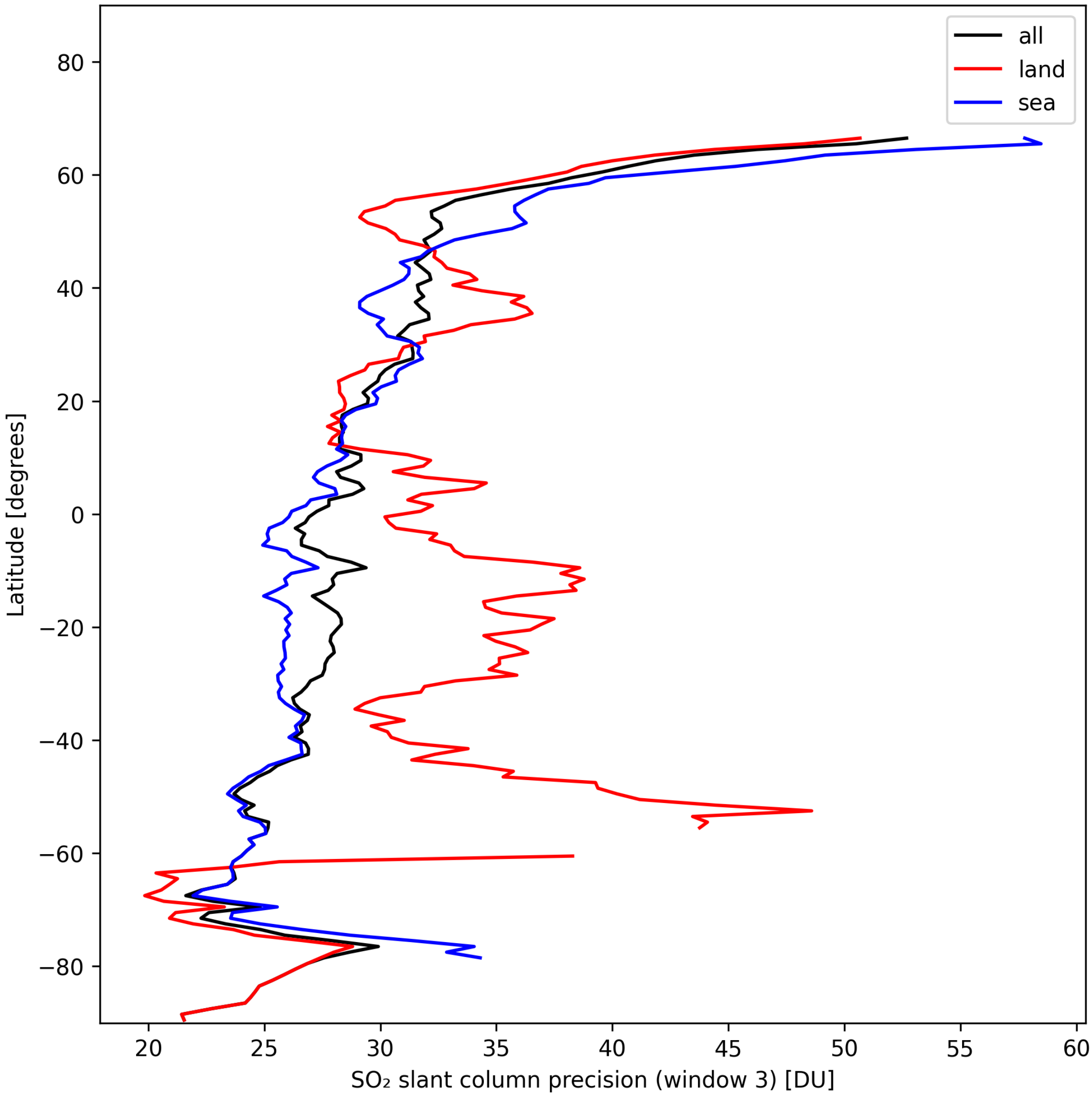


Figure 42: Zonal average of “SO_2 slant column precision (window 3)” for 2024-11-15 to 2024-11-17.

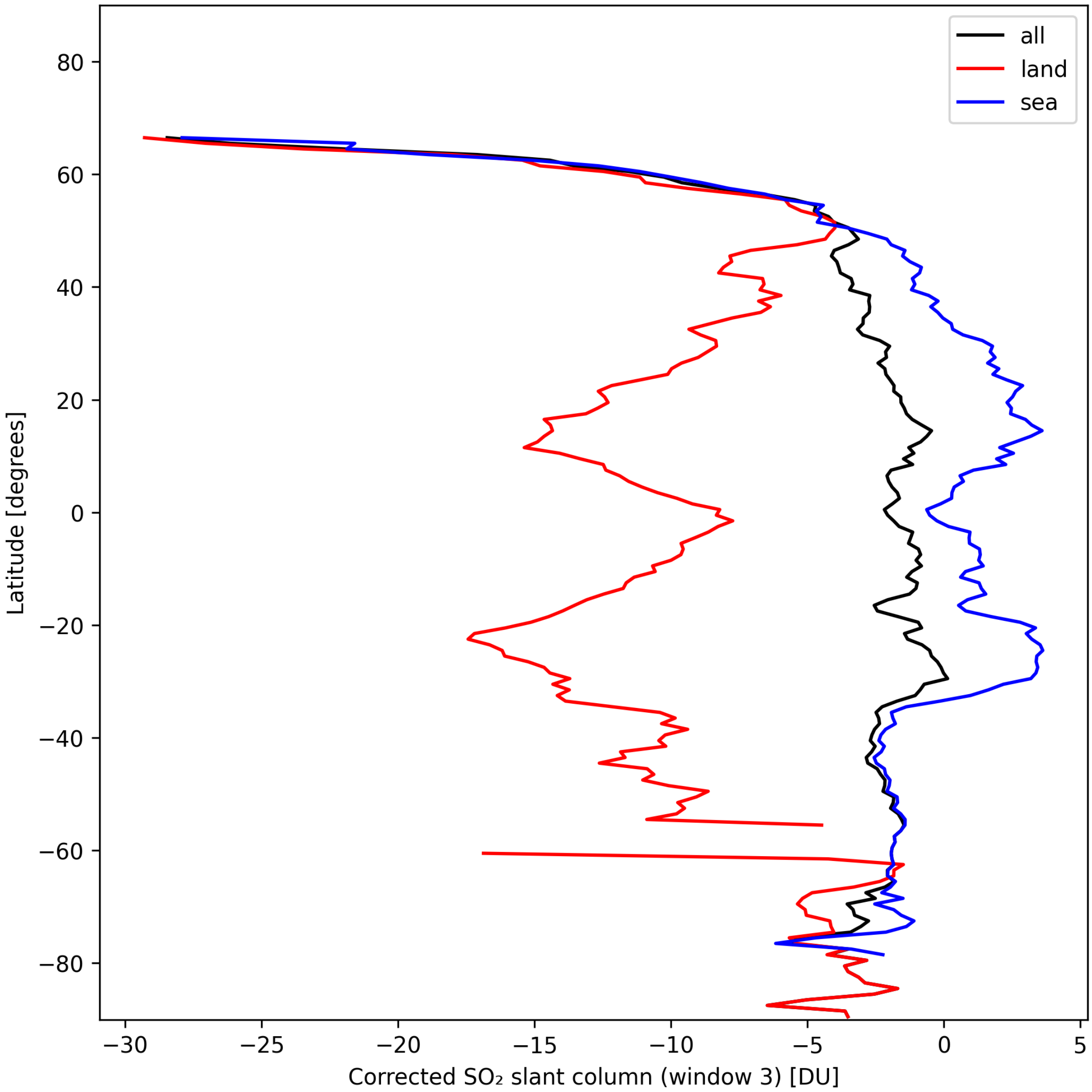


Figure 43: Zonal average of “Corrected SO_2 slant column (window 3)” for 2024-11-15 to 2024-11-17.

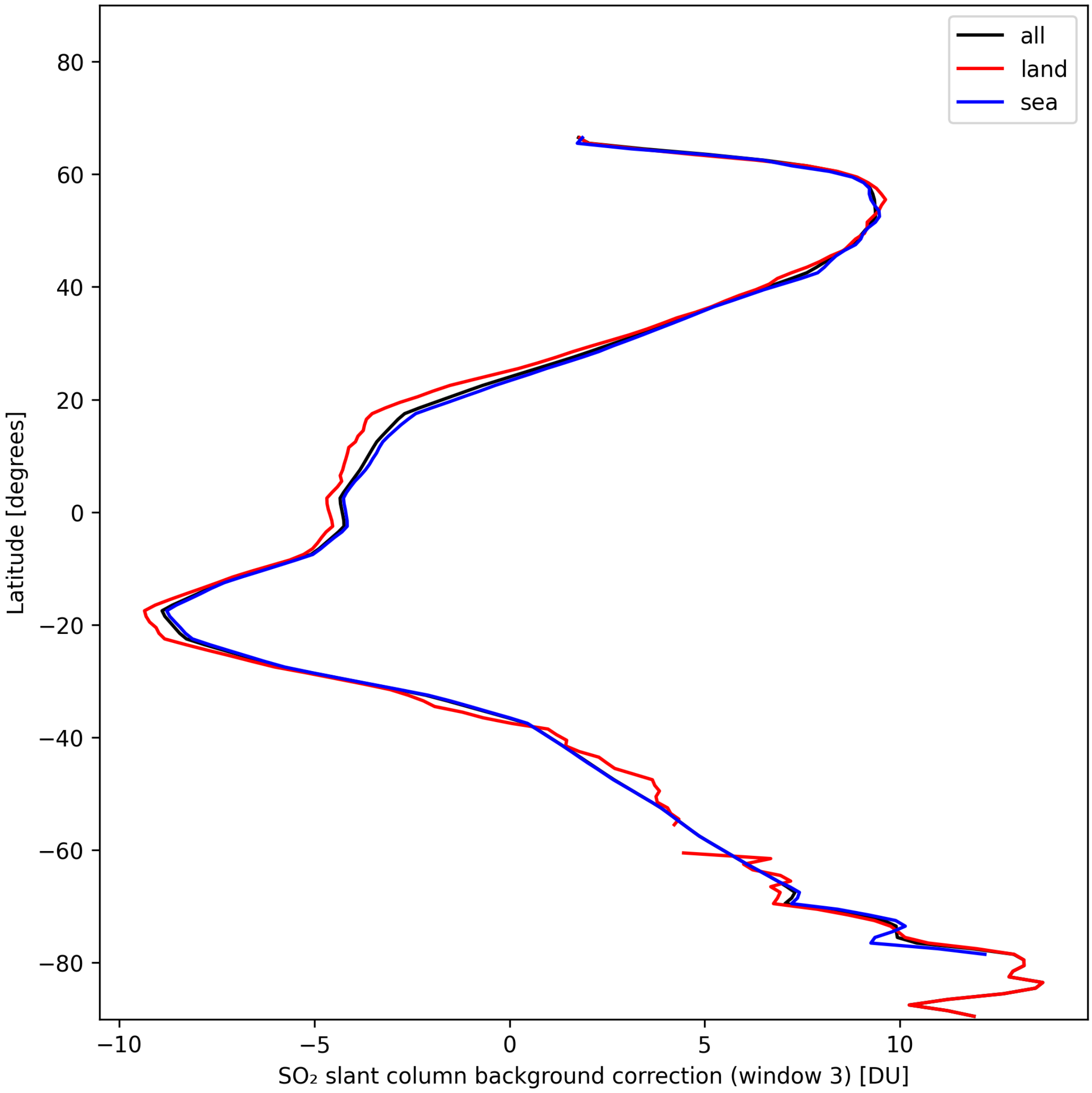


Figure 44: Zonal average of “SO_2 slant column background correction (window 3)” for 2024-11-15 to 2024-11-17.

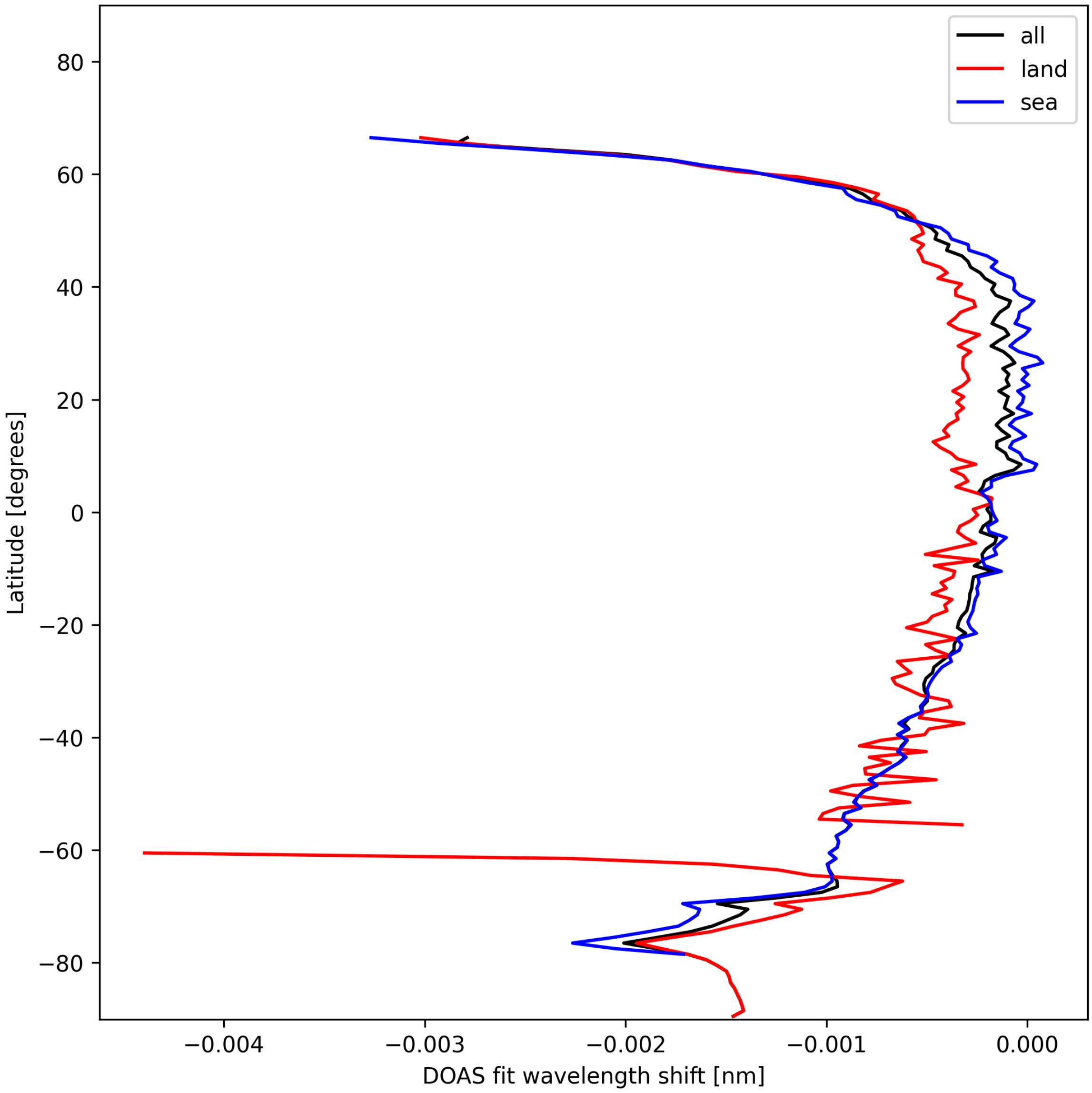


Figure 45: Zonal average of "DOAS fit wavelength shift" for 2024-11-15 to 2024-11-17.

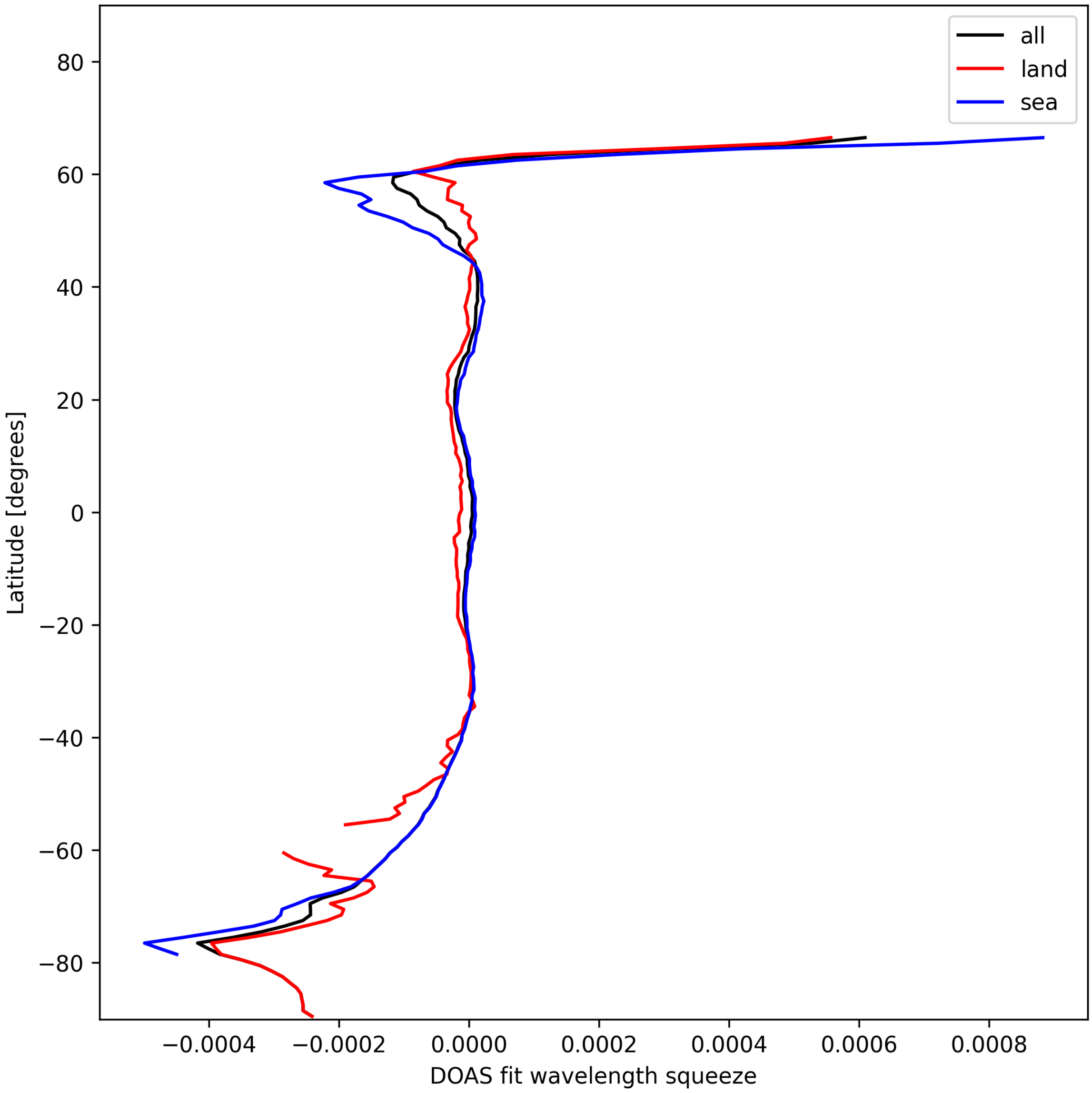


Figure 46: Zonal average of “DOAS fit wavelength squeeze” for 2024-11-15 to 2024-11-17.

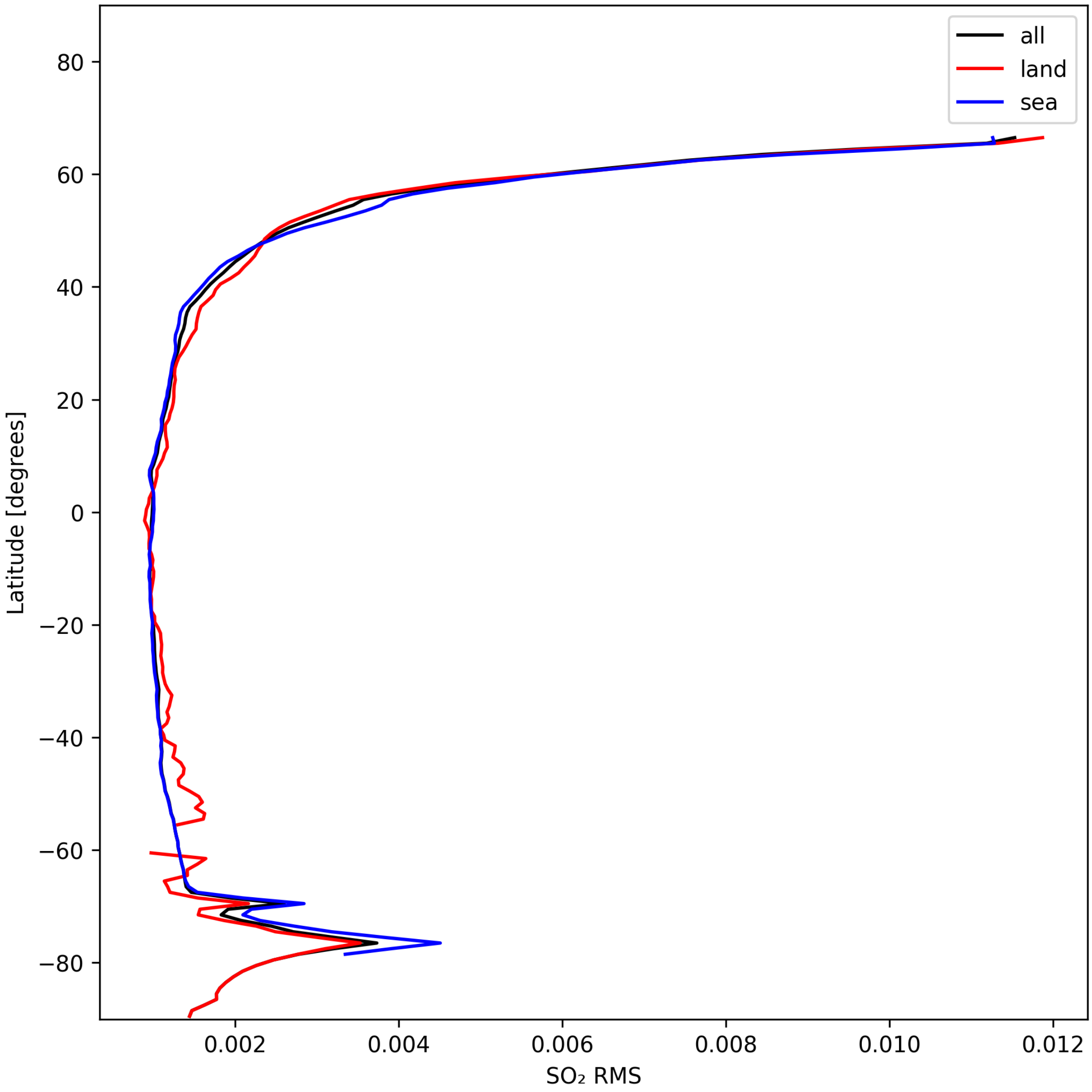


Figure 47: Zonal average of "SO_2 RMS" for 2024-11-15 to 2024-11-17.

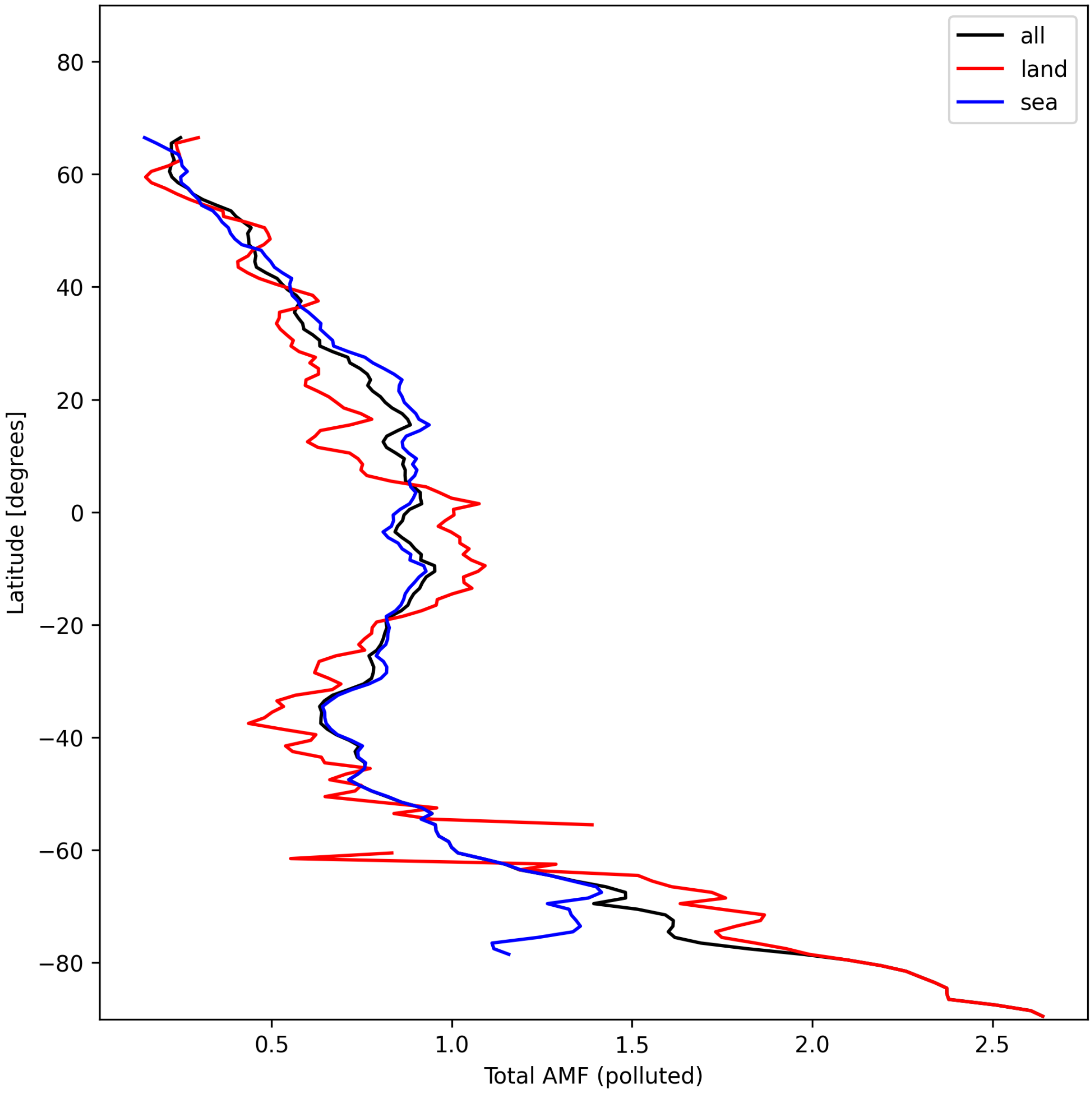


Figure 48: Zonal average of “Total AMF (polluted)” for 2024-11-15 to 2024-11-17.

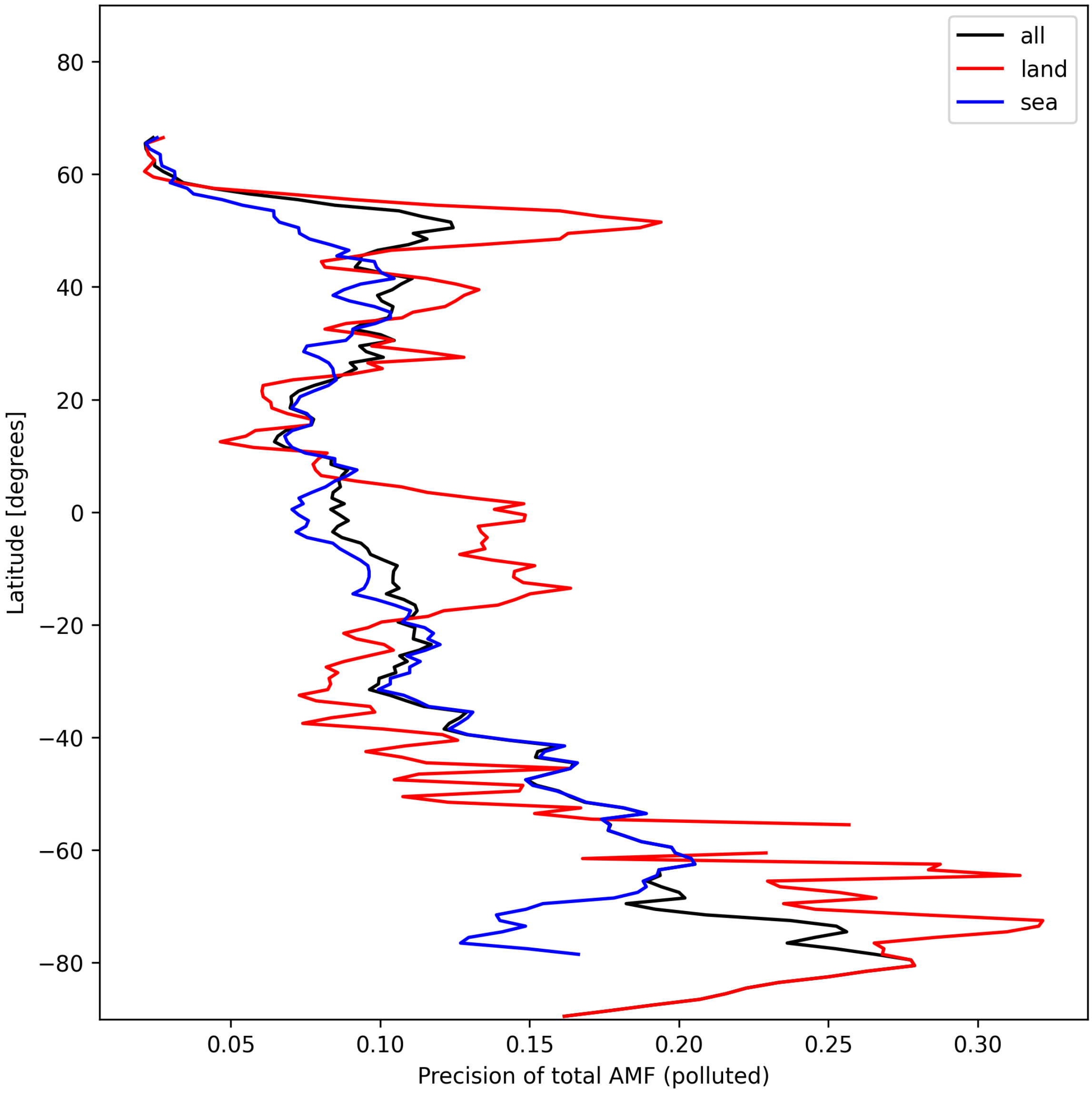


Figure 49: Zonal average of “Precision of total AMF (polluted)” for 2024-11-15 to 2024-11-17.

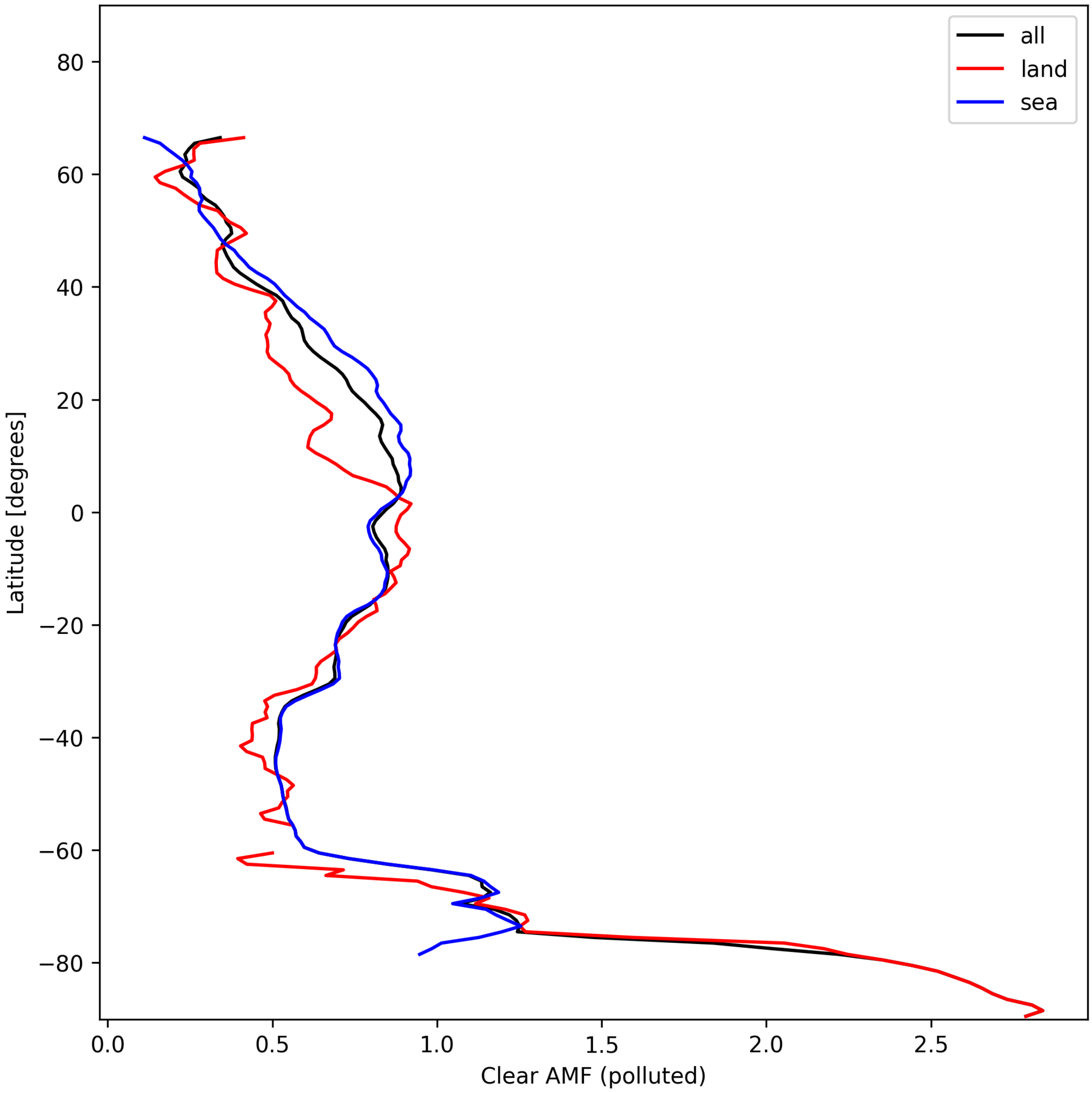


Figure 50: Zonal average of “Clear AMF (polluted)” for 2024-11-15 to 2024-11-17.

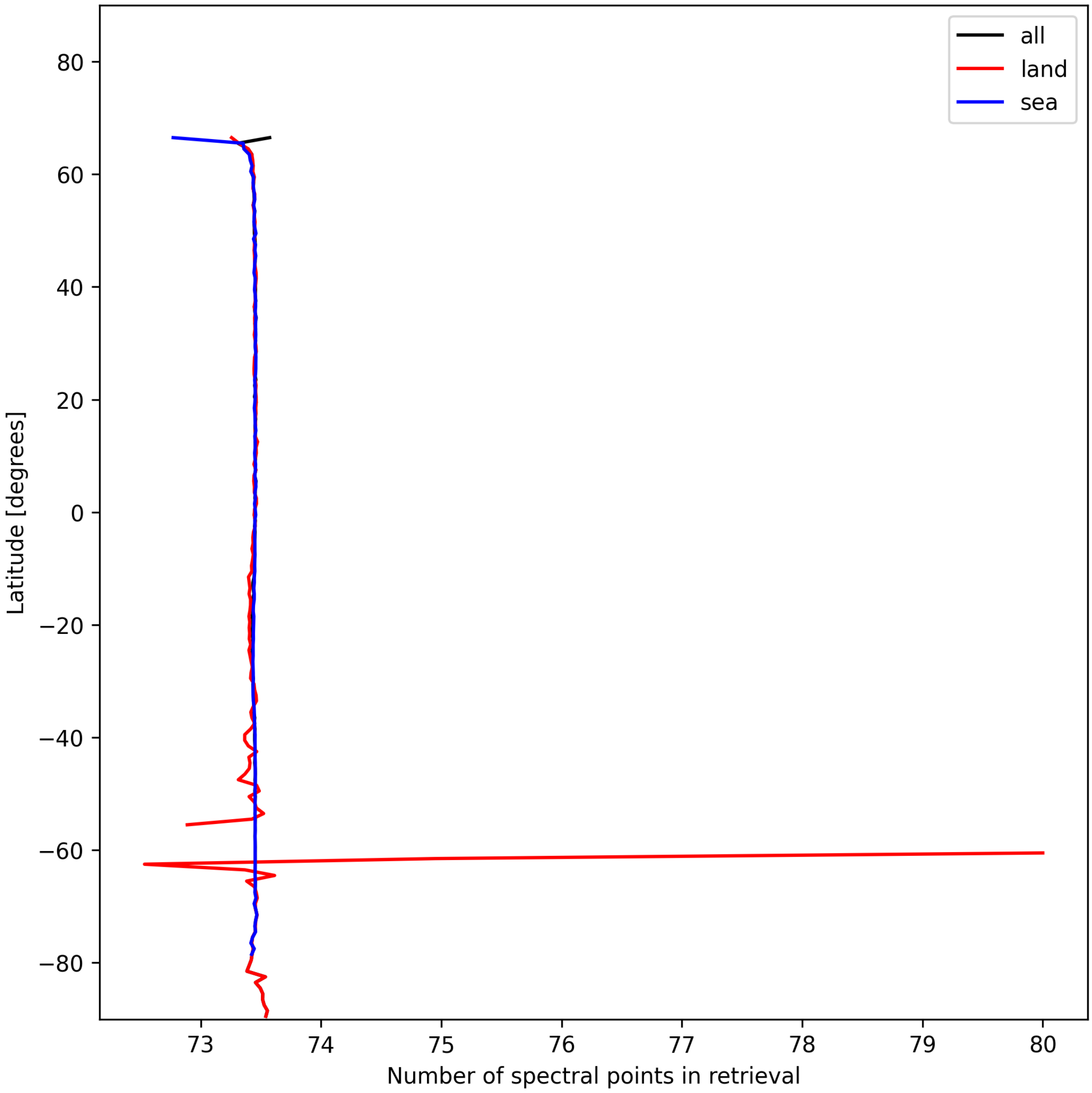


Figure 51: Zonal average of “Number of spectral points in retrieval” for 2024-11-15 to 2024-11-17.

8 Histograms

The definitions of the parameters given in this section can be found in section 2.

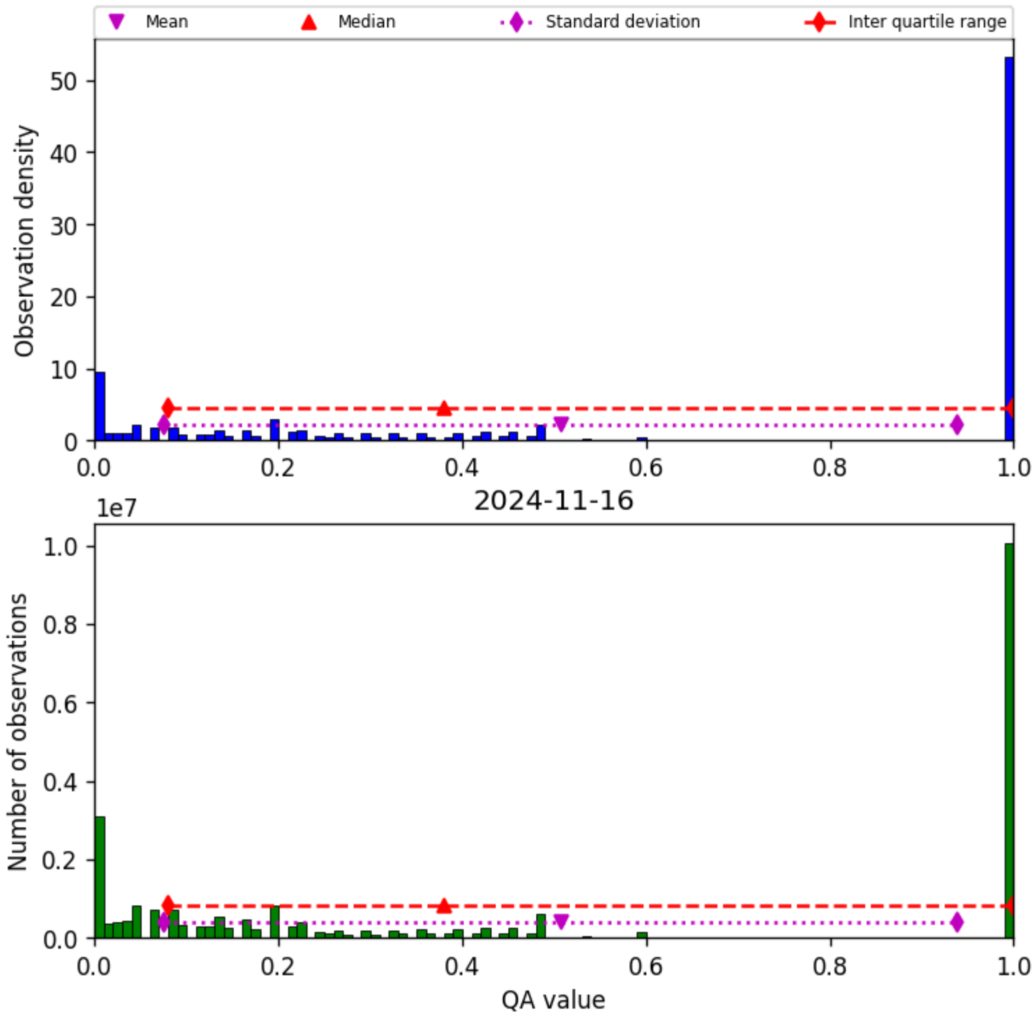


Figure 52: Histogram of “QA value” for 2024-11-15 to 2024-11-17

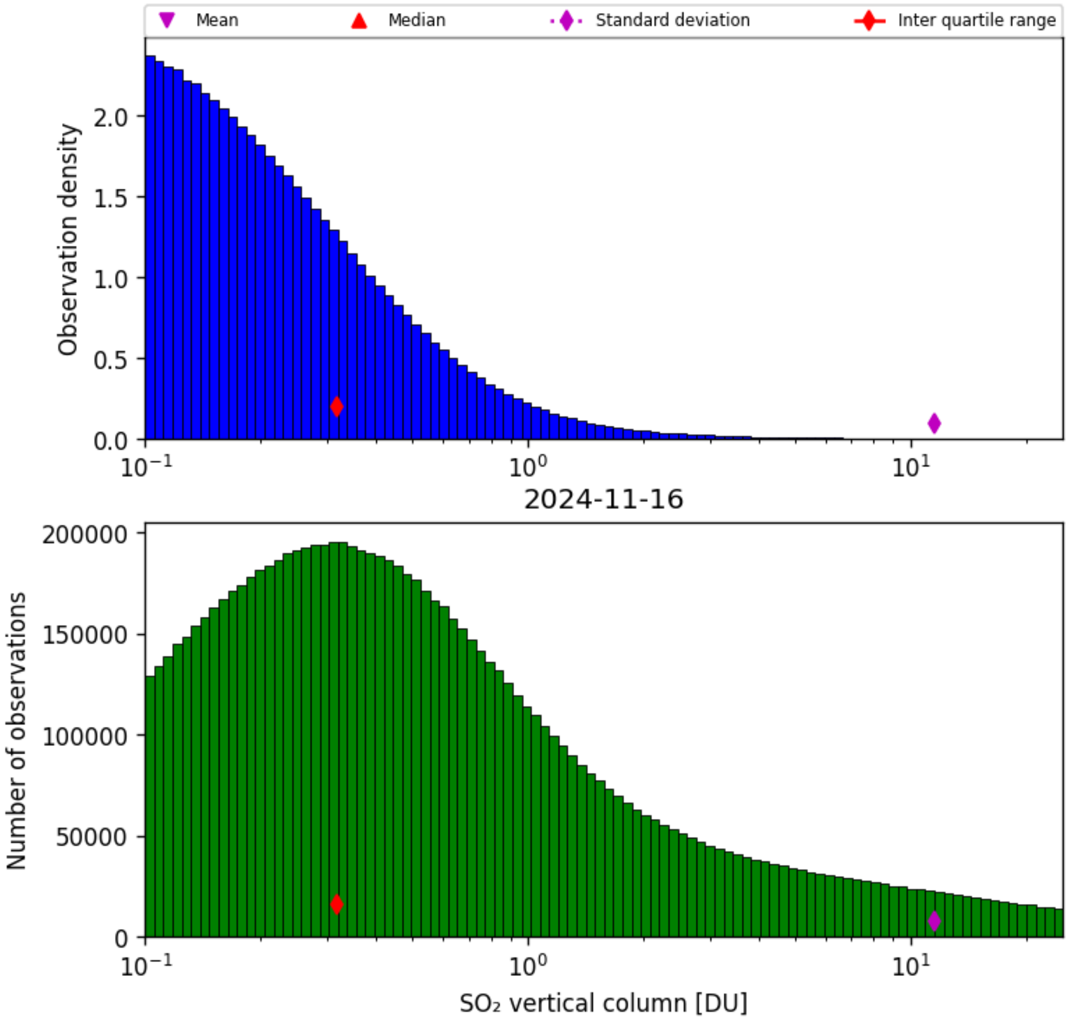


Figure 53: Histogram of “SO_2 vertical column” for 2024-11-15 to 2024-11-17

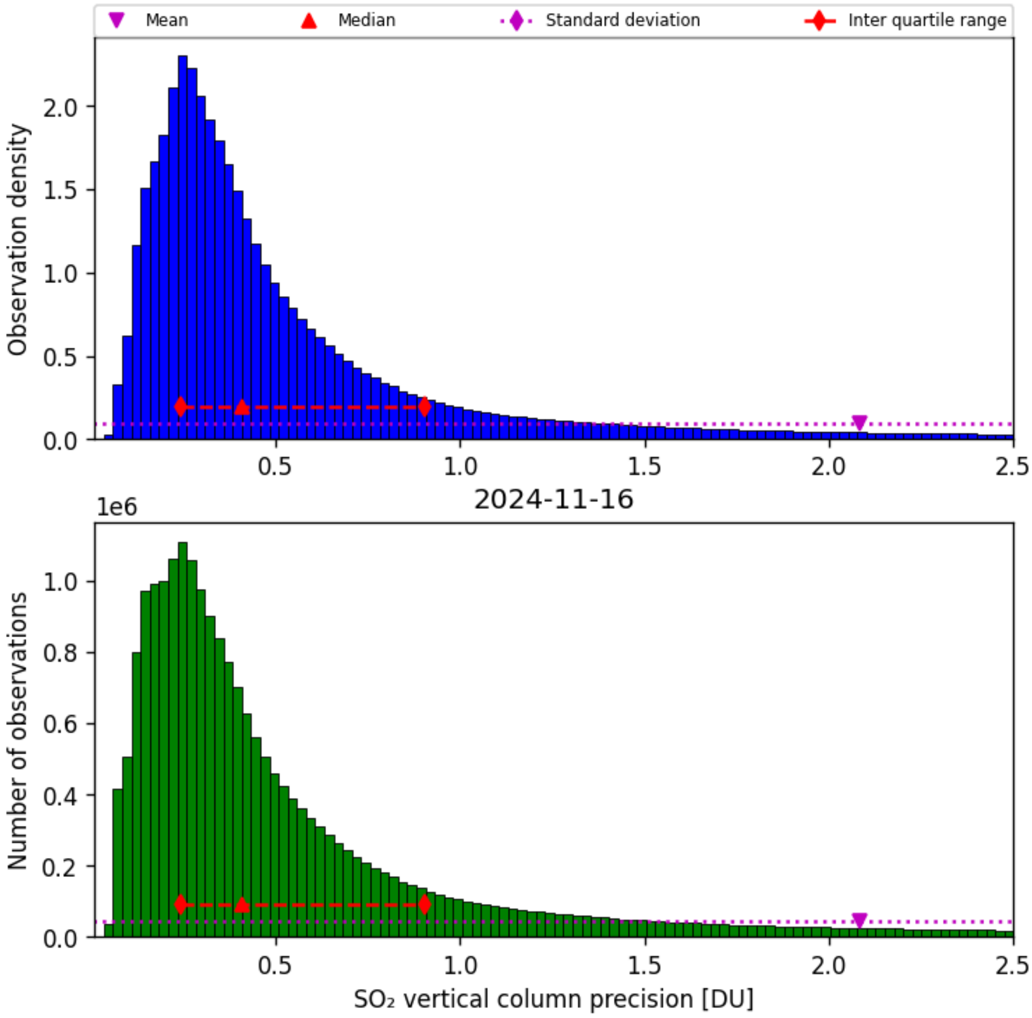


Figure 54: Histogram of “SO_2 vertical column precision” for 2024-11-15 to 2024-11-17

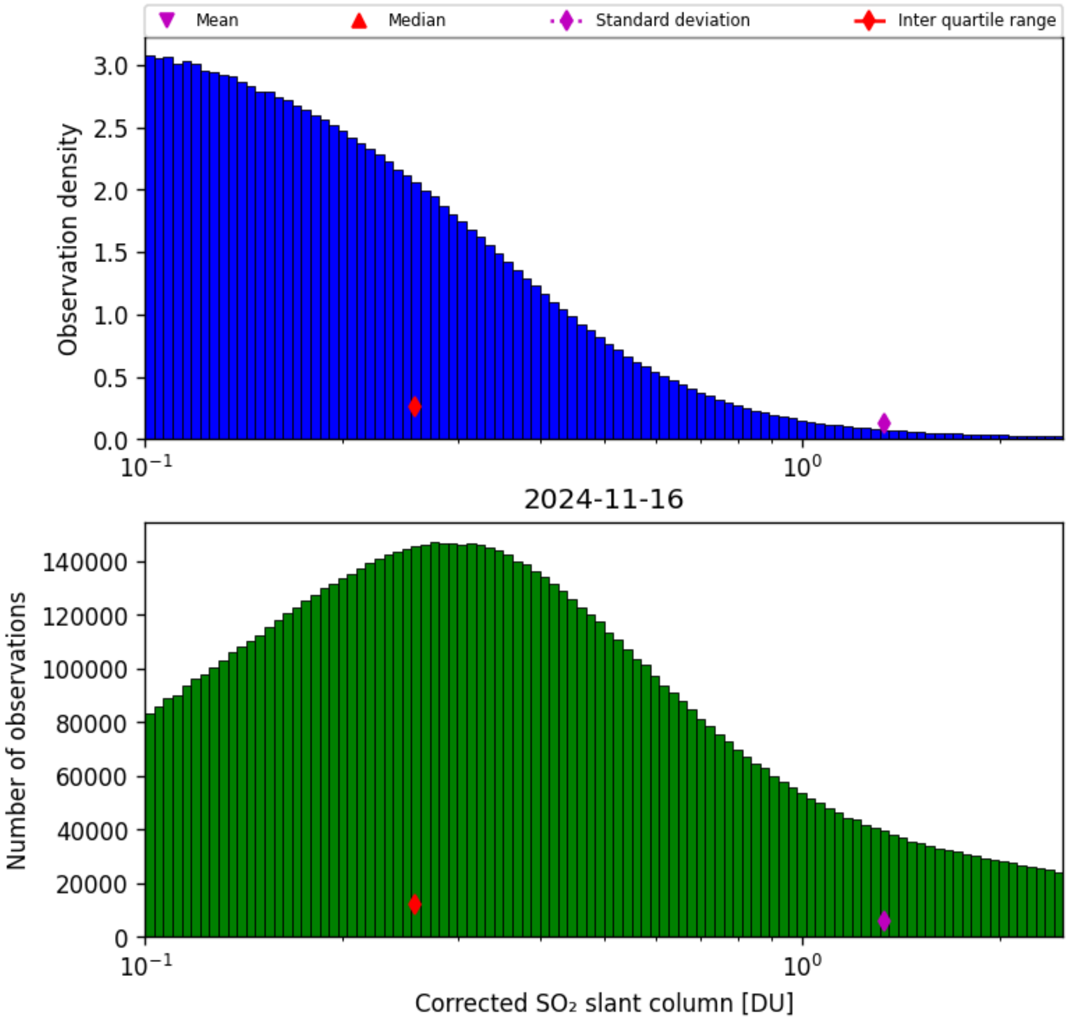


Figure 55: Histogram of “Corrected SO_2 slant column” for 2024-11-15 to 2024-11-17

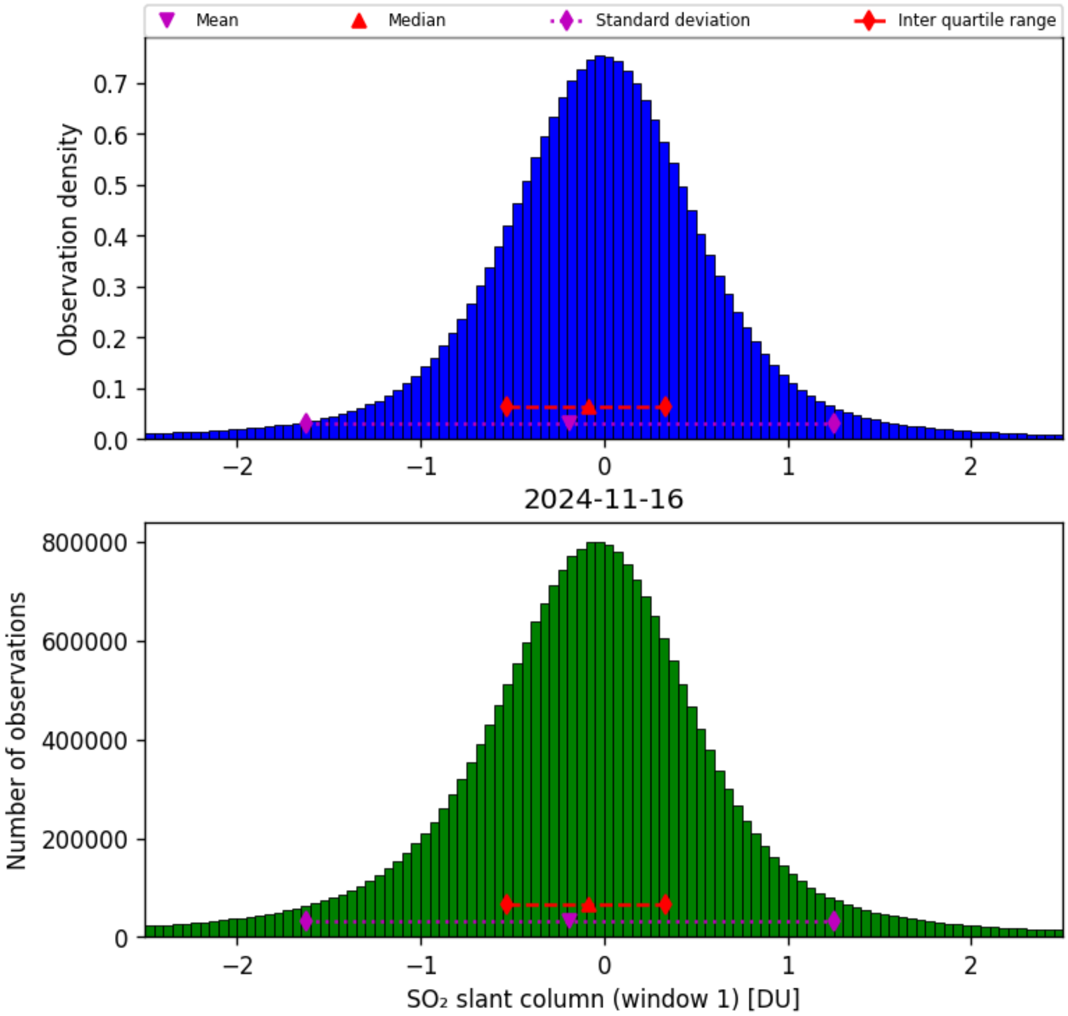


Figure 56: Histogram of "SO_2 slant column (window 1)" for 2024-11-15 to 2024-11-17

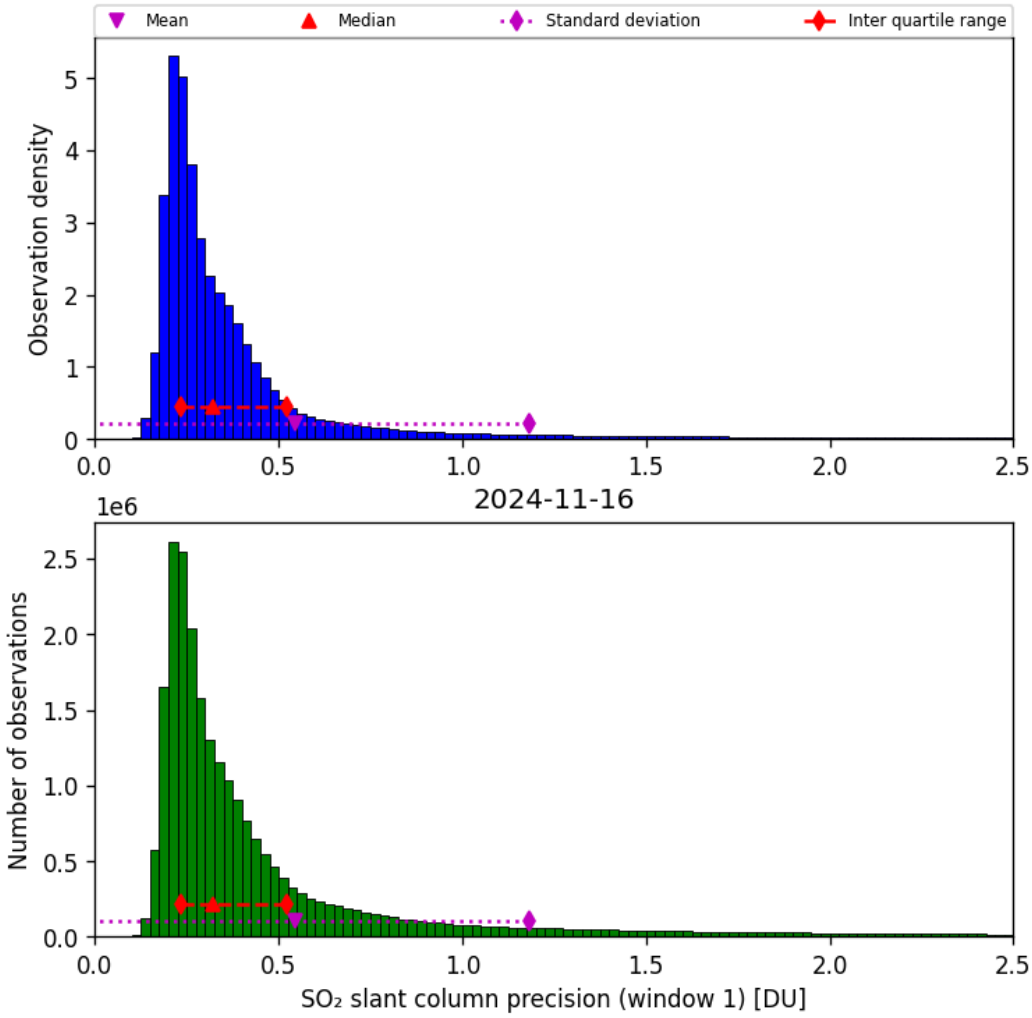


Figure 57: Histogram of “SO_2 slant column precision (window 1)” for 2024-11-15 to 2024-11-17

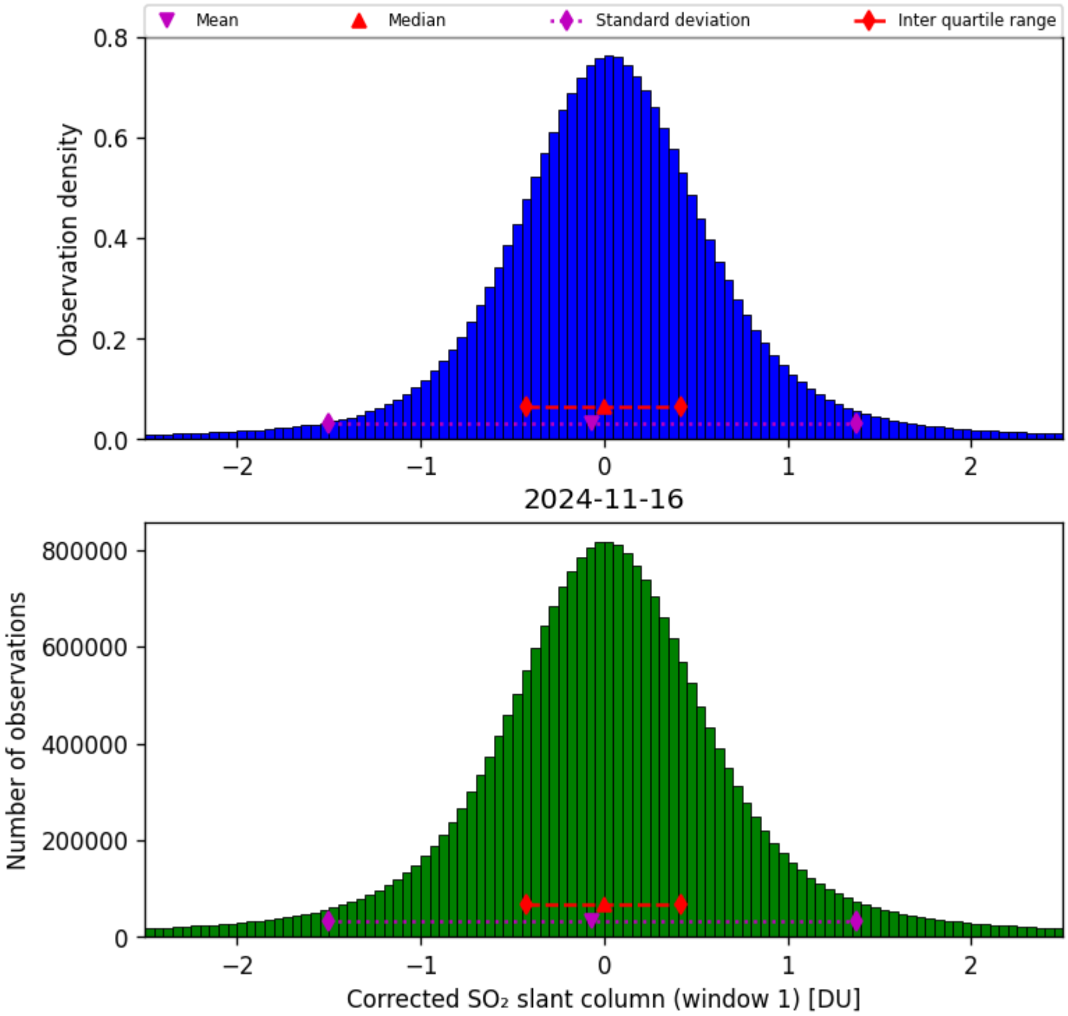


Figure 58: Histogram of “Corrected SO_2 slant column (window 1)” for 2024-11-15 to 2024-11-17

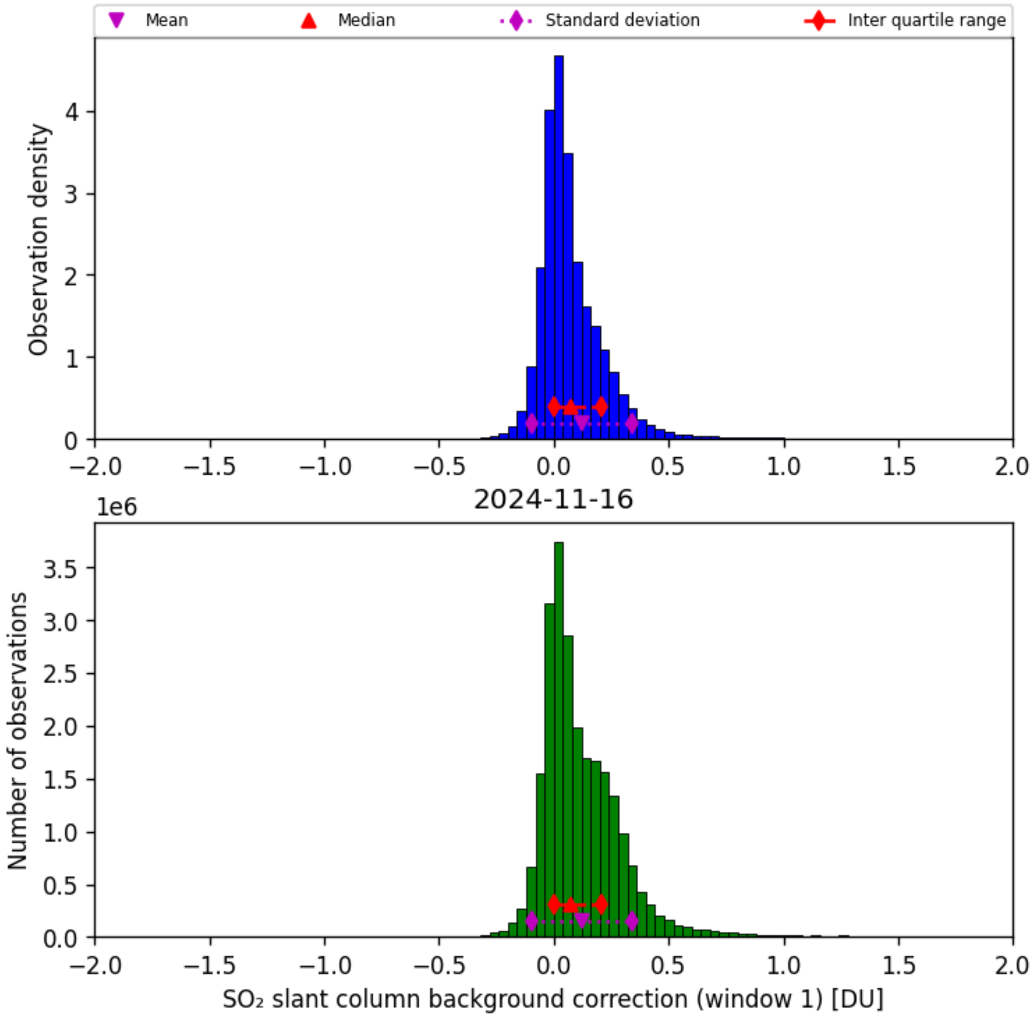


Figure 59: Histogram of "SO_2 slant column background correction (window 1)" for 2024-11-15 to 2024-11-17

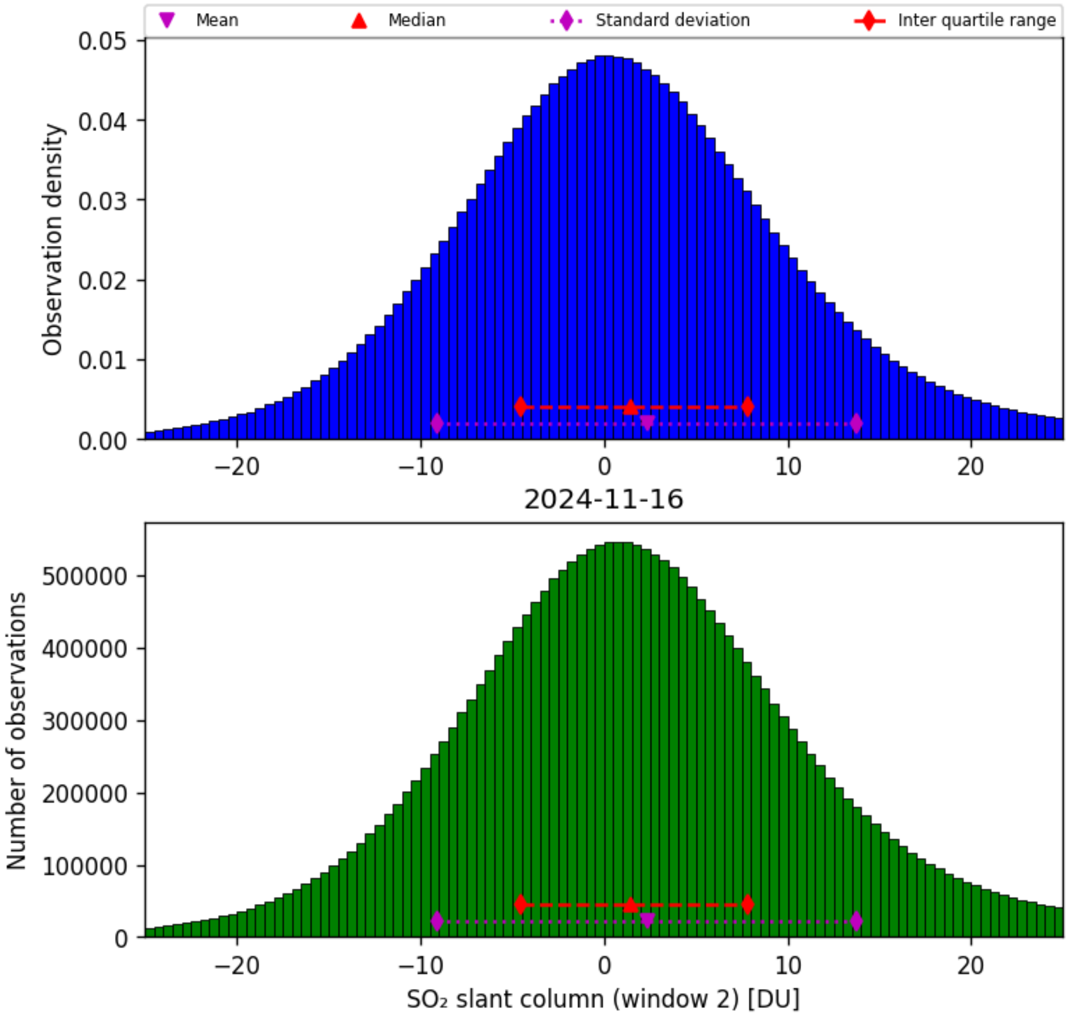


Figure 60: Histogram of "SO_2 slant column (window 2)" for 2024-11-15 to 2024-11-17

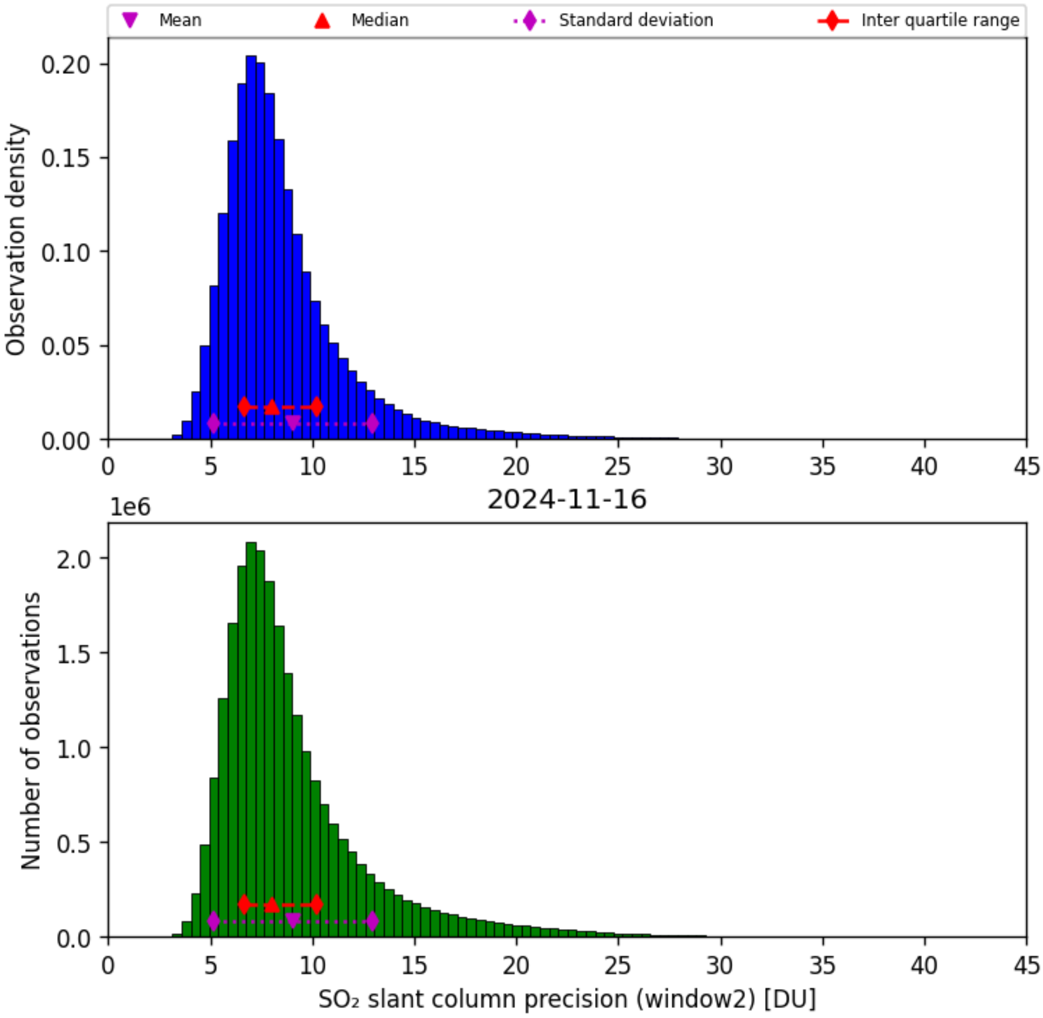


Figure 61: Histogram of "SO_2 slant column precision (window2)" for 2024-11-15 to 2024-11-17

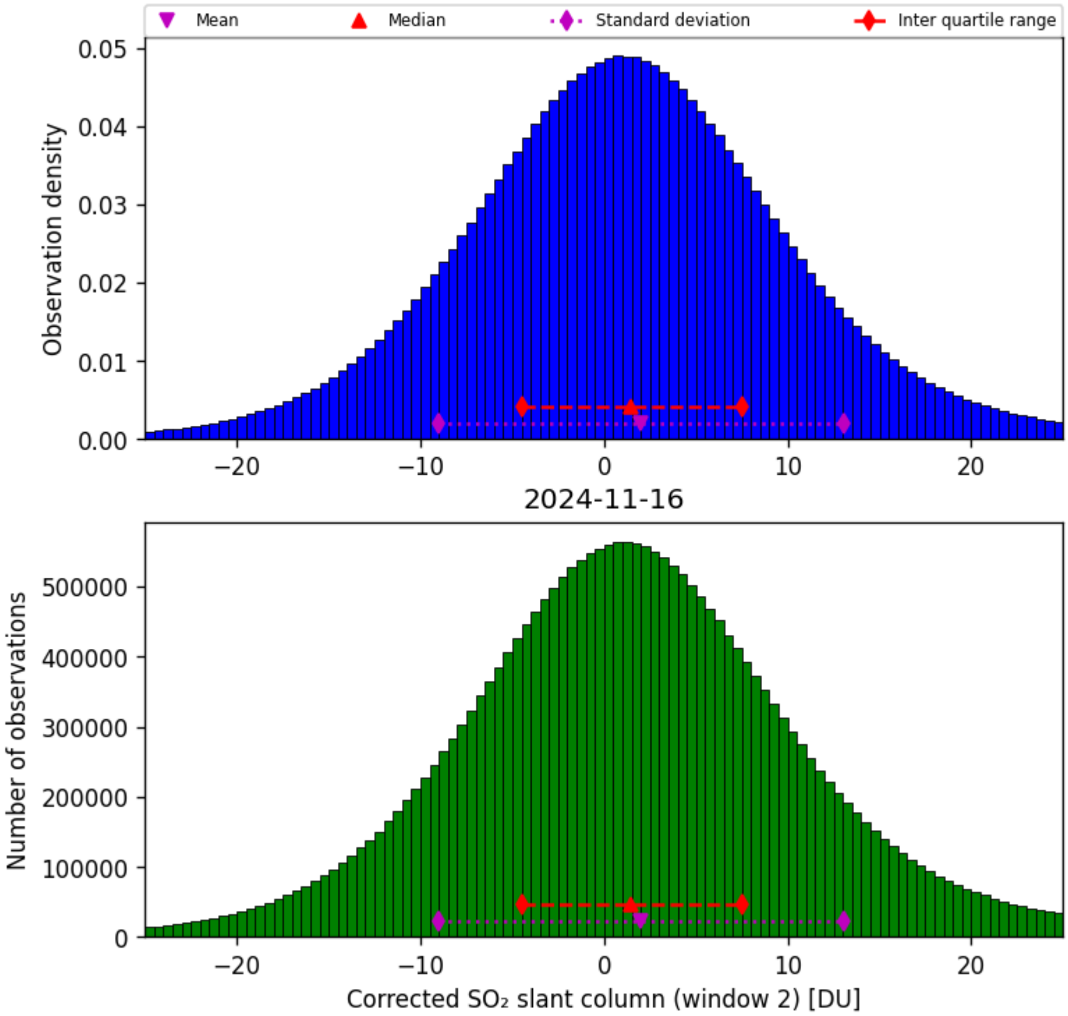


Figure 62: Histogram of "Corrected SO_2 slant column (window 2)" for 2024-11-15 to 2024-11-17

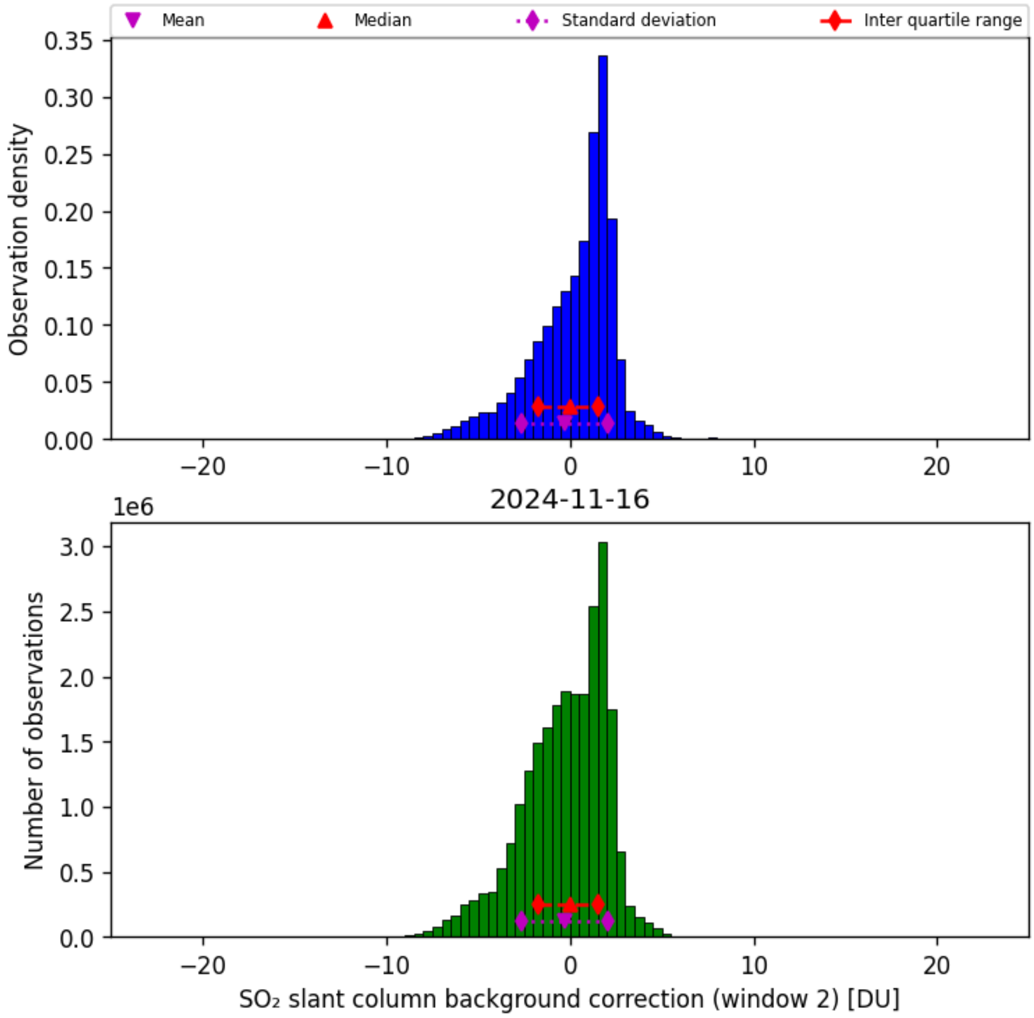


Figure 63: Histogram of "SO_2 slant column background correction (window 2)" for 2024-11-15 to 2024-11-17

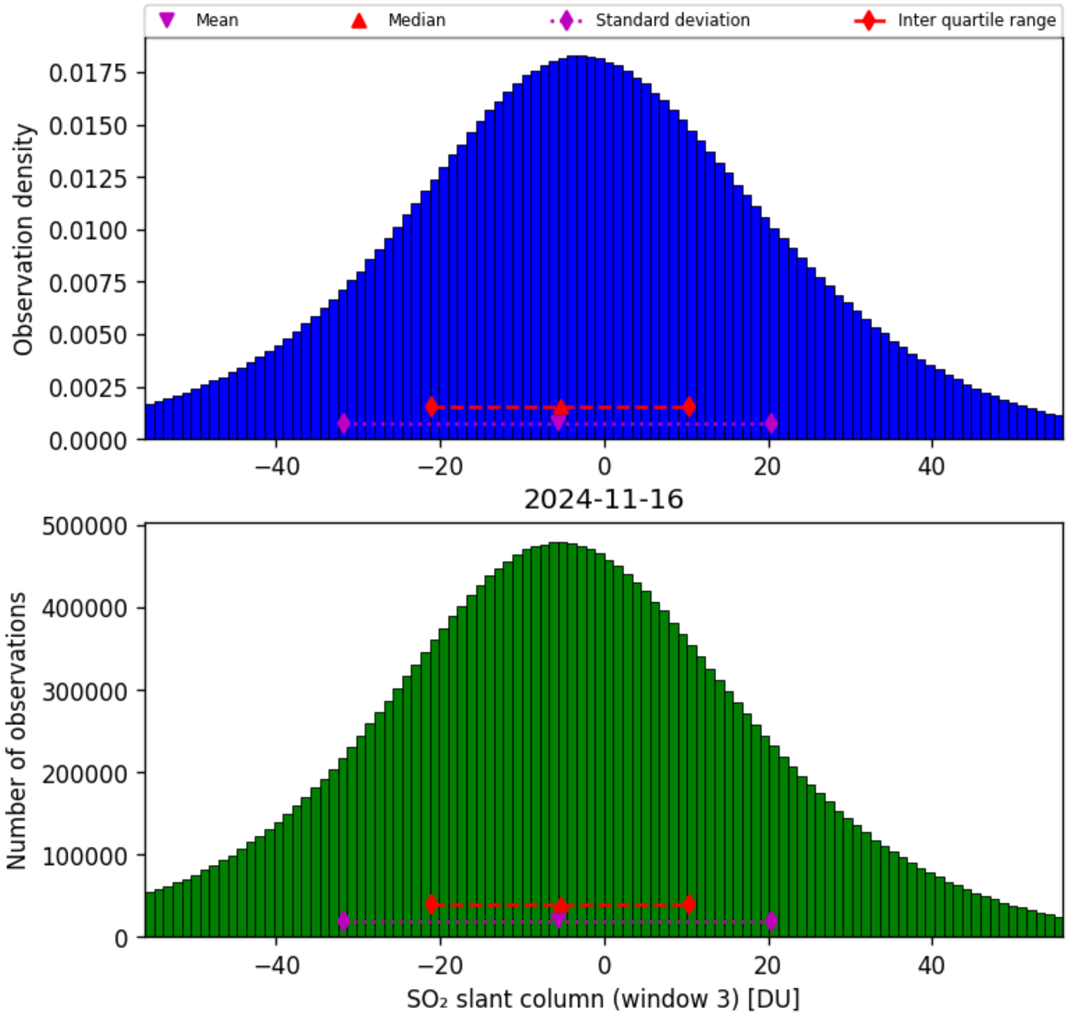


Figure 64: Histogram of "SO_2 slant column (window 3)" for 2024-11-15 to 2024-11-17

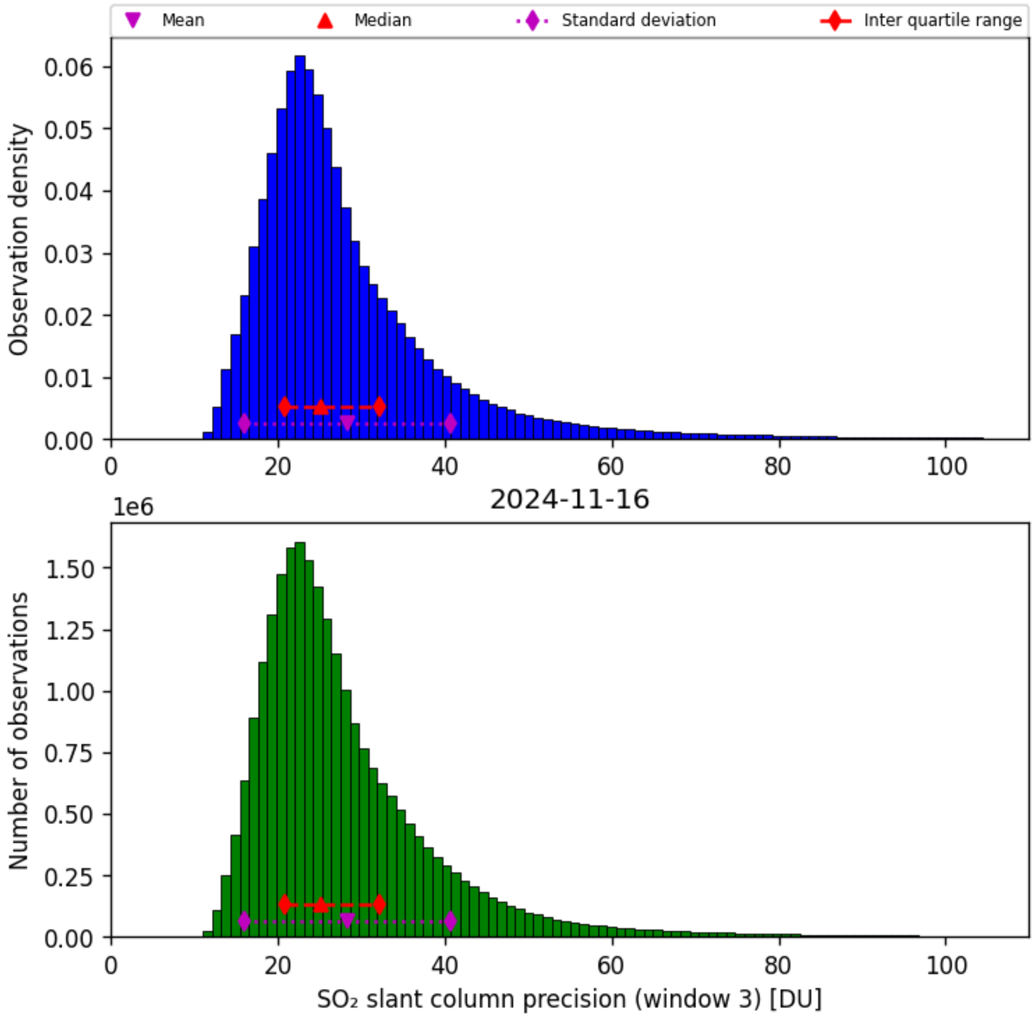


Figure 65: Histogram of "SO_2 slant column precision (window 3)" for 2024-11-15 to 2024-11-17

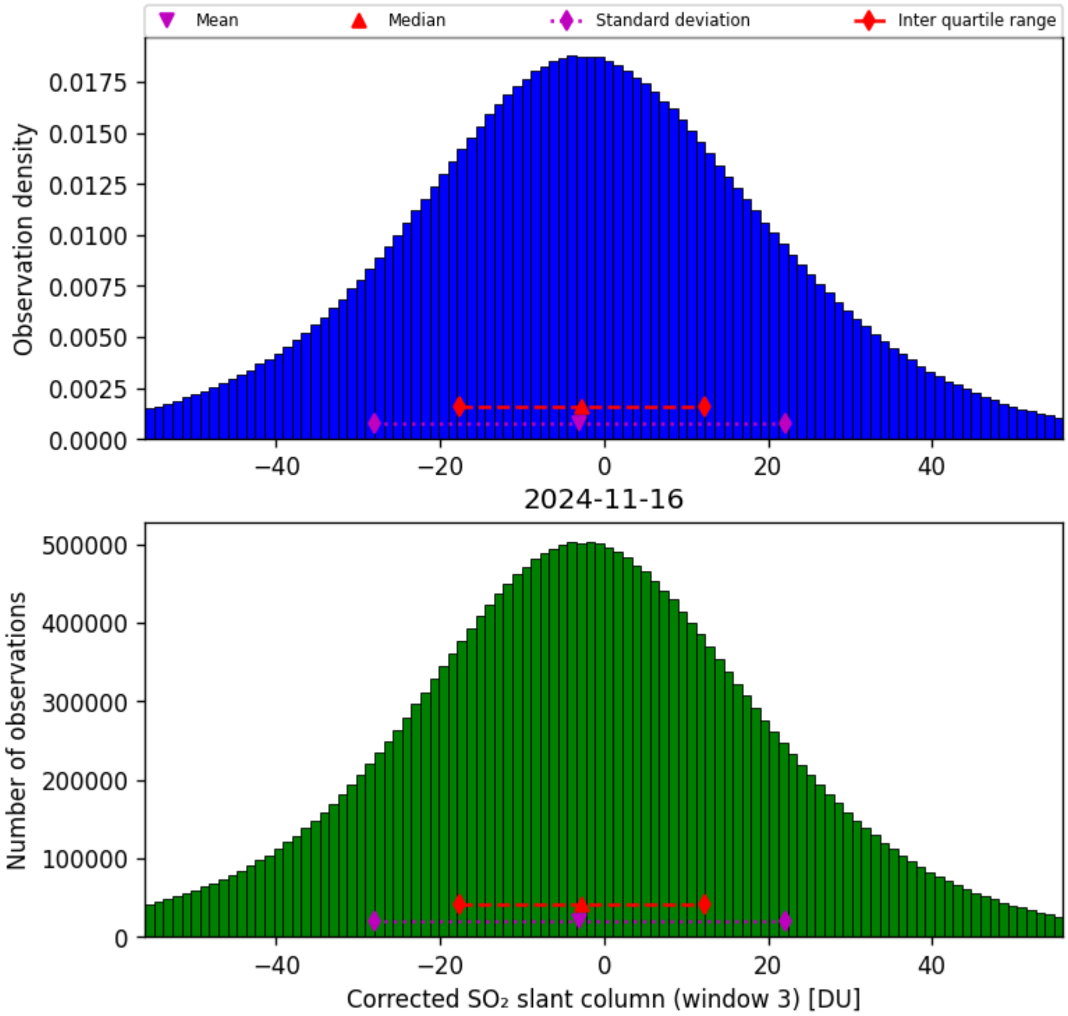


Figure 66: Histogram of “Corrected SO_2 slant column (window 3)” for 2024-11-15 to 2024-11-17

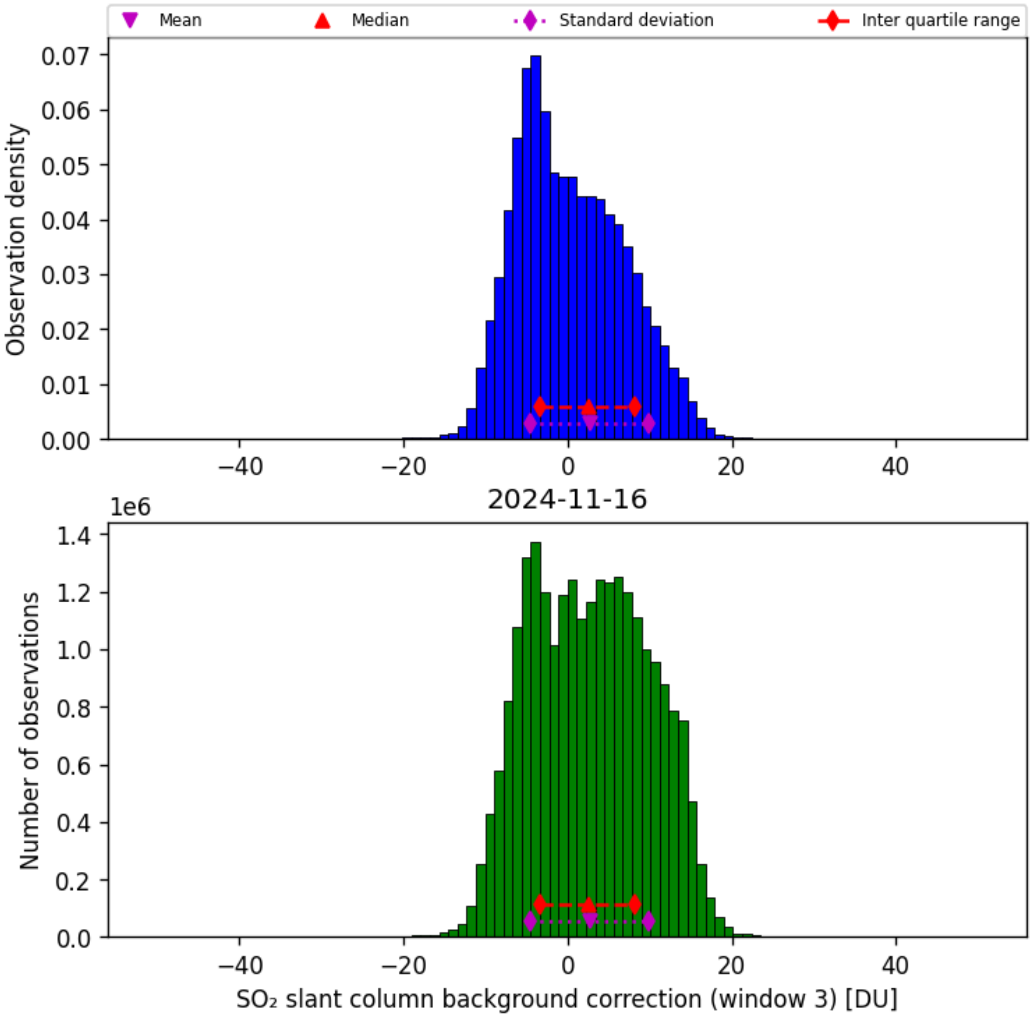


Figure 67: Histogram of “SO_2 slant column background correction (window 3)” for 2024-11-15 to 2024-11-17

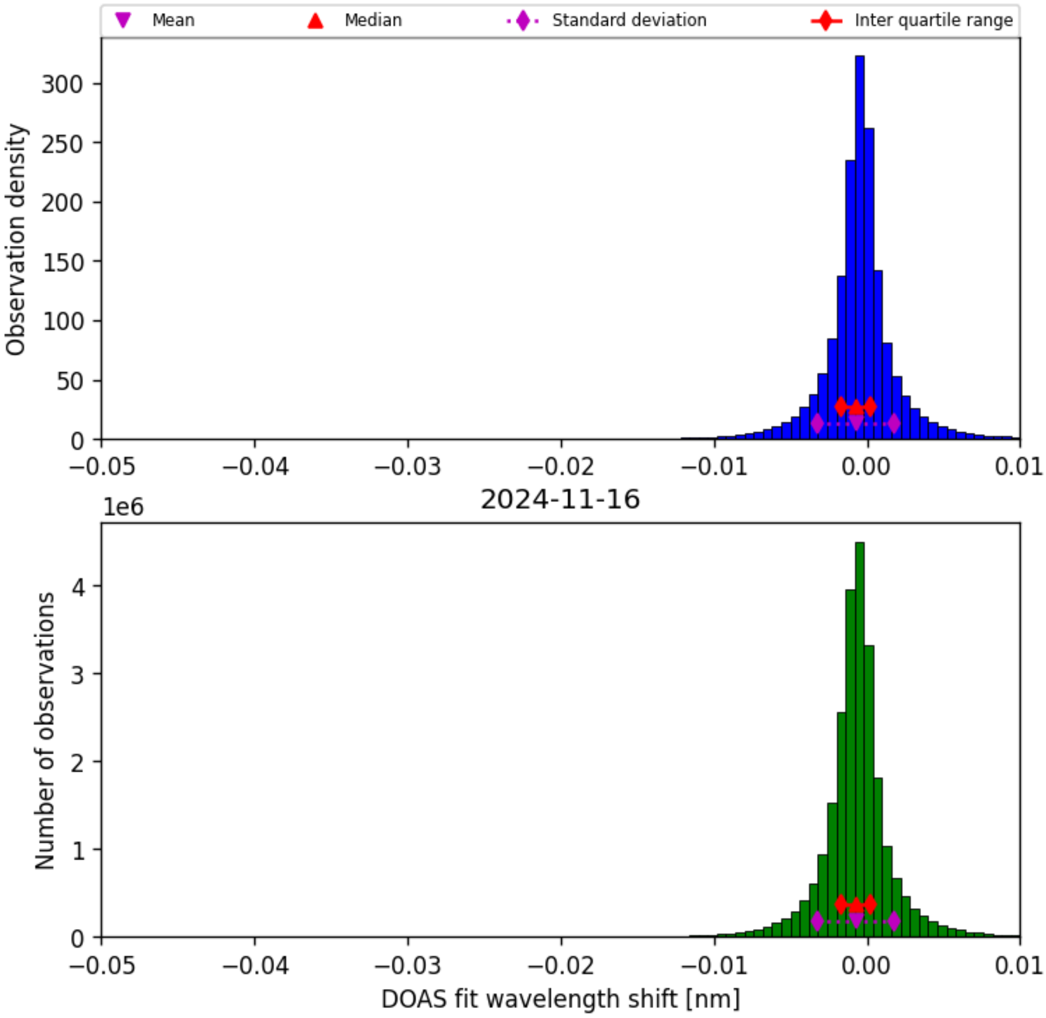


Figure 68: Histogram of “DOAS fit wavelength shift” for 2024-11-15 to 2024-11-17

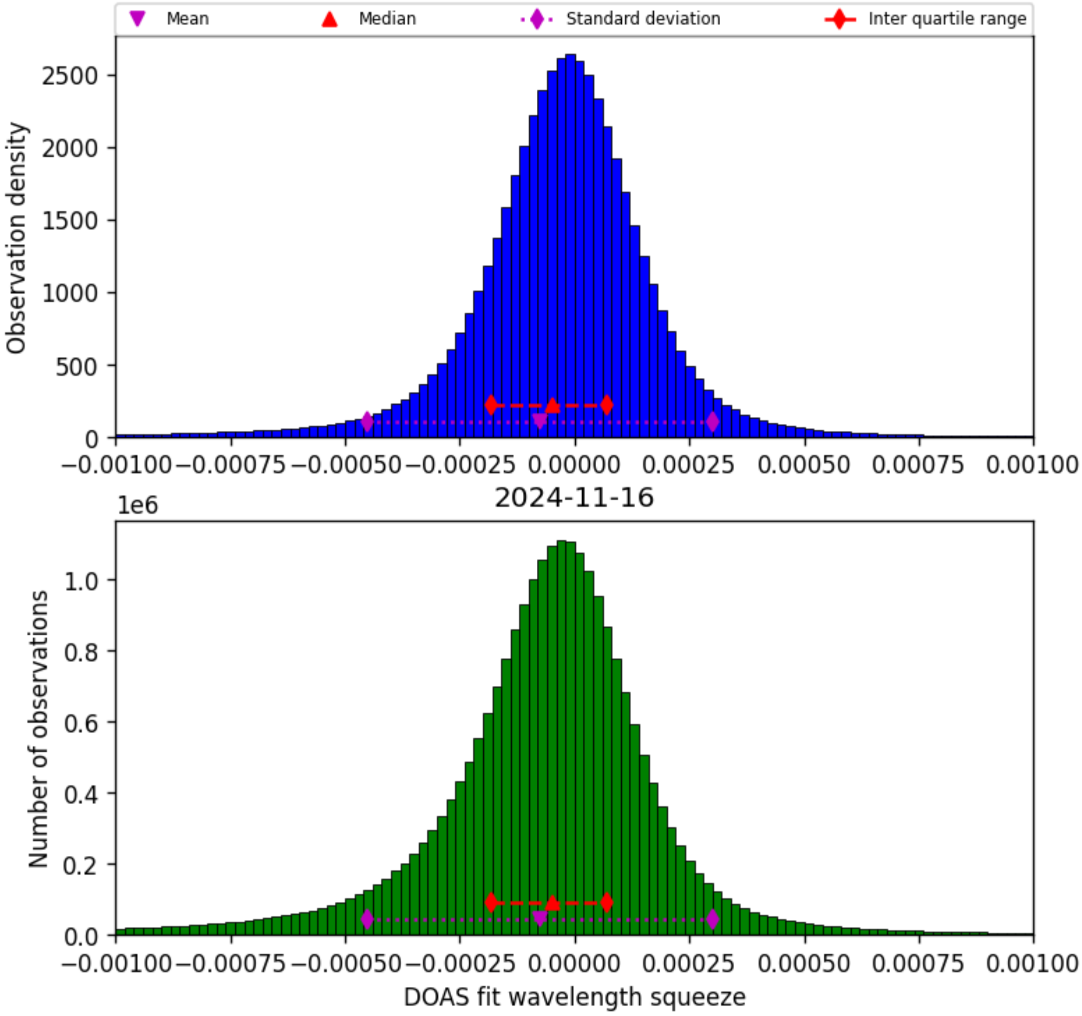


Figure 69: Histogram of “DOAS fit wavelength squeeze” for 2024-11-15 to 2024-11-17

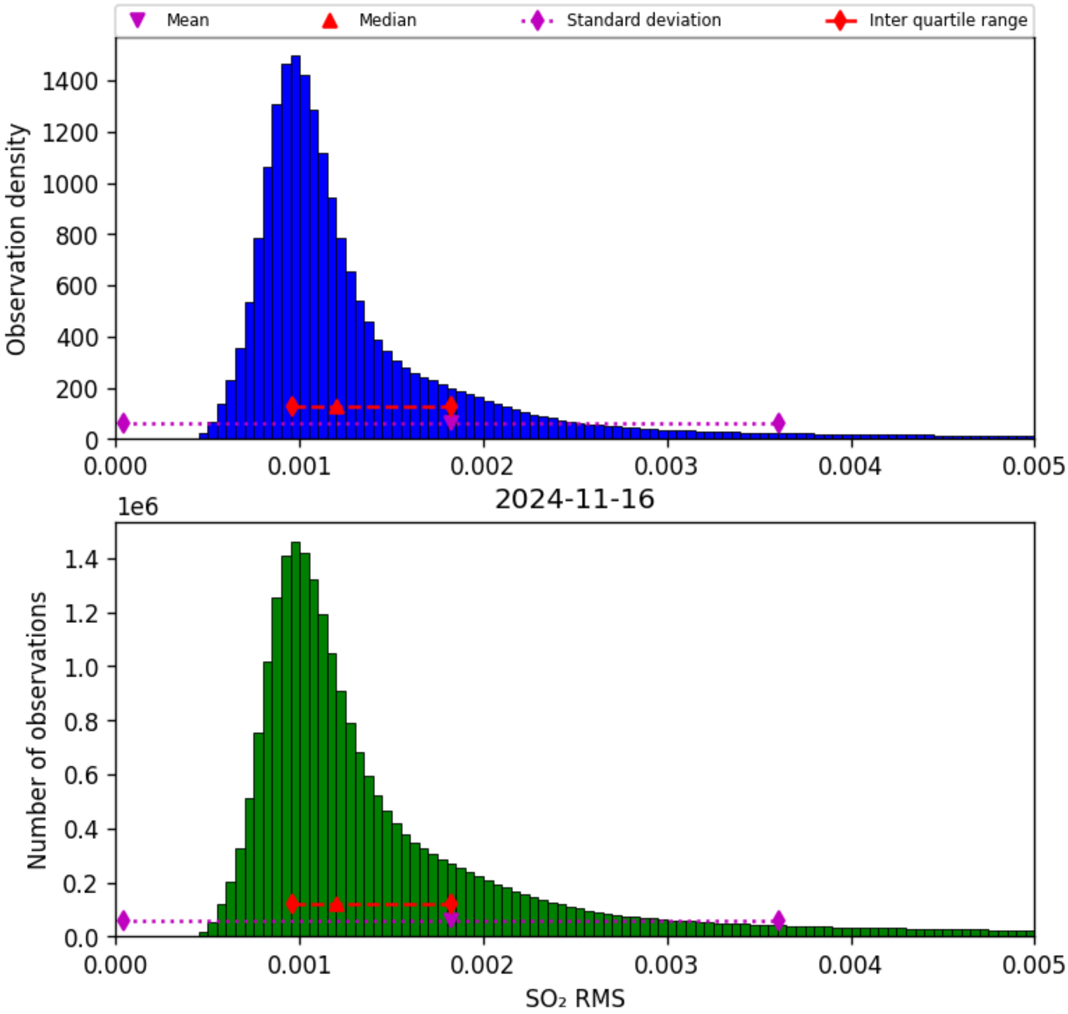


Figure 70: Histogram of “SO_2 RMS” for 2024-11-15 to 2024-11-17

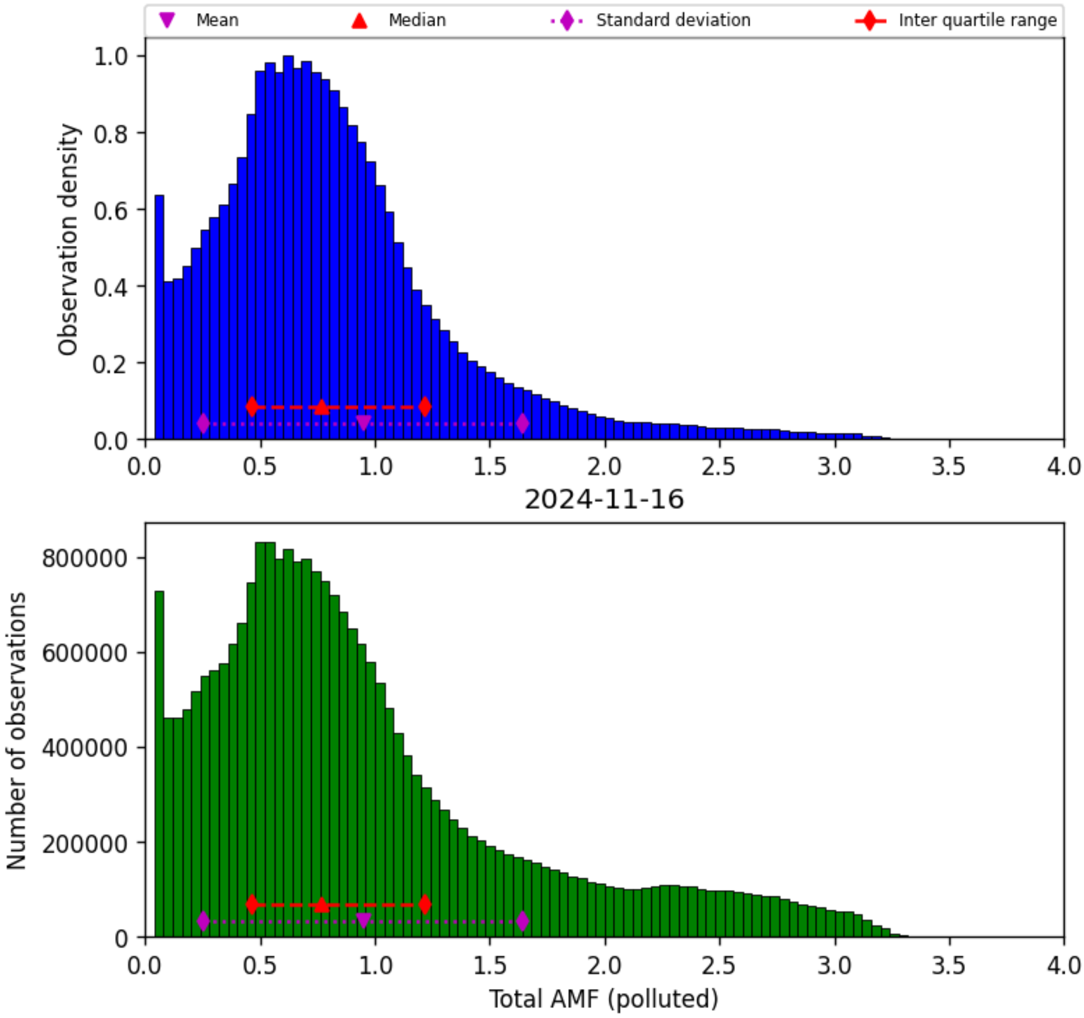


Figure 71: Histogram of “Total AMF (polluted)” for 2024-11-15 to 2024-11-17

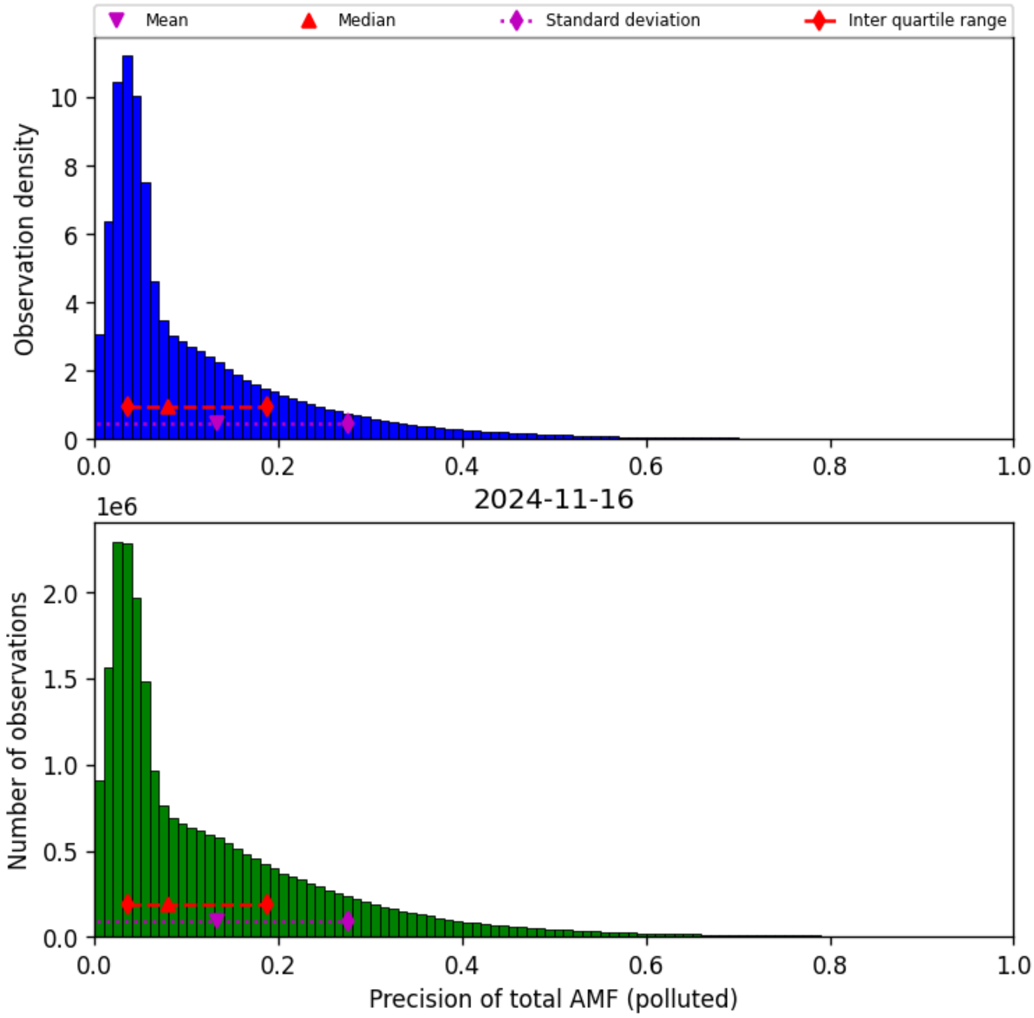


Figure 72: Histogram of “Precision of total AMF (polluted)” for 2024-11-15 to 2024-11-17

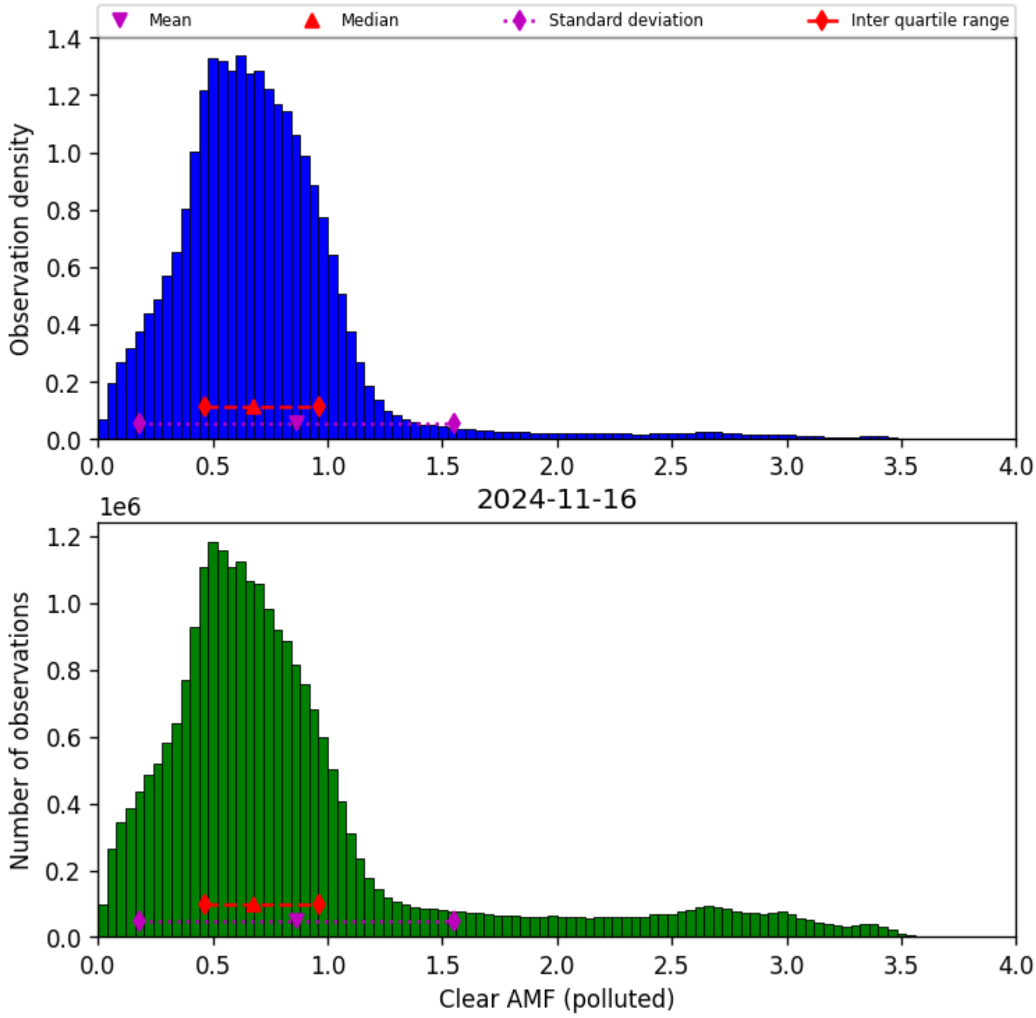


Figure 73: Histogram of "Clear AMF (polluted)" for 2024-11-15 to 2024-11-17

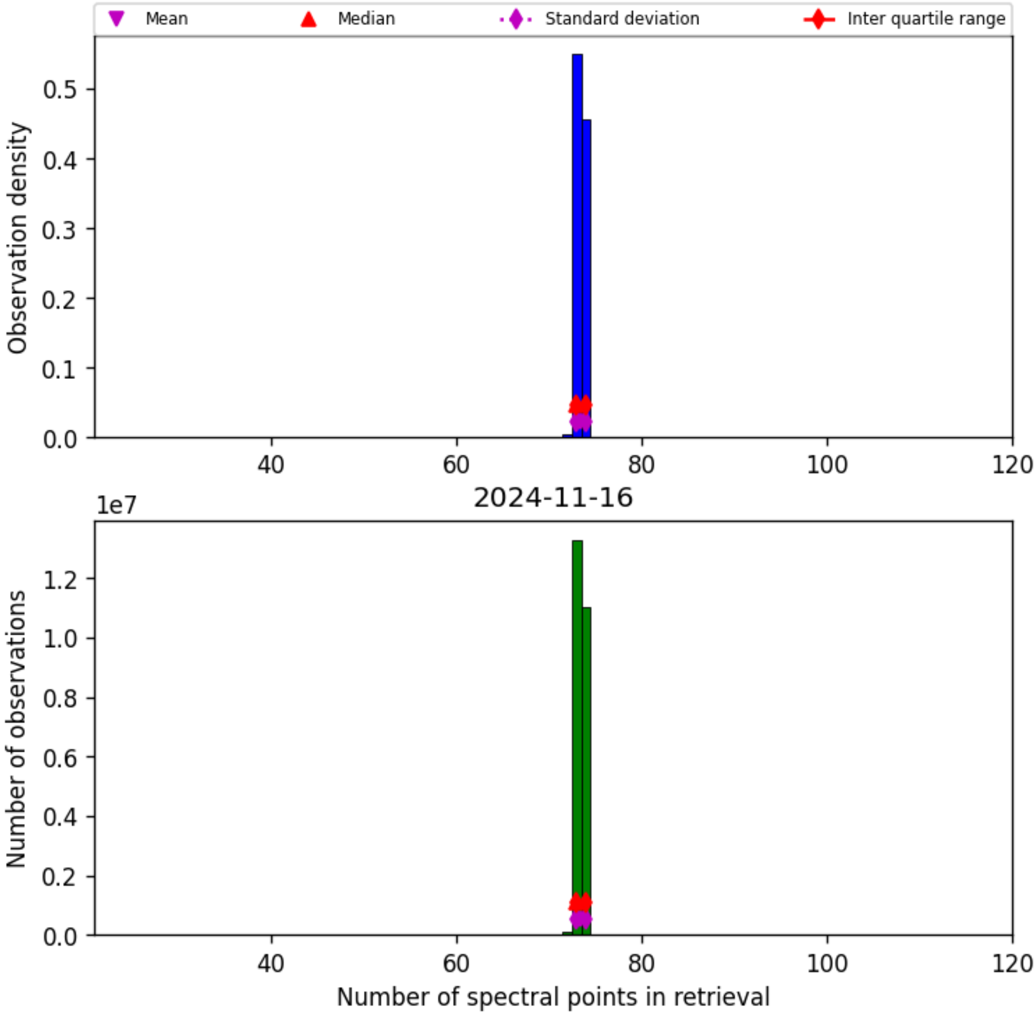


Figure 74: Histogram of “Number of spectral points in retrieval” for 2024-11-15 to 2024-11-17

9 Along track statistics

The TROPOMI instrument uses different binned detector rows for different viewing directions. In this section statistics are presented for each of the binned rows in the instrument.

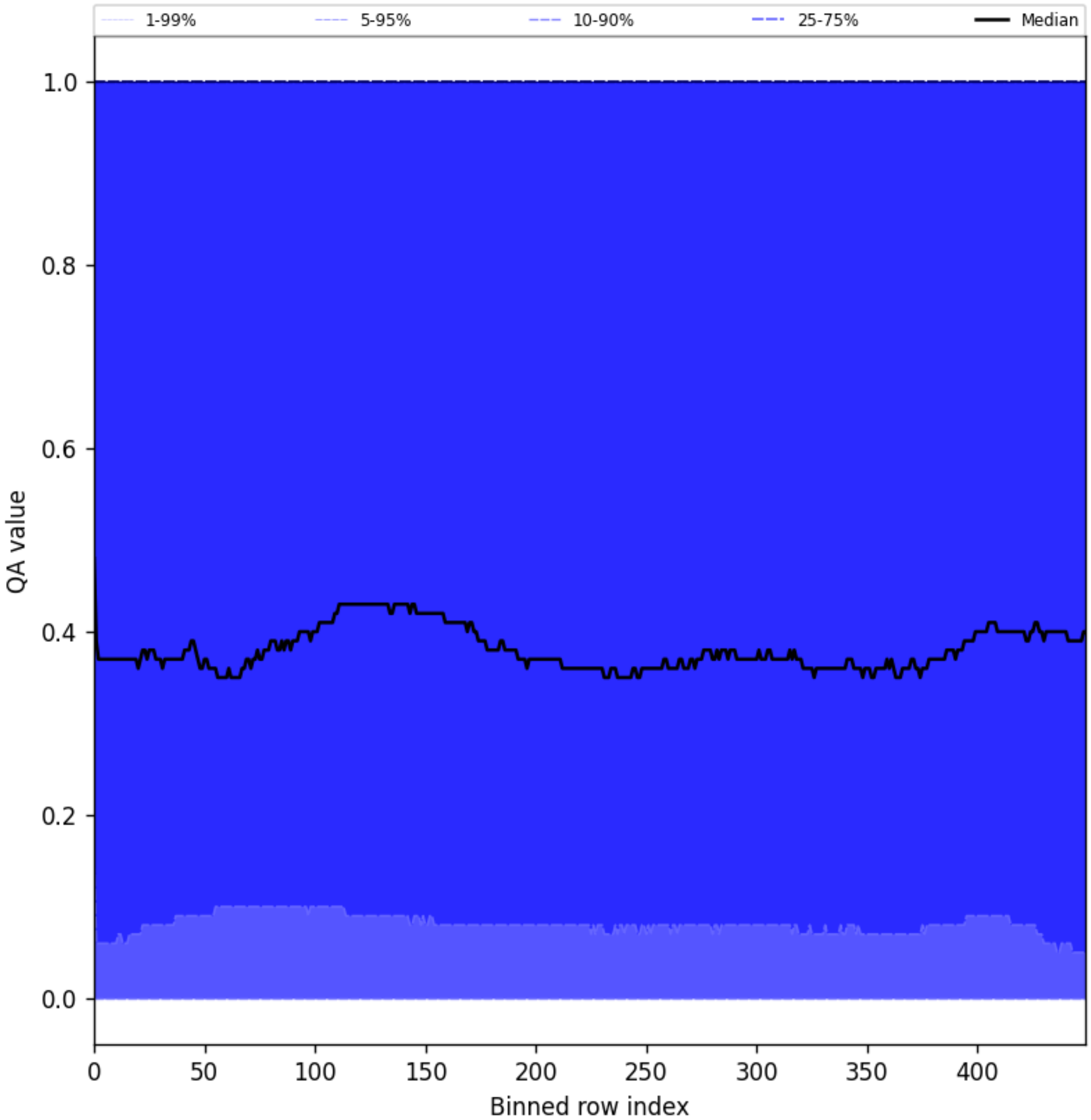


Figure 75: Along track statistics of “QA value” for 2024-11-15 to 2024-11-17

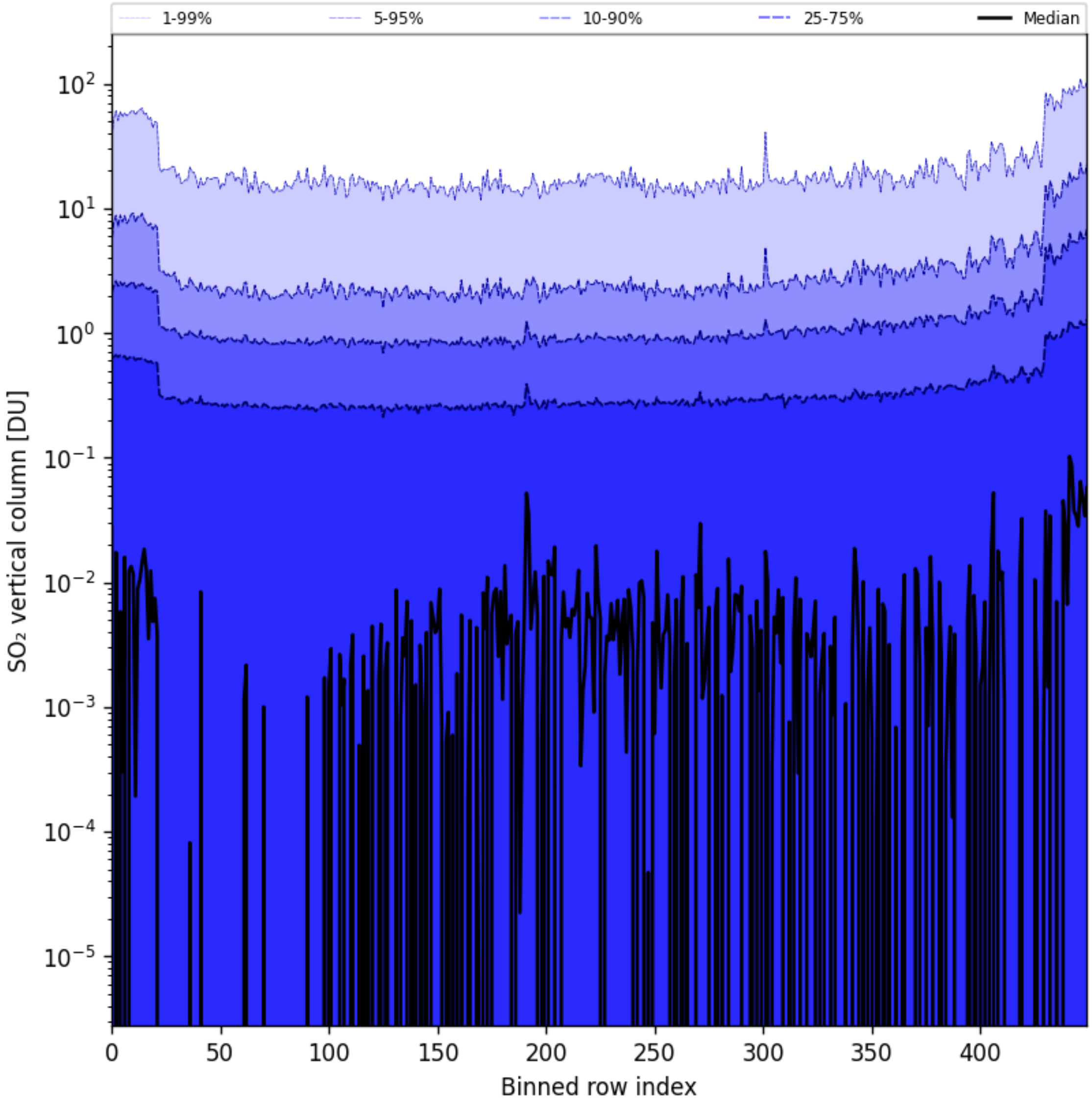


Figure 76: Along track statistics of “SO_2 vertical column” for 2024-11-15 to 2024-11-17

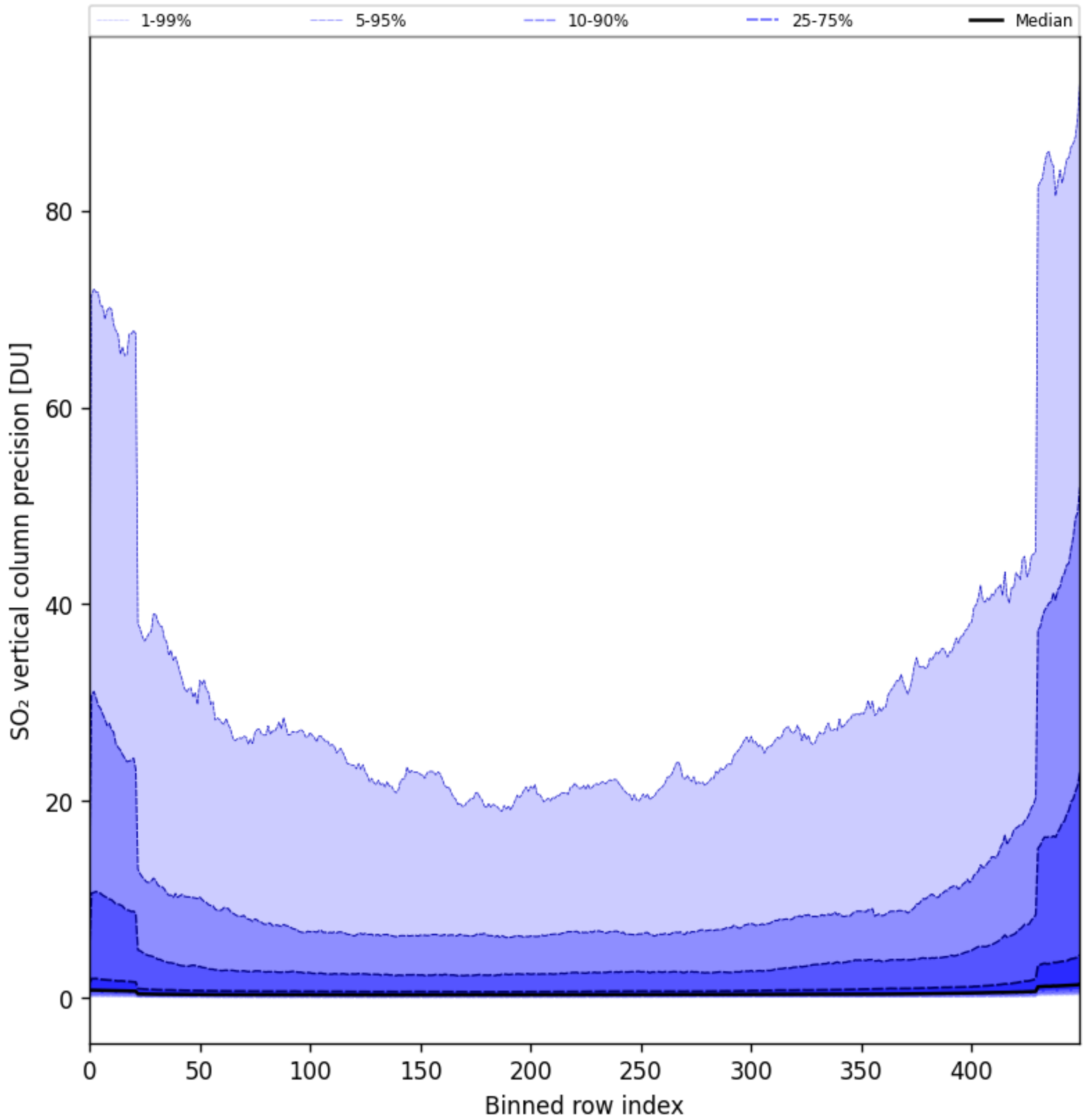


Figure 77: Along track statistics of “SO_2 vertical column precision” for 2024-11-15 to 2024-11-17

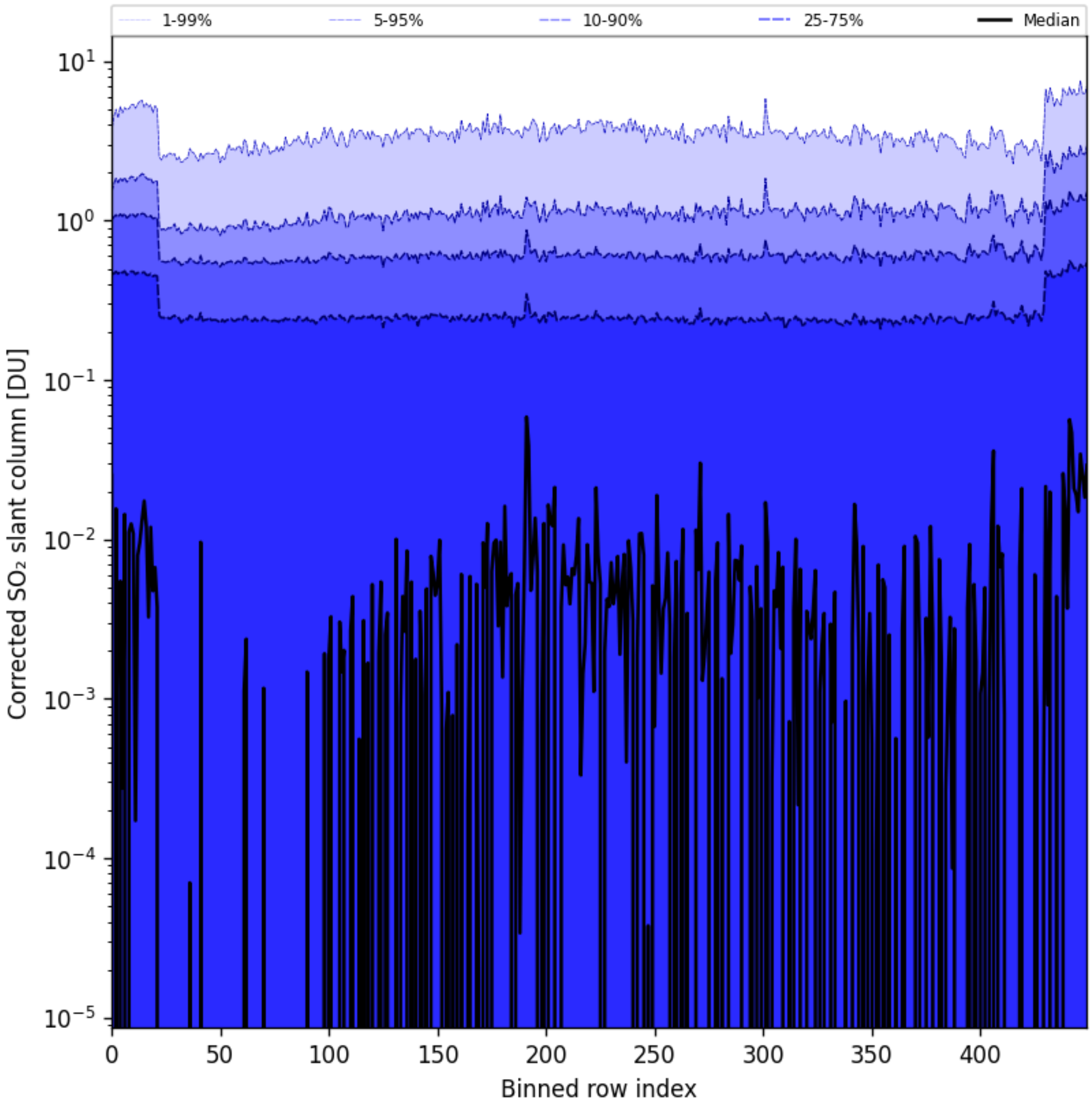


Figure 78: Along track statistics of “Corrected SO_2 slant column” for 2024-11-15 to 2024-11-17

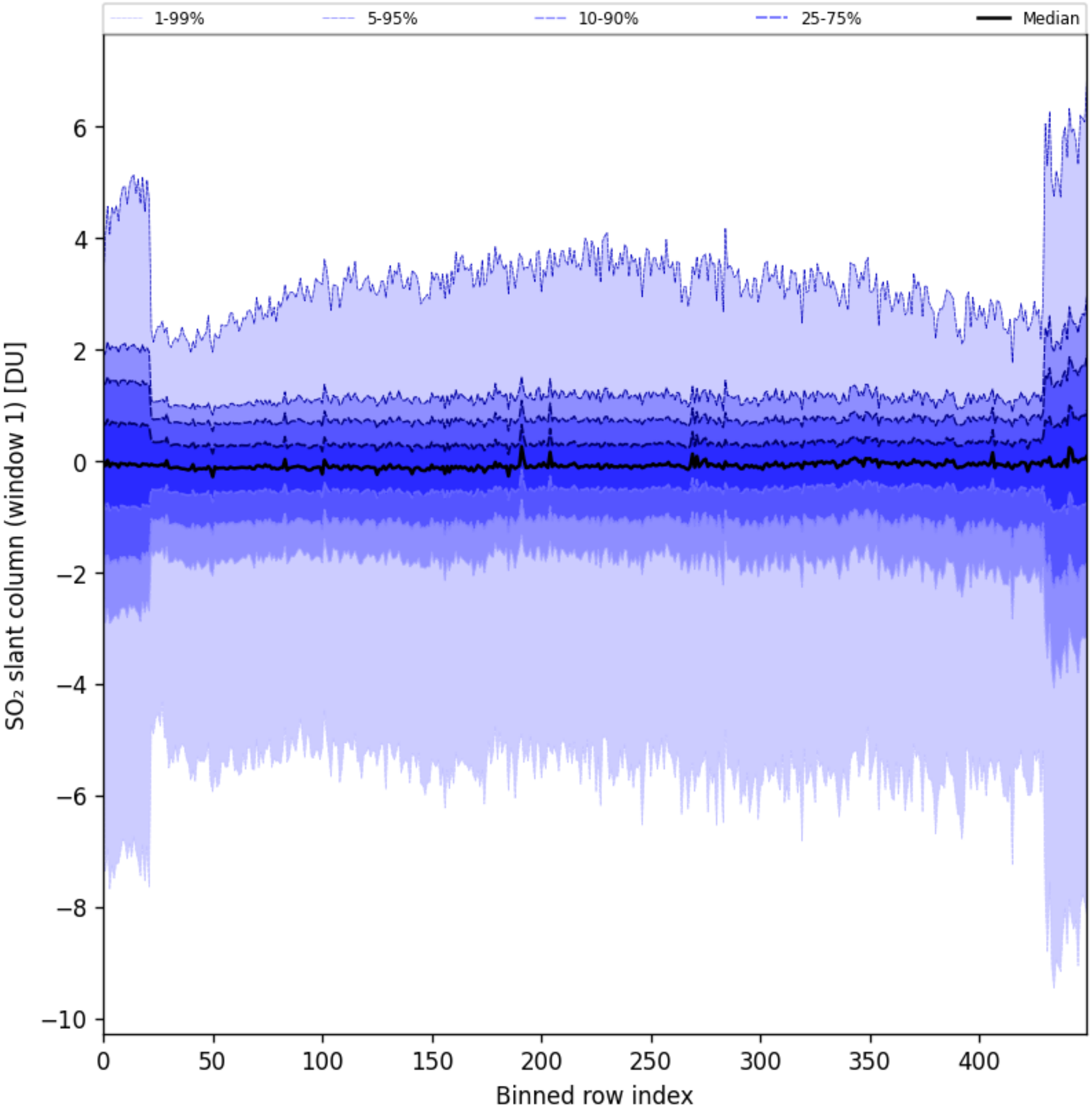


Figure 79: Along track statistics of “SO_2 slant column (window 1)” for 2024-11-15 to 2024-11-17

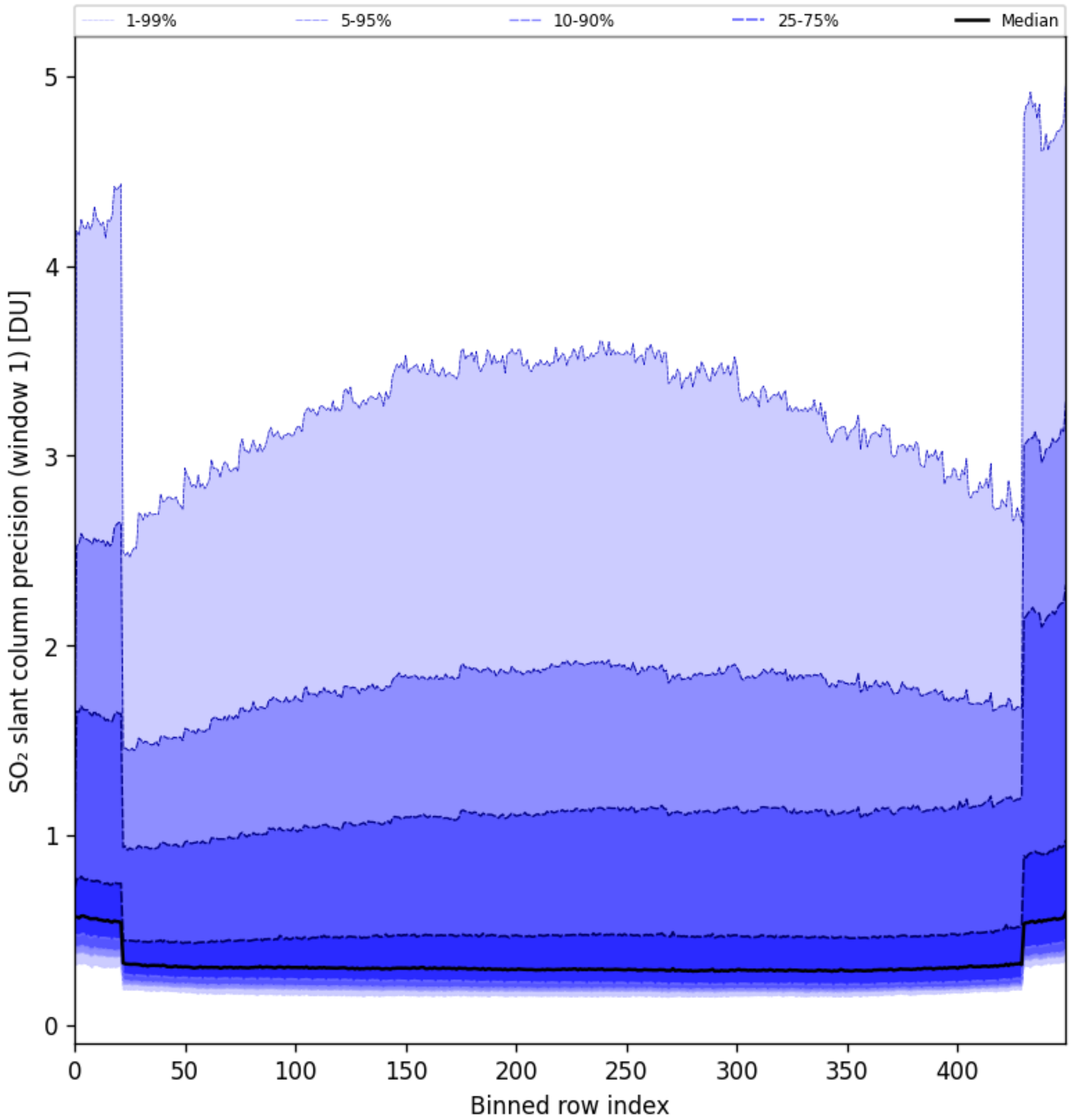


Figure 80: Along track statistics of “SO_2 slant column precision (window 1)” for 2024-11-15 to 2024-11-17

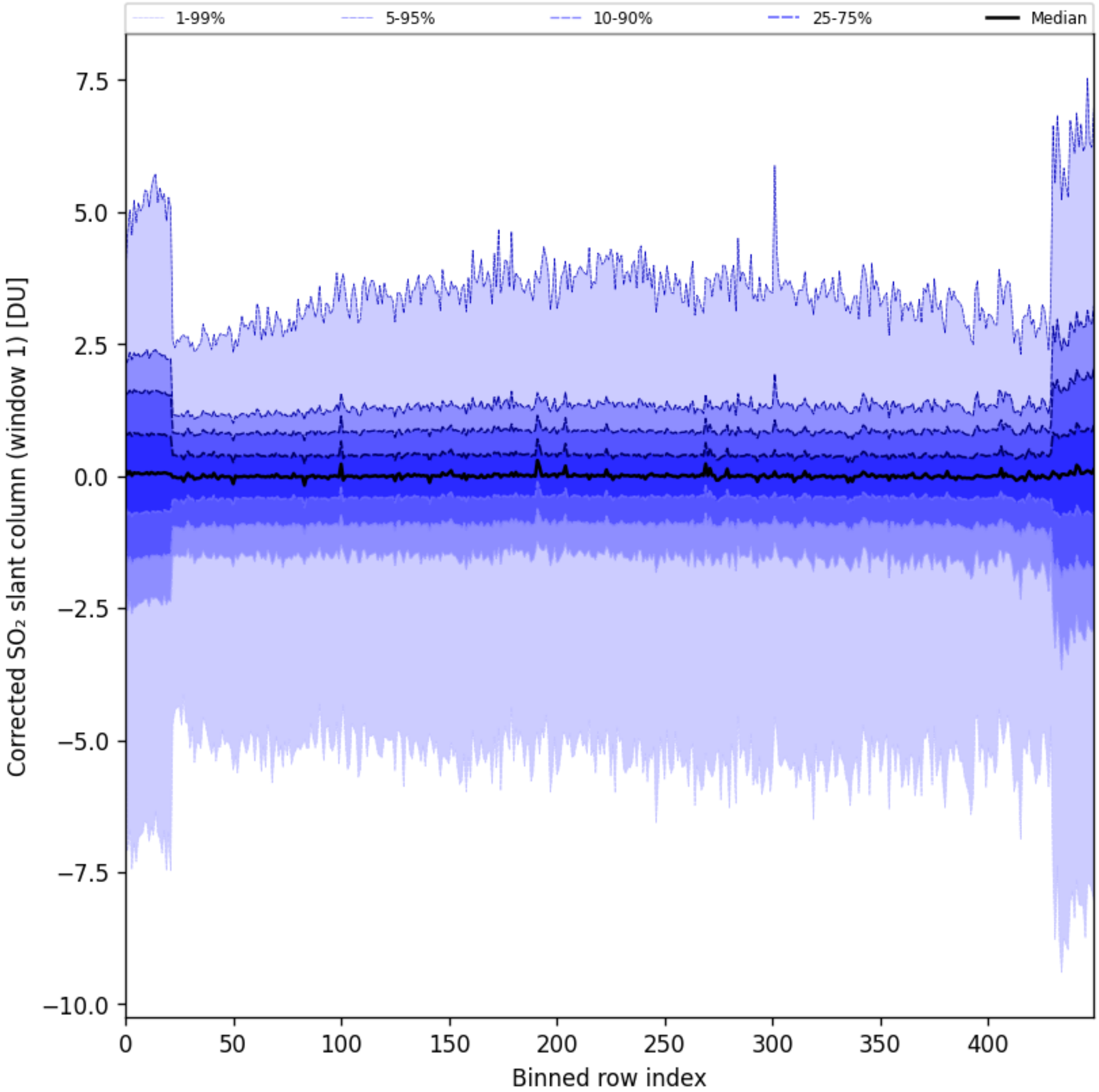


Figure 81: Along track statistics of "Corrected SO_2 slant column (window 1)" for 2024-11-15 to 2024-11-17

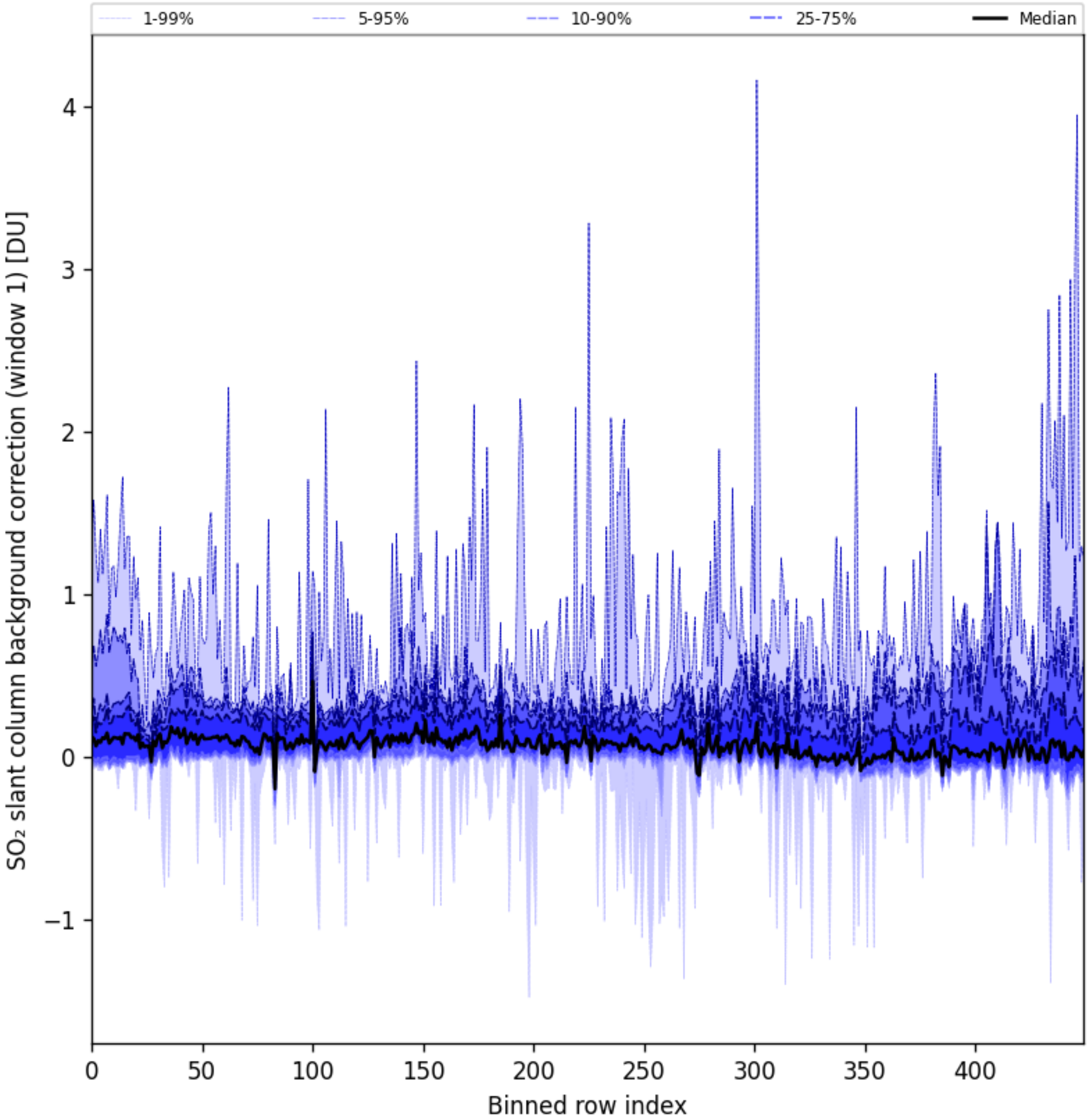


Figure 82: Along track statistics of "SO_2 slant column background correction (window 1)" for 2024-11-15 to 2024-11-17

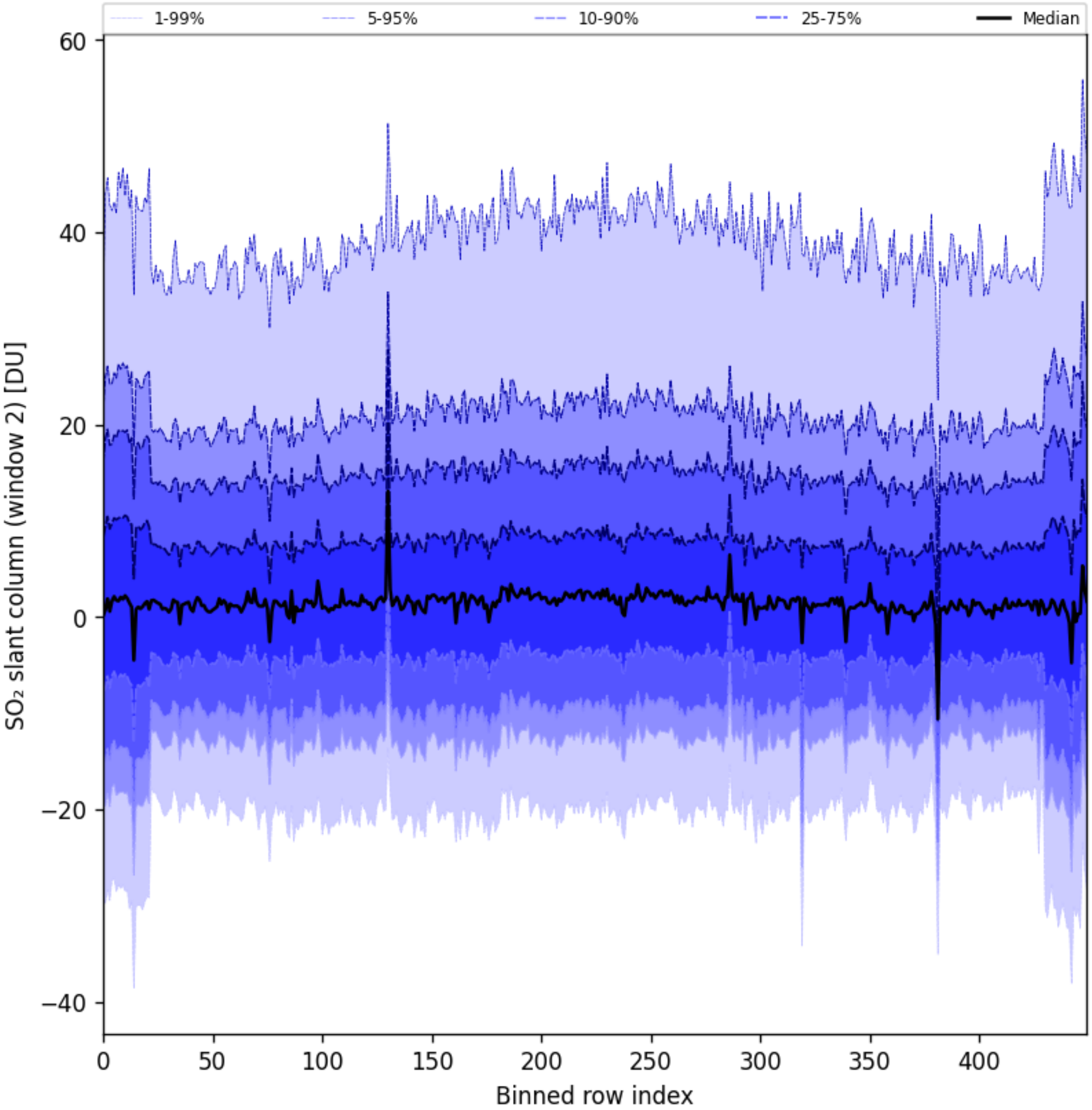


Figure 83: Along track statistics of "SO_2 slant column (window 2)" for 2024-11-15 to 2024-11-17

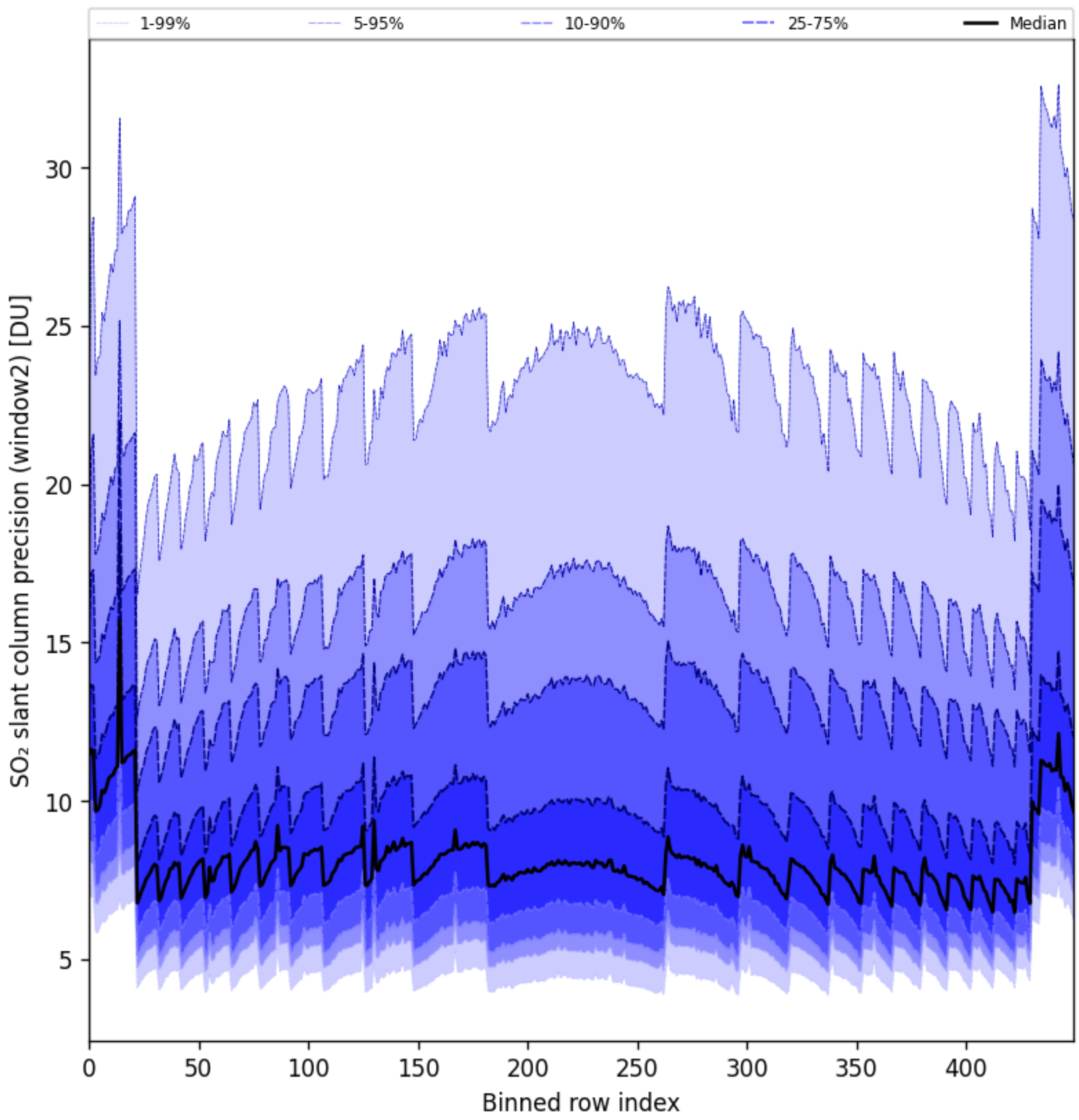


Figure 84: Along track statistics of “SO_2 slant column precision (window2)” for 2024-11-15 to 2024-11-17

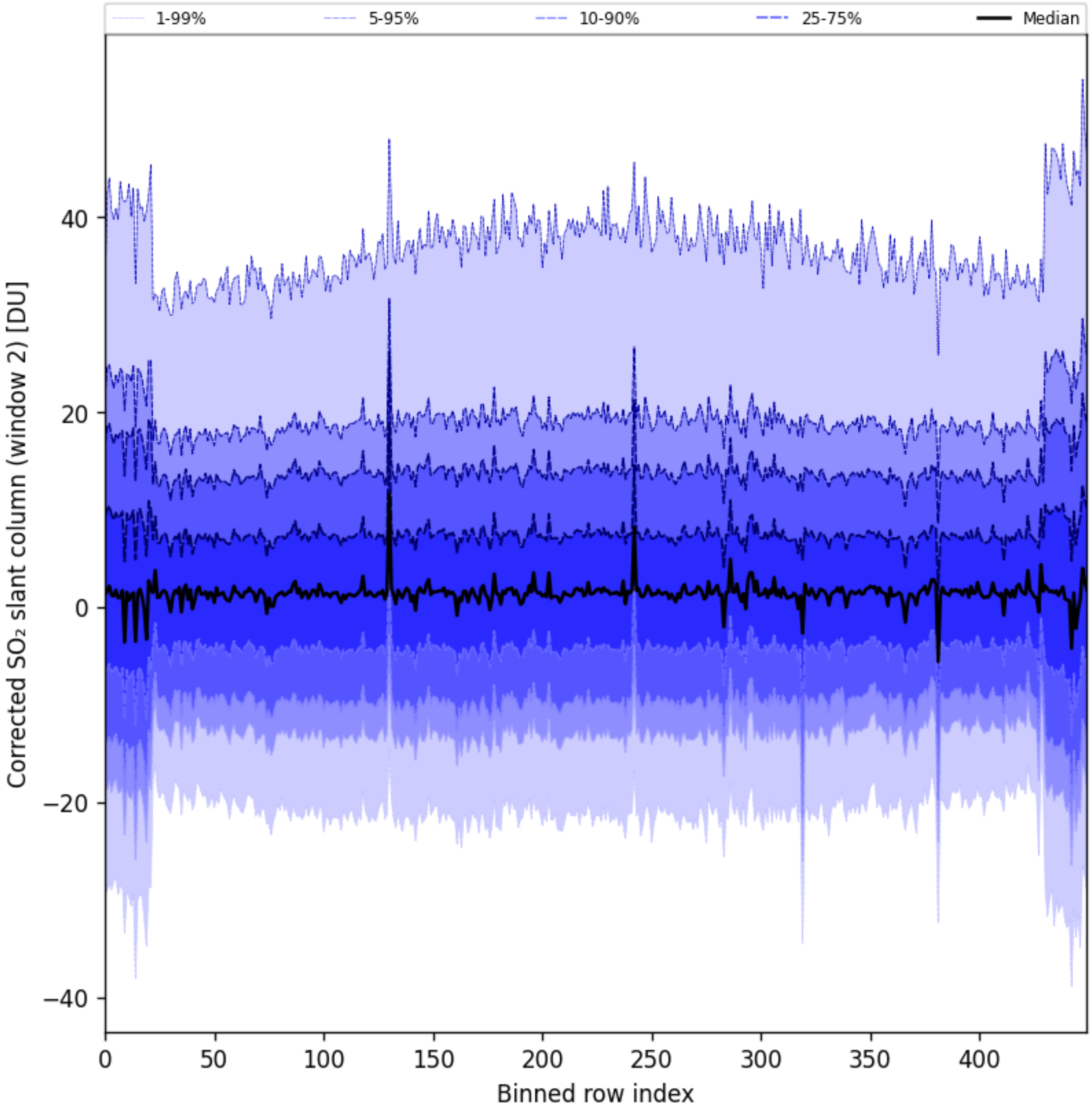


Figure 85: Along track statistics of “Corrected SO_2 slant column (window 2)” for 2024-11-15 to 2024-11-17

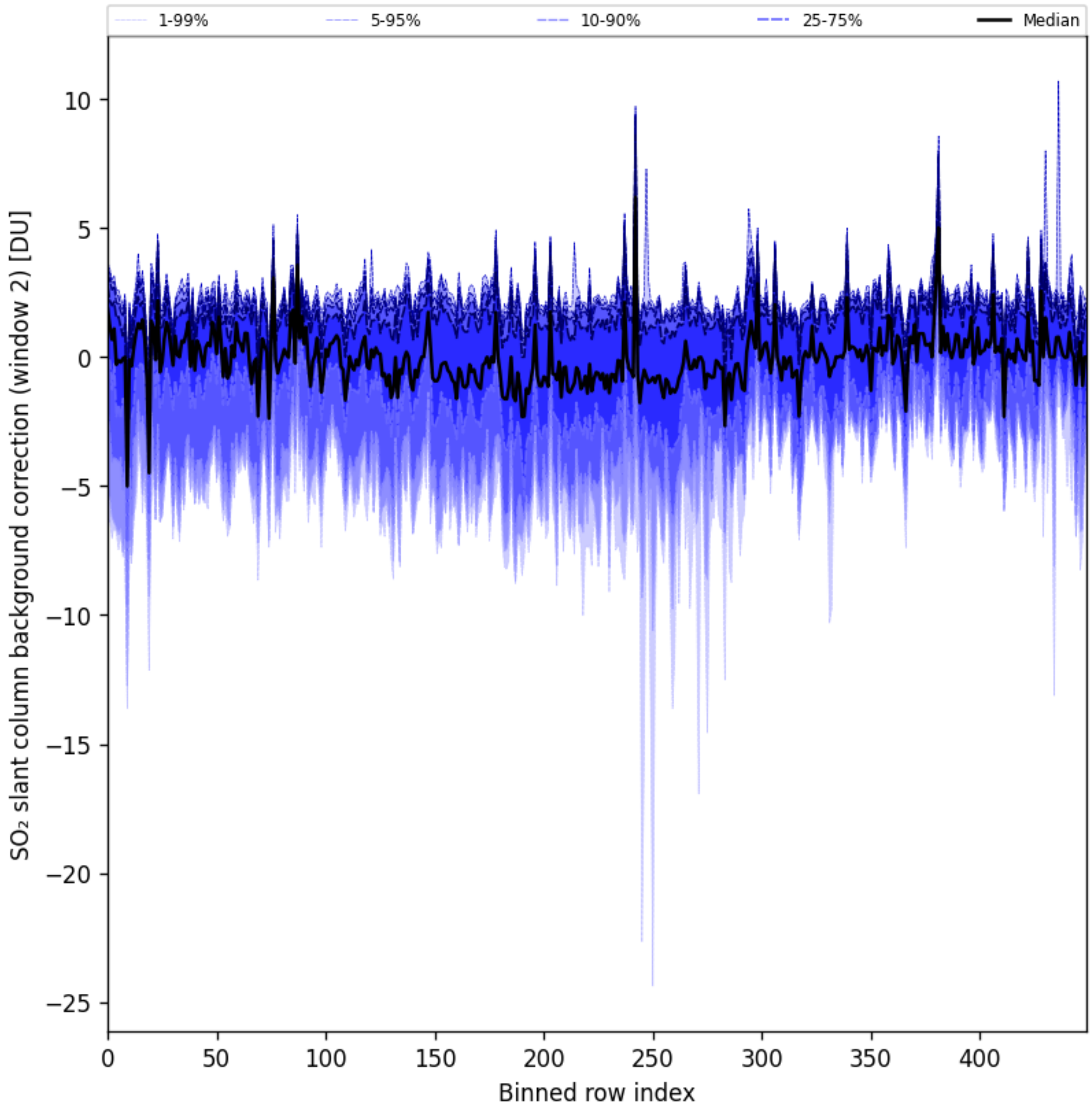


Figure 86: Along track statistics of “SO_2 slant column background correction (window 2)” for 2024-11-15 to 2024-11-17

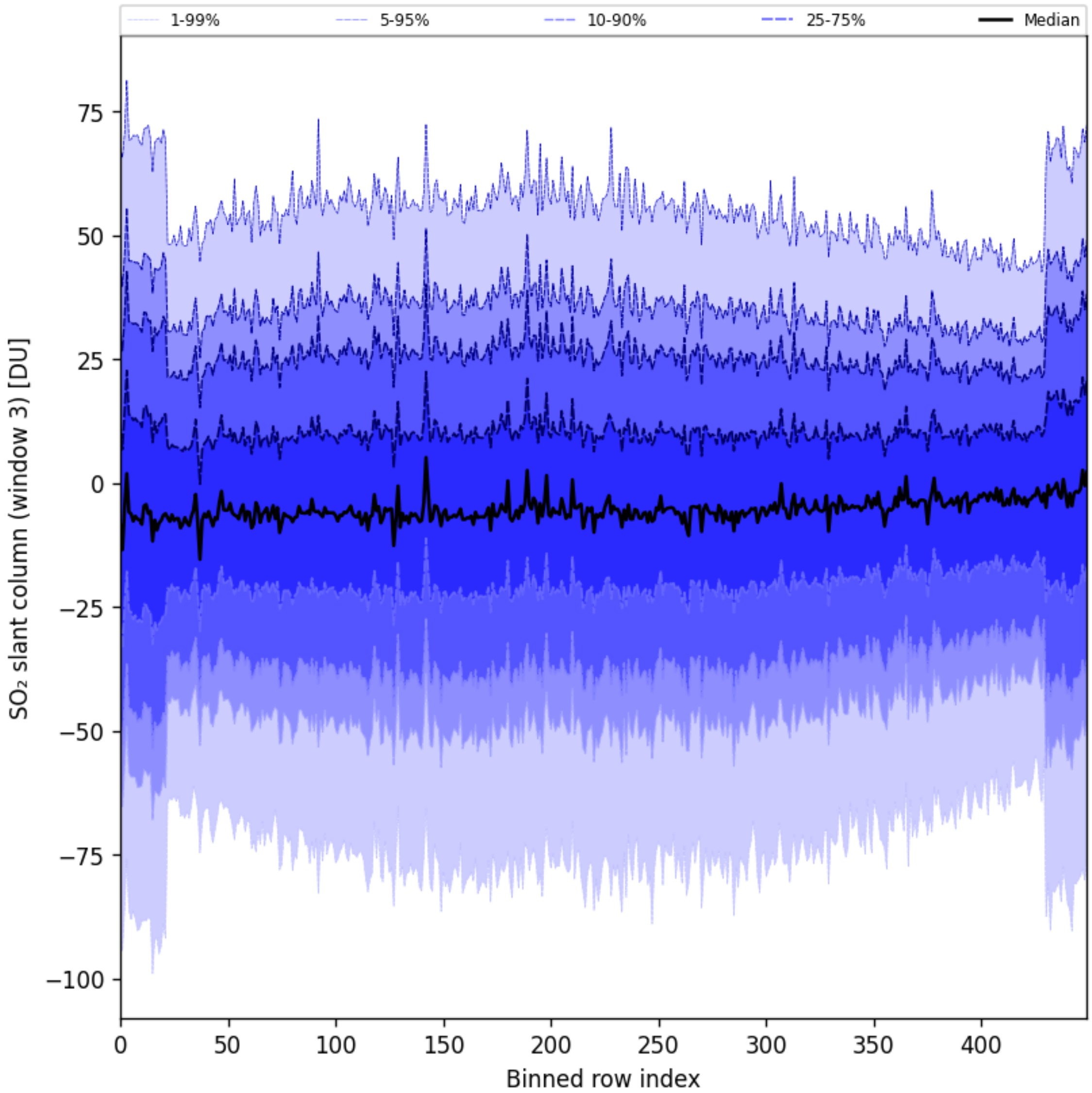


Figure 87: Along track statistics of “SO_2 slant column (window 3)” for 2024-11-15 to 2024-11-17

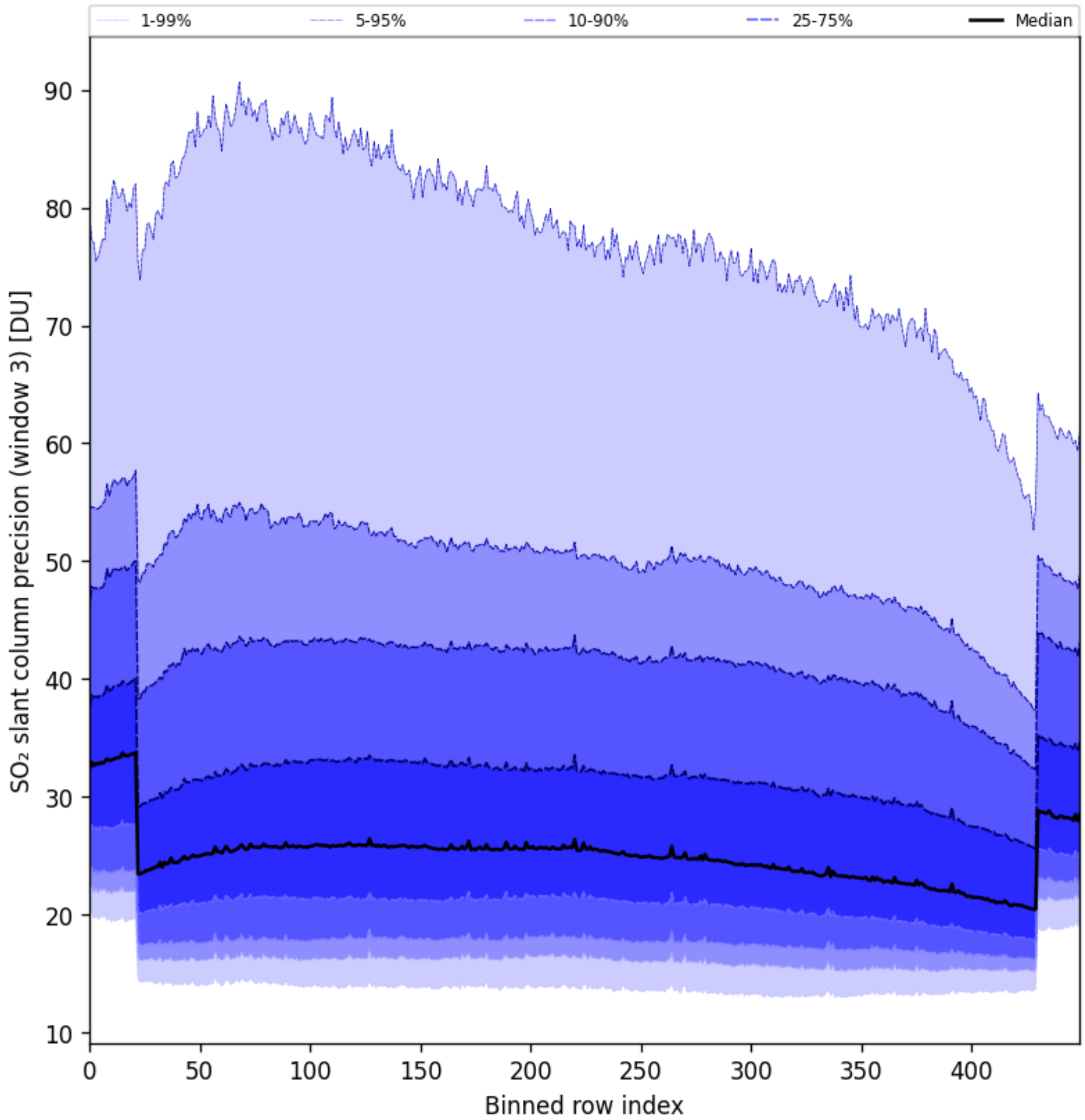


Figure 88: Along track statistics of "SO_2 slant column precision (window 3)" for 2024-11-15 to 2024-11-17

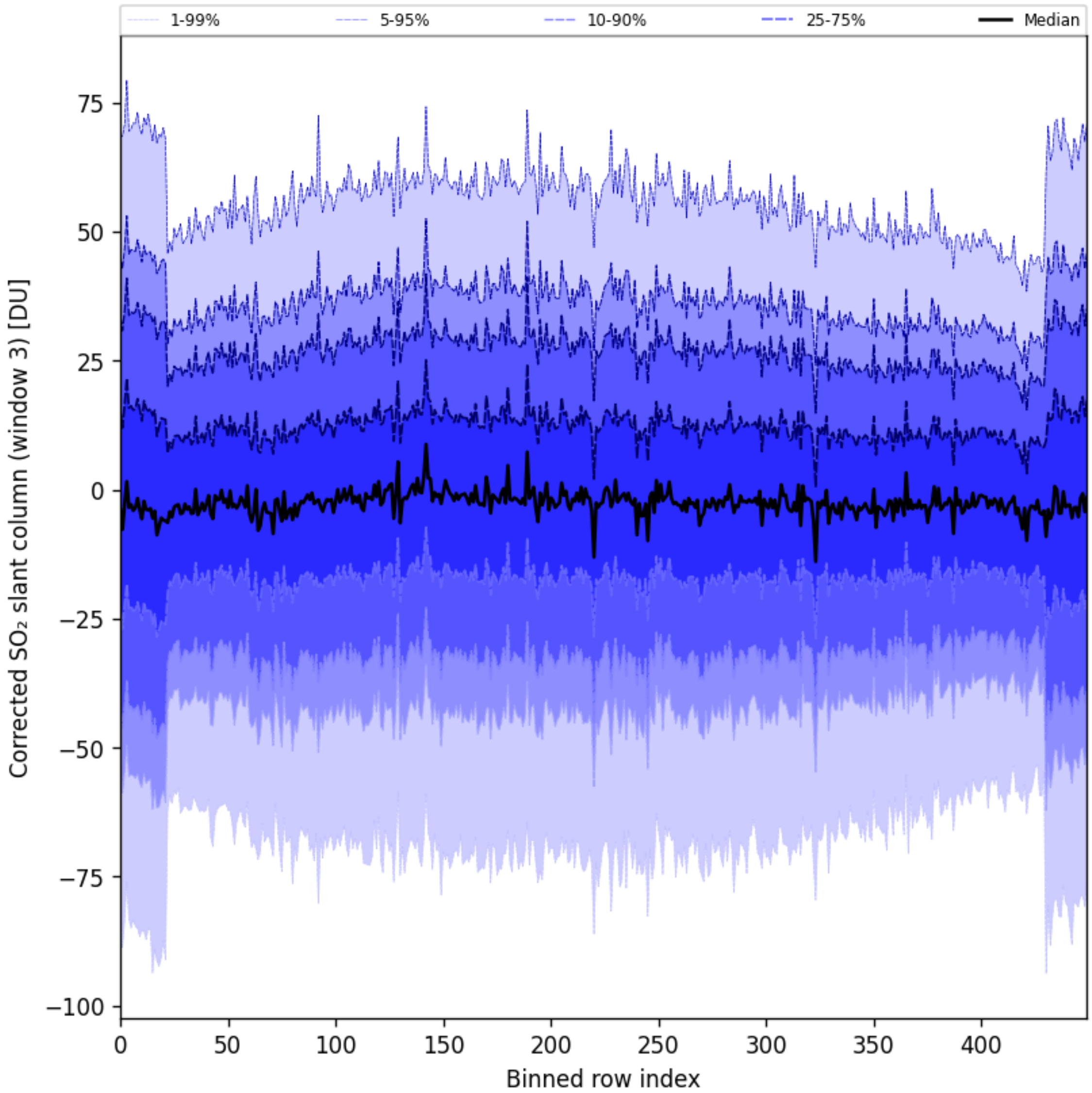


Figure 89: Along track statistics of “Corrected SO_2 slant column (window 3)” for 2024-11-15 to 2024-11-17

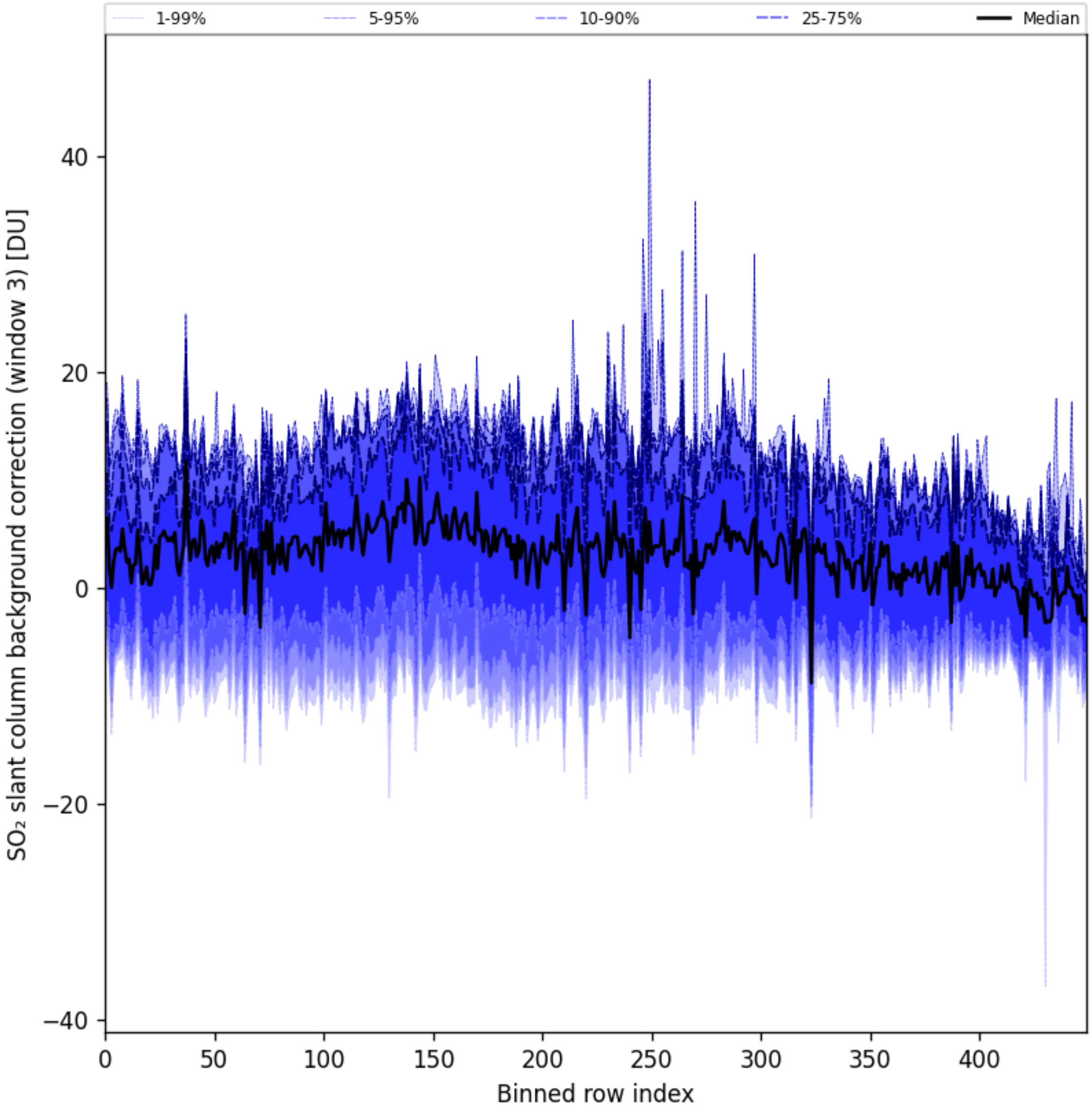


Figure 90: Along track statistics of “SO_2 slant column background correction (window 3)” for 2024-11-15 to 2024-11-17

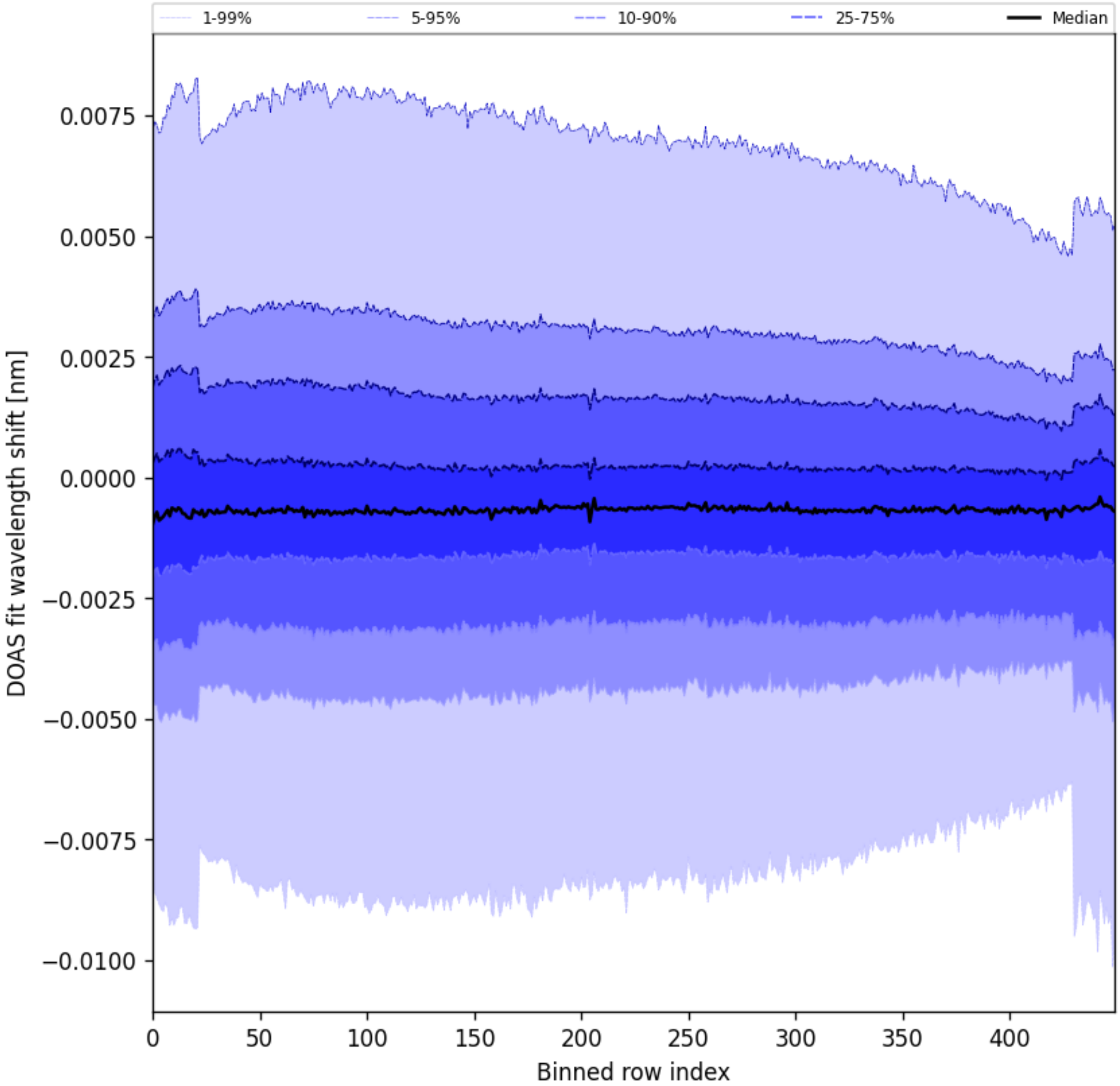


Figure 91: Along track statistics of “DOAS fit wavelength shift” for 2024-11-15 to 2024-11-17

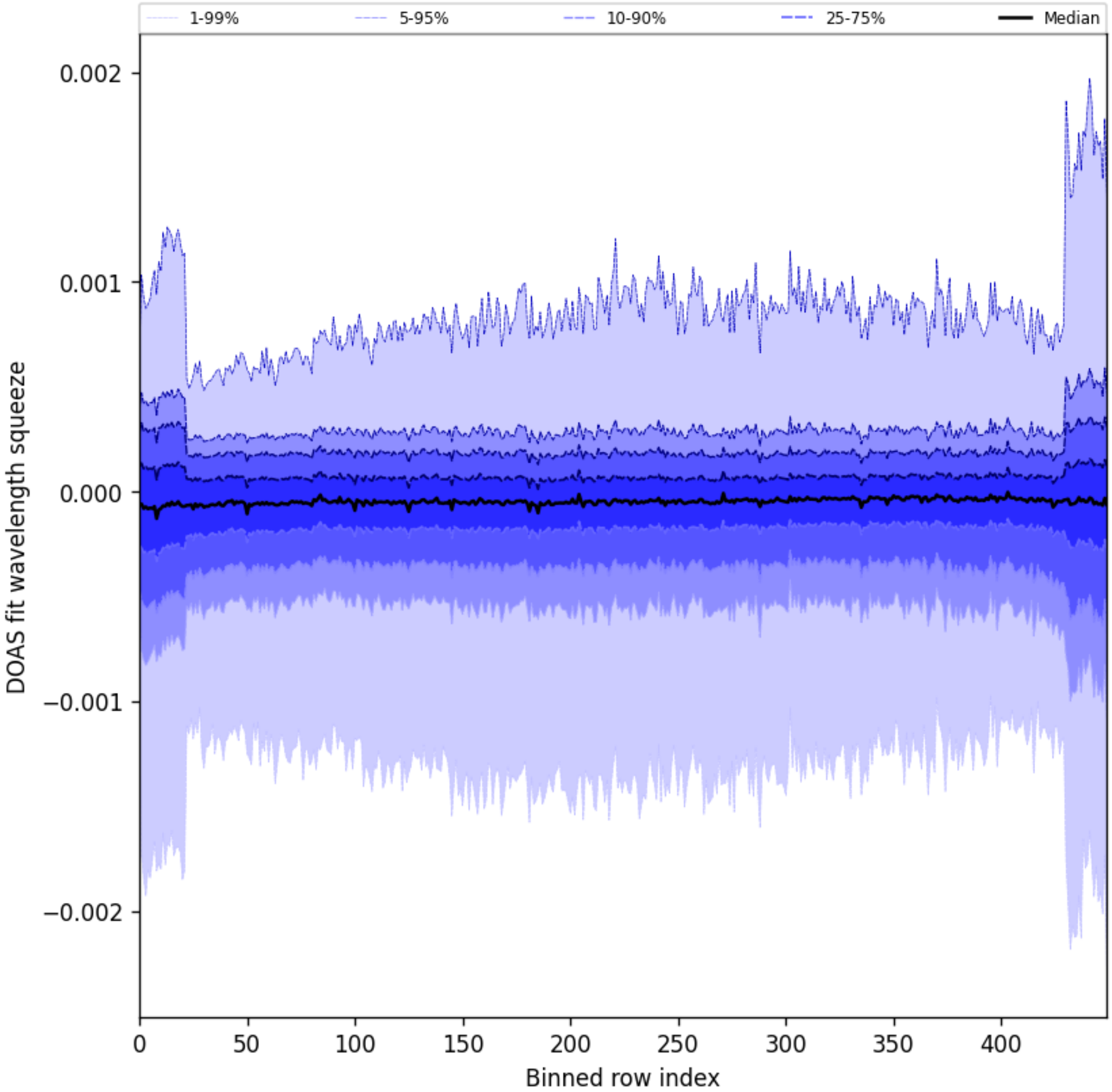


Figure 92: Along track statistics of “DOAS fit wavelength squeeze” for 2024-11-15 to 2024-11-17

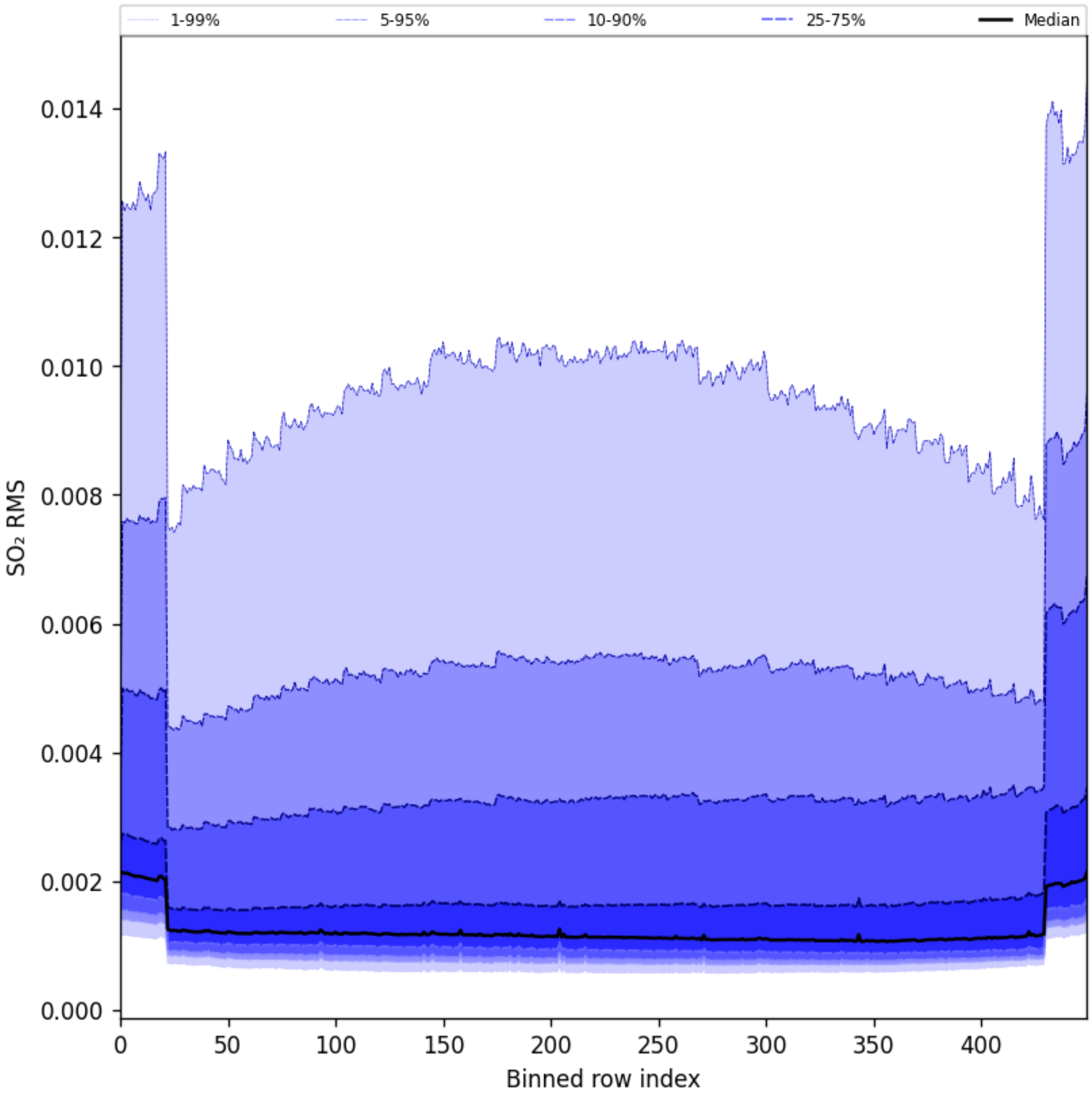


Figure 93: Along track statistics of “SO_2 RMS” for 2024-11-15 to 2024-11-17

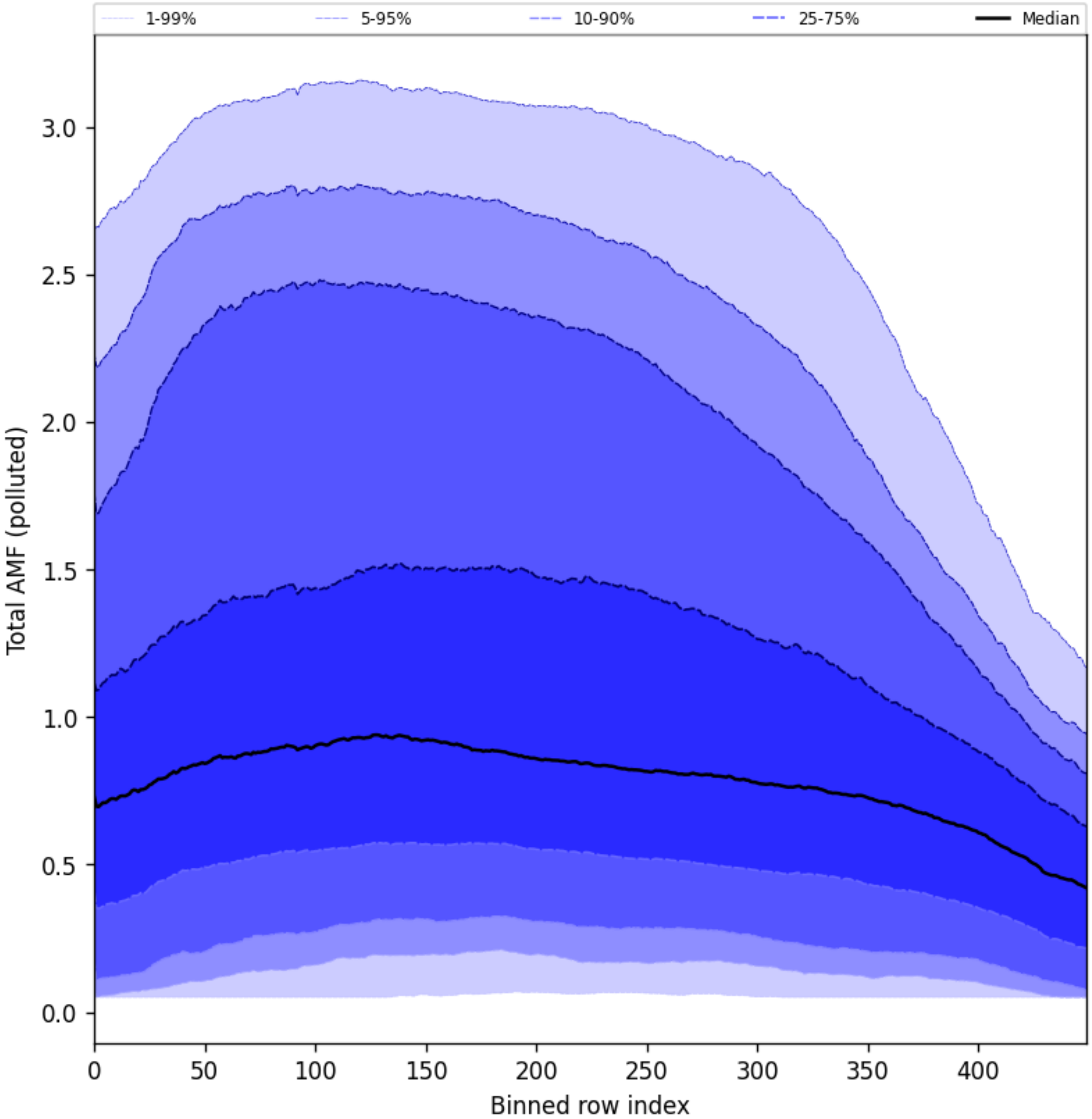


Figure 94: Along track statistics of “Total AMF (polluted)” for 2024-11-15 to 2024-11-17

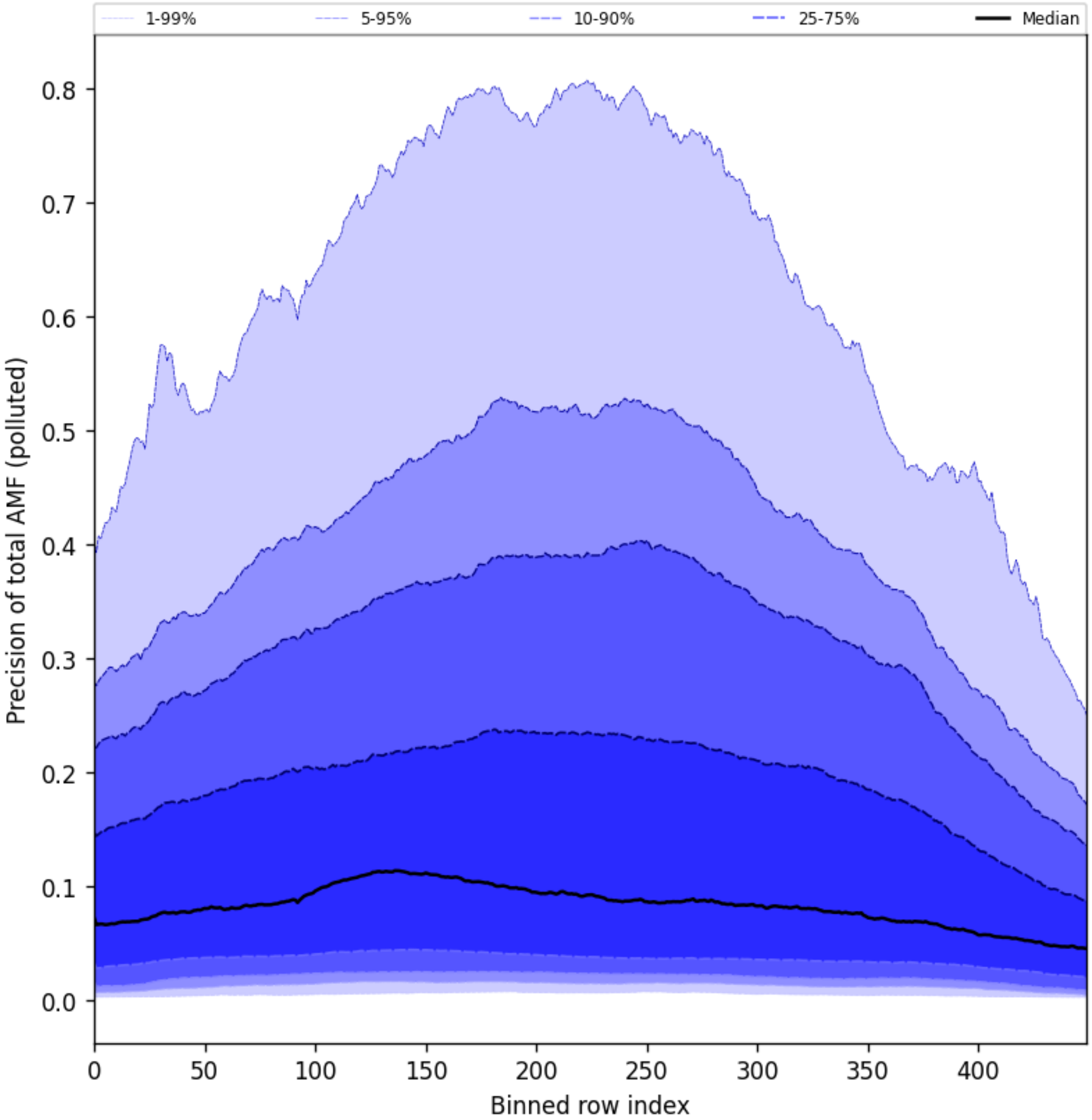


Figure 95: Along track statistics of “Precision of total AMF (polluted)” for 2024-11-15 to 2024-11-17

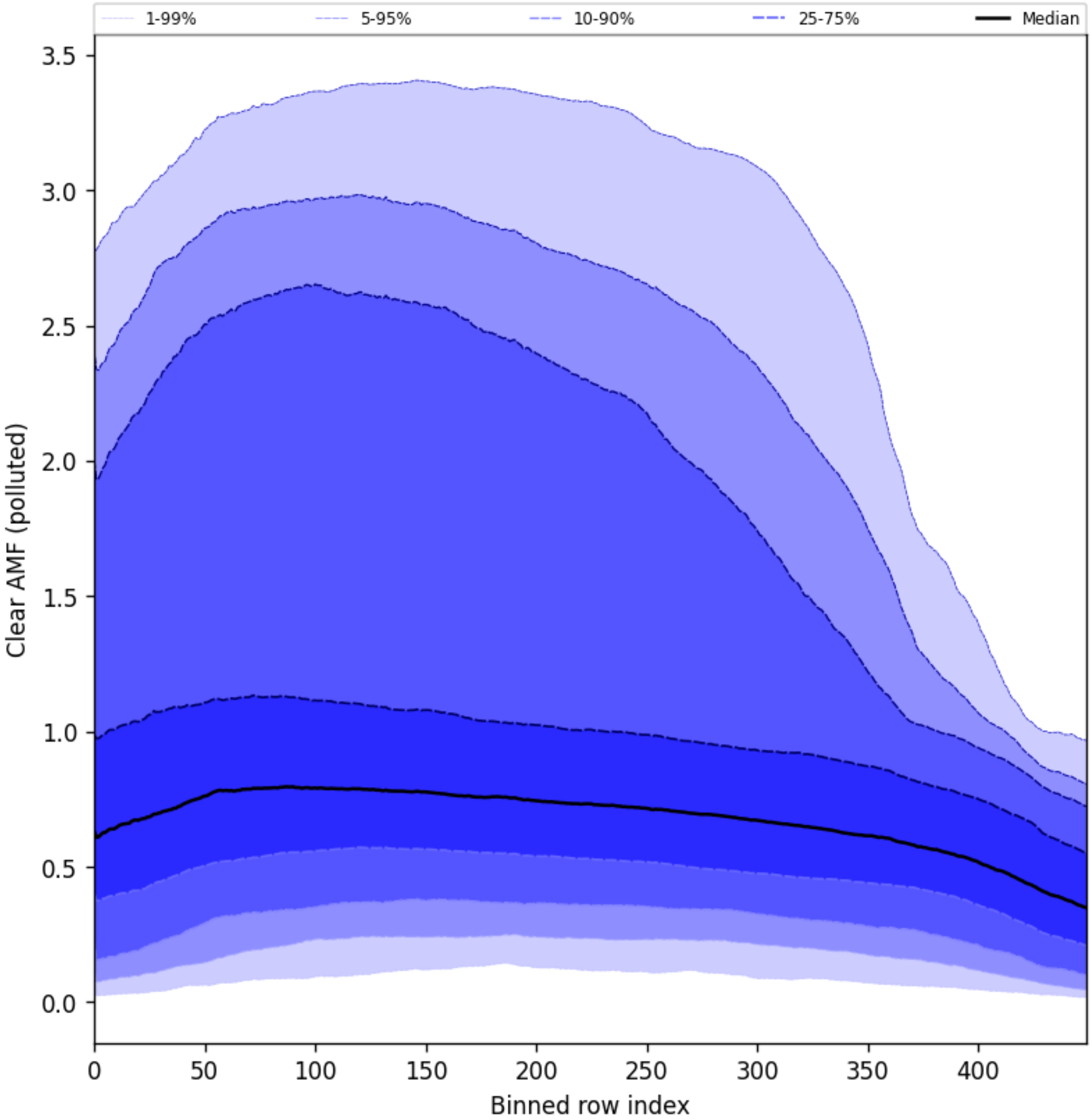


Figure 96: Along track statistics of “Clear AMF (polluted)” for 2024-11-15 to 2024-11-17

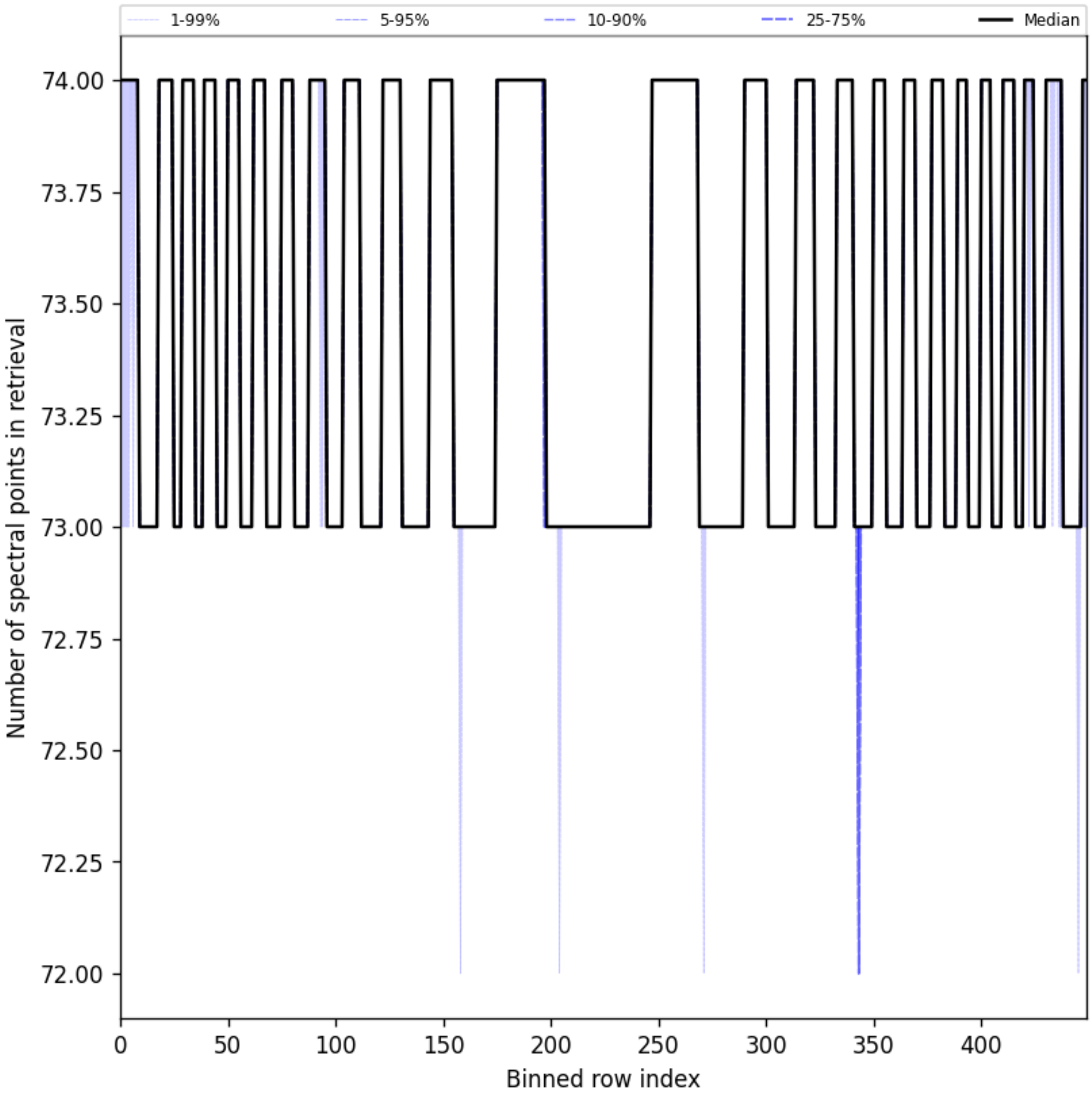


Figure 97: Along track statistics of “Number of spectral points in retrieval” for 2024-11-15 to 2024-11-17

10 Coincidence density

To investigate the relation between parameters scatter density plots are produced. These include some 'hidden' parameters, latitude and the solar- and viewing geometries, in addition to all configured parameters. All combinations of pairs of parameters are included *once*, in one direction alone.

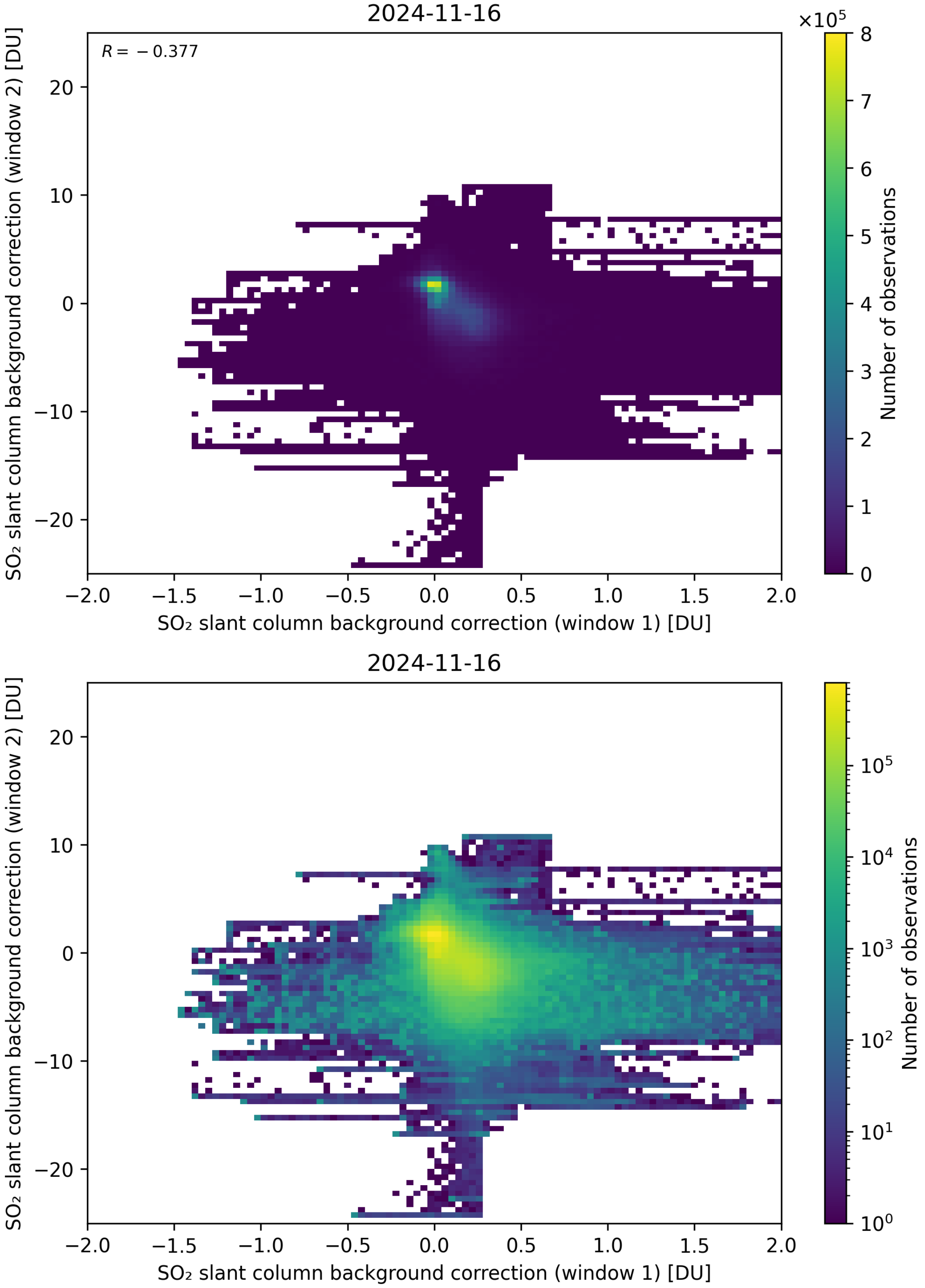
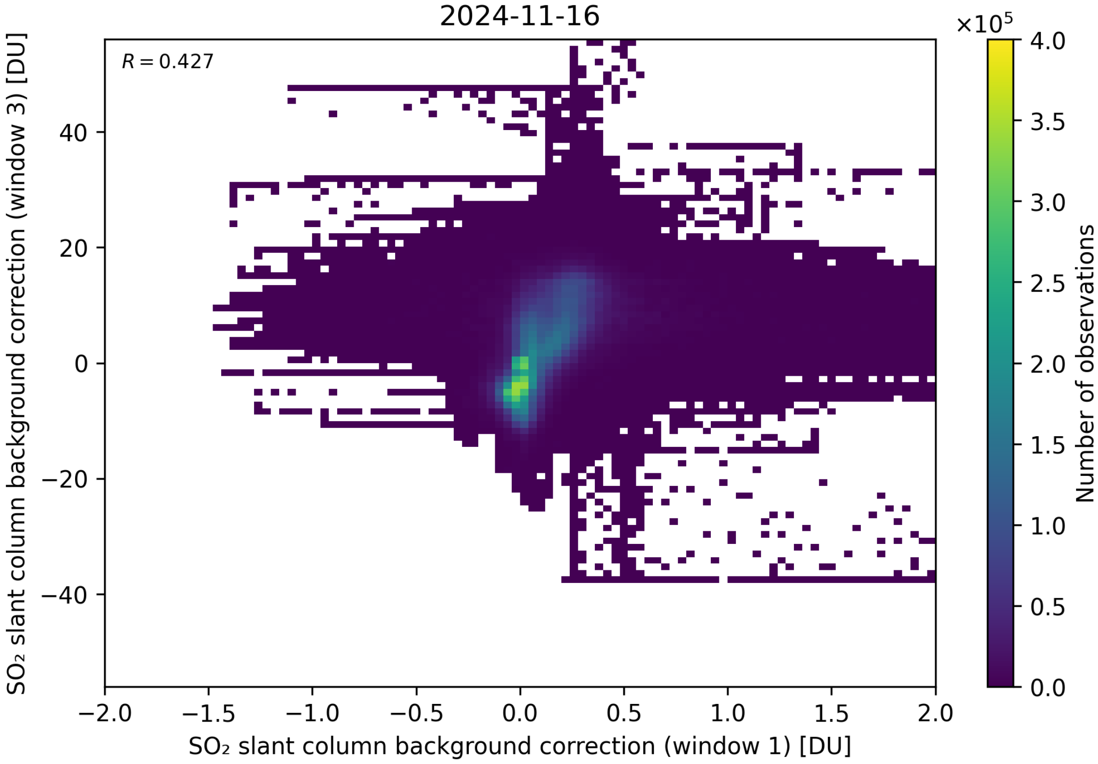


Figure 98: Scatter density plot of "SO_2 slant column background correction (window 1)" against "SO_2 slant column background correction (window 2)" for 2024-11-15 to 2024-11-17.



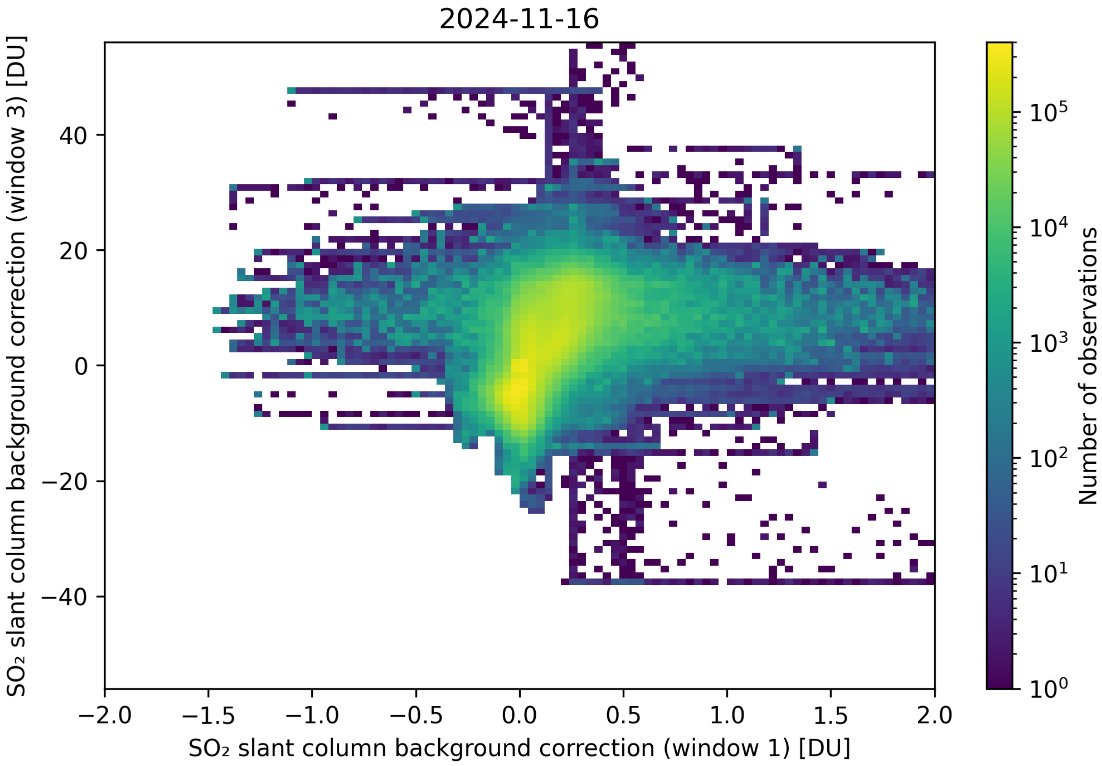
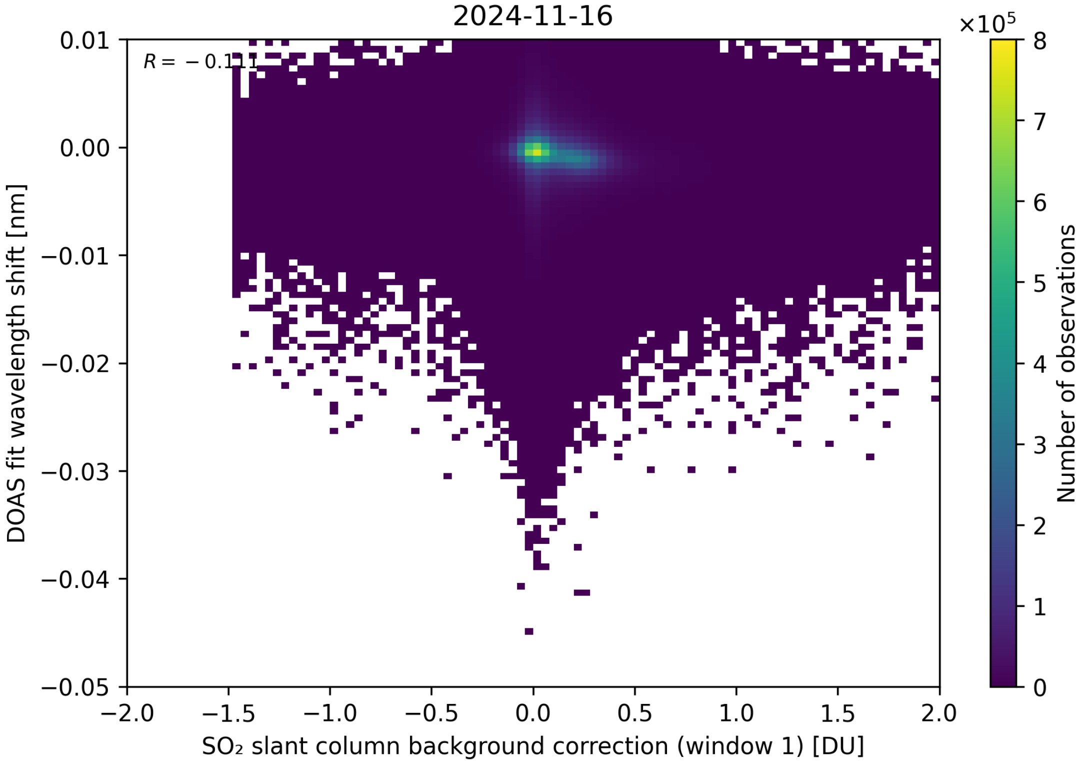


Figure 99: Scatter density plot of “SO_2 slant column background correction (window 1)” against “SO_2 slant column background correction (window 3)” for 2024-11-15 to 2024-11-17.



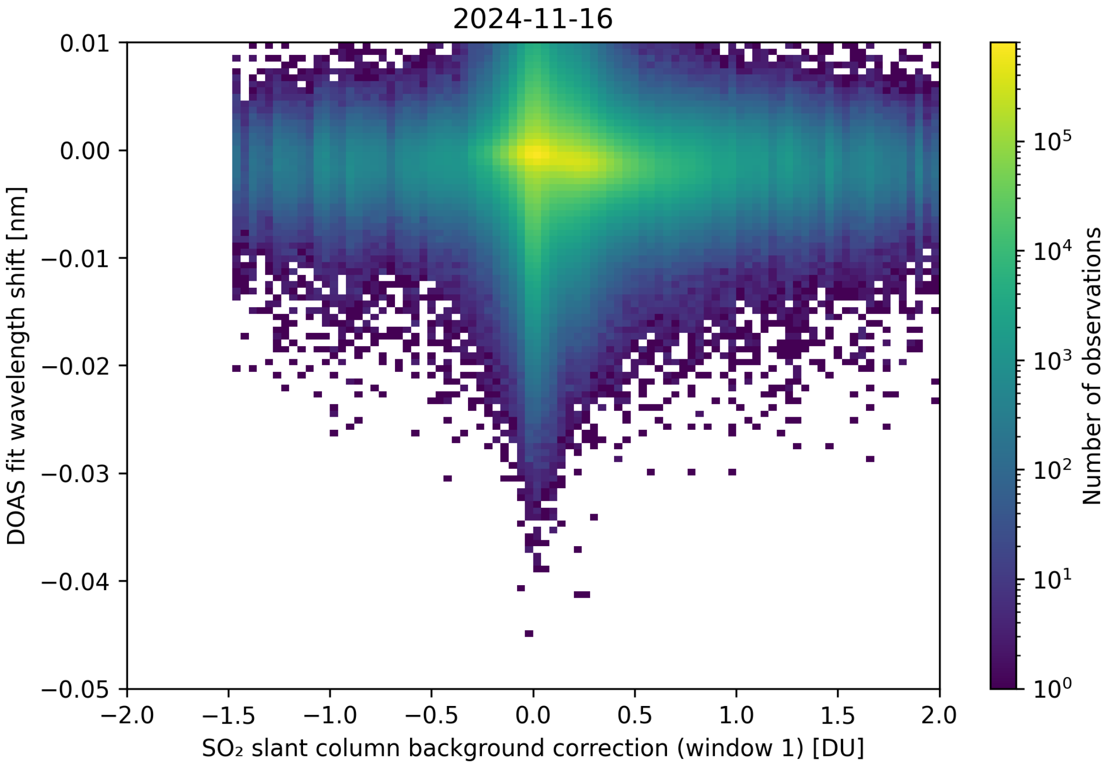


Figure 100: Scatter density plot of “SO_2 slant column background correction (window 1)” against “DOAS fit wavelength shift” for 2024-11-15 to 2024-11-17.

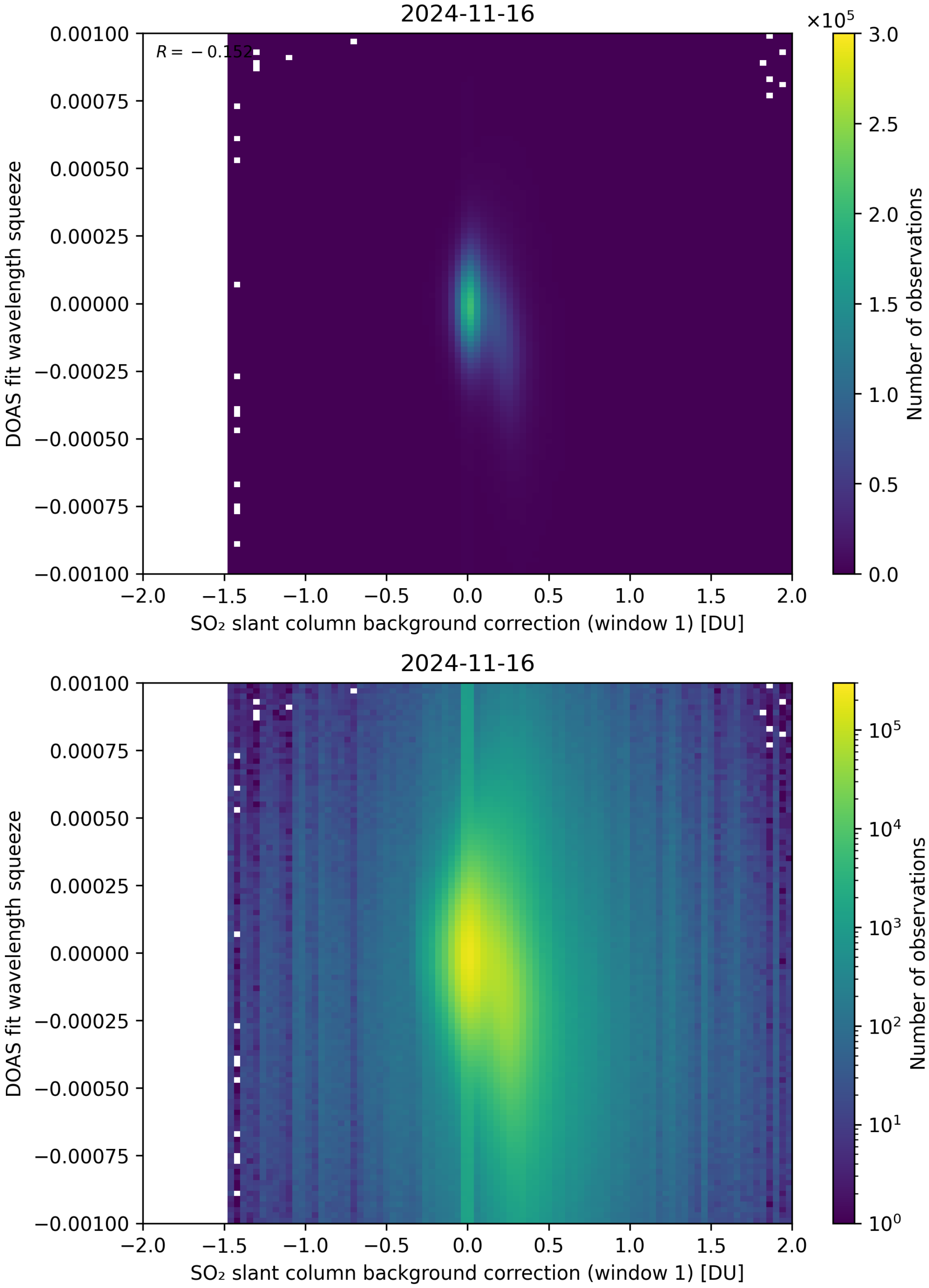


Figure 101: Scatter density plot of “SO_2 slant column background correction (window 1)” against “DOAS fit wavelength squeeze” for 2024-11-15 to 2024-11-17.

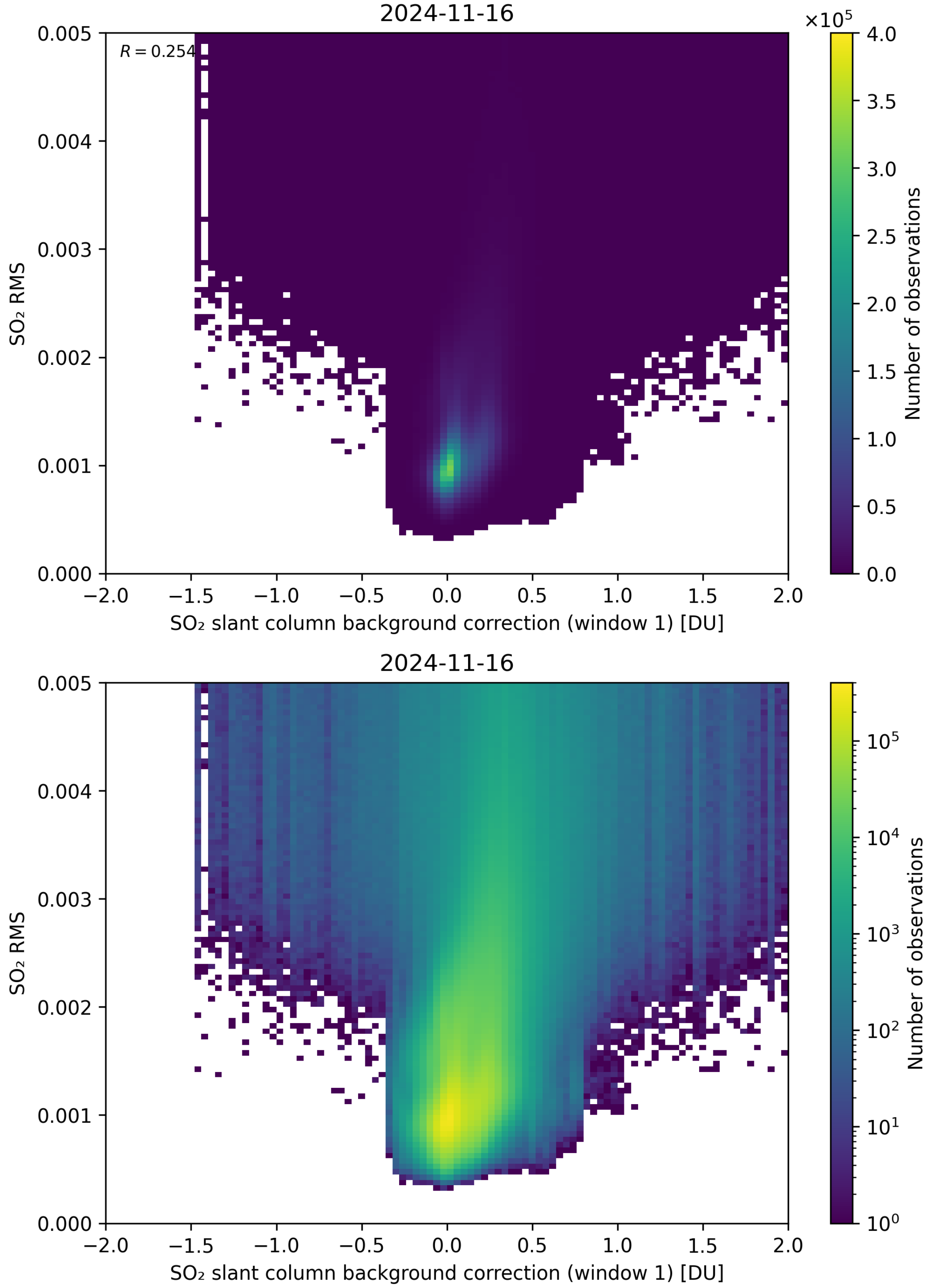


Figure 102: Scatter density plot of "SO_2 slant column background correction (window 1)" against "SO_2 RMS" for 2024-11-15 to 2024-11-17.

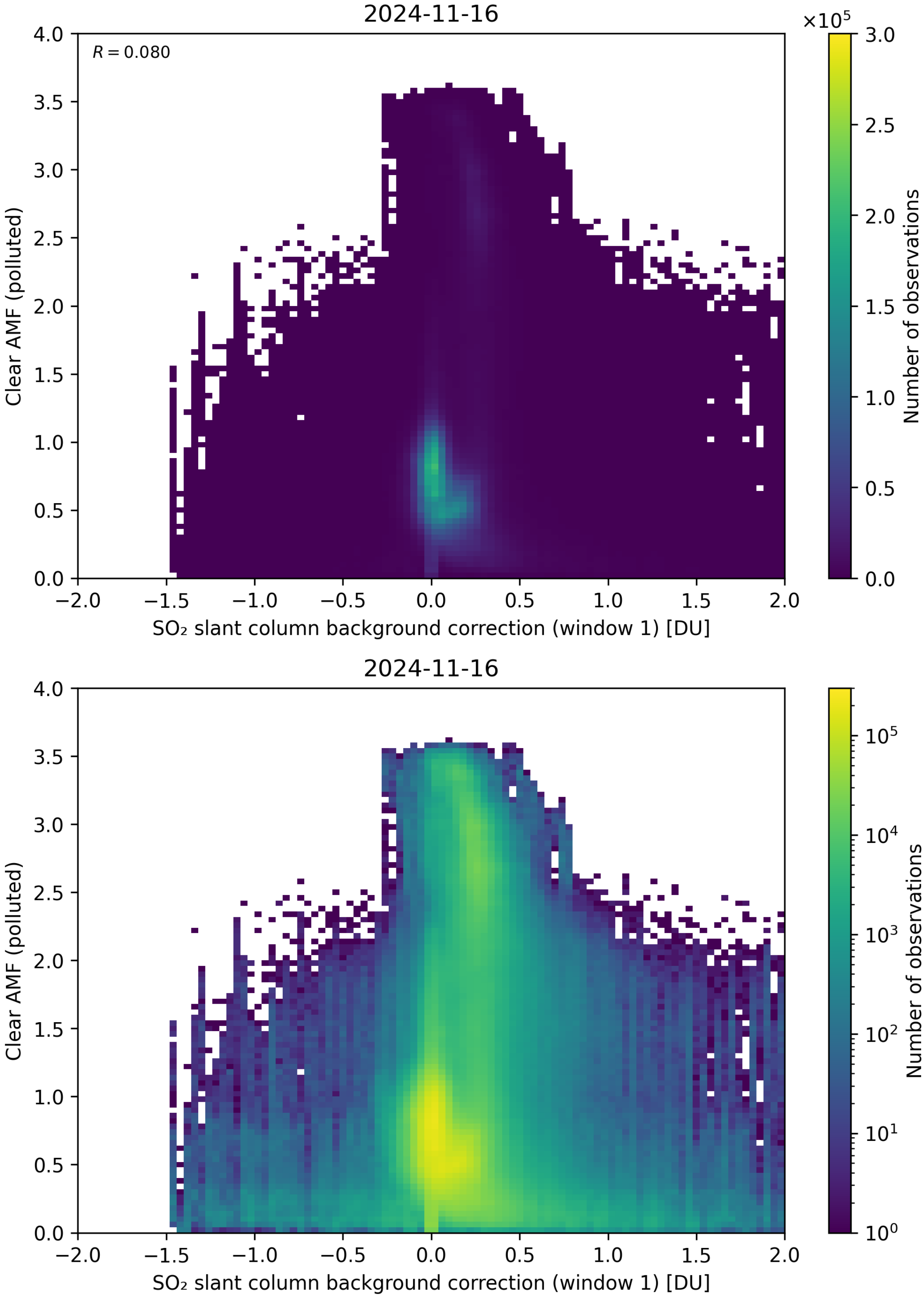


Figure 103: Scatter density plot of “SO_2 slant column background correction (window 1)” against “Clear AMF (polluted)” for 2024-11-15 to 2024-11-17.

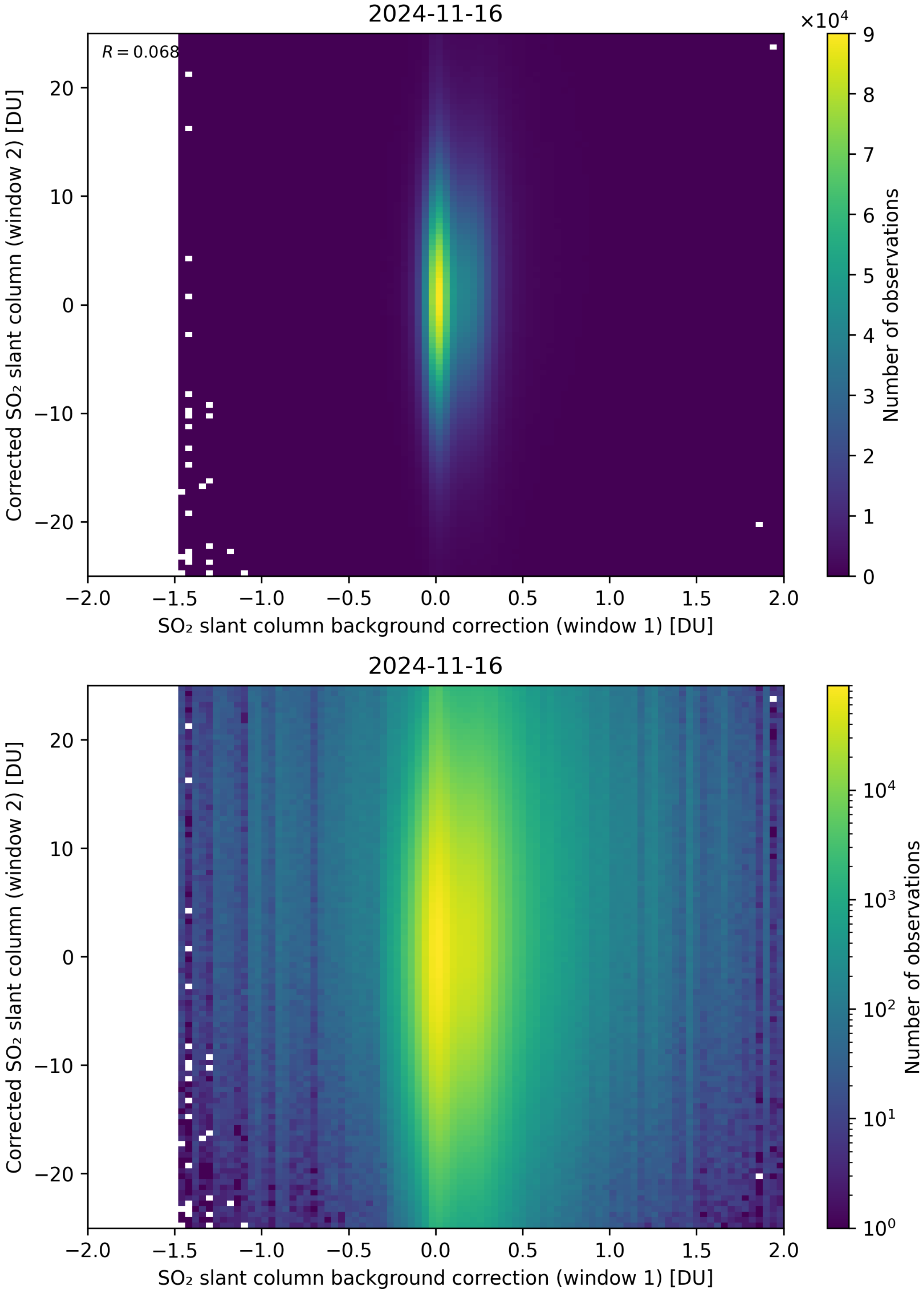


Figure 104: Scatter density plot of “SO_2 slant column background correction (window 1)” against “Corrected SO_2 slant column (window 2)” for 2024-11-15 to 2024-11-17.

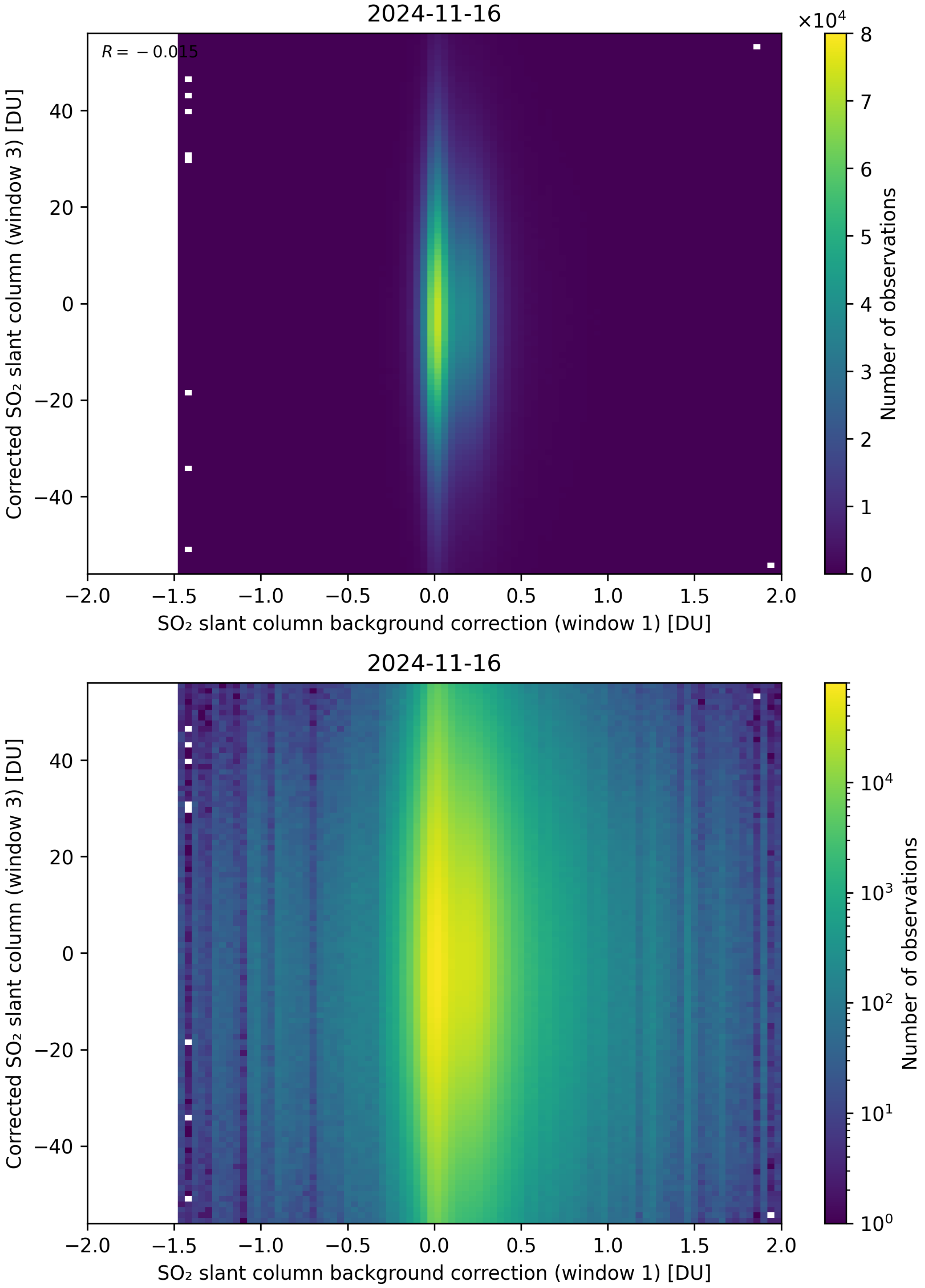


Figure 105: Scatter density plot of "SO_2 slant column background correction (window 1)" against "Corrected SO_2 slant column (window 3)" for 2024-11-15 to 2024-11-17.

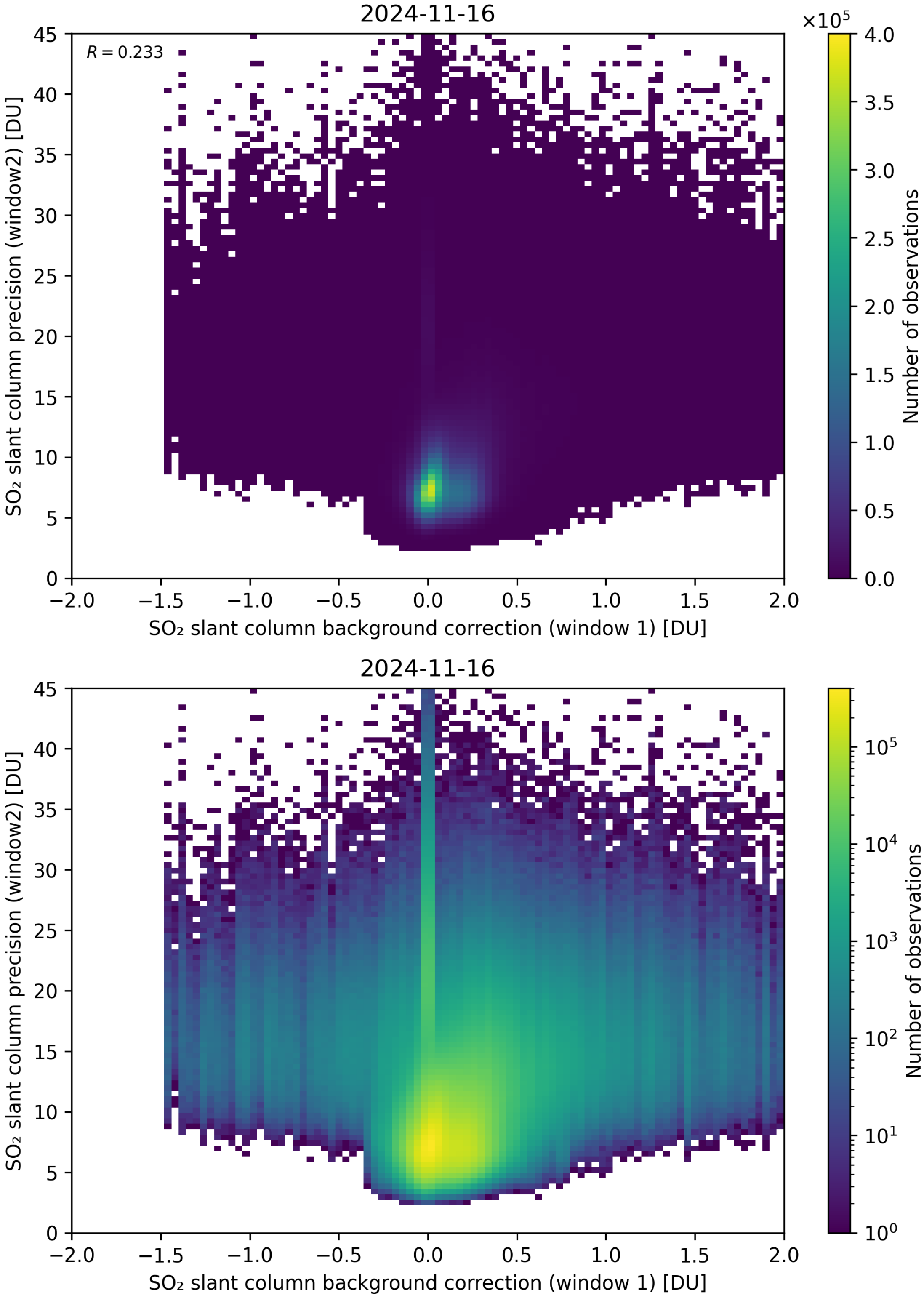
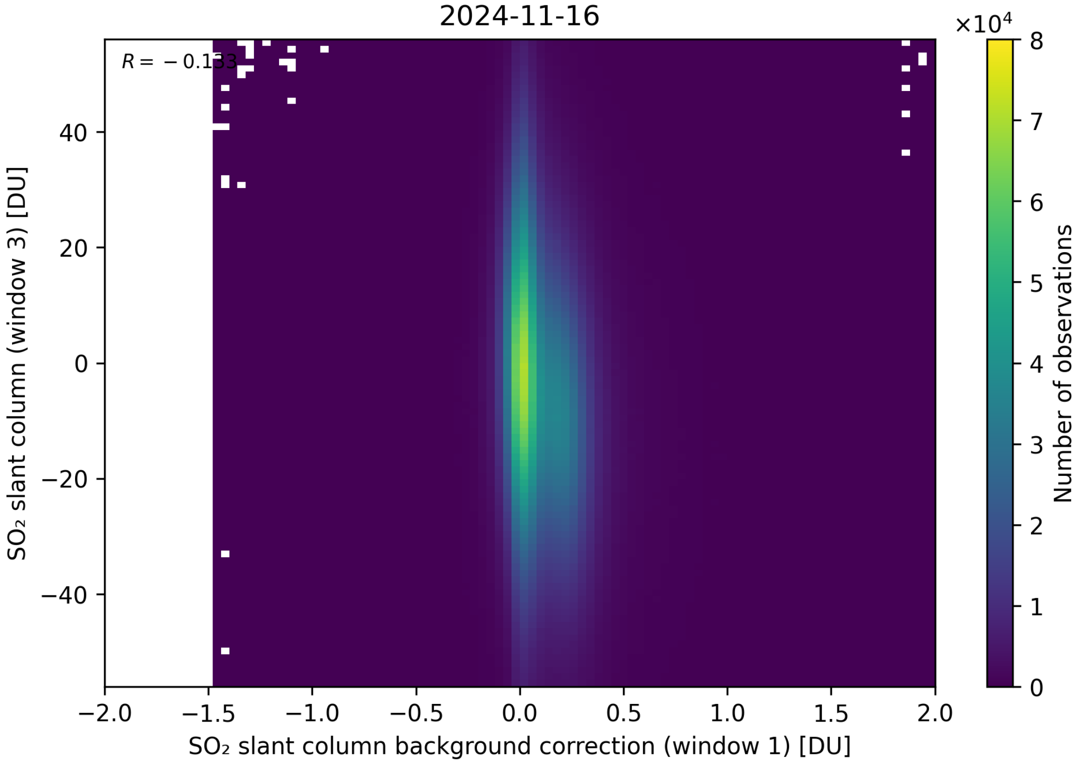


Figure 106: Scatter density plot of "SO_2 slant column background correction (window 1)" against "SO_2 slant column precision (window2)" for 2024-11-15 to 2024-11-17.



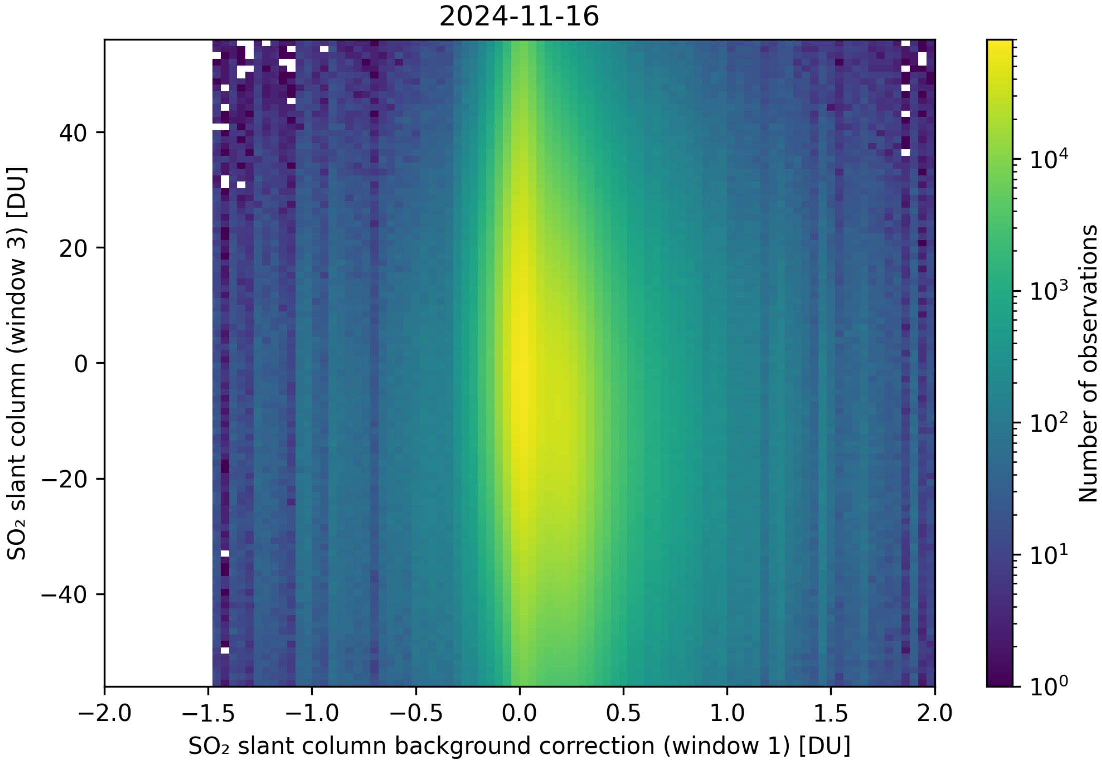


Figure 107: Scatter density plot of "SO_2 slant column background correction (window 1)" against "SO_2 slant column (window 3)" for 2024-11-15 to 2024-11-17.

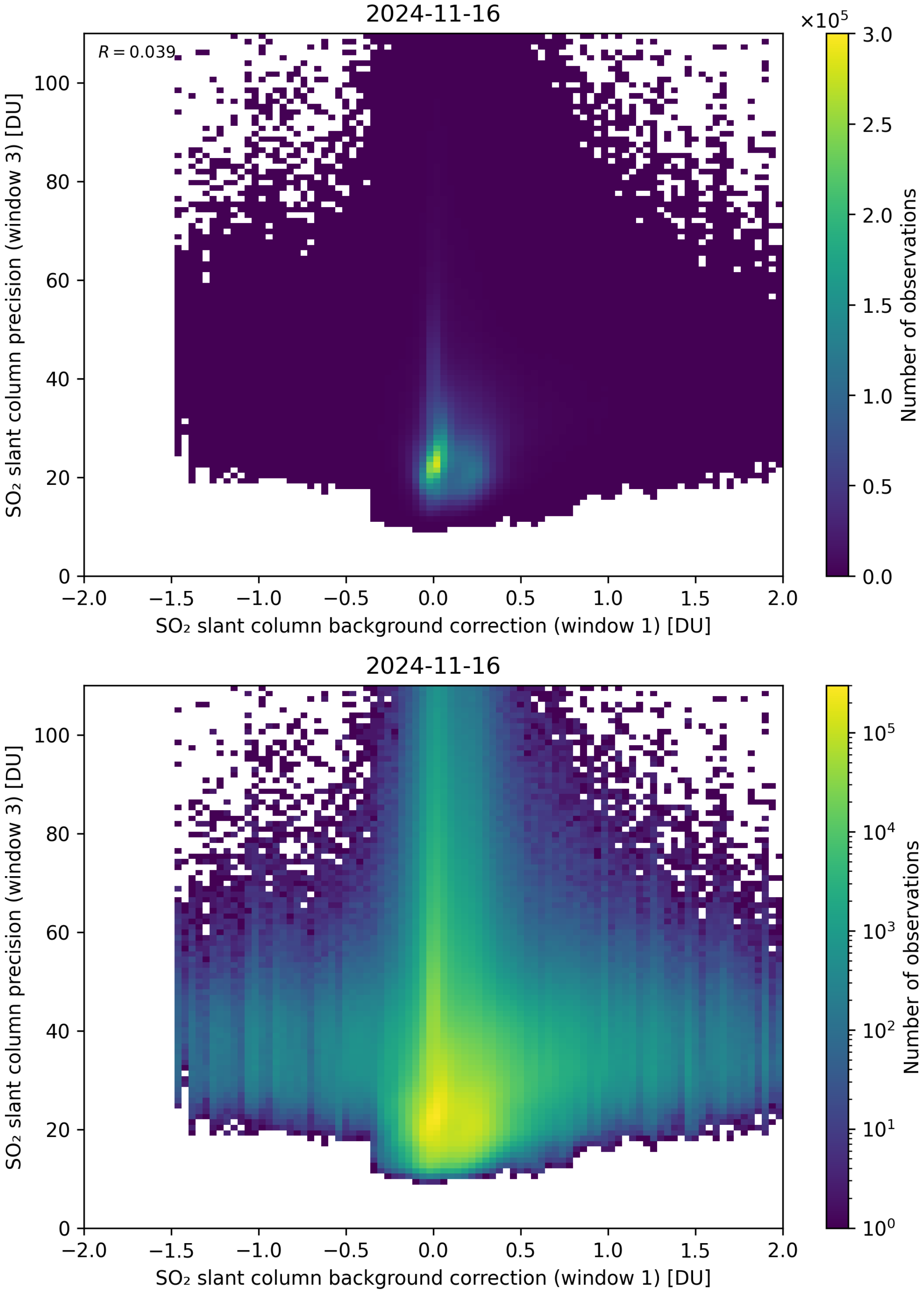


Figure 108: Scatter density plot of "SO_2 slant column background correction (window 1)" against "SO_2 slant column precision (window 3)" for 2024-11-15 to 2024-11-17.

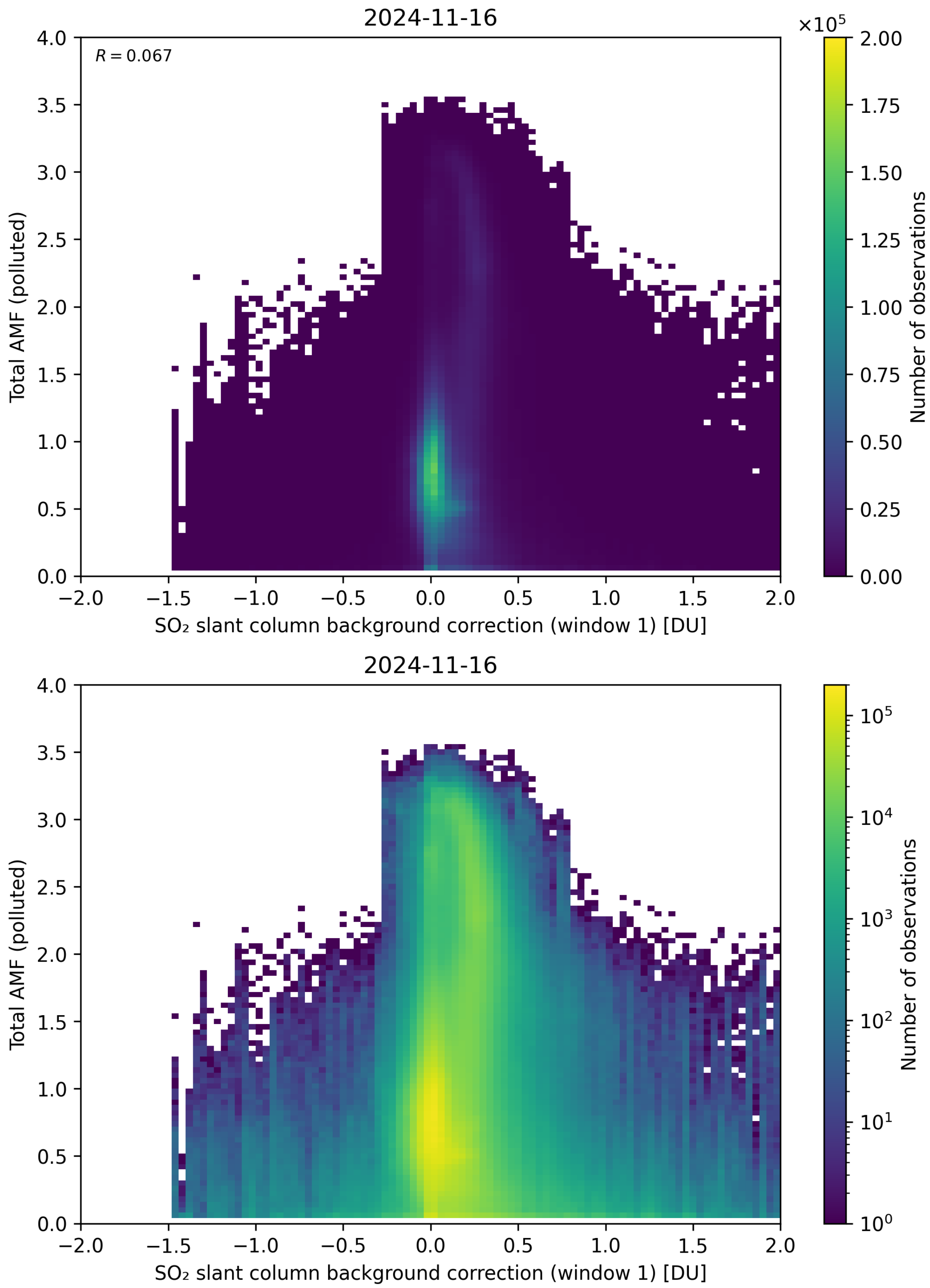


Figure 109: Scatter density plot of “SO_2 slant column background correction (window 1)” against “Total AMF (polluted)” for 2024-11-15 to 2024-11-17.

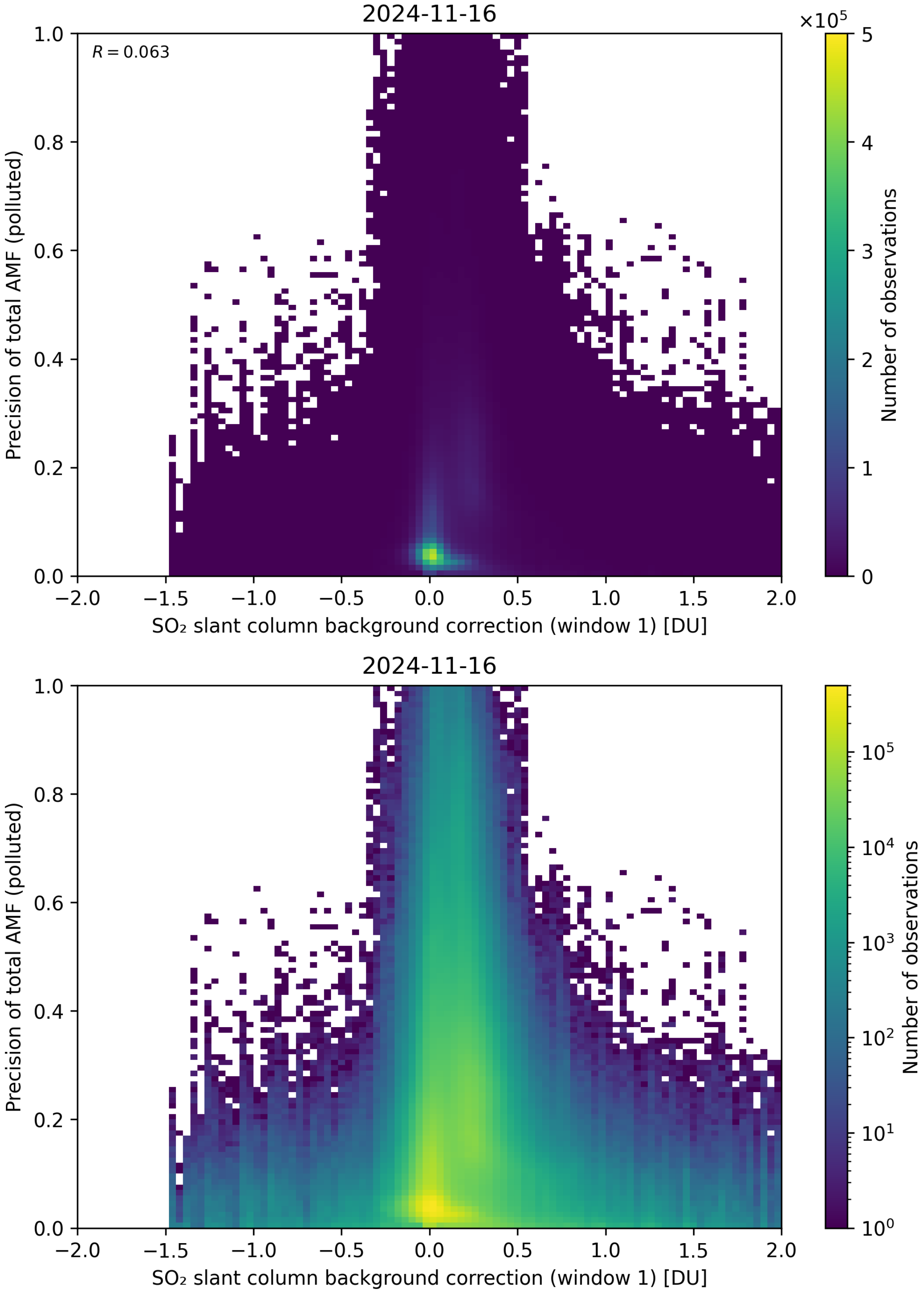


Figure 110: Scatter density plot of “SO_2 slant column background correction (window 1)” against “Precision of total AMF (polluted)” for 2024-11-15 to 2024-11-17.

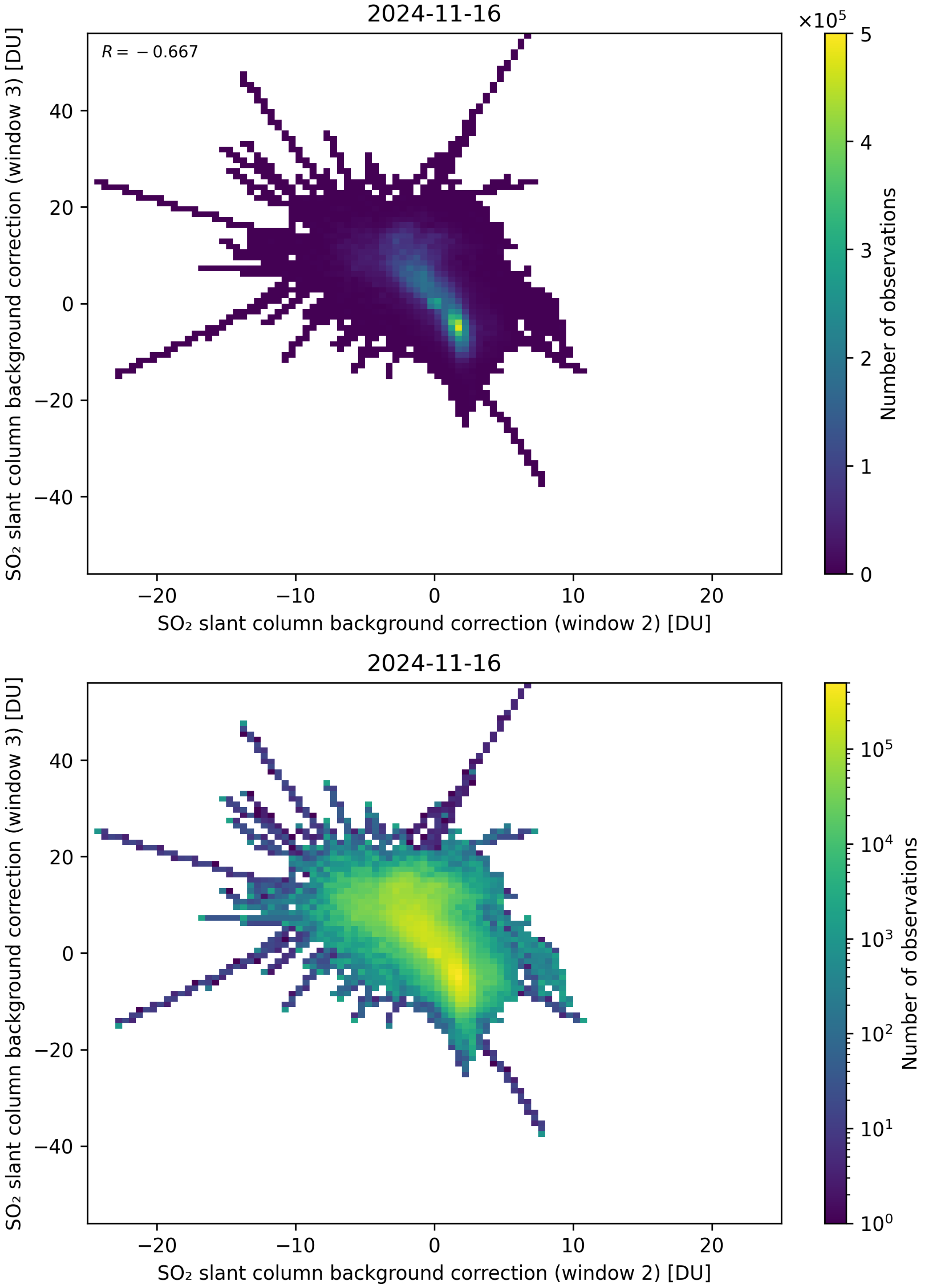


Figure 111: Scatter density plot of "SO_2 slant column background correction (window 2)" against "SO_2 slant column background correction (window 3)" for 2024-11-15 to 2024-11-17.

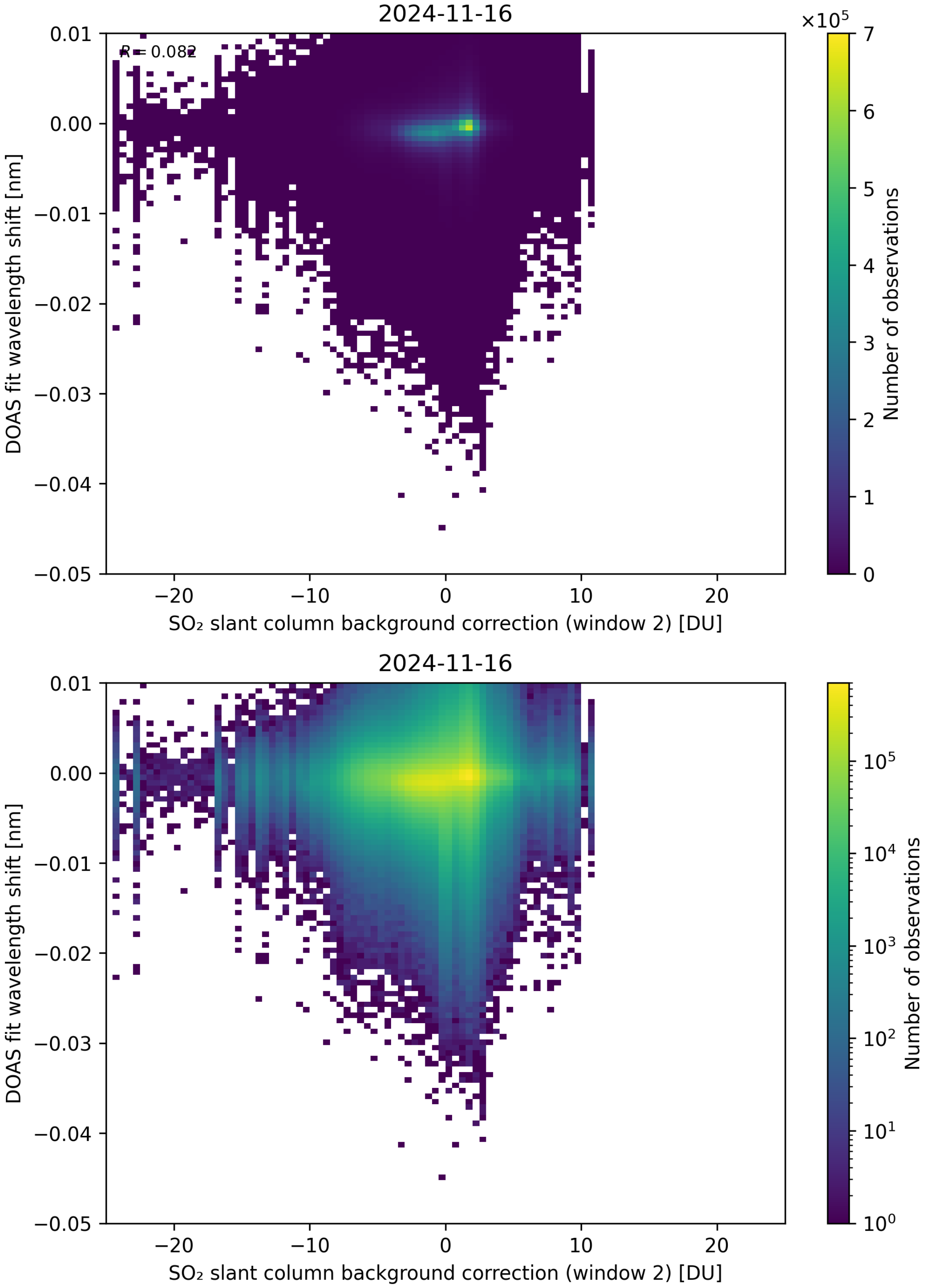


Figure 112: Scatter density plot of “SO_2 slant column background correction (window 2)” against “DOAS fit wavelength shift” for 2024-11-15 to 2024-11-17.

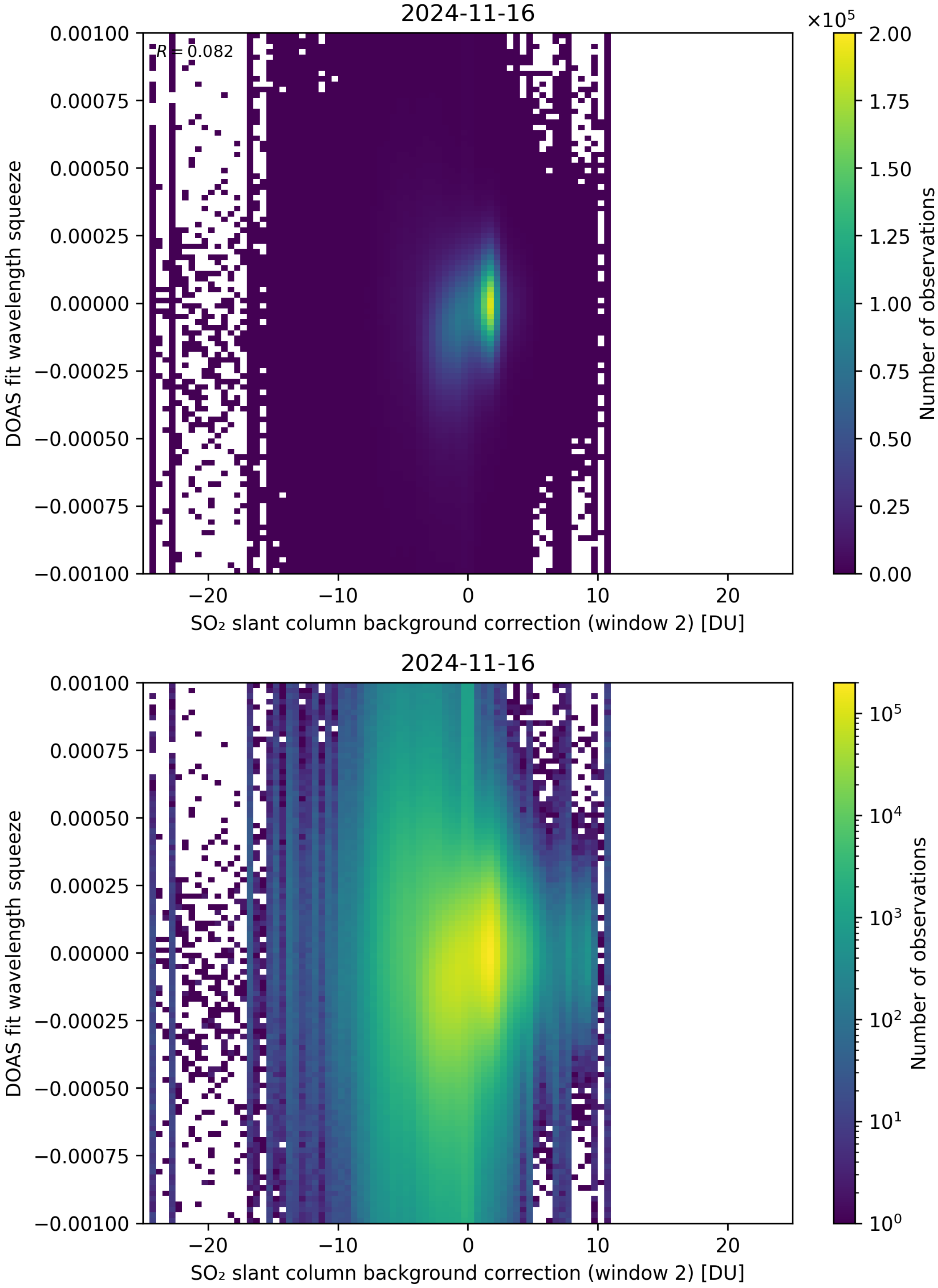


Figure 113: Scatter density plot of “SO_2 slant column background correction (window 2)” against “DOAS fit wavelength squeeze” for 2024-11-15 to 2024-11-17.

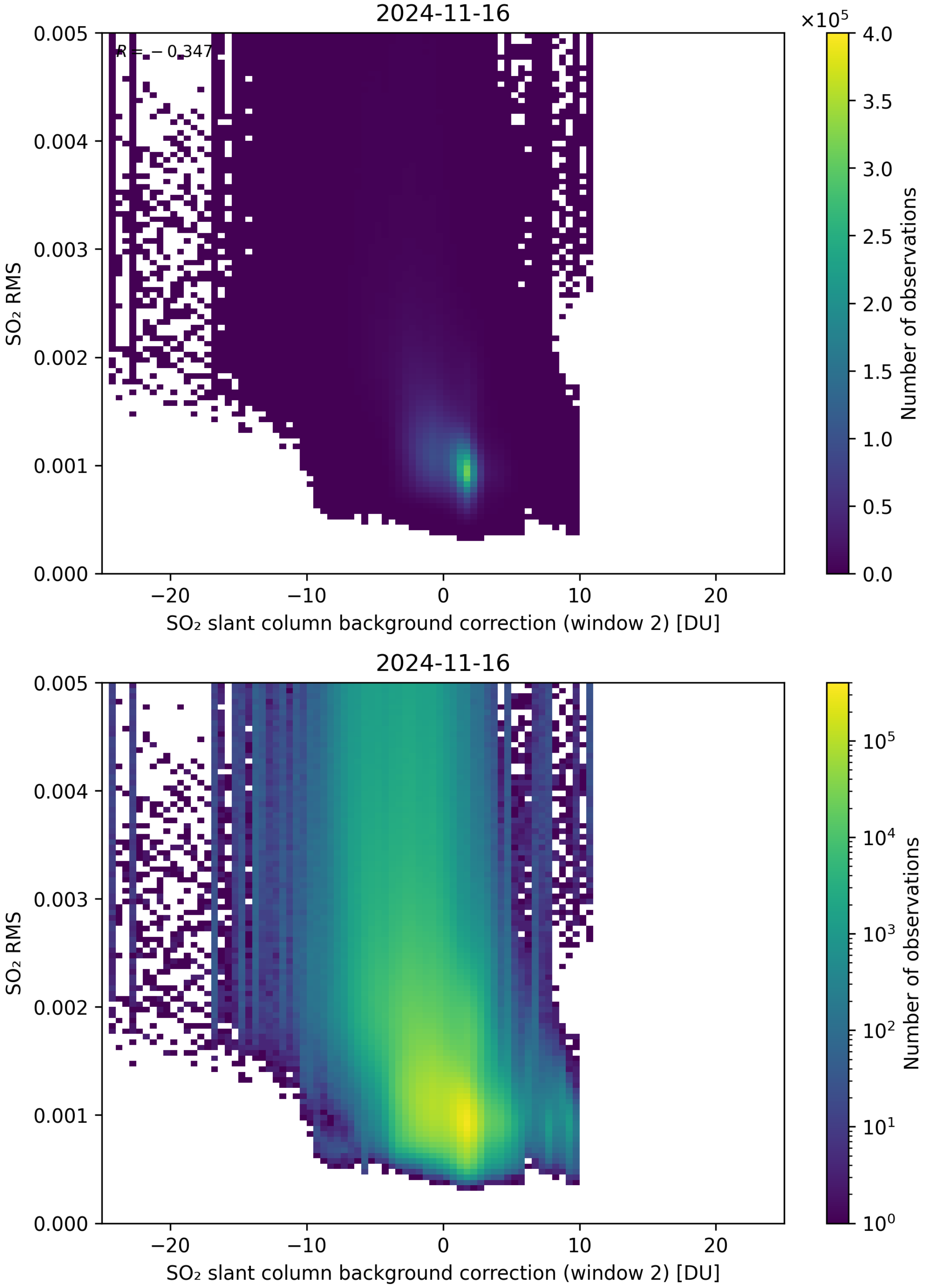


Figure 114: Scatter density plot of “SO_2 slant column background correction (window 2)” against “SO_2 RMS” for 2024-11-15 to 2024-11-17.

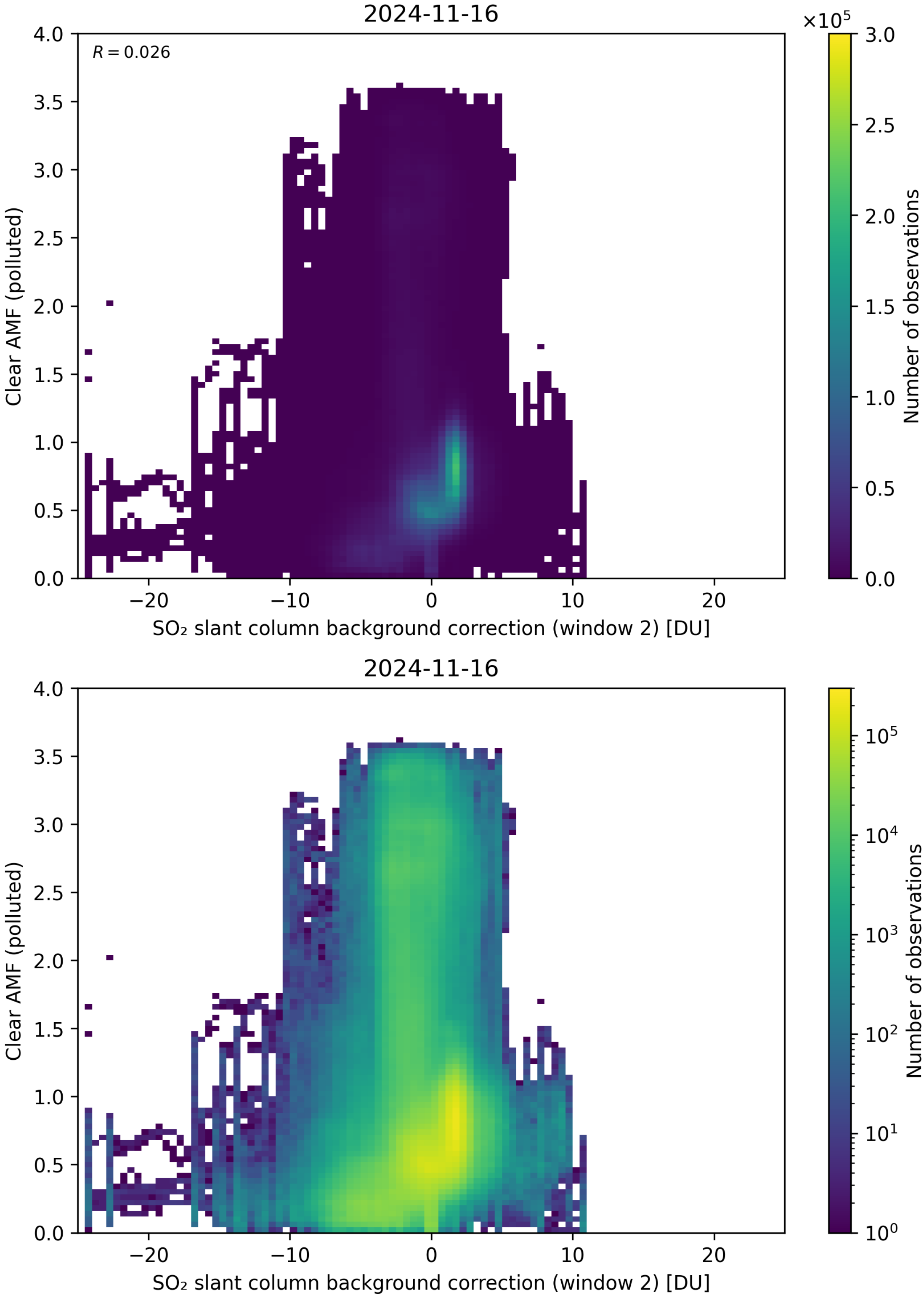


Figure 115: Scatter density plot of "SO_2 slant column background correction (window 2)" against "Clear AMF (polluted)" for 2024-11-15 to 2024-11-17.

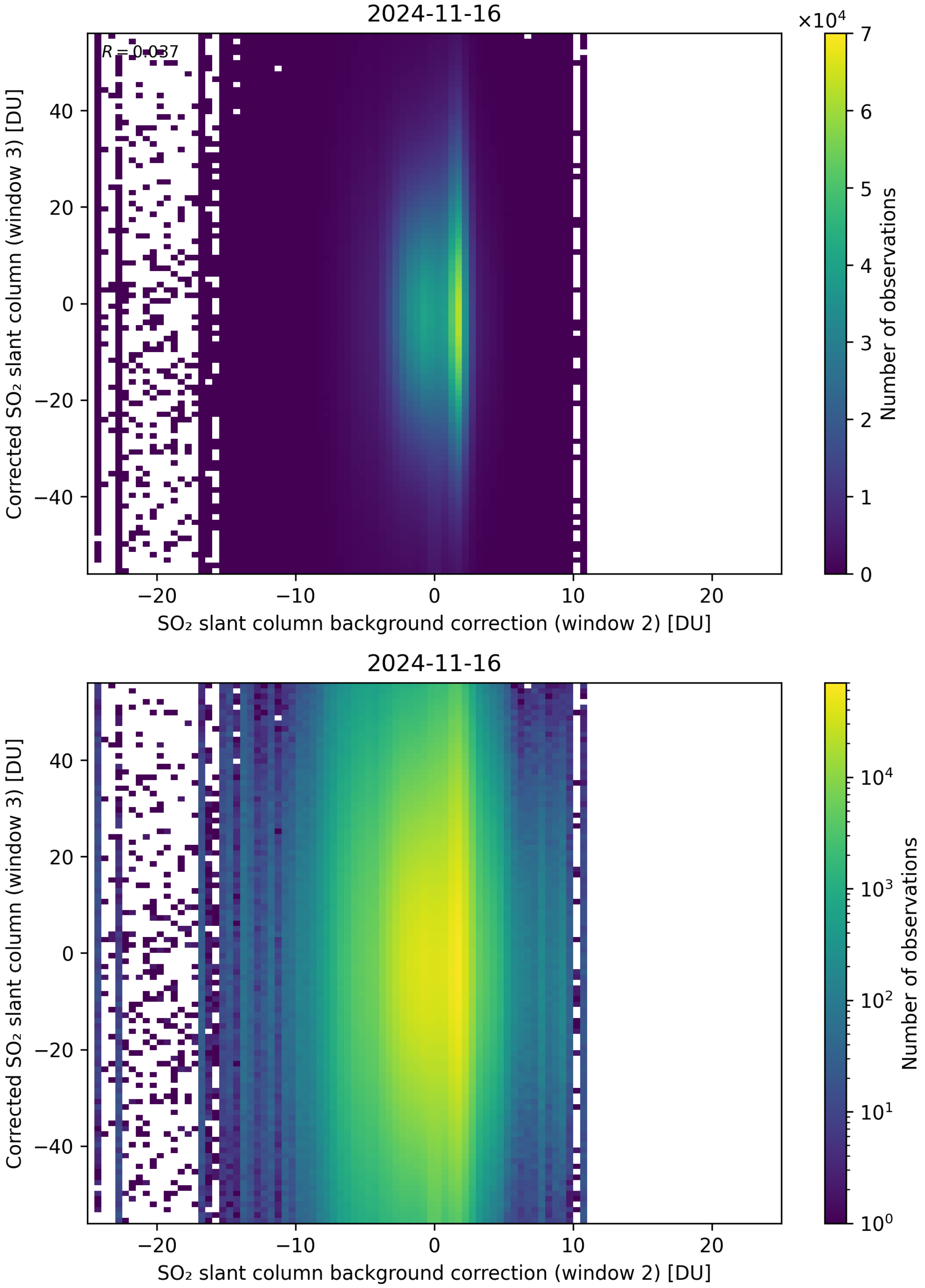


Figure 116: Scatter density plot of “SO_2 slant column background correction (window 2)” against “Corrected SO_2 slant column (window 3)” for 2024-11-15 to 2024-11-17.

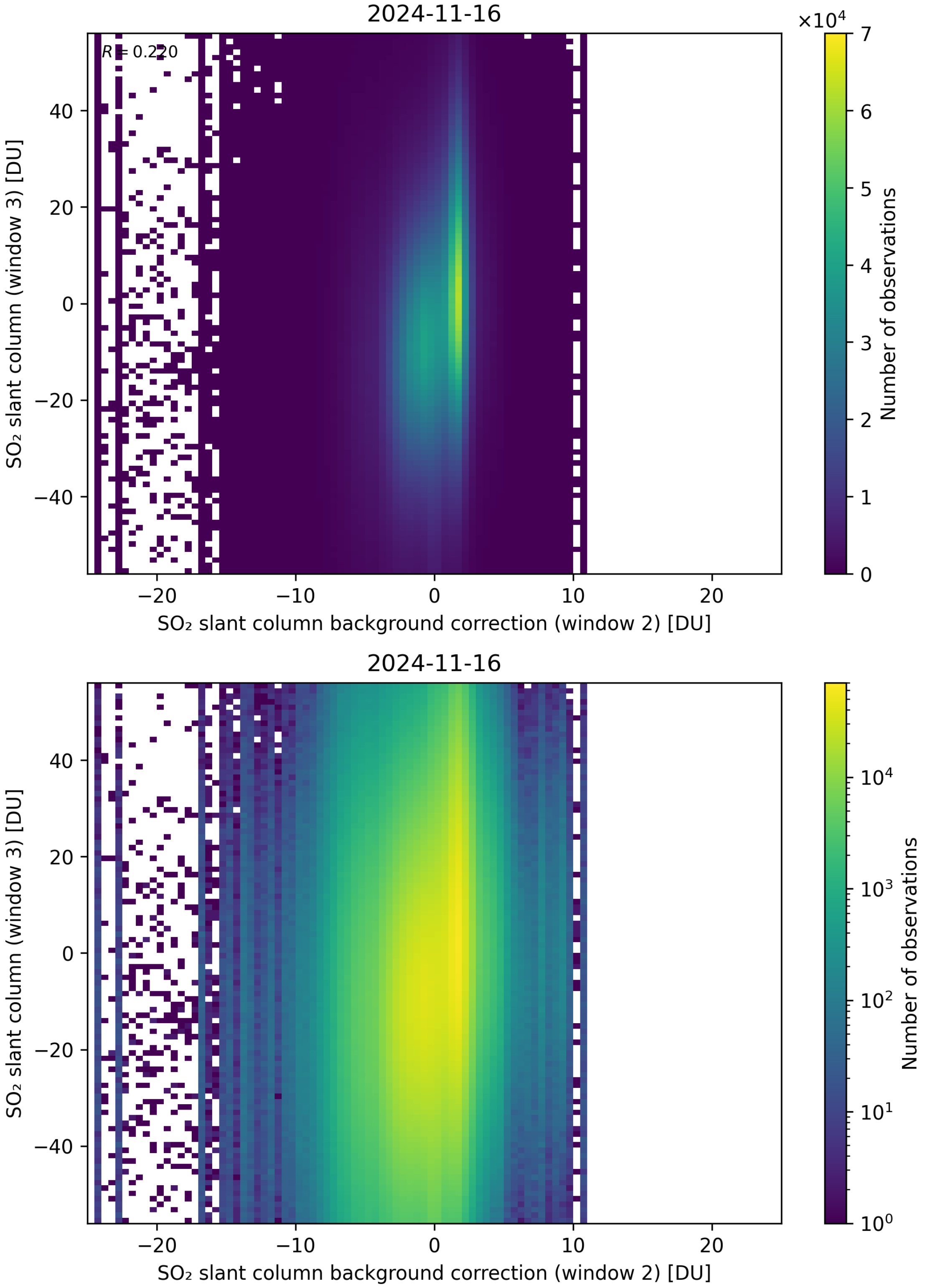


Figure 117: Scatter density plot of “SO_2 slant column background correction (window 2)” against “SO_2 slant column (window 3)” for 2024-11-15 to 2024-11-17.

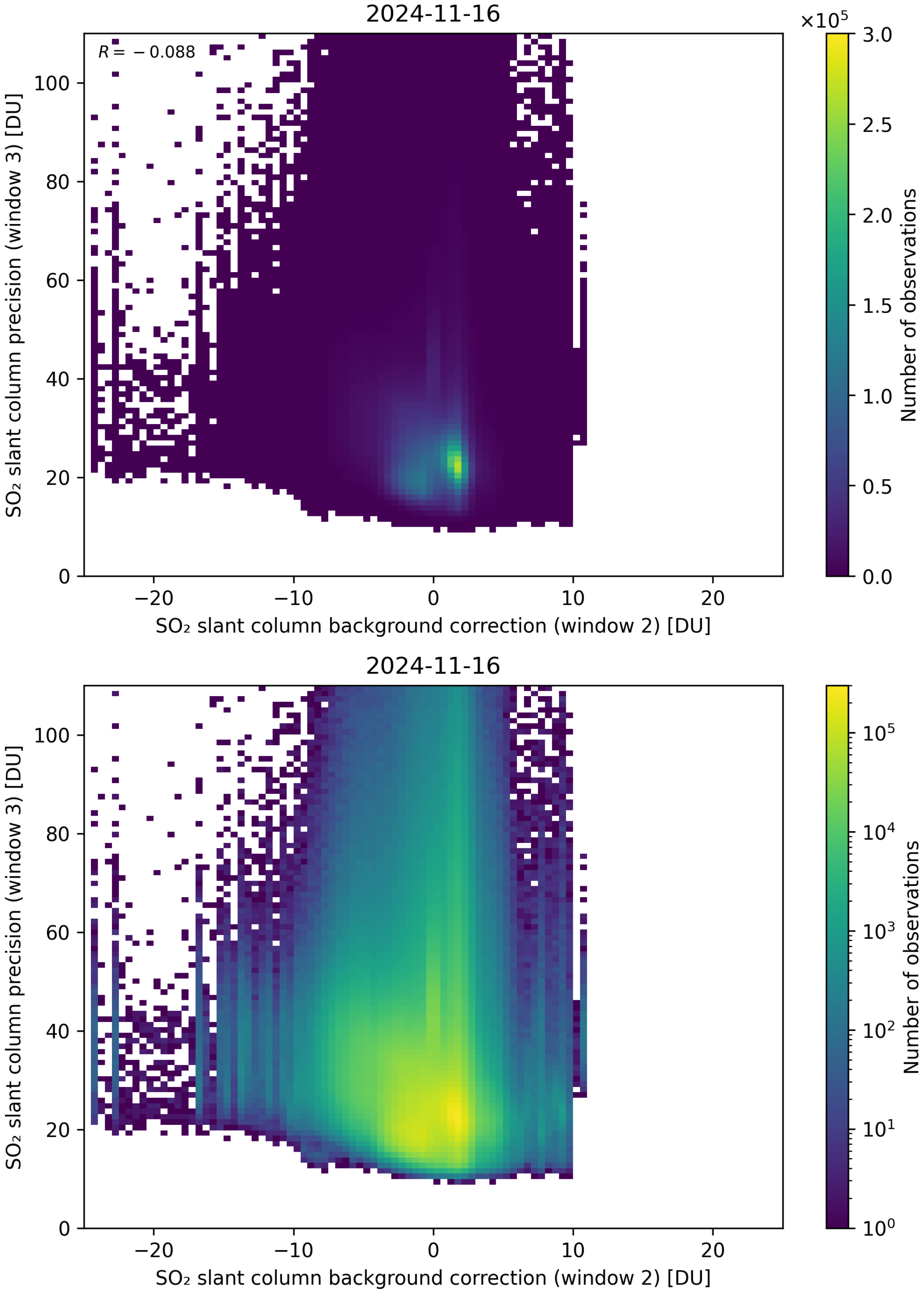


Figure 118: Scatter density plot of "SO_2 slant column background correction (window 2)" against "SO_2 slant column precision (window 3)" for 2024-11-15 to 2024-11-17.

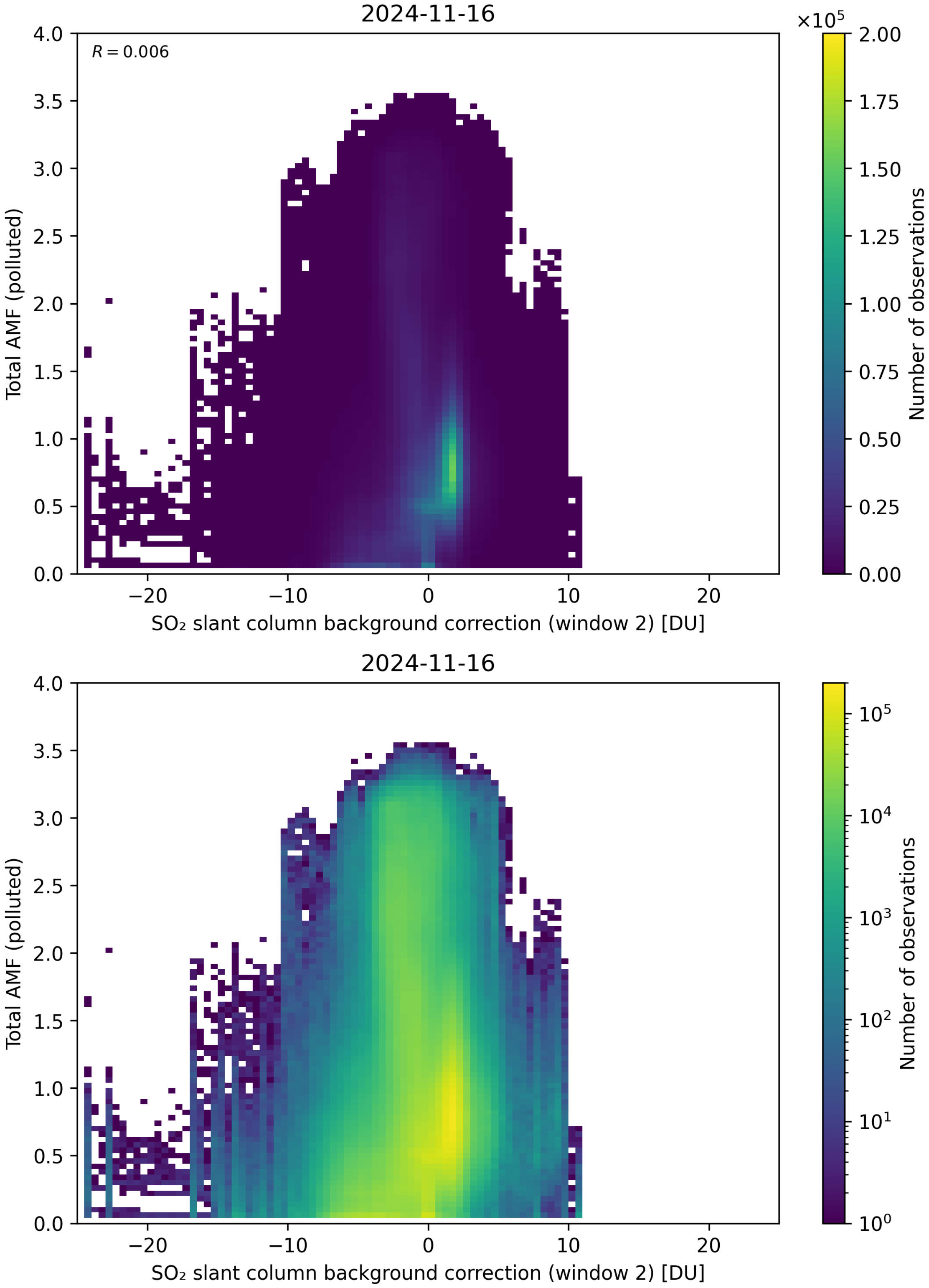
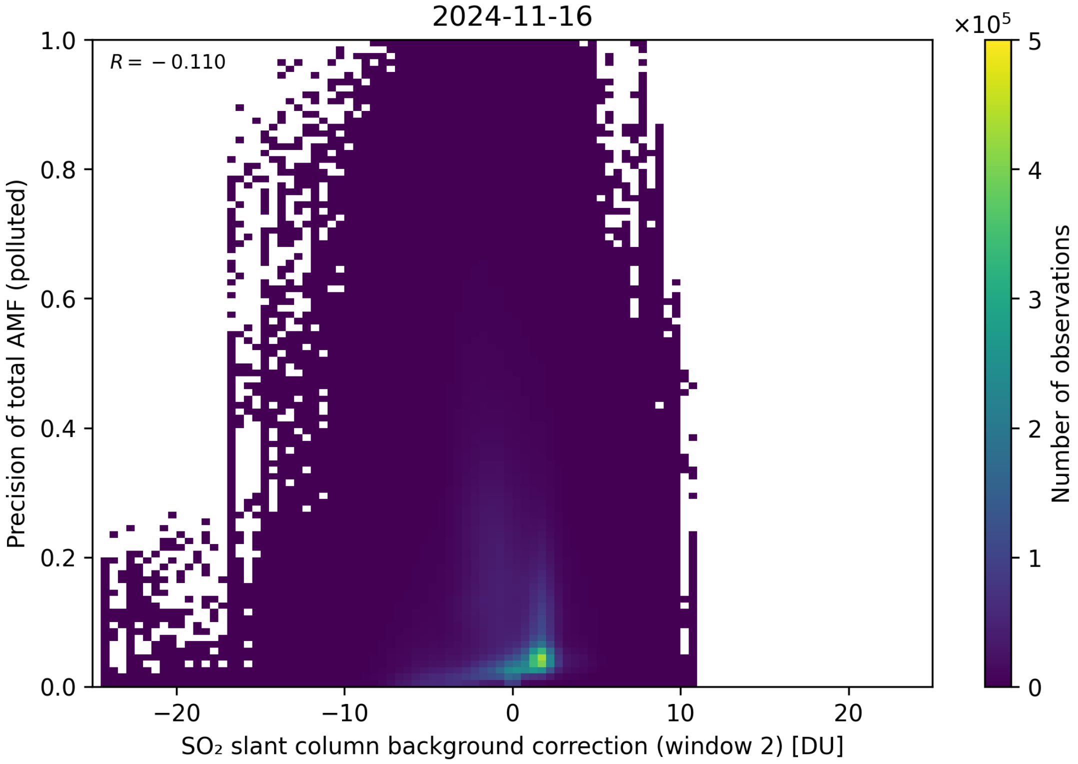


Figure 119: Scatter density plot of "SO_2 slant column background correction (window 2)" against "Total AMF (polluted)" for 2024-11-15 to 2024-11-17.



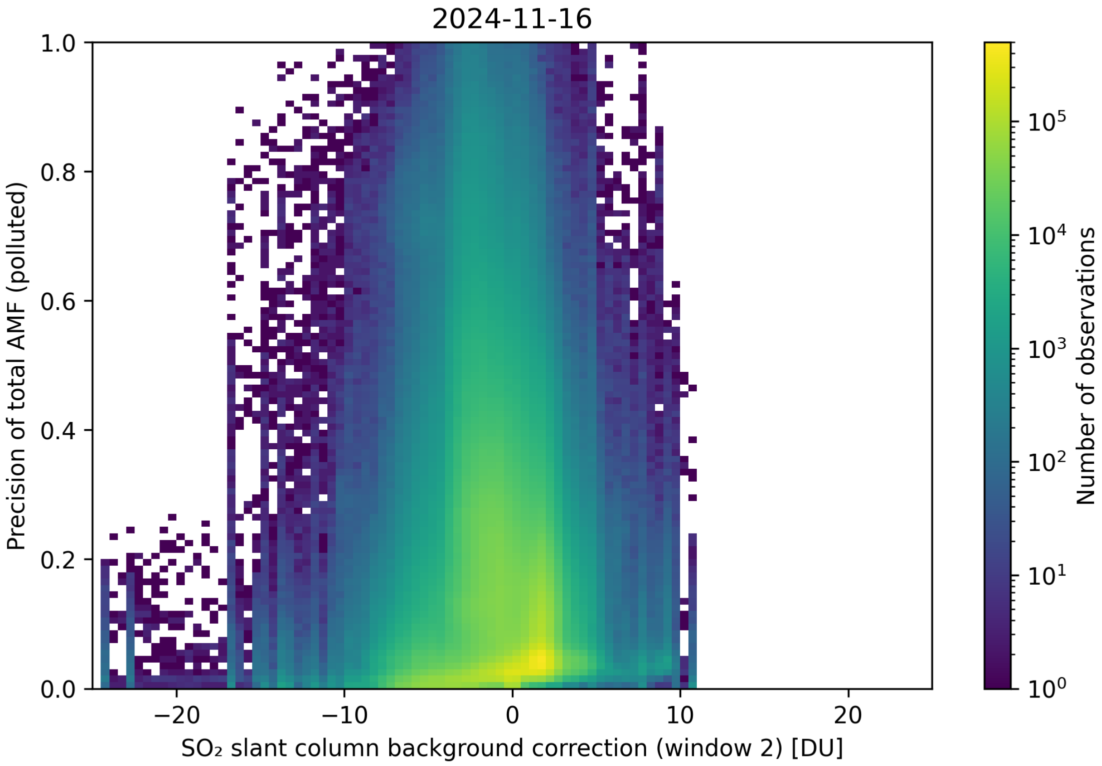


Figure 120: Scatter density plot of "SO_2 slant column background correction (window 2)" against "Precision of total AMF (polluted)" for 2024-11-15 to 2024-11-17.

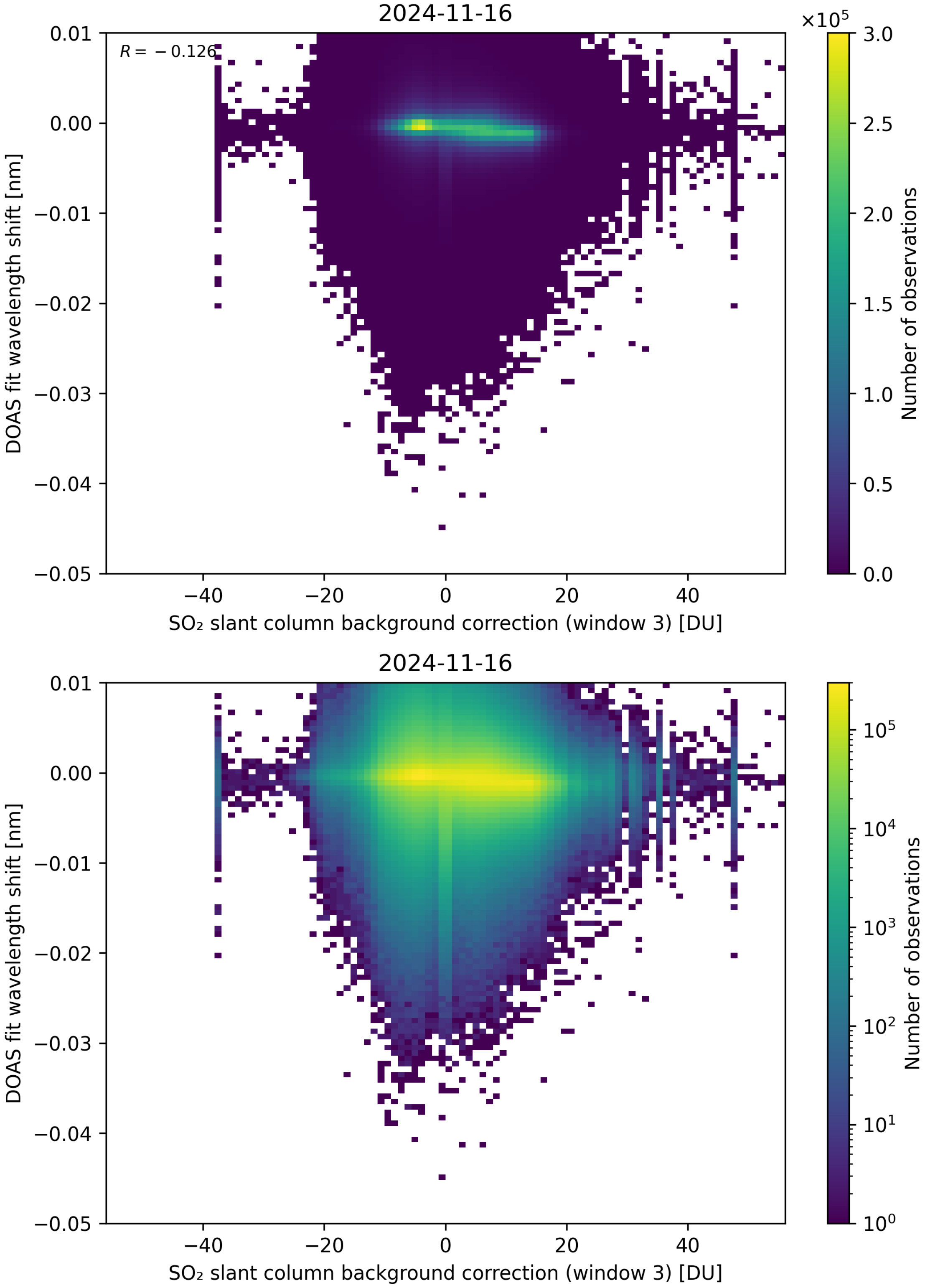


Figure 121: Scatter density plot of “SO_2 slant column background correction (window 3)” against “DOAS fit wavelength shift” for 2024-11-15 to 2024-11-17.

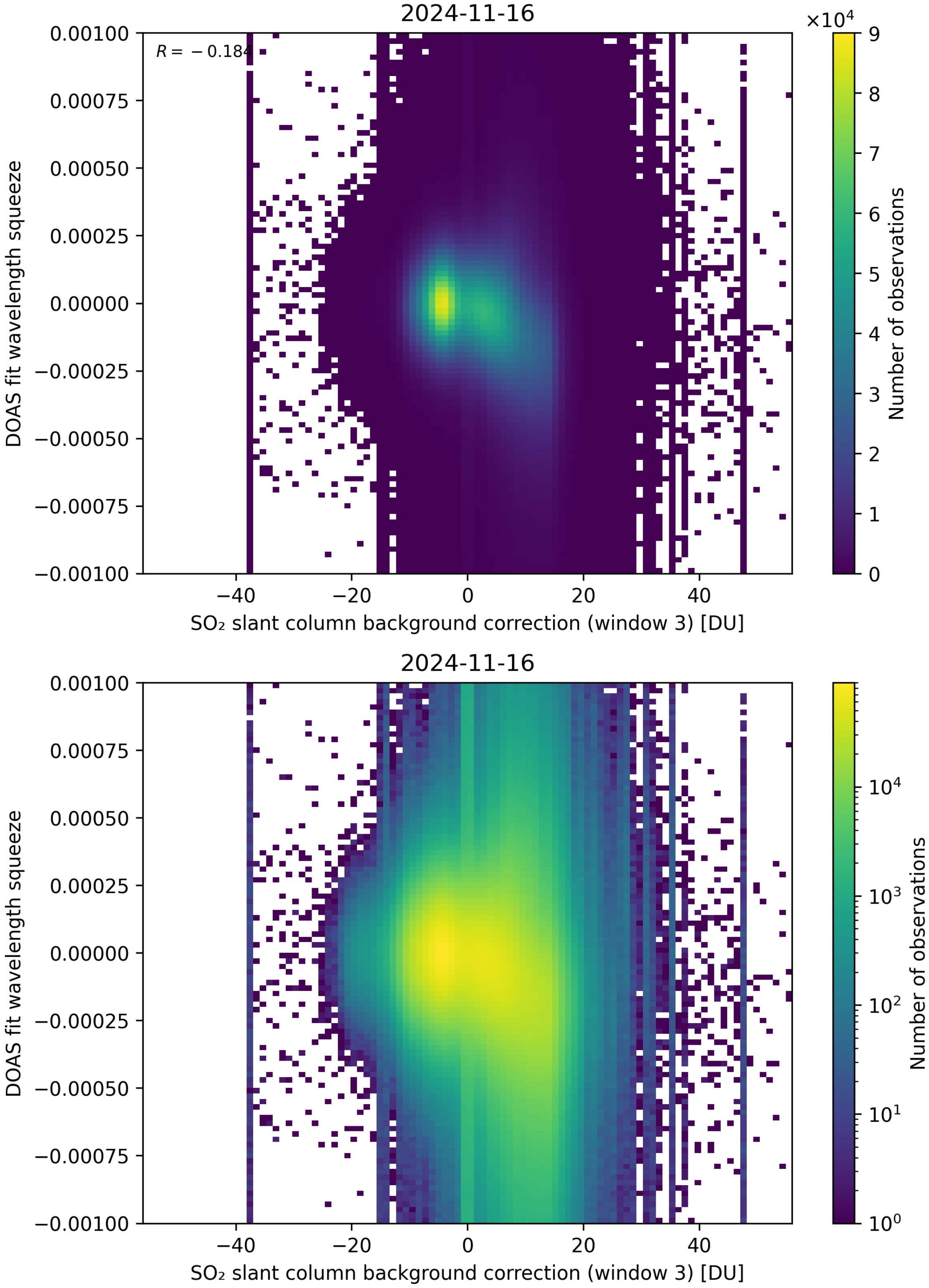


Figure 122: Scatter density plot of “SO_2 slant column background correction (window 3)” against “DOAS fit wavelength squeeze” for 2024-11-15 to 2024-11-17.

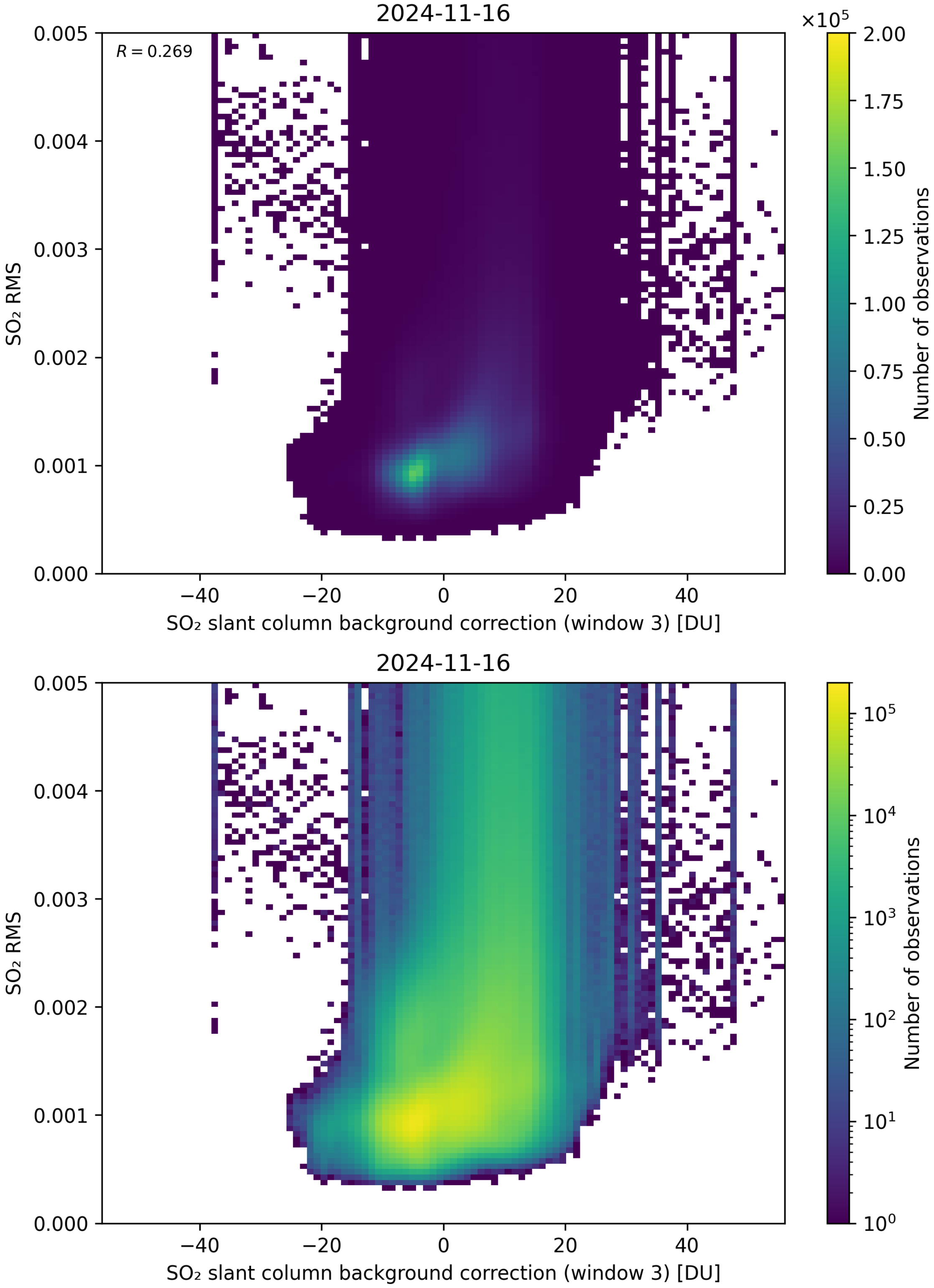
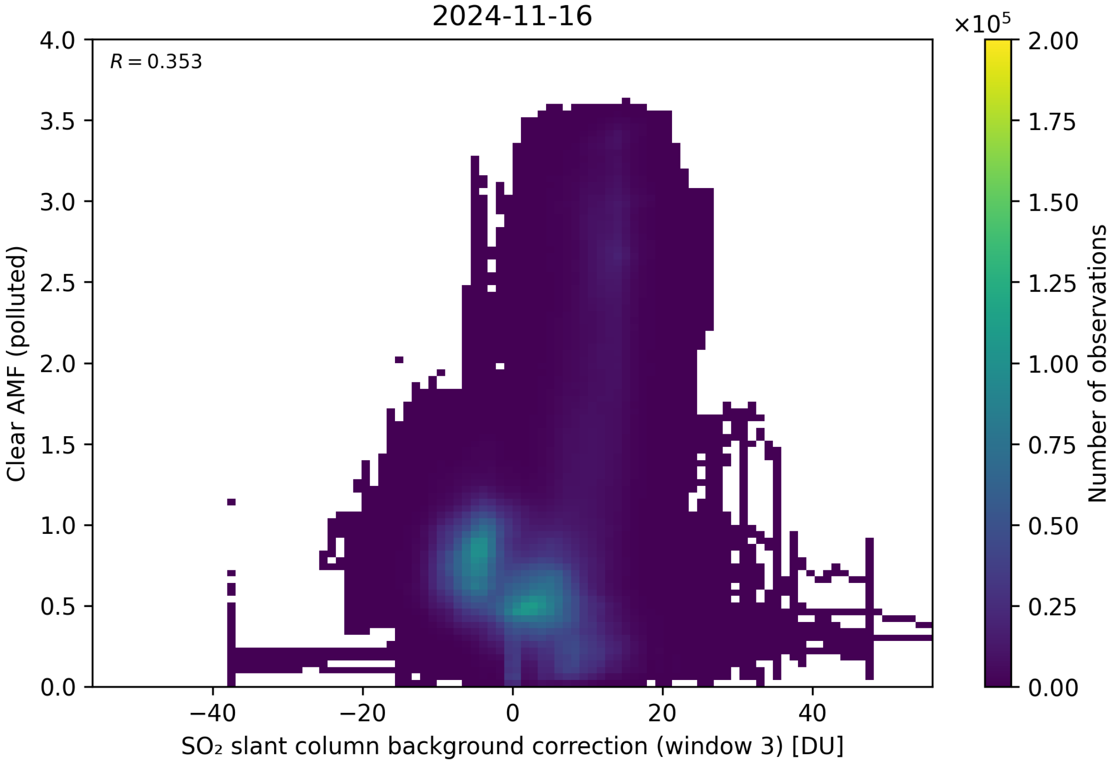


Figure 123: Scatter density plot of “SO_2 slant column background correction (window 3)” against “SO_2 RMS” for 2024-11-15 to 2024-11-17.



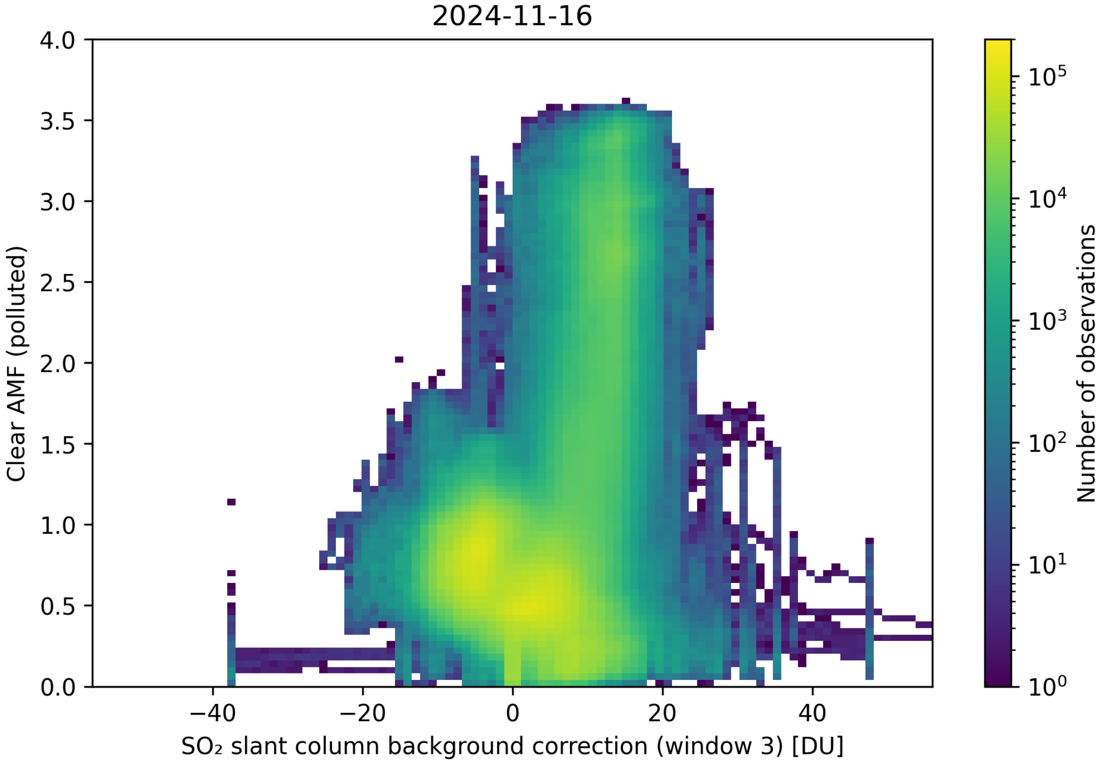
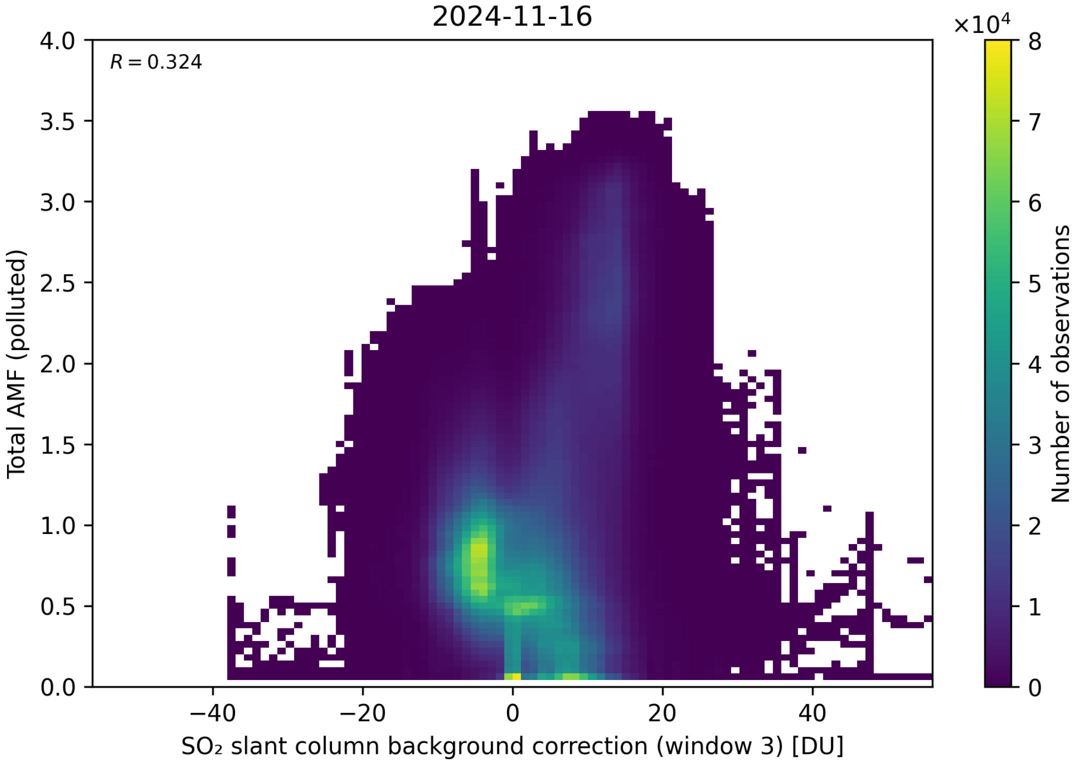


Figure 124: Scatter density plot of “SO_2 slant column background correction (window 3)” against “Clear AMF (polluted)” for 2024-11-15 to 2024-11-17.



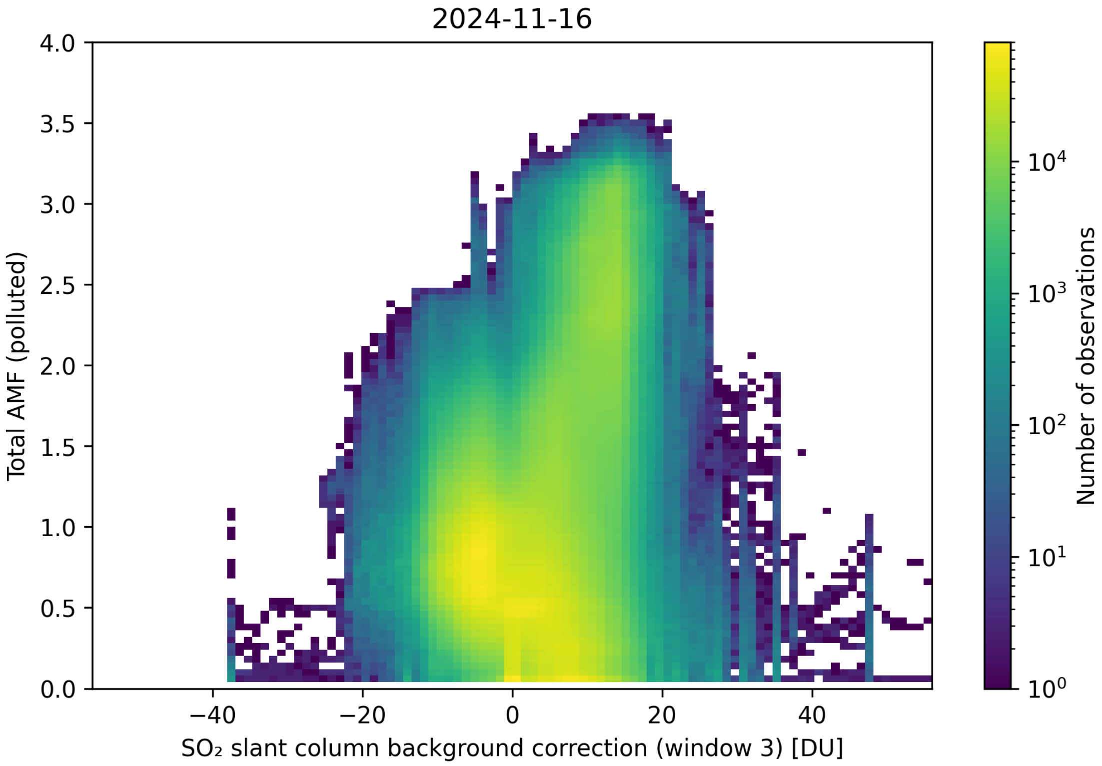
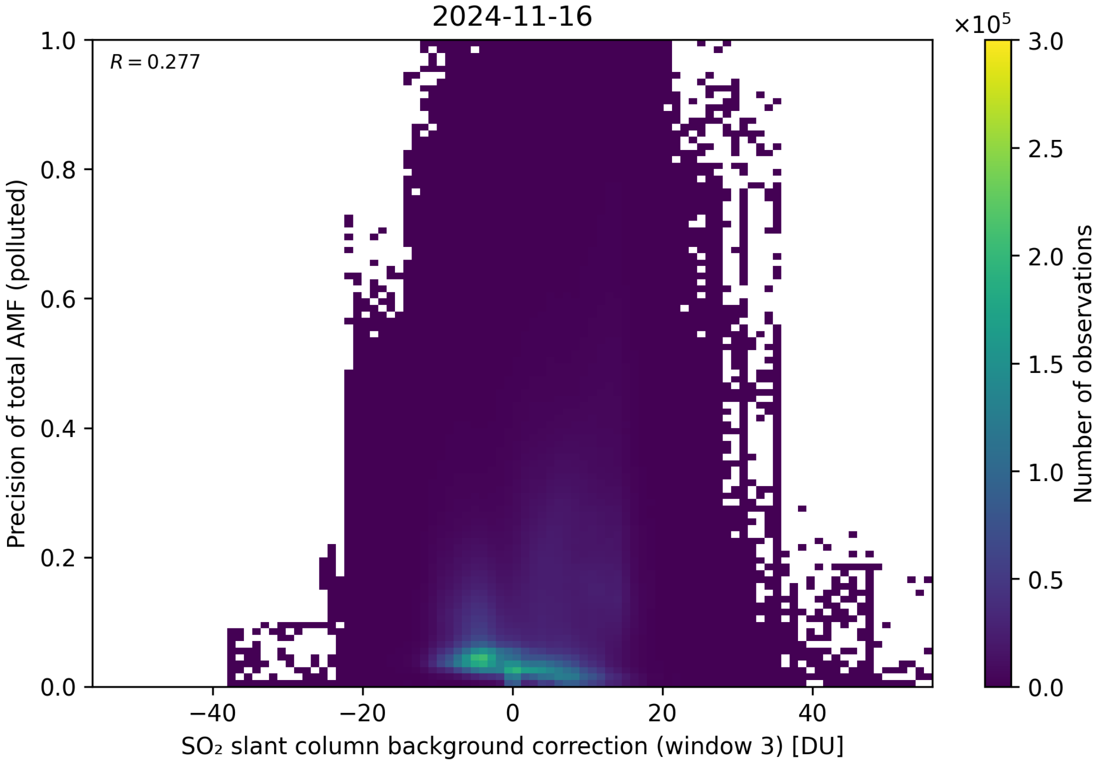


Figure 125: Scatter density plot of "SO_2 slant column background correction (window 3)" against "Total AMF (polluted)" for 2024-11-15 to 2024-11-17.



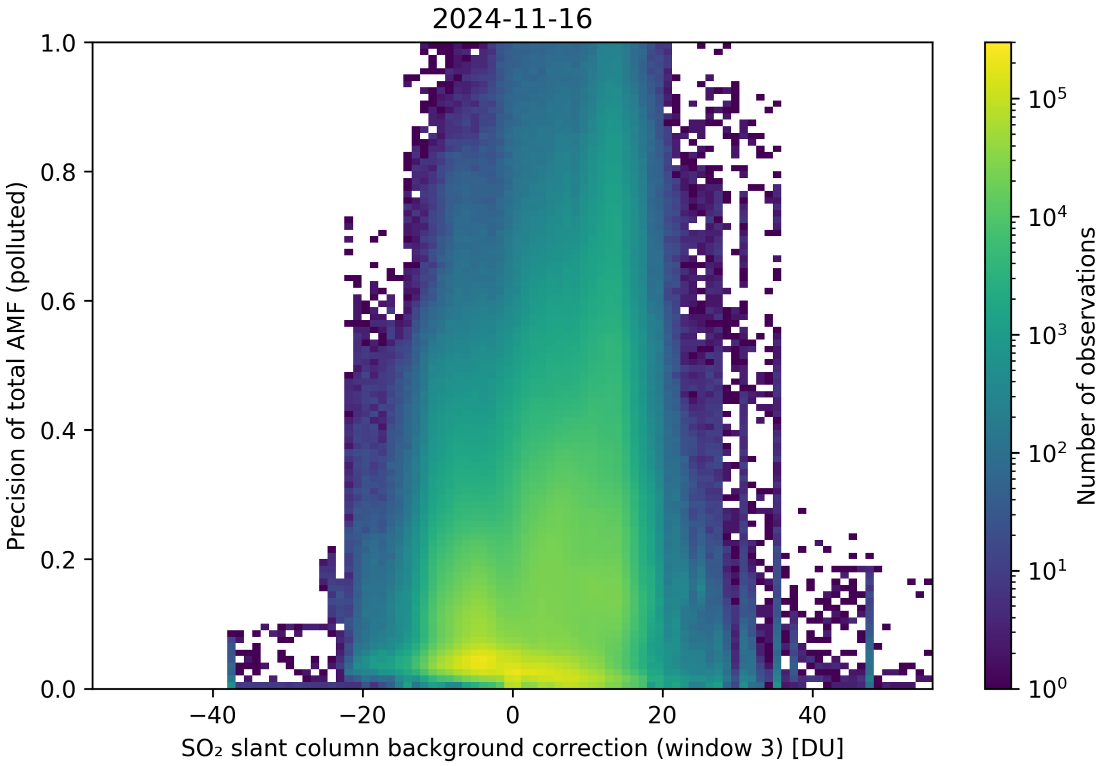


Figure 126: Scatter density plot of “SO_2 slant column background correction (window 3)” against “Precision of total AMF (polluted)” for 2024-11-15 to 2024-11-17.

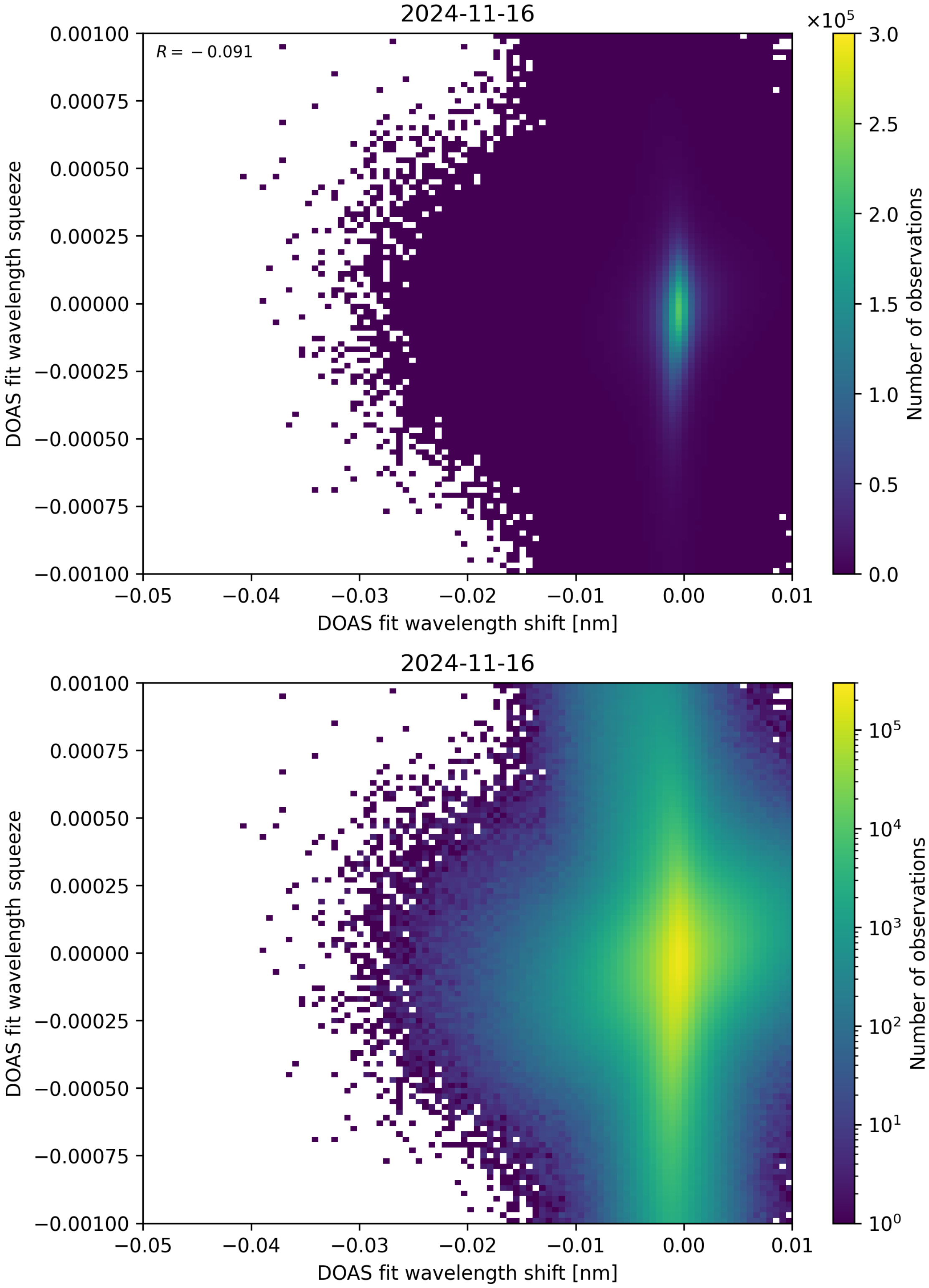


Figure 127: Scatter density plot of “DOAS fit wavelength shift” against “DOAS fit wavelength squeeze” for 2024-11-15 to 2024-11-17.

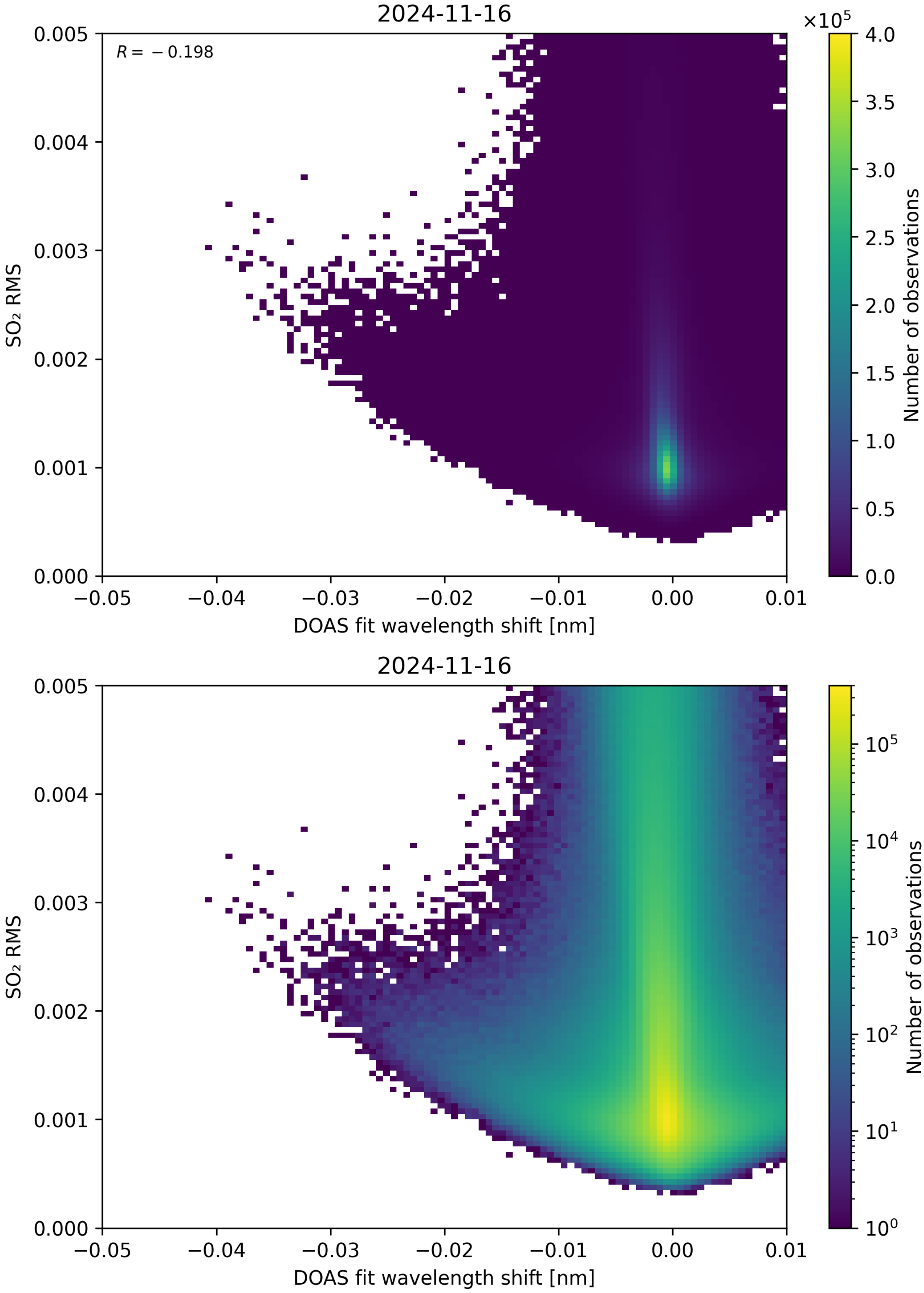
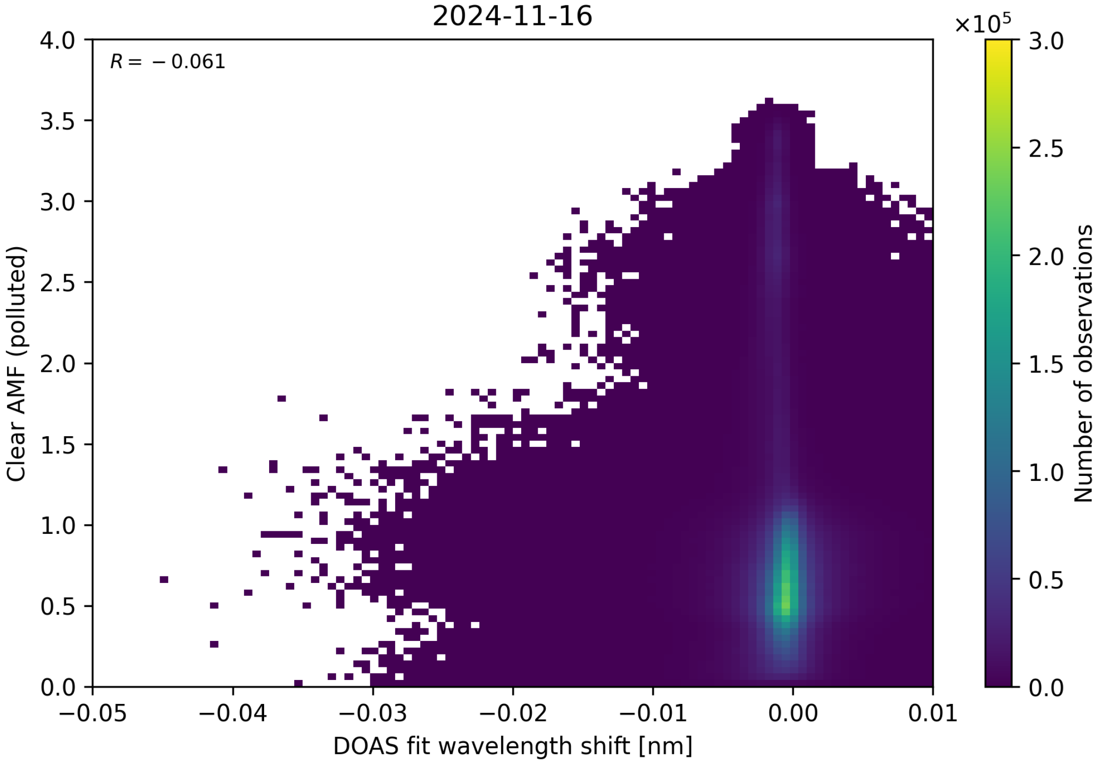


Figure 128: Scatter density plot of "DOAS fit wavelength shift" against "SO_2 RMS" for 2024-11-15 to 2024-11-17.



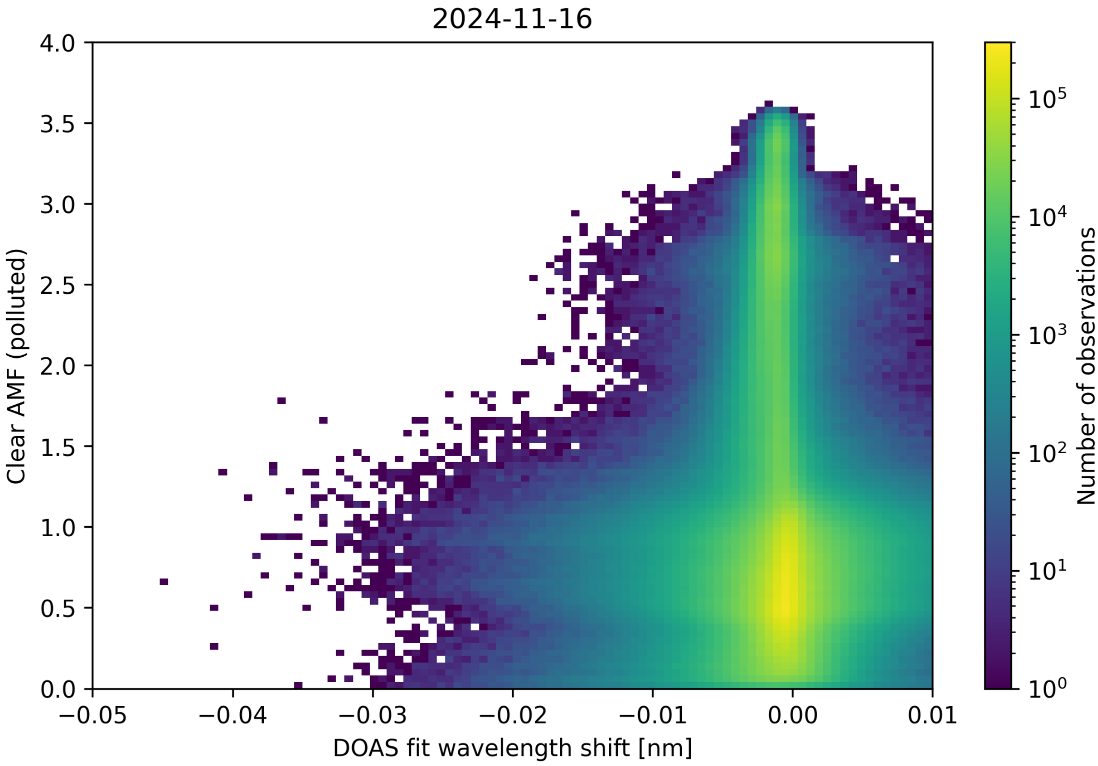


Figure 129: Scatter density plot of “DOAS fit wavelength shift” against “Clear AMF (polluted)” for 2024-11-15 to 2024-11-17.

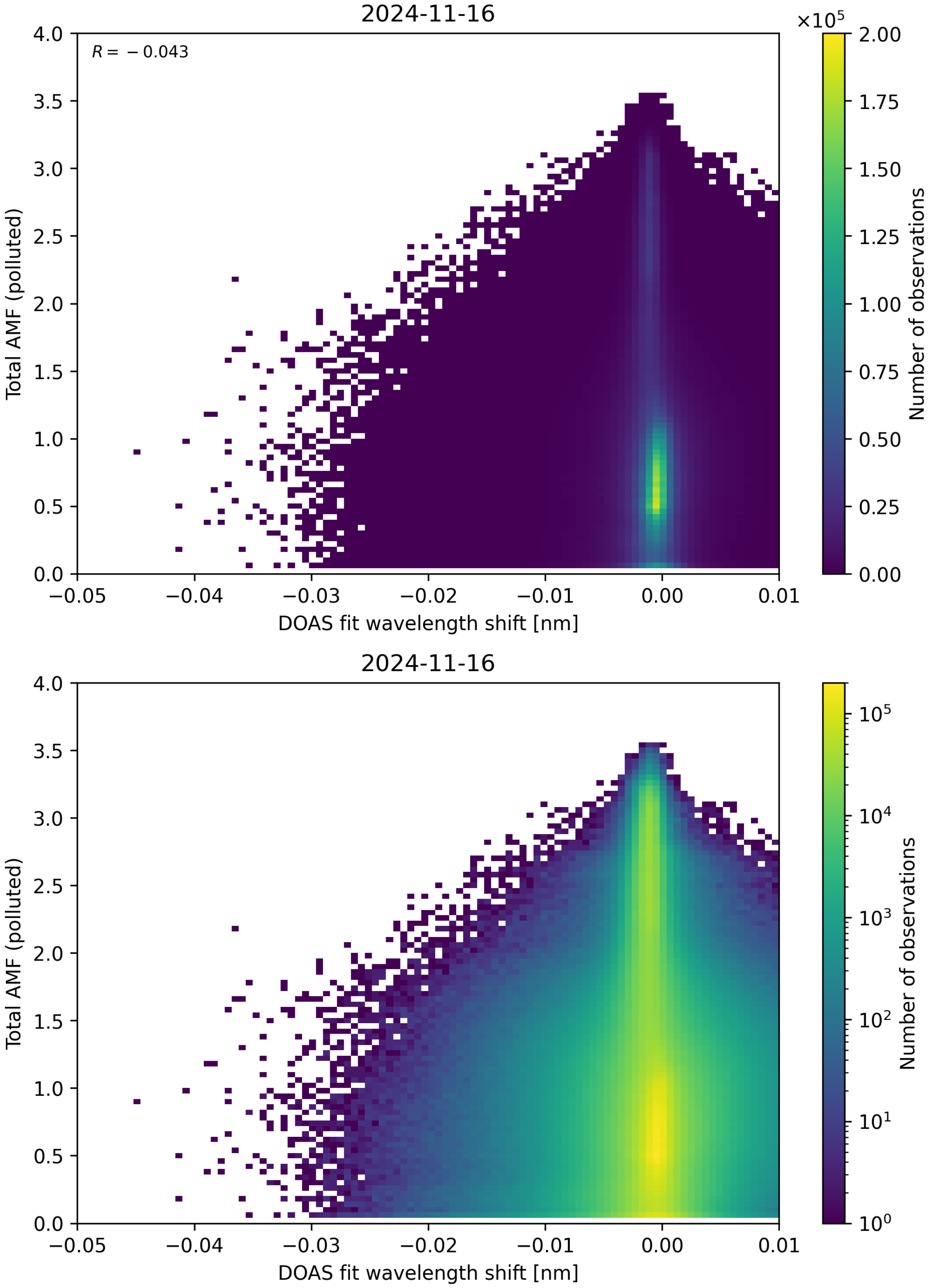


Figure 130: Scatter density plot of “DOAS fit wavelength shift” against “Total AMF (polluted)” for 2024-11-15 to 2024-11-17.

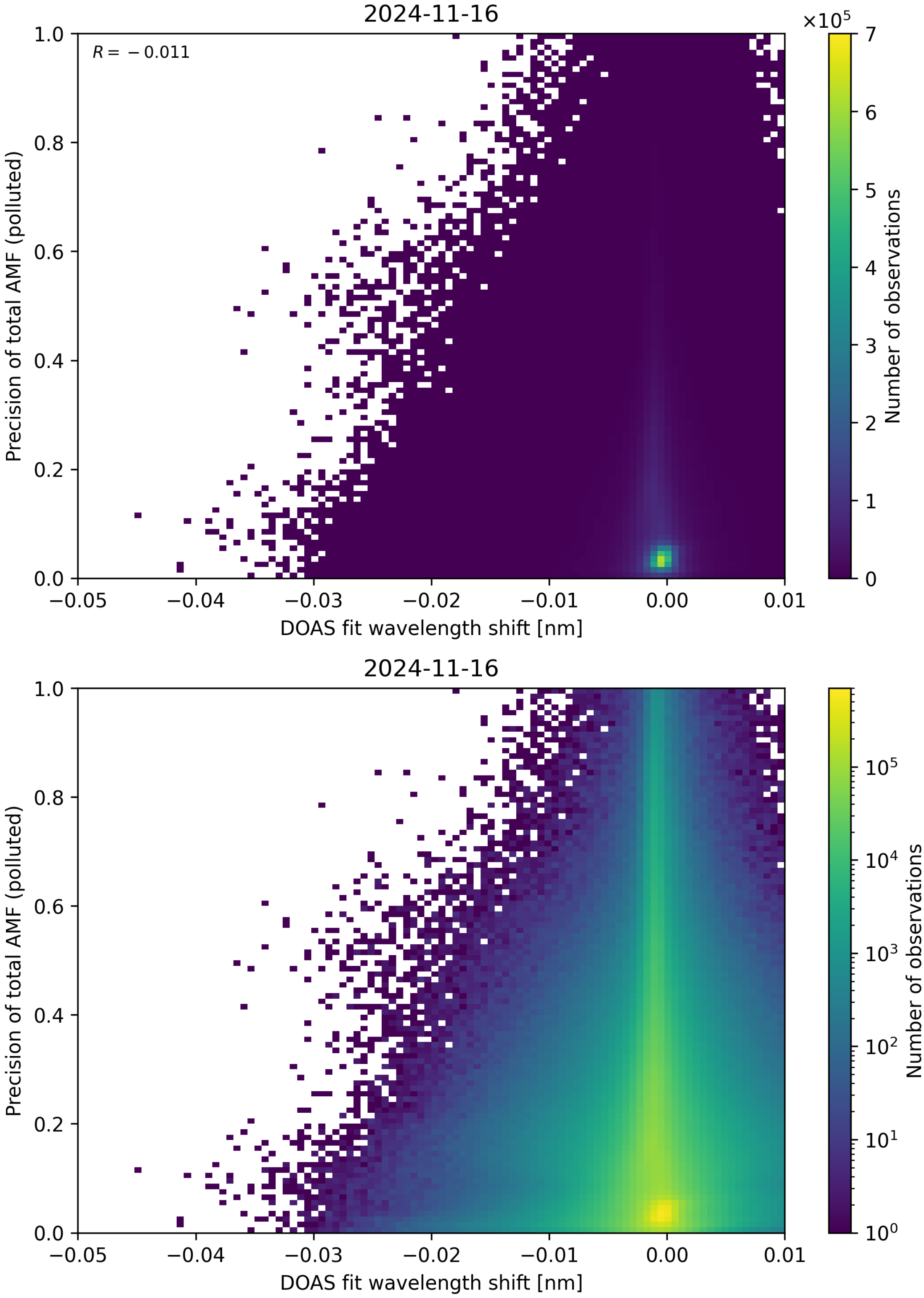


Figure 131: Scatter density plot of “DOAS fit wavelength shift” against “Precision of total AMF (polluted)” for 2024-11-15 to 2024-11-17.

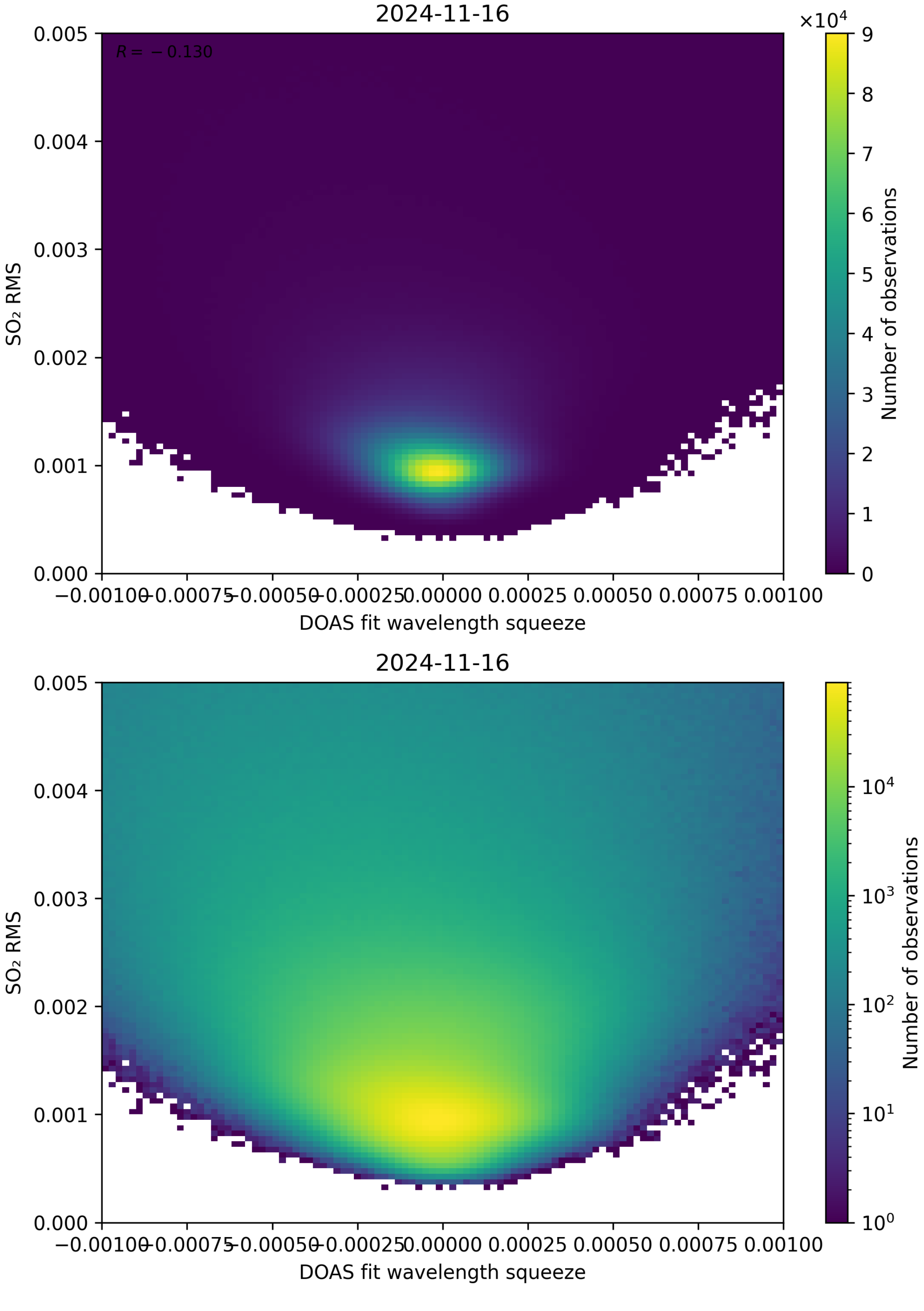


Figure 132: Scatter density plot of “DOAS fit wavelength squeeze” against “SO_2 RMS” for 2024-11-15 to 2024-11-17.

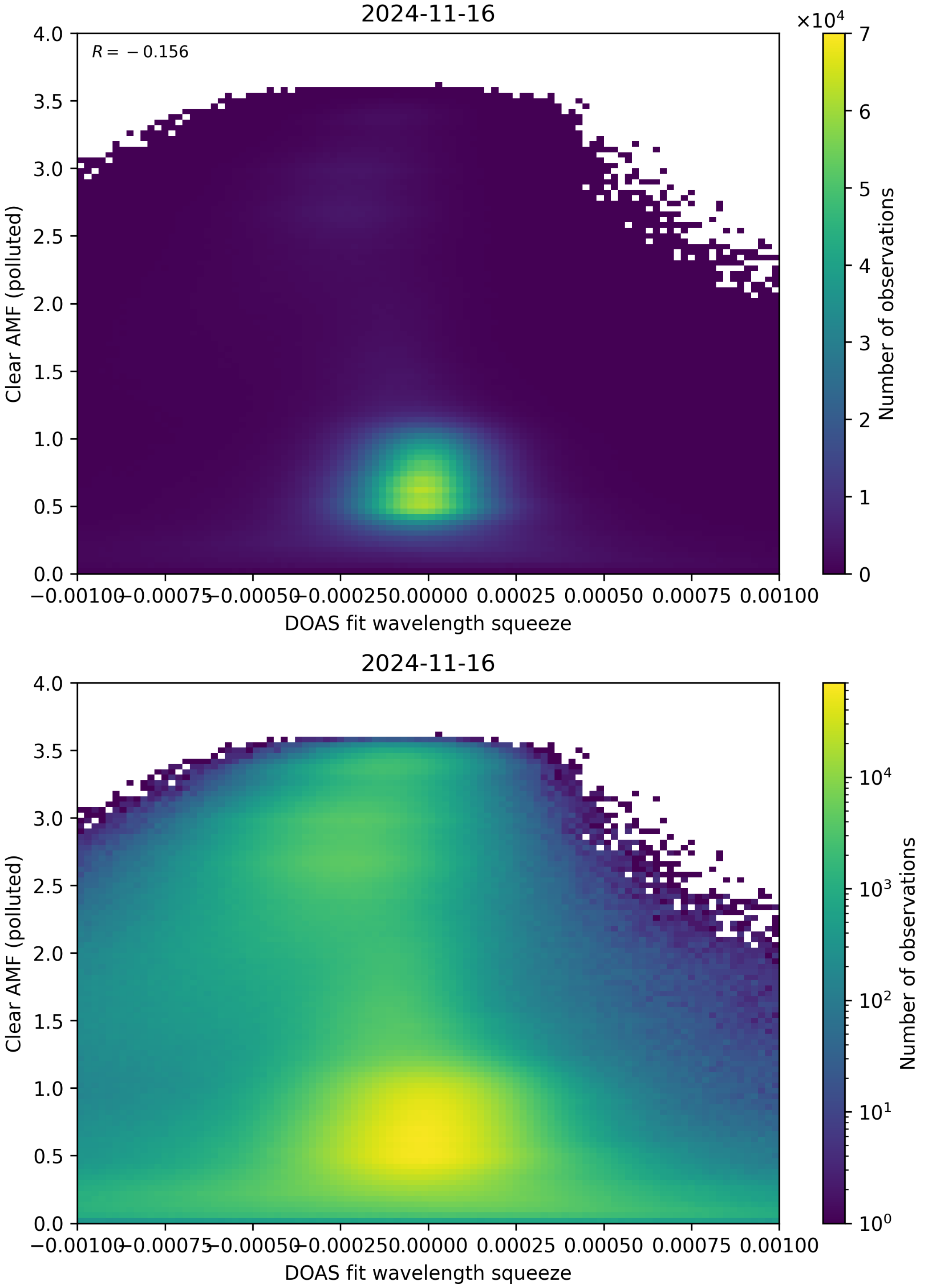


Figure 133: Scatter density plot of “DOAS fit wavelength squeeze” against “Clear AMF (polluted)” for 2024-11-15 to 2024-11-17.

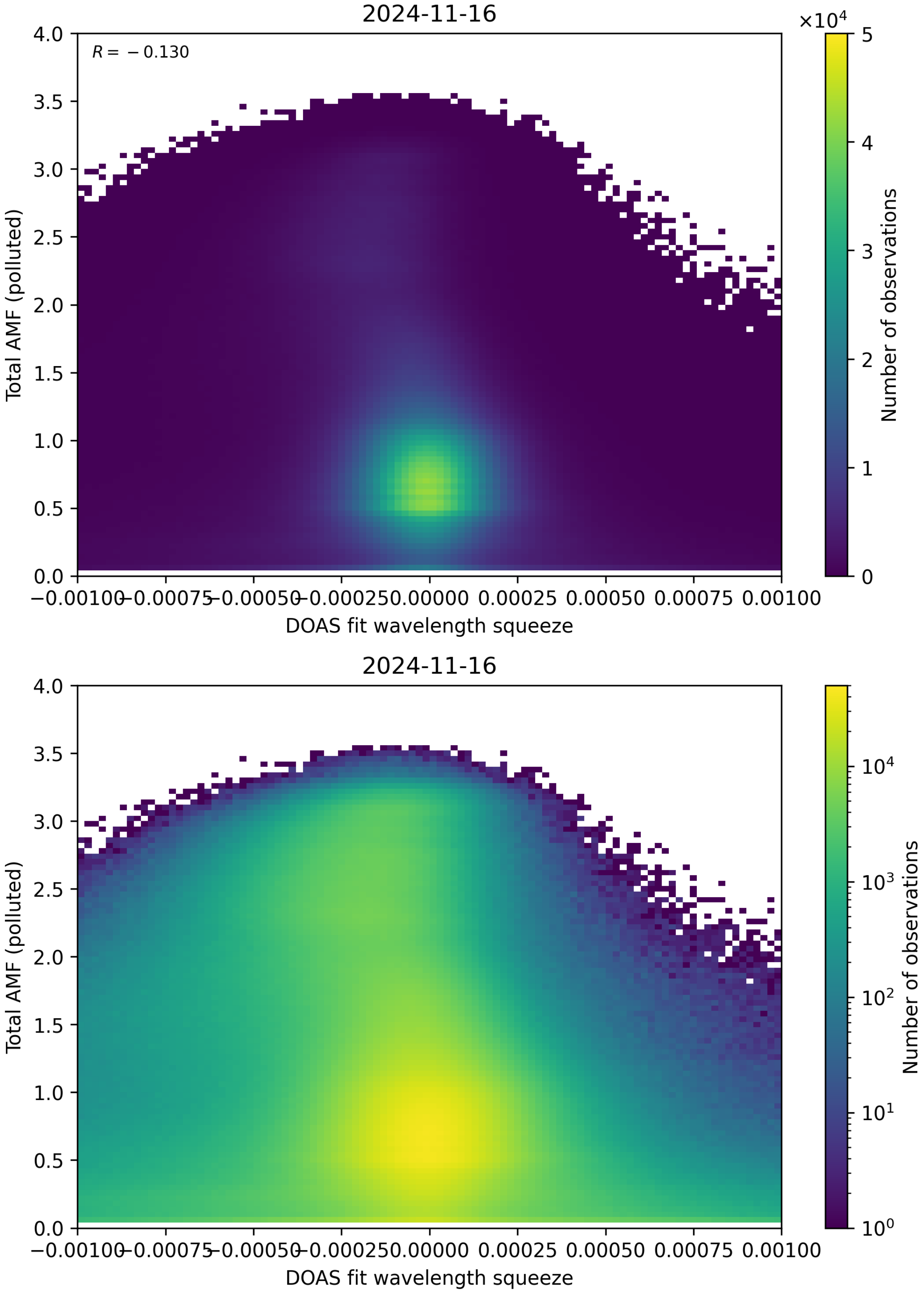


Figure 134: Scatter density plot of “DOAS fit wavelength squeeze” against “Total AMF (polluted)” for 2024-11-15 to 2024-11-17.

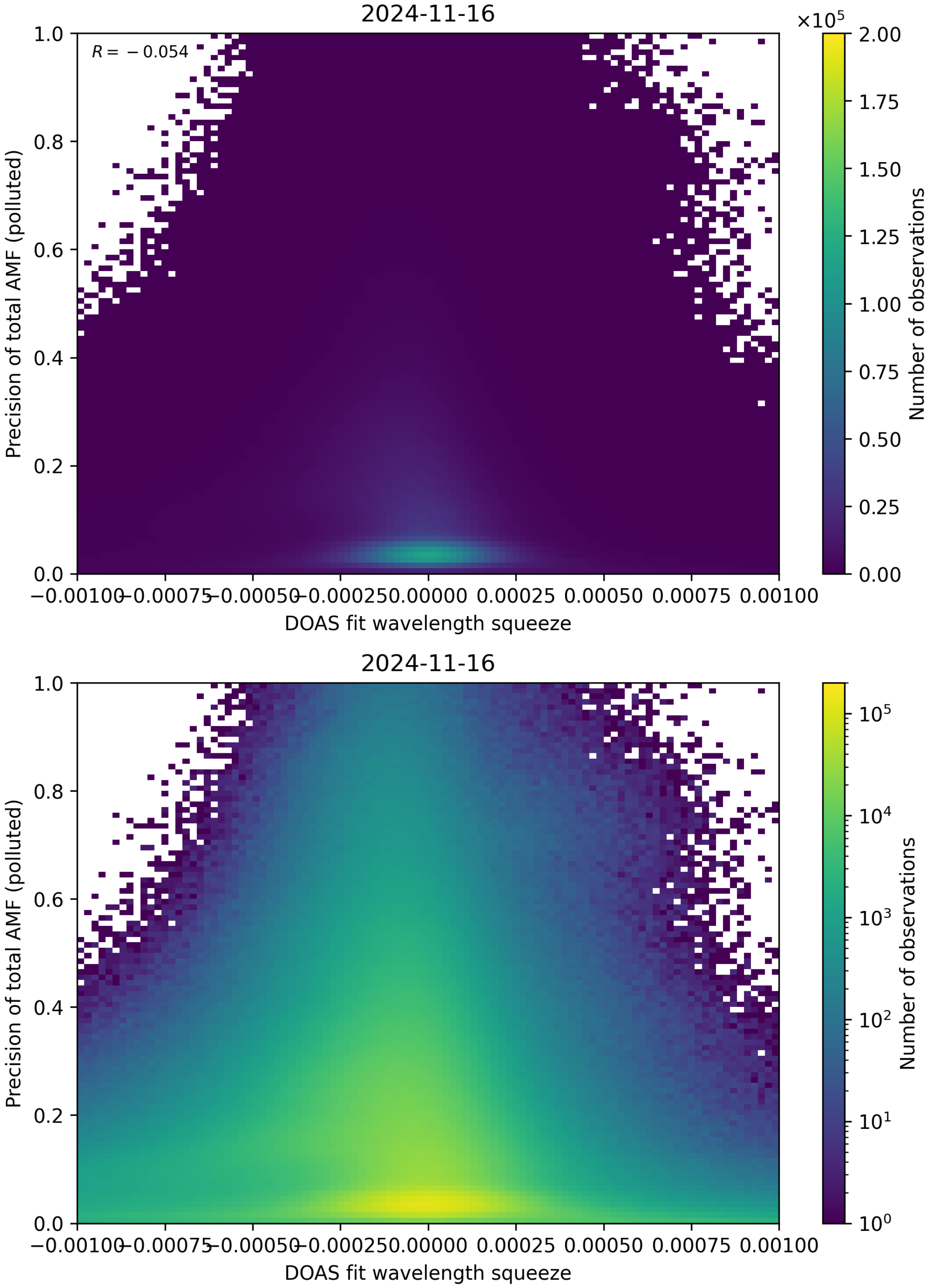
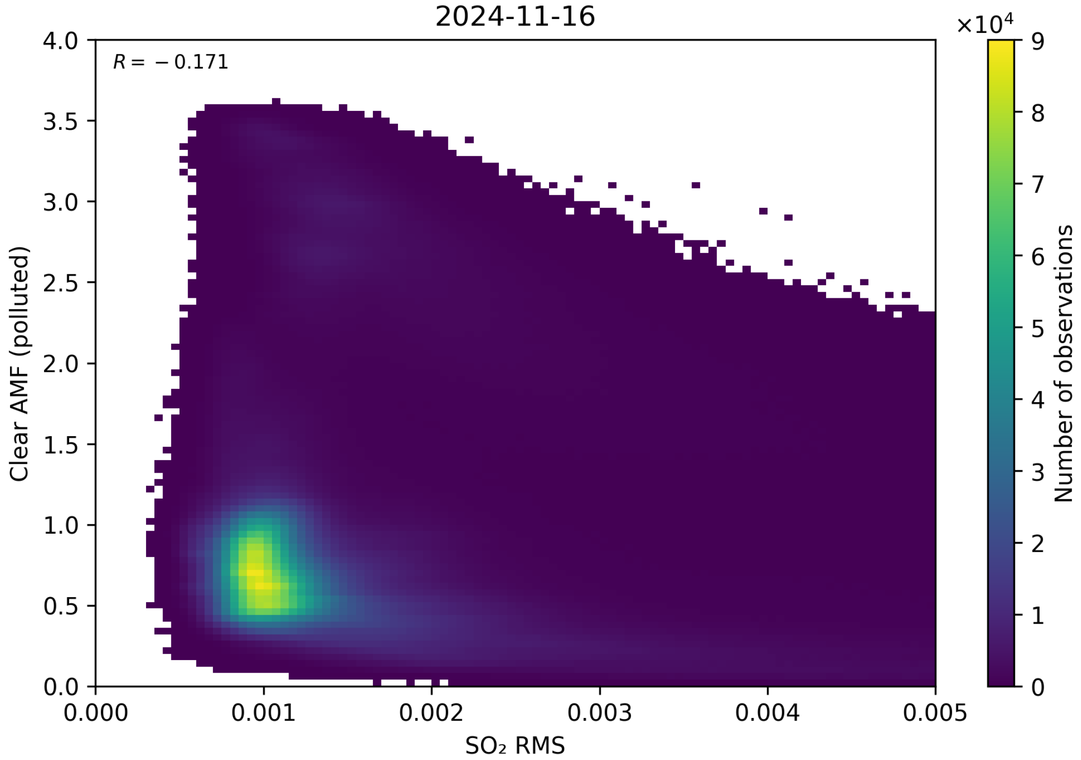


Figure 135: Scatter density plot of "DOAS fit wavelength squeeze" against "Precision of total AMF (polluted)" for 2024-11-15 to 2024-11-17.



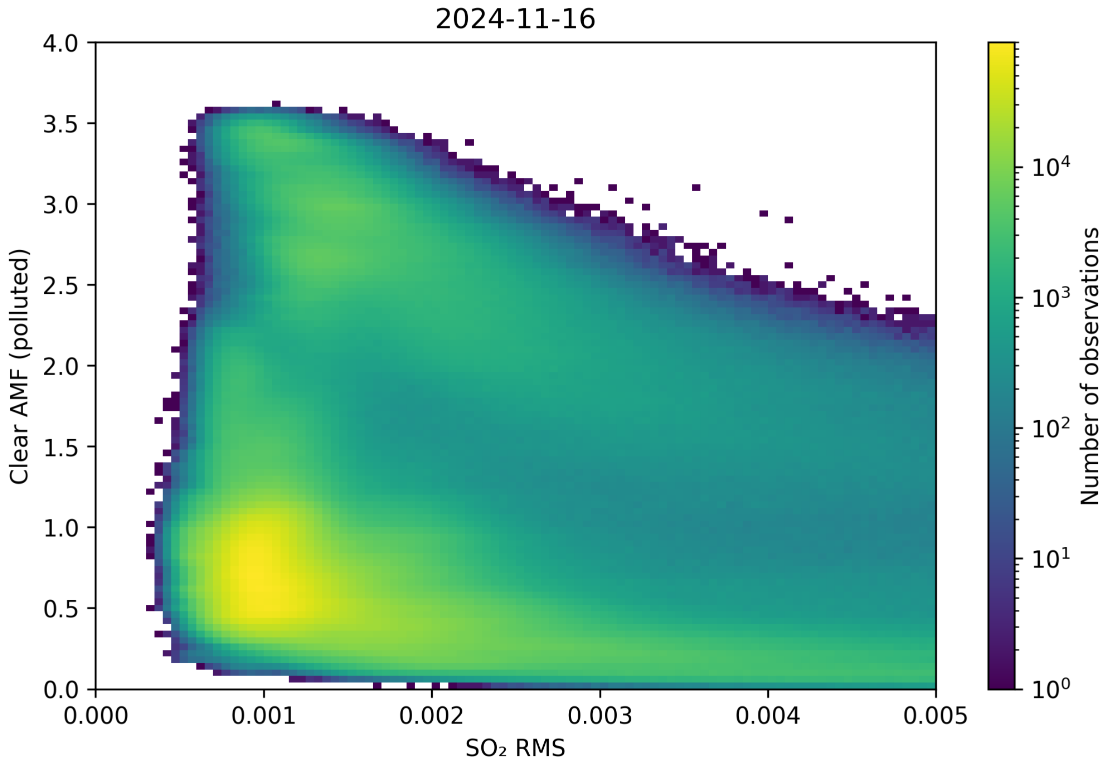


Figure 136: Scatter density plot of “SO_2 RMS” against “Clear AMF (polluted)” for 2024-11-15 to 2024-11-17.

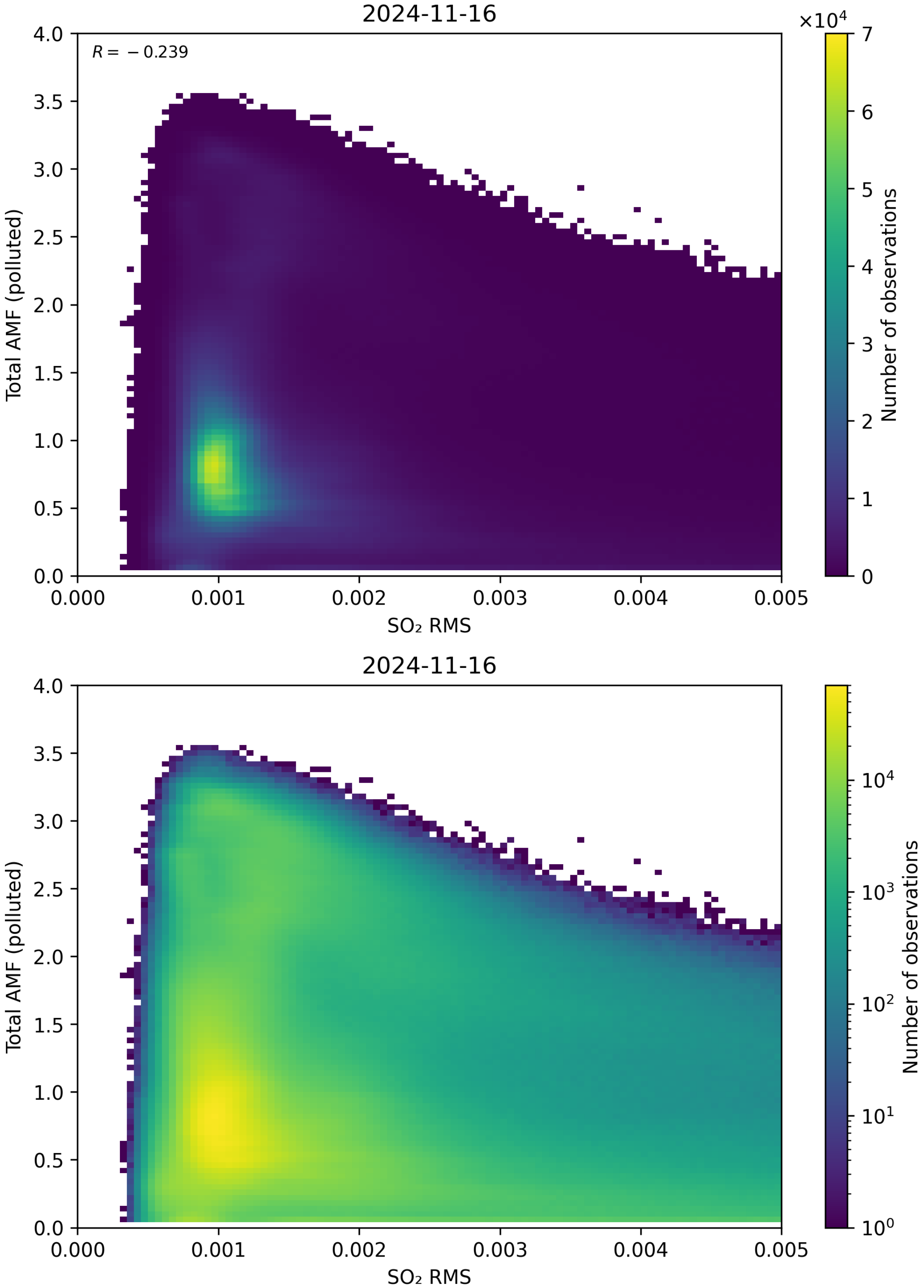


Figure 137: Scatter density plot of “SO_2 RMS” against “Total AMF (polluted)” for 2024-11-15 to 2024-11-17.

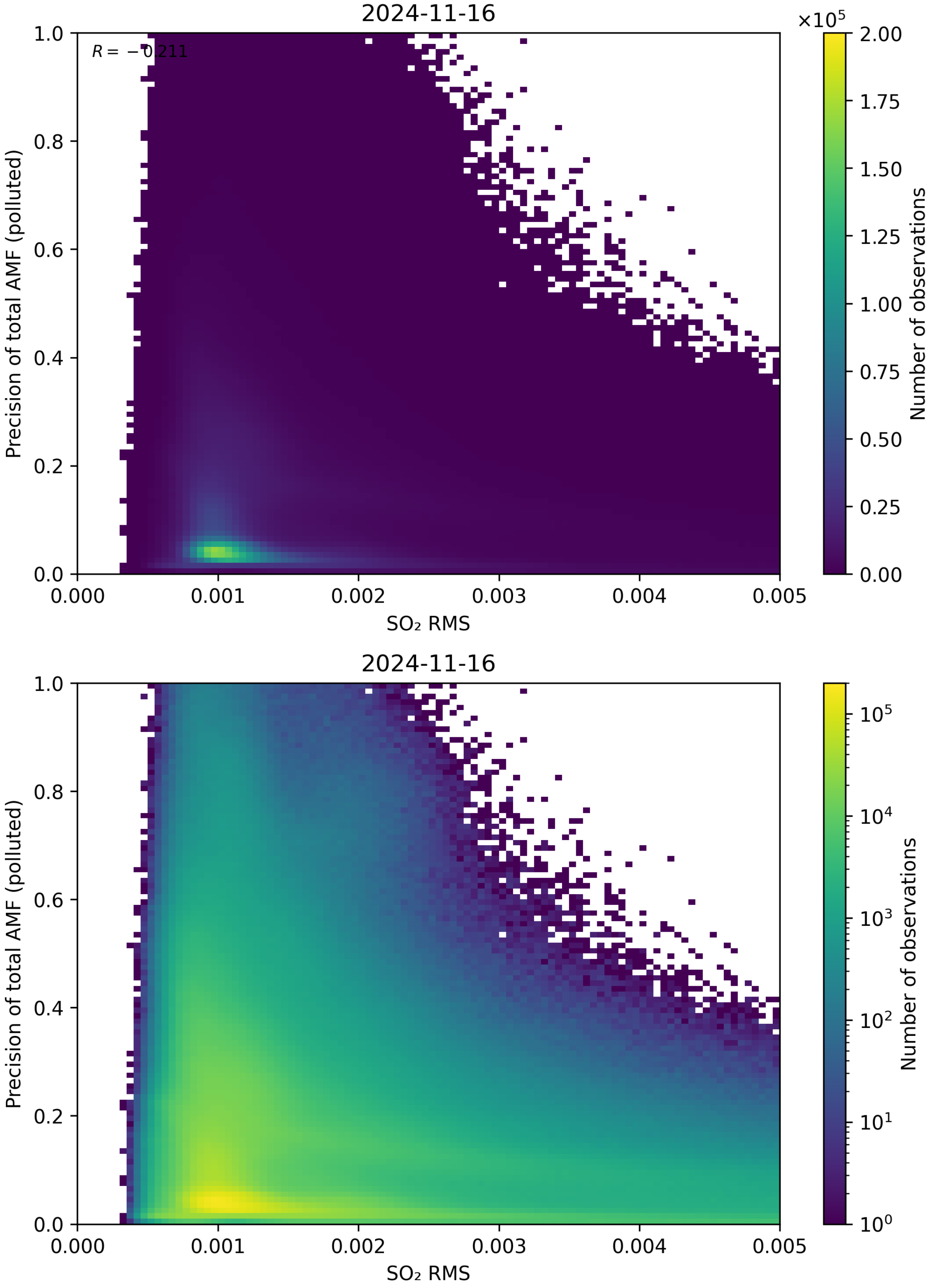


Figure 138: Scatter density plot of “SO_2 RMS” against “Precision of total AMF (polluted)” for 2024-11-15 to 2024-11-17.

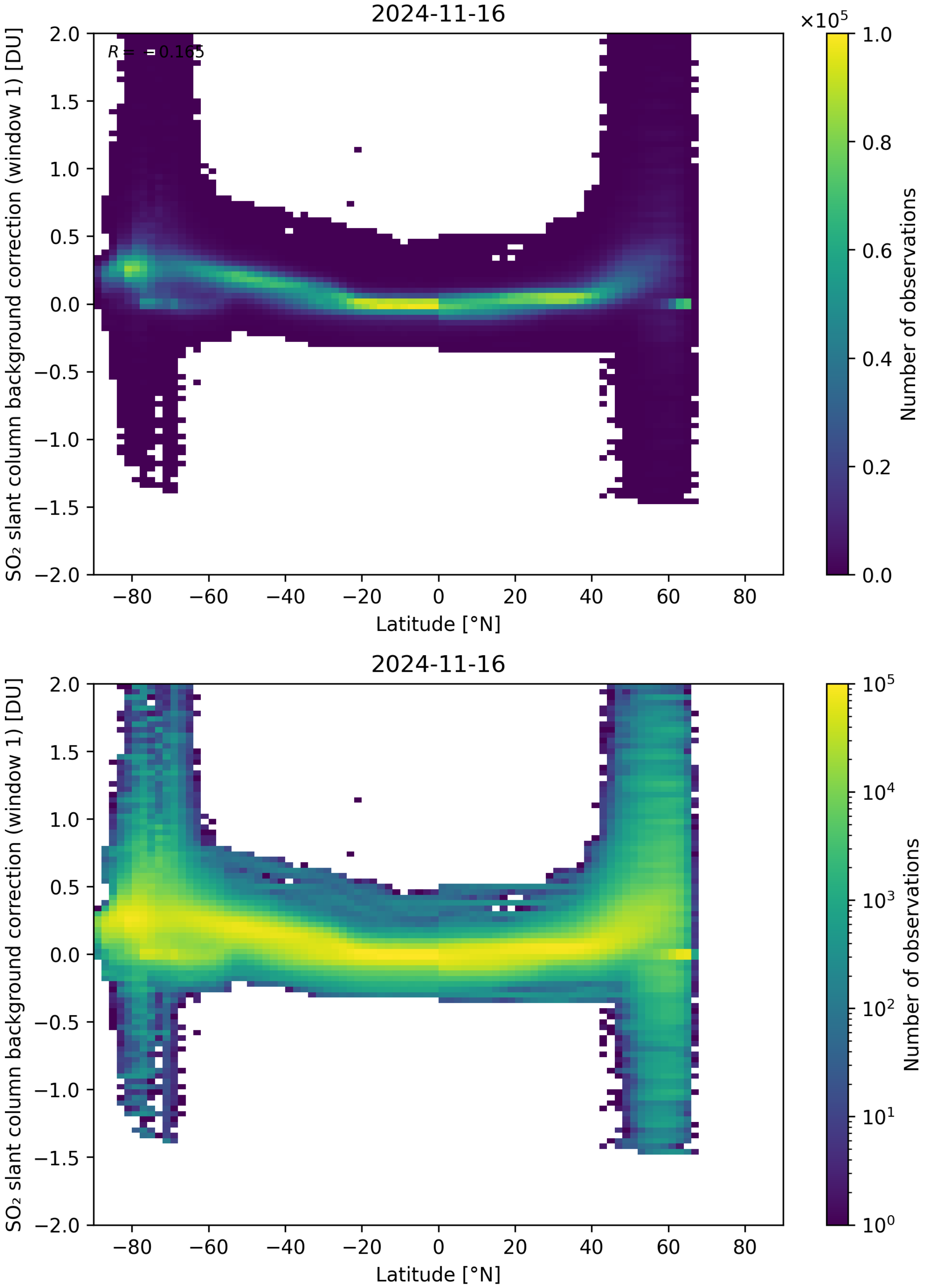


Figure 139: Scatter density plot of “Latitude” against “SO_2 slant column background correction (window 1)” for 2024-11-15 to 2024-11-17.

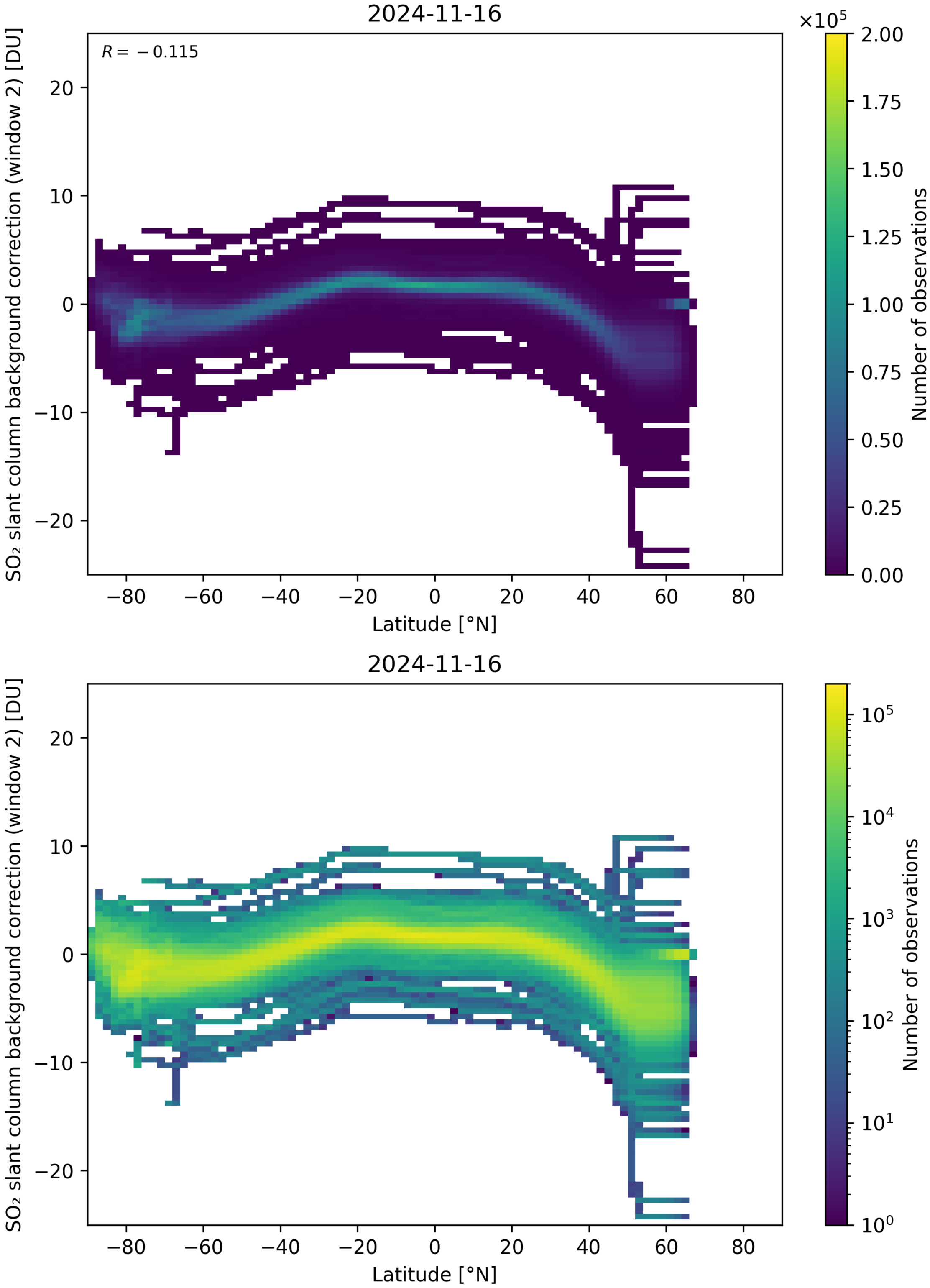


Figure 140: Scatter density plot of "Latitude" against "SO_2 slant column background correction (window 2)" for 2024-11-15 to 2024-11-17.

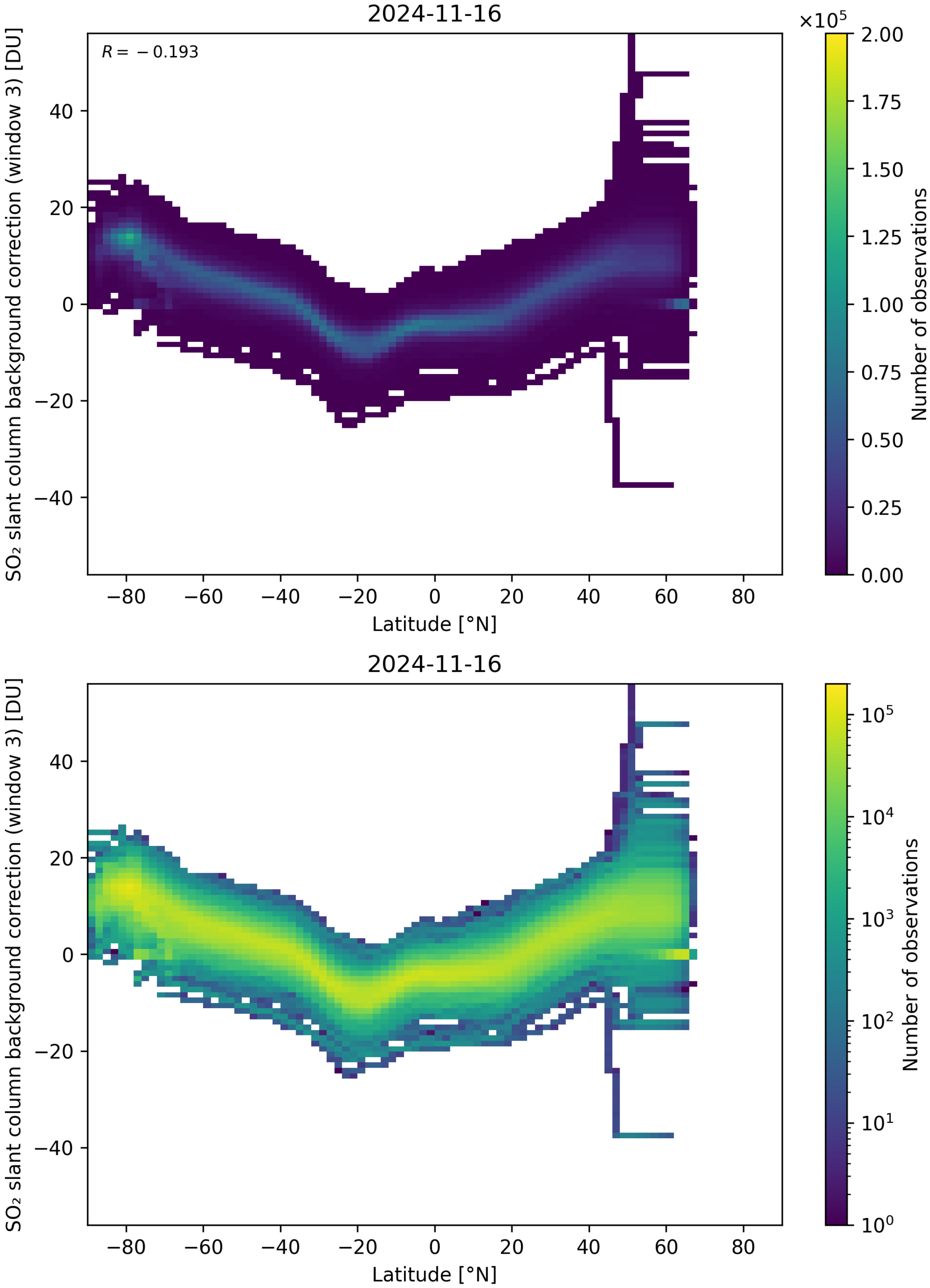


Figure 141: Scatter density plot of "Latitude" against "SO_2 slant column background correction (window 3)" for 2024-11-15 to 2024-11-17.

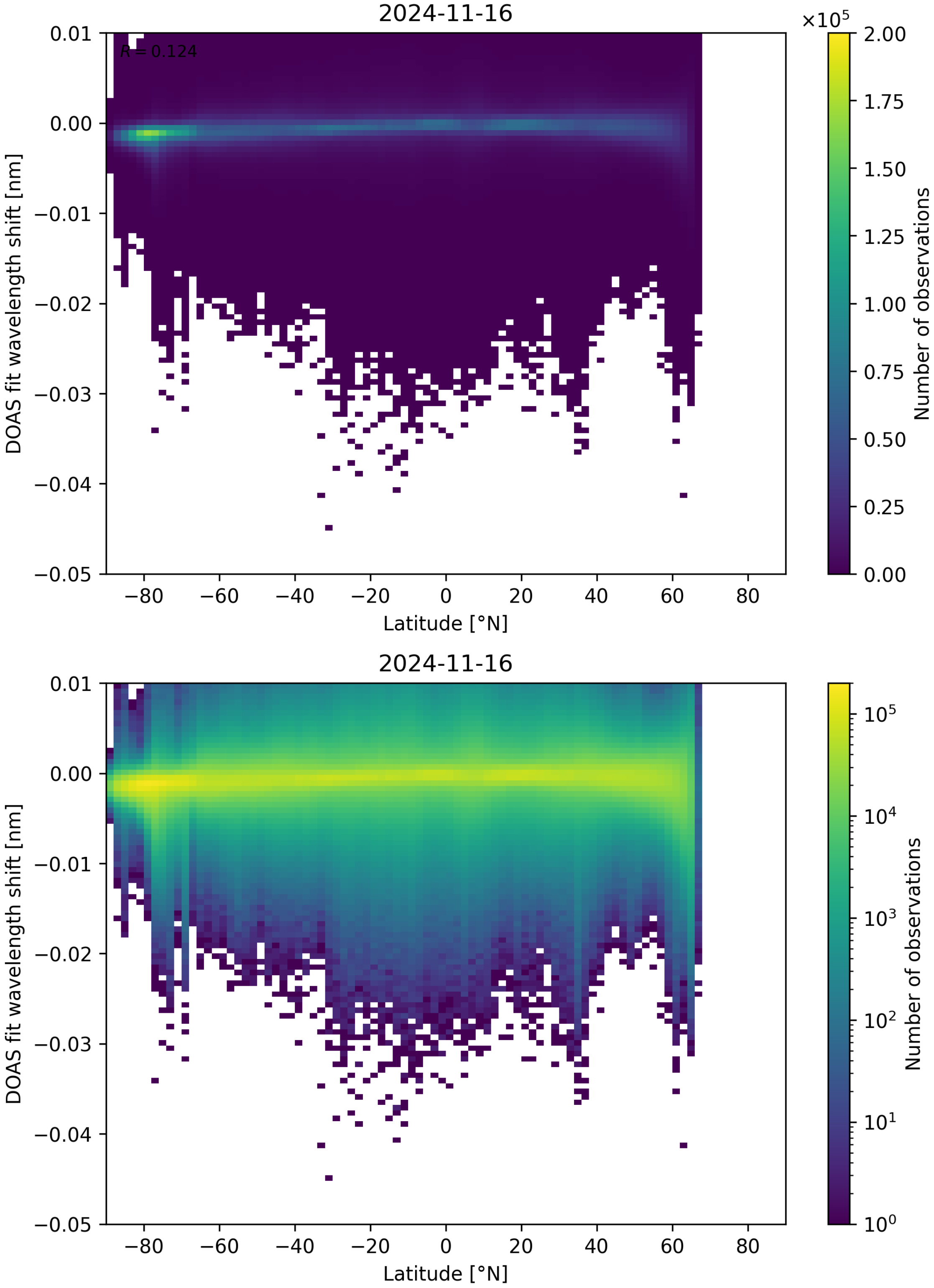


Figure 142: Scatter density plot of “Latitude” against “DOAS fit wavelength shift” for 2024-11-15 to 2024-11-17.

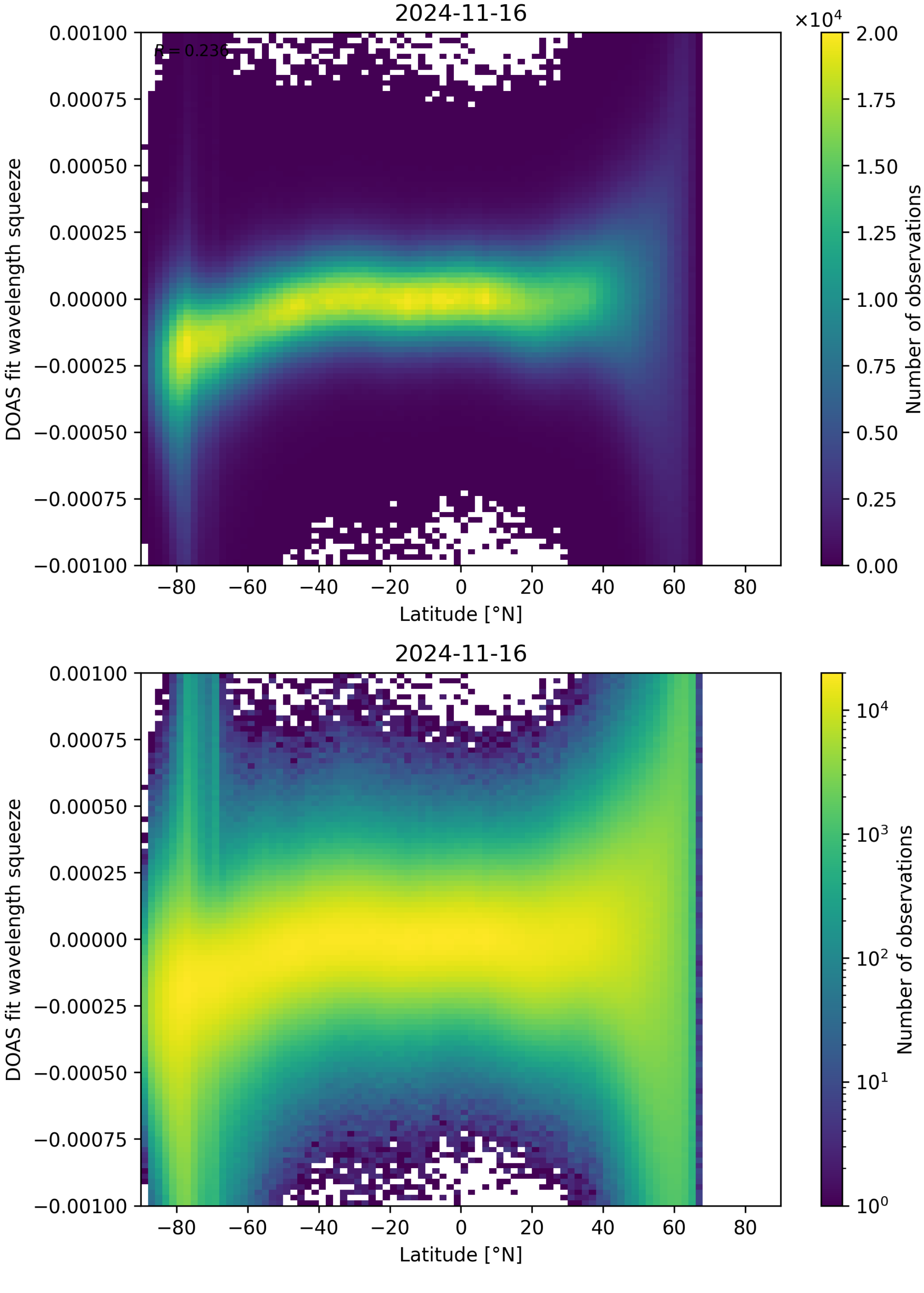


Figure 143: Scatter density plot of “Latitude” against “DOAS fit wavelength squeeze” for 2024-11-15 to 2024-11-17.

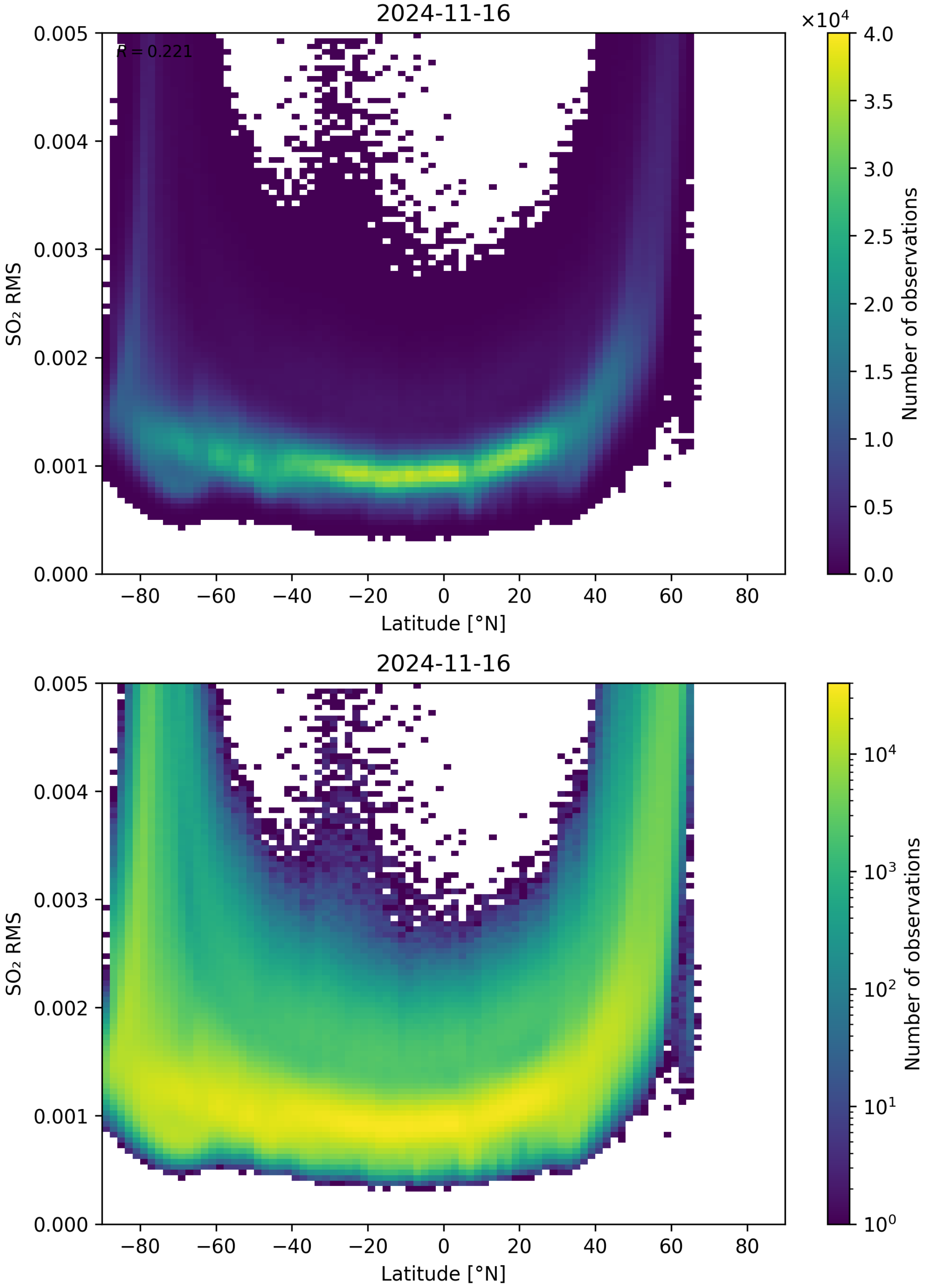


Figure 144: Scatter density plot of “Latitude” against “SO_2 RMS” for 2024-11-15 to 2024-11-17.

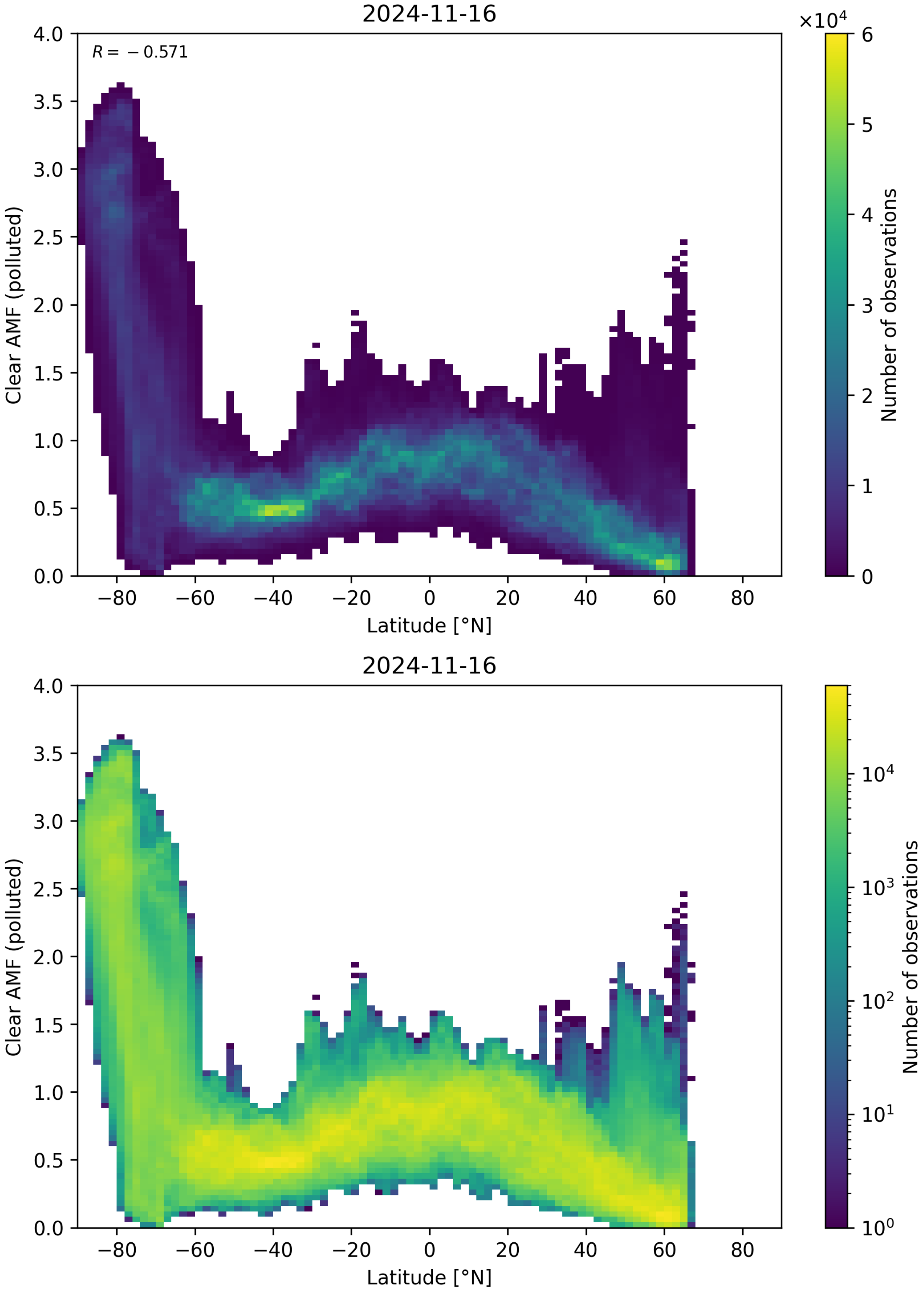


Figure 145: Scatter density plot of “Latitude” against “Clear AMF (polluted)” for 2024-11-15 to 2024-11-17.

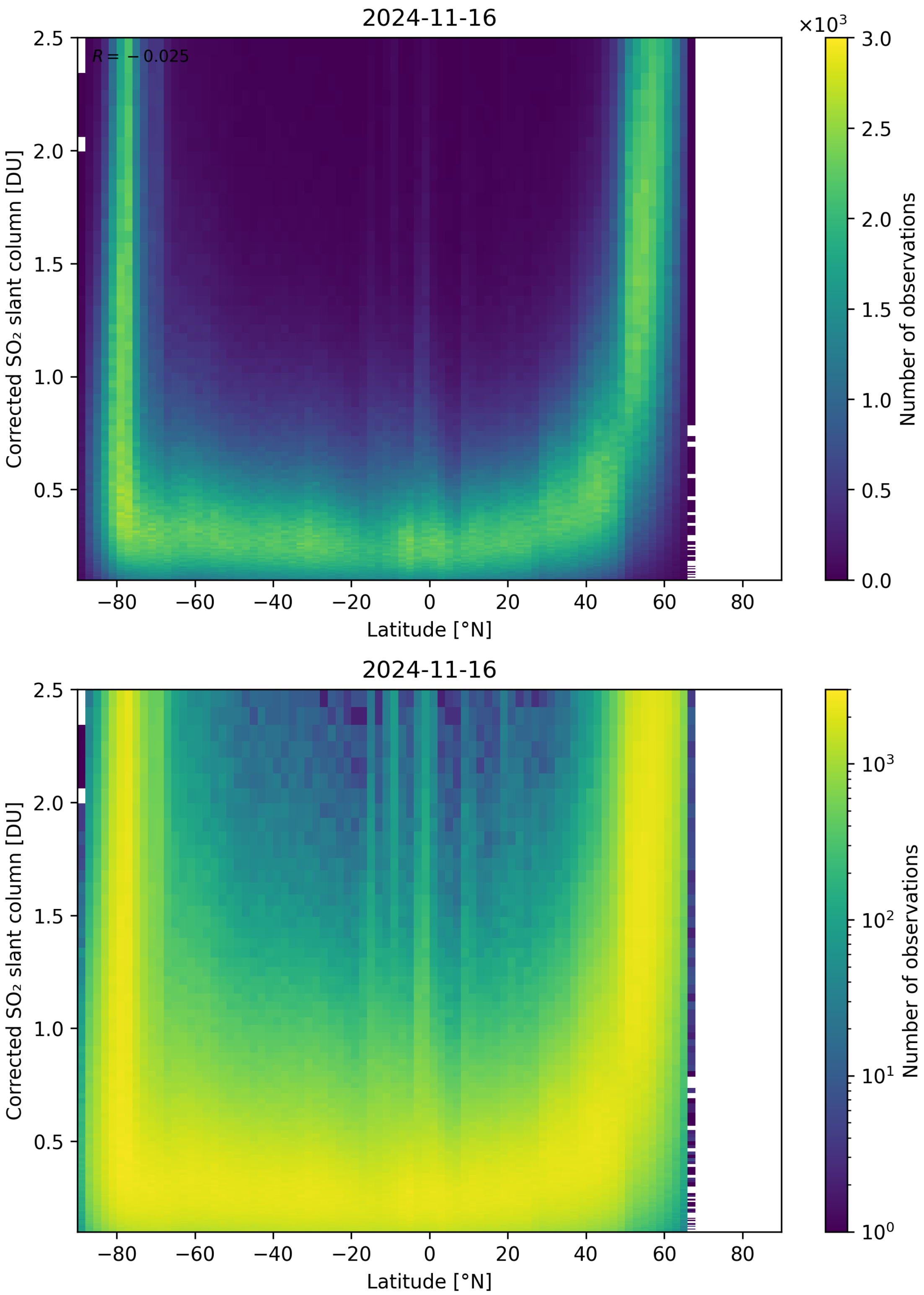


Figure 146: Scatter density plot of “Latitude” against “Corrected SO_2 slant column” for 2024-11-15 to 2024-11-17.

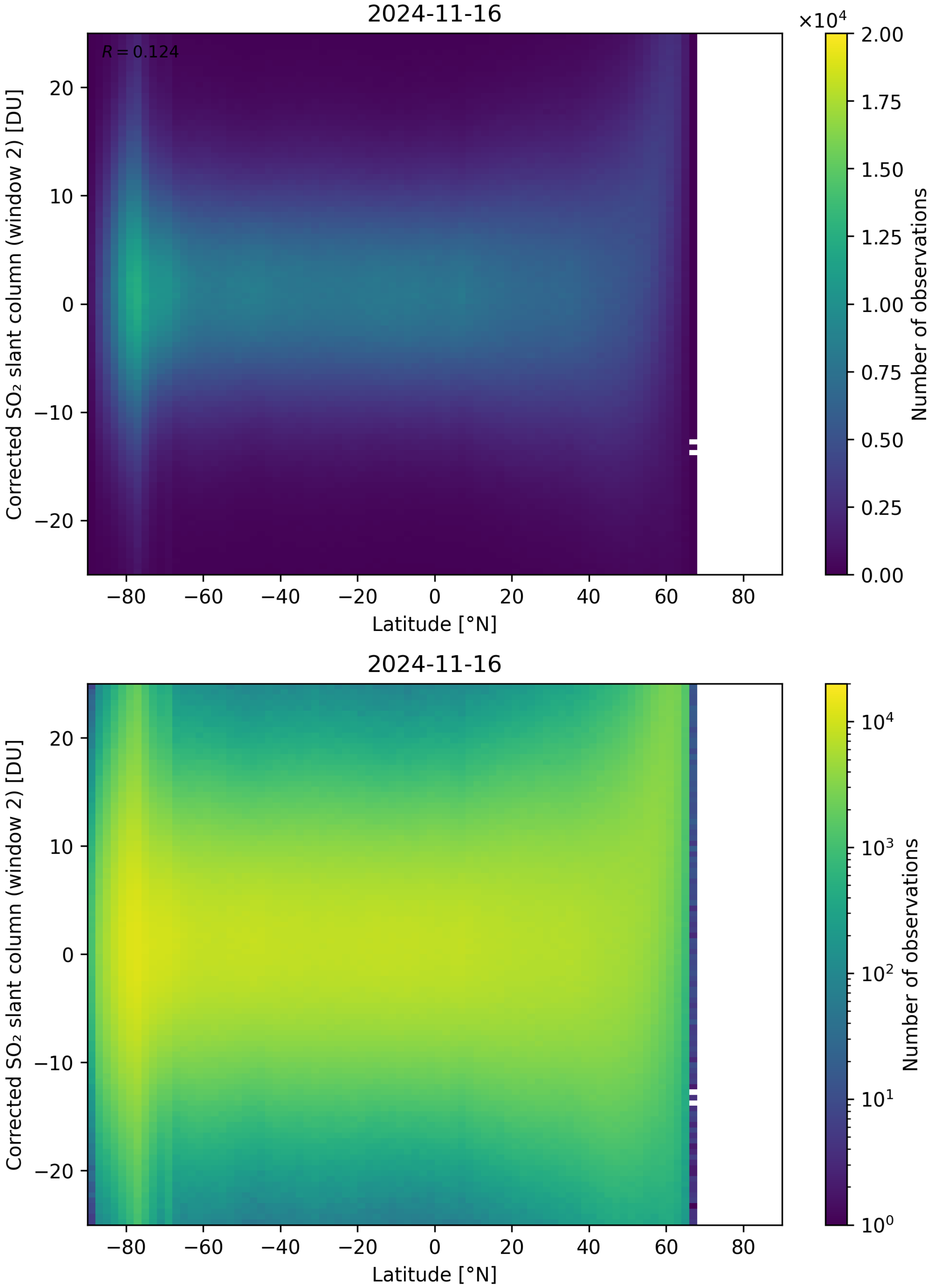


Figure 147: Scatter density plot of “Latitude” against “Corrected SO_2 slant column (window 2)” for 2024-11-15 to 2024-11-17.

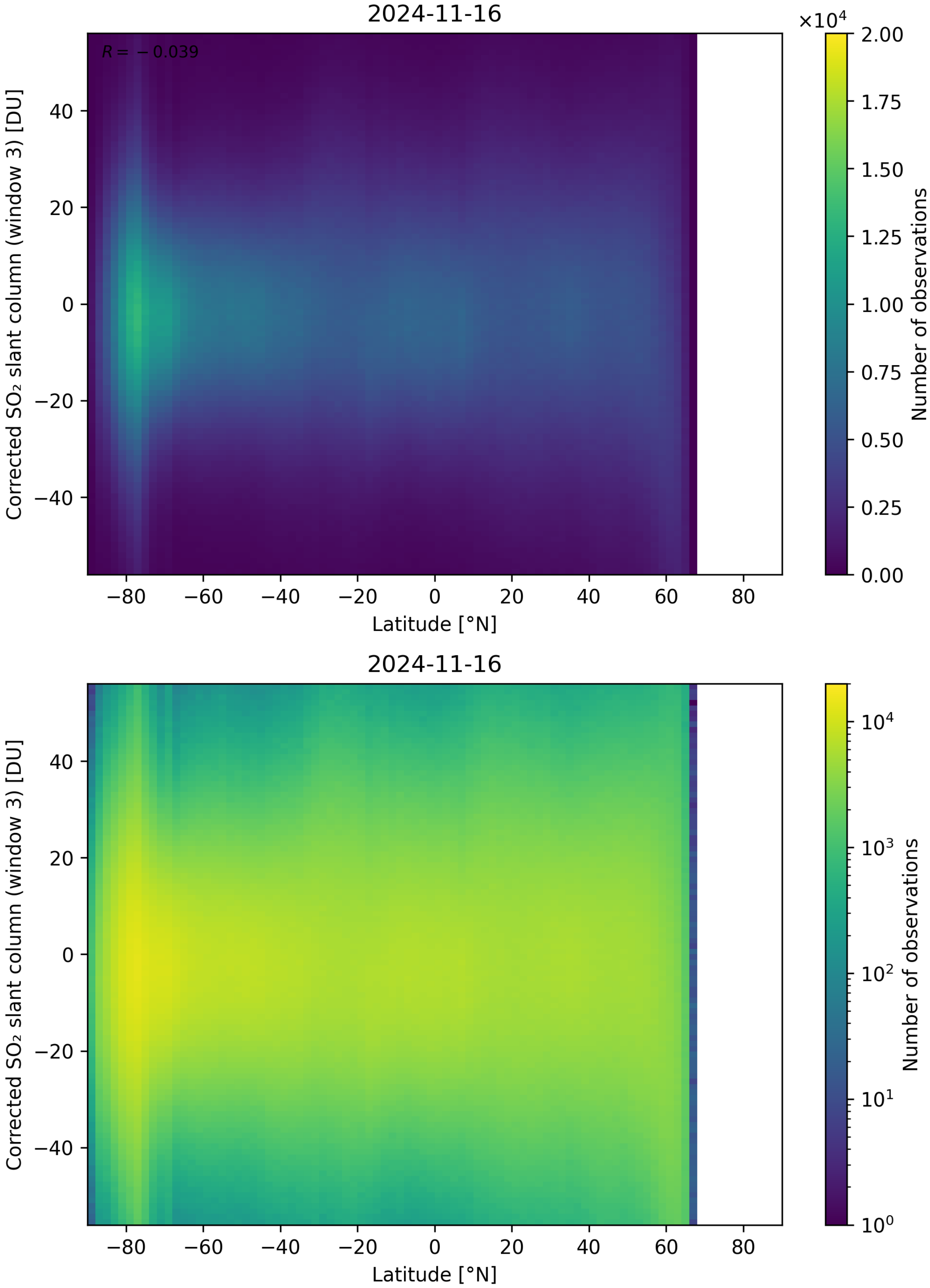


Figure 148: Scatter density plot of “Latitude” against “Corrected SO_2 slant column (window 3)” for 2024-11-15 to 2024-11-17.

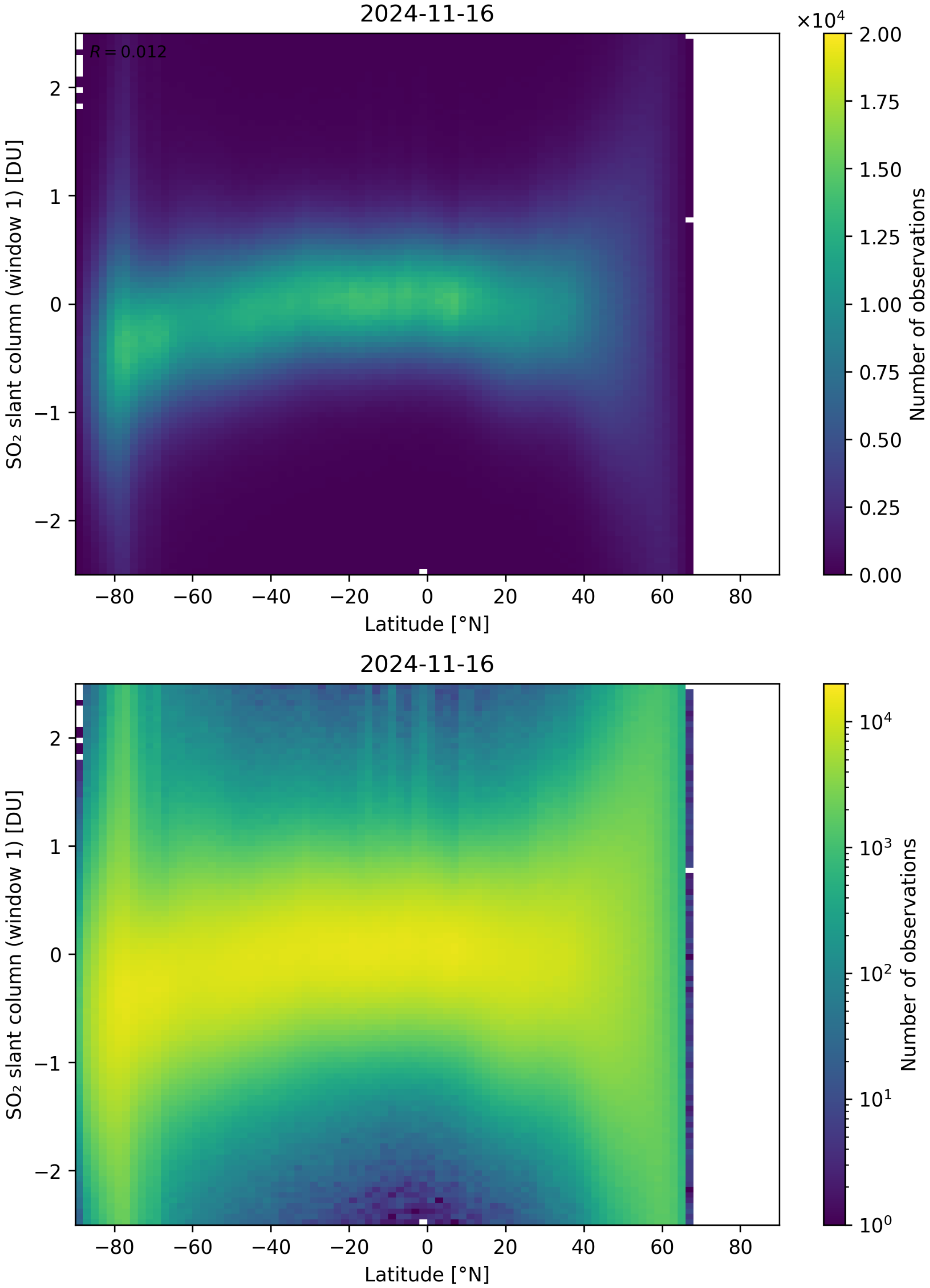


Figure 149: Scatter density plot of “Latitude” against “SO_2 slant column (window 1)” for 2024-11-15 to 2024-11-17.

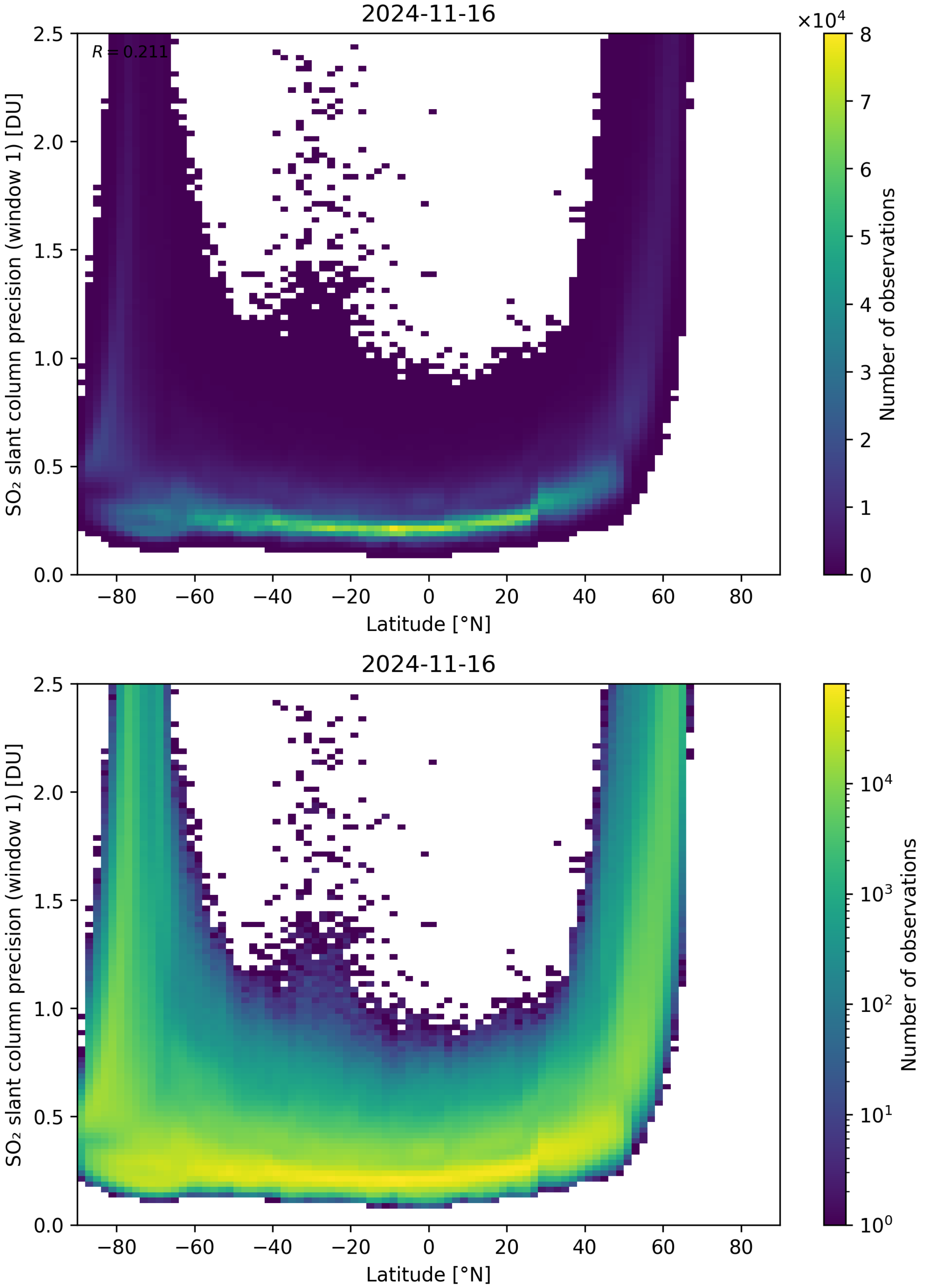


Figure 150: Scatter density plot of “Latitude” against “SO_2 slant column precision (window 1)” for 2024-11-15 to 2024-11-17.

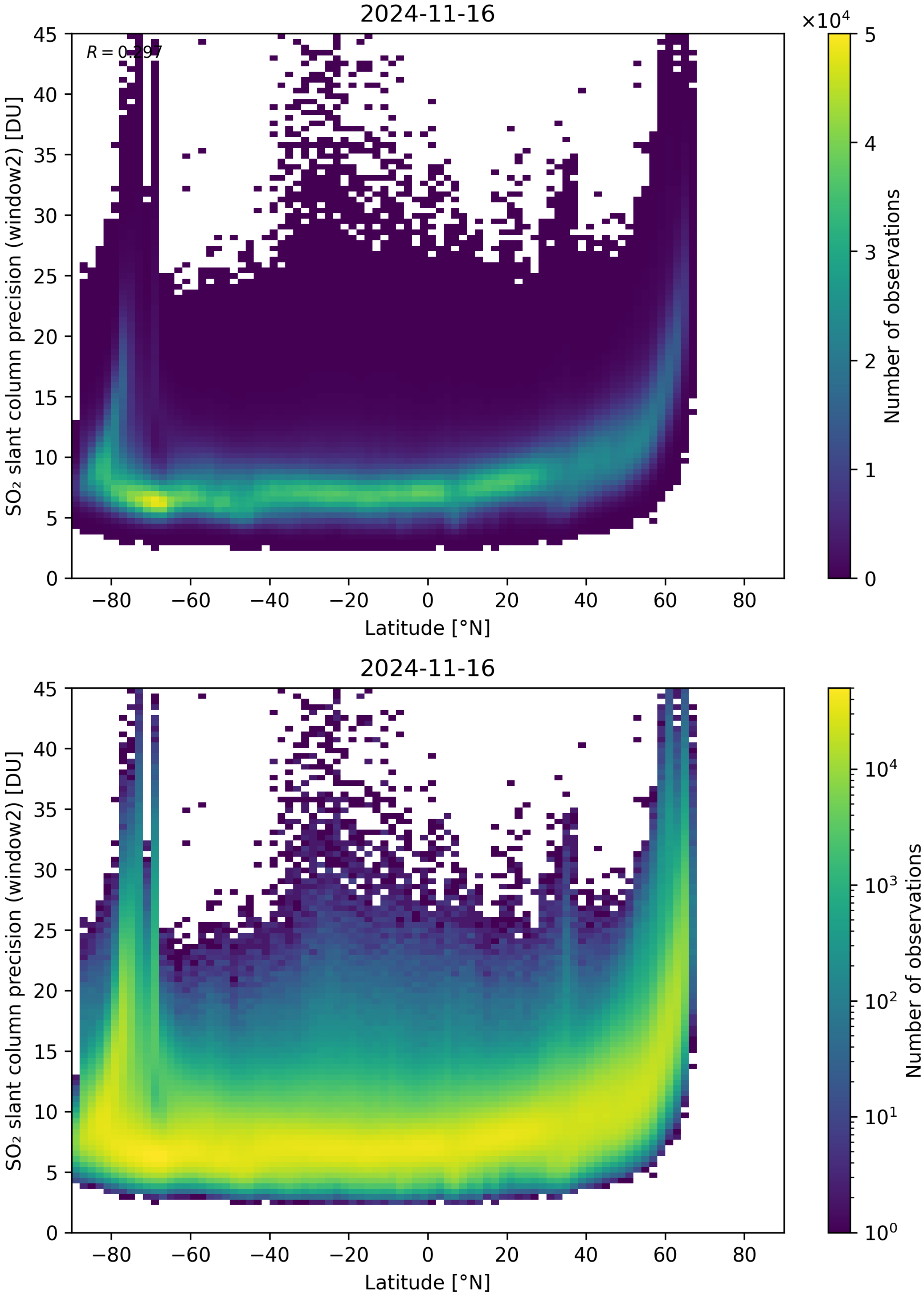


Figure 151: Scatter density plot of “Latitude” against “SO_2 slant column precision (window2)” for 2024-11-15 to 2024-11-17.

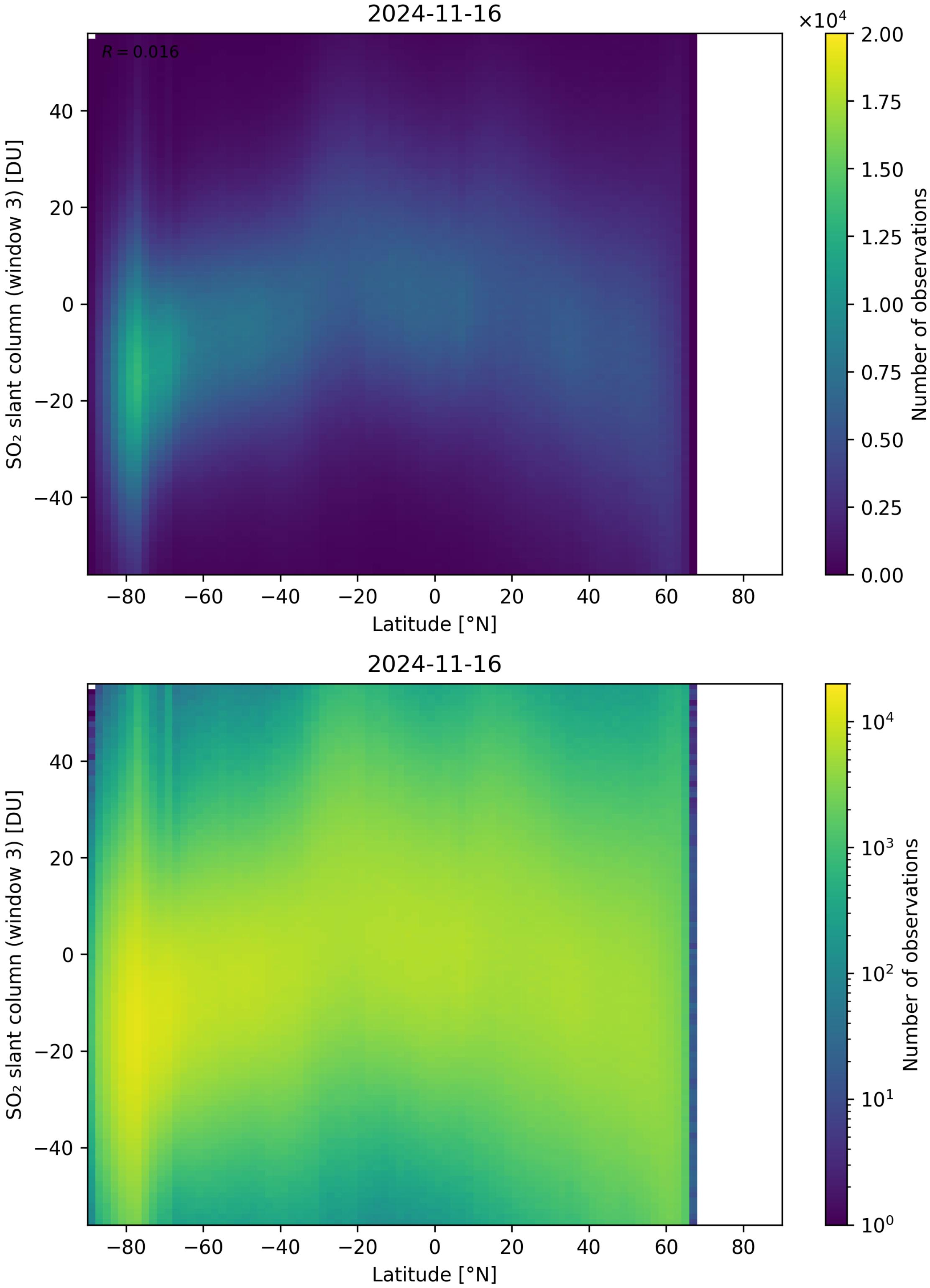


Figure 152: Scatter density plot of “Latitude” against “SO_2 slant column (window 3)” for 2024-11-15 to 2024-11-17.

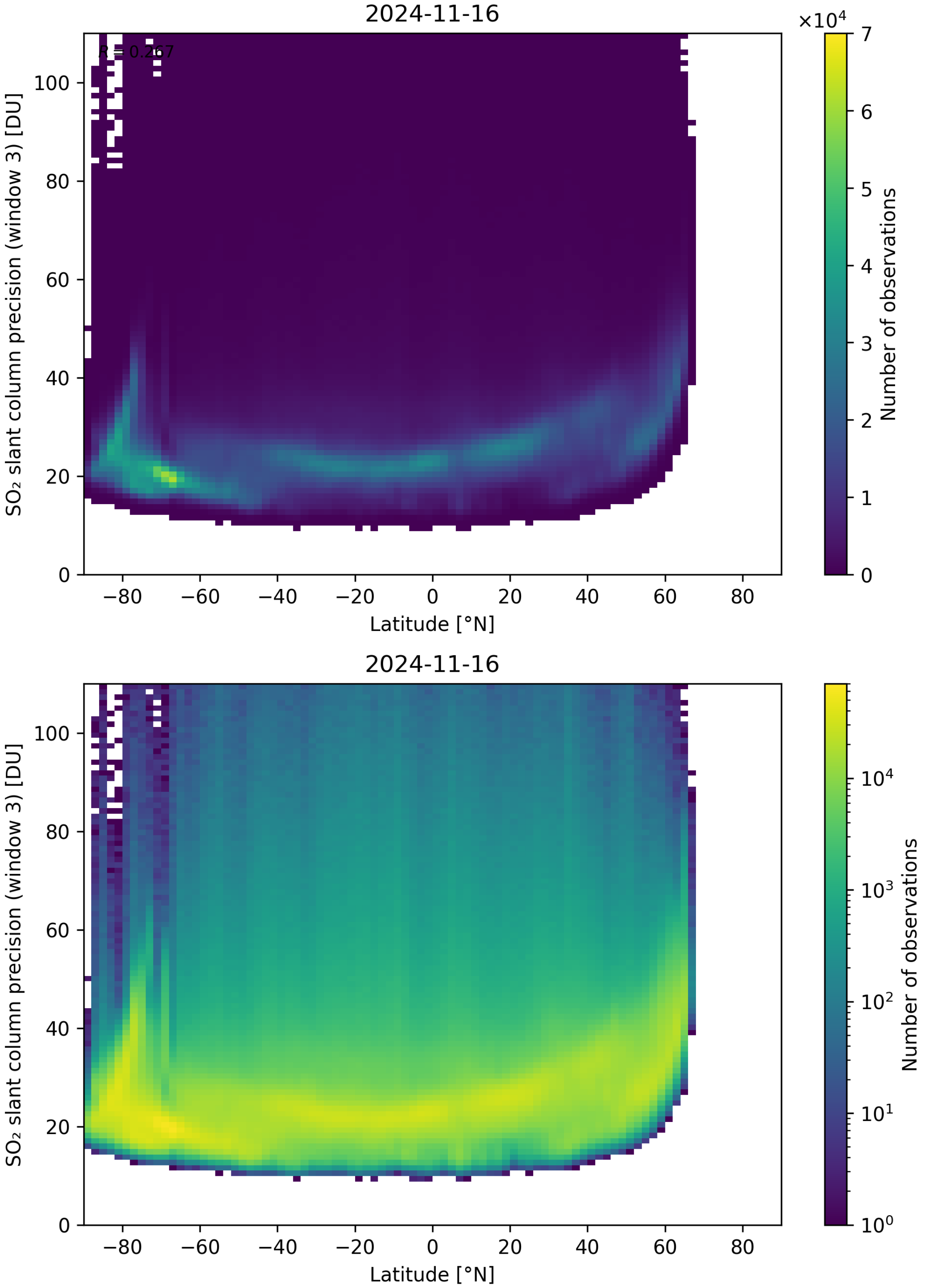


Figure 153: Scatter density plot of “Latitude” against “SO_2 slant column precision (window 3)” for 2024-11-15 to 2024-11-17.

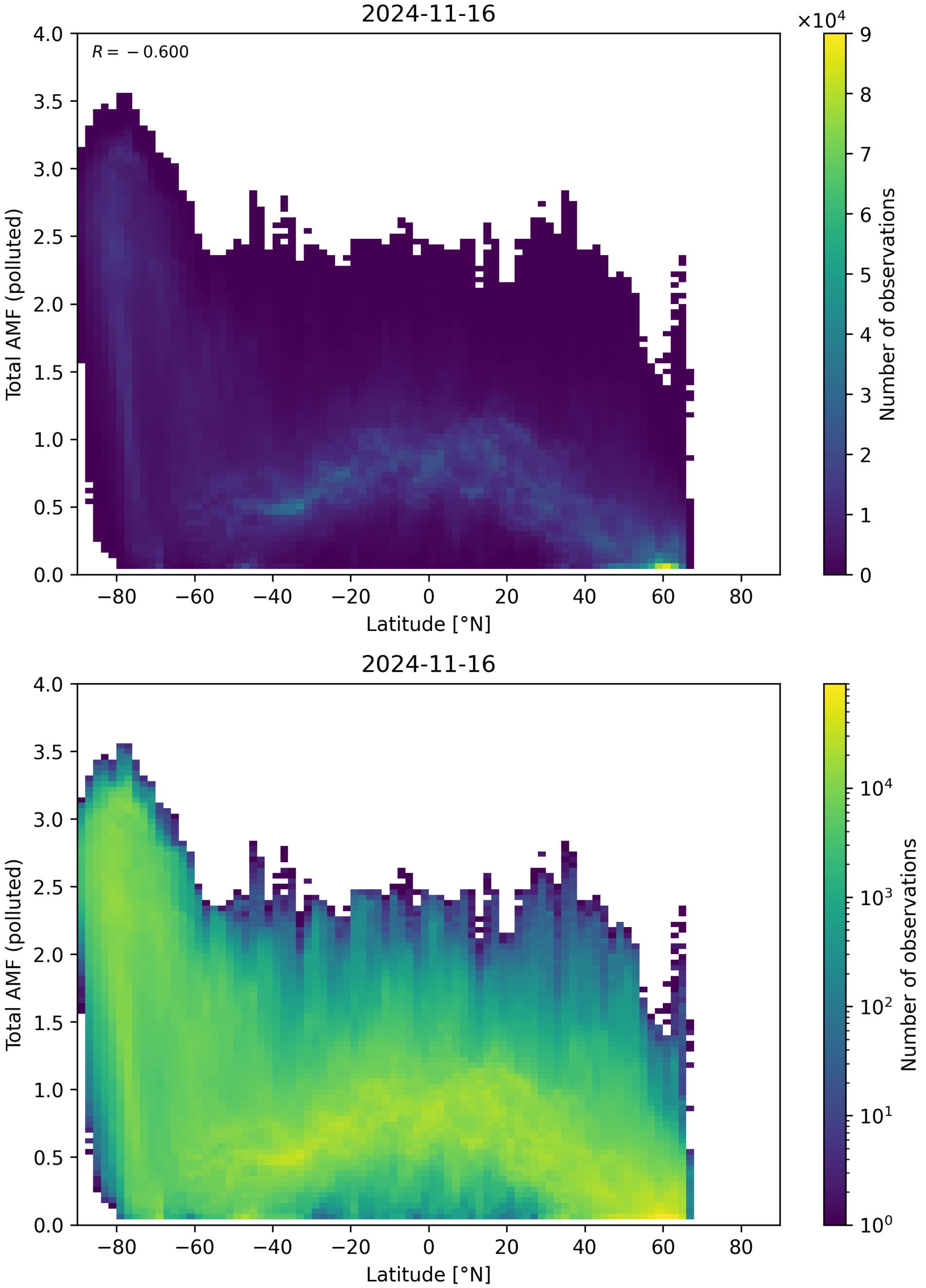
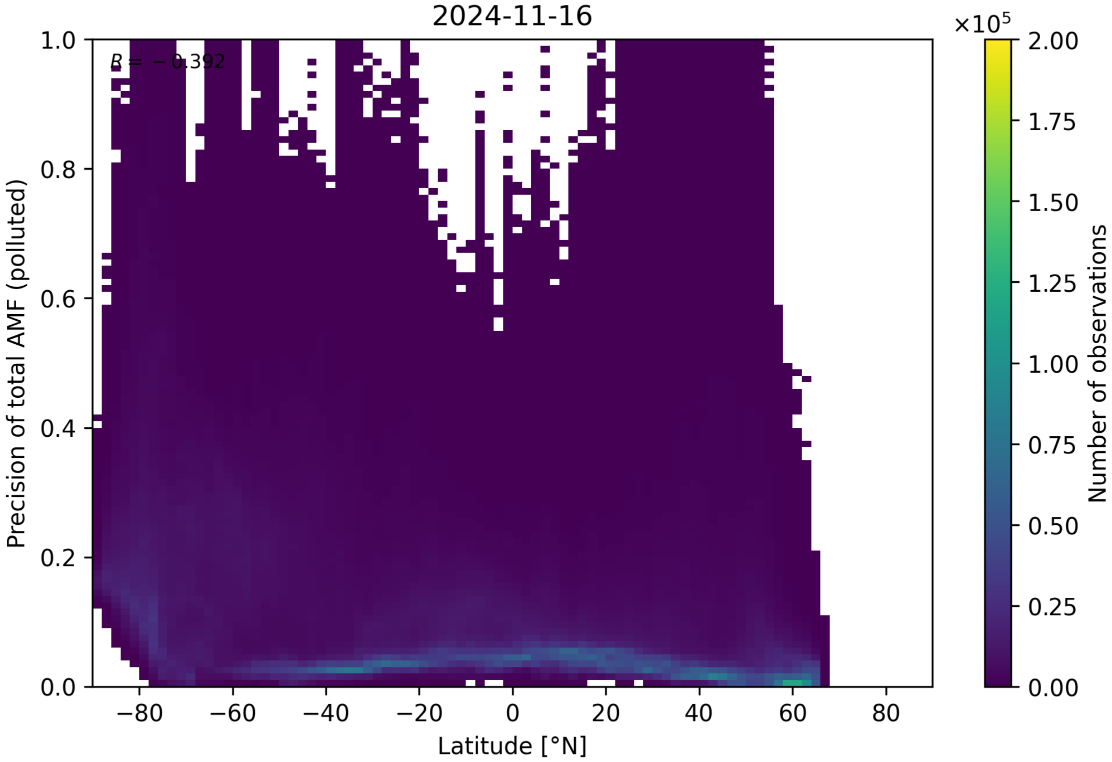


Figure 154: Scatter density plot of “Latitude” against “Total AMF (polluted)” for 2024-11-15 to 2024-11-17.



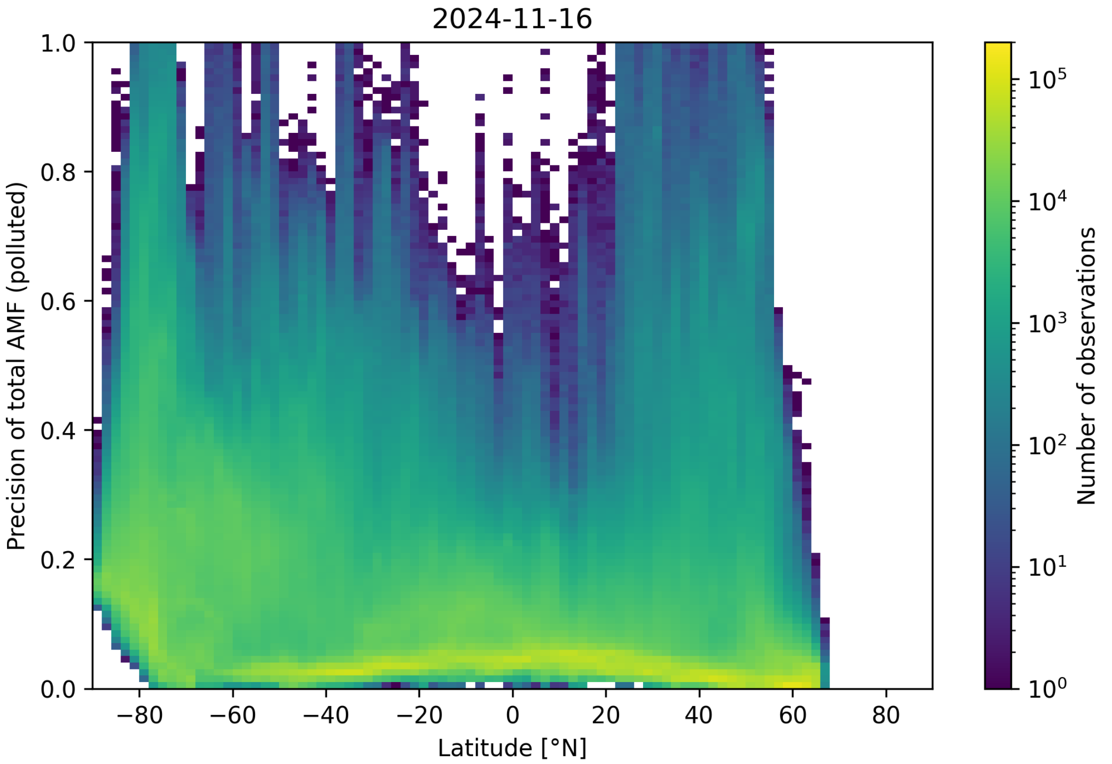


Figure 155: Scatter density plot of “Latitude” against “Precision of total AMF (polluted)” for 2024-11-15 to 2024-11-17.

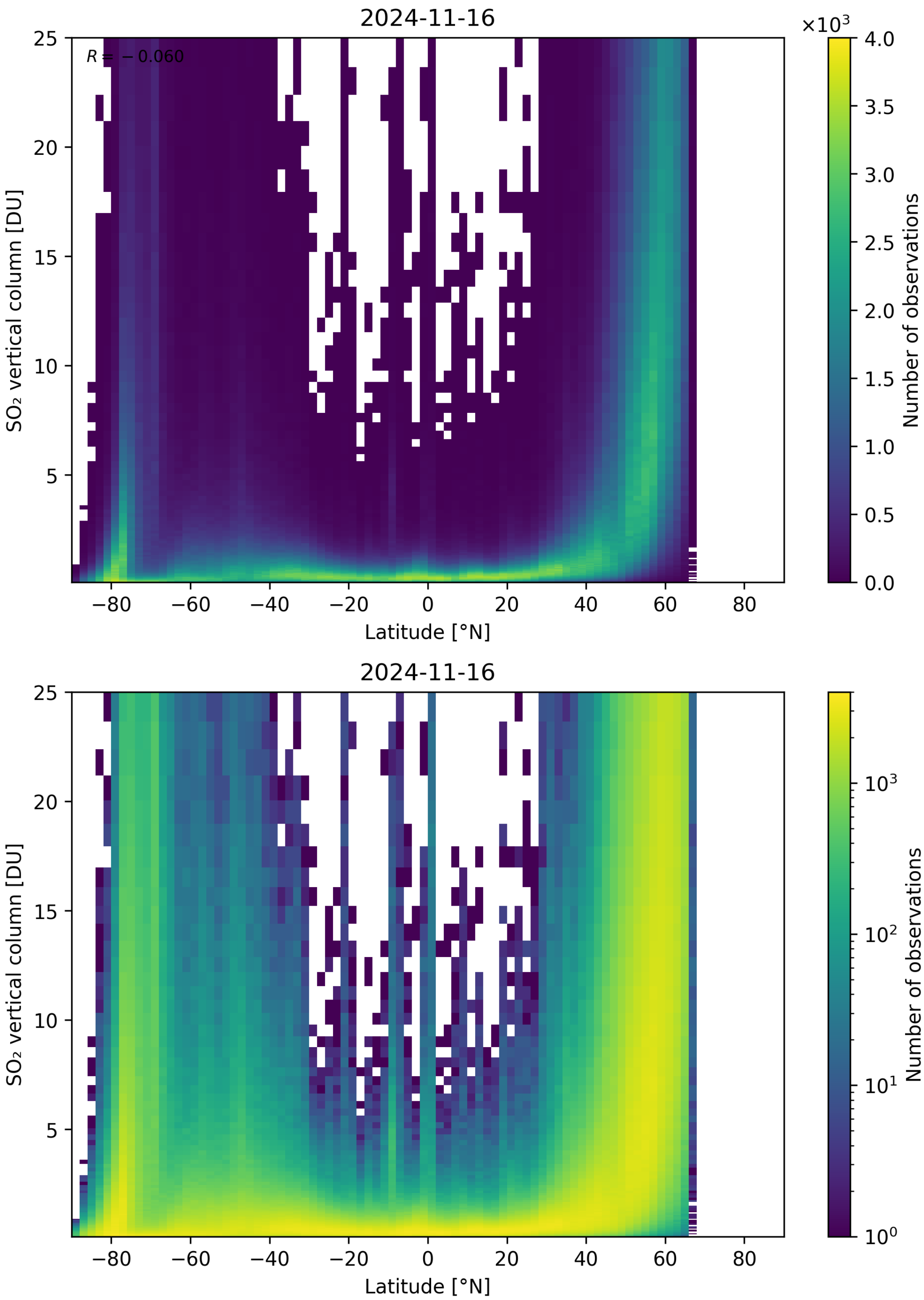


Figure 156: Scatter density plot of “Latitude” against “SO_2 vertical column” for 2024-11-15 to 2024-11-17.

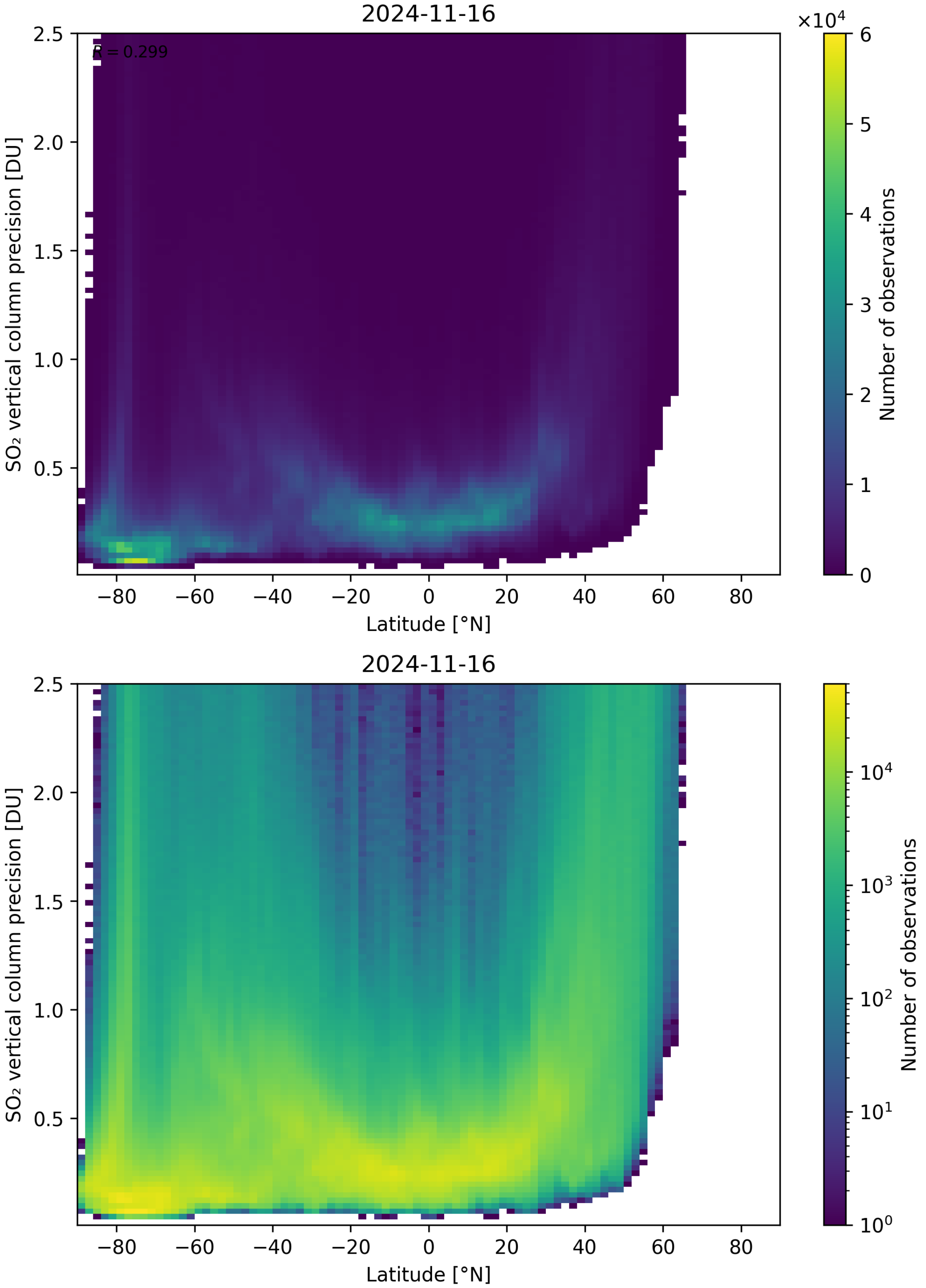


Figure 157: Scatter density plot of “Latitude” against “SO_2 vertical column precision” for 2024-11-15 to 2024-11-17.

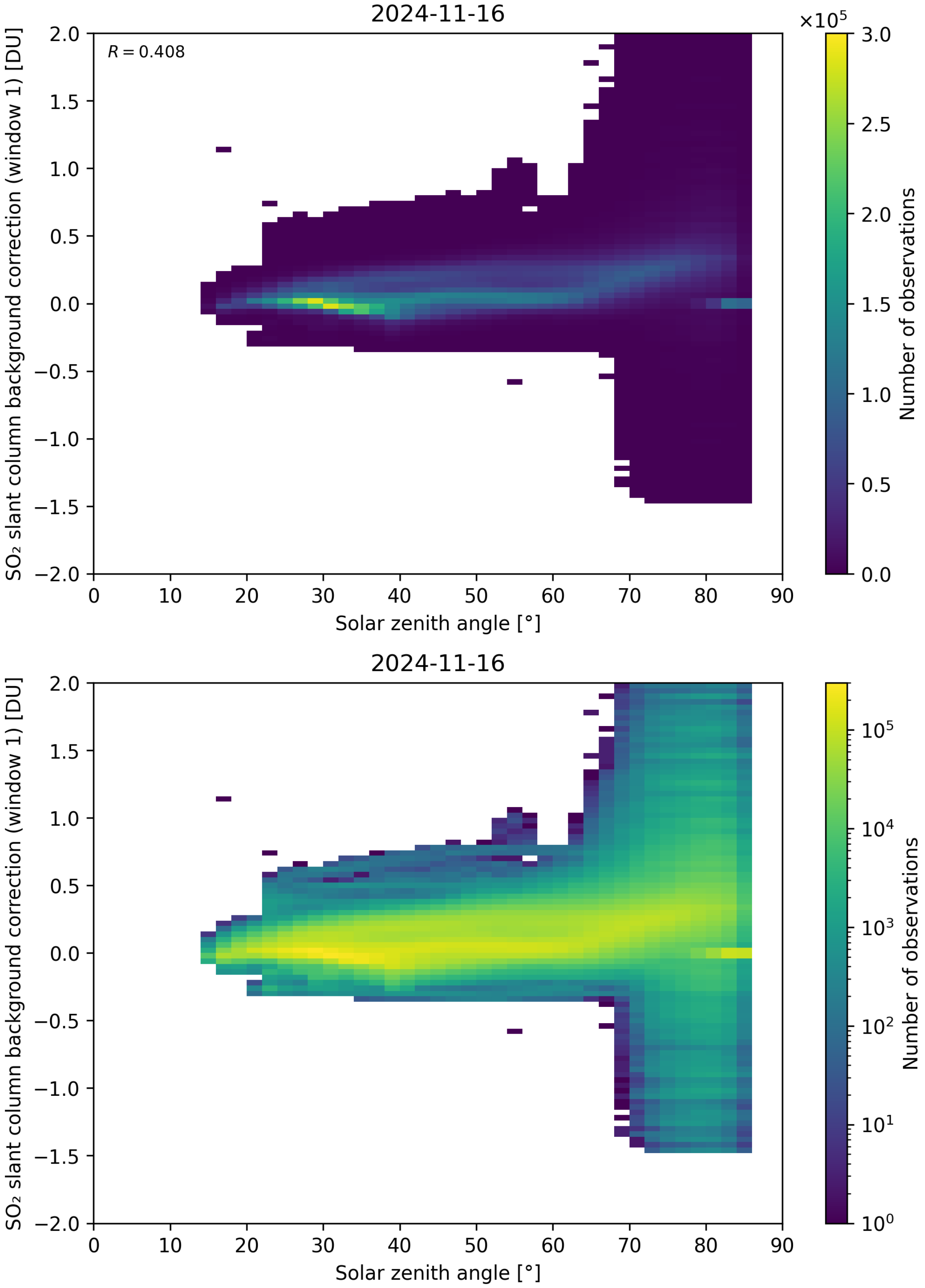


Figure 158: Scatter density plot of “Solar zenith angle” against “SO_2 slant column background correction (window 1)” for 2024-11-15 to 2024-11-17.

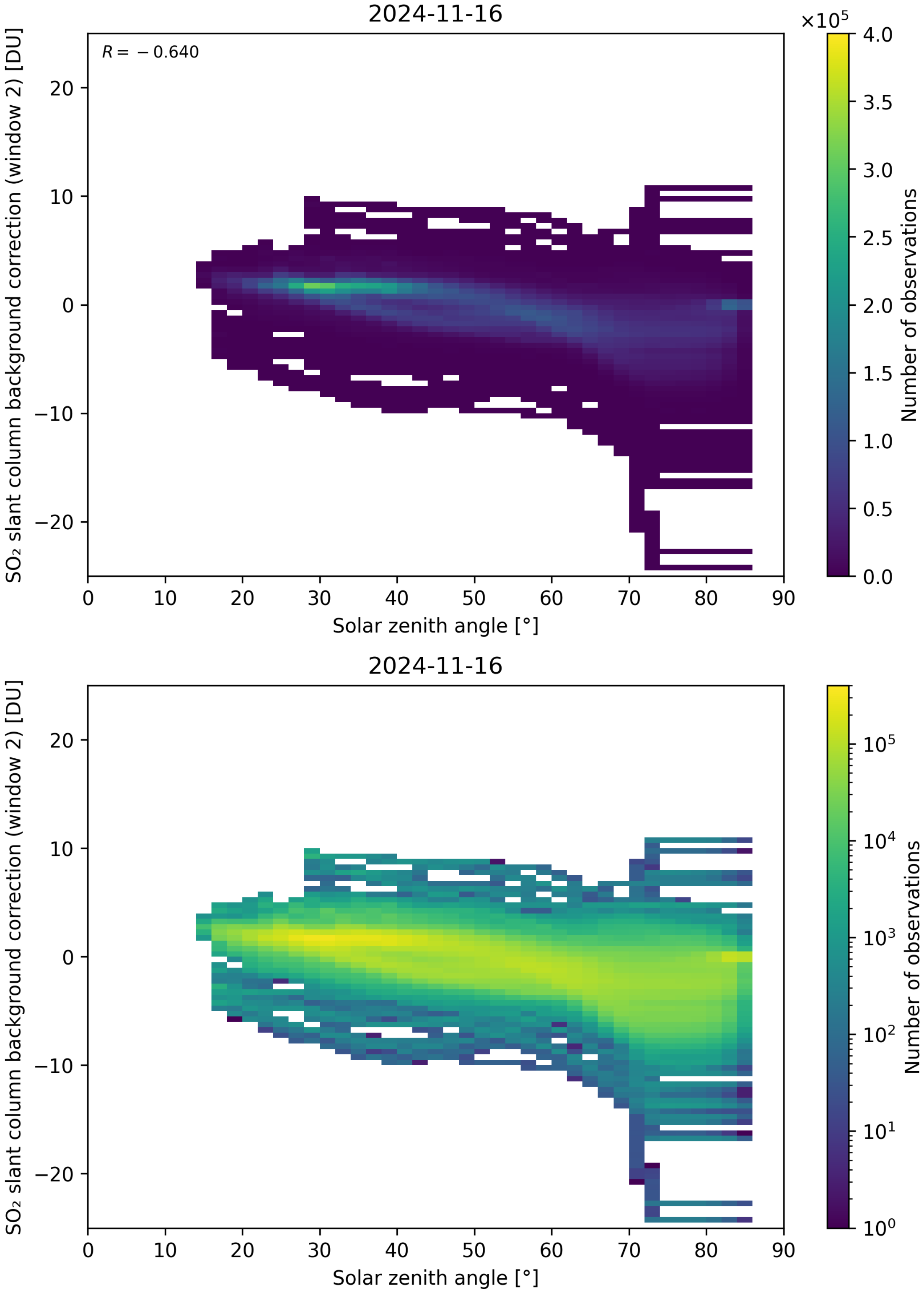


Figure 159: Scatter density plot of “Solar zenith angle” against “SO_2 slant column background correction (window 2)” for 2024-11-15 to 2024-11-17.

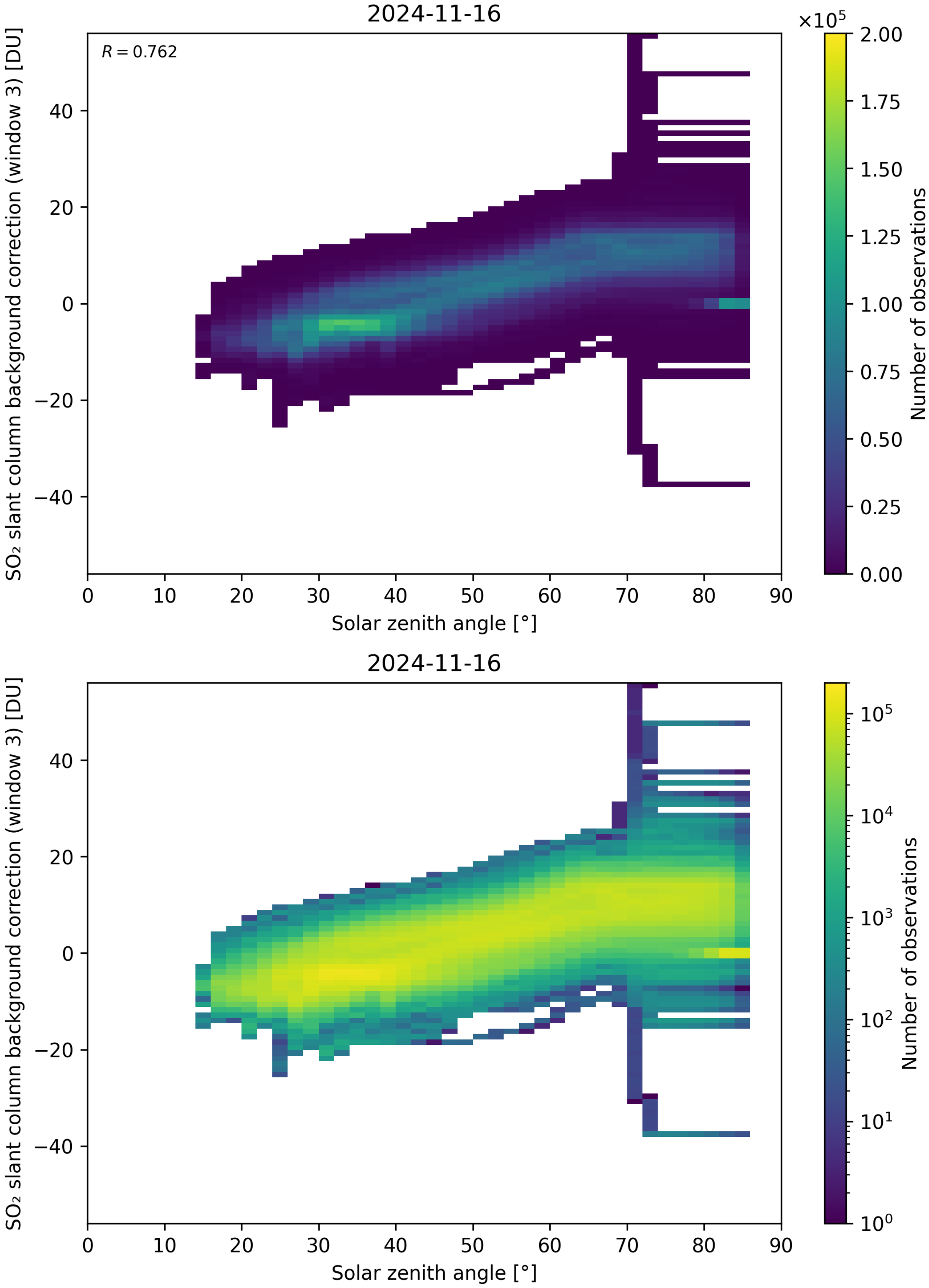


Figure 160: Scatter density plot of “Solar zenith angle” against “SO_2 slant column background correction (window 3)” for 2024-11-15 to 2024-11-17.

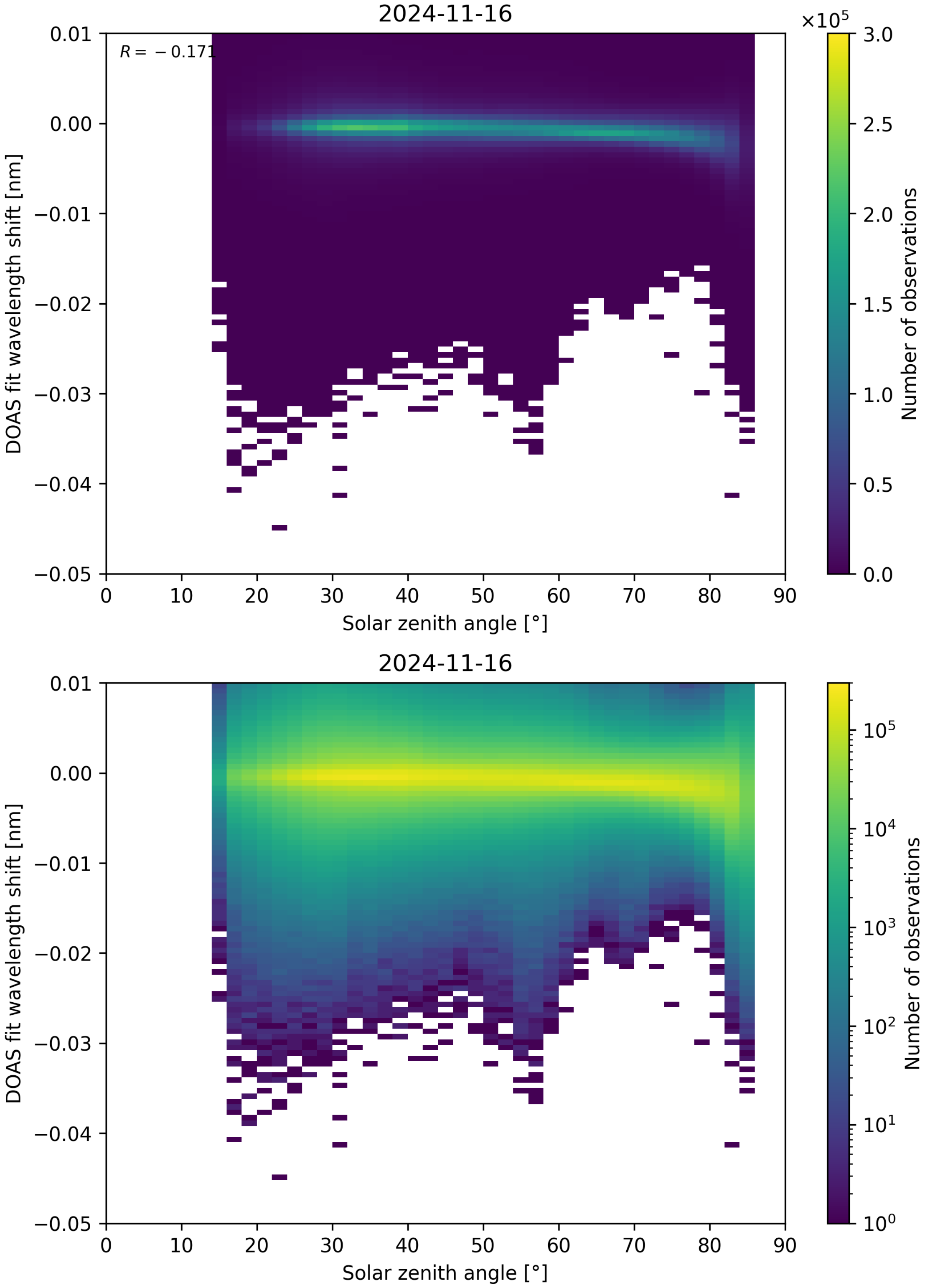


Figure 161: Scatter density plot of “Solar zenith angle” against “DOAS fit wavelength shift” for 2024-11-15 to 2024-11-17.

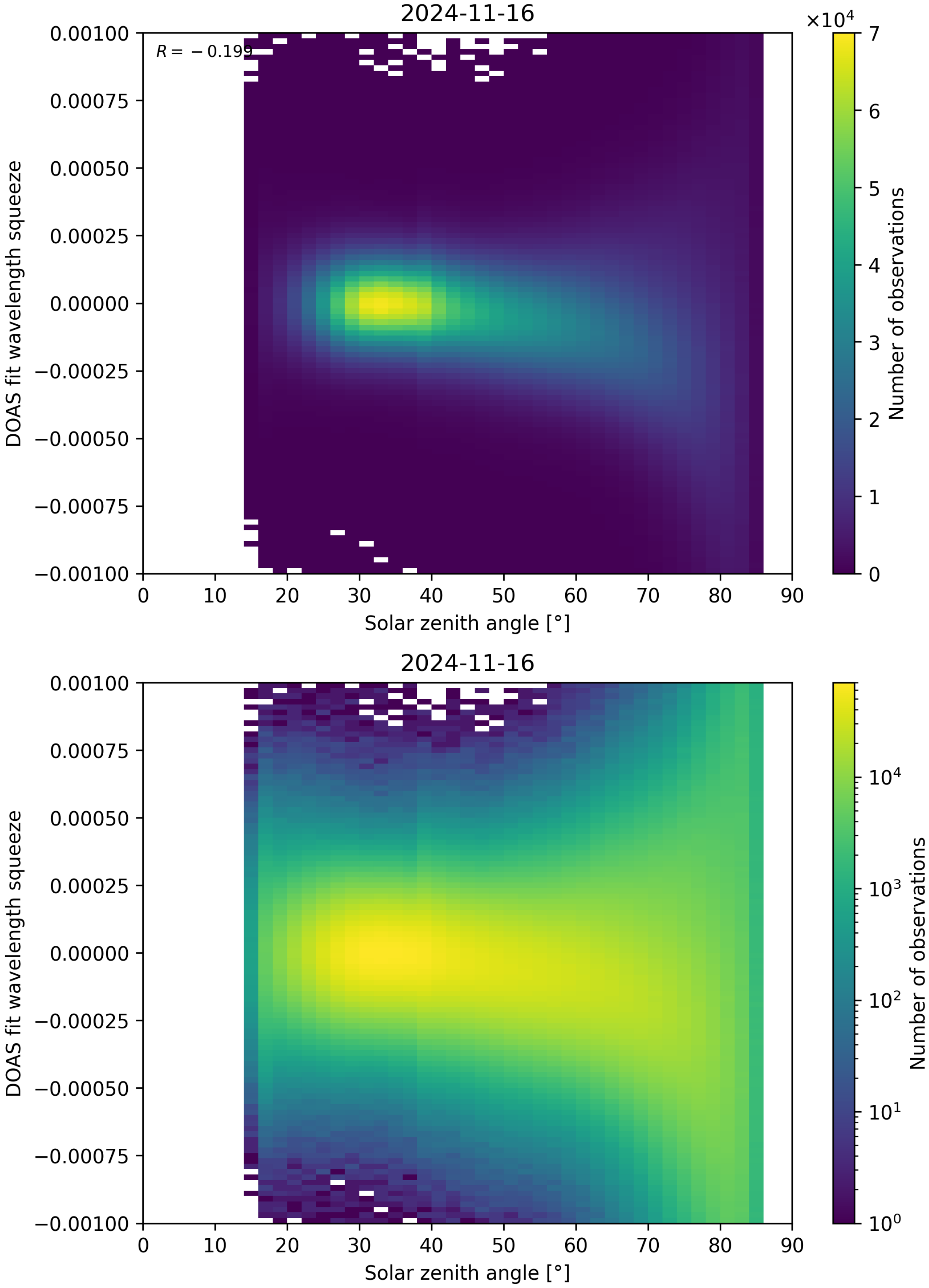
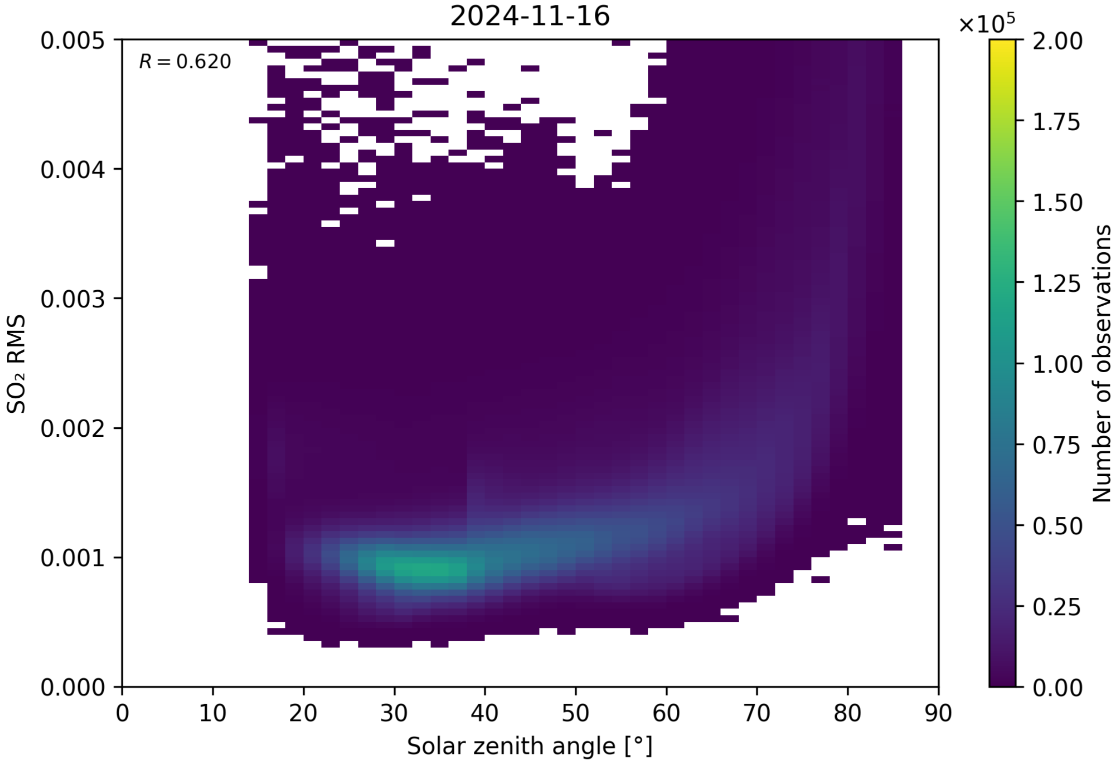


Figure 162: Scatter density plot of “Solar zenith angle” against “DOAS fit wavelength squeeze” for 2024-11-15 to 2024-11-17.



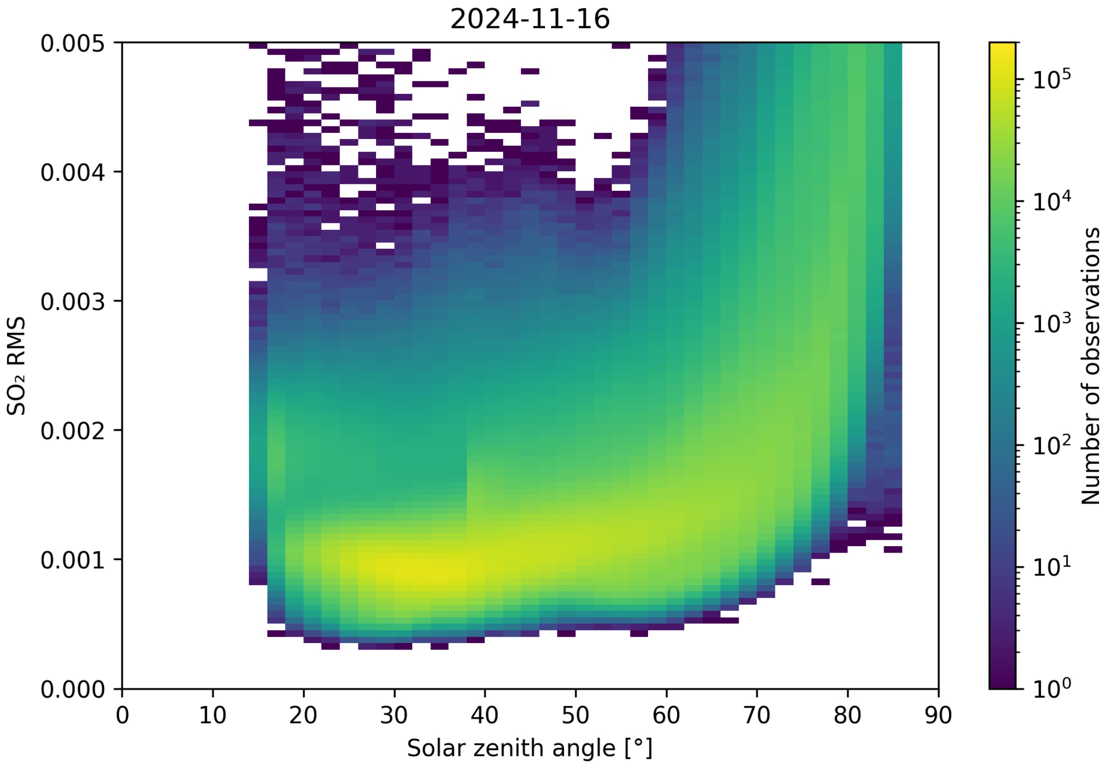


Figure 163: Scatter density plot of “Solar zenith angle” against “SO_2 RMS” for 2024-11-15 to 2024-11-17.

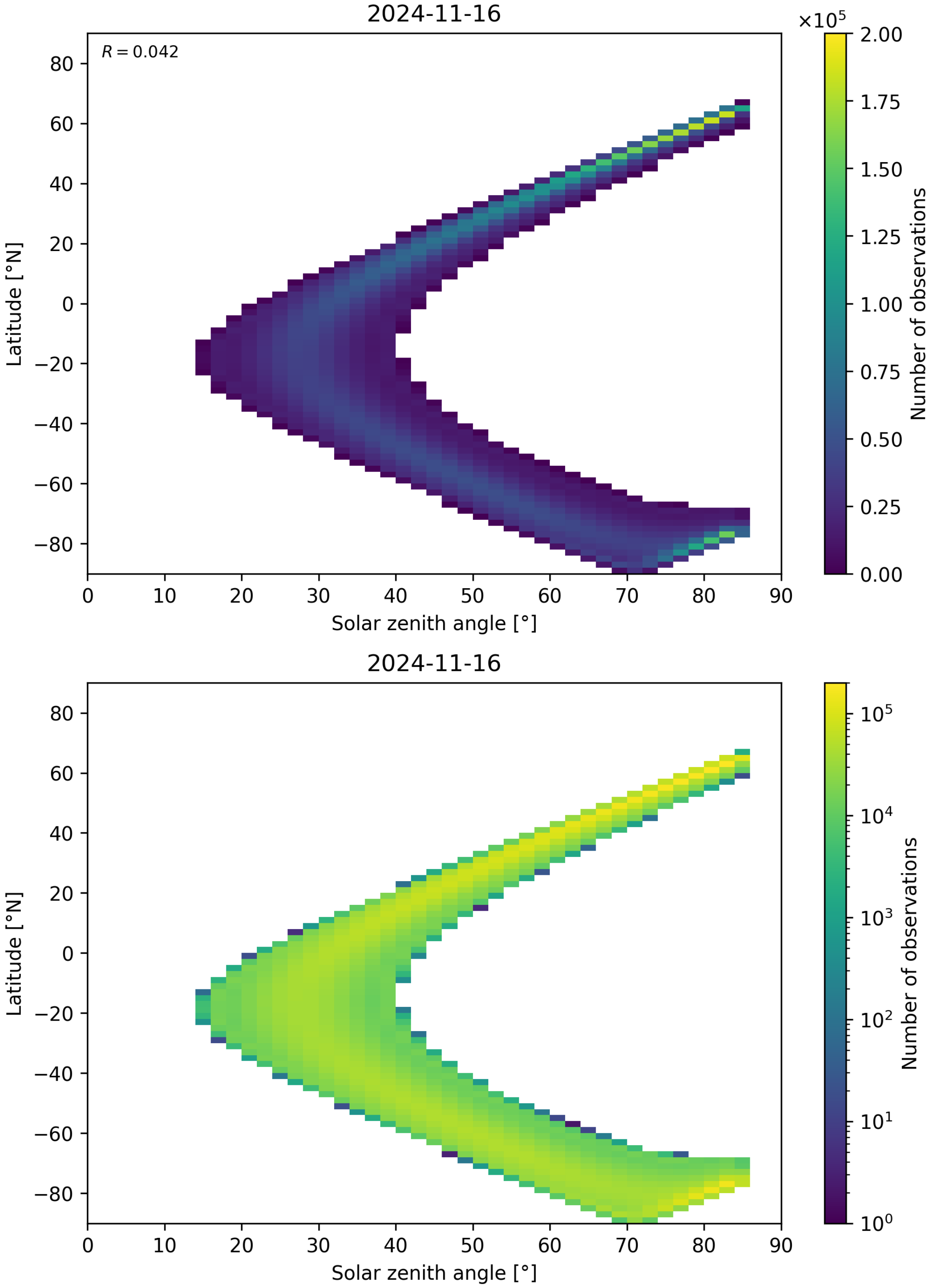


Figure 164: Scatter density plot of “Solar zenith angle” against “Latitude” for 2024-11-15 to 2024-11-17.

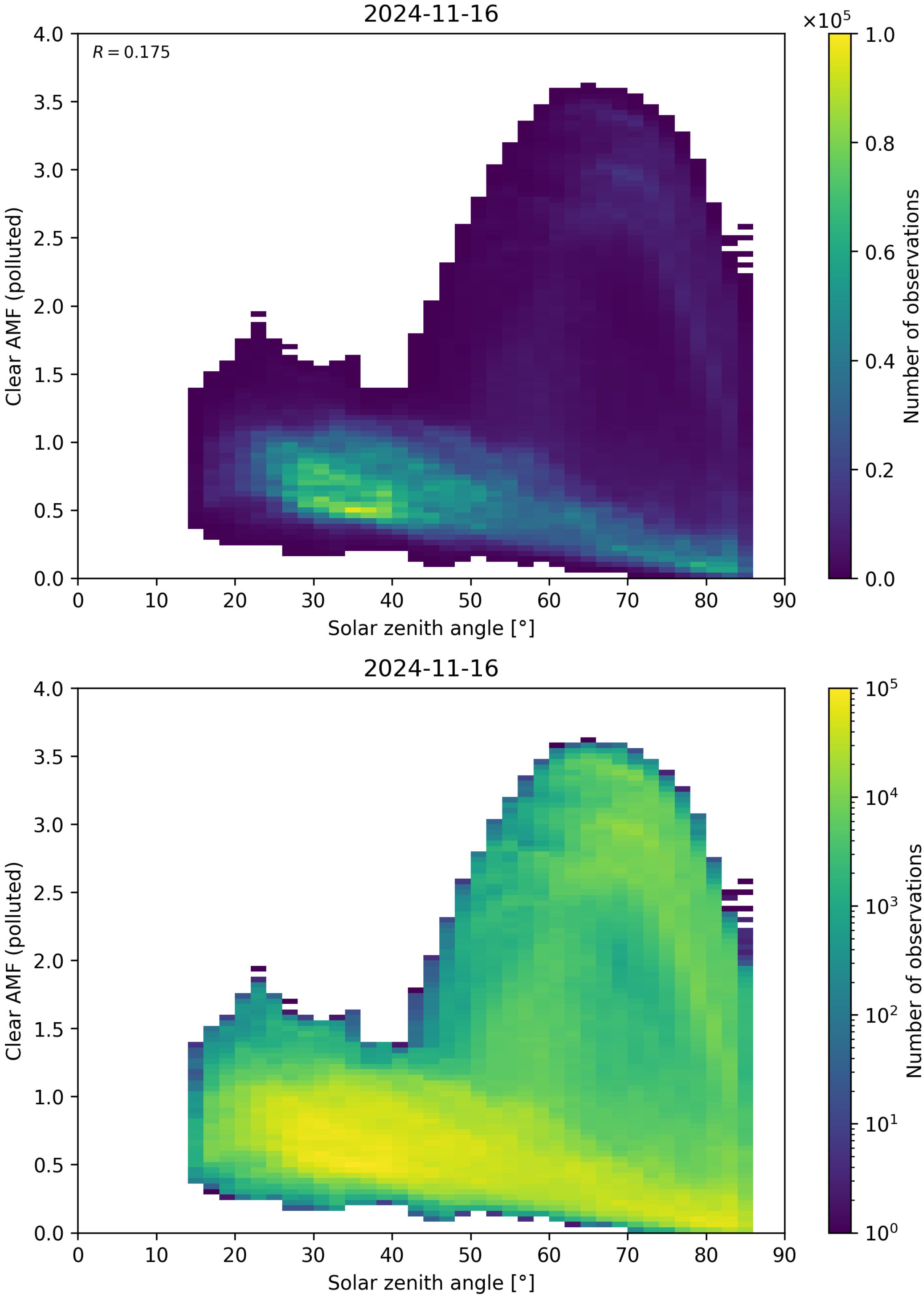
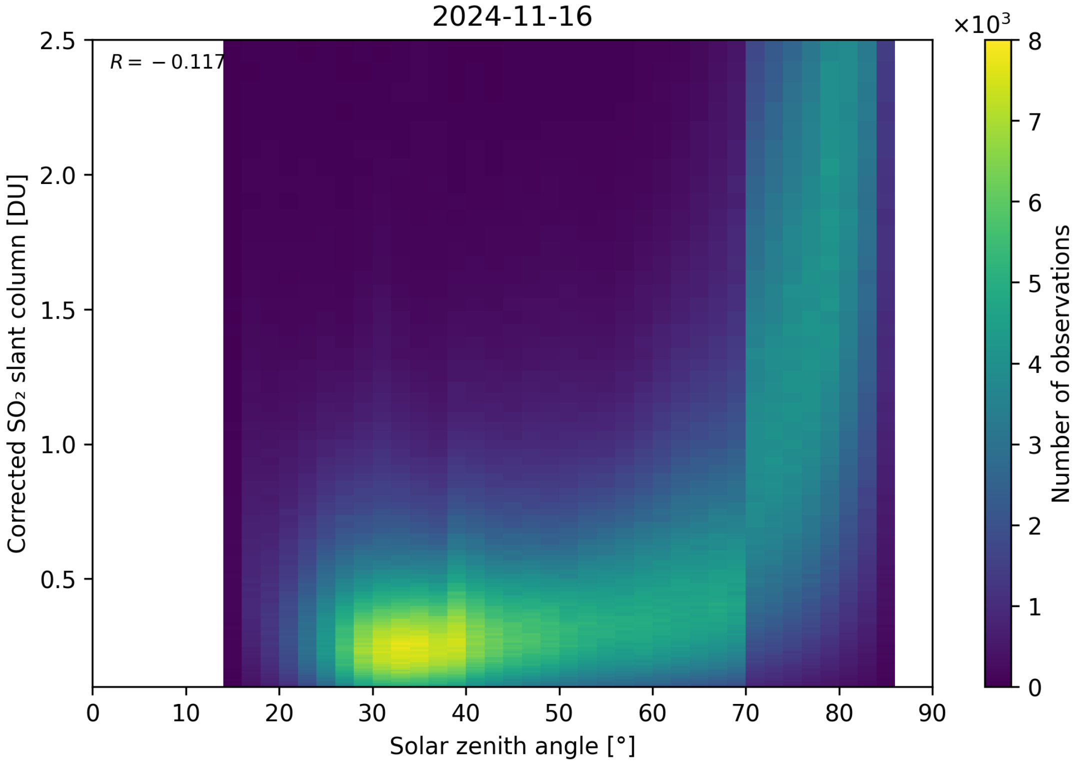


Figure 165: Scatter density plot of “Solar zenith angle” against “Clear AMF (polluted)” for 2024-11-15 to 2024-11-17.



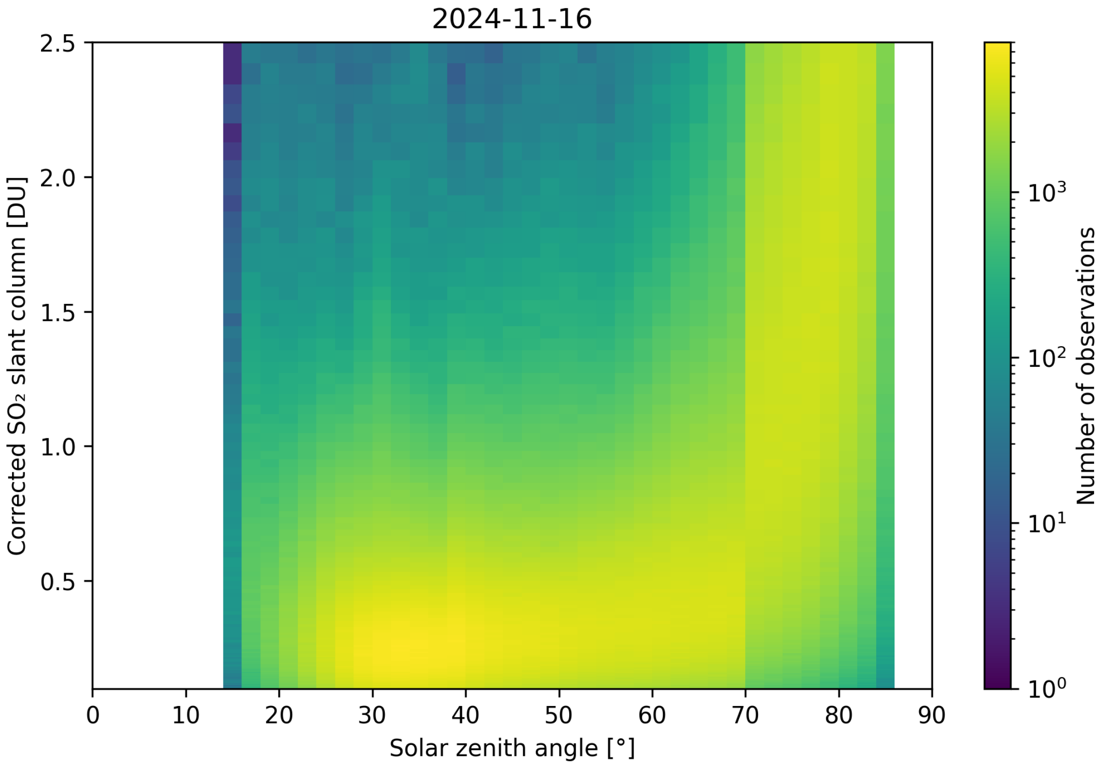


Figure 166: Scatter density plot of “Solar zenith angle” against “Corrected SO_2 slant column” for 2024-11-15 to 2024-11-17.

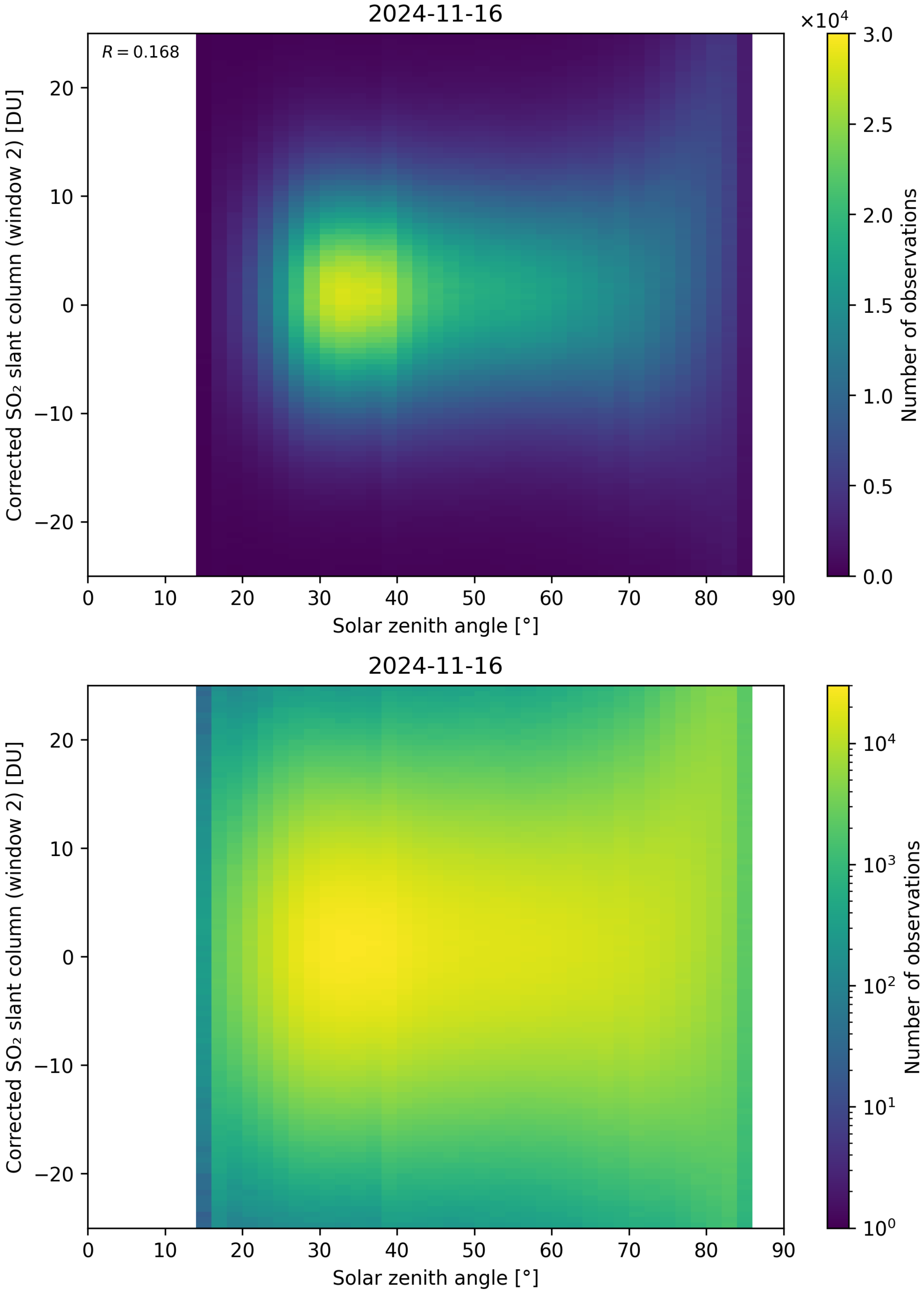


Figure 167: Scatter density plot of “Solar zenith angle” against “Corrected SO_2 slant column (window 2)” for 2024-11-15 to 2024-11-17.

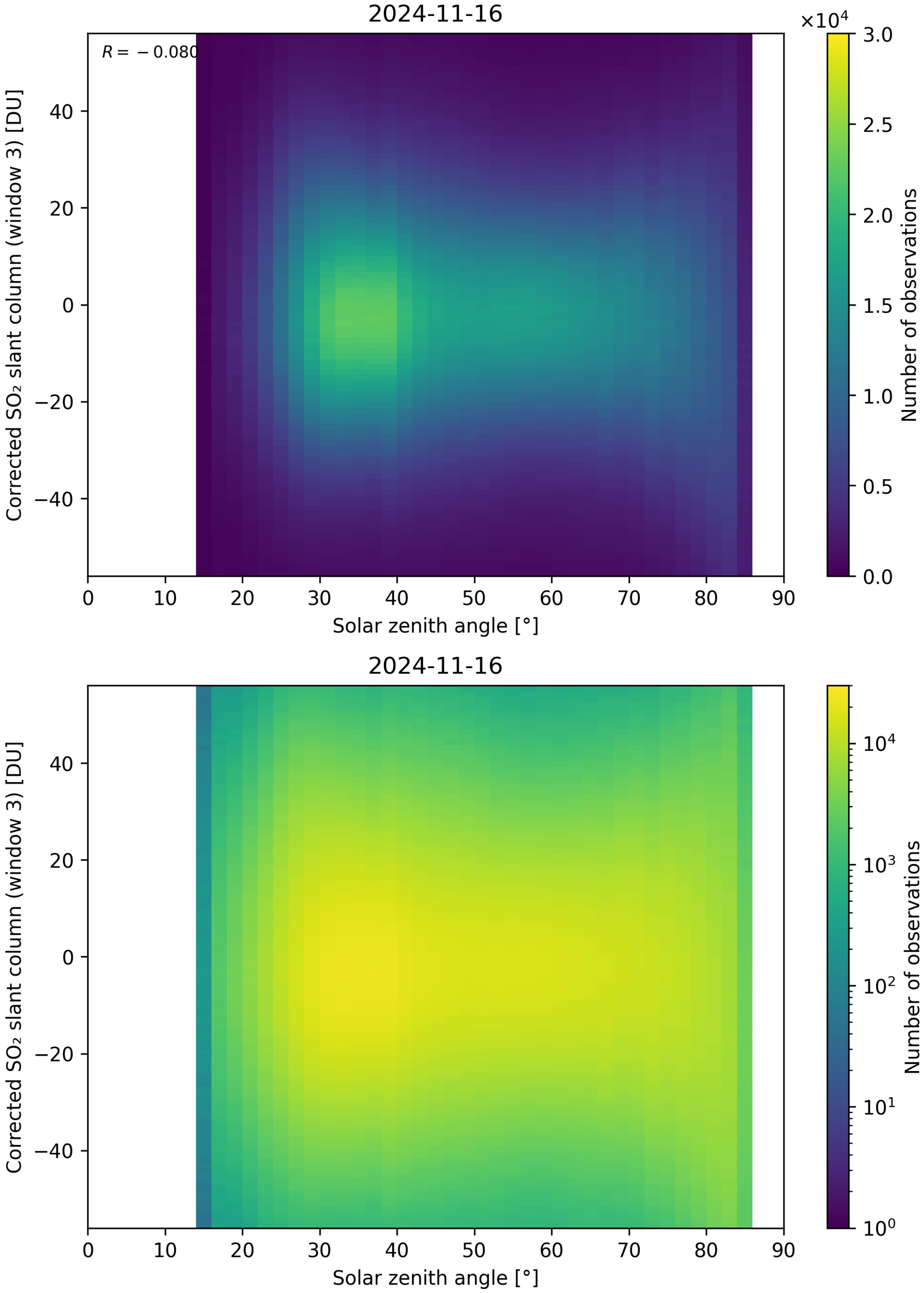


Figure 168: Scatter density plot of “Solar zenith angle” against “Corrected SO_2 slant column (window 3)” for 2024-11-15 to 2024-11-17.

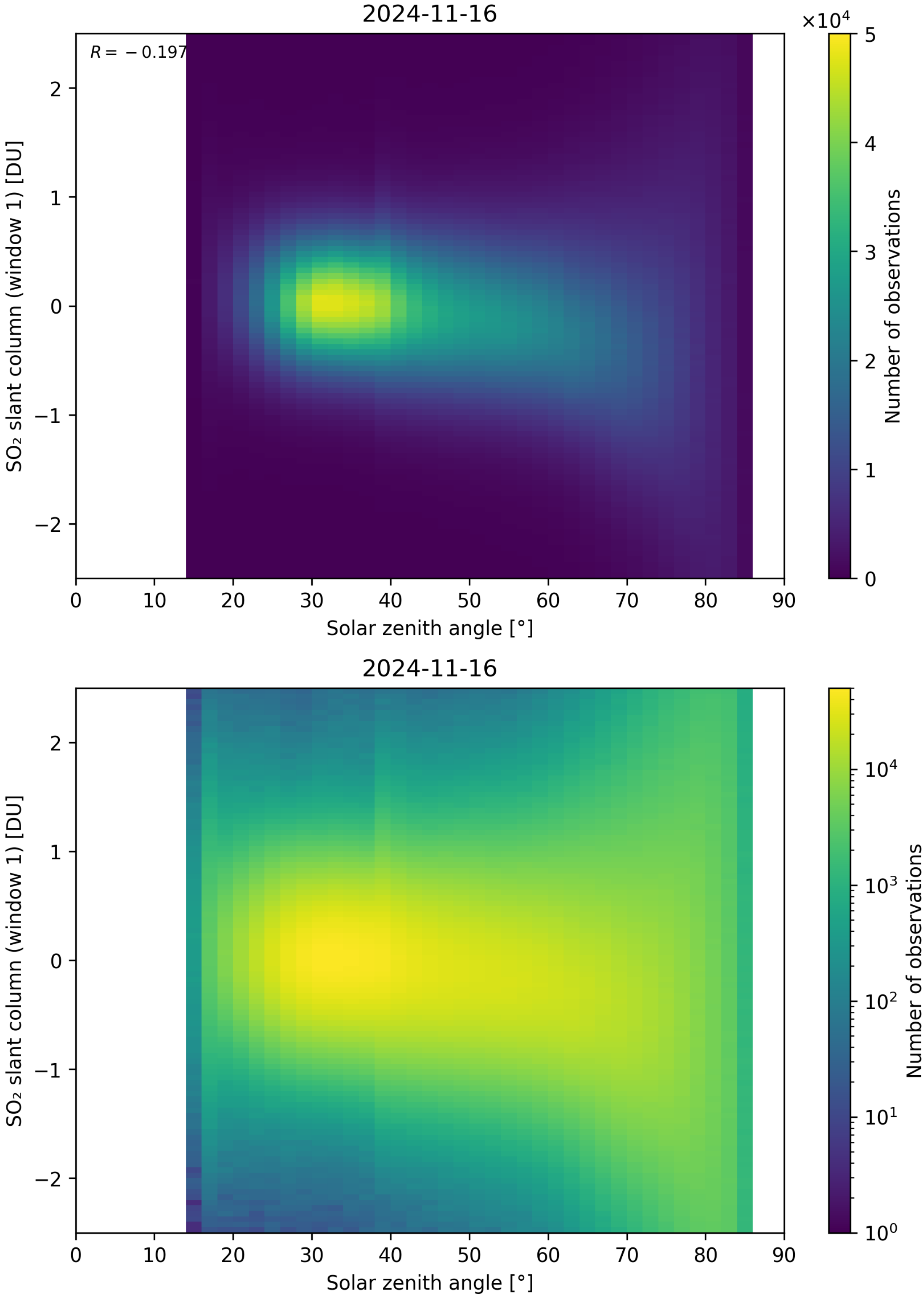


Figure 169: Scatter density plot of “Solar zenith angle” against “SO_2 slant column (window 1)” for 2024-11-15 to 2024-11-17.

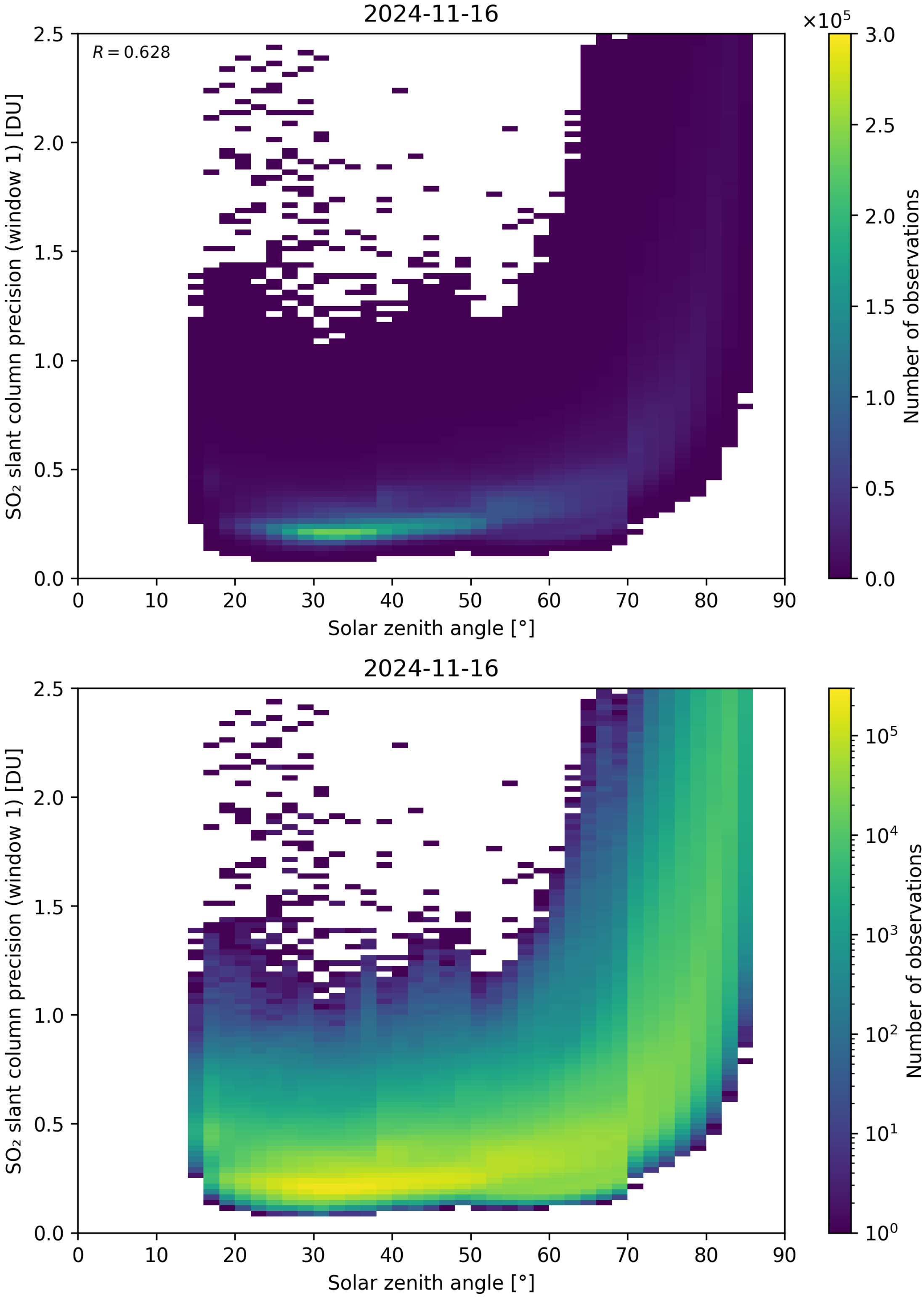


Figure 170: Scatter density plot of “Solar zenith angle” against “SO_2 slant column precision (window 1)” for 2024-11-15 to 2024-11-17.

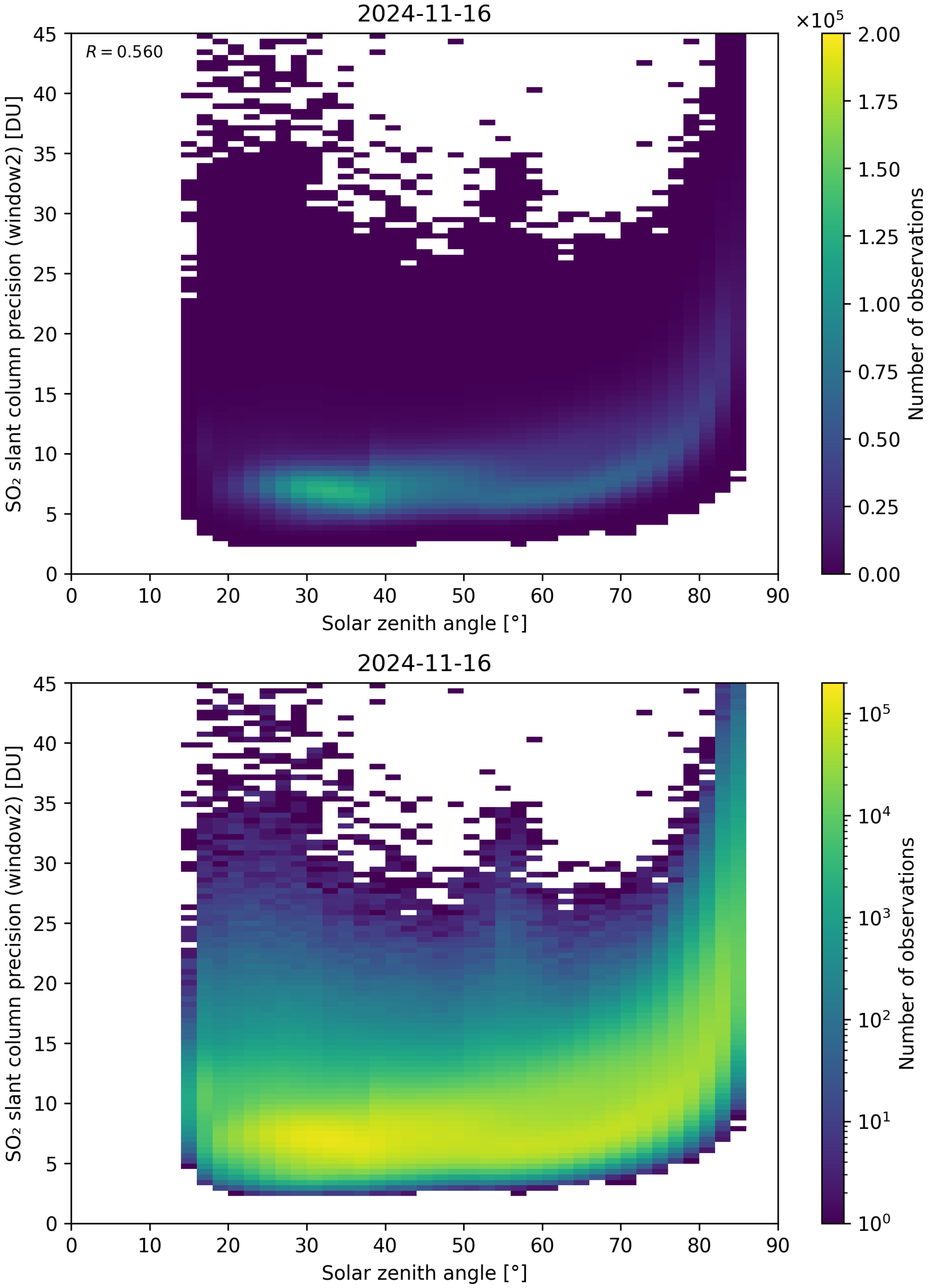


Figure 171: Scatter density plot of “Solar zenith angle” against “SO_2 slant column precision (window2)” for 2024-11-15 to 2024-11-17.

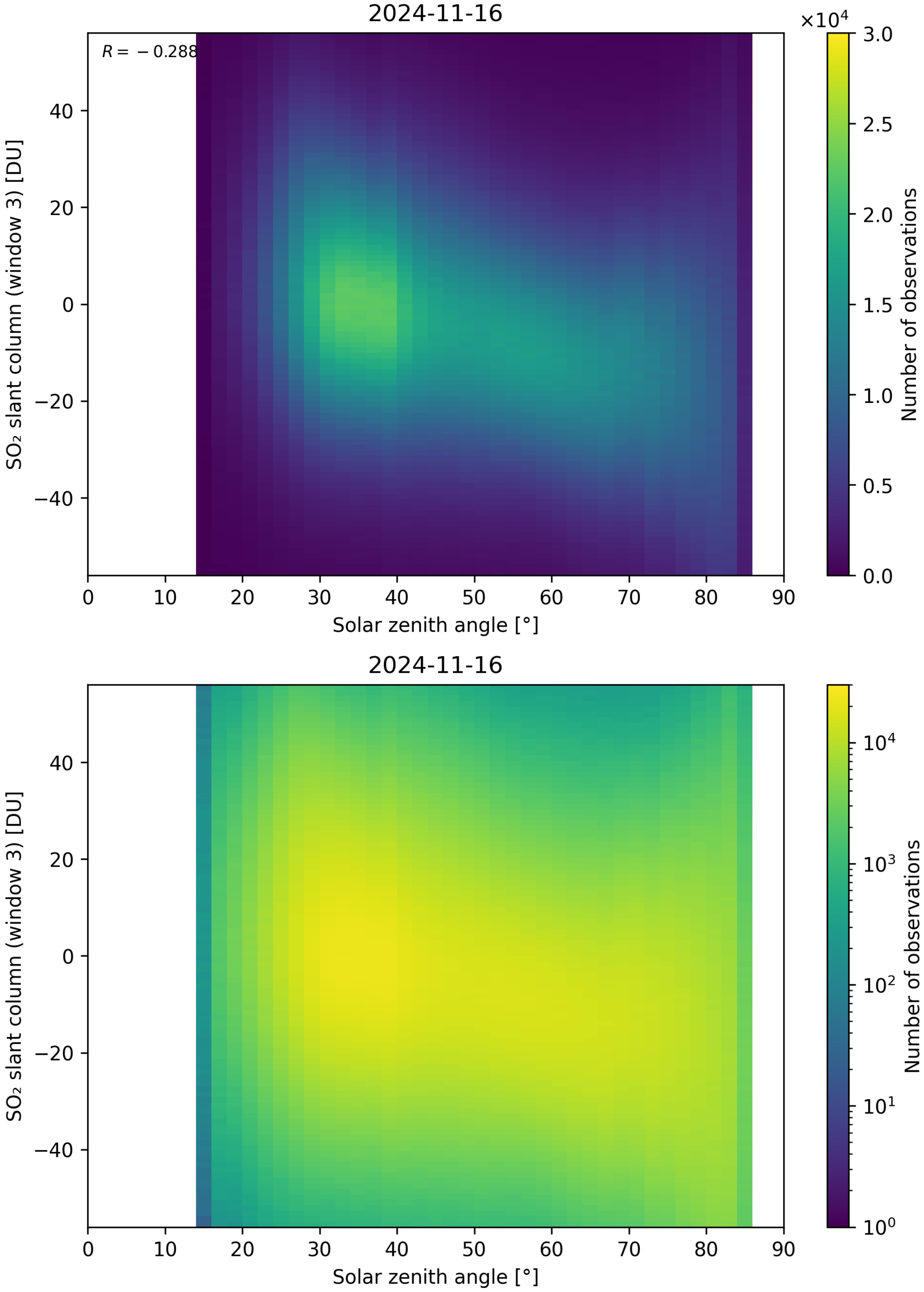


Figure 172: Scatter density plot of “Solar zenith angle” against “SO_2 slant column (window 3)” for 2024-11-15 to 2024-11-17.

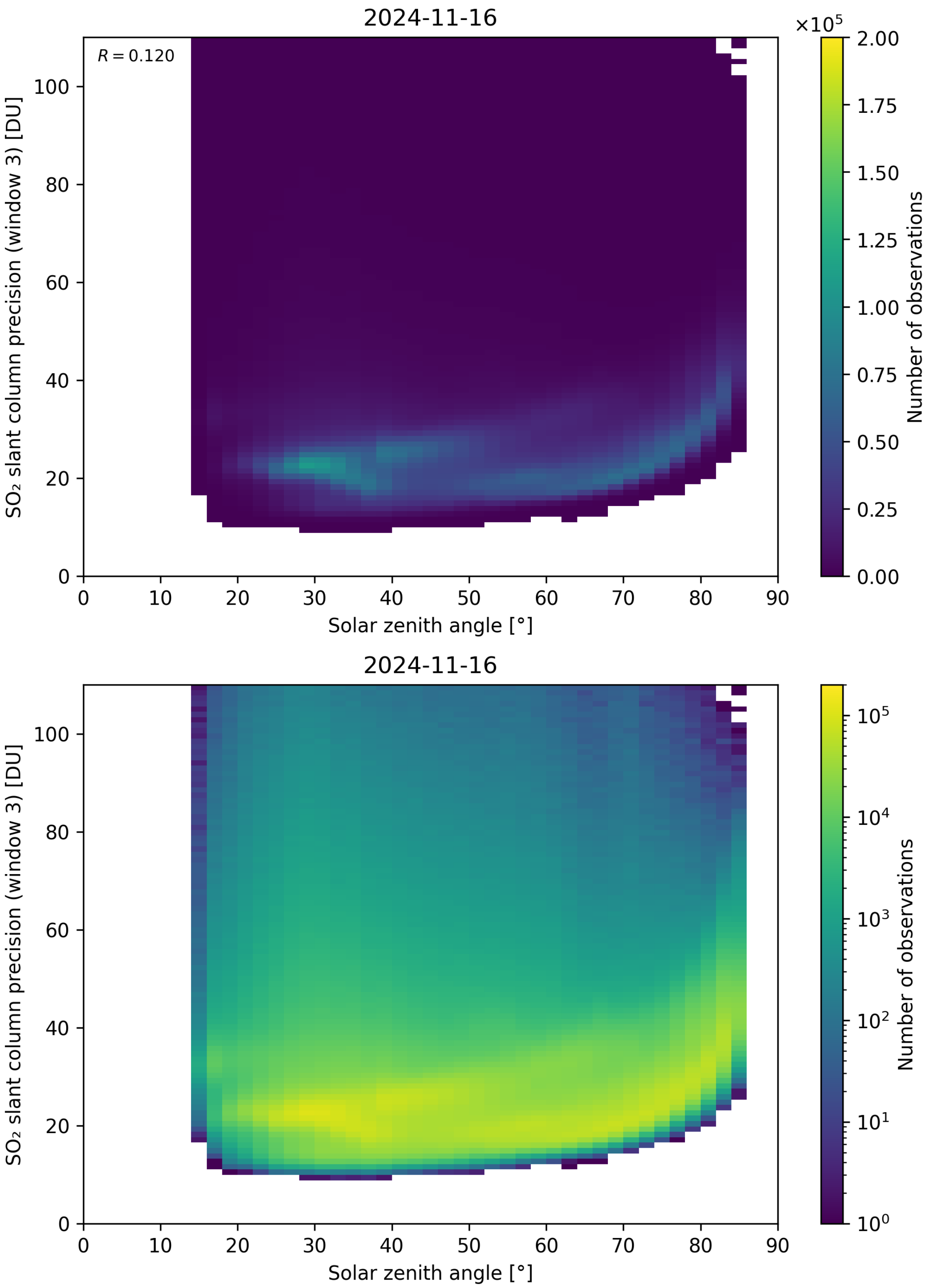


Figure 173: Scatter density plot of “Solar zenith angle” against “SO_2 slant column precision (window 3)” for 2024-11-15 to 2024-11-17.

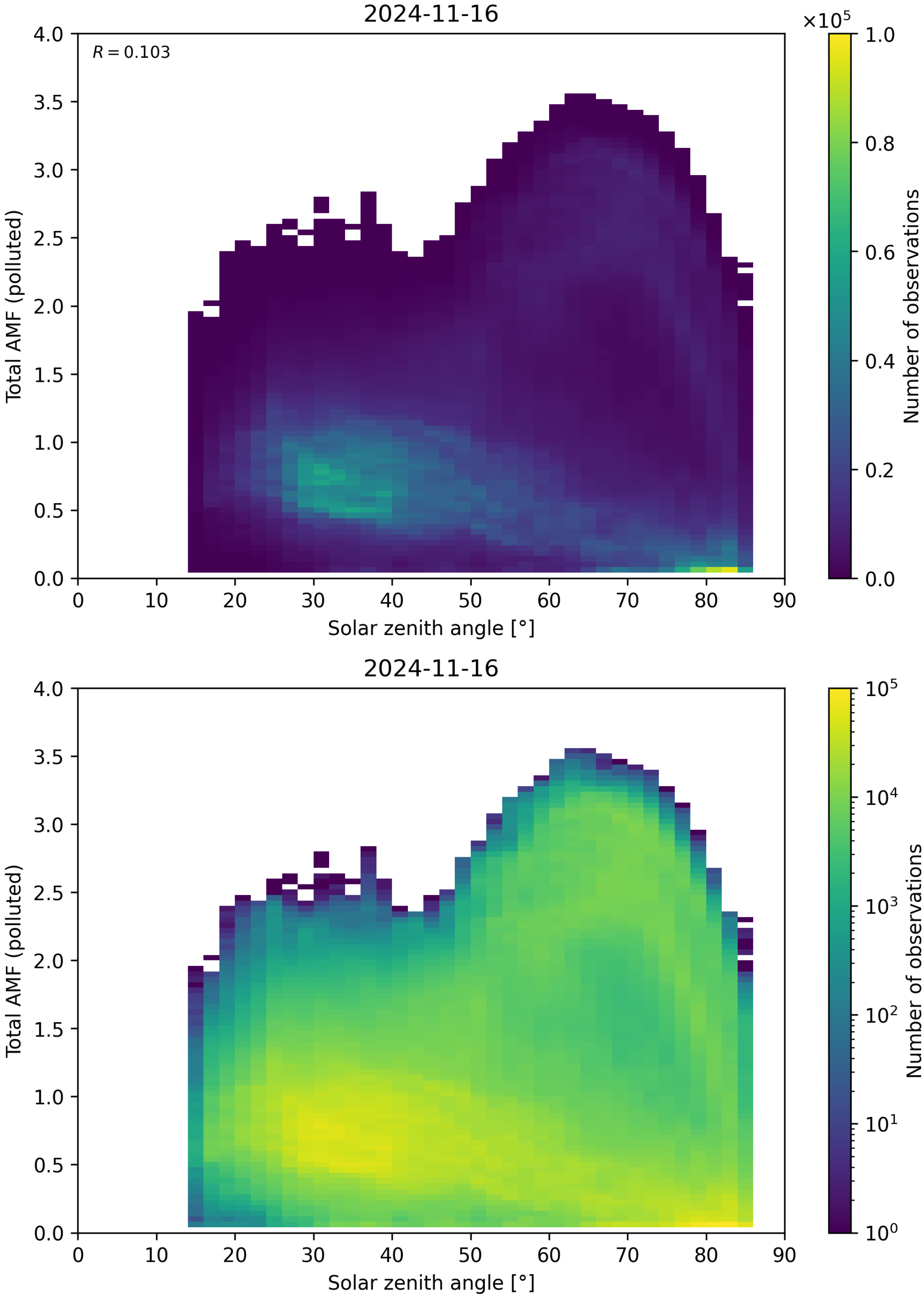


Figure 174: Scatter density plot of “Solar zenith angle” against “Total AMF (polluted)” for 2024-11-15 to 2024-11-17.

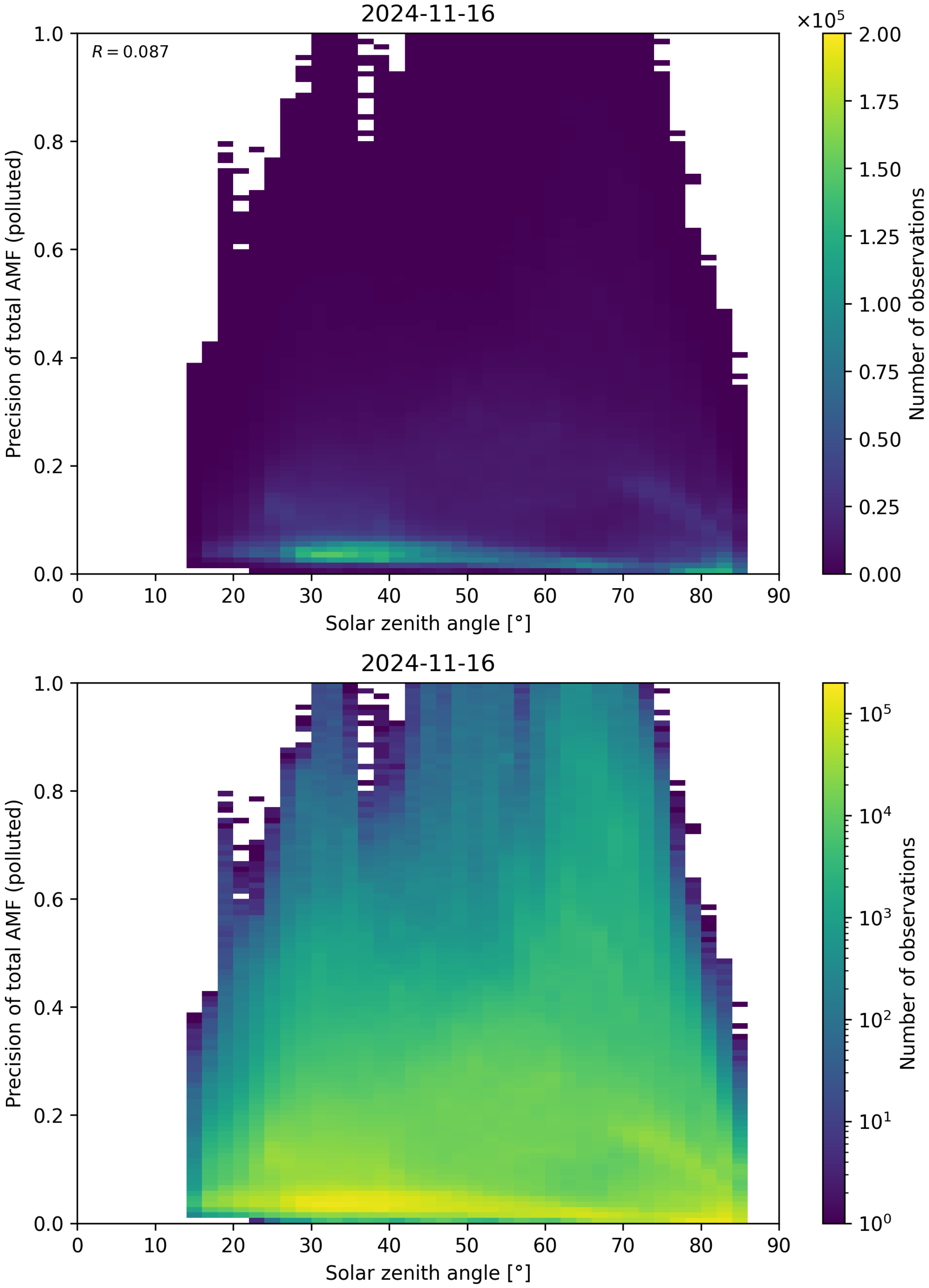


Figure 175: Scatter density plot of “Solar zenith angle” against “Precision of total AMF (polluted)” for 2024-11-15 to 2024-11-17.

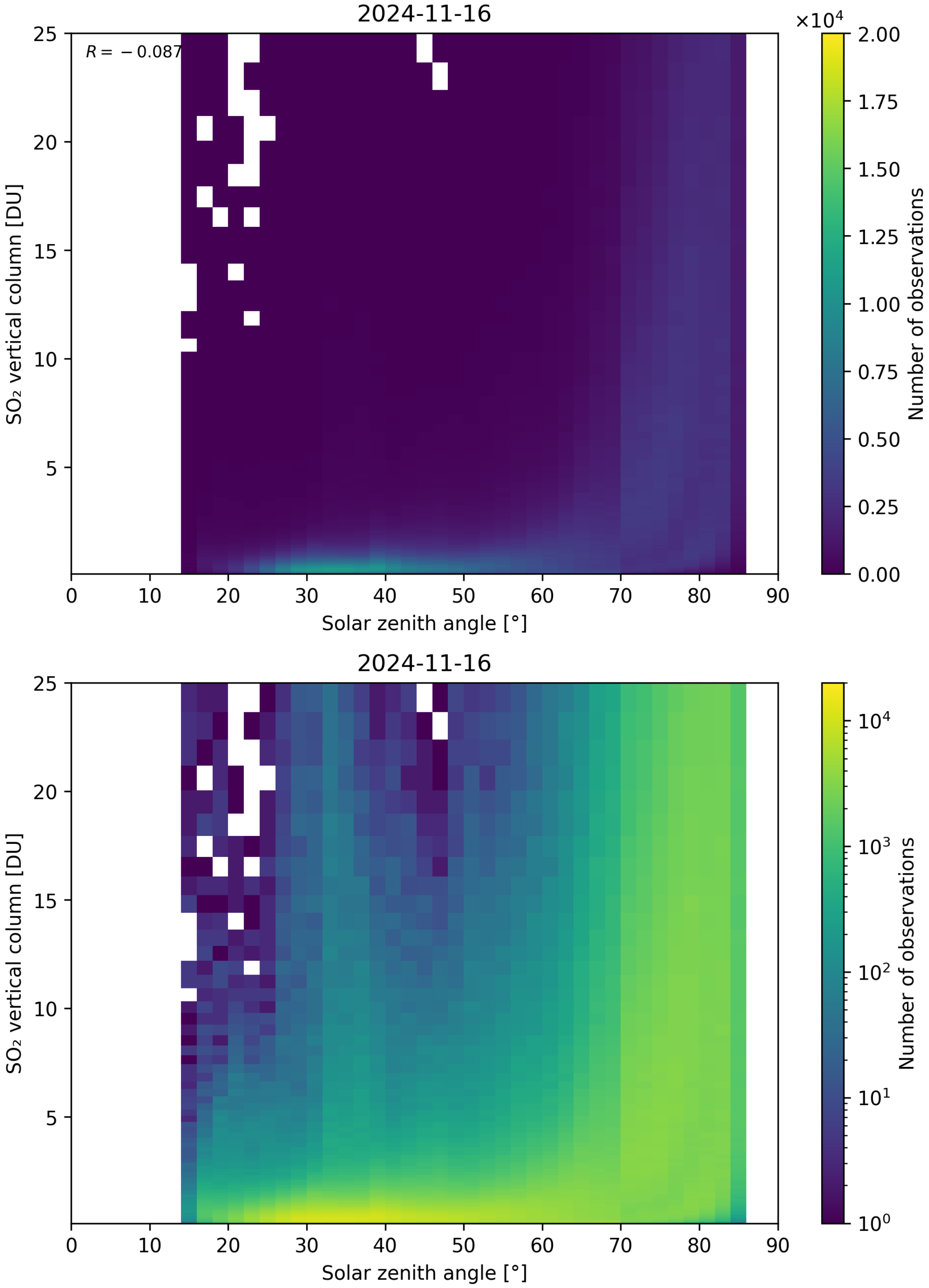


Figure 176: Scatter density plot of “Solar zenith angle” against “SO_2 vertical column” for 2024-11-15 to 2024-11-17.

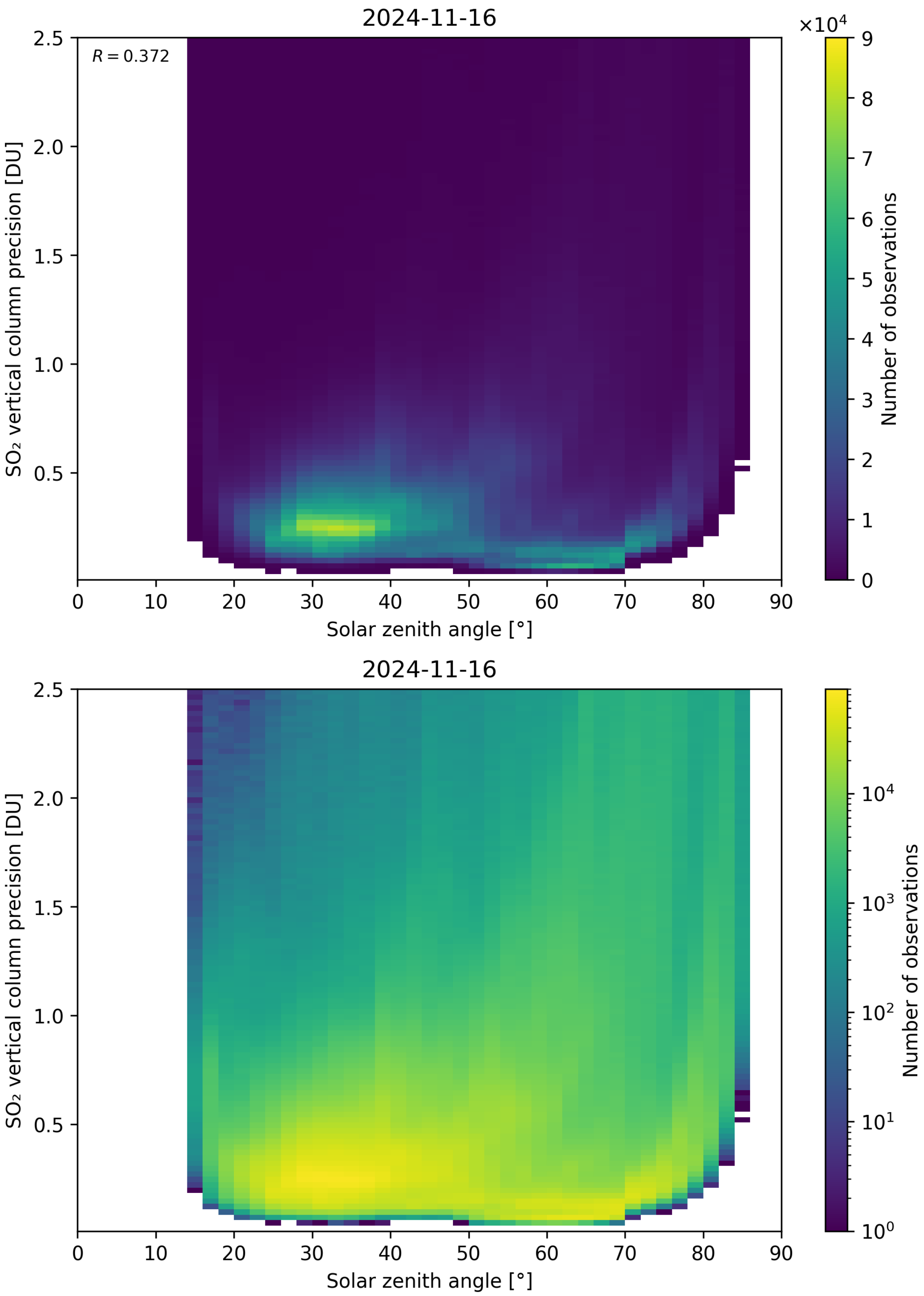


Figure 177: Scatter density plot of “Solar zenith angle” against “SO_2 vertical column precision” for 2024-11-15 to 2024-11-17.

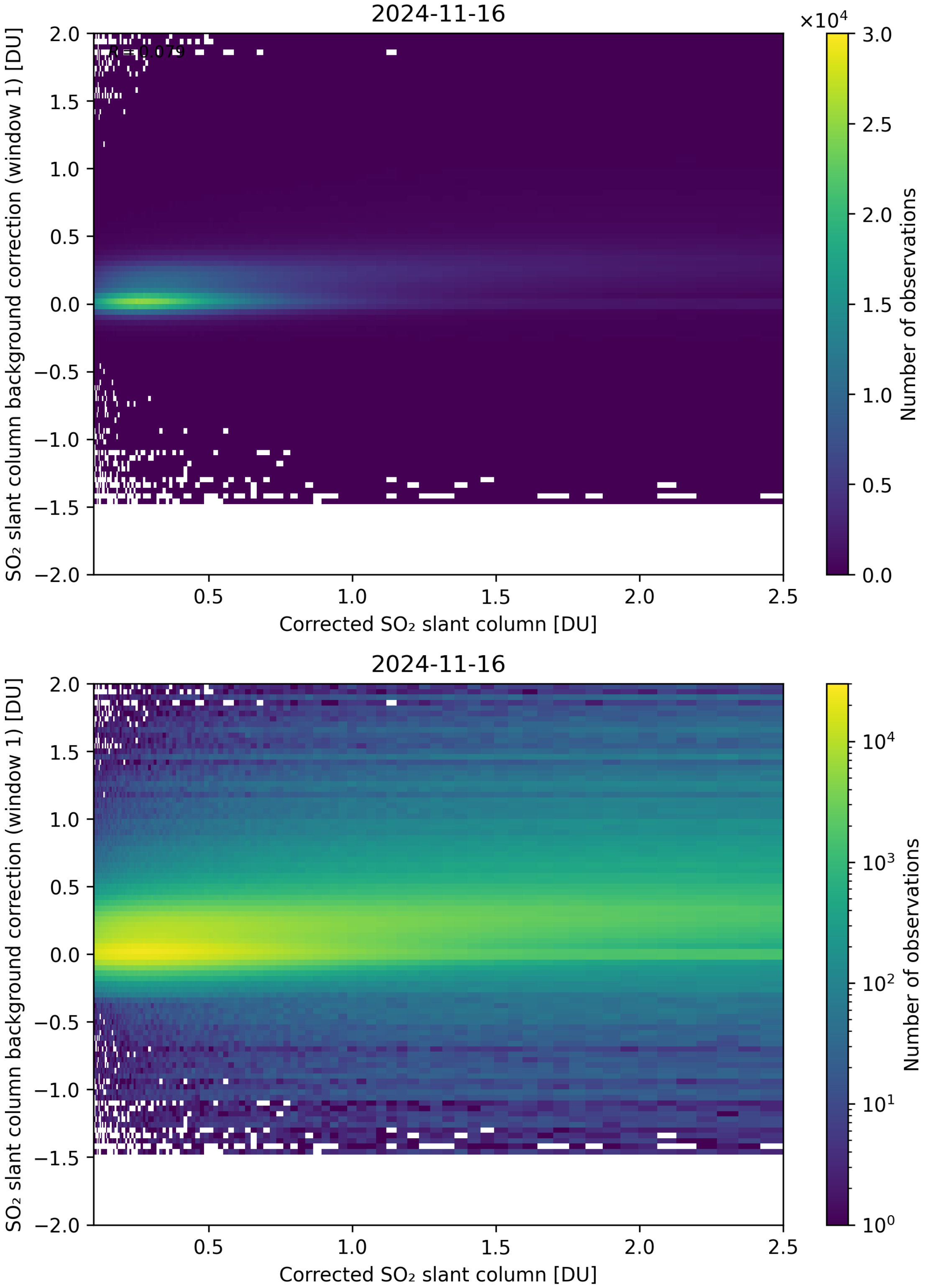


Figure 178: Scatter density plot of “Corrected SO_2 slant column” against “SO_2 slant column background correction (window 1)” for 2024-11-15 to 2024-11-17.

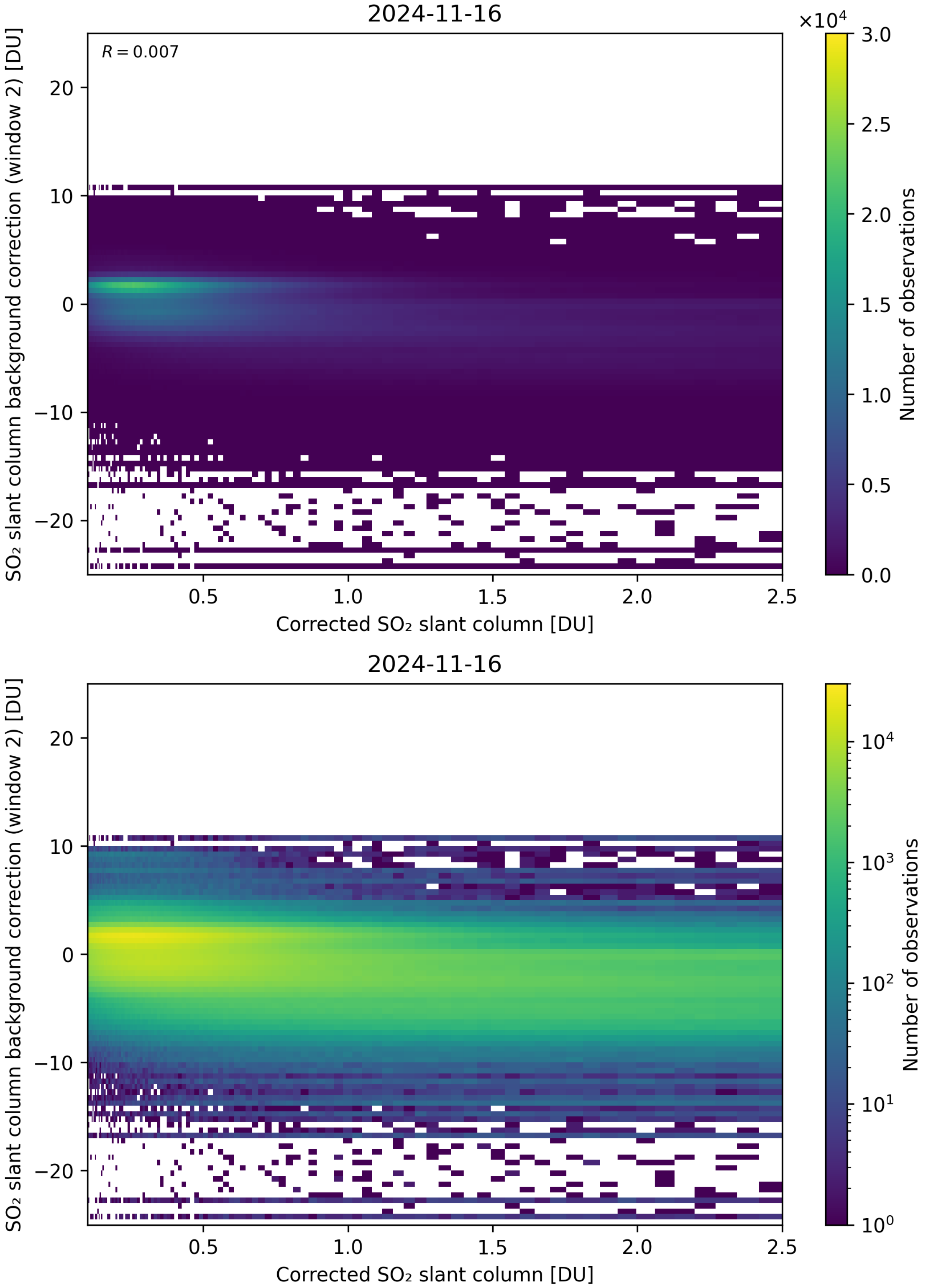


Figure 179: Scatter density plot of “Corrected SO_2 slant column” against “SO_2 slant column background correction (window 2)” for 2024-11-15 to 2024-11-17.

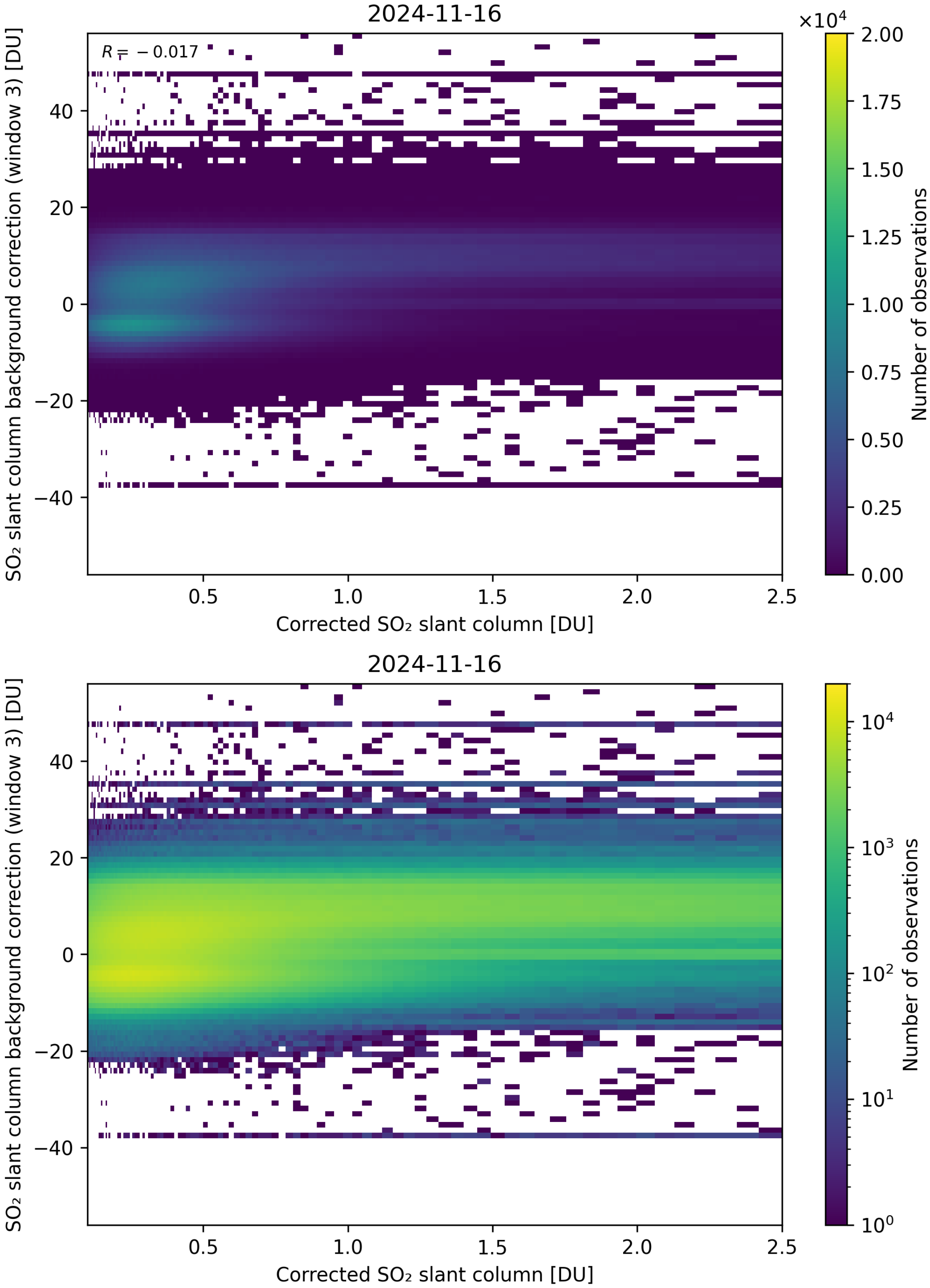


Figure 180: Scatter density plot of "Corrected SO_2 slant column" against "SO_2 slant column background correction (window 3)" for 2024-11-15 to 2024-11-17.

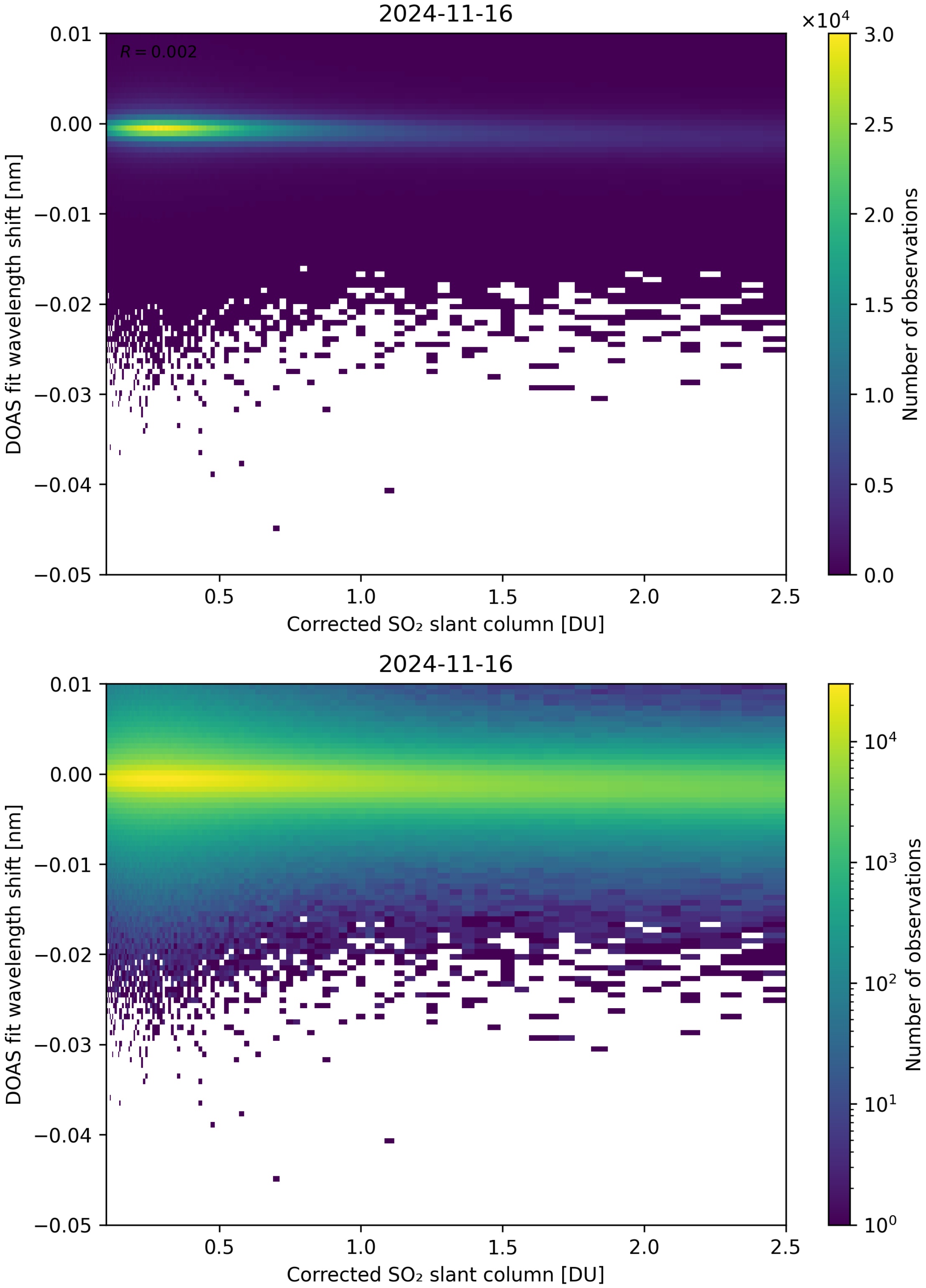


Figure 181: Scatter density plot of “Corrected SO_2 slant column” against “DOAS fit wavelength shift” for 2024-11-15 to 2024-11-17.

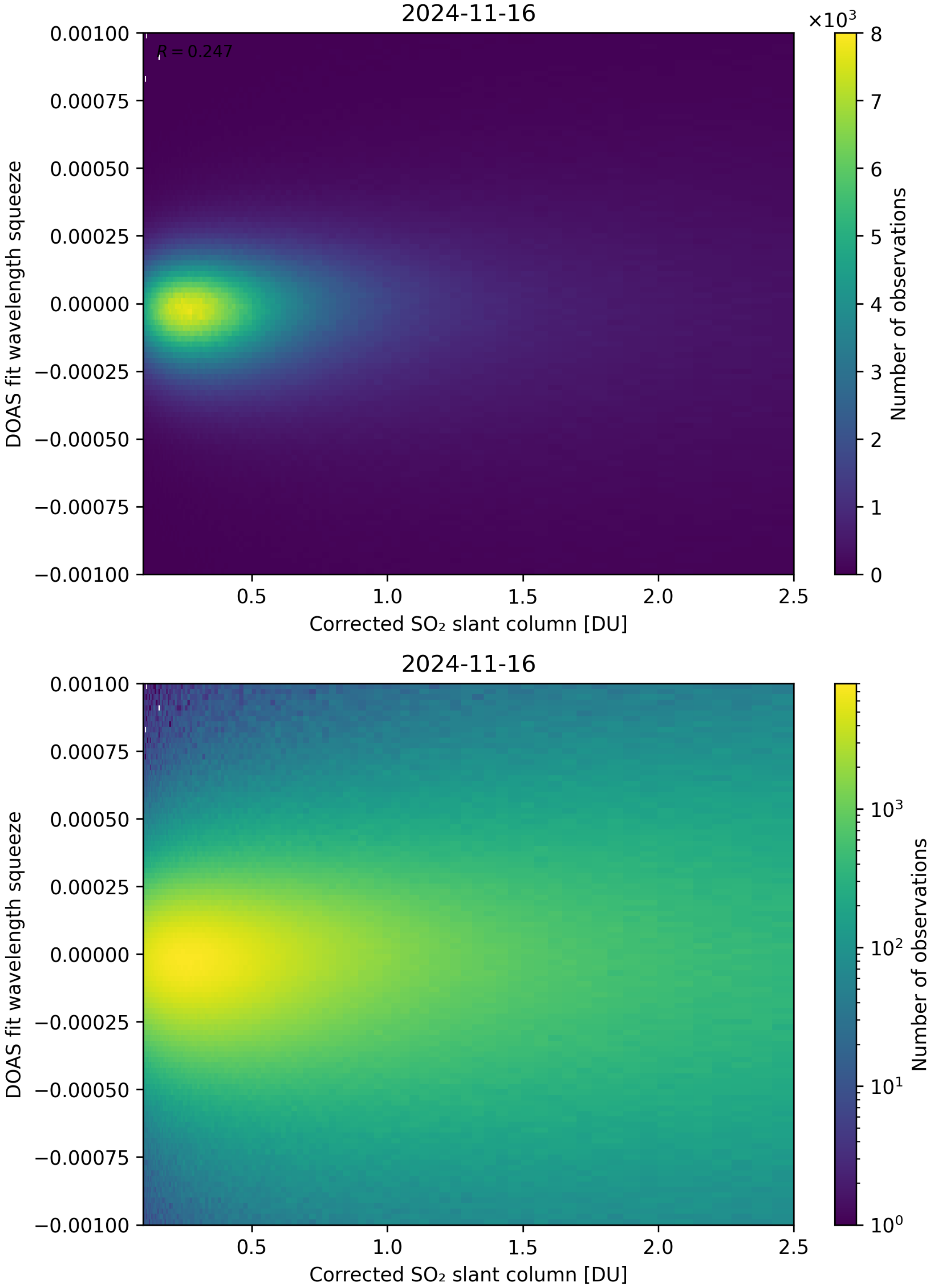


Figure 182: Scatter density plot of “Corrected SO_2 slant column” against “DOAS fit wavelength squeeze” for 2024-11-15 to 2024-11-17.

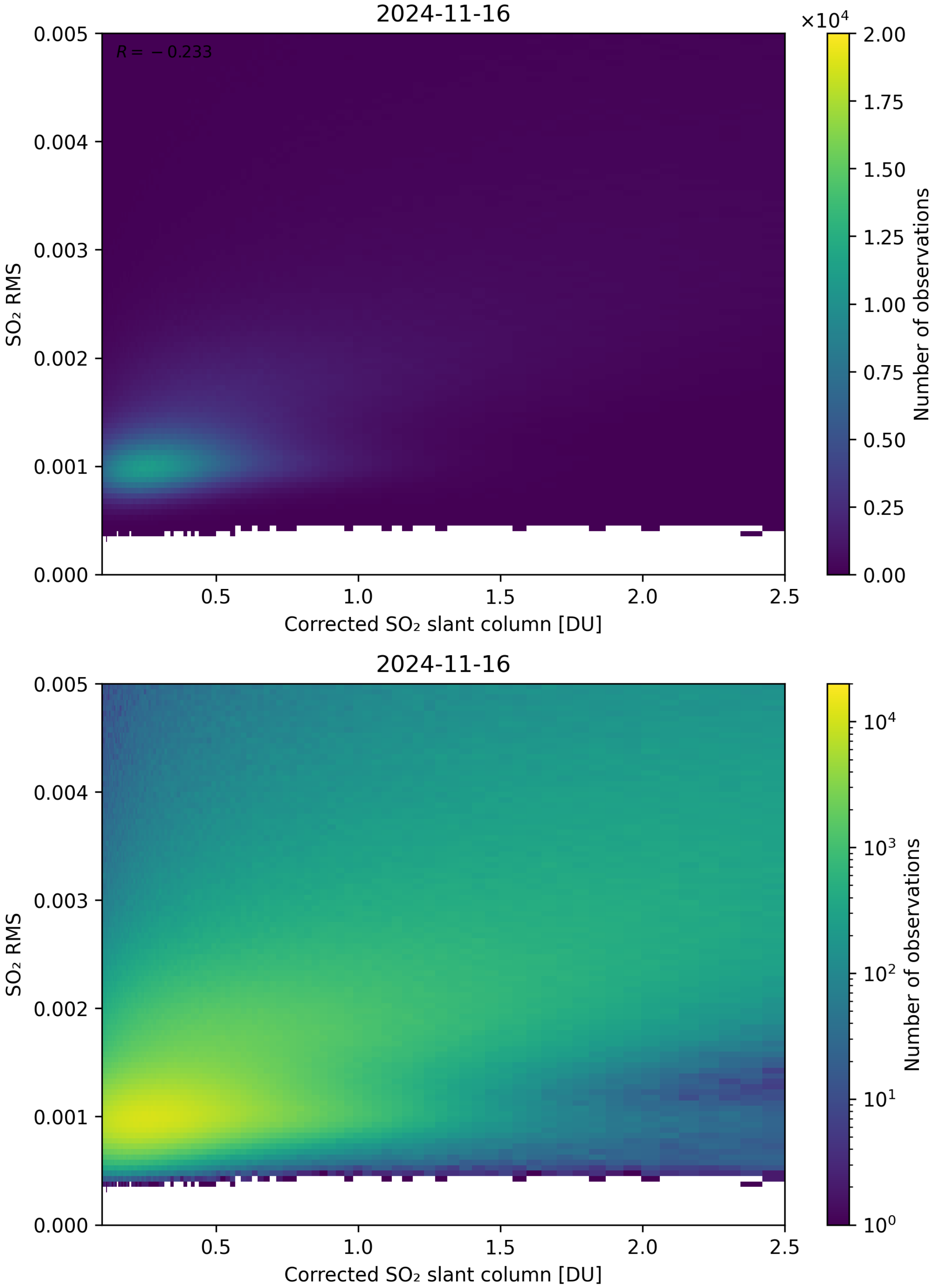


Figure 183: Scatter density plot of “Corrected SO_2 slant column” against “SO_2 RMS” for 2024-11-15 to 2024-11-17.

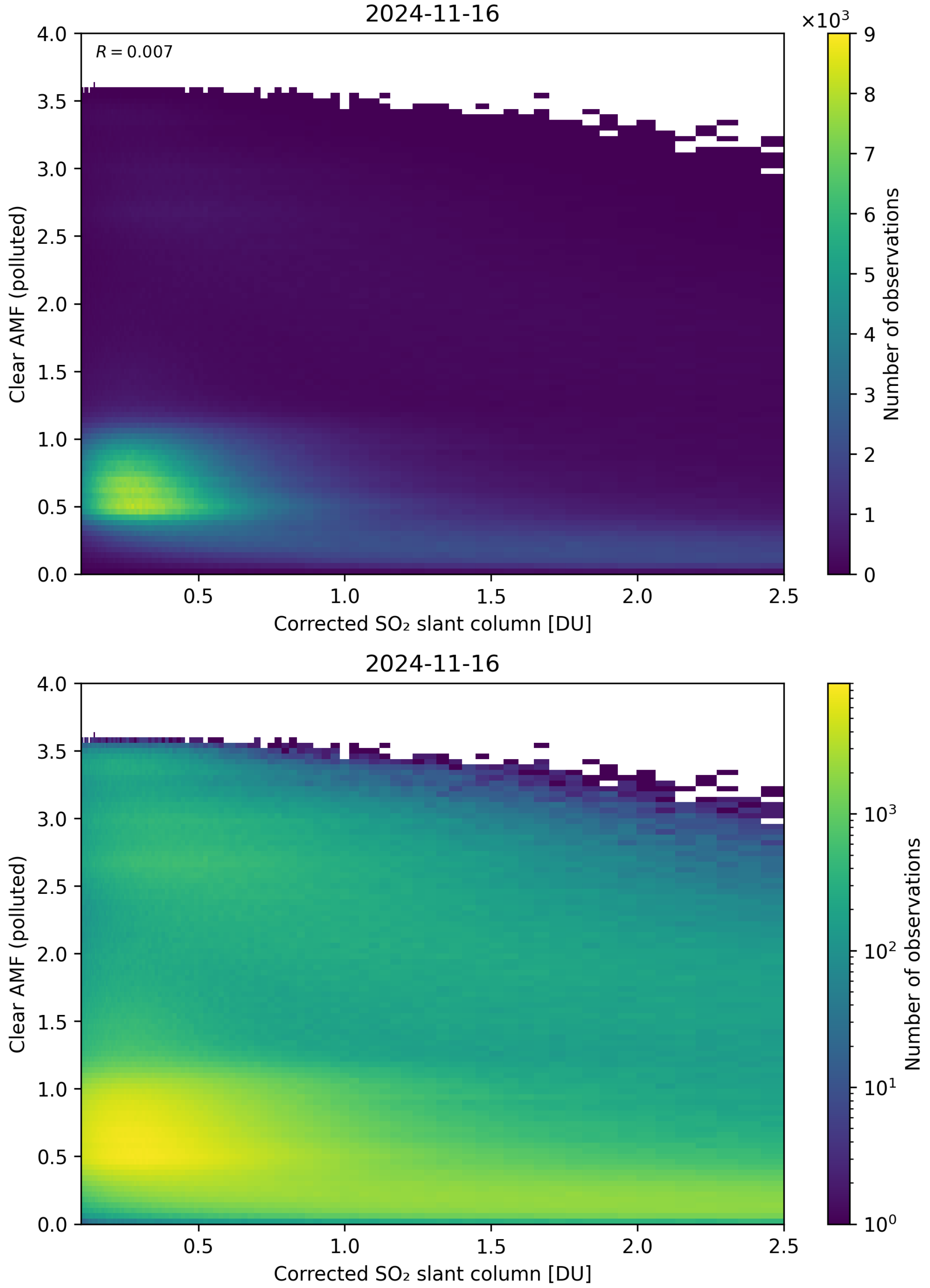


Figure 184: Scatter density plot of “Corrected SO_2 slant column” against “Clear AMF (polluted)” for 2024-11-15 to 2024-11-17.

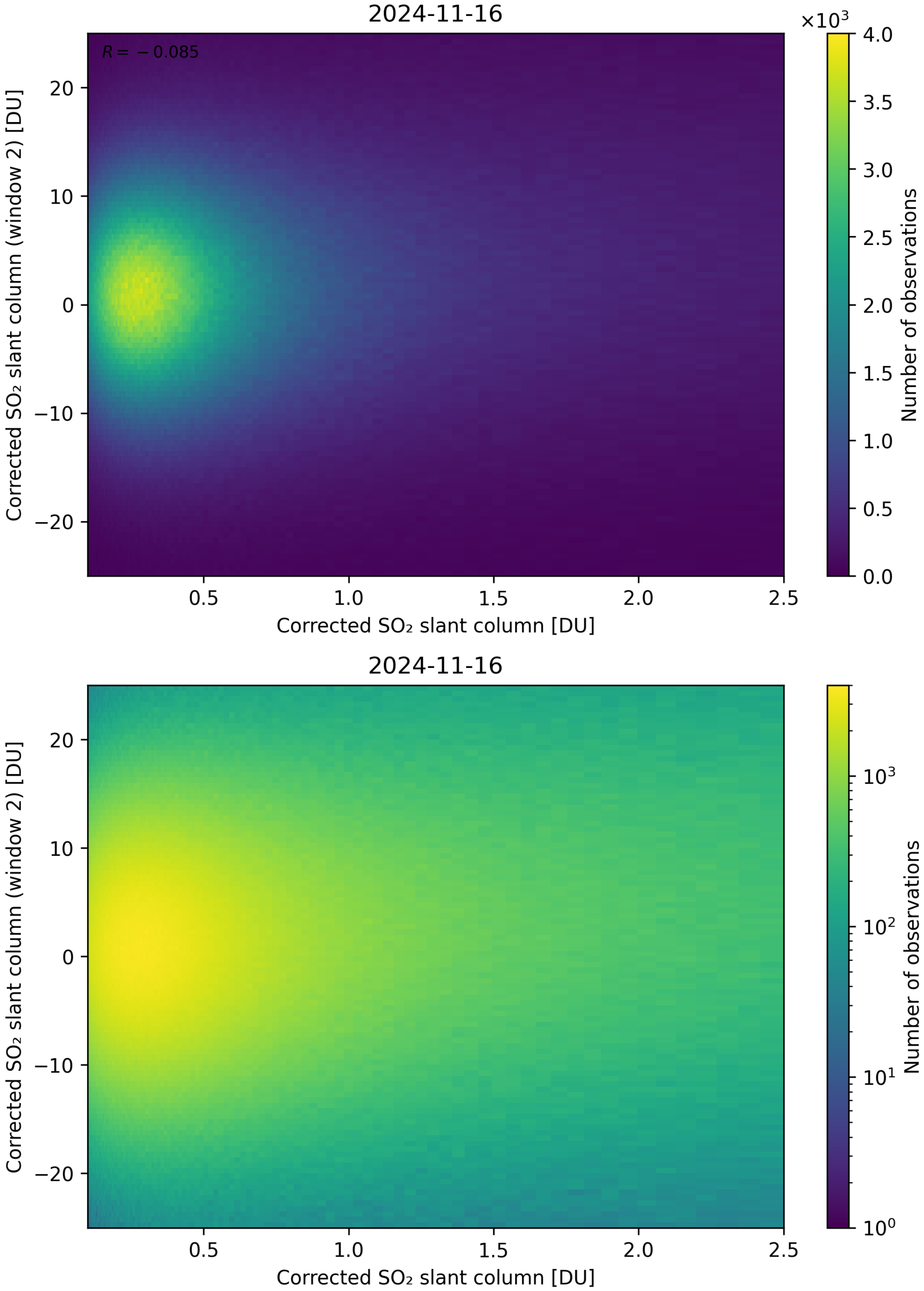


Figure 185: Scatter density plot of “Corrected SO_2 slant column” against “Corrected SO_2 slant column (window 2)” for 2024-11-15 to 2024-11-17.

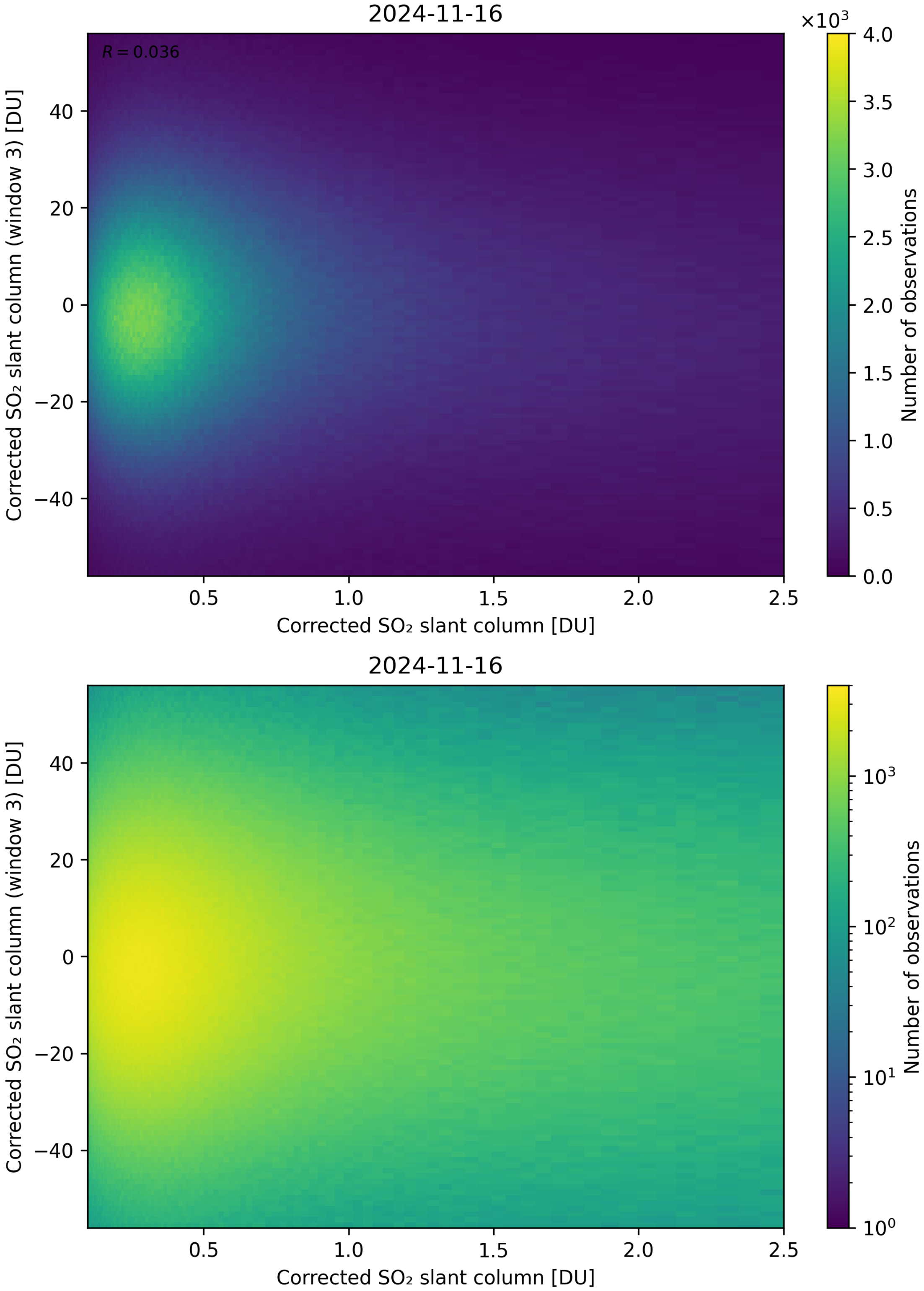


Figure 186: Scatter density plot of “Corrected SO_2 slant column” against “Corrected SO_2 slant column (window 3)” for 2024-11-15 to 2024-11-17.

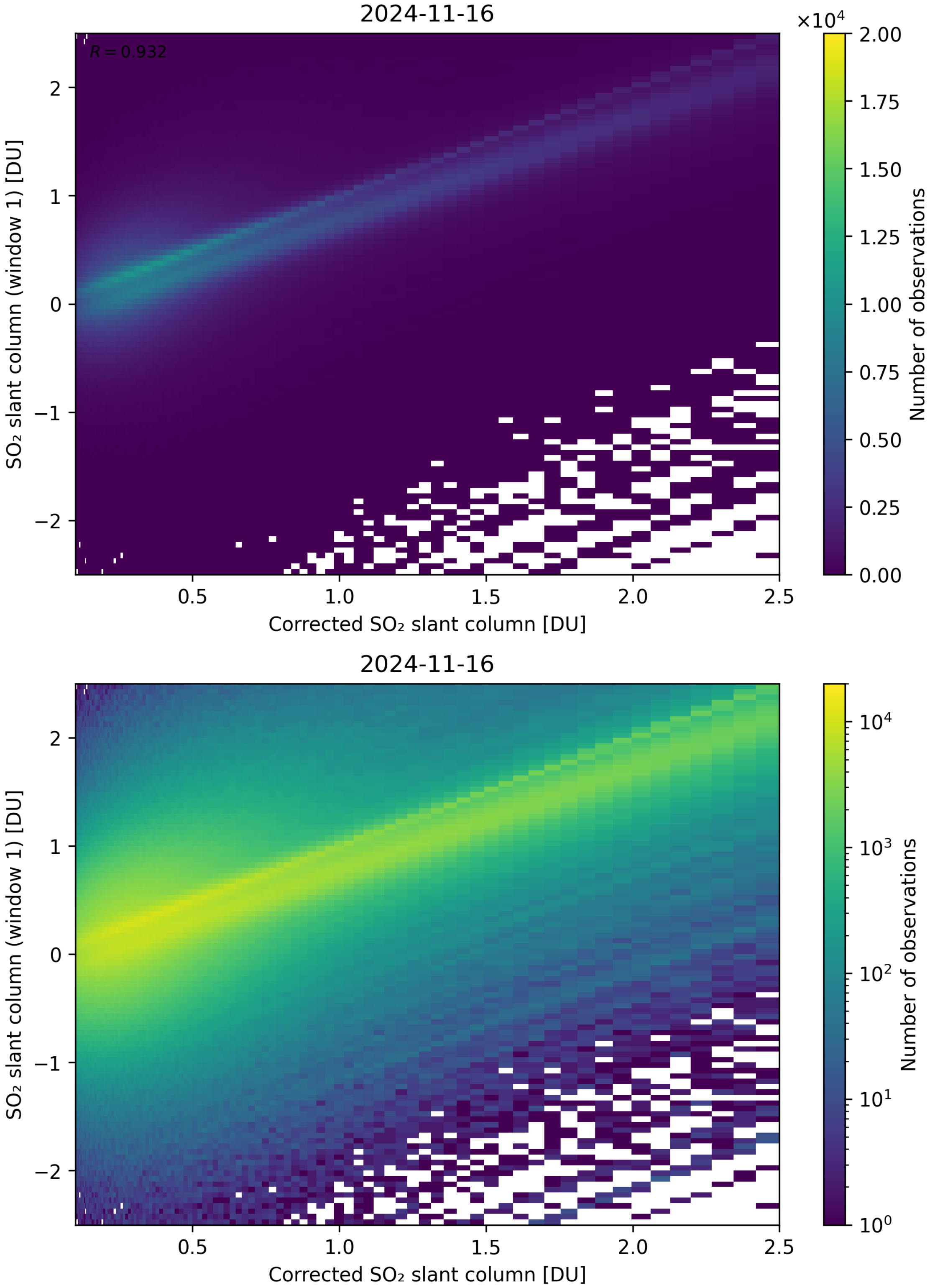


Figure 187: Scatter density plot of “Corrected SO_2 slant column” against “SO_2 slant column (window 1)” for 2024-11-15 to 2024-11-17.

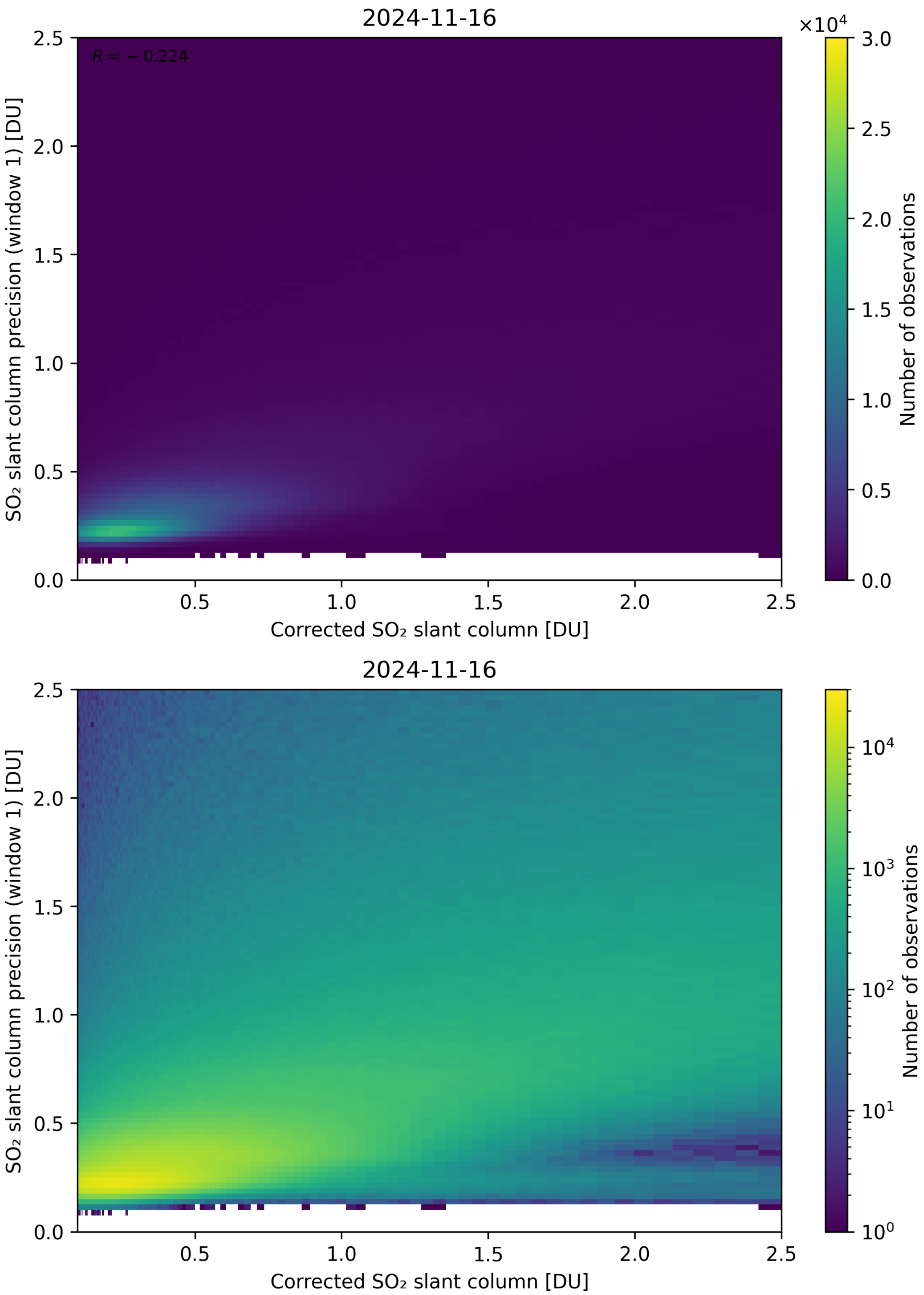


Figure 188: Scatter density plot of “Corrected SO_2 slant column” against “SO_2 slant column precision (window 1)” for 2024-11-15 to 2024-11-17.

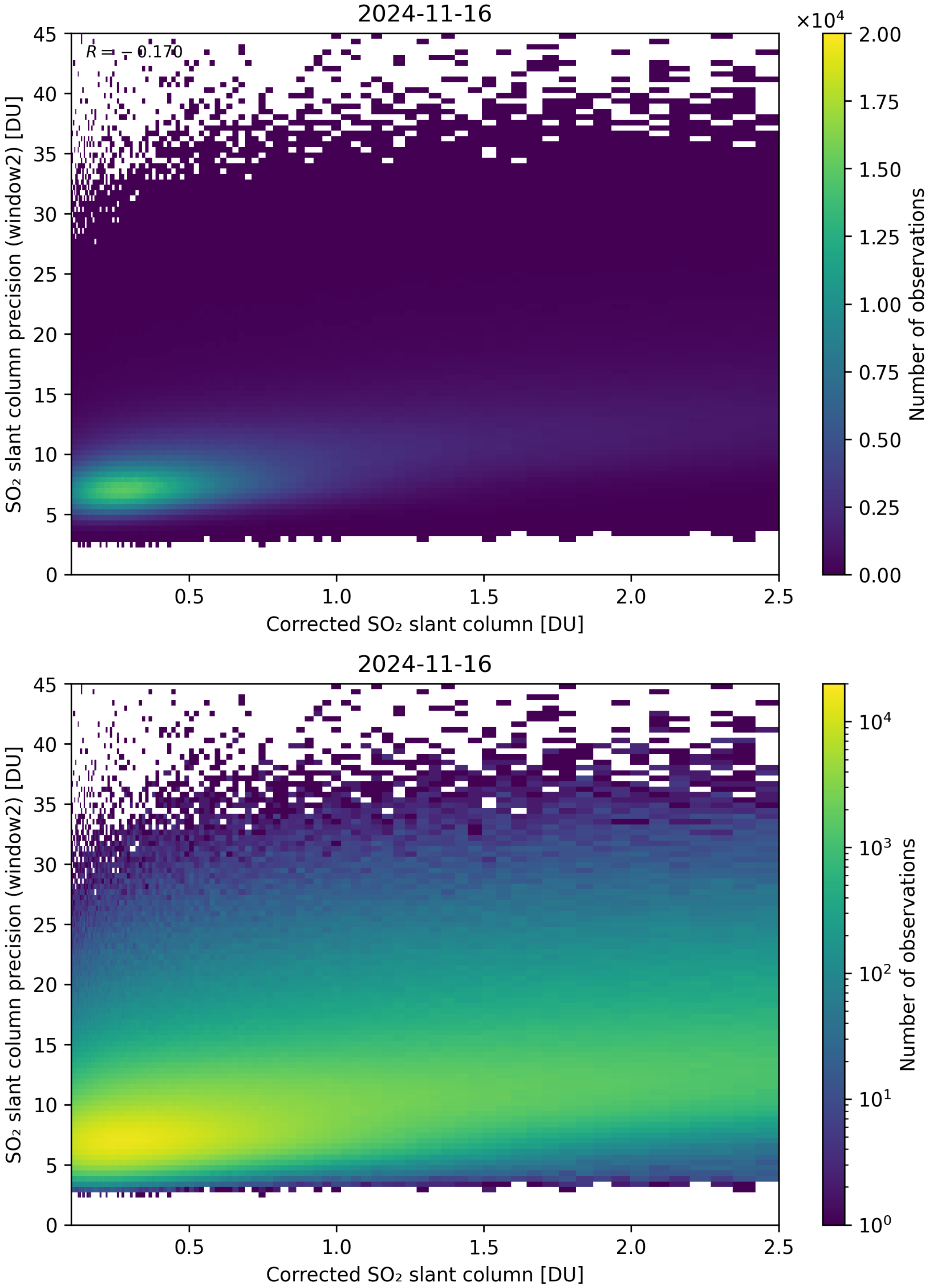


Figure 189: Scatter density plot of “Corrected SO_2 slant column” against “SO_2 slant column precision (window2)” for 2024-11-15 to 2024-11-17.

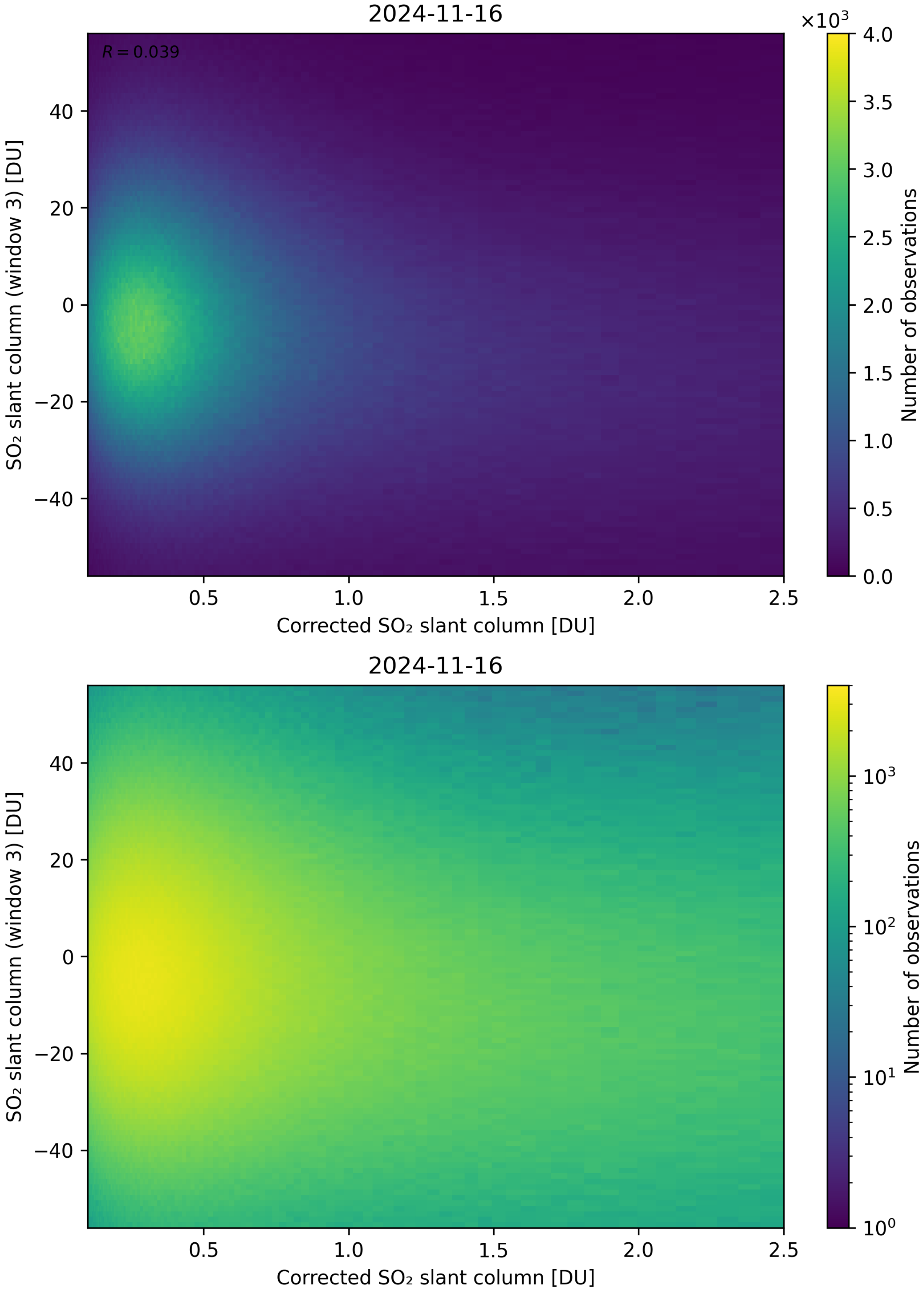


Figure 190: Scatter density plot of “Corrected SO_2 slant column” against “SO_2 slant column (window 3)” for 2024-11-15 to 2024-11-17.

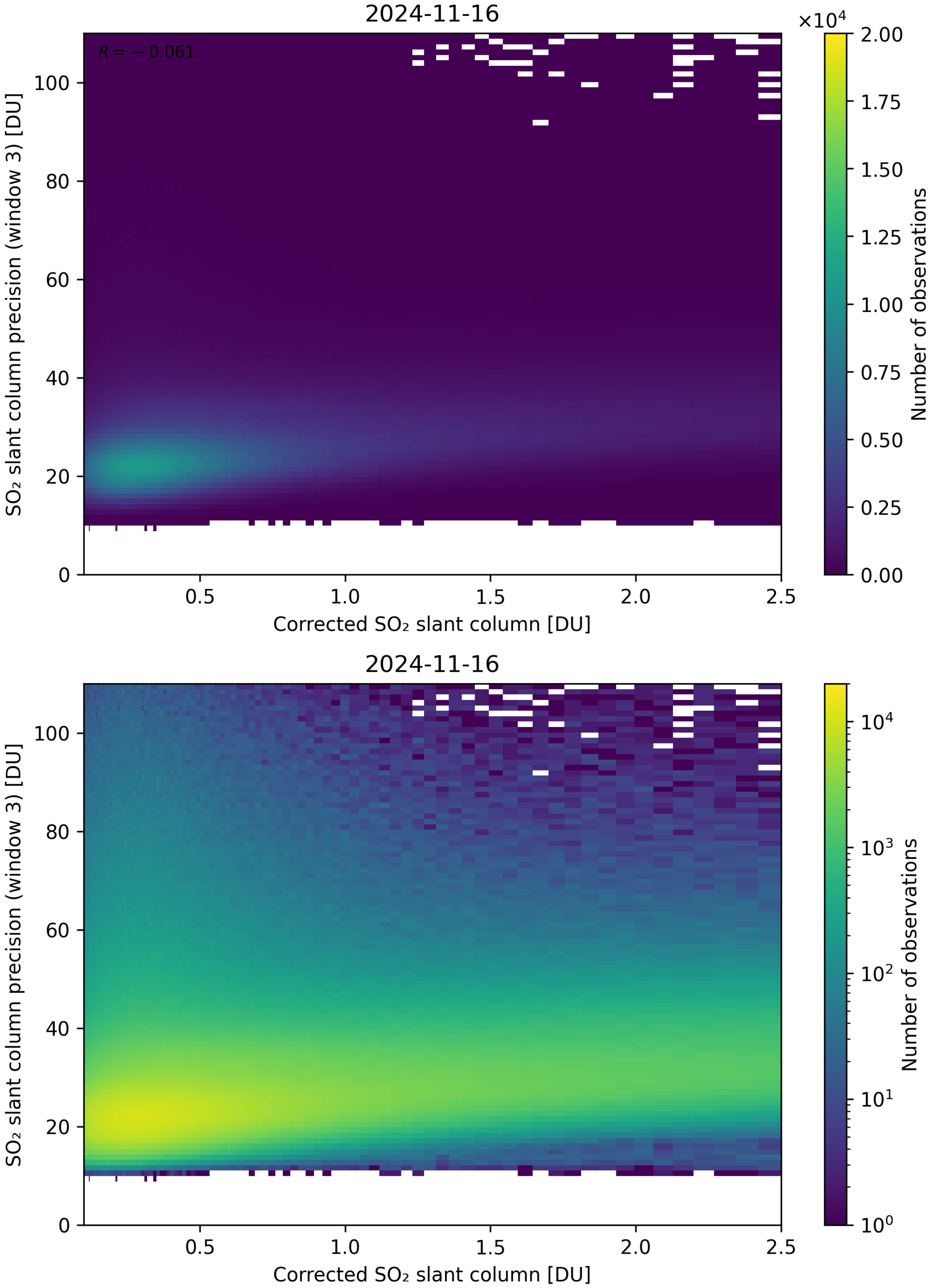


Figure 191: Scatter density plot of “Corrected SO_2 slant column” against “SO_2 slant column precision (window 3)” for 2024-11-15 to 2024-11-17.

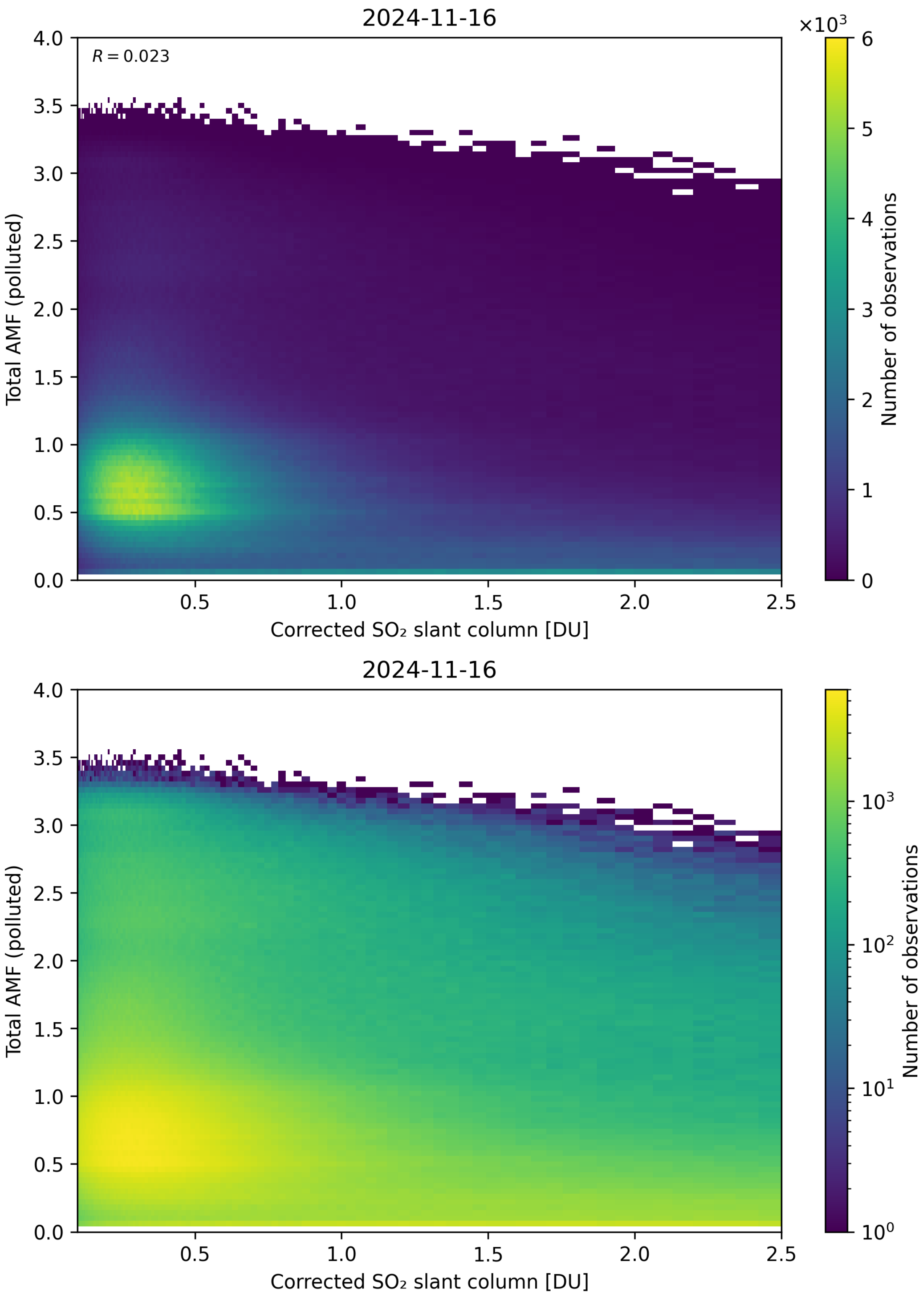


Figure 192: Scatter density plot of “Corrected SO_2 slant column” against “Total AMF (polluted)” for 2024-11-15 to 2024-11-17.

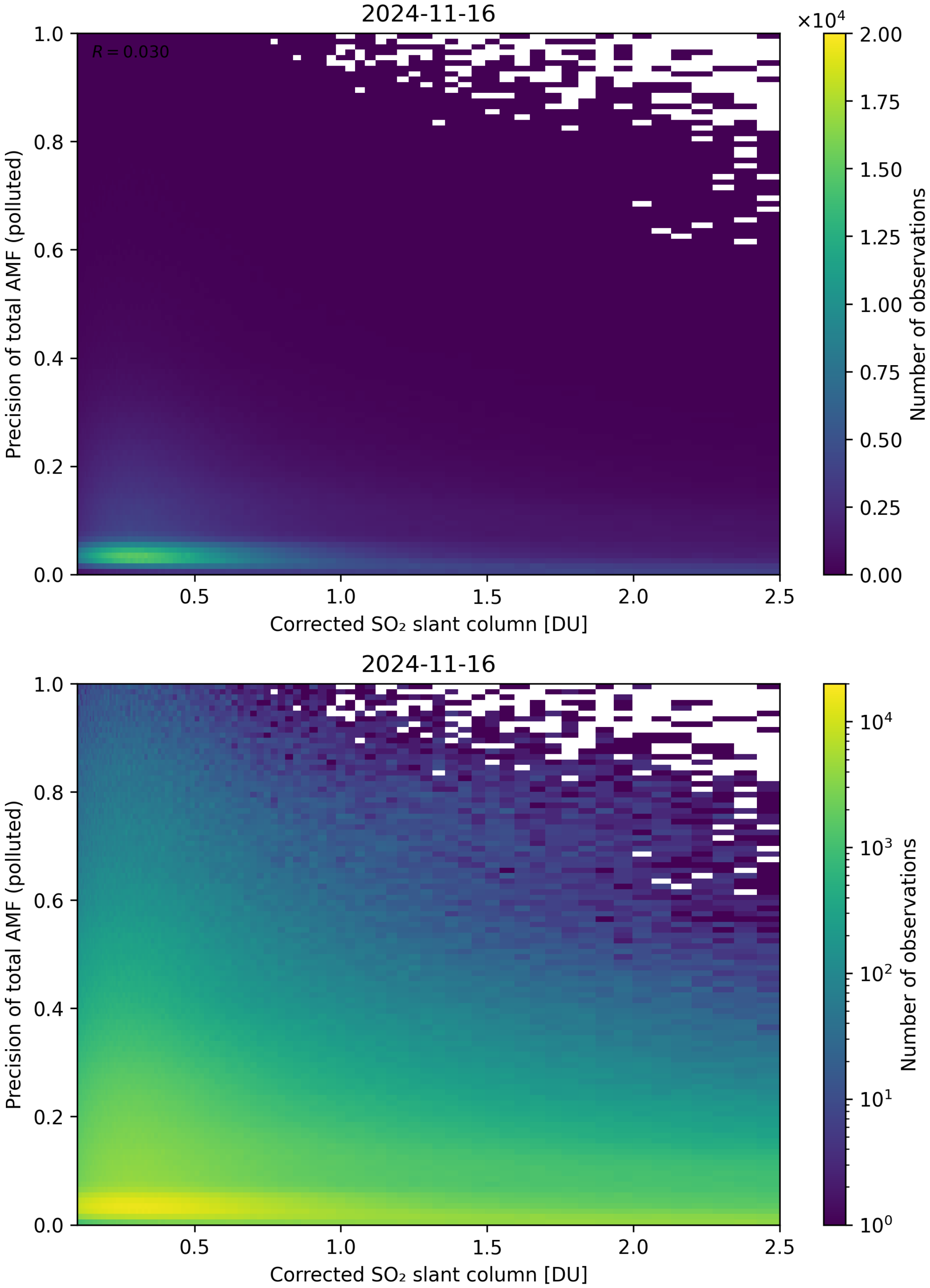
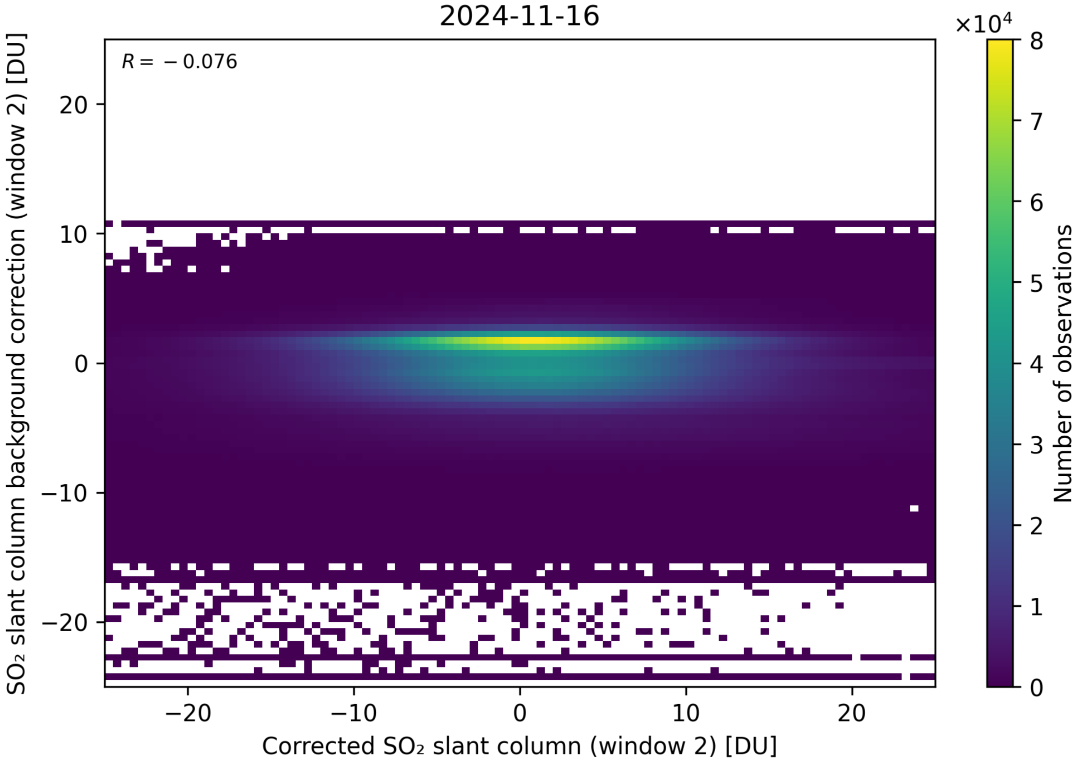


Figure 193: Scatter density plot of “Corrected SO_2 slant column” against “Precision of total AMF (polluted)” for 2024-11-15 to 2024-11-17.



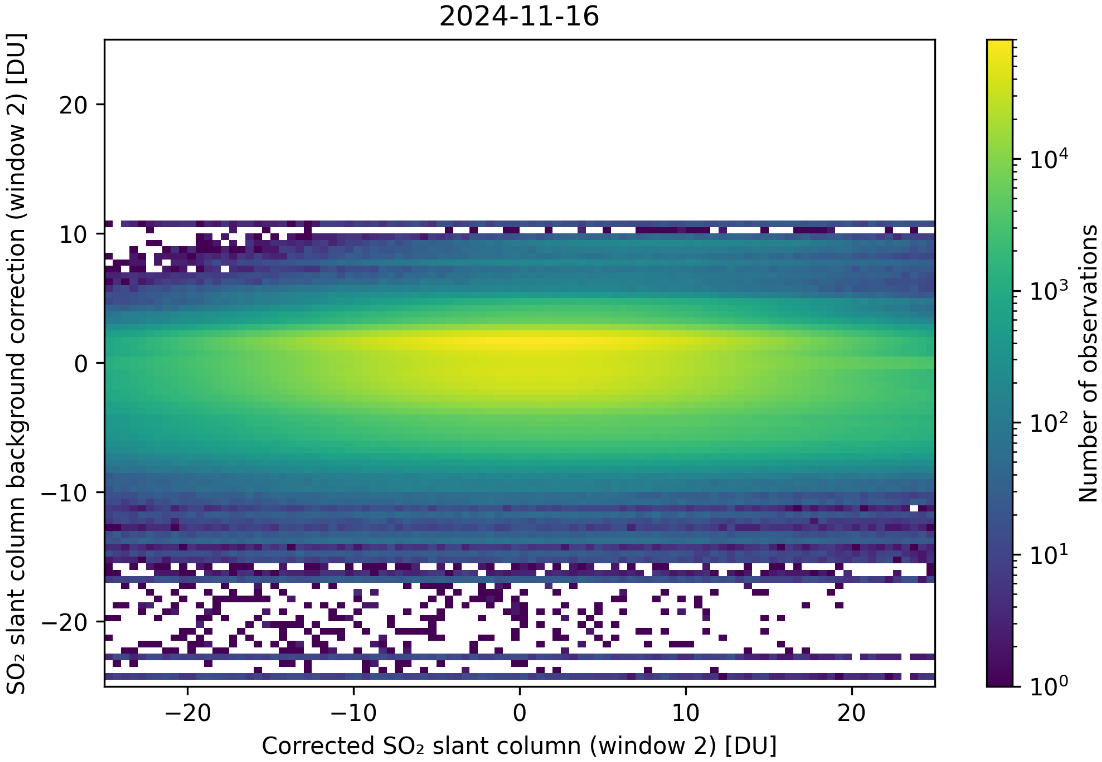


Figure 194: Scatter density plot of “Corrected SO_2 slant column (window 2)” against “SO_2 slant column background correction (window 2)” for 2024-11-15 to 2024-11-17.

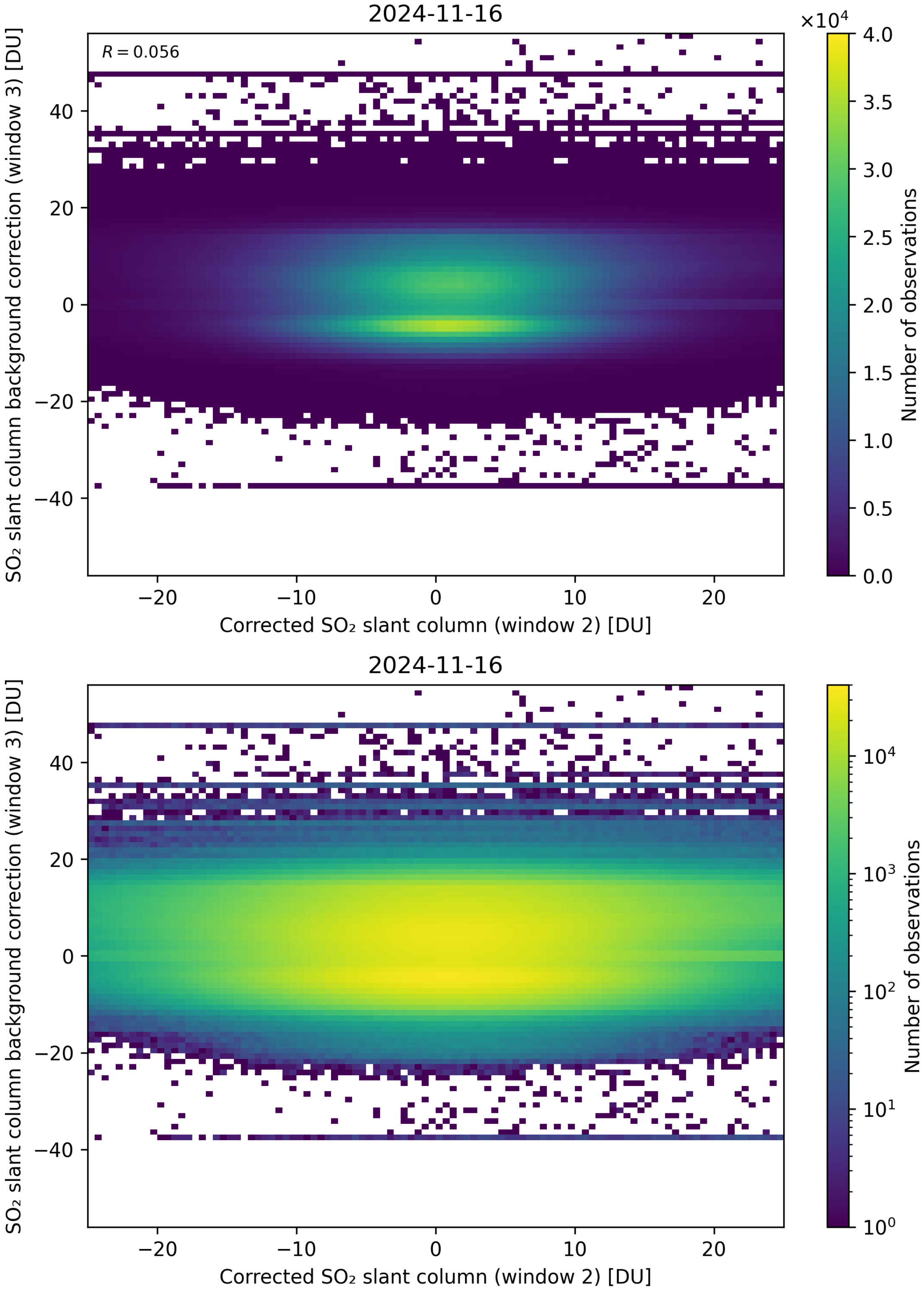


Figure 195: Scatter density plot of “Corrected SO_2 slant column (window 2)” against “SO_2 slant column background correction (window 3)” for 2024-11-15 to 2024-11-17.

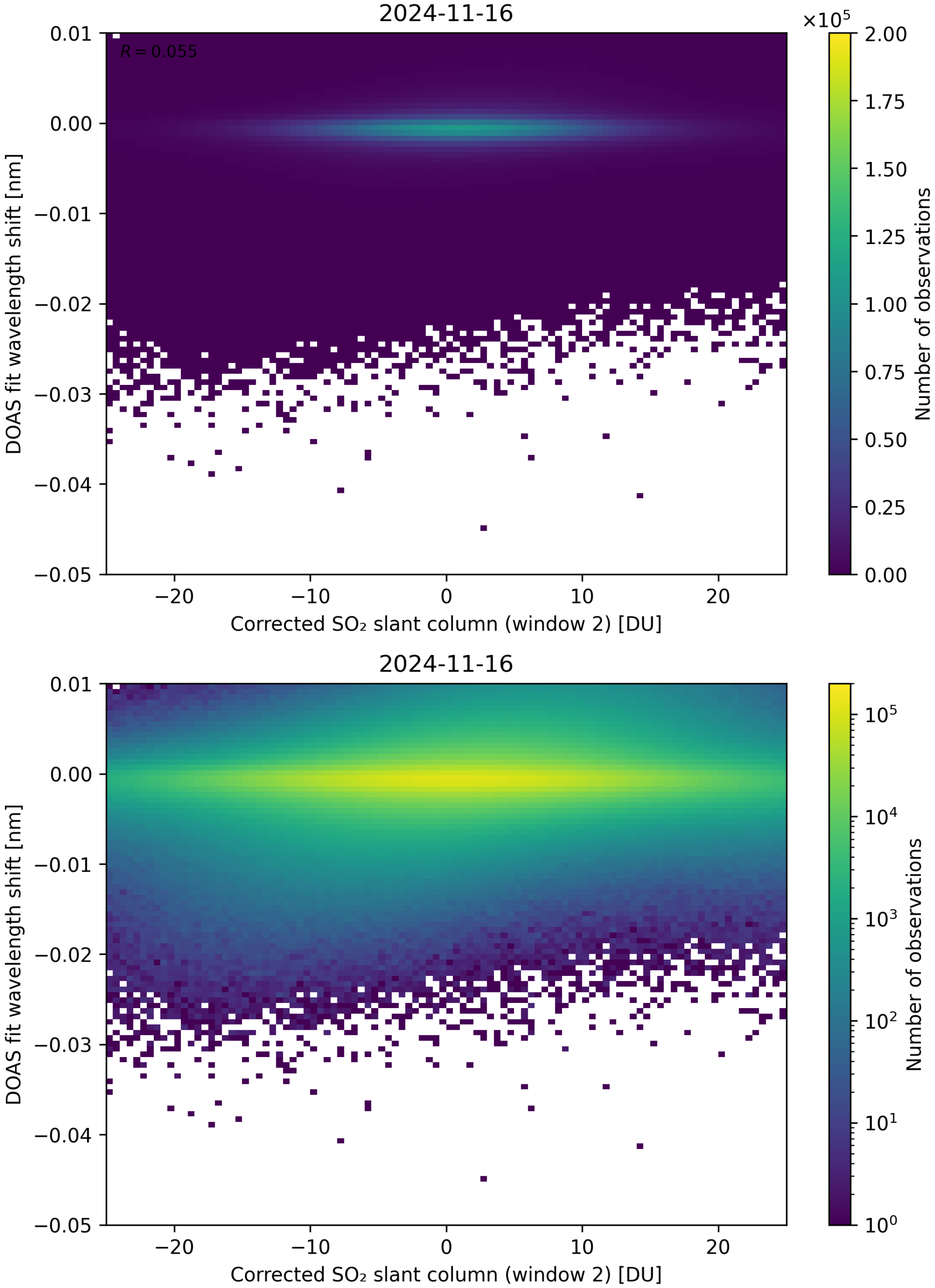


Figure 196: Scatter density plot of “Corrected SO_2 slant column (window 2)” against “DOAS fit wavelength shift” for 2024-11-15 to 2024-11-17.

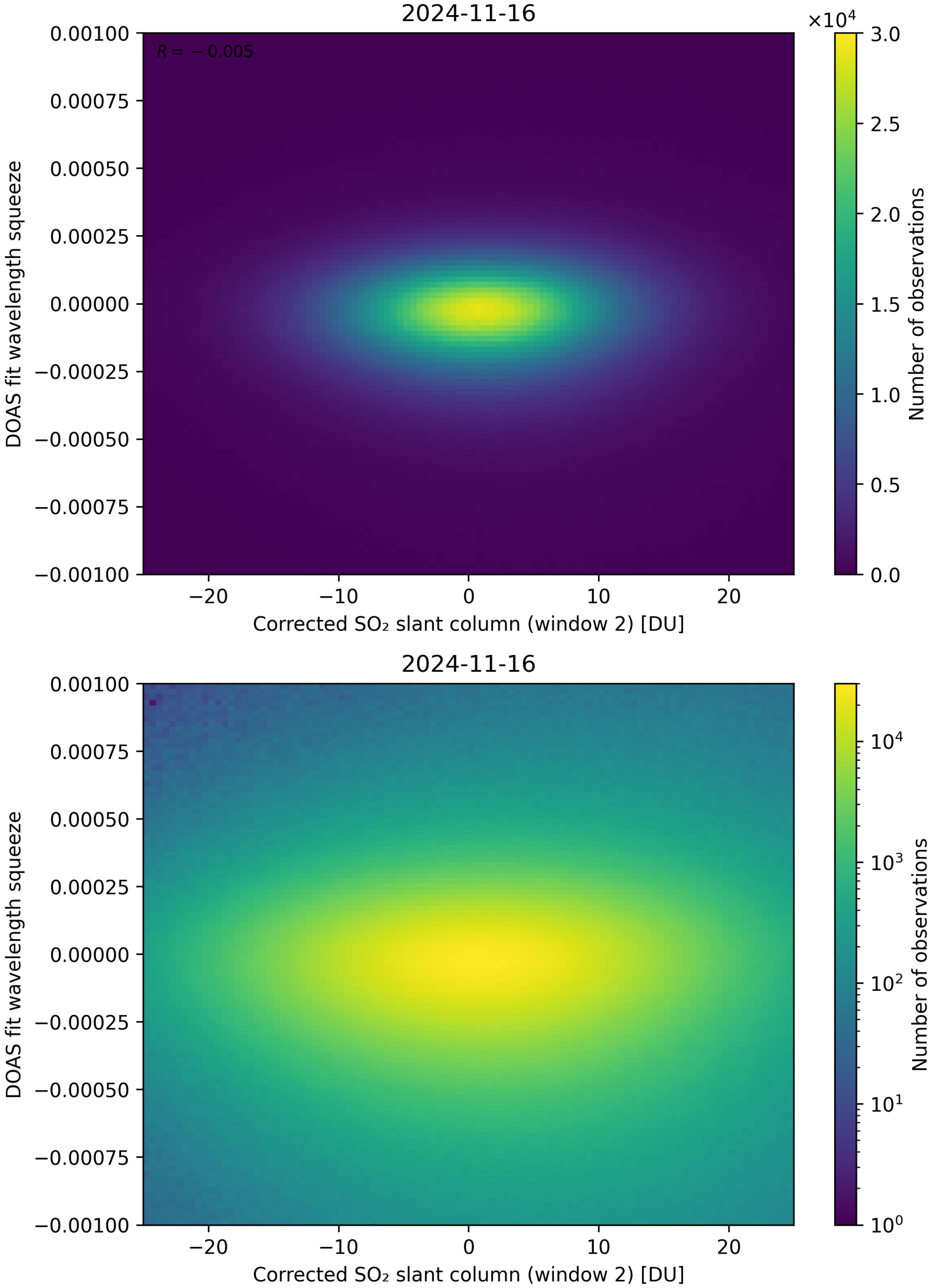


Figure 197: Scatter density plot of “Corrected SO_2 slant column (window 2)” against “DOAS fit wavelength squeeze” for 2024-11-15 to 2024-11-17.

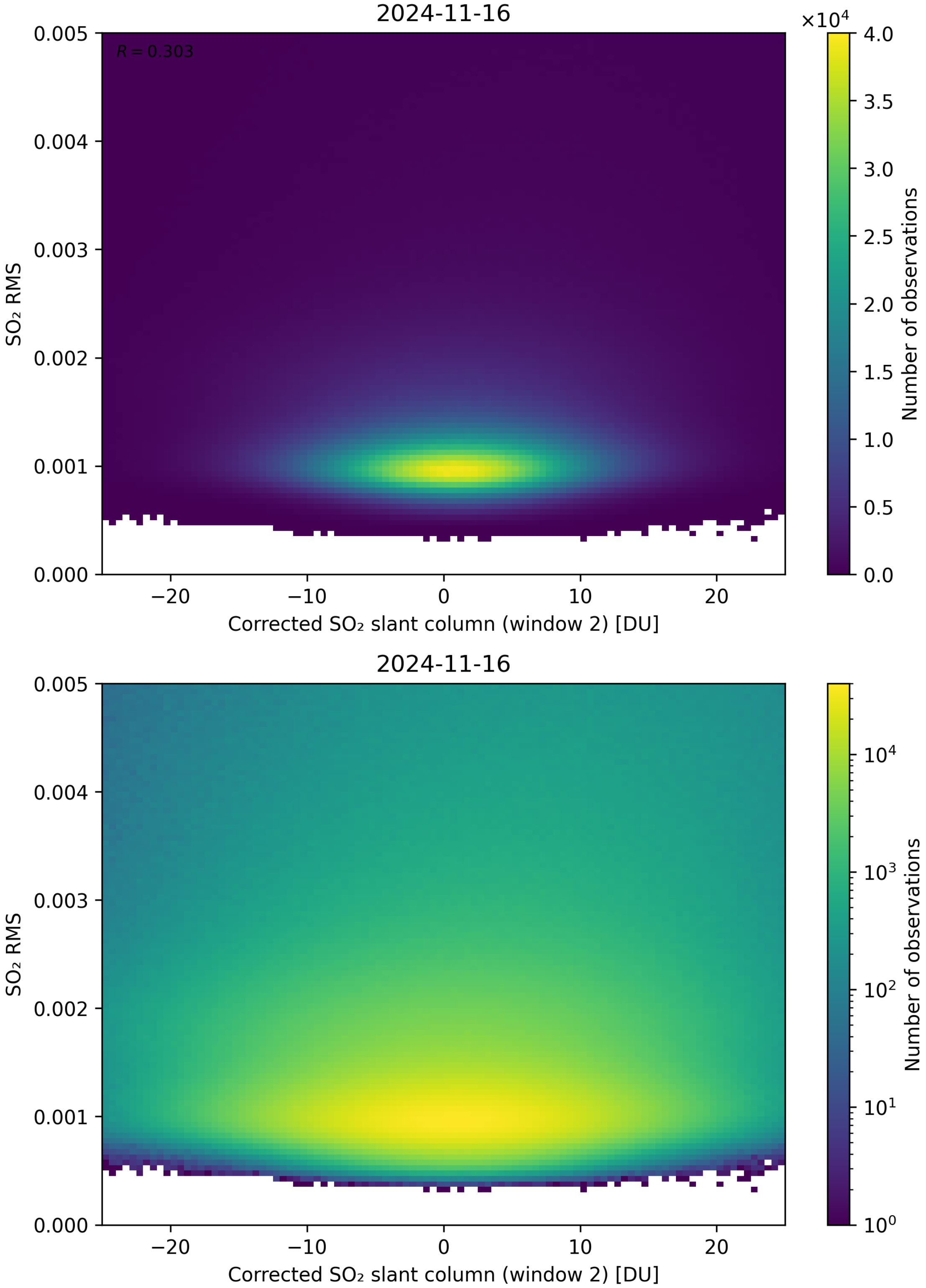
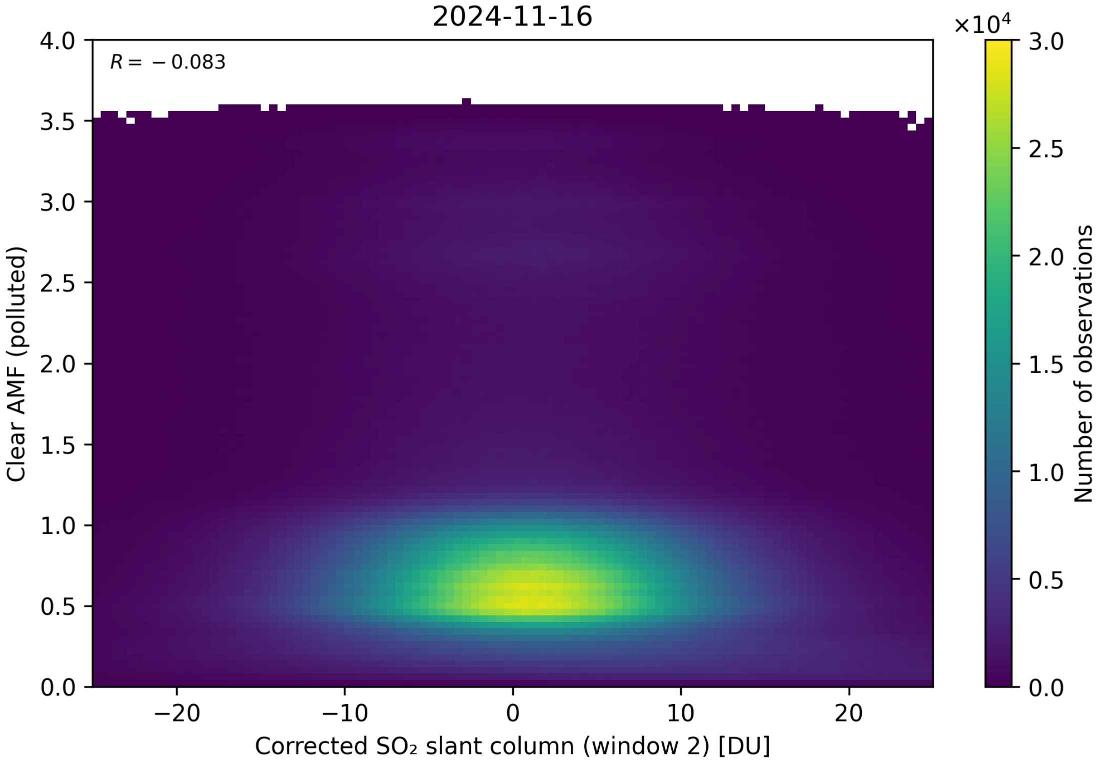


Figure 198: Scatter density plot of “Corrected SO_2 slant column (window 2)” against “SO_2 RMS” for 2024-11-15 to 2024-11-17.



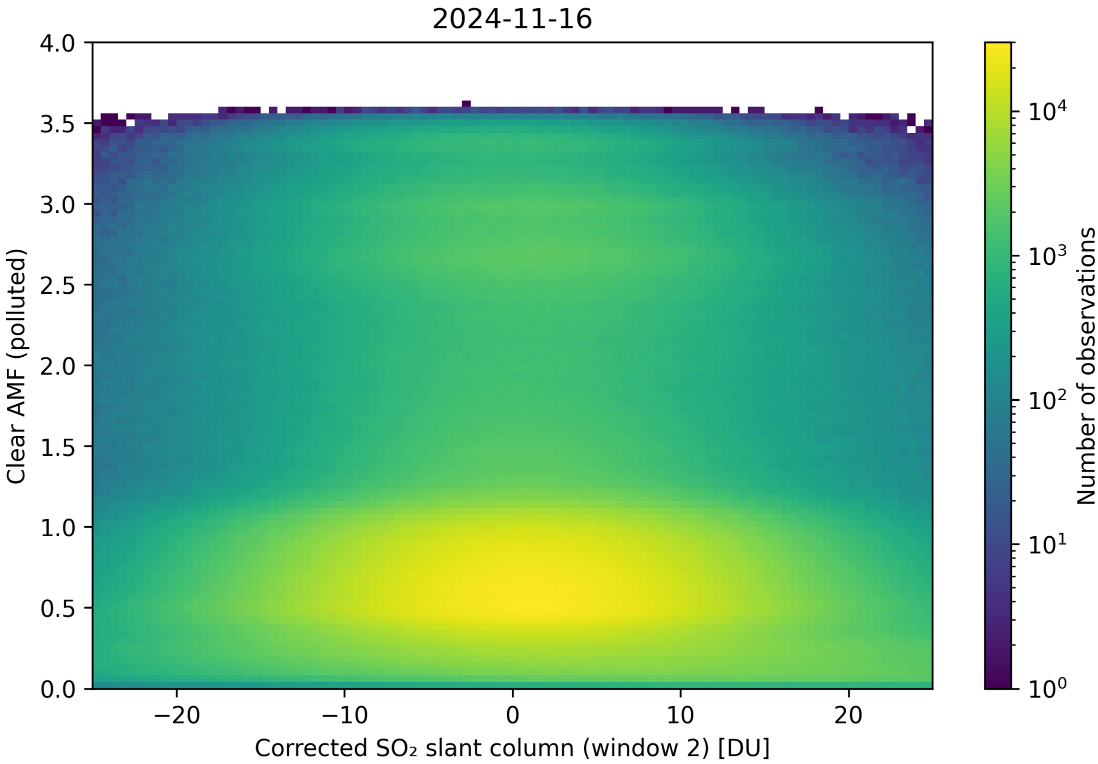


Figure 199: Scatter density plot of “Corrected SO_2 slant column (window 2)” against “Clear AMF (polluted)” for 2024-11-15 to 2024-11-17.

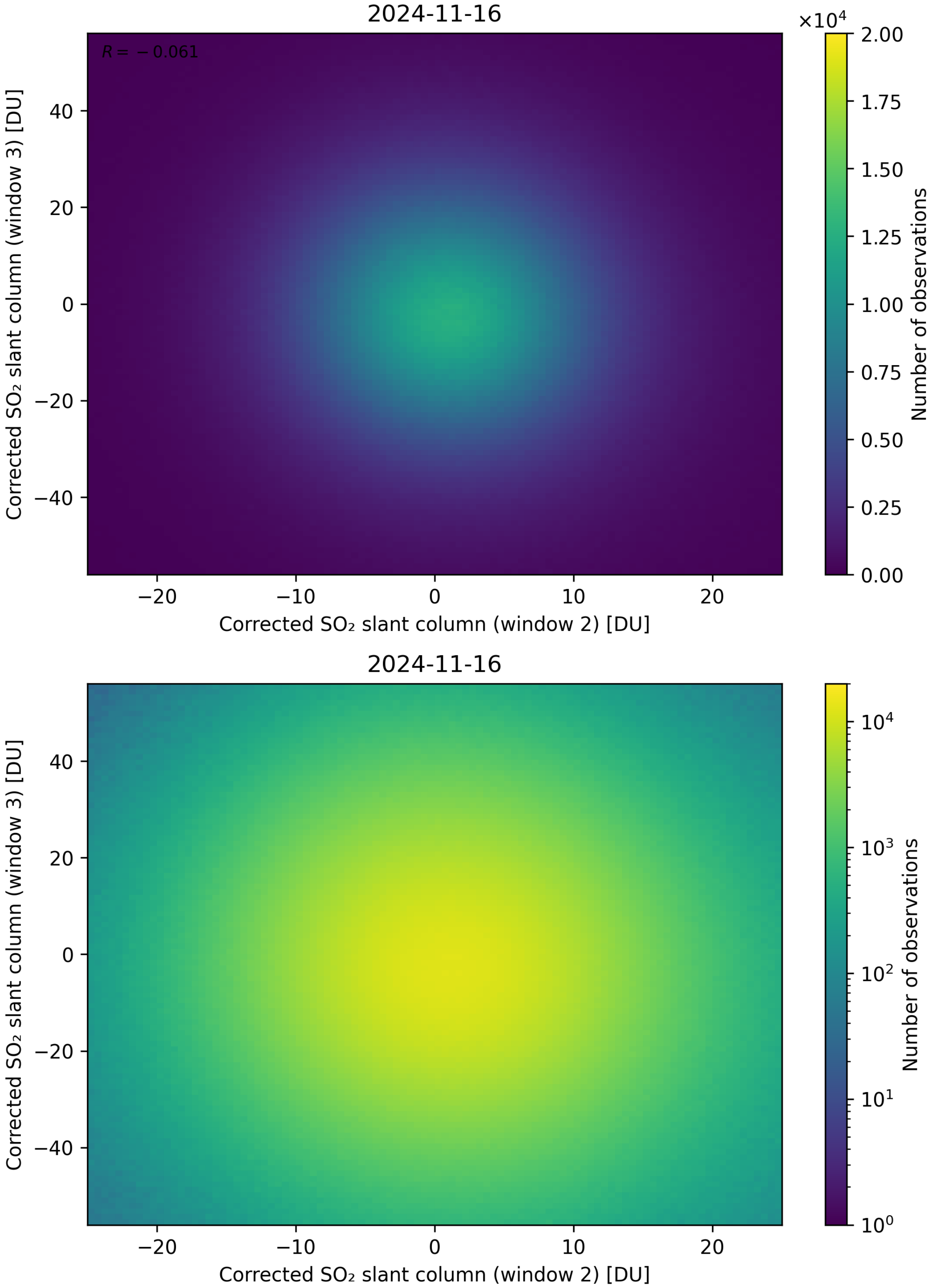


Figure 200: Scatter density plot of “Corrected SO_2 slant column (window 2)” against “Corrected SO_2 slant column (window 3)” for 2024-11-15 to 2024-11-17.

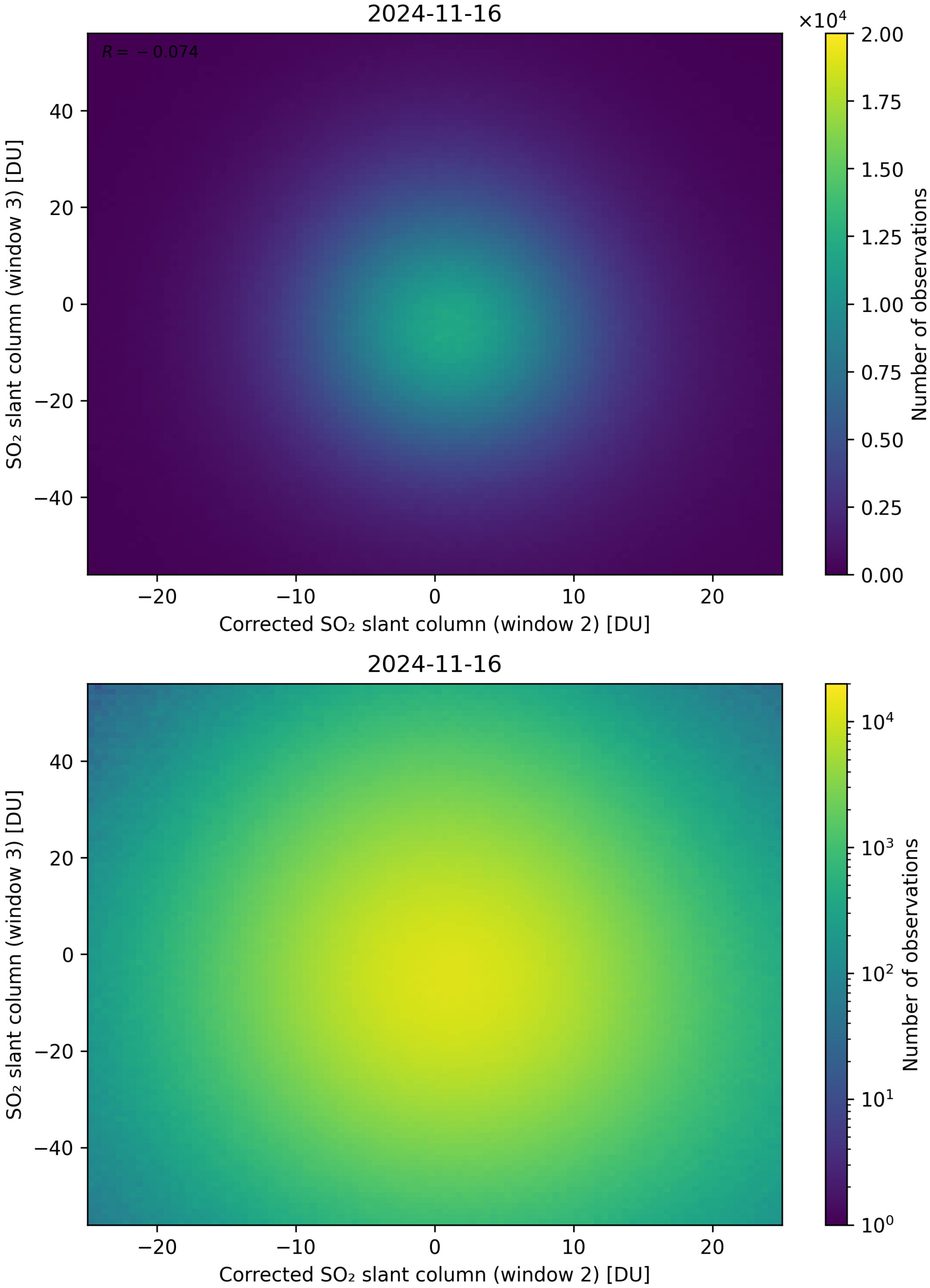


Figure 201: Scatter density plot of "Corrected SO_2 slant column (window 2)" against "SO_2 slant column (window 3)" for 2024-11-15 to 2024-11-17.

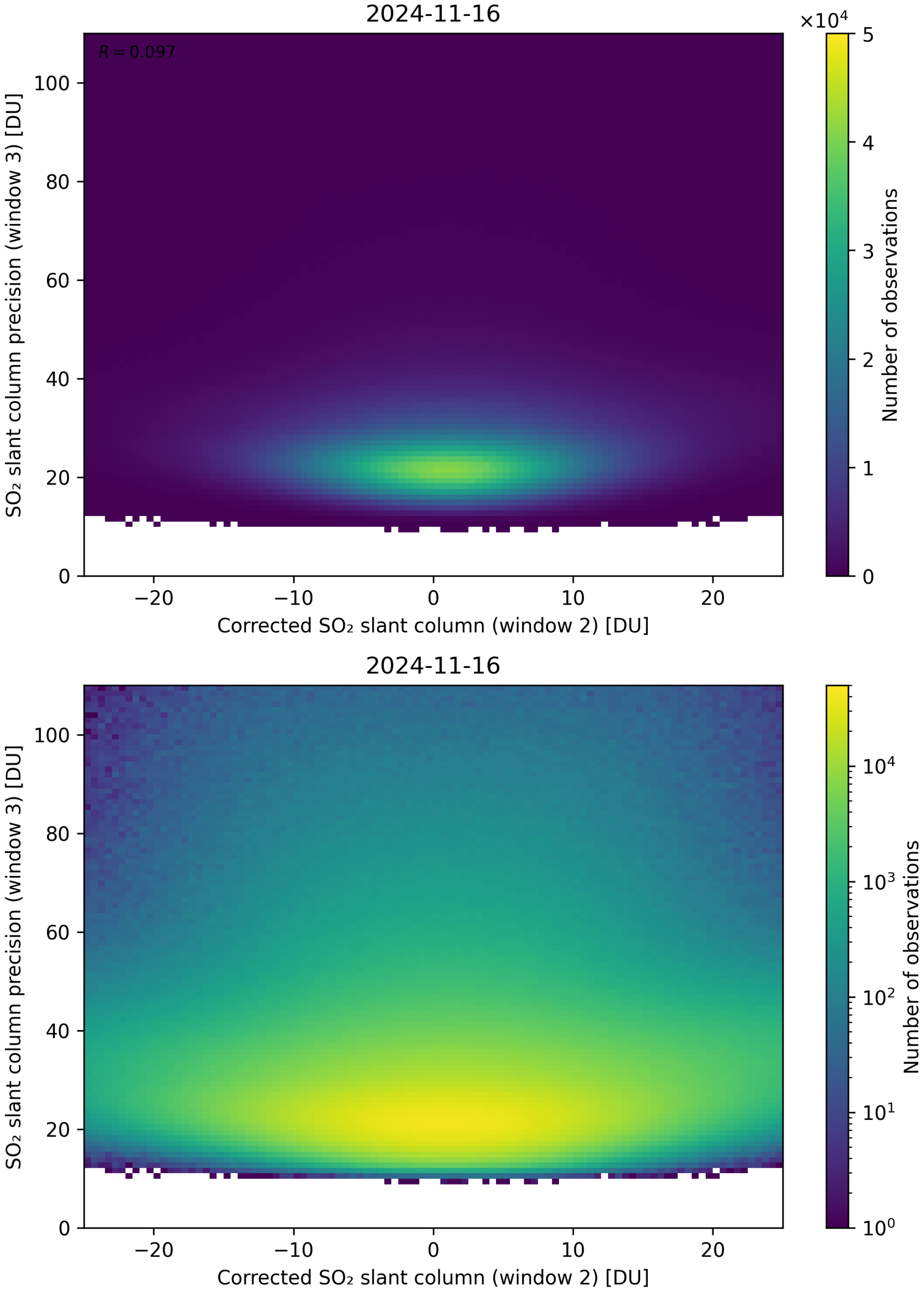


Figure 202: Scatter density plot of "Corrected SO_2 slant column (window 2)" against "SO_2 slant column precision (window 3)" for 2024-11-15 to 2024-11-17.

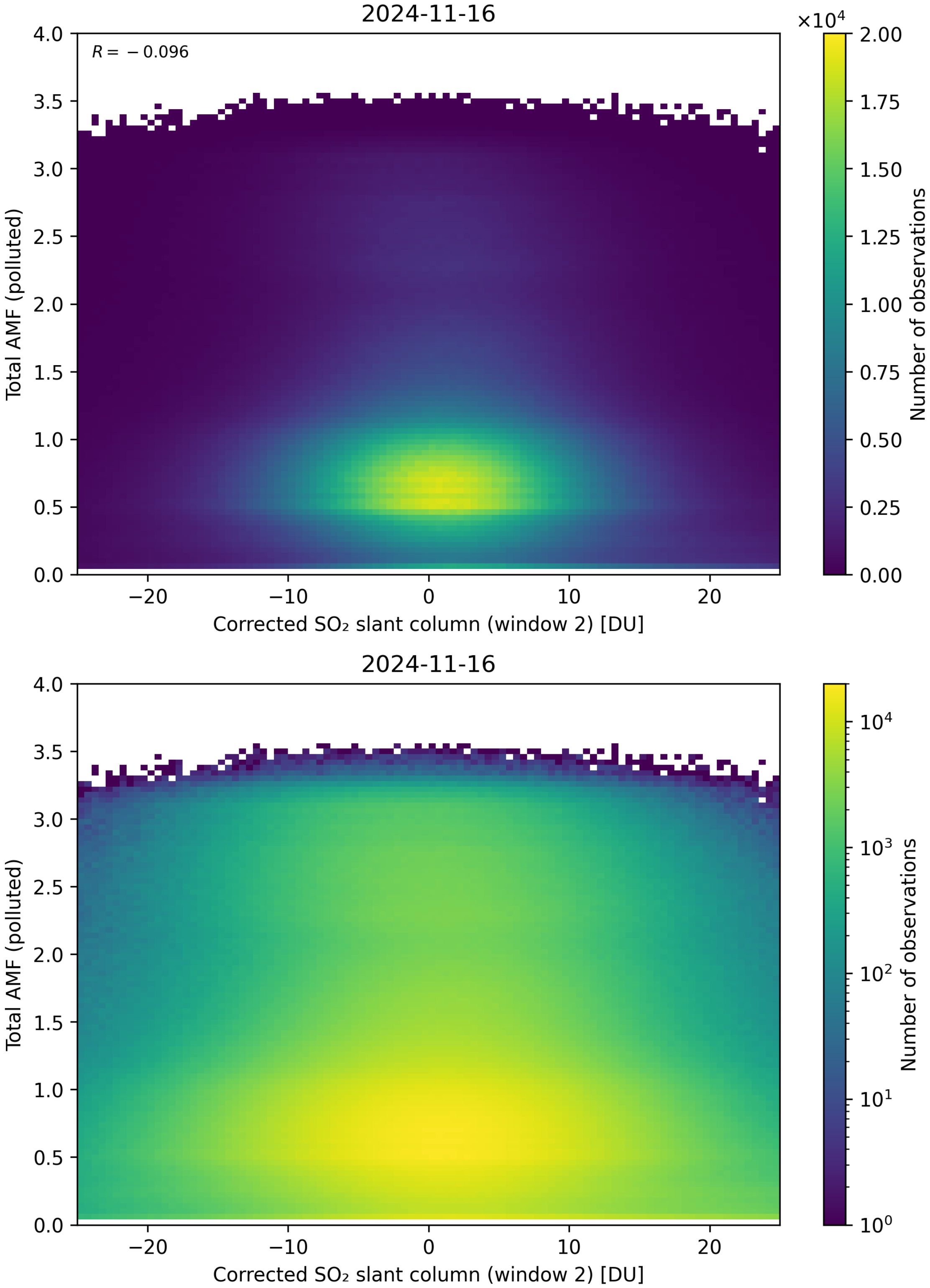


Figure 203: Scatter density plot of “Corrected SO_2 slant column (window 2)” against “Total AMF (polluted)” for 2024-11-15 to 2024-11-17.

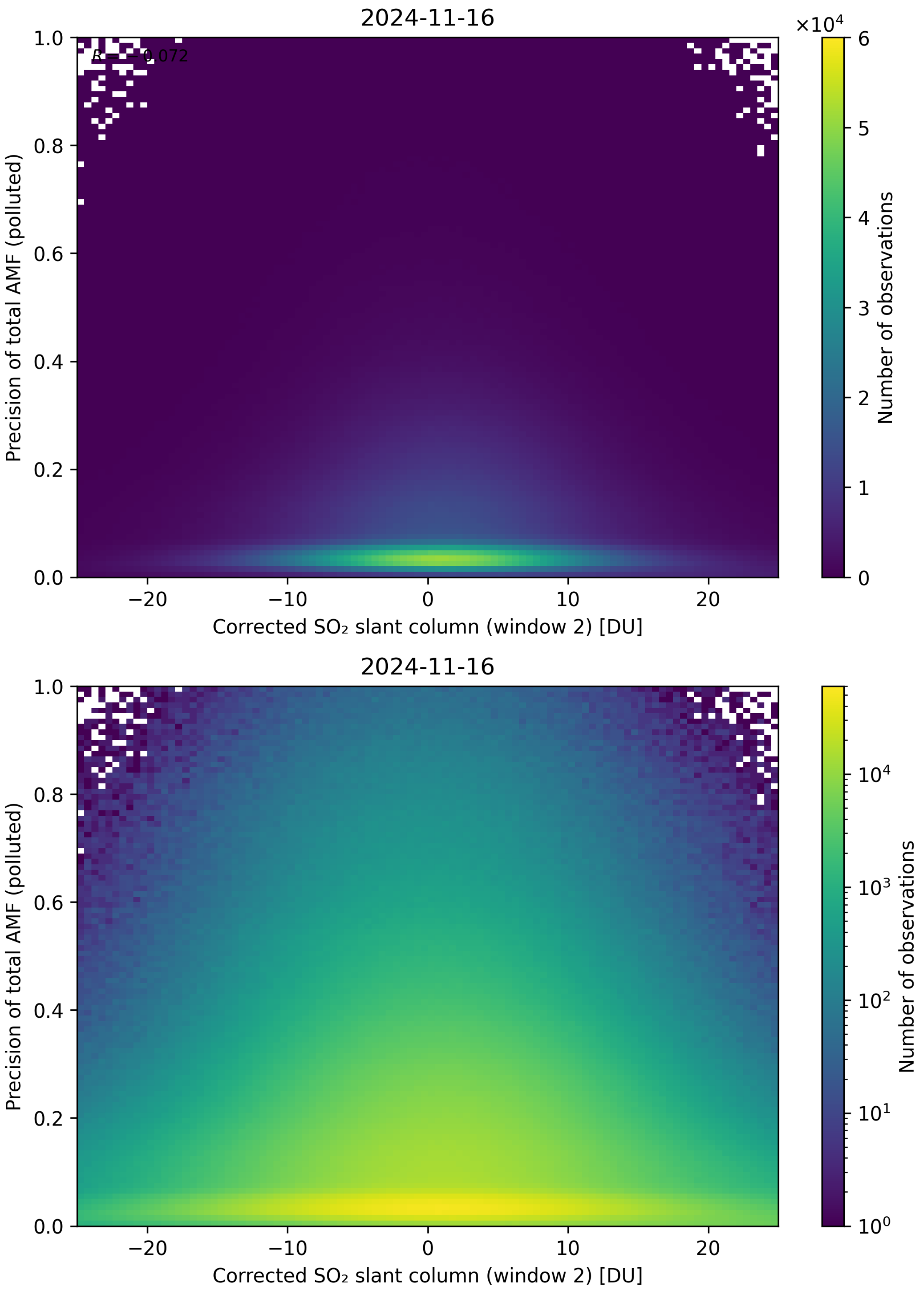


Figure 204: Scatter density plot of “Corrected SO_2 slant column (window 2)” against “Precision of total AMF (polluted)” for 2024-11-15 to 2024-11-17.

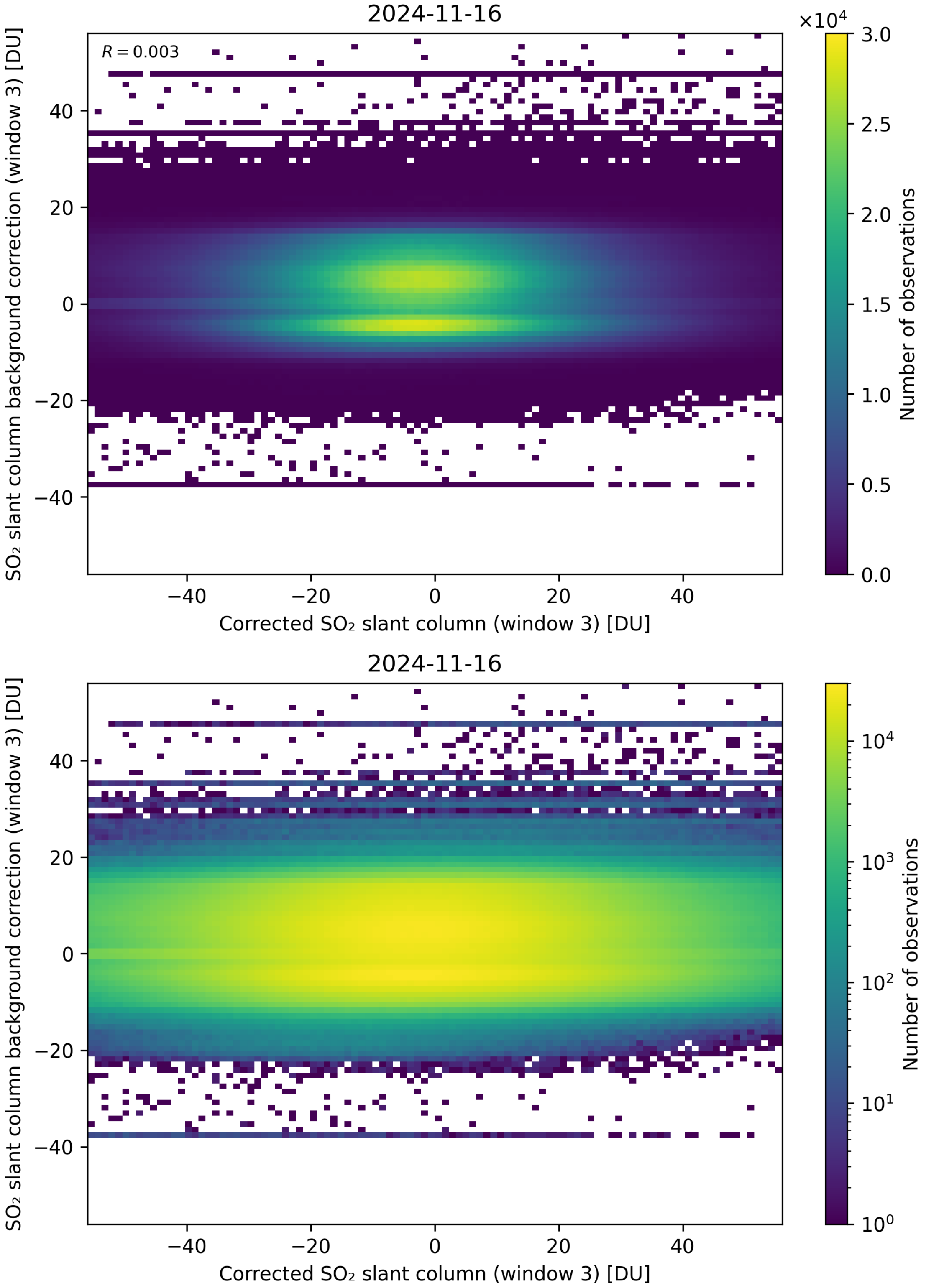


Figure 205: Scatter density plot of “Corrected SO_2 slant column (window 3)” against “SO_2 slant column background correction (window 3)” for 2024-11-15 to 2024-11-17.

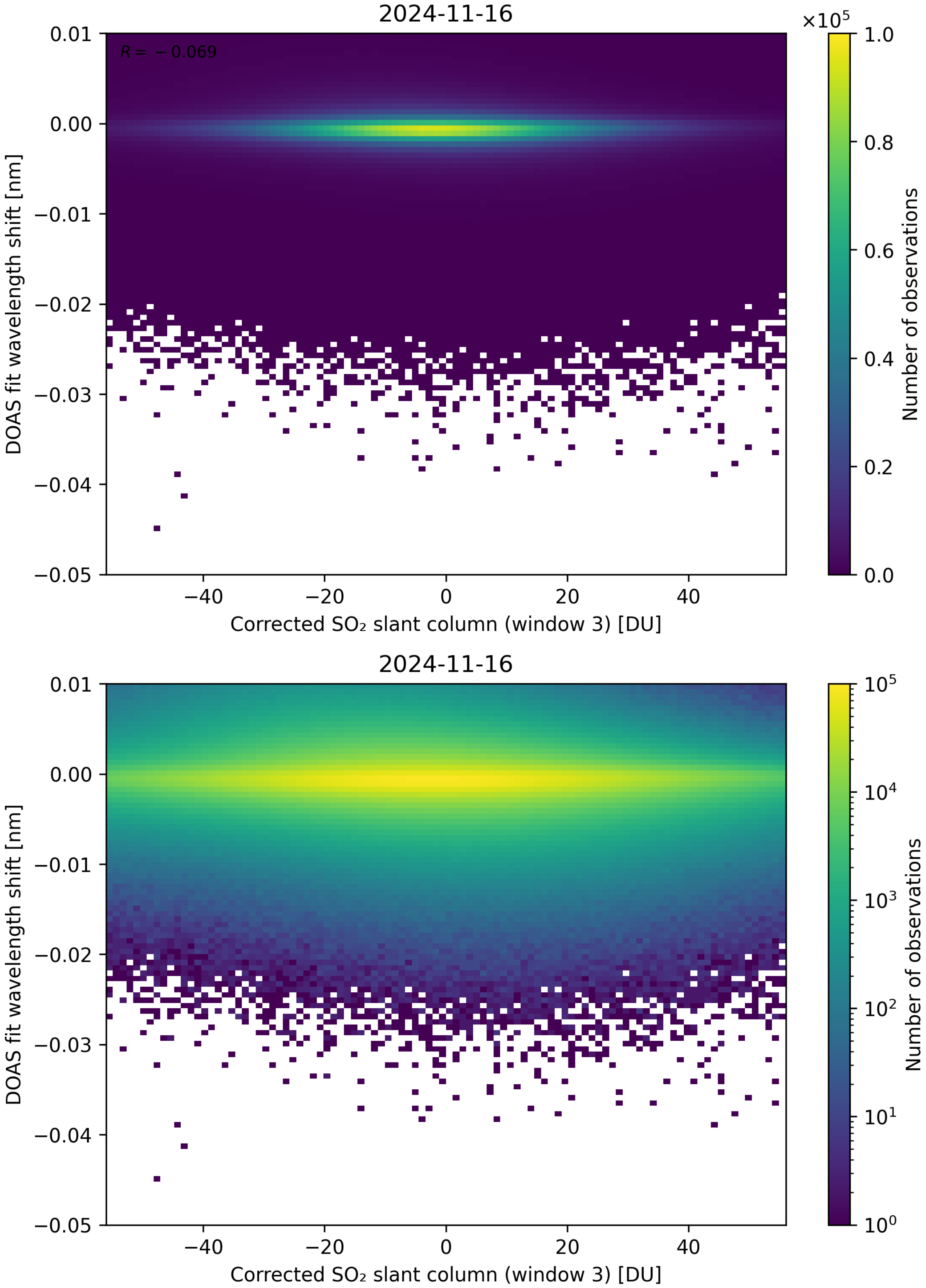


Figure 206: Scatter density plot of "Corrected SO_2 slant column (window 3)" against "DOAS fit wavelength shift" for 2024-11-15 to 2024-11-17.

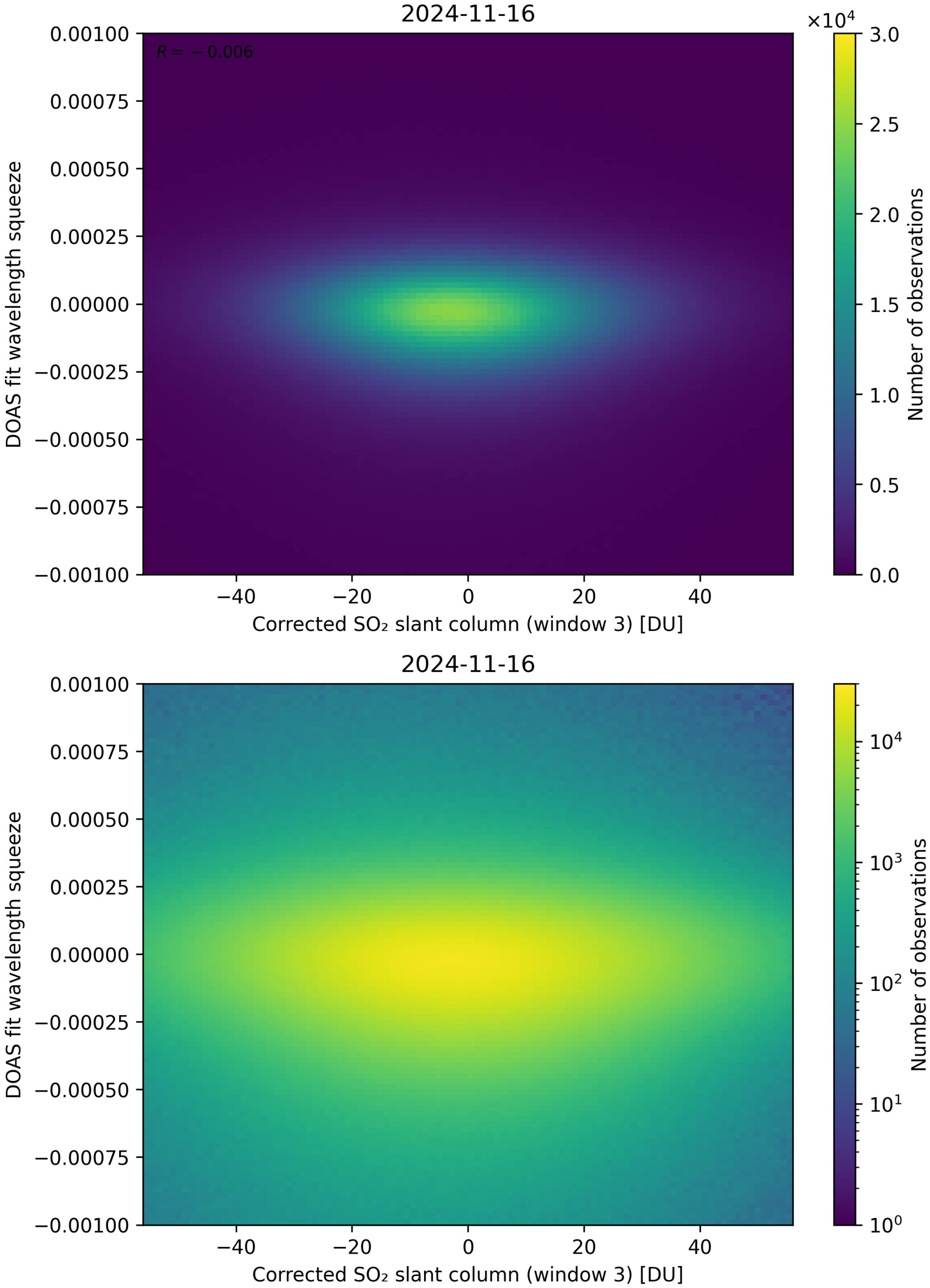


Figure 207: Scatter density plot of “Corrected SO_2 slant column (window 3)” against “DOAS fit wavelength squeeze” for 2024-11-15 to 2024-11-17.

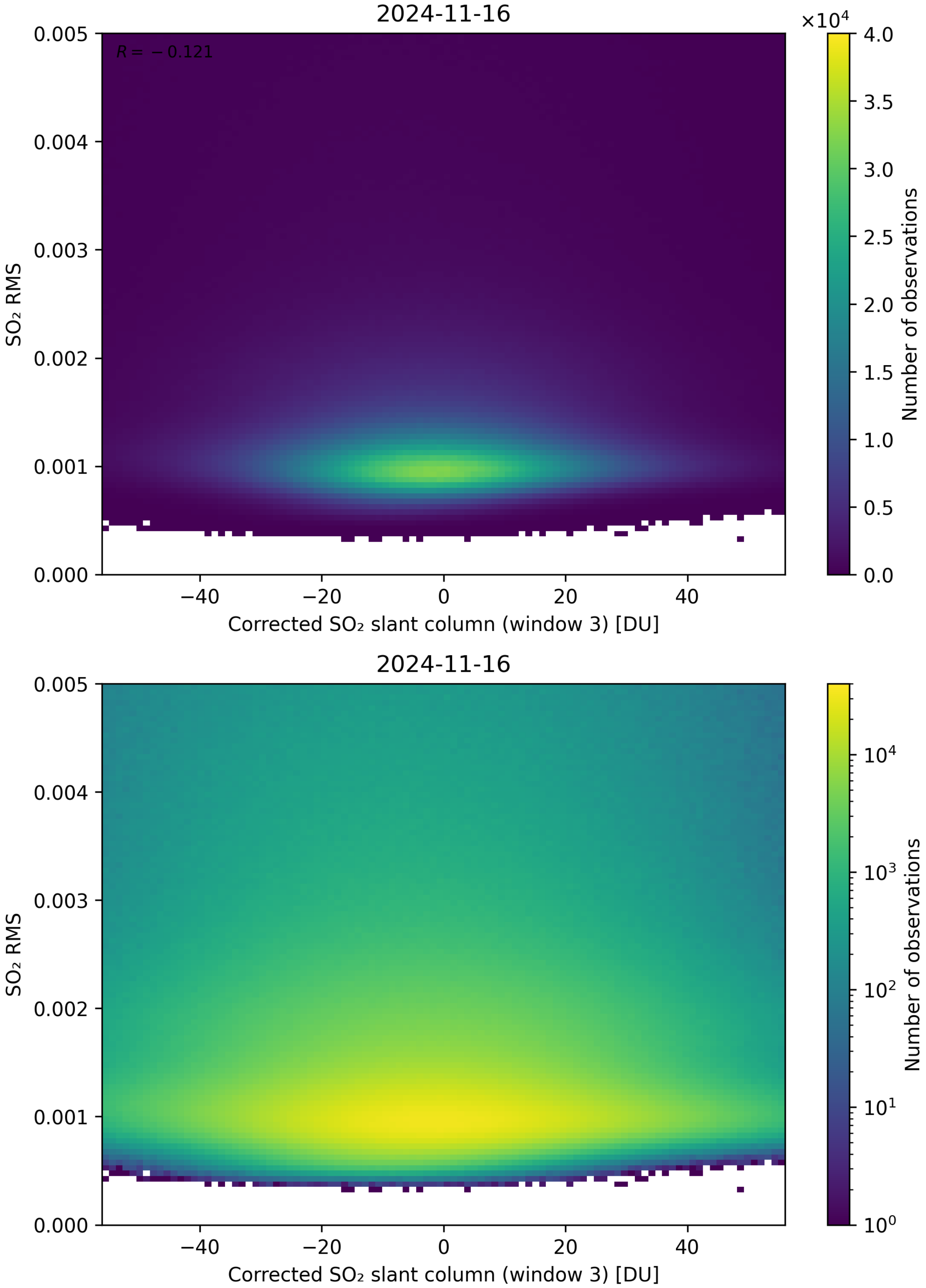


Figure 208: Scatter density plot of “Corrected SO_2 slant column (window 3)” against “SO_2 RMS” for 2024-11-15 to 2024-11-17.

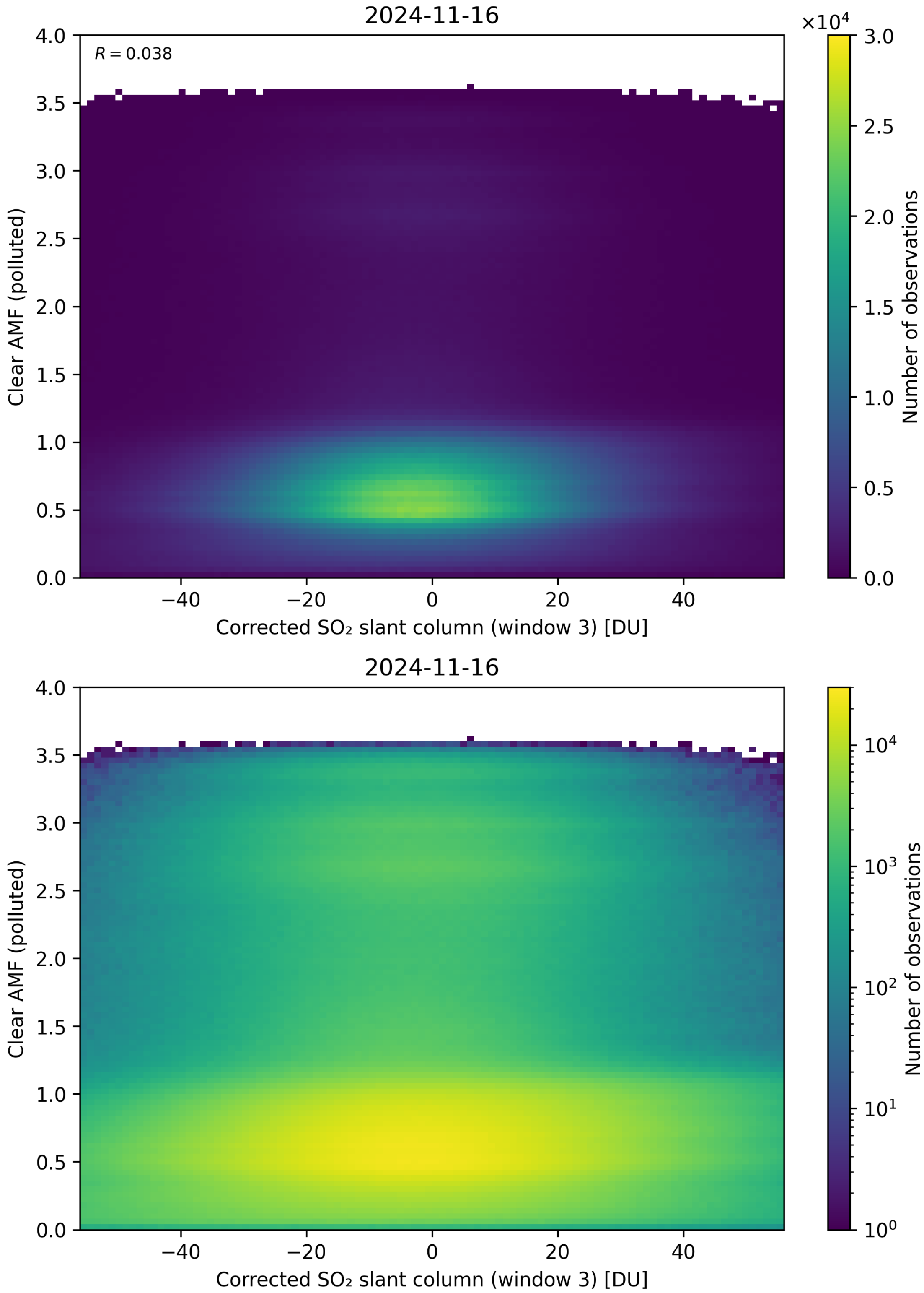


Figure 209: Scatter density plot of “Corrected SO_2 slant column (window 3)” against “Clear AMF (polluted)” for 2024-11-15 to 2024-11-17.

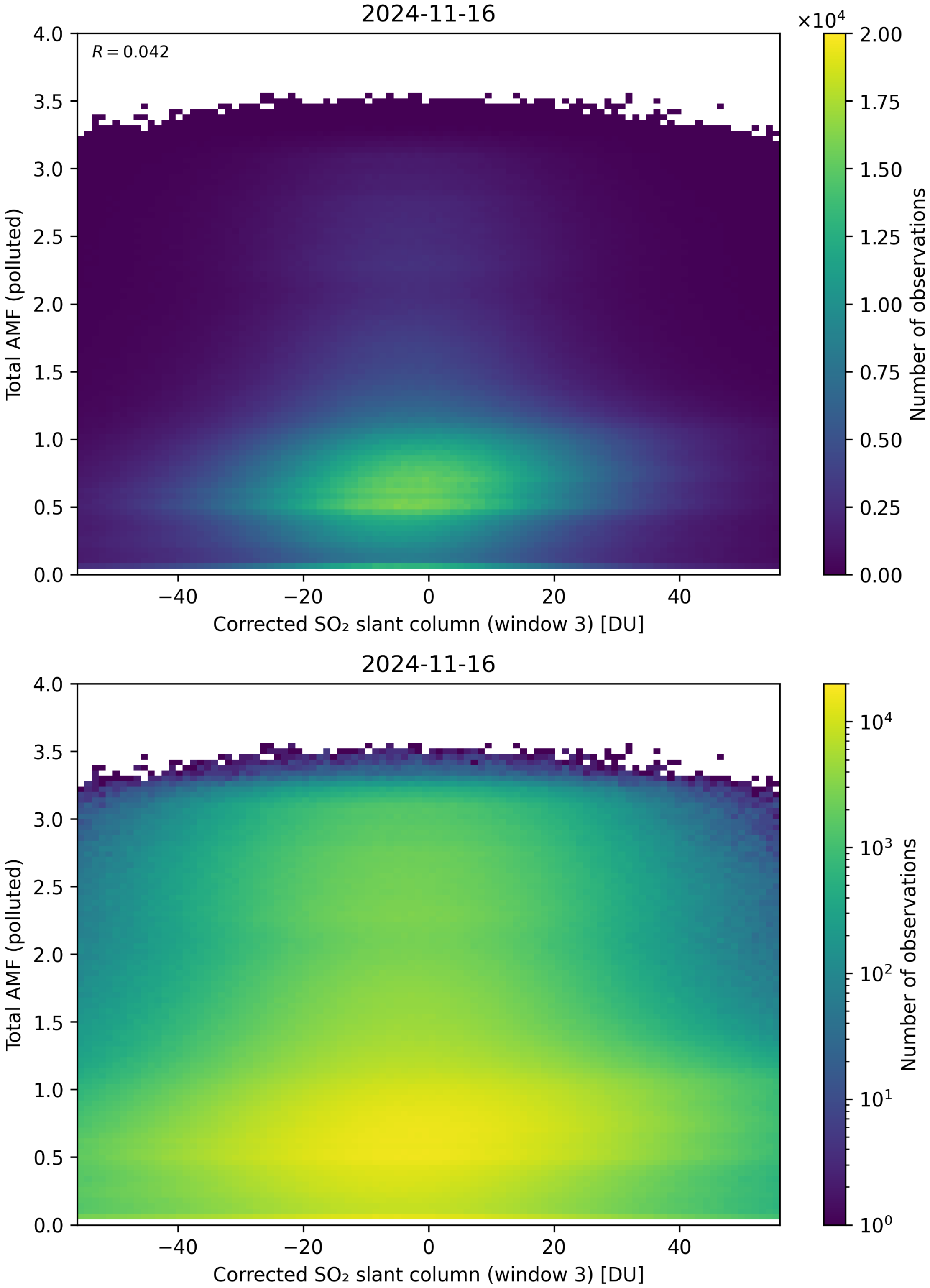


Figure 210: Scatter density plot of “Corrected SO_2 slant column (window 3)” against “Total AMF (polluted)” for 2024-11-15 to 2024-11-17.

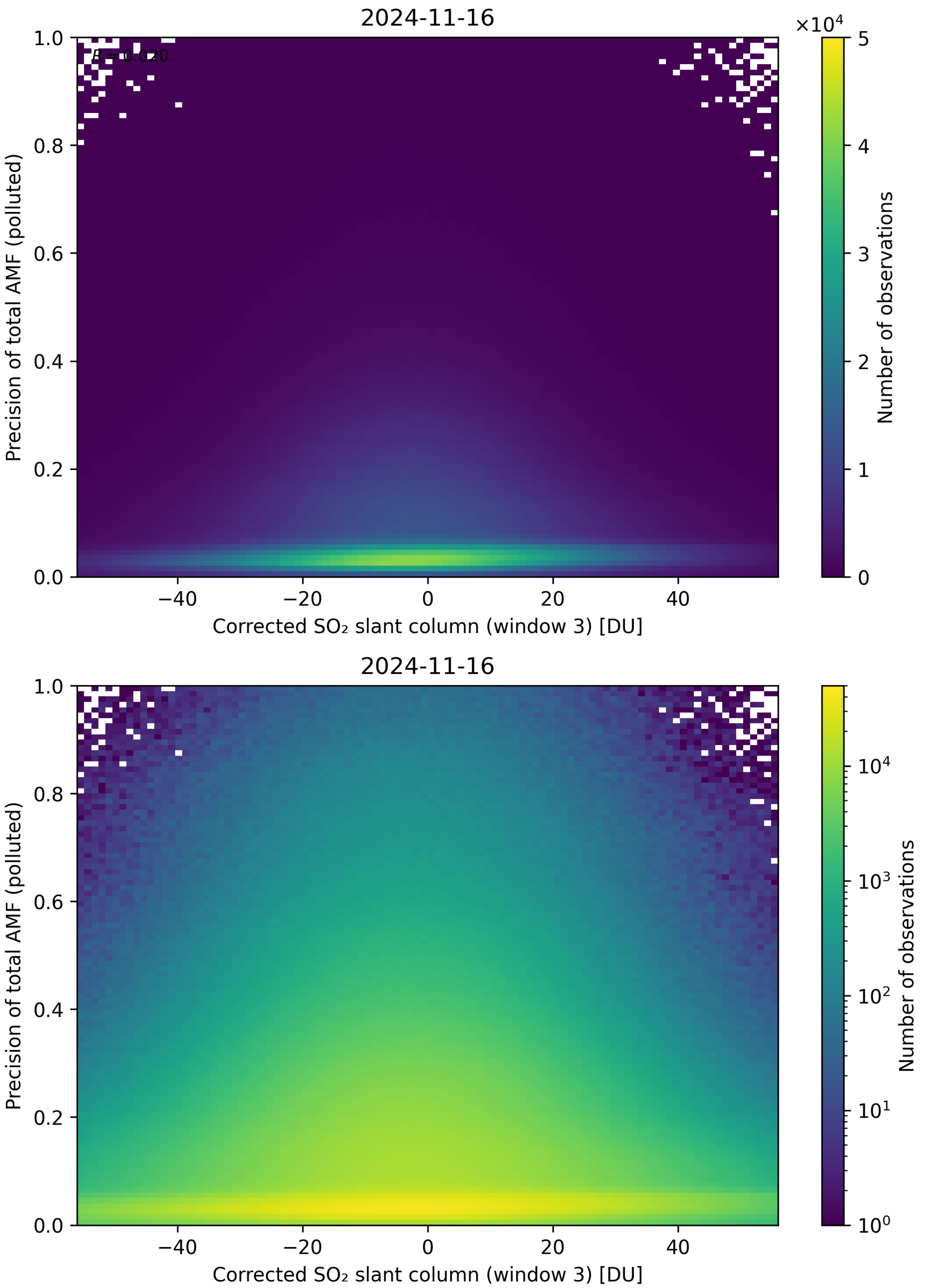


Figure 211: Scatter density plot of “Corrected SO_2 slant column (window 3)” against “Precision of total AMF (polluted)” for 2024-11-15 to 2024-11-17.

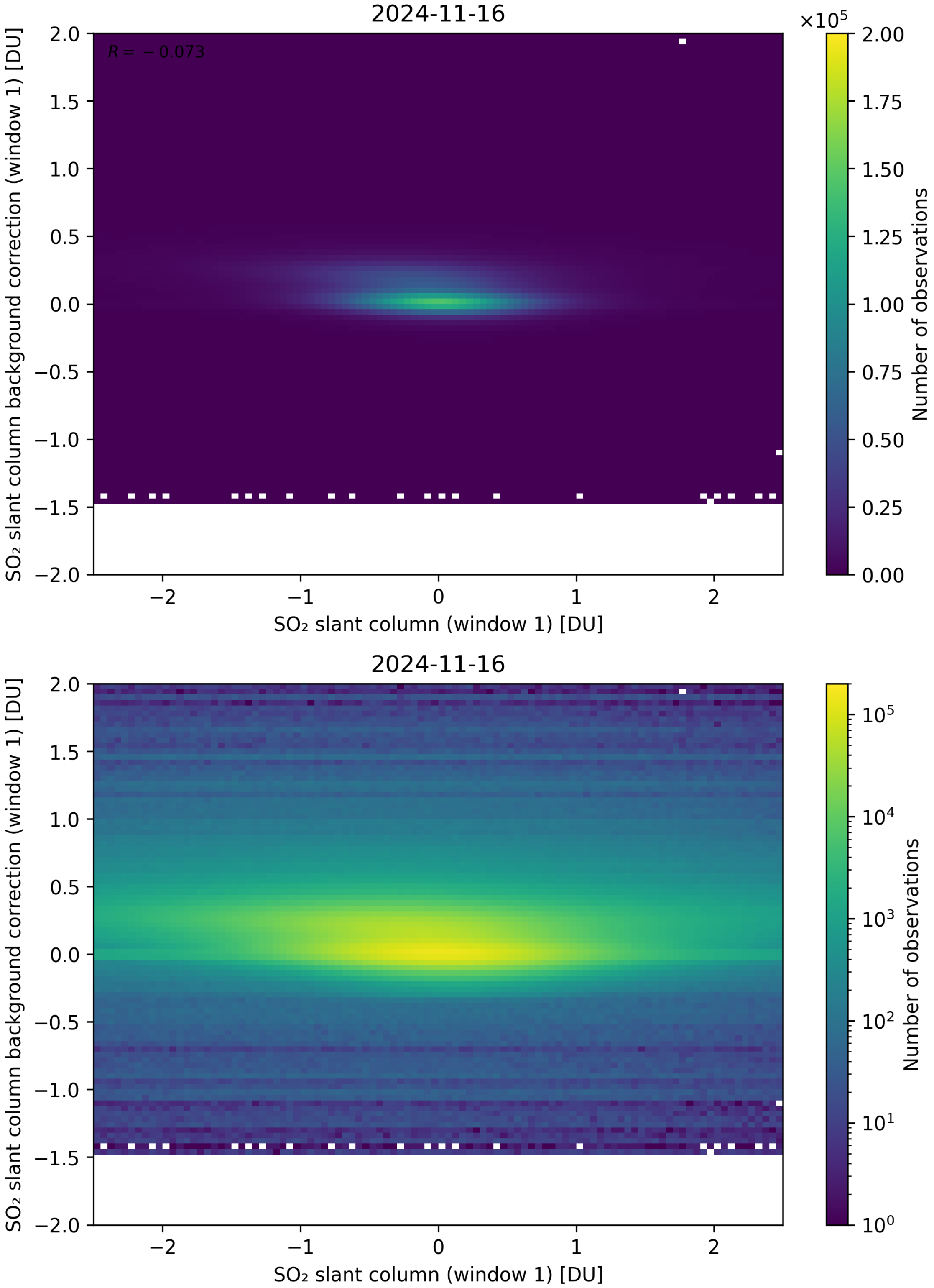
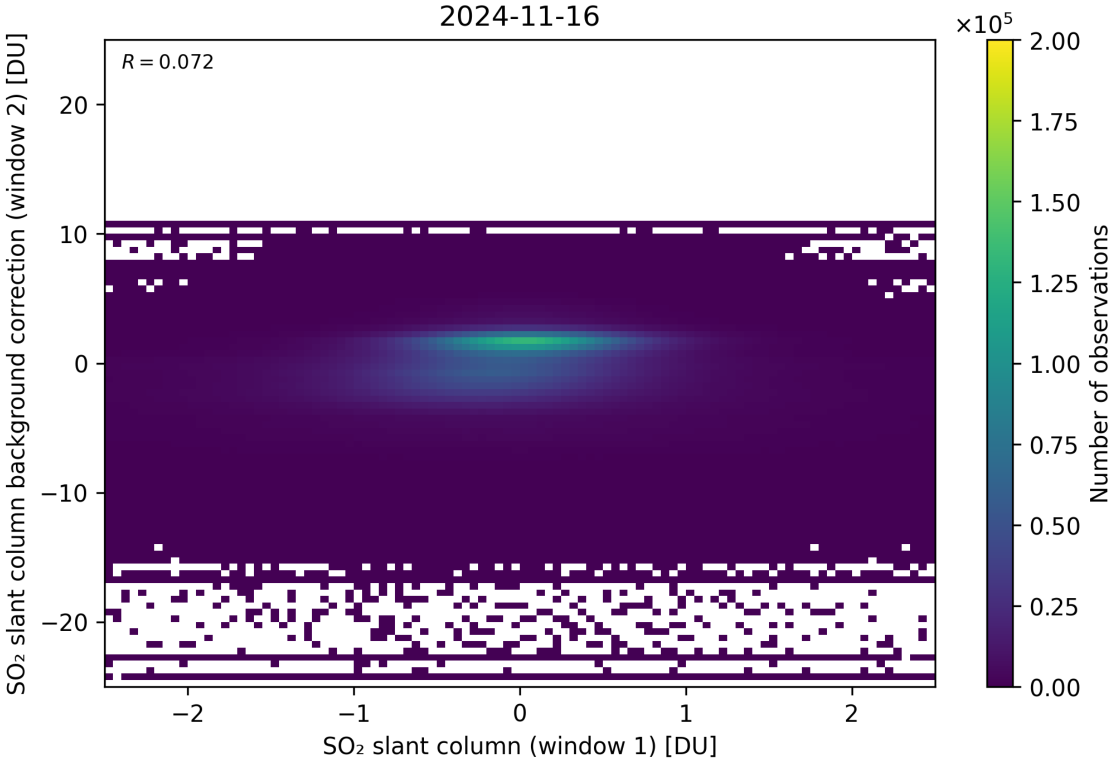


Figure 212: Scatter density plot of "SO_2 slant column (window 1)" against "SO_2 slant column background correction (window 1)" for 2024-11-15 to 2024-11-17.



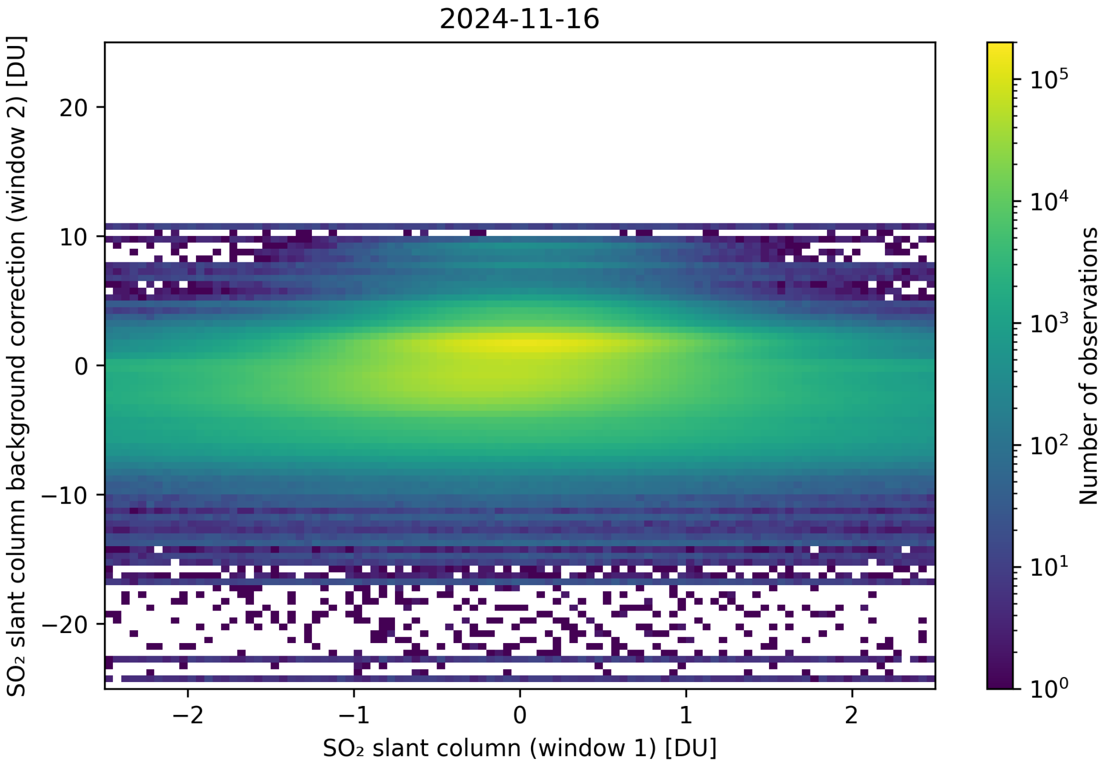


Figure 213: Scatter density plot of "SO_2 slant column (window 1)" against "SO_2 slant column background correction (window 2)" for 2024-11-15 to 2024-11-17.

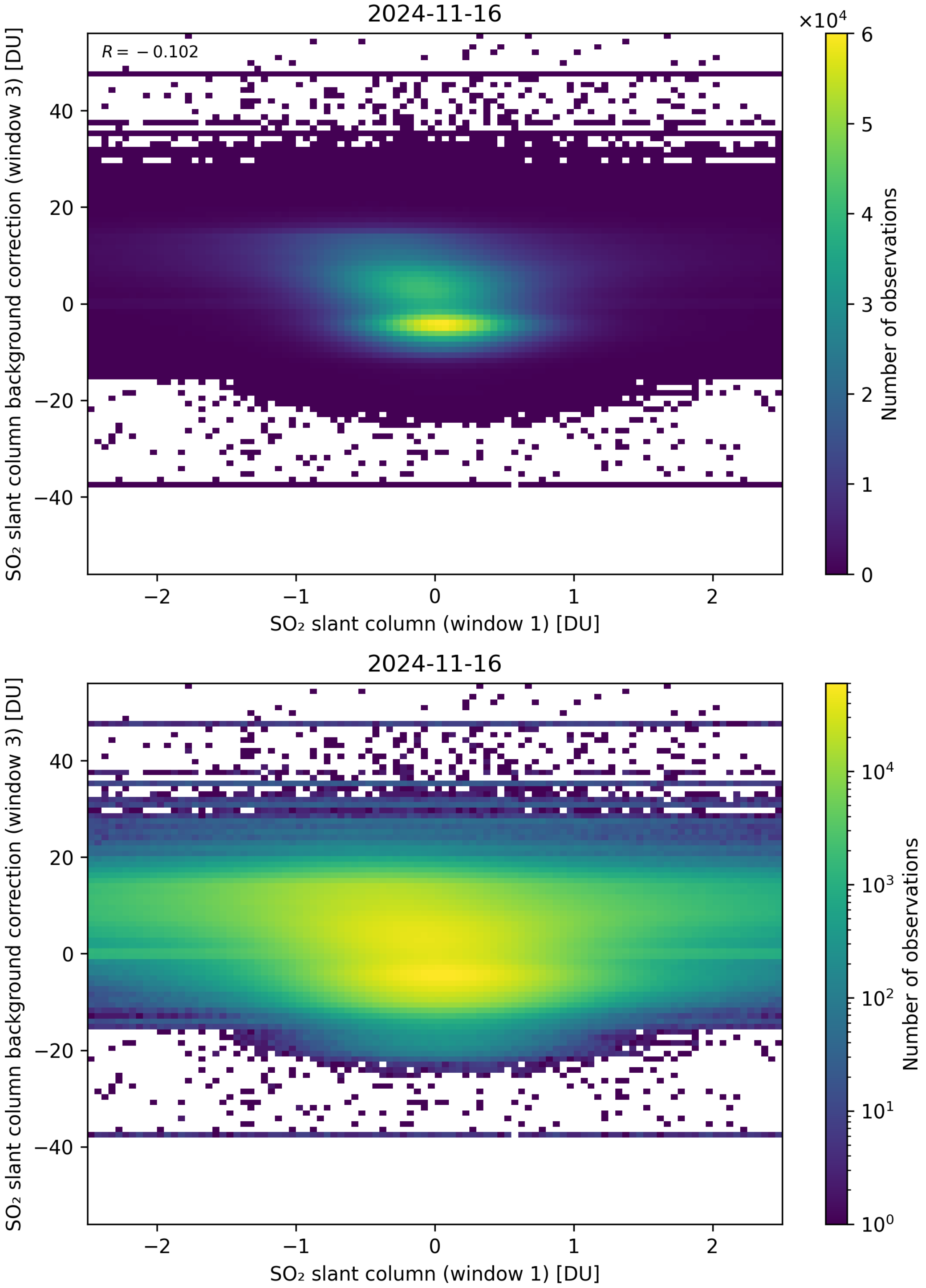
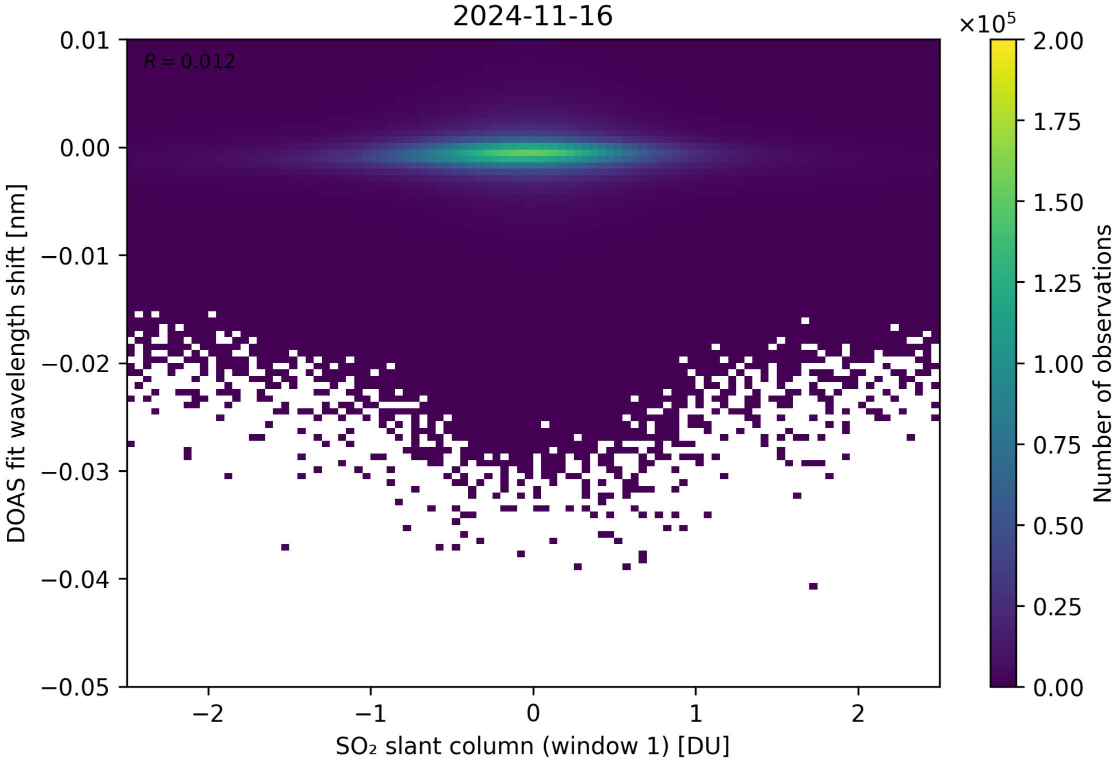


Figure 214: Scatter density plot of “SO_2 slant column (window 1)” against “SO_2 slant column background correction (window 3)” for 2024-11-15 to 2024-11-17.



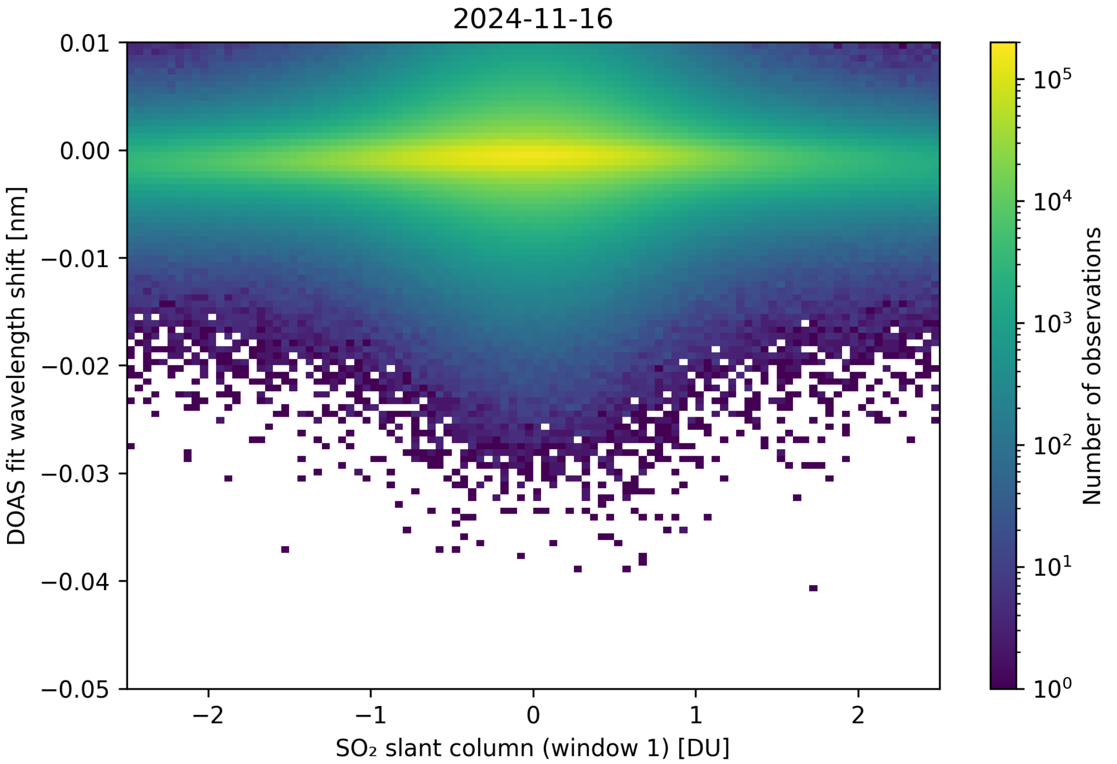


Figure 215: Scatter density plot of “SO_2 slant column (window 1)” against “DOAS fit wavelength shift” for 2024-11-15 to 2024-11-17.

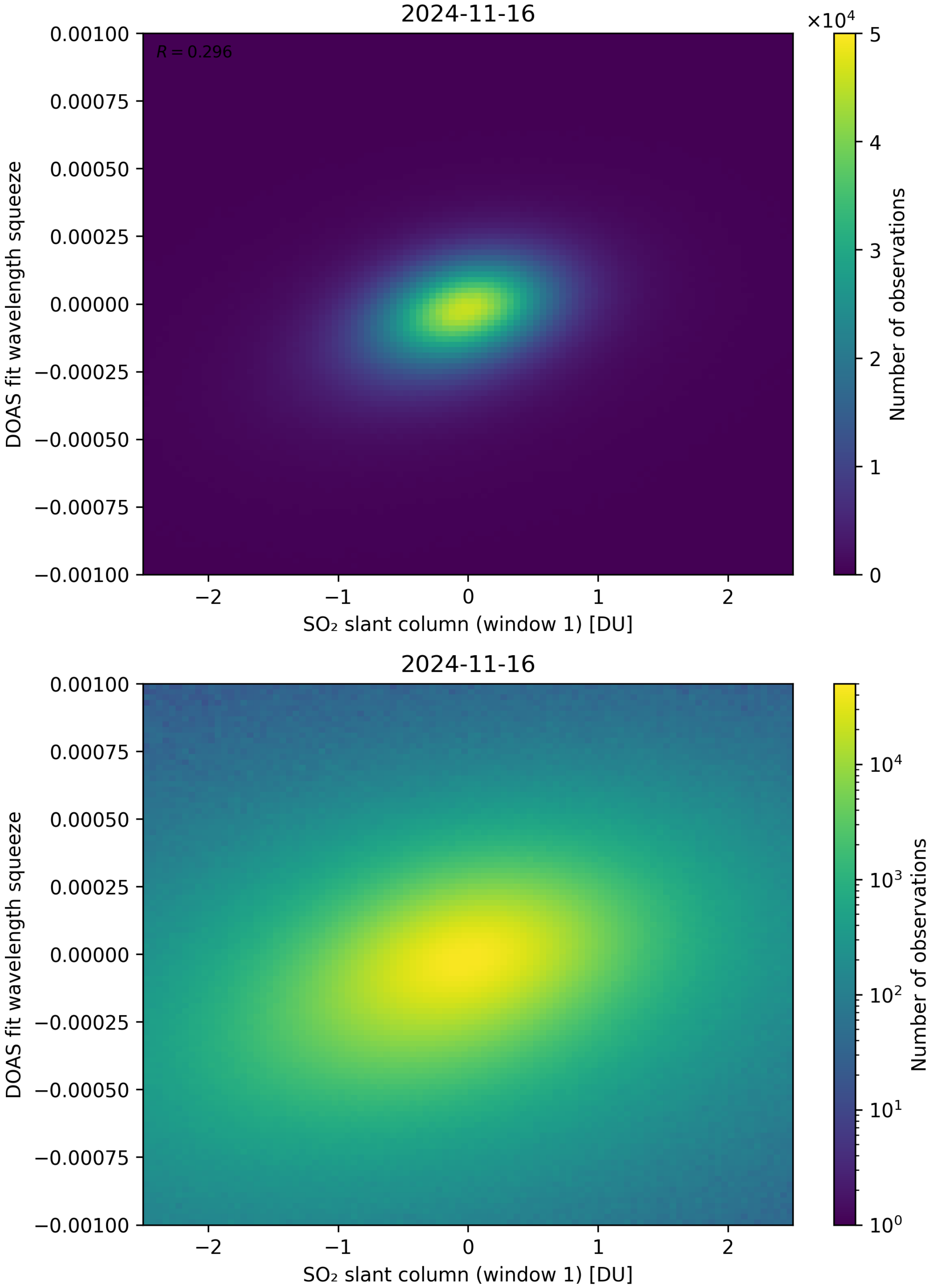


Figure 216: Scatter density plot of “SO_2 slant column (window 1)” against “DOAS fit wavelength squeeze” for 2024-11-15 to 2024-11-17.

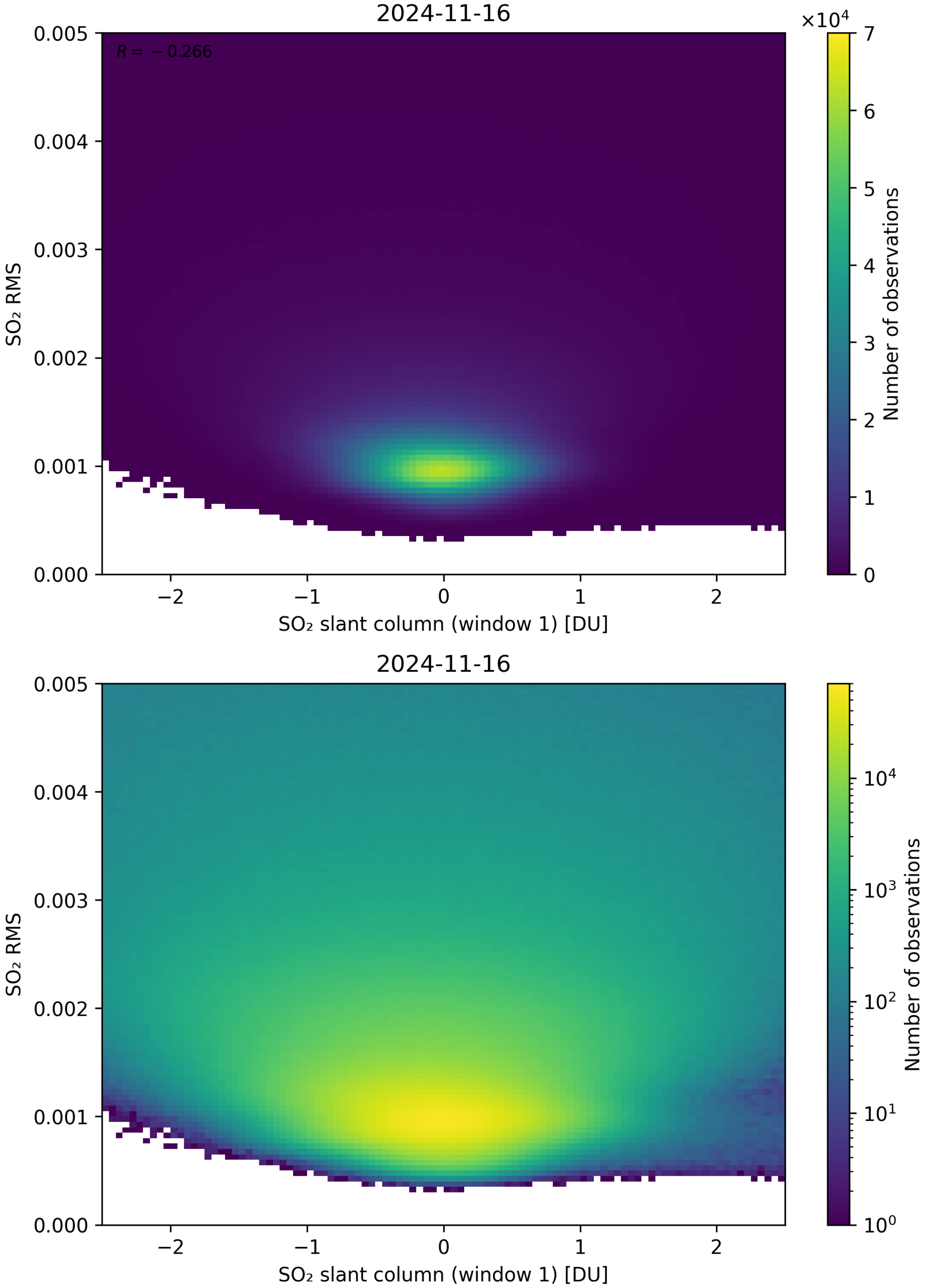


Figure 217: Scatter density plot of "SO_2 slant column (window 1)" against "SO_2 RMS" for 2024-11-15 to 2024-11-17.

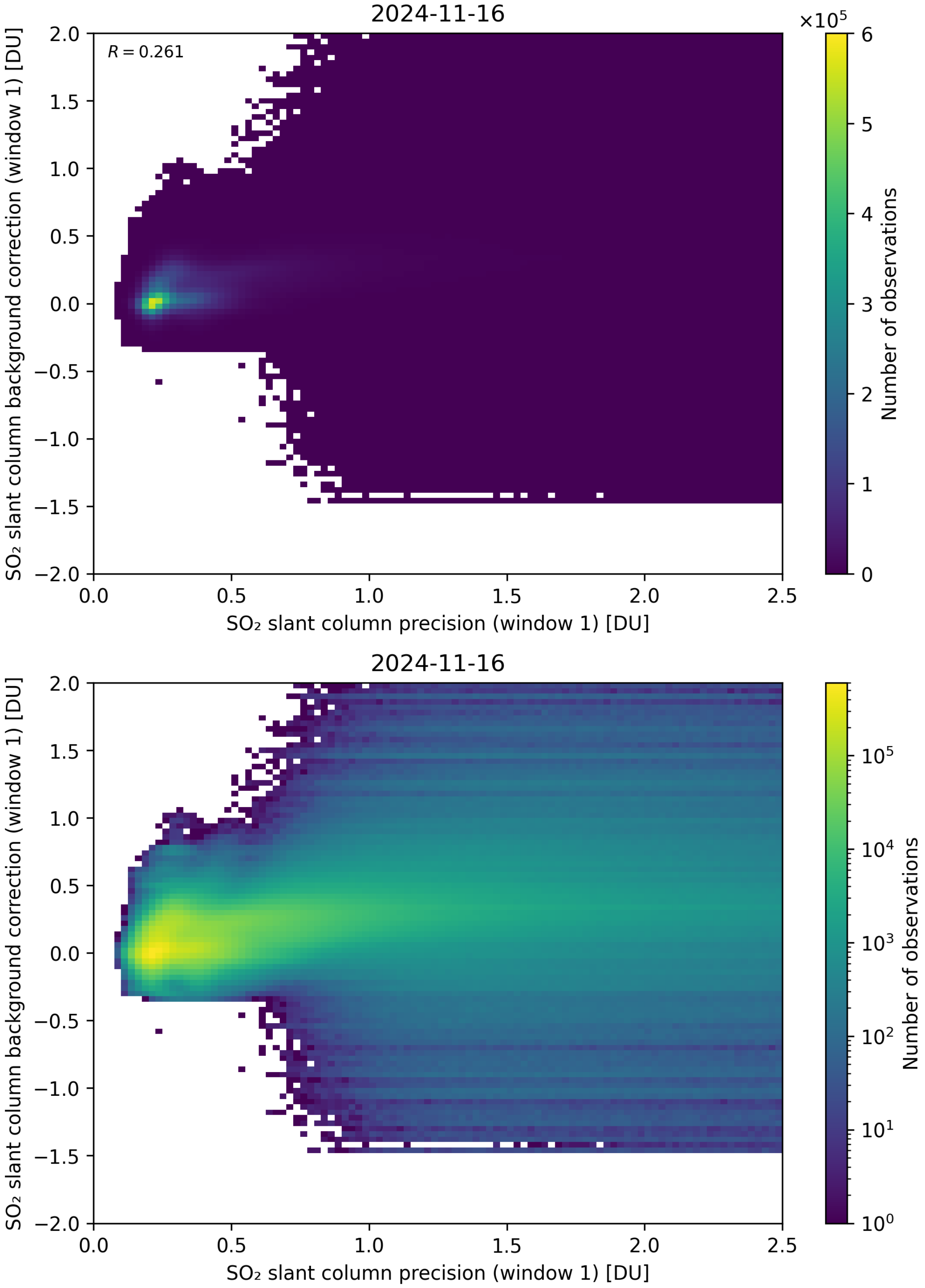


Figure 218: Scatter density plot of "SO_2 slant column precision (window 1)" against "SO_2 slant column background correction (window 1)" for 2024-11-15 to 2024-11-17.

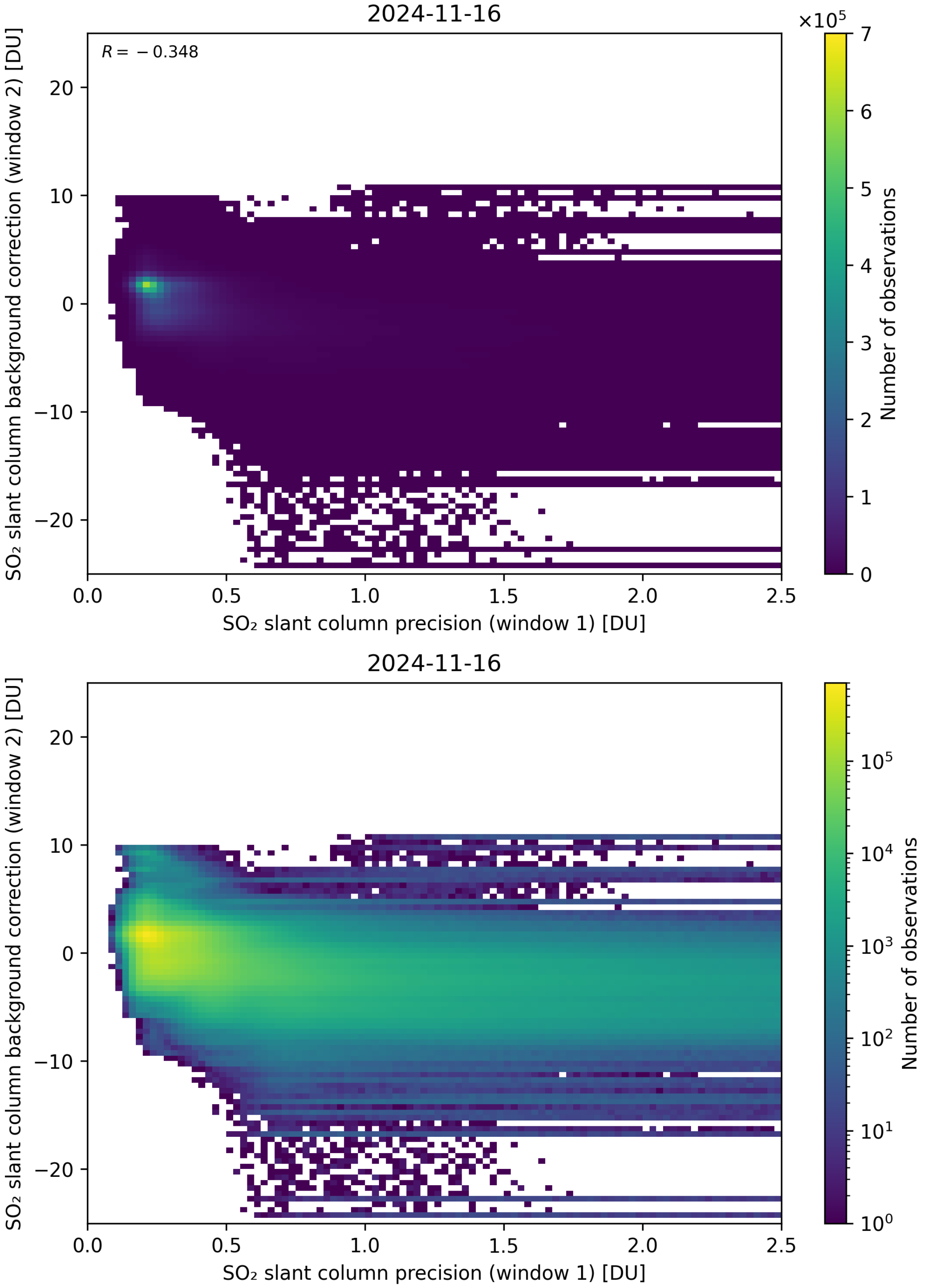


Figure 219: Scatter density plot of "SO_2 slant column precision (window 1)" against "SO_2 slant column background correction (window 2)" for 2024-11-15 to 2024-11-17.

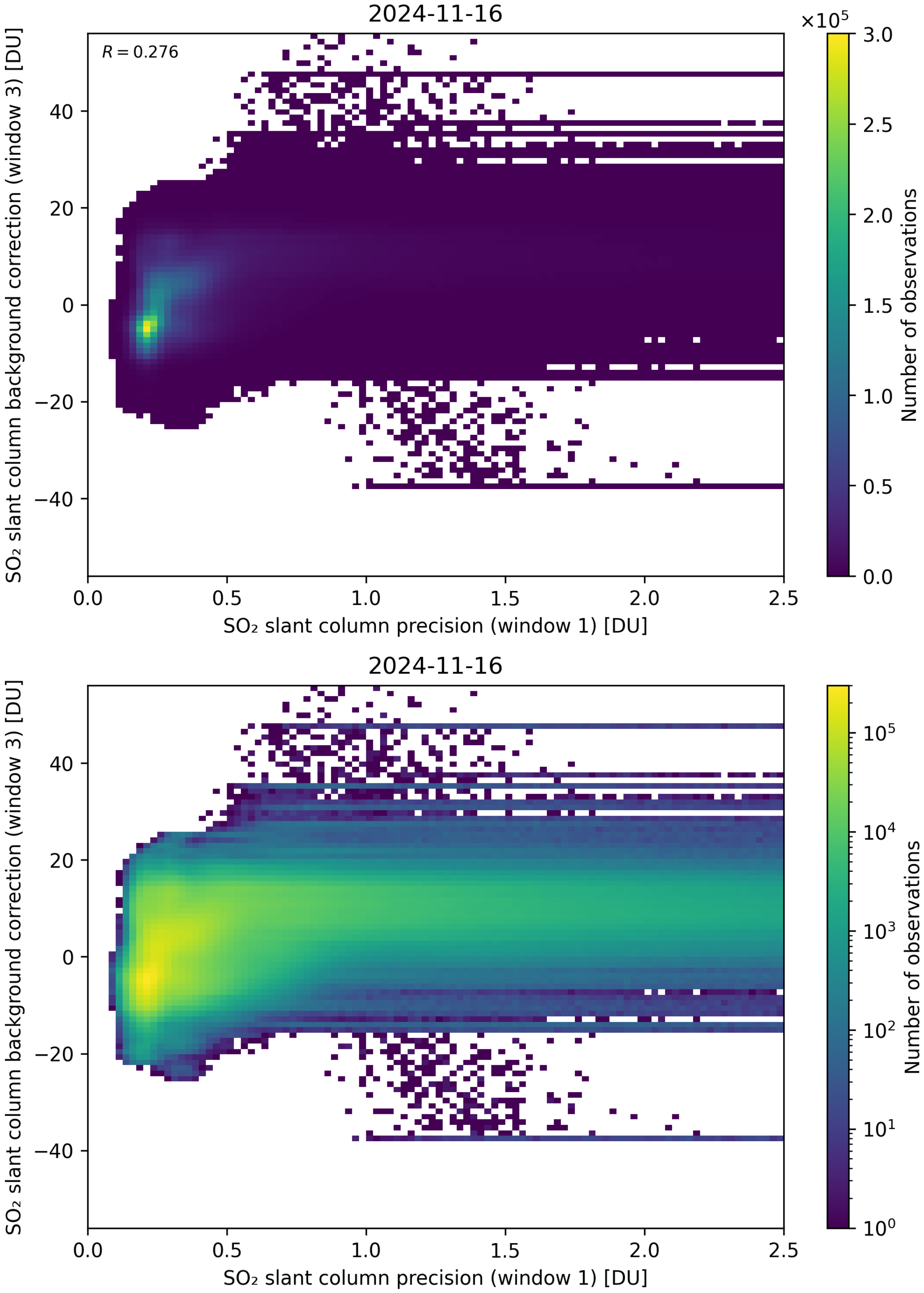


Figure 220: Scatter density plot of “SO_2 slant column precision (window 1)” against “SO_2 slant column background correction (window 3)” for 2024-11-15 to 2024-11-17.

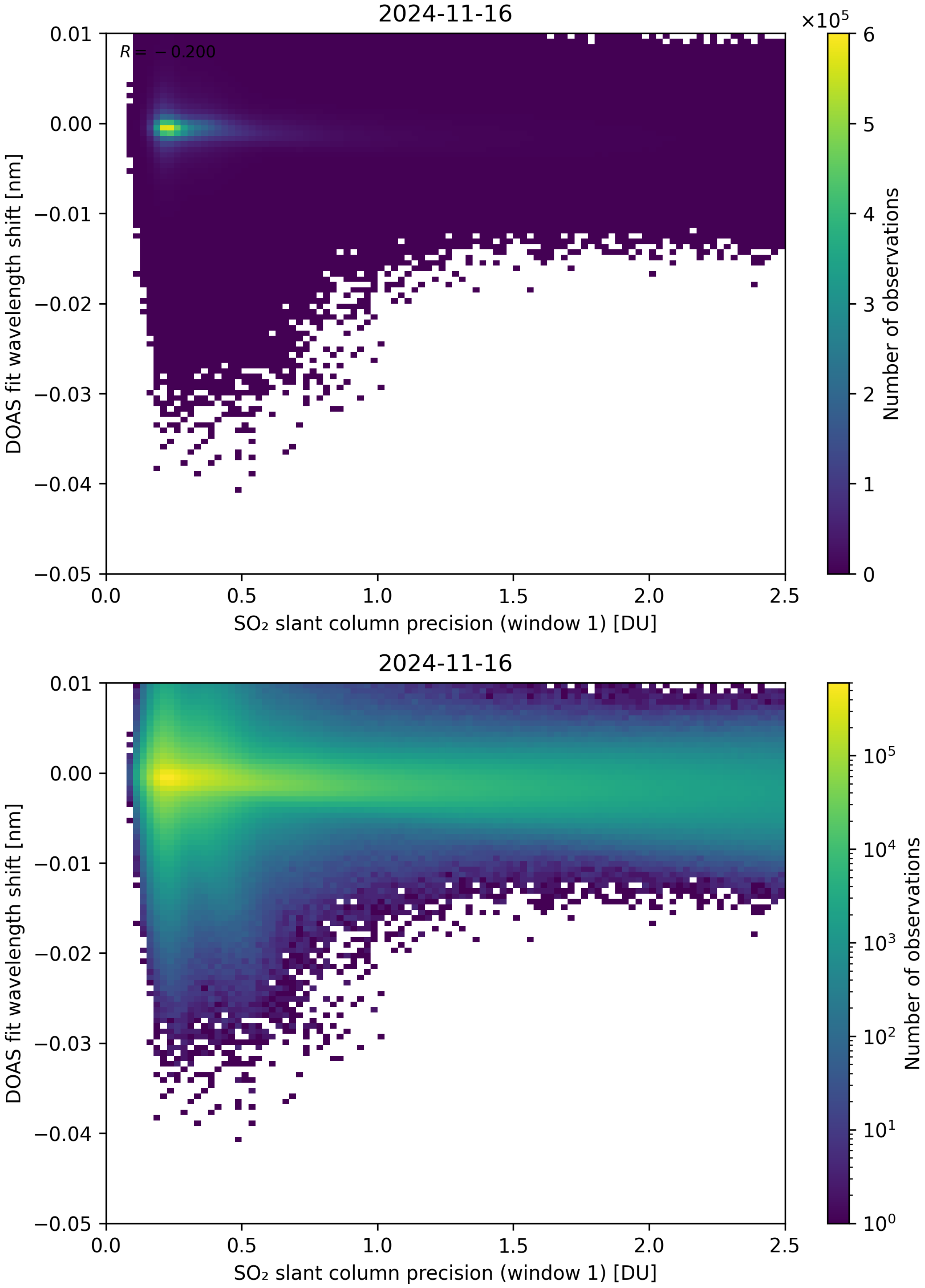


Figure 221: Scatter density plot of “SO_2 slant column precision (window 1)” against “DOAS fit wavelength shift” for 2024-11-15 to 2024-11-17.

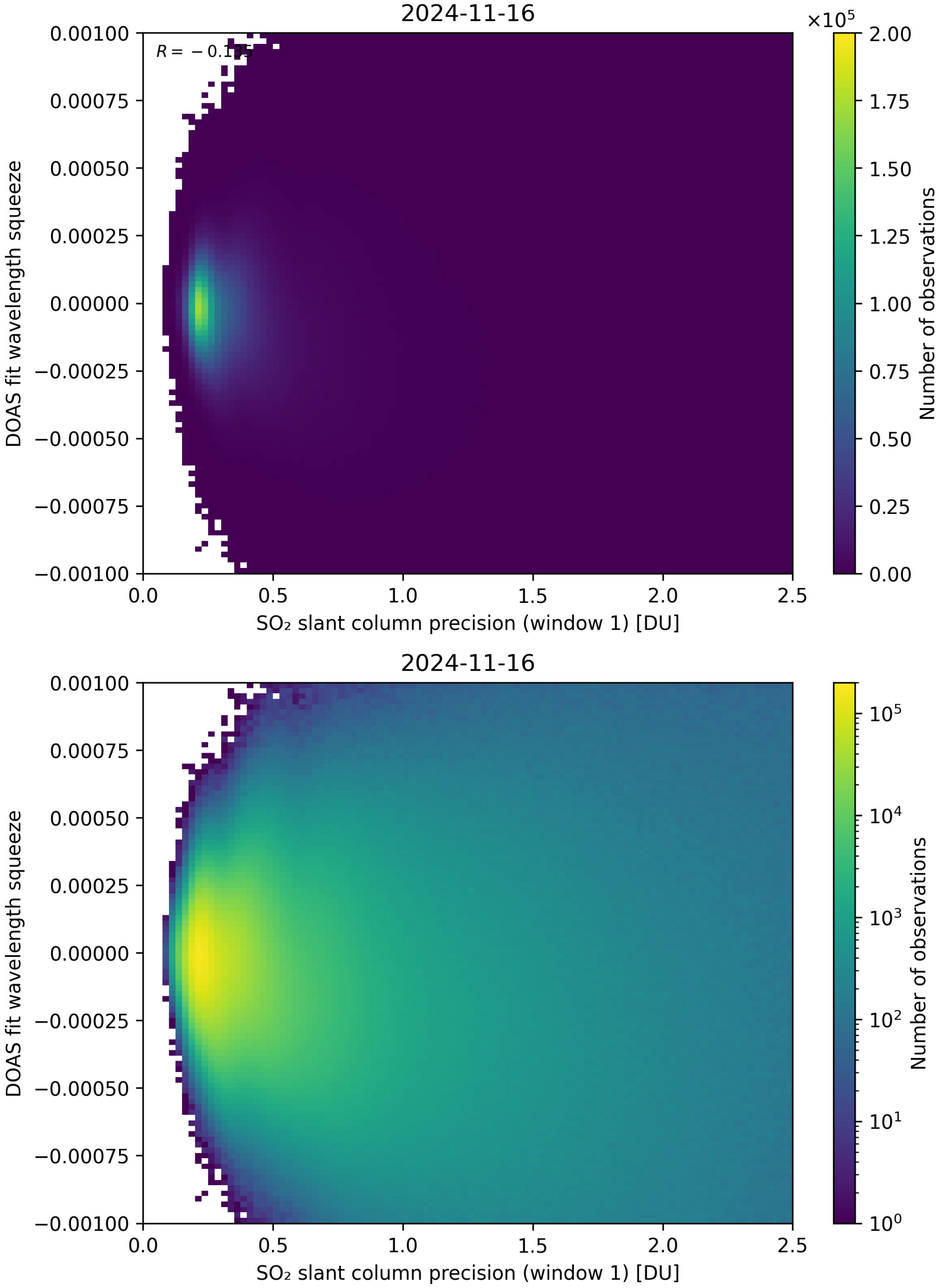
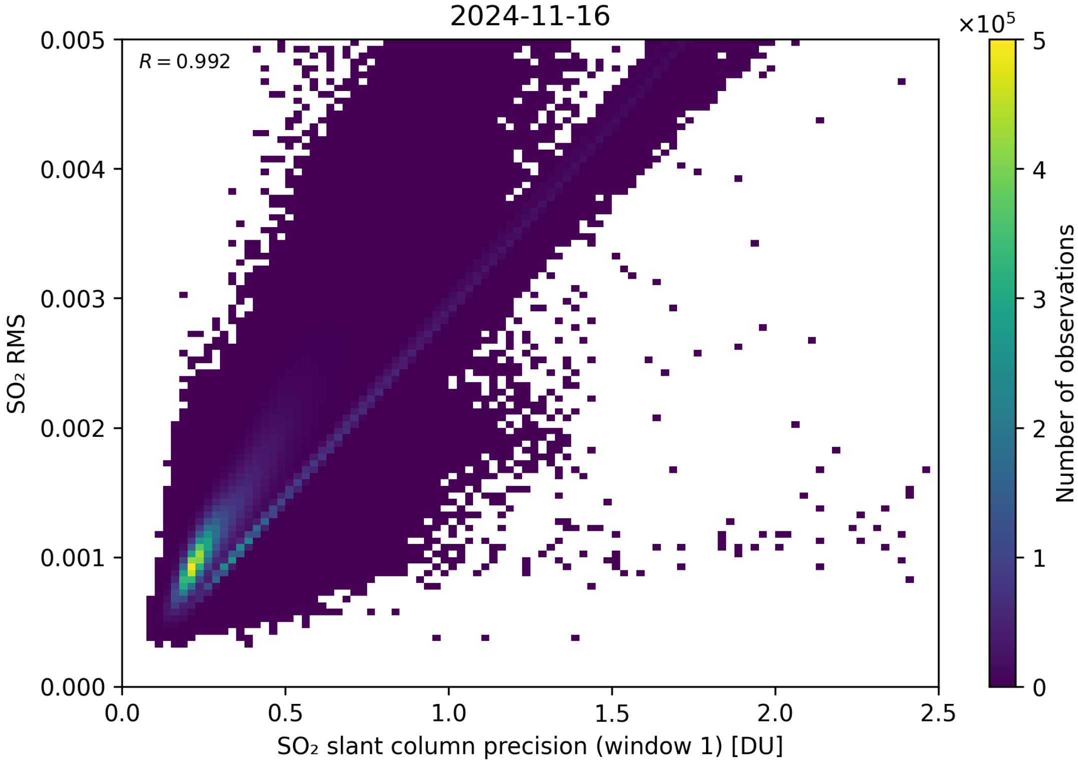


Figure 222: Scatter density plot of “SO_2 slant column precision (window 1)” against “DOAS fit wavelength squeeze” for 2024-11-15 to 2024-11-17.



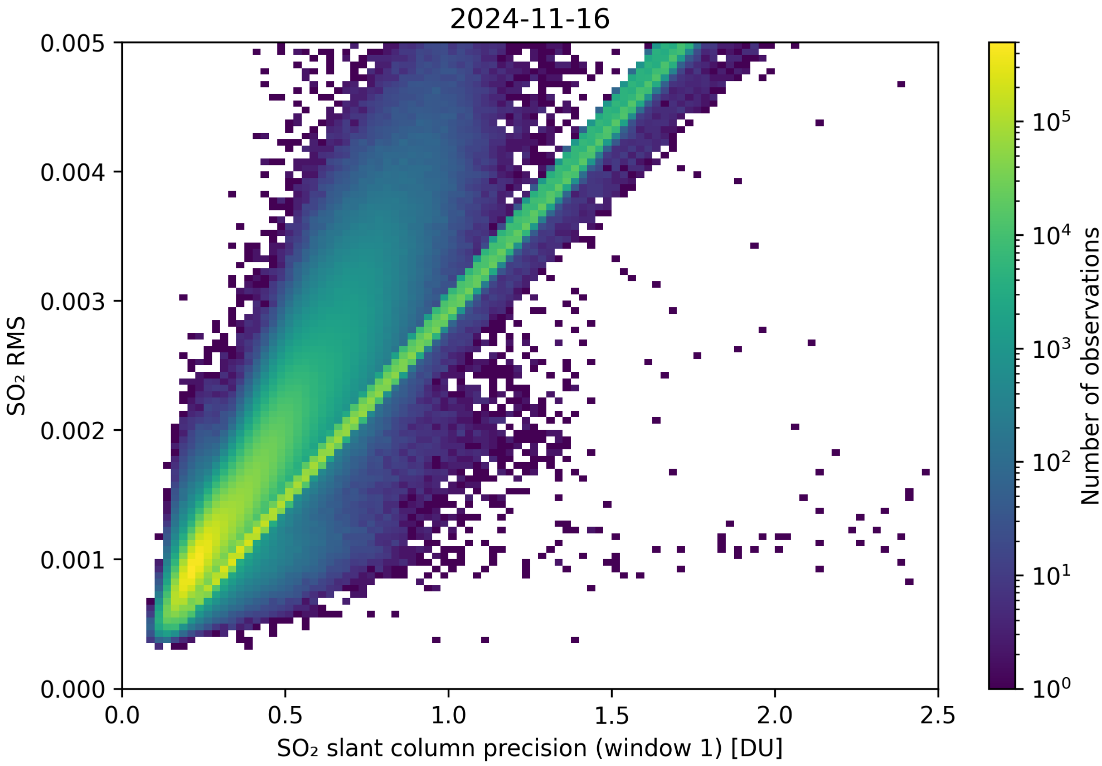


Figure 223: Scatter density plot of "SO_2 slant column precision (window 1)" against "SO_2 RMS" for 2024-11-15 to 2024-11-17.

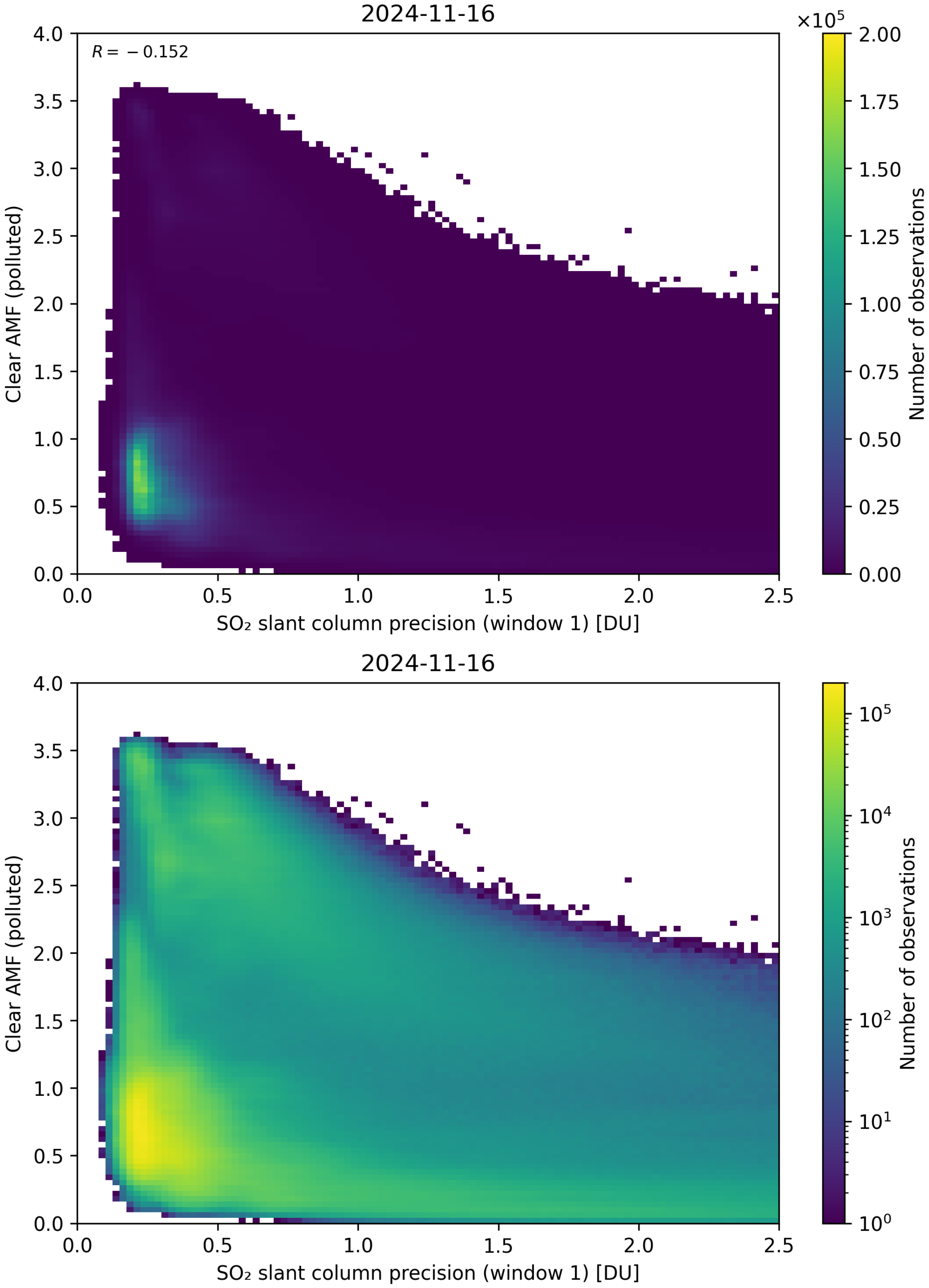


Figure 224: Scatter density plot of “SO_2 slant column precision (window 1)” against “Clear AMF (polluted)” for 2024-11-15 to 2024-11-17.

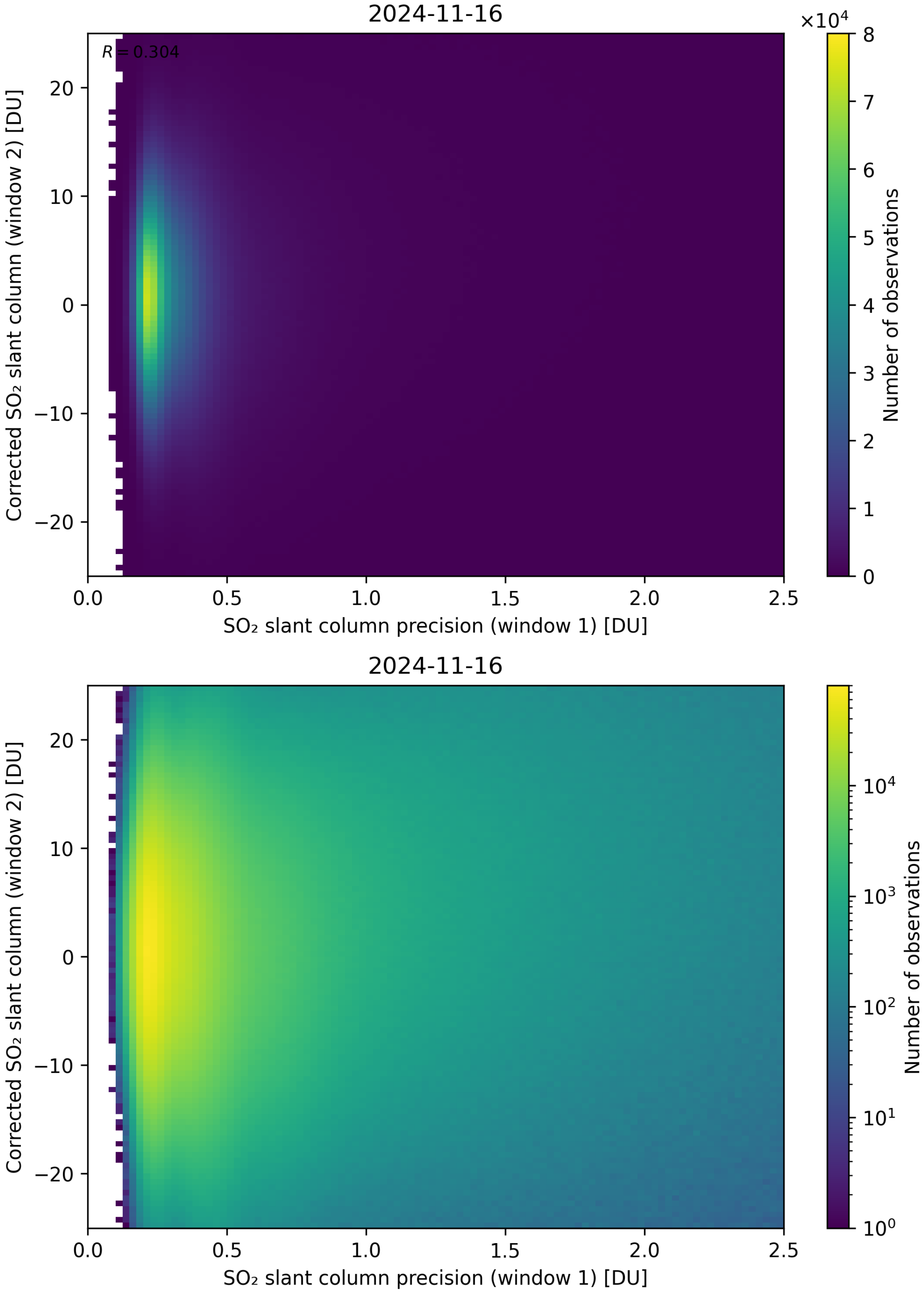
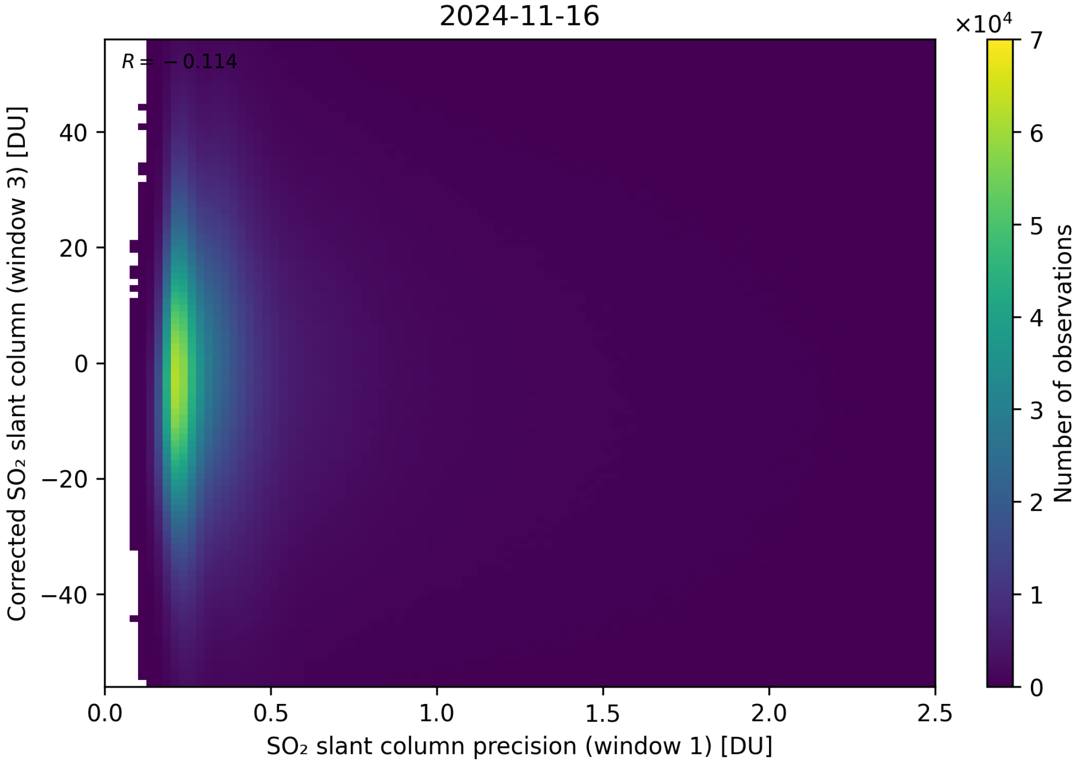


Figure 225: Scatter density plot of "SO_2 slant column precision (window 1)" against "Corrected SO_2 slant column (window 2)" for 2024-11-15 to 2024-11-17.



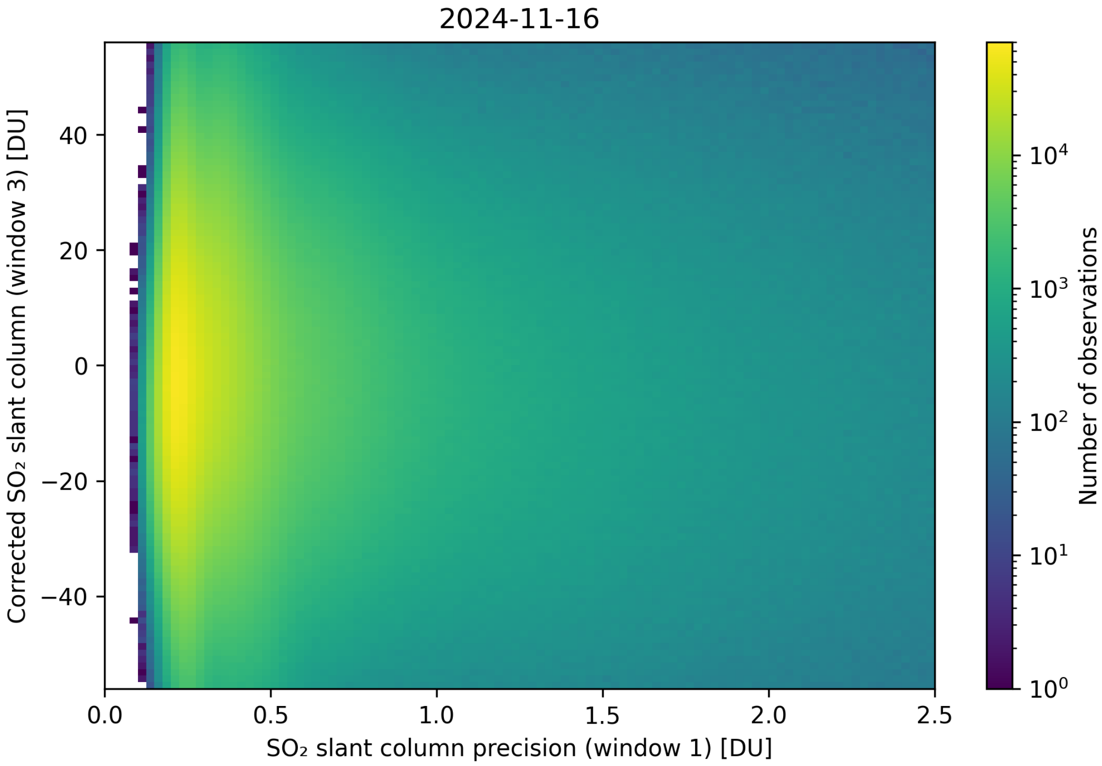


Figure 226: Scatter density plot of “SO_2 slant column precision (window 1)” against “Corrected SO_2 slant column (window 3)” for 2024-11-15 to 2024-11-17.

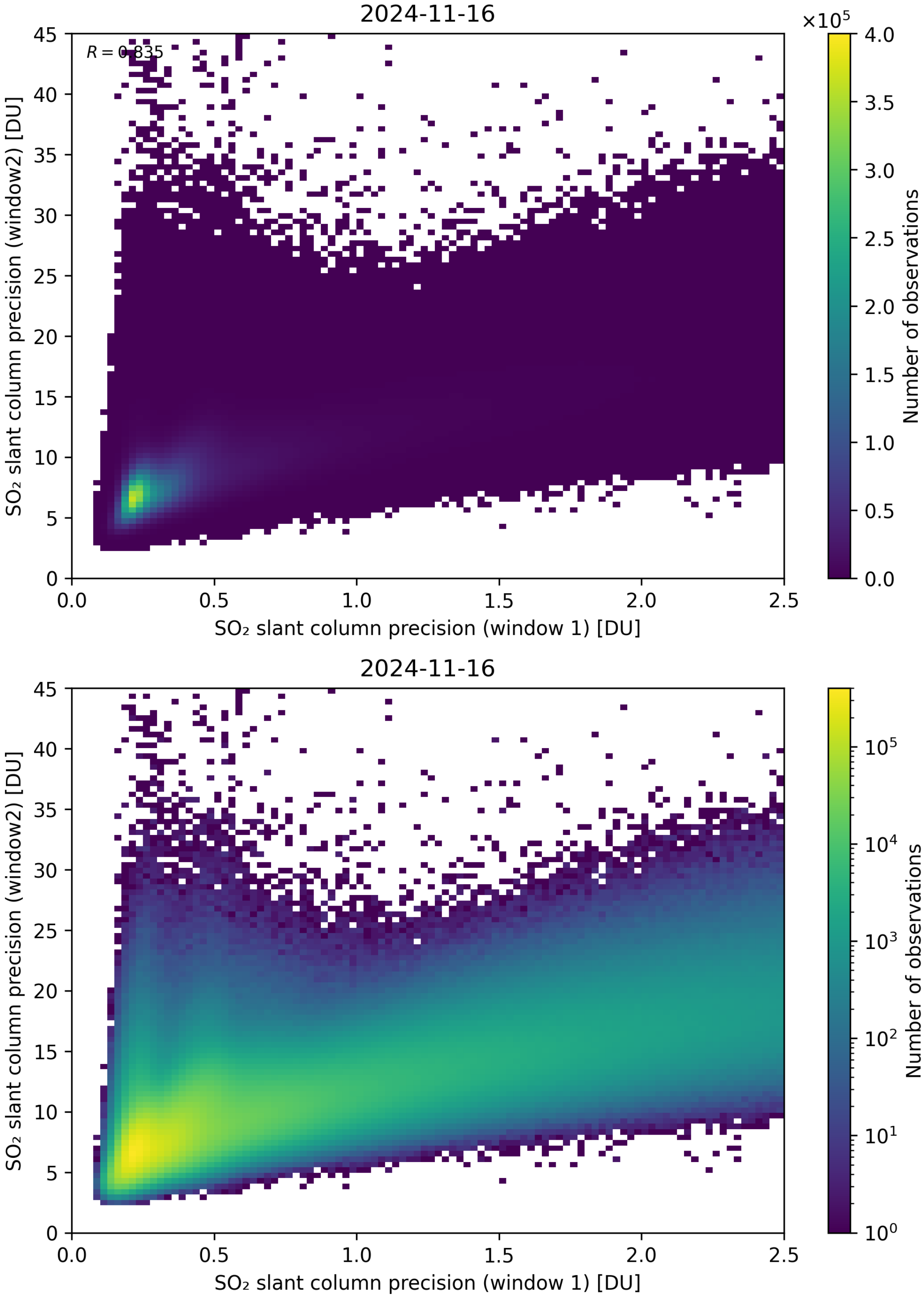
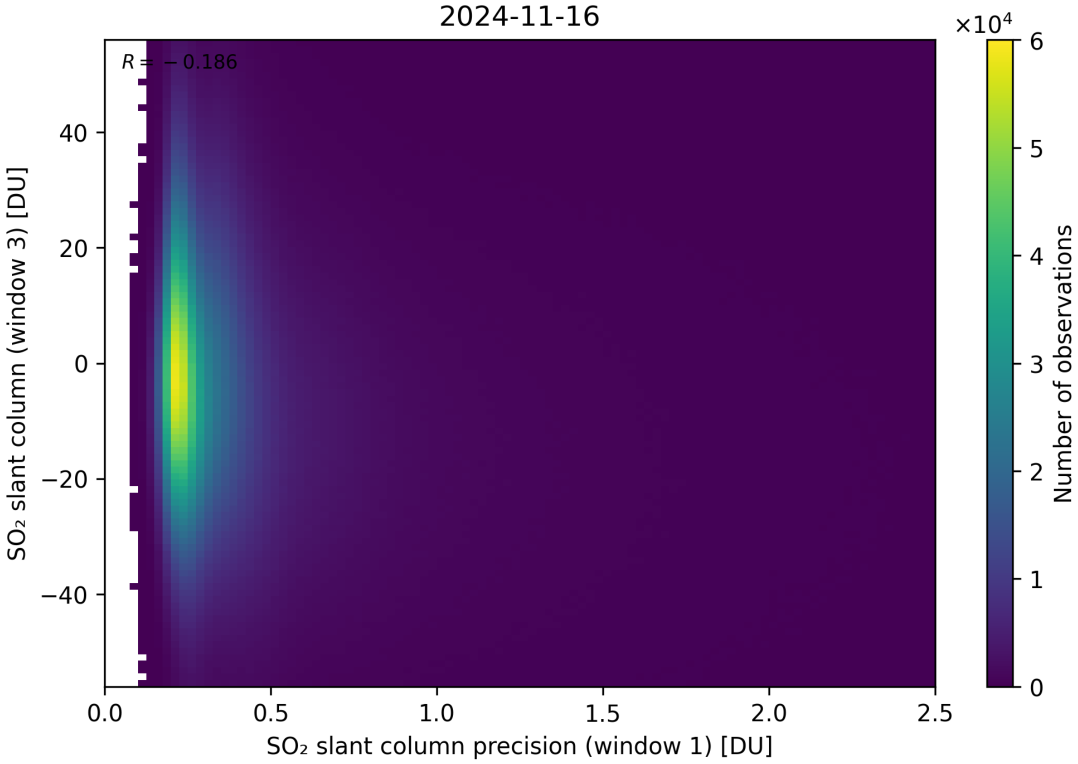


Figure 227: Scatter density plot of “SO_2 slant column precision (window 1)” against “SO_2 slant column precision (window2)” for 2024-11-15 to 2024-11-17.



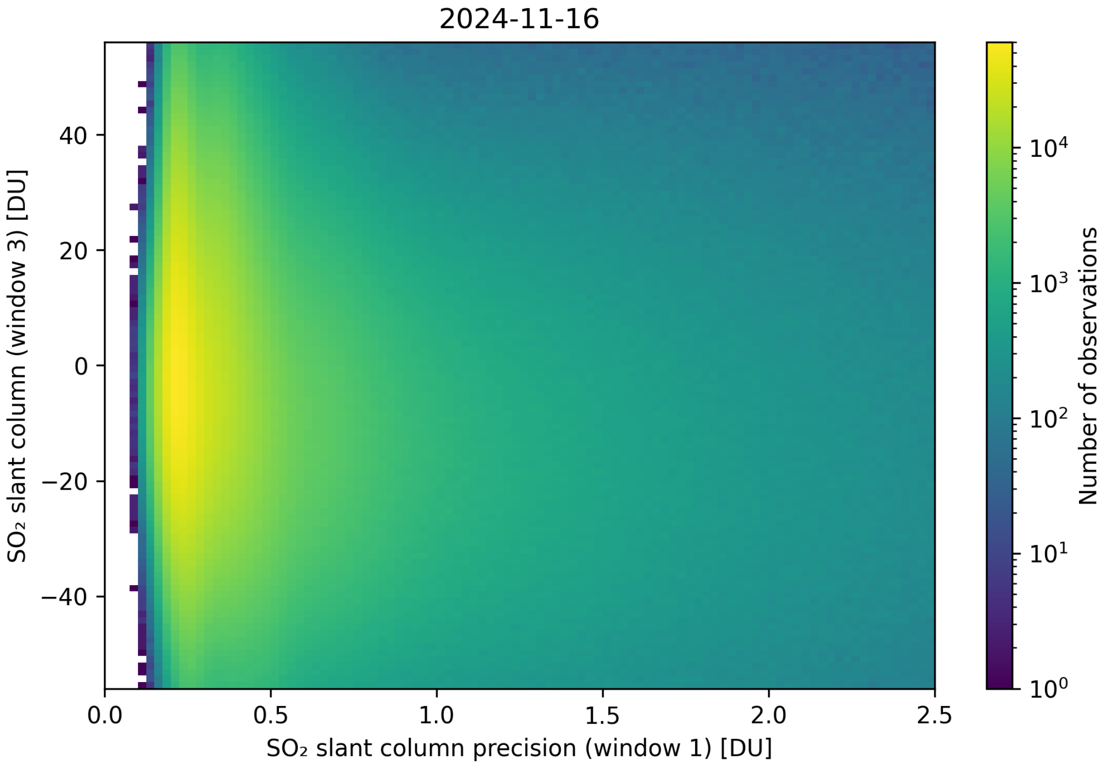


Figure 228: Scatter density plot of “SO_2 slant column precision (window 1)” against “SO_2 slant column (window 3)” for 2024-11-15 to 2024-11-17.

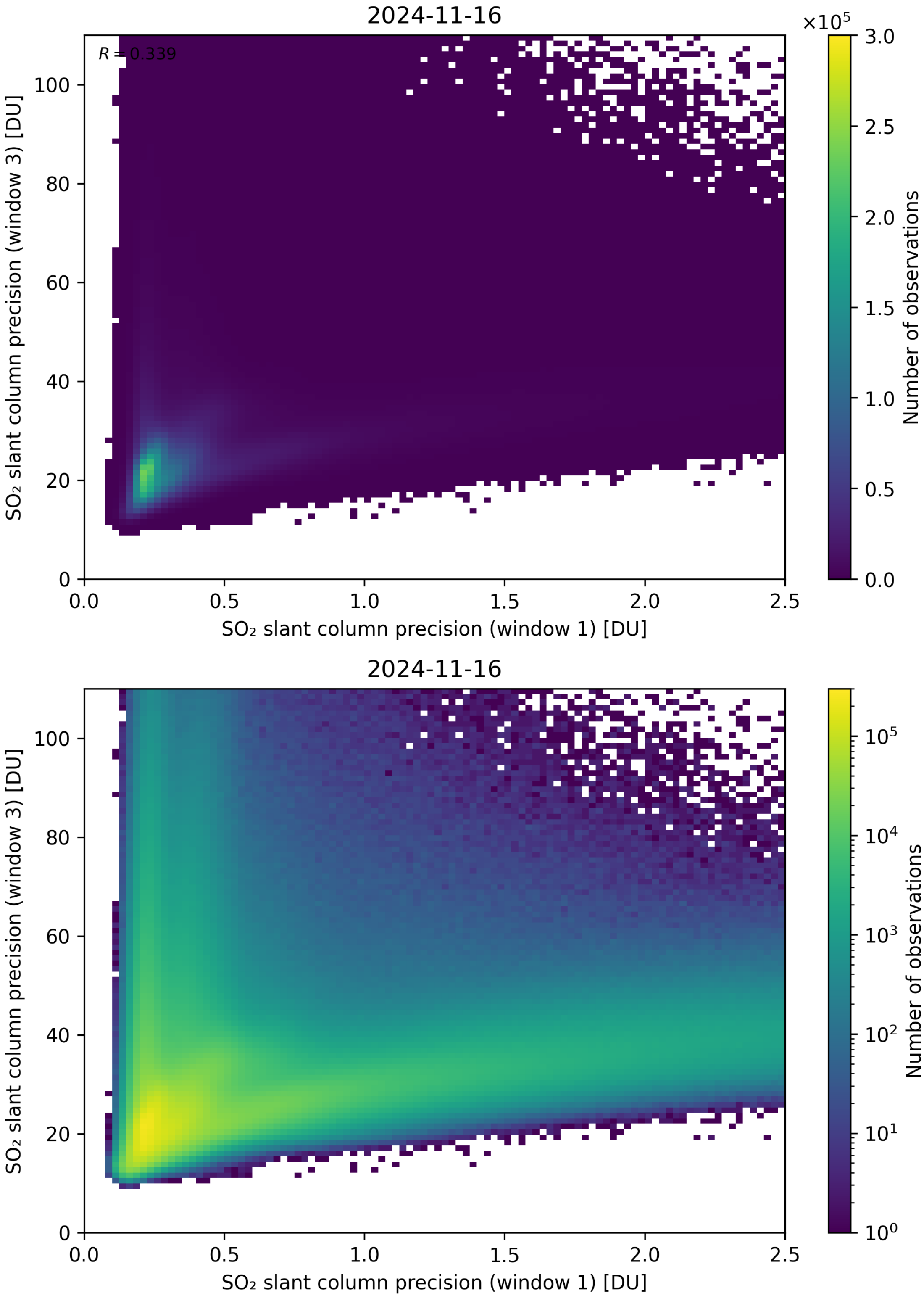


Figure 229: Scatter density plot of "SO_2 slant column precision (window 1)" against "SO_2 slant column precision (window 3)" for 2024-11-15 to 2024-11-17.

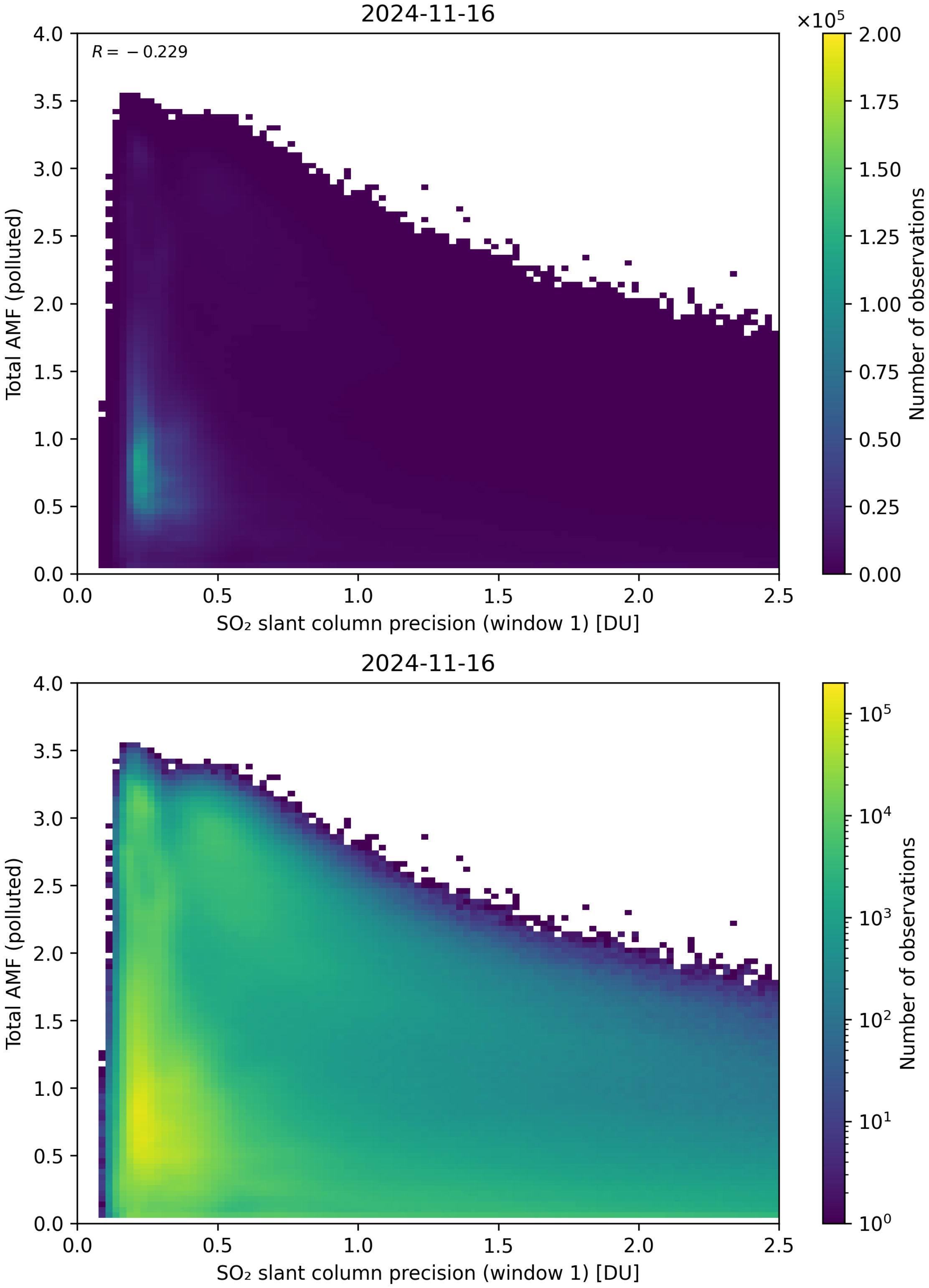


Figure 230: Scatter density plot of “SO_2 slant column precision (window 1)” against “Total AMF (polluted)” for 2024-11-15 to 2024-11-17.

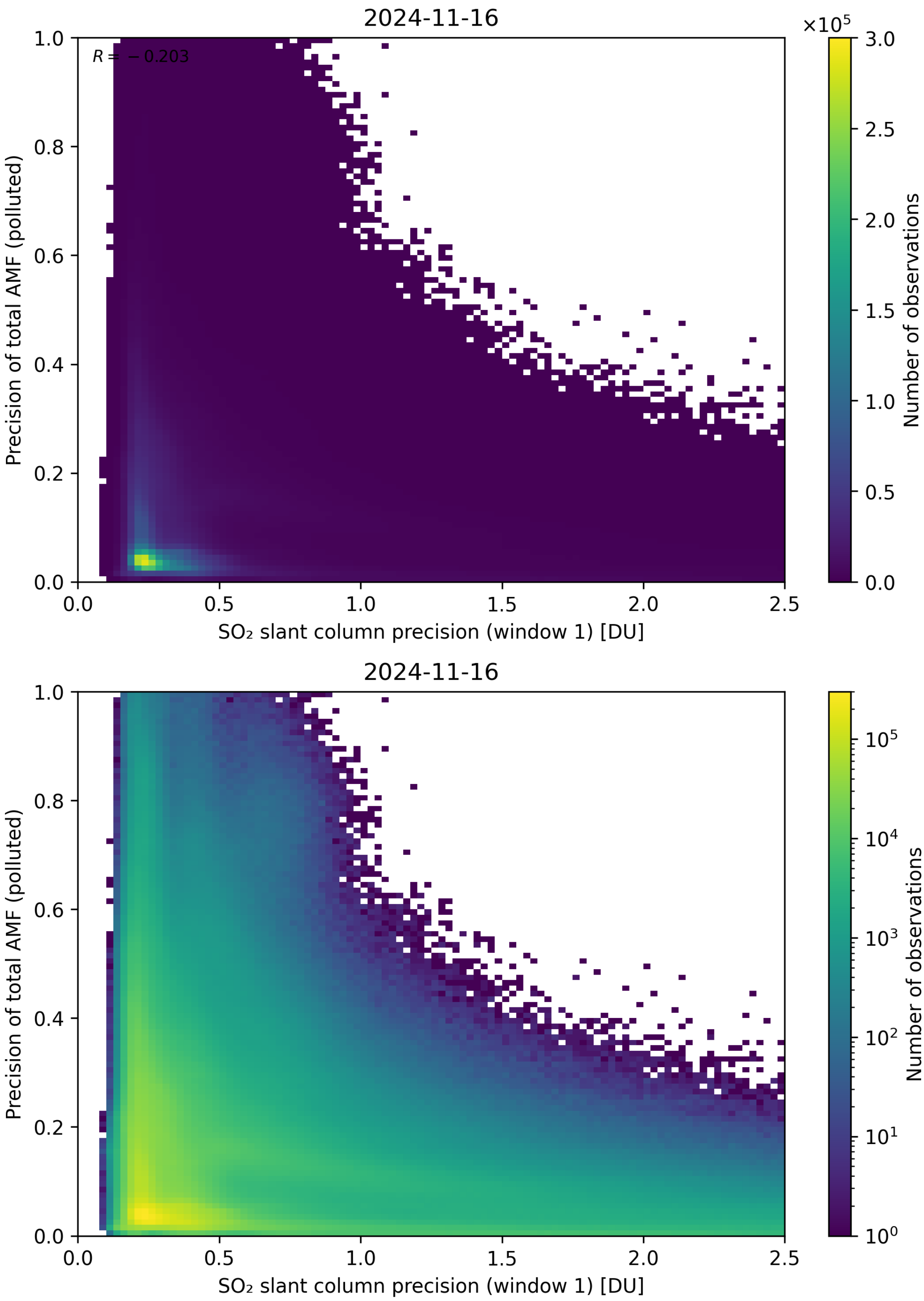


Figure 231: Scatter density plot of “SO_2 slant column precision (window 1)” against “Precision of total AMF (polluted)” for 2024-11-15 to 2024-11-17.

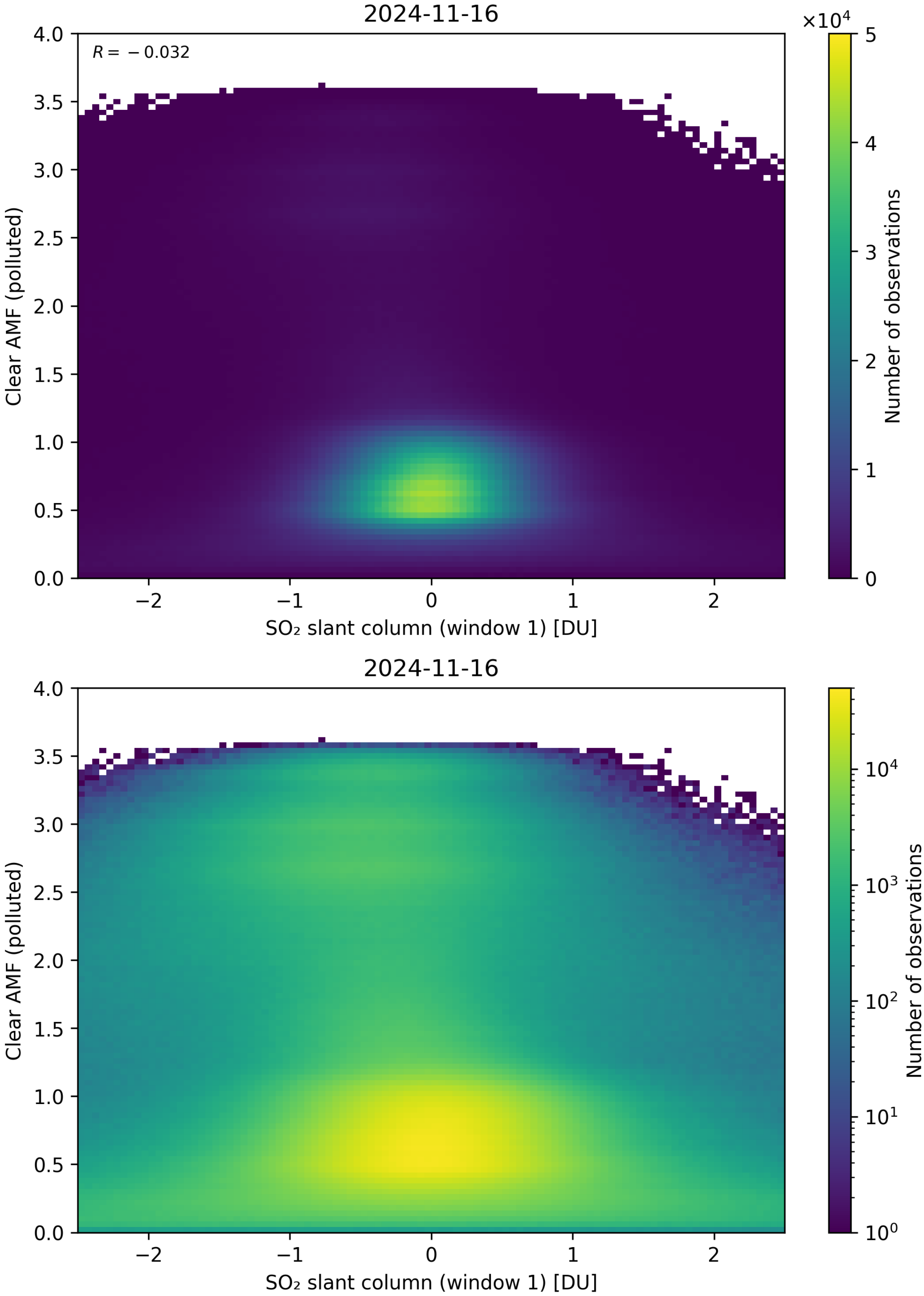


Figure 232: Scatter density plot of “SO_2 slant column (window 1)” against “Clear AMF (polluted)” for 2024-11-15 to 2024-11-17.

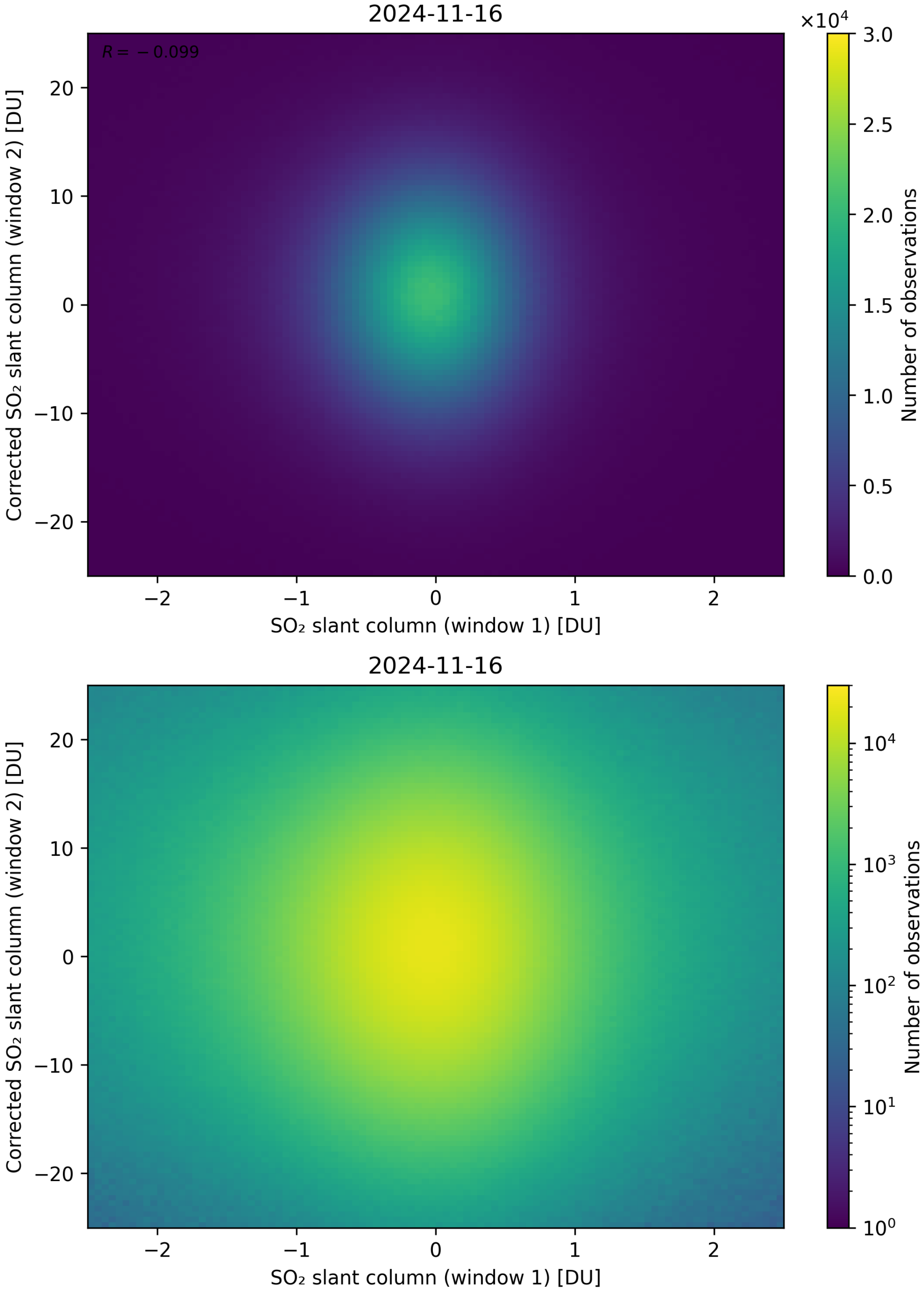


Figure 233: Scatter density plot of "SO_2 slant column (window 1)" against "Corrected SO_2 slant column (window 2)" for 2024-11-15 to 2024-11-17.

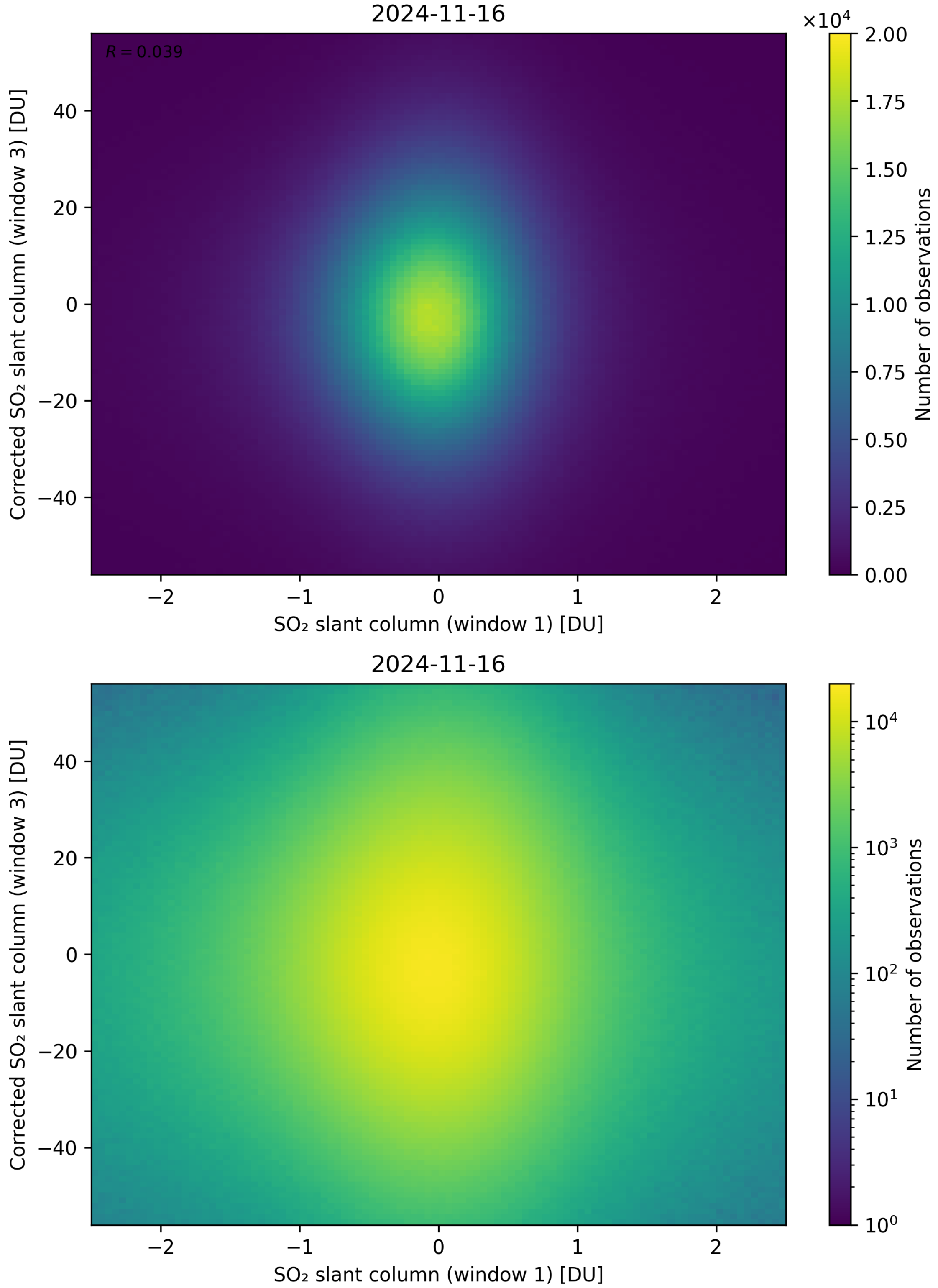


Figure 234: Scatter density plot of "SO_2 slant column (window 1)" against "Corrected SO_2 slant column (window 3)" for 2024-11-15 to 2024-11-17.

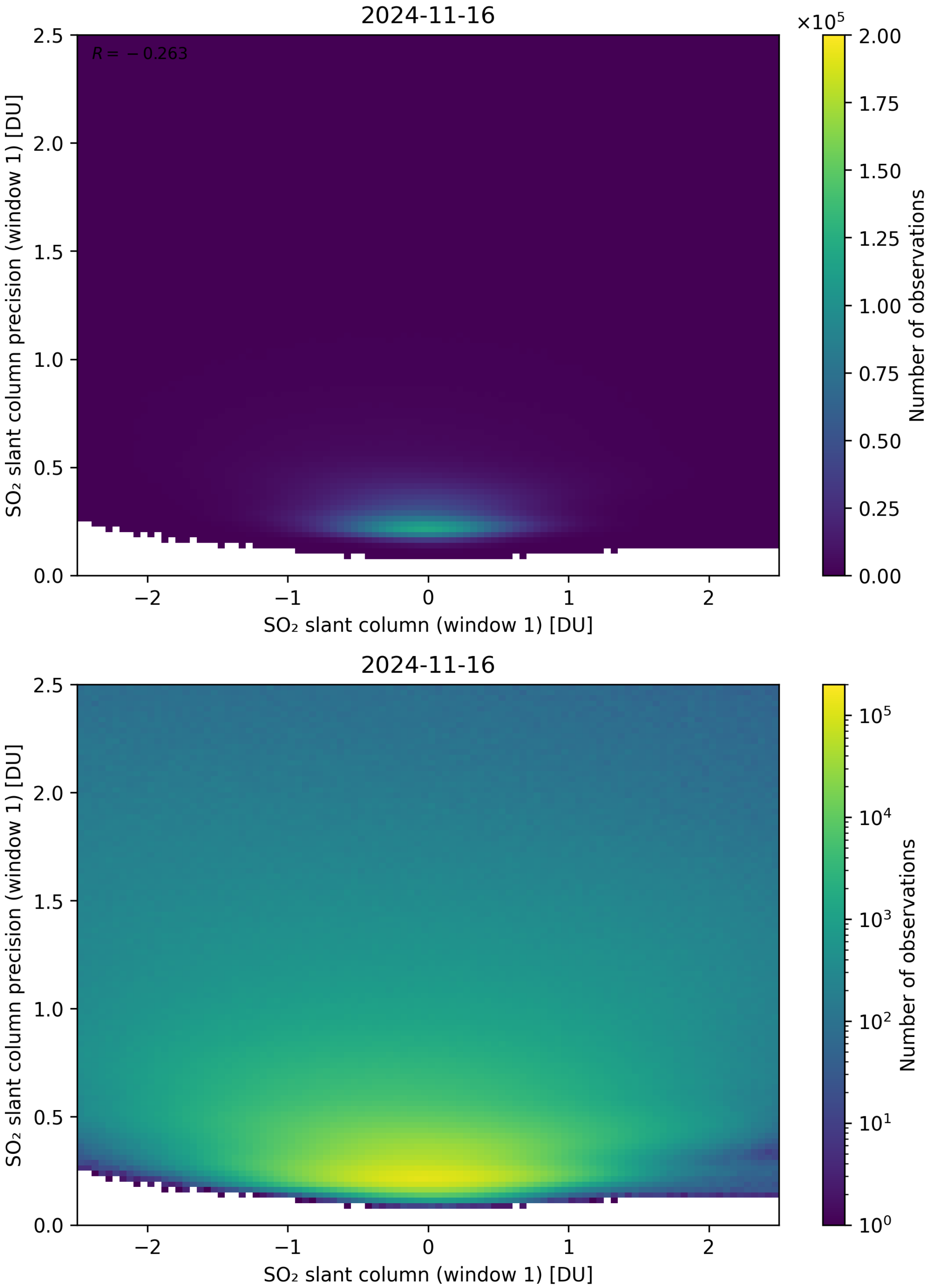


Figure 235: Scatter density plot of "SO_2 slant column (window 1)" against "SO_2 slant column precision (window 1)" for 2024-11-15 to 2024-11-17.

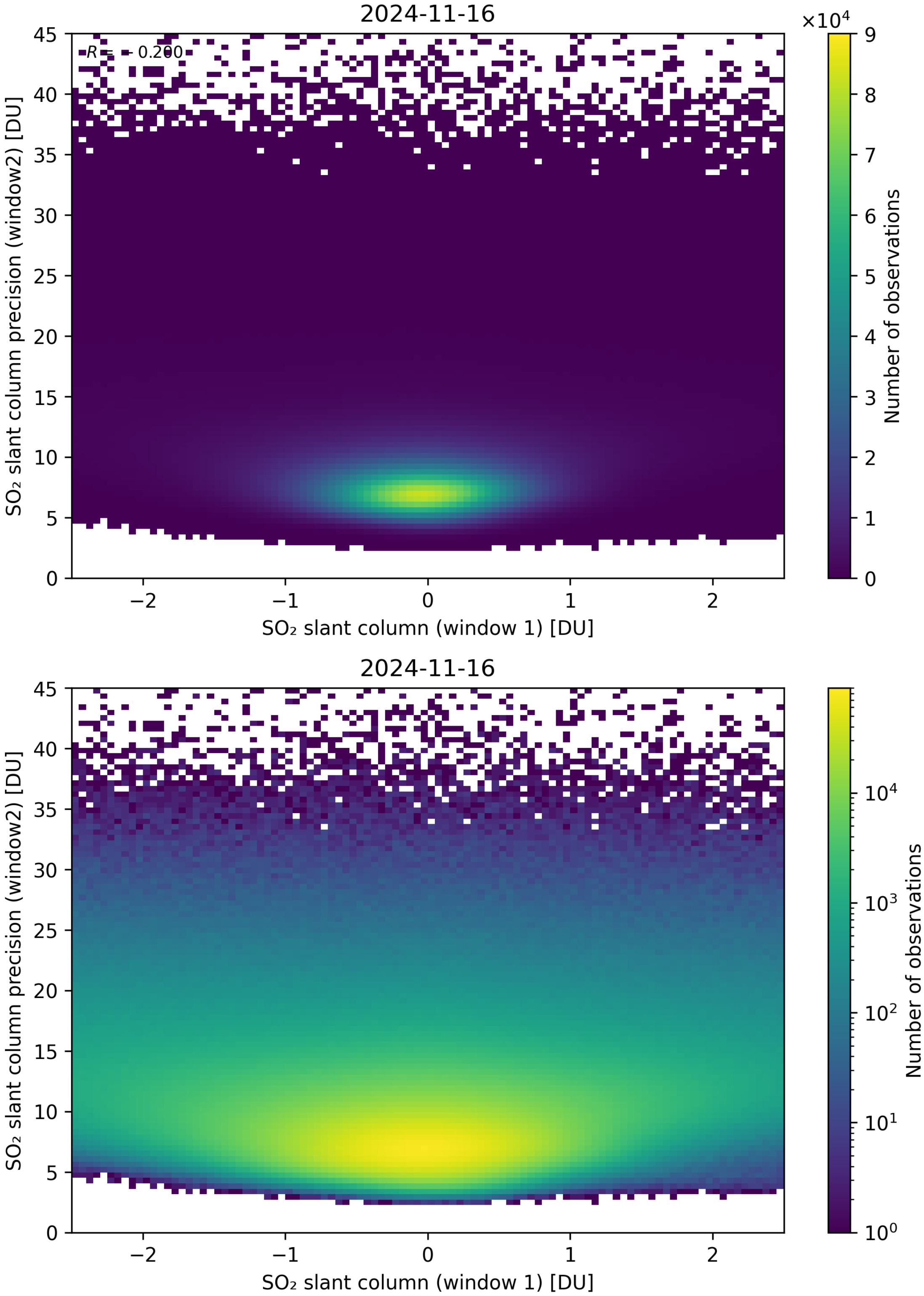


Figure 236: Scatter density plot of "SO_2 slant column (window 1)" against "SO_2 slant column precision (window2)" for 2024-11-15 to 2024-11-17.

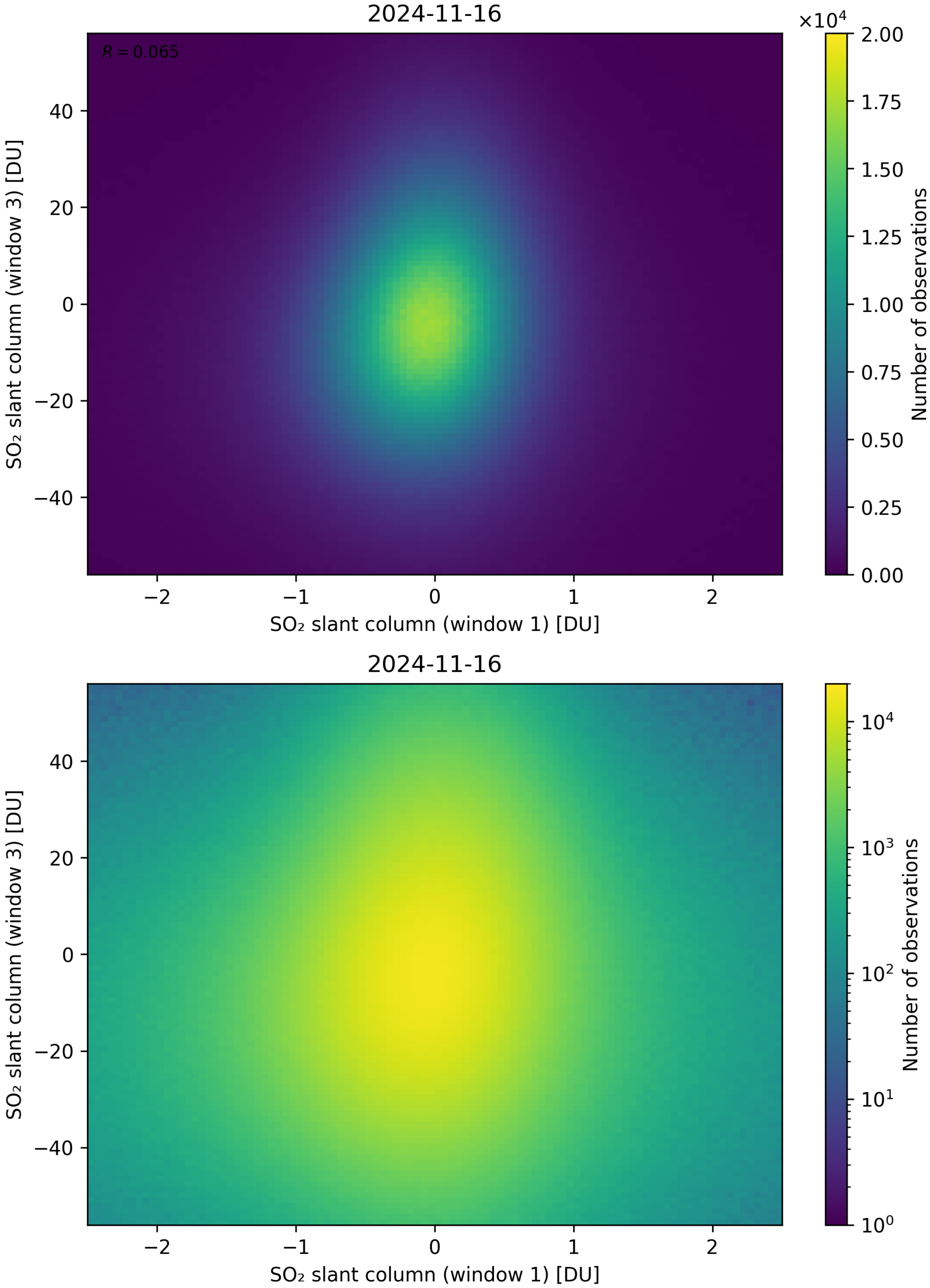


Figure 237: Scatter density plot of “SO_2 slant column (window 1)” against “SO_2 slant column (window 3)” for 2024-11-15 to 2024-11-17.

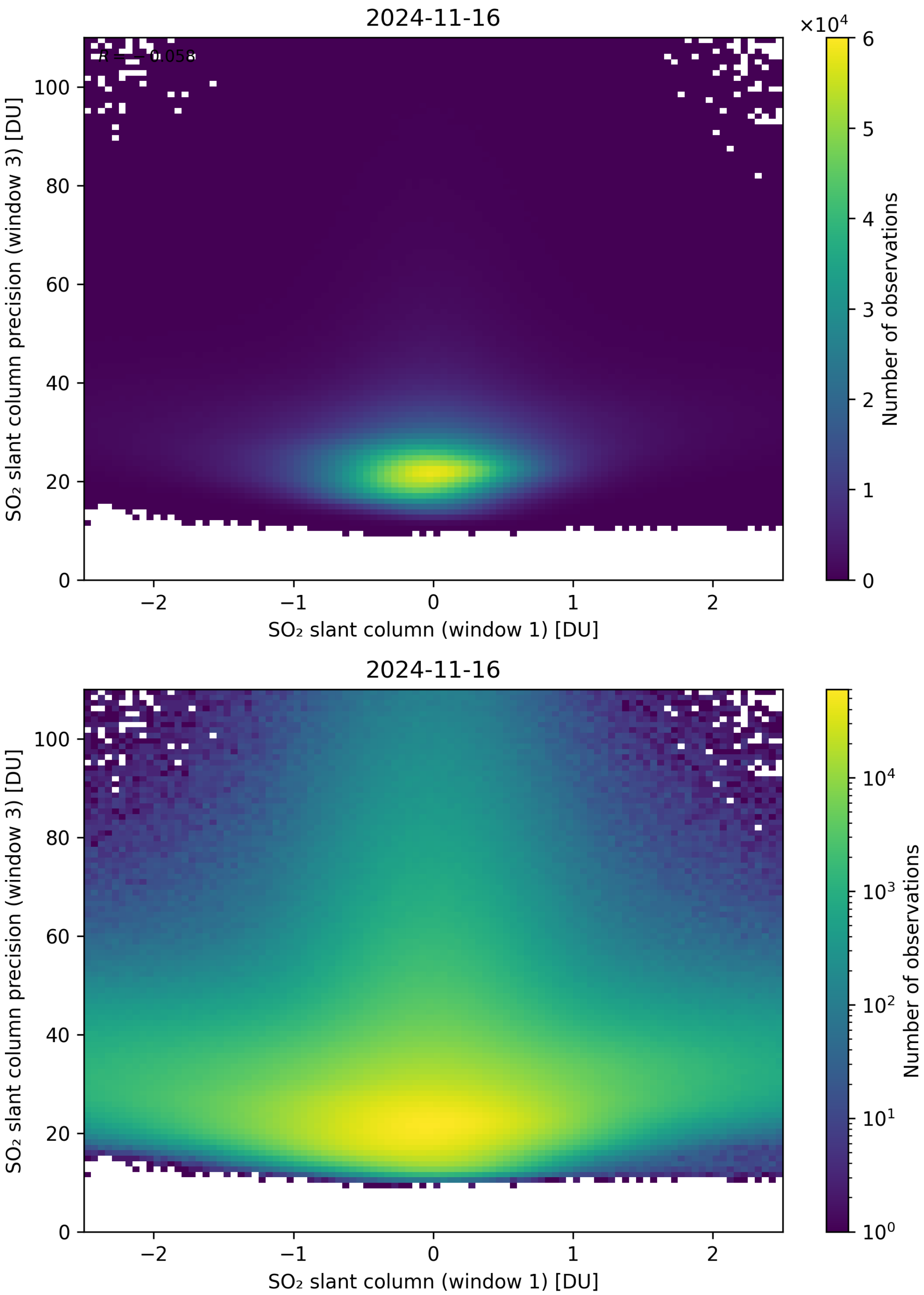


Figure 238: Scatter density plot of “SO_2 slant column (window 1)” against “SO_2 slant column precision (window 3)” for 2024-11-15 to 2024-11-17.

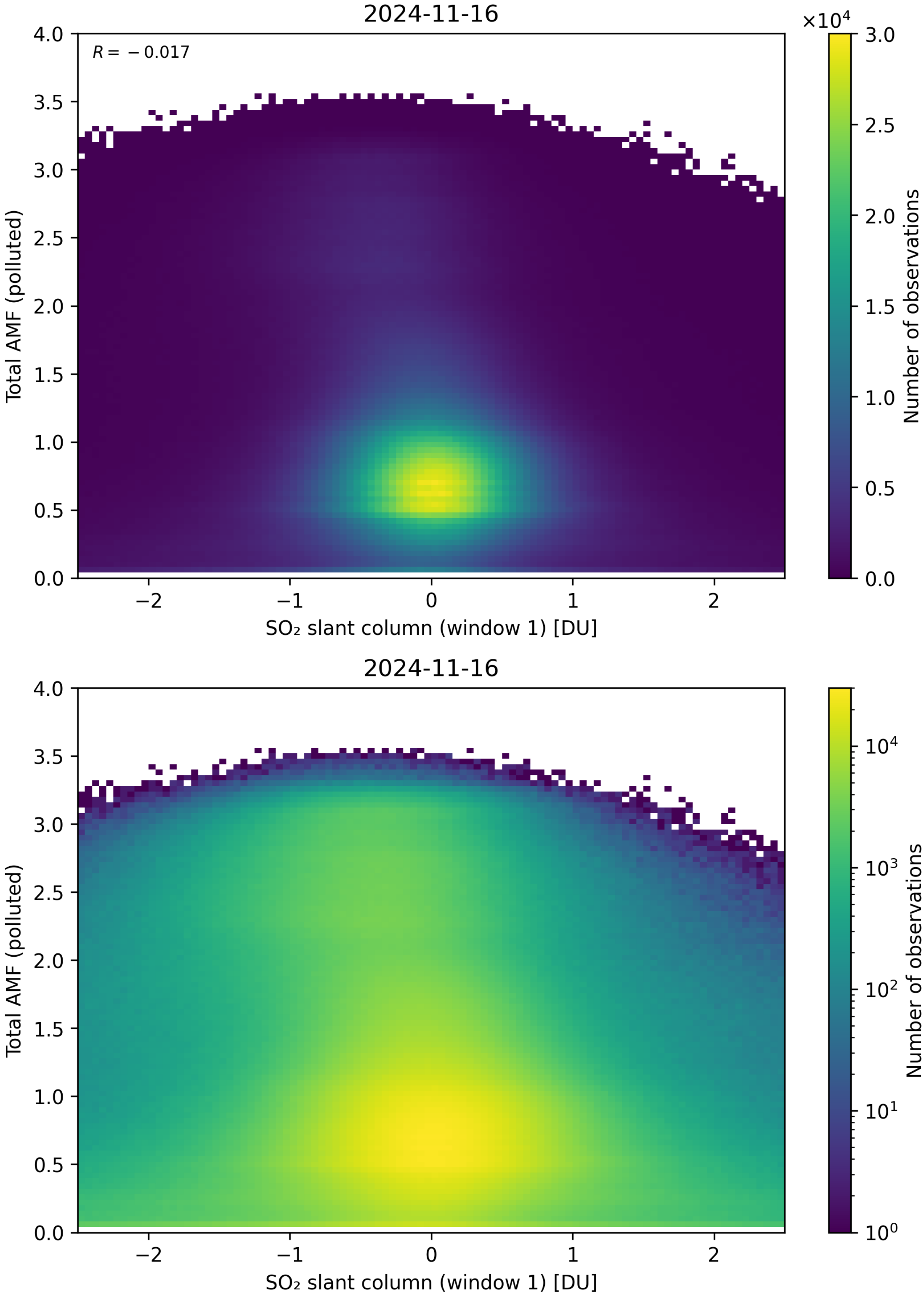


Figure 239: Scatter density plot of “SO_2 slant column (window 1)” against “Total AMF (polluted)” for 2024-11-15 to 2024-11-17.

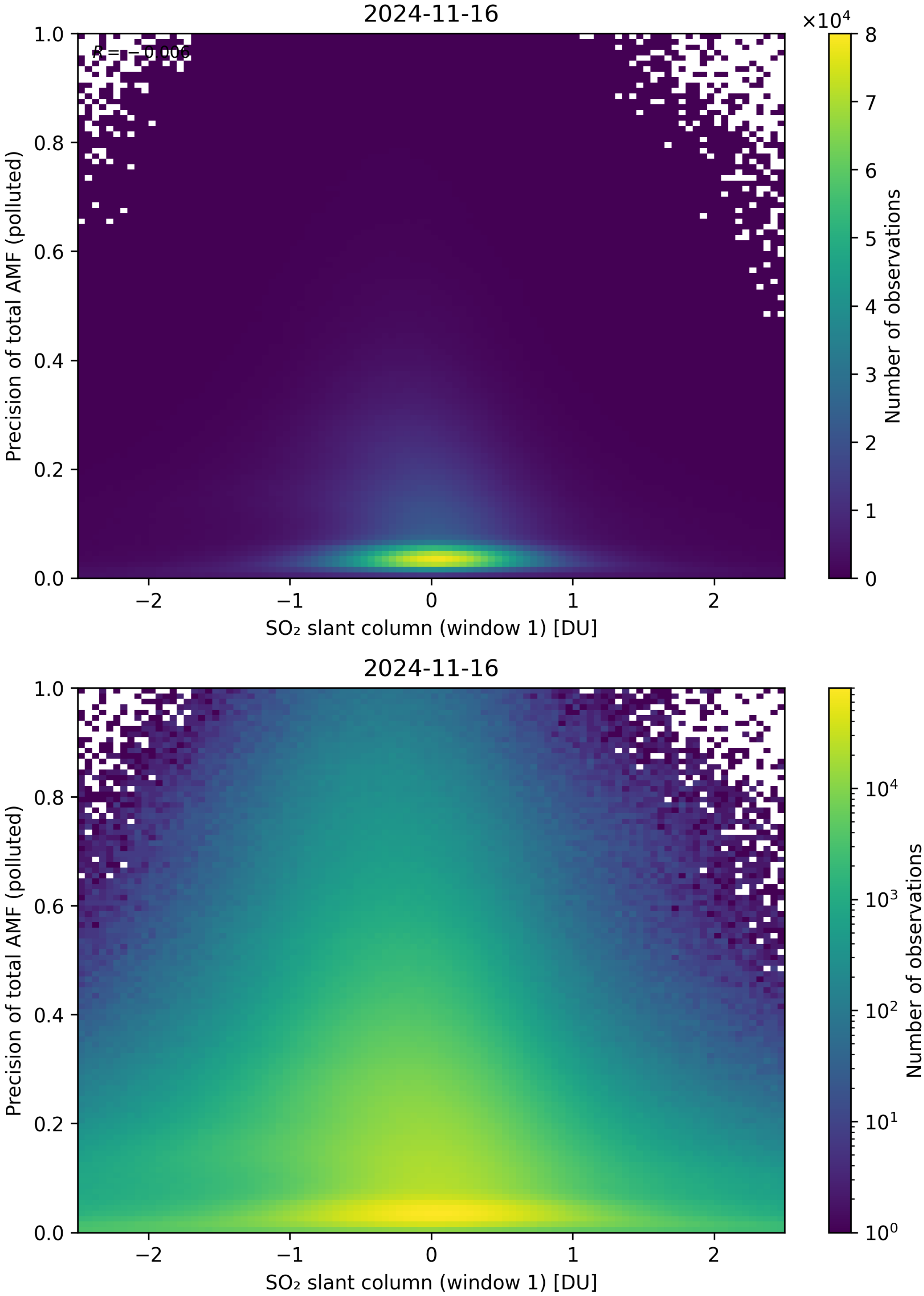


Figure 240: Scatter density plot of “SO_2 slant column (window 1)” against “Precision of total AMF (polluted)” for 2024-11-15 to 2024-11-17.

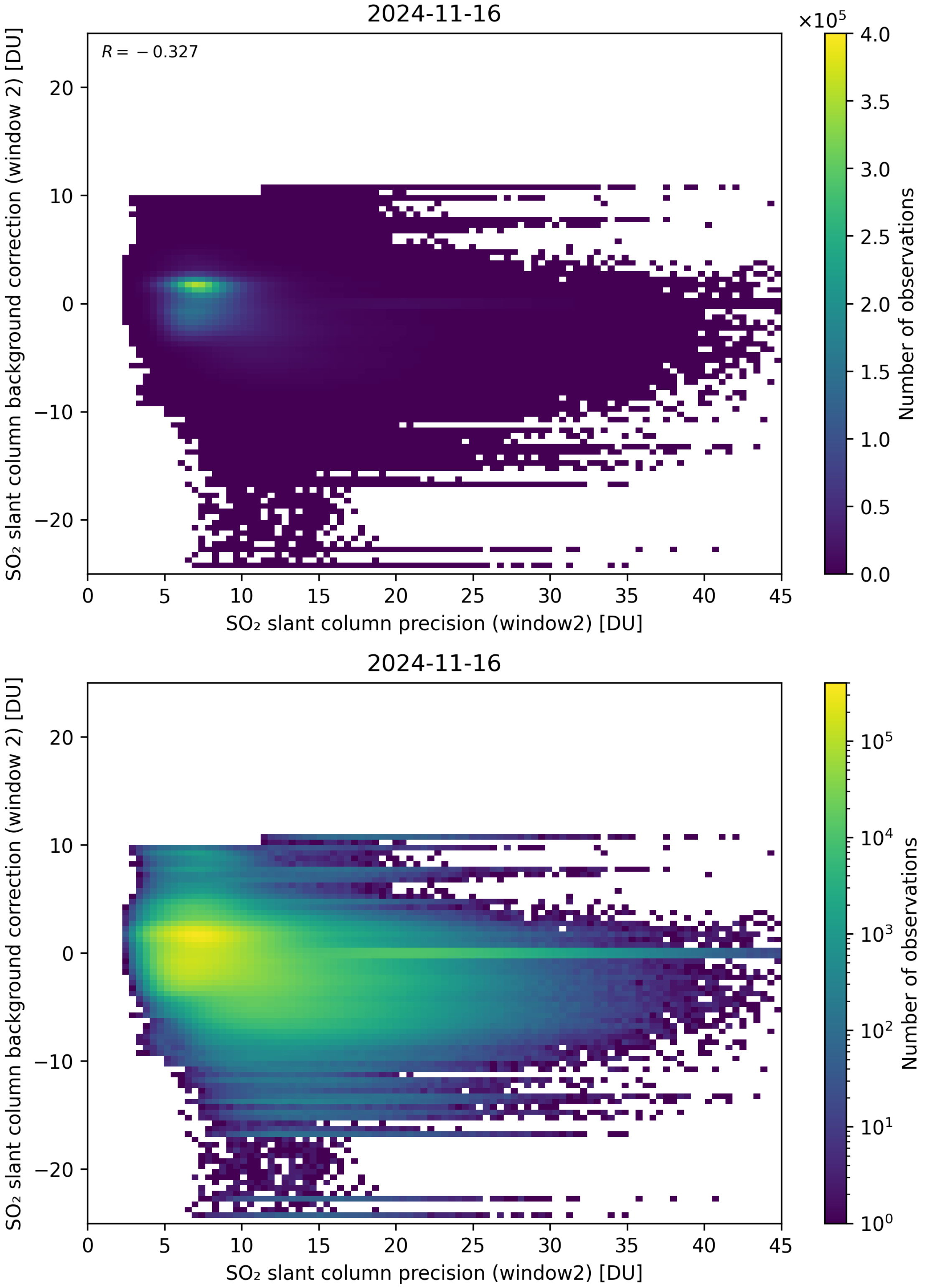


Figure 241: Scatter density plot of “SO_2 slant column precision (window2)” against “SO_2 slant column background correction (window 2)” for 2024-11-15 to 2024-11-17.

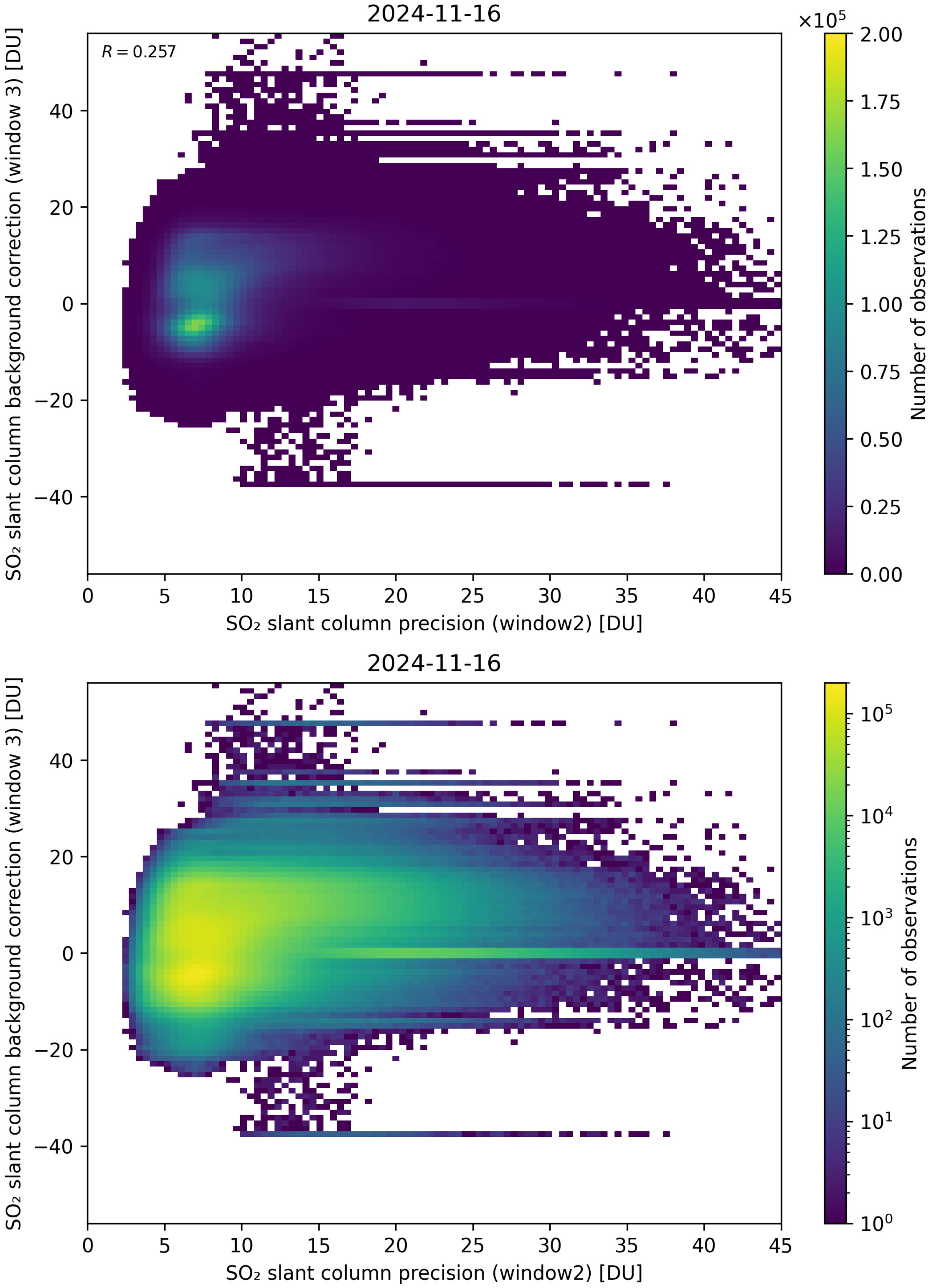


Figure 242: Scatter density plot of “SO_2 slant column precision (window2)” against “SO_2 slant column background correction (window 3)” for 2024-11-15 to 2024-11-17.

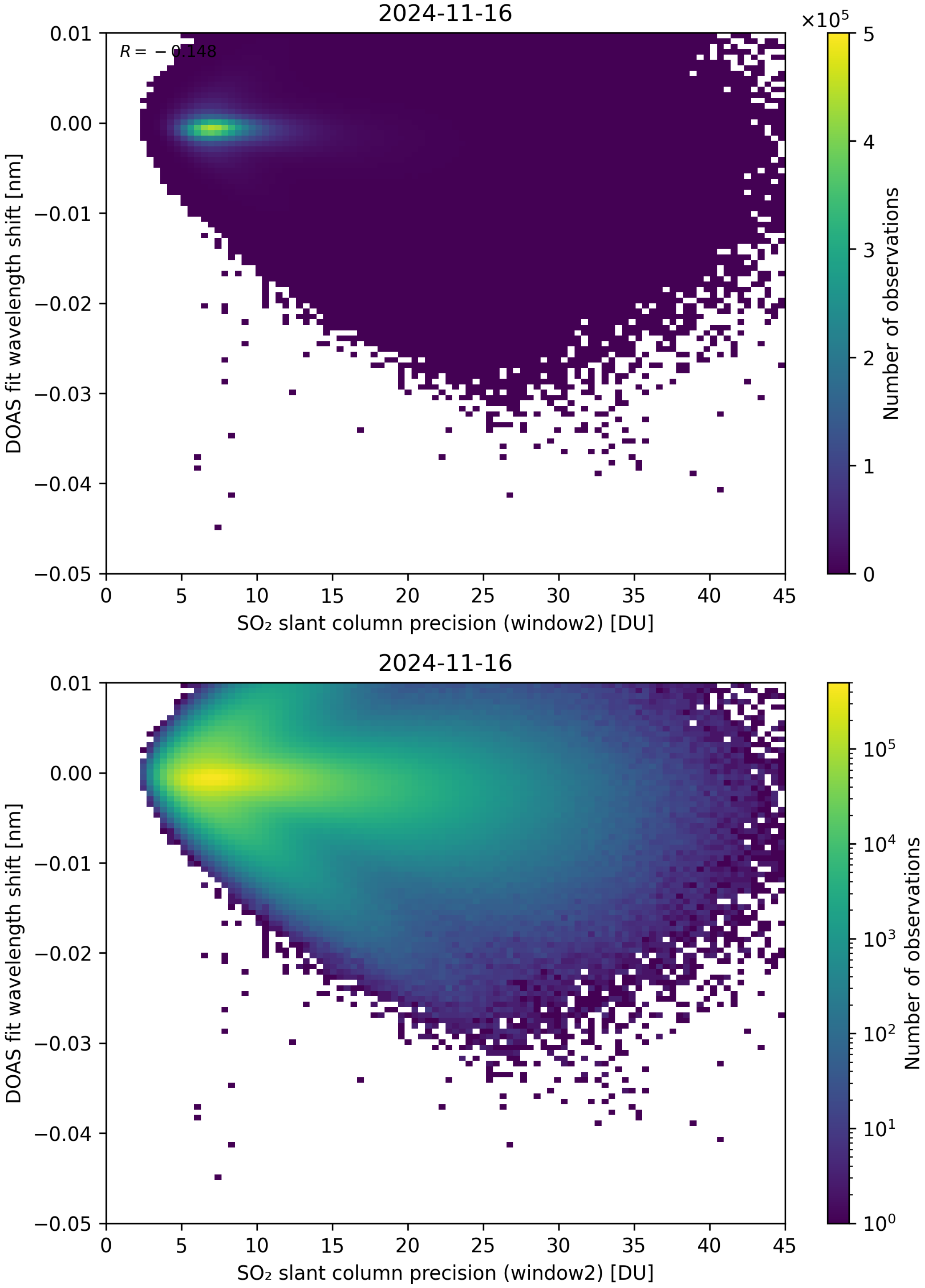


Figure 243: Scatter density plot of "SO_2 slant column precision (window2)" against "DOAS fit wavelength shift" for 2024-11-15 to 2024-11-17.

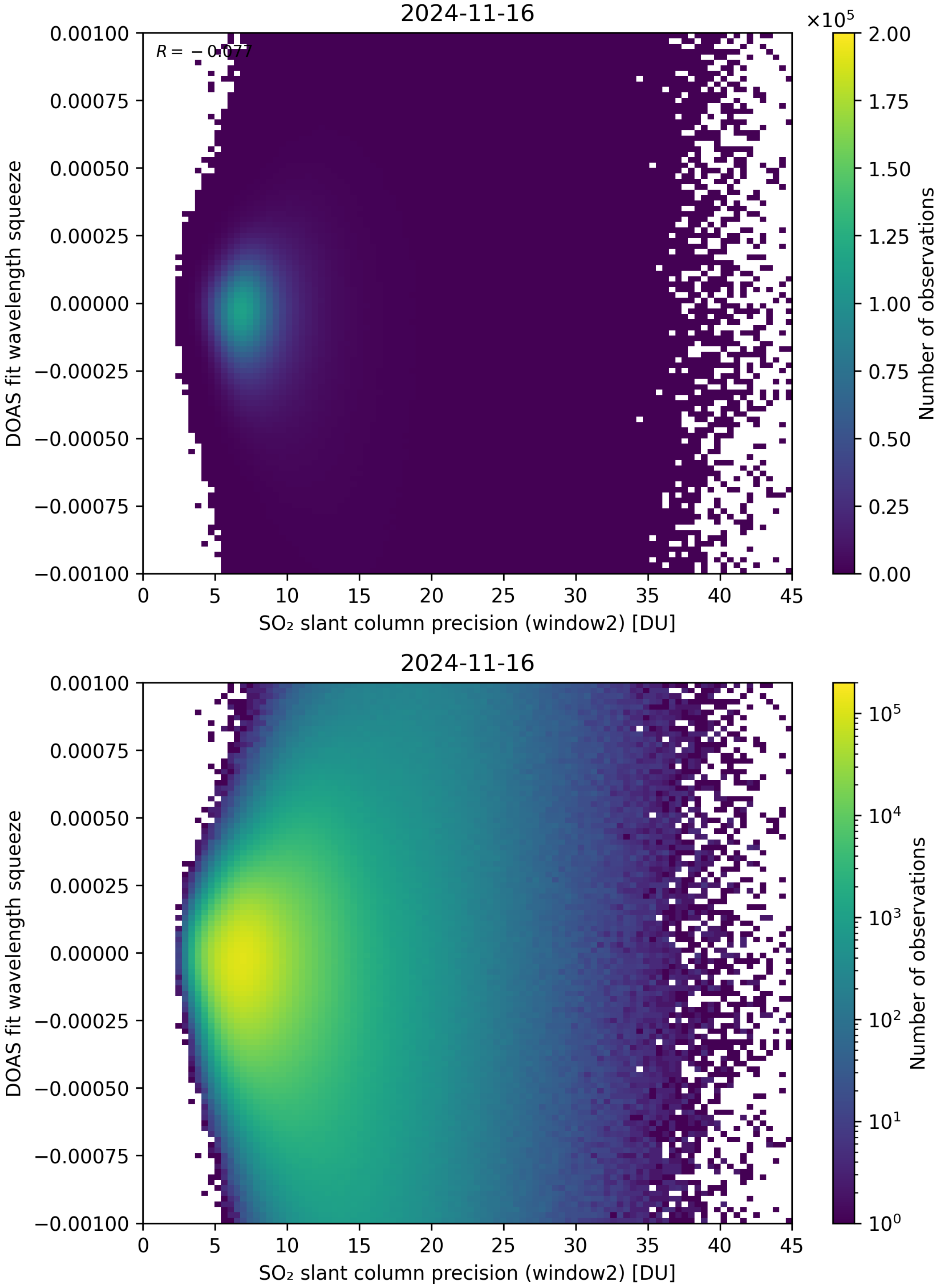


Figure 244: Scatter density plot of “SO_2 slant column precision (window2)” against “DOAS fit wavelength squeeze” for 2024-11-15 to 2024-11-17.

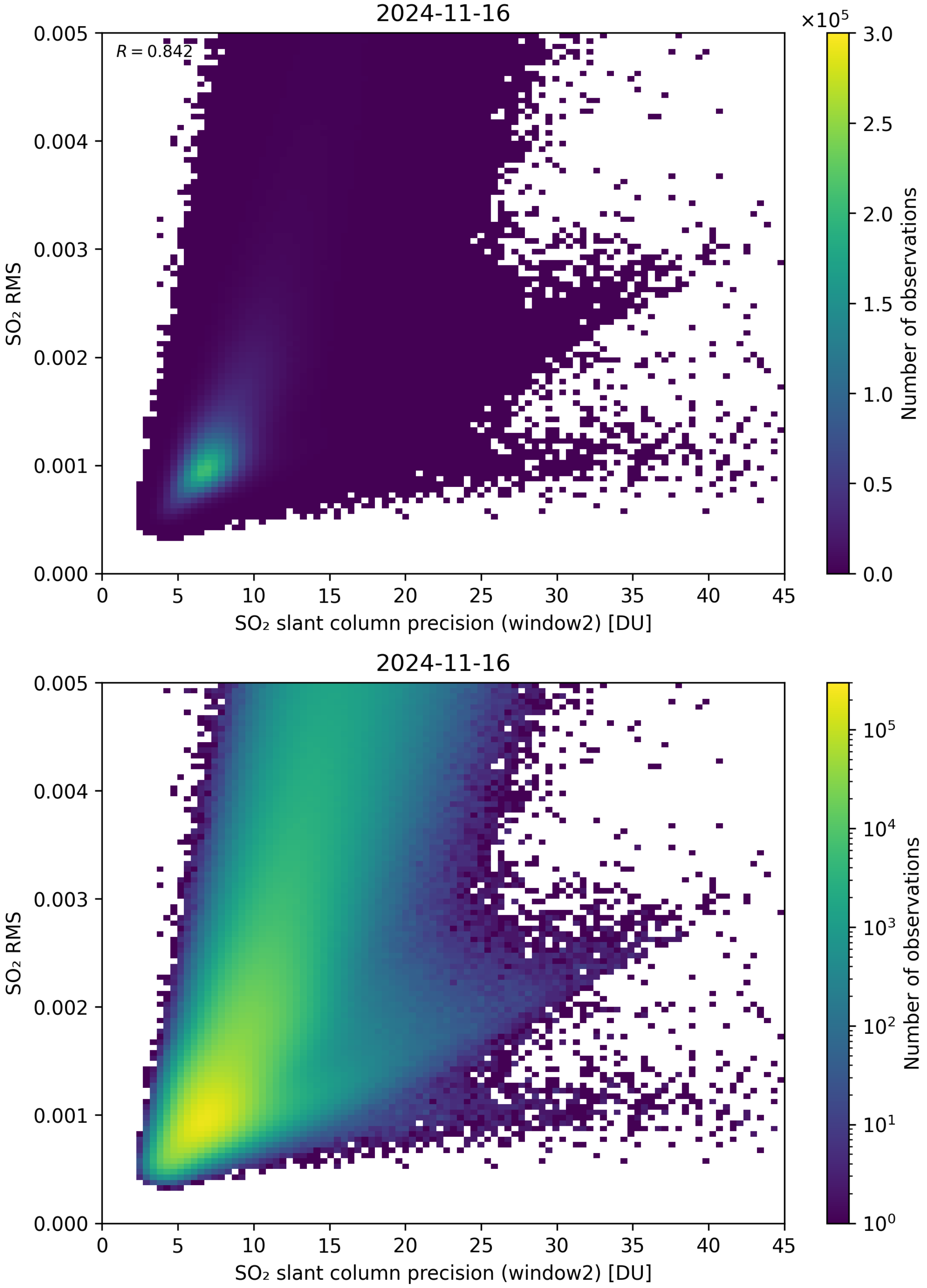
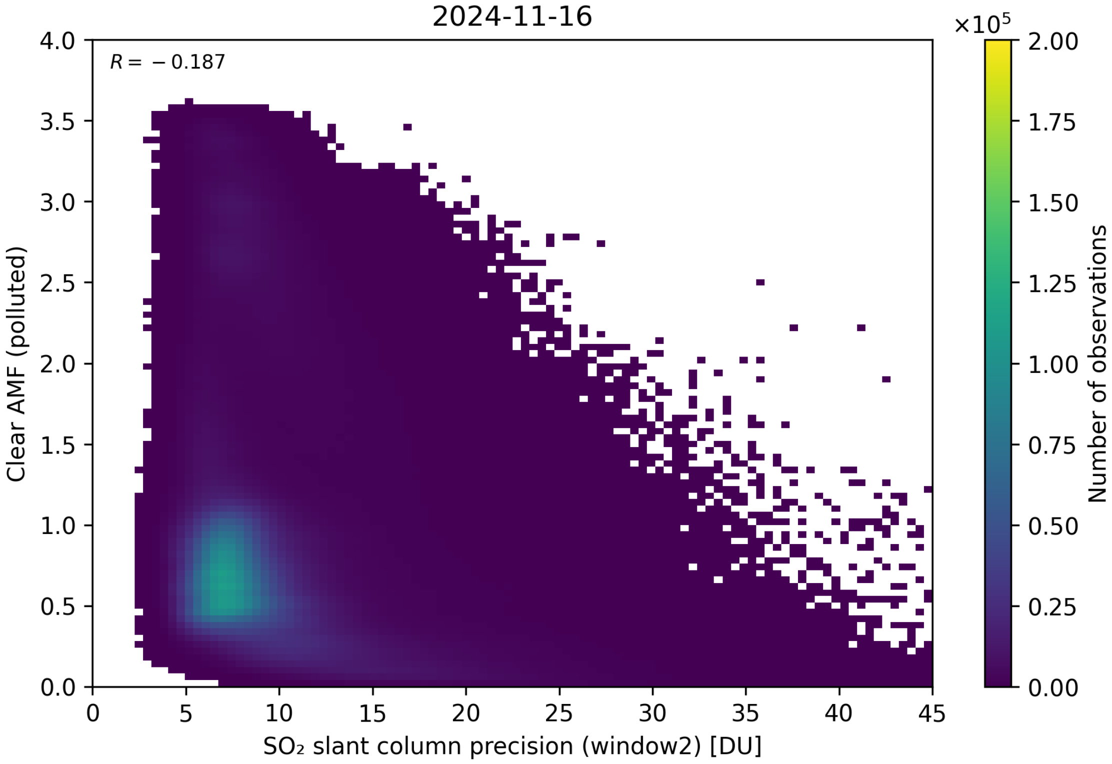


Figure 245: Scatter density plot of “SO_2 slant column precision (window2)” against “SO_2 RMS” for 2024-11-15 to 2024-11-17.



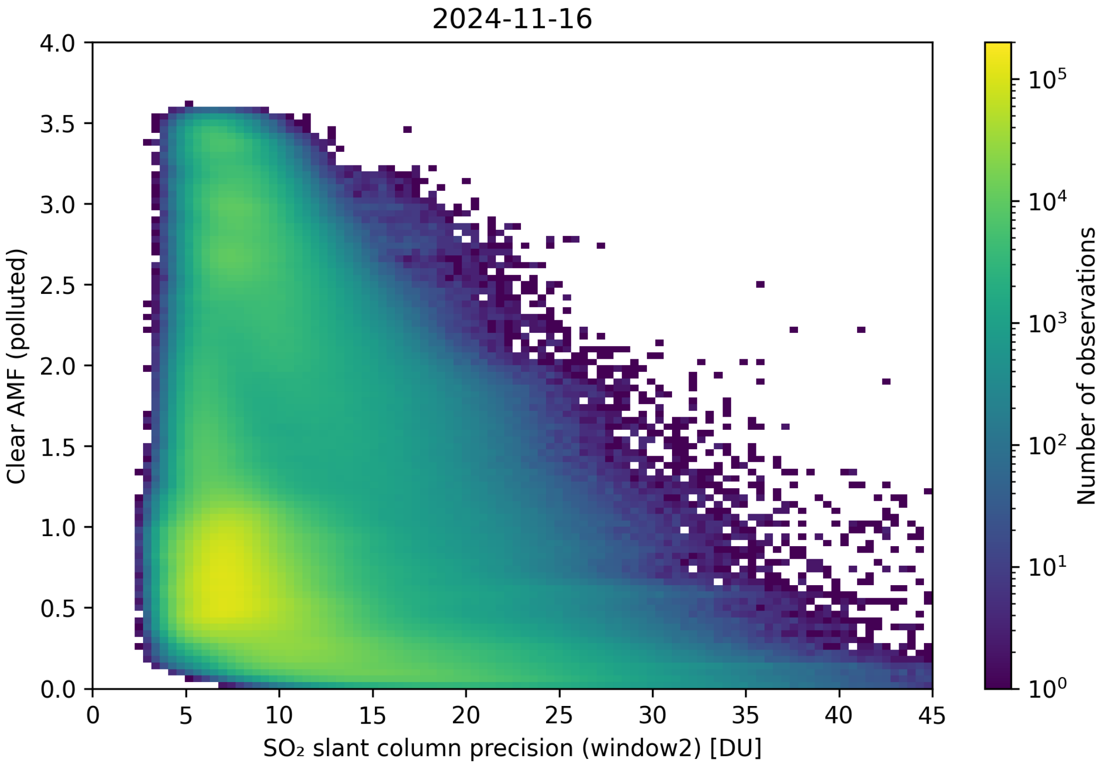


Figure 246: Scatter density plot of "SO_2 slant column precision (window2)" against "Clear AMF (polluted)" for 2024-11-15 to 2024-11-17.

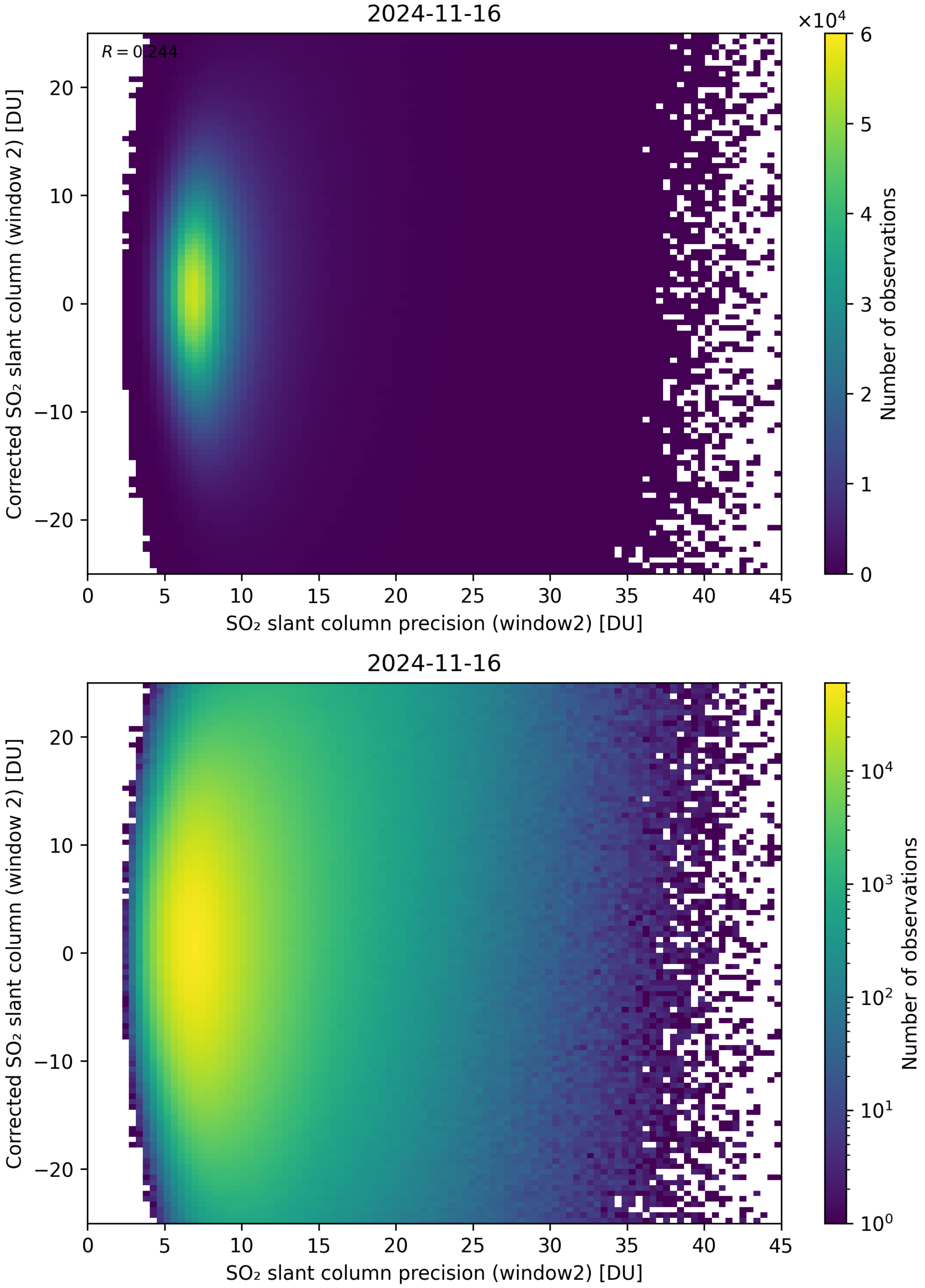


Figure 247: Scatter density plot of “SO_2 slant column precision (window2)” against “Corrected SO_2 slant column (window 2)” for 2024-11-15 to 2024-11-17.

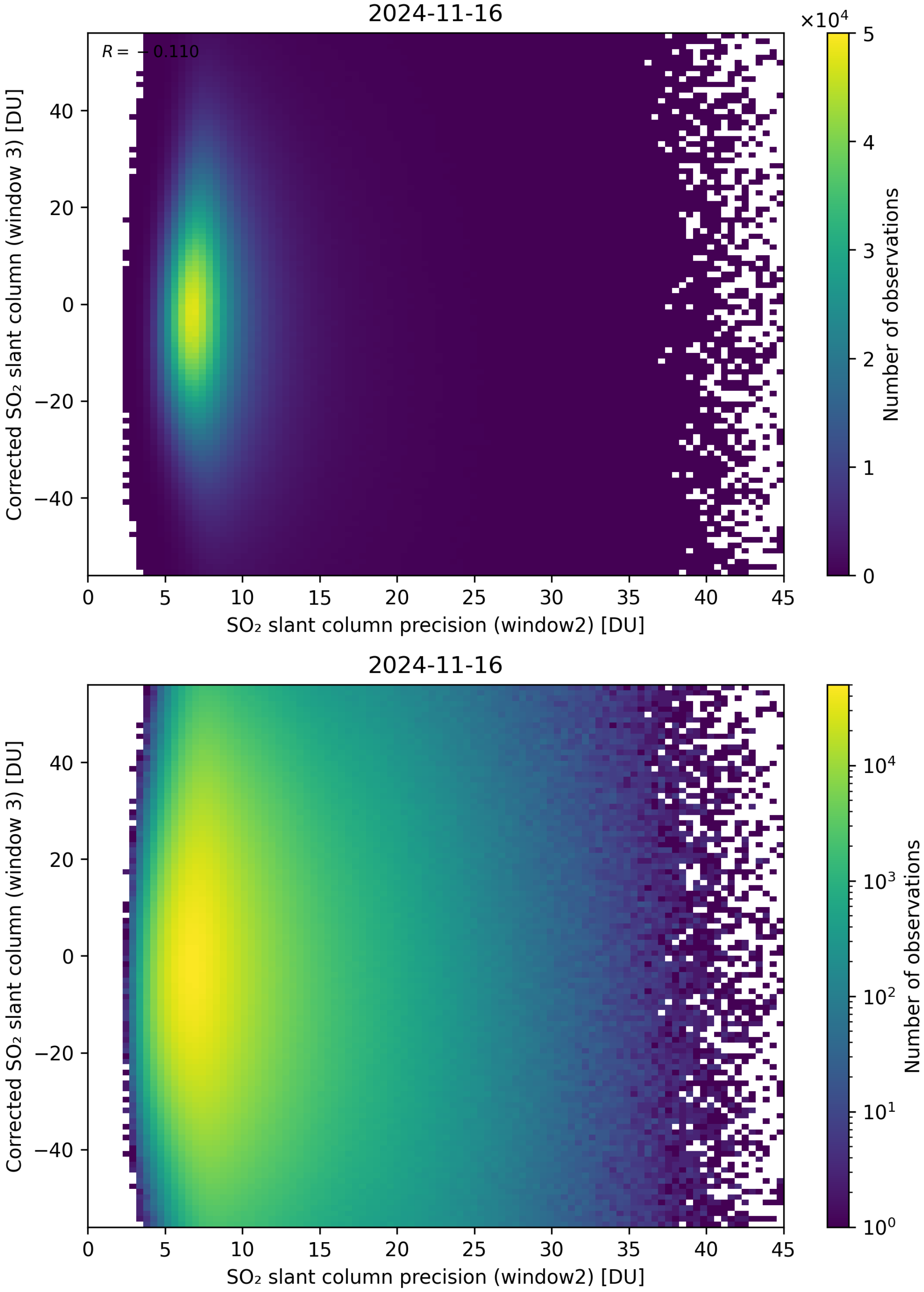


Figure 248: Scatter density plot of “SO_2 slant column precision (window2)” against “Corrected SO_2 slant column (window 3)” for 2024-11-15 to 2024-11-17.

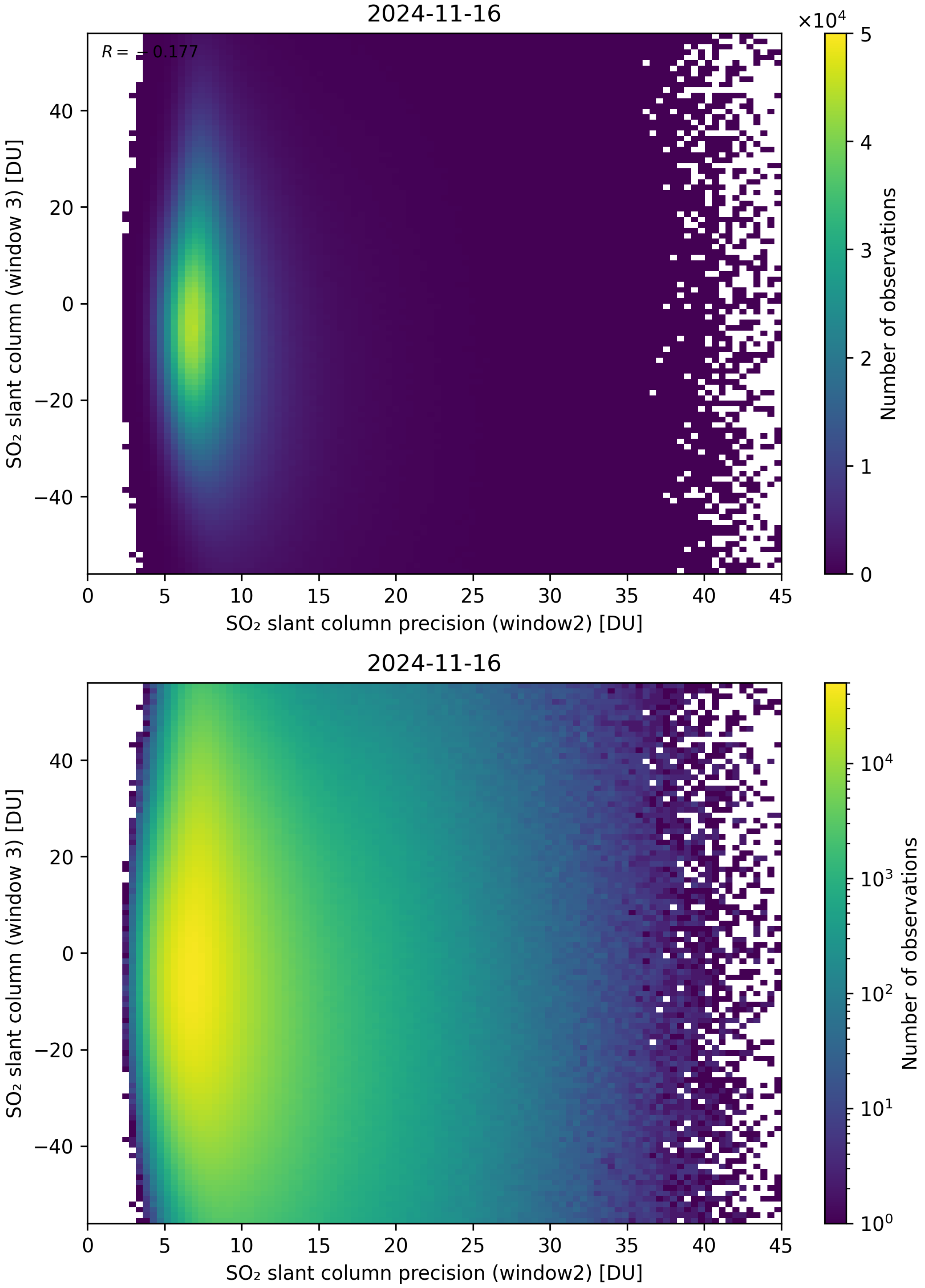


Figure 249: Scatter density plot of "SO_2 slant column precision (window2)" against "SO_2 slant column (window 3)" for 2024-11-15 to 2024-11-17.

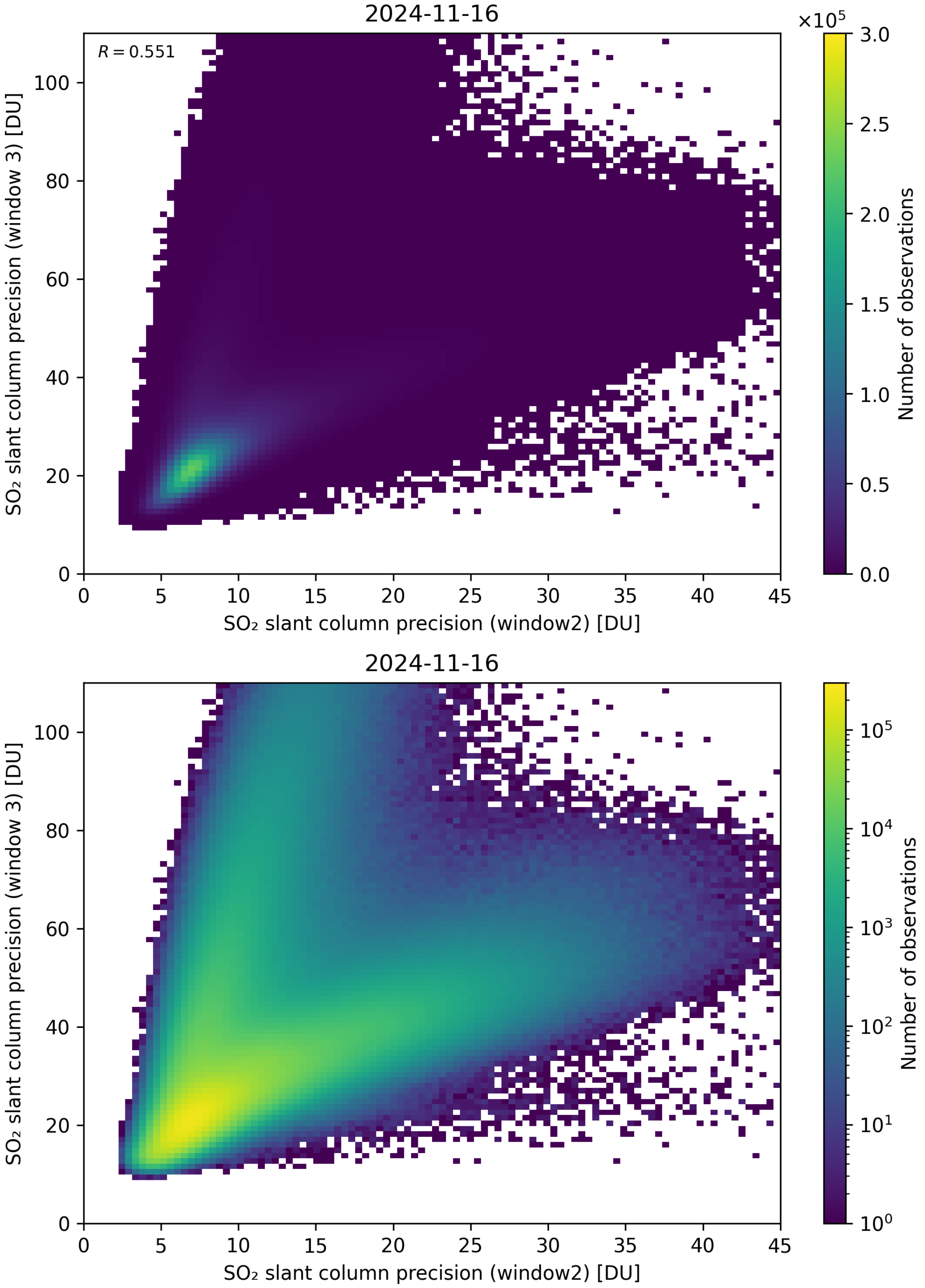


Figure 250: Scatter density plot of "SO_2 slant column precision (window2)" against "SO_2 slant column precision (window 3)" for 2024-11-15 to 2024-11-17.

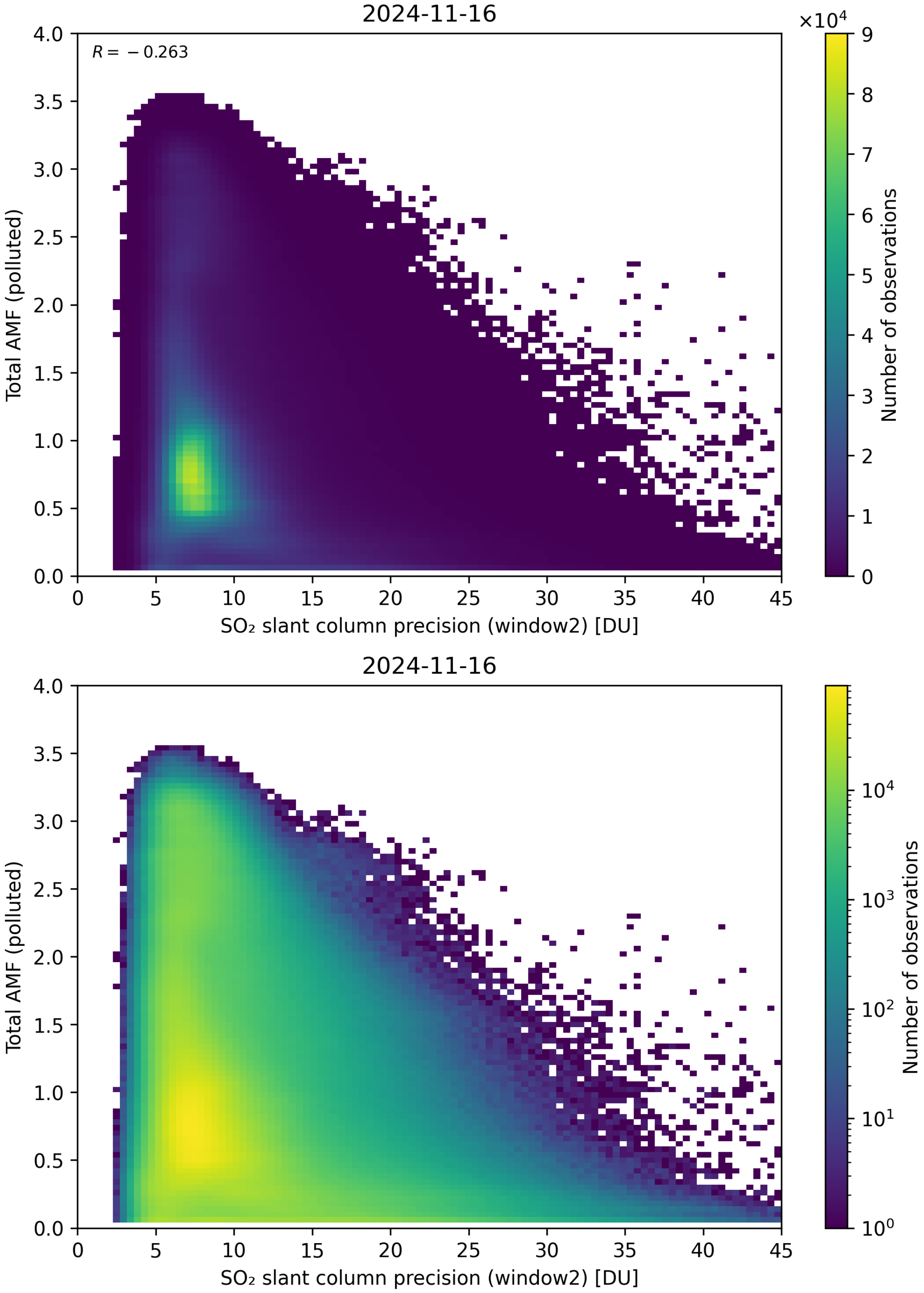


Figure 251: Scatter density plot of “SO_2 slant column precision (window2)” against “Total AMF (polluted)” for 2024-11-15 to 2024-11-17.

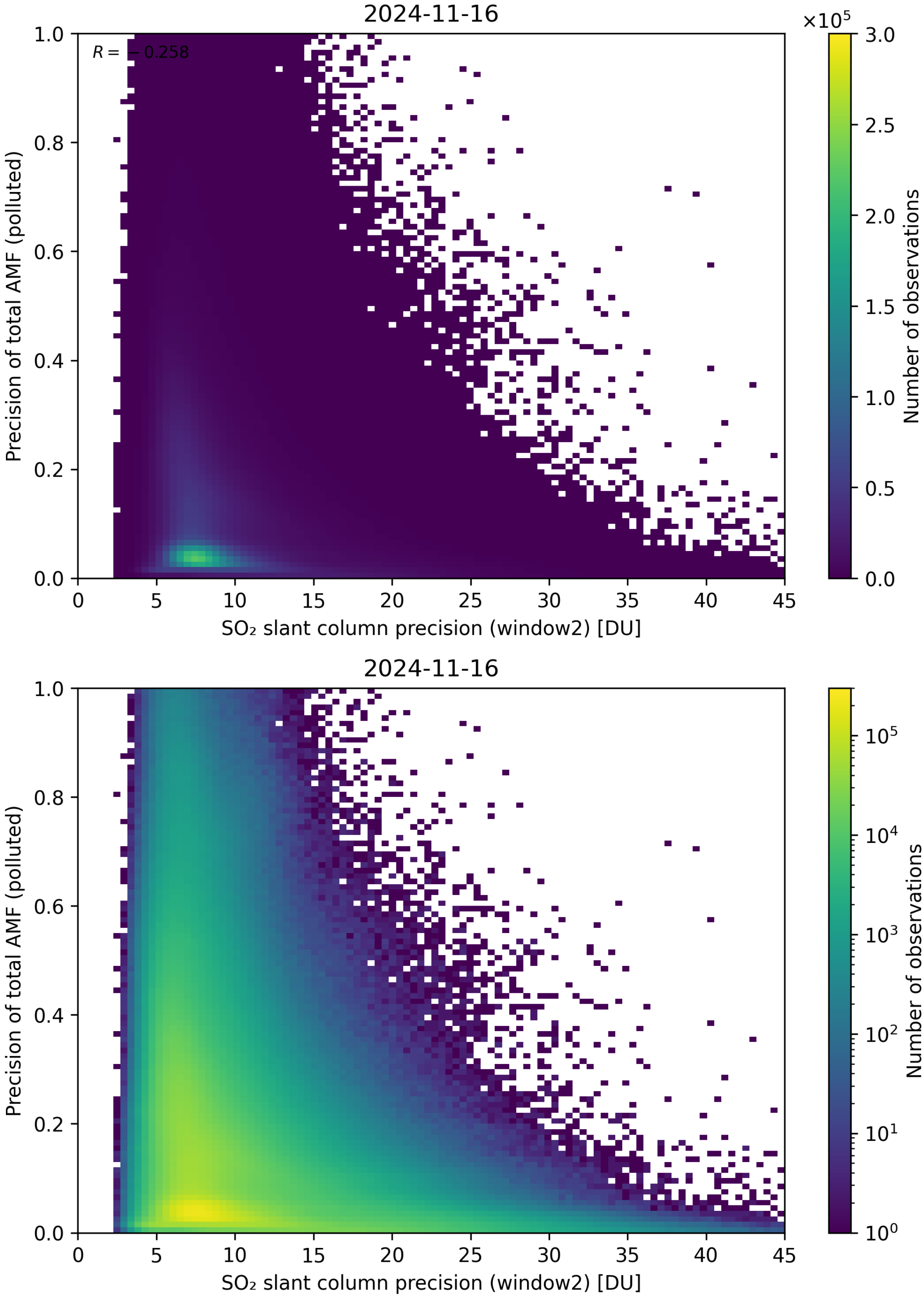


Figure 252: Scatter density plot of “SO_2 slant column precision (window2)” against “Precision of total AMF (polluted)” for 2024-11-15 to 2024-11-17.

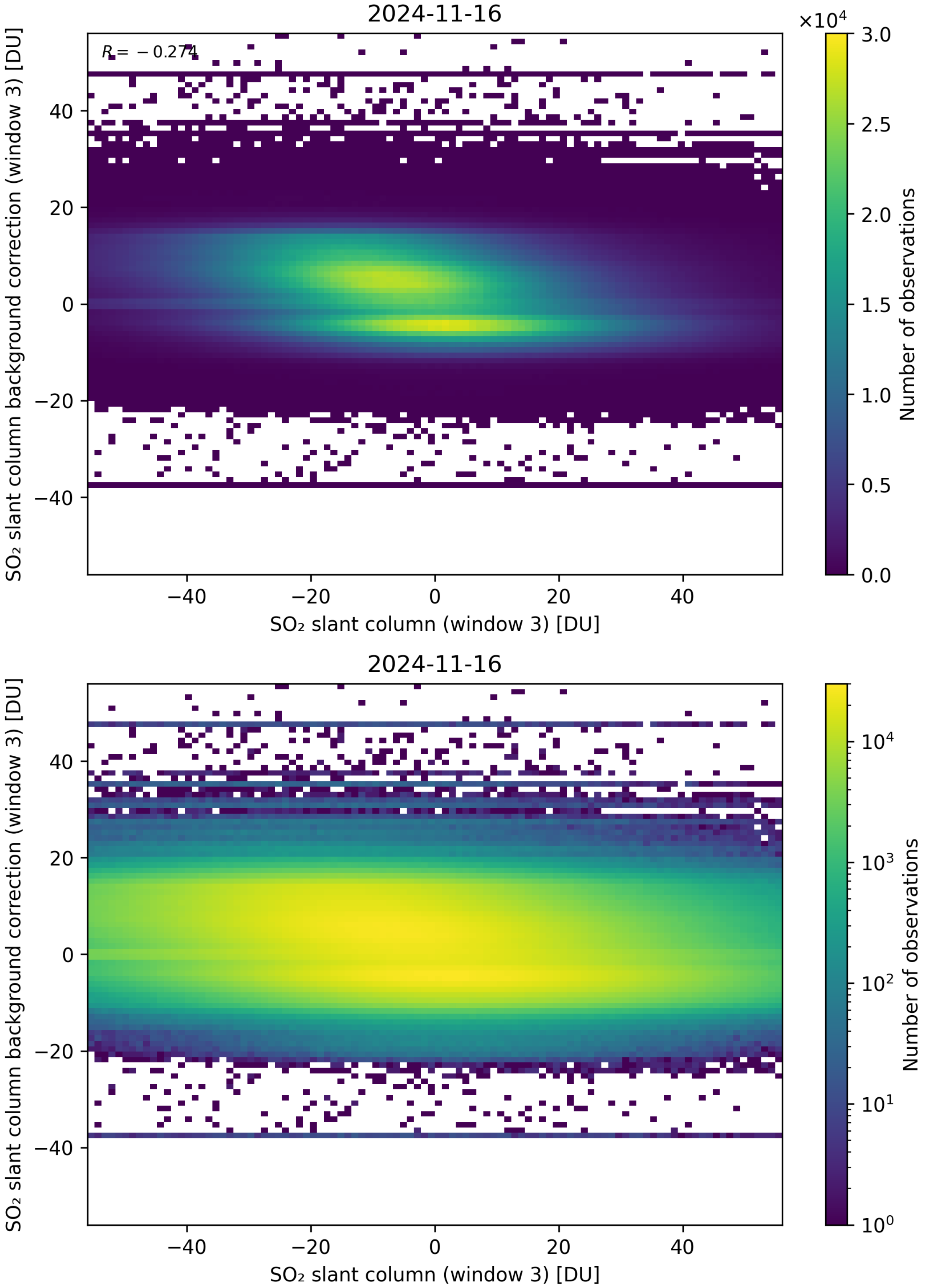


Figure 253: Scatter density plot of “SO_2 slant column (window 3)” against “SO_2 slant column background correction (window 3)” for 2024-11-15 to 2024-11-17.

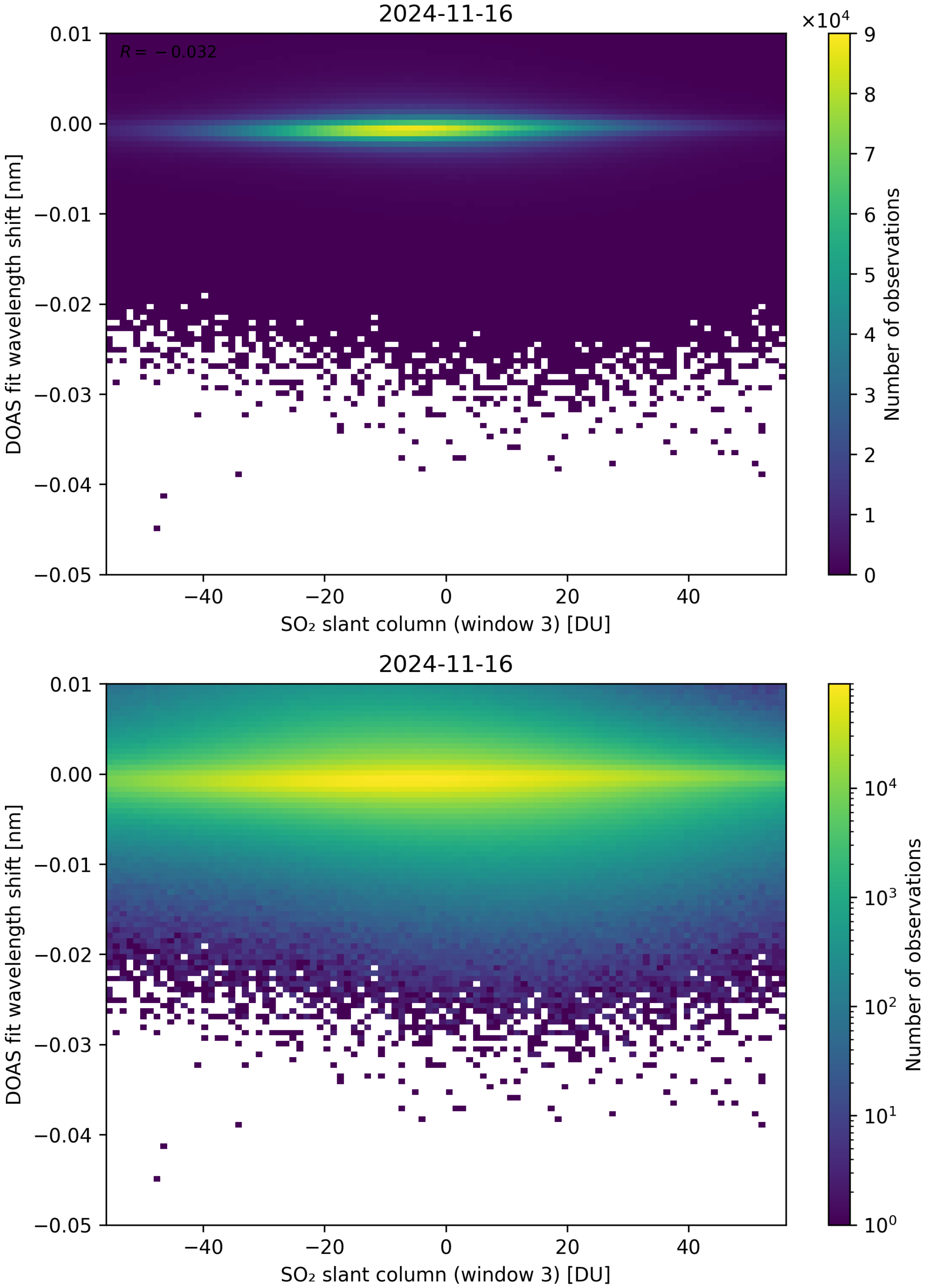


Figure 254: Scatter density plot of “SO_2 slant column (window 3)” against “DOAS fit wavelength shift” for 2024-11-15 to 2024-11-17.

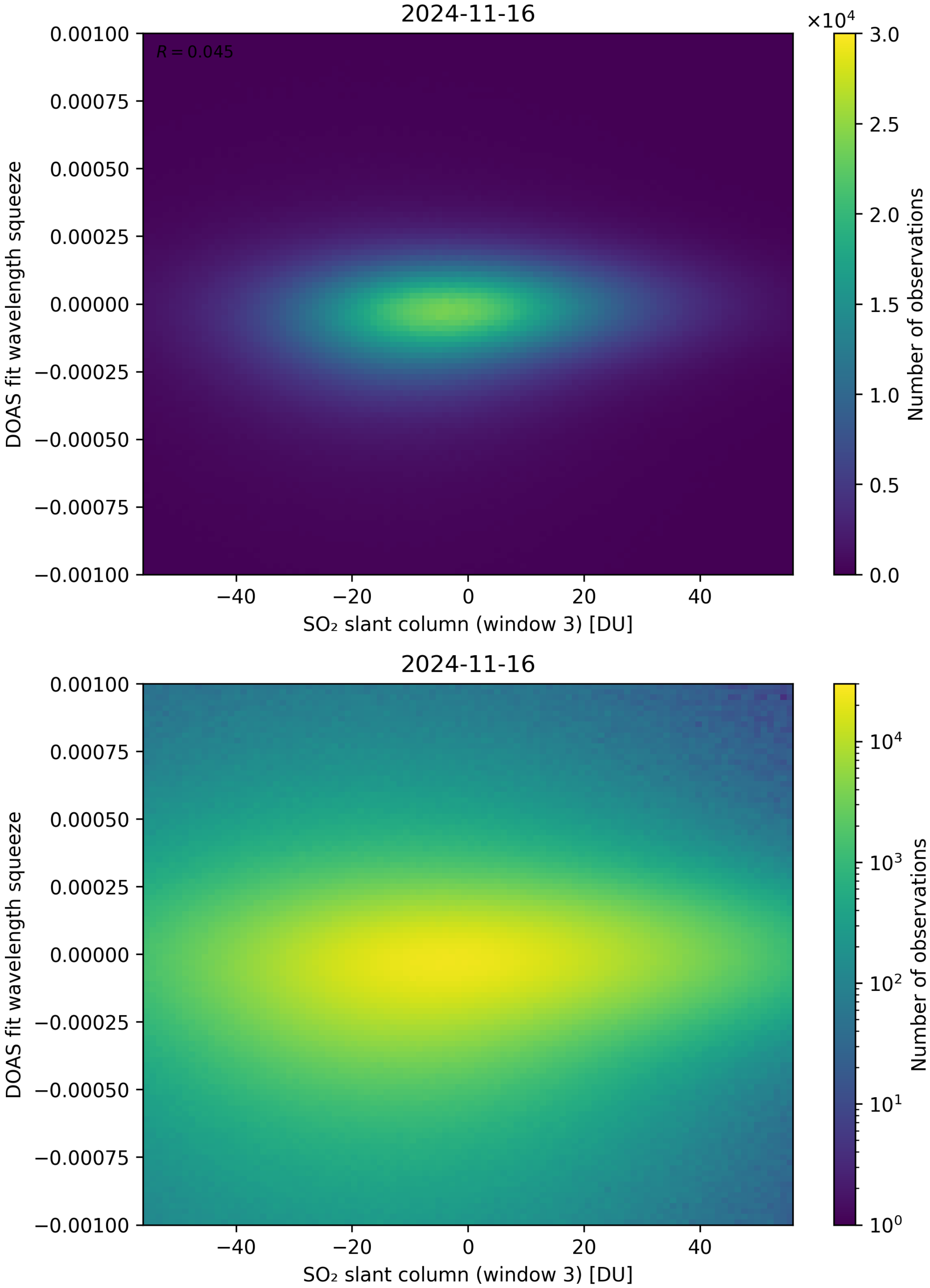


Figure 255: Scatter density plot of “SO_2 slant column (window 3)” against “DOAS fit wavelength squeeze” for 2024-11-15 to 2024-11-17.

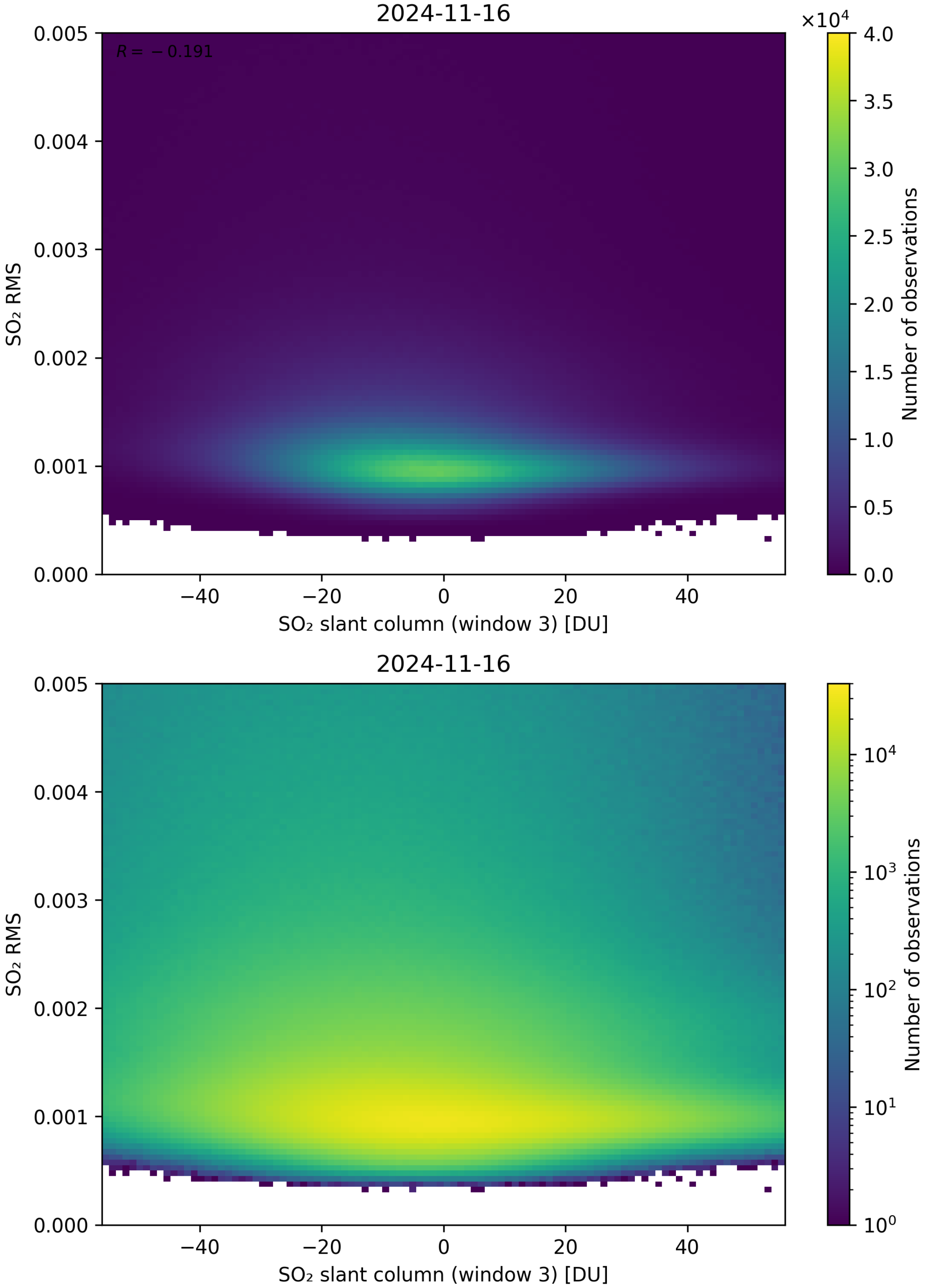


Figure 256: Scatter density plot of "SO_2 slant column (window 3)" against "SO_2 RMS" for 2024-11-15 to 2024-11-17.

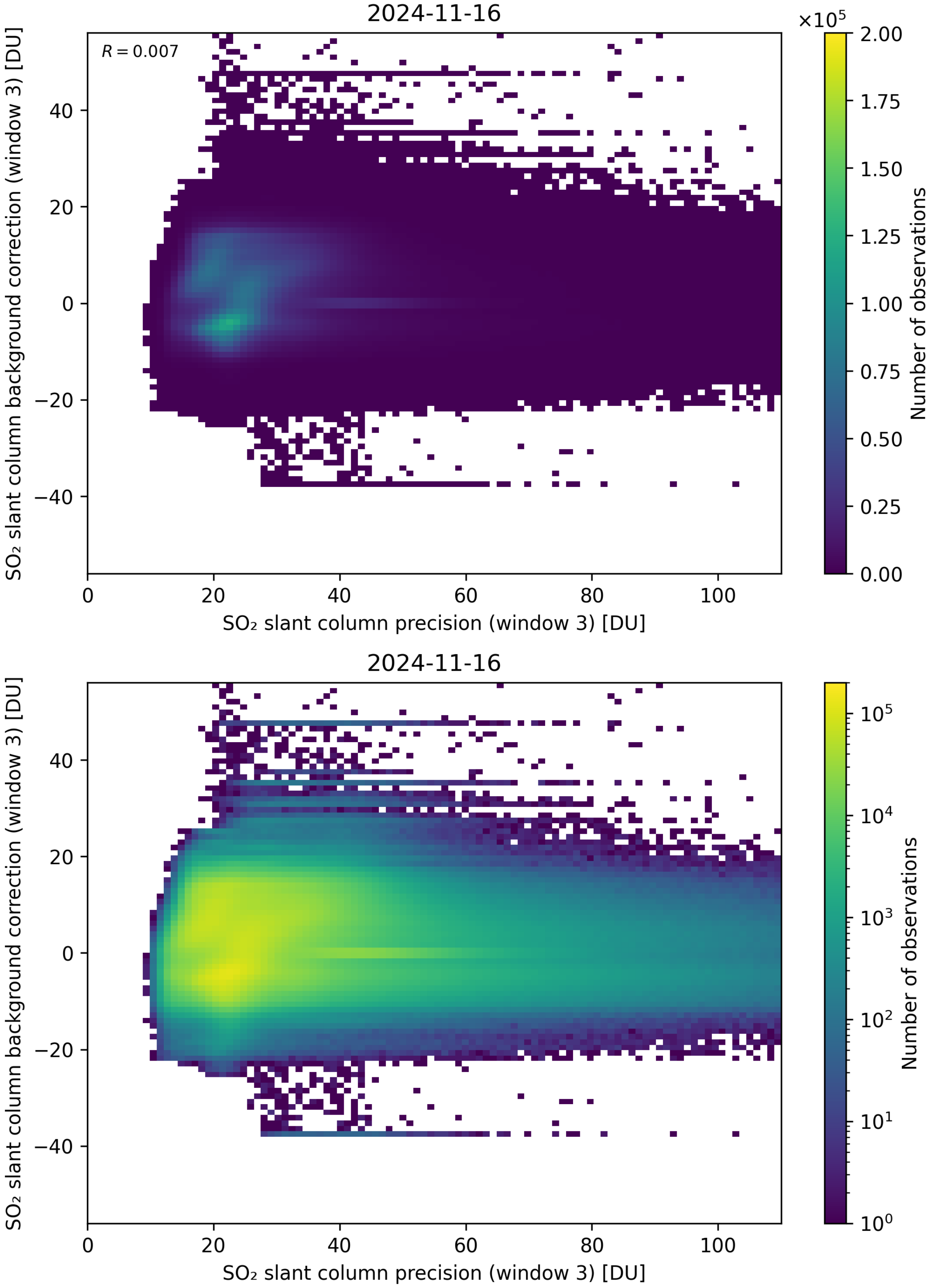


Figure 257: Scatter density plot of “SO_2 slant column precision (window 3)” against “SO_2 slant column background correction (window 3)” for 2024-11-15 to 2024-11-17.

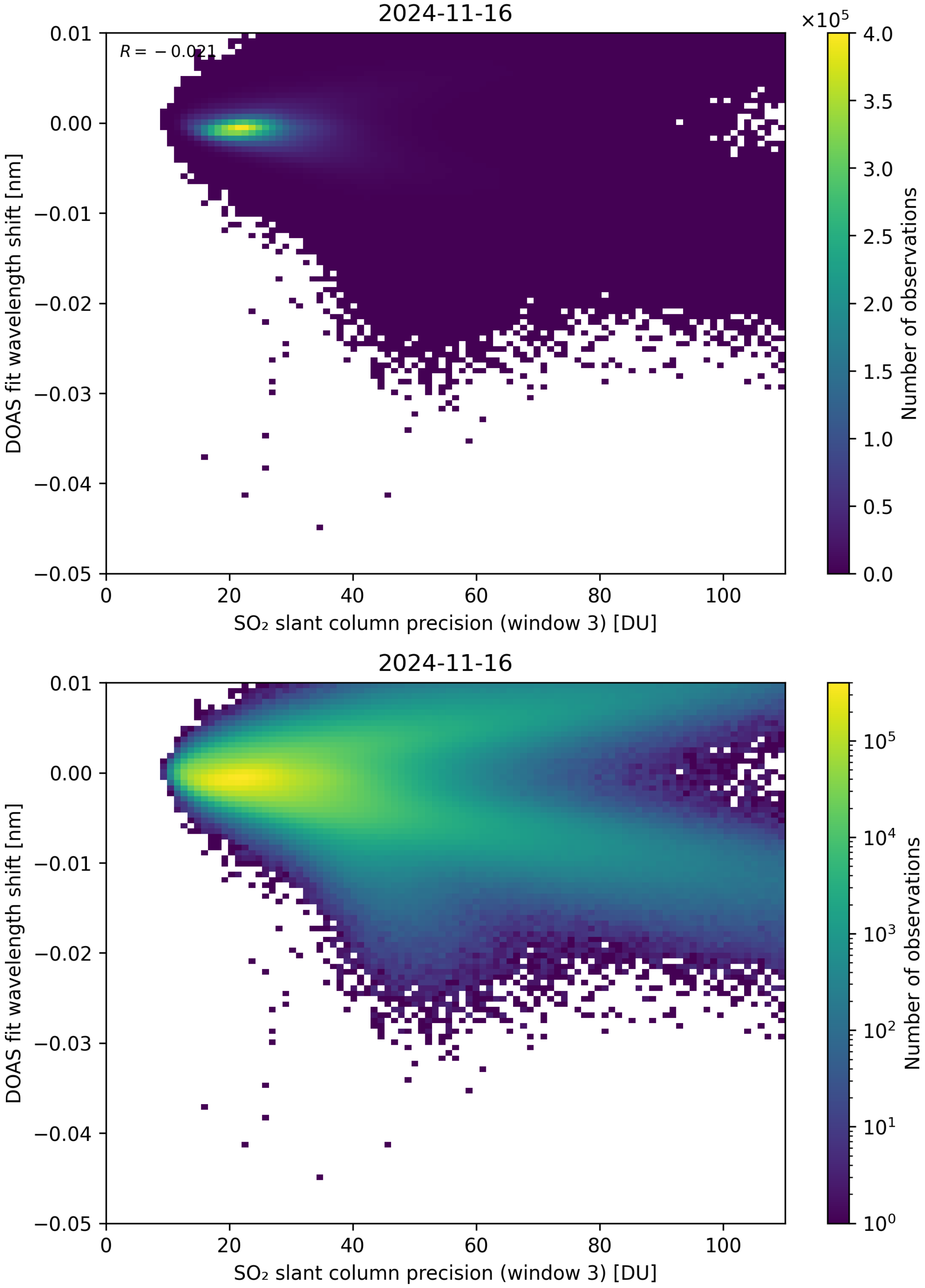


Figure 258: Scatter density plot of “SO_2 slant column precision (window 3)” against “DOAS fit wavelength shift” for 2024-11-15 to 2024-11-17.

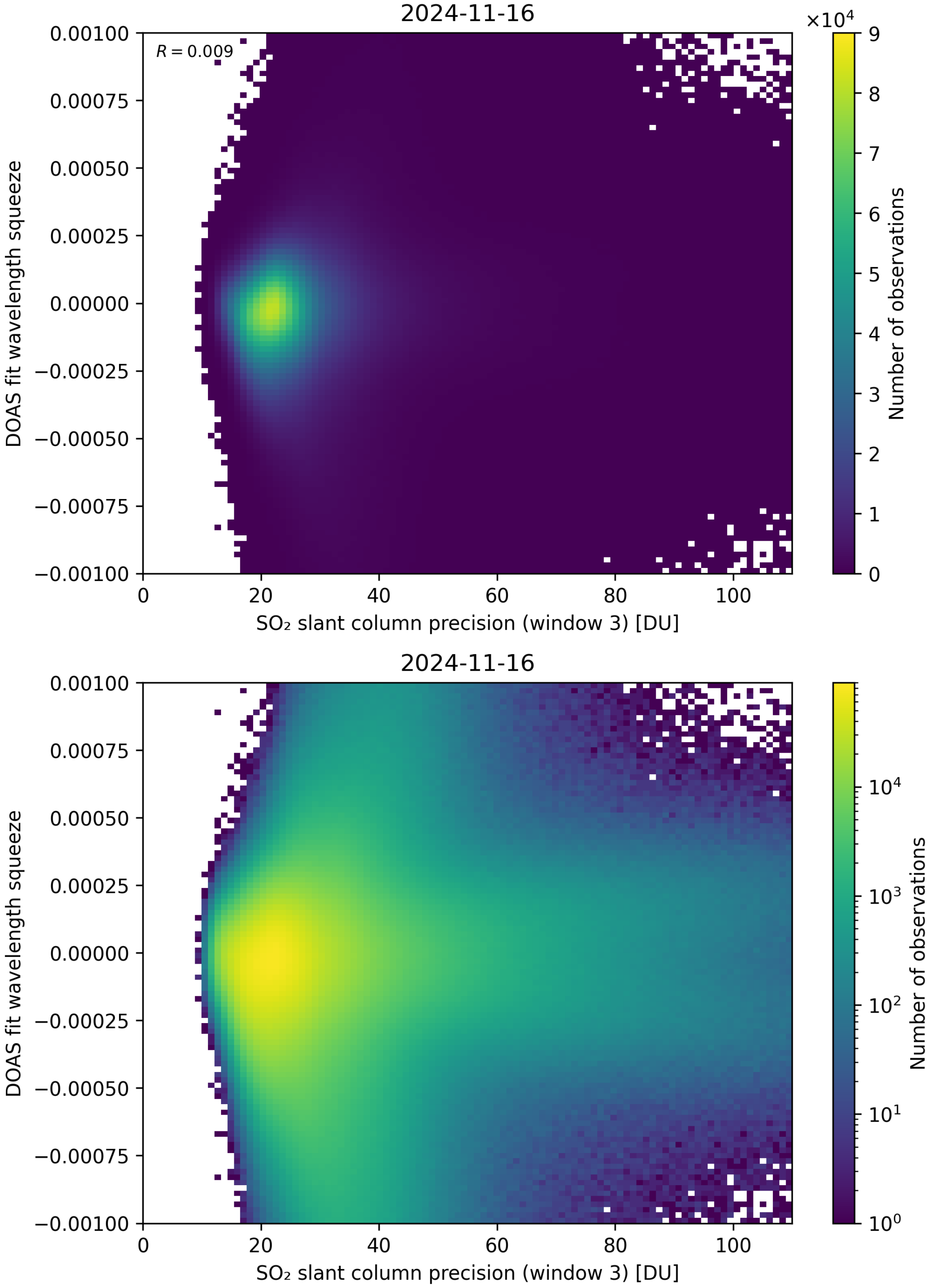


Figure 259: Scatter density plot of “SO_2 slant column precision (window 3)” against “DOAS fit wavelength squeeze” for 2024-11-15 to 2024-11-17.

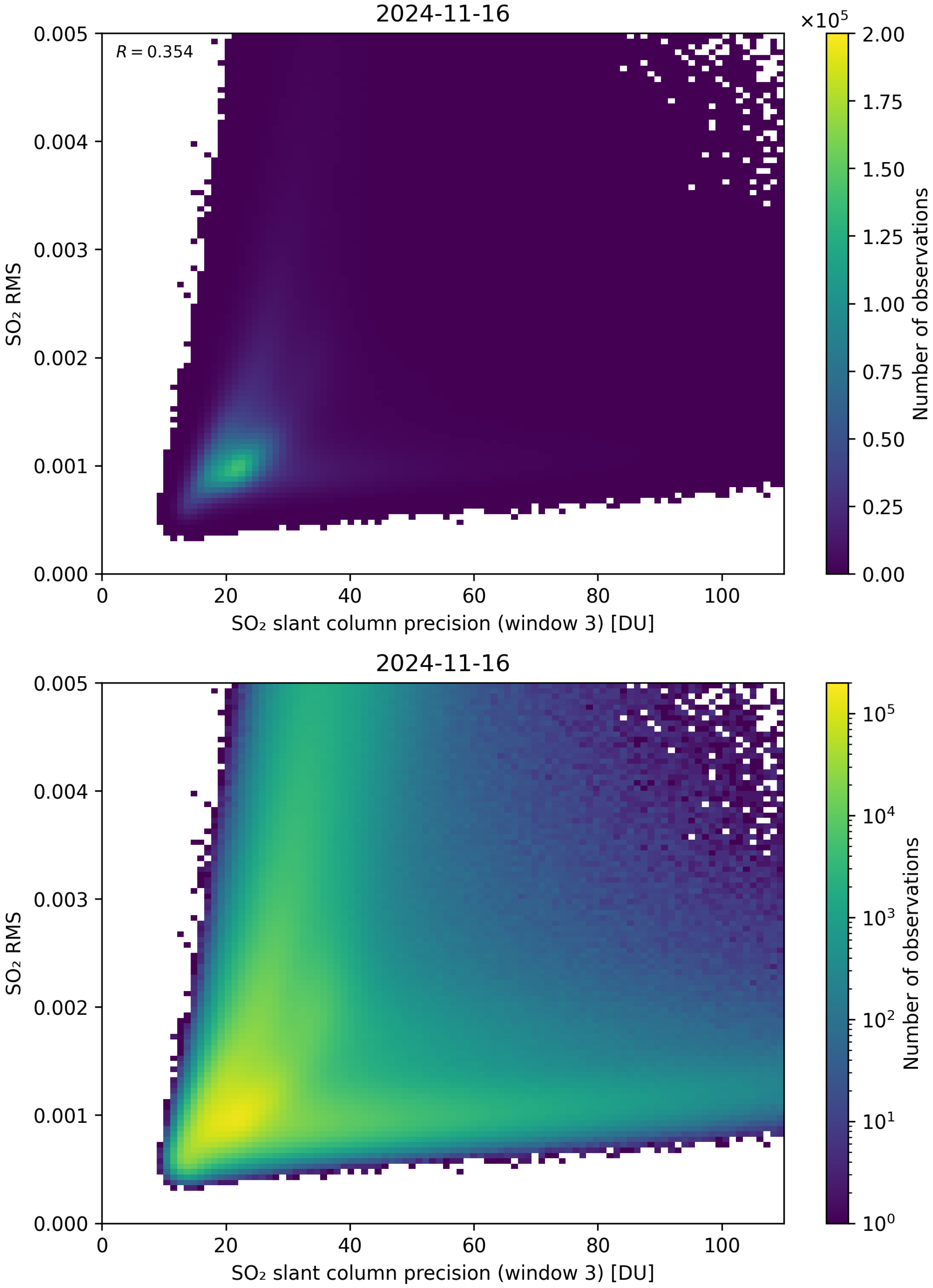


Figure 260: Scatter density plot of “SO_2 slant column precision (window 3)” against “SO_2 RMS” for 2024-11-15 to 2024-11-17.

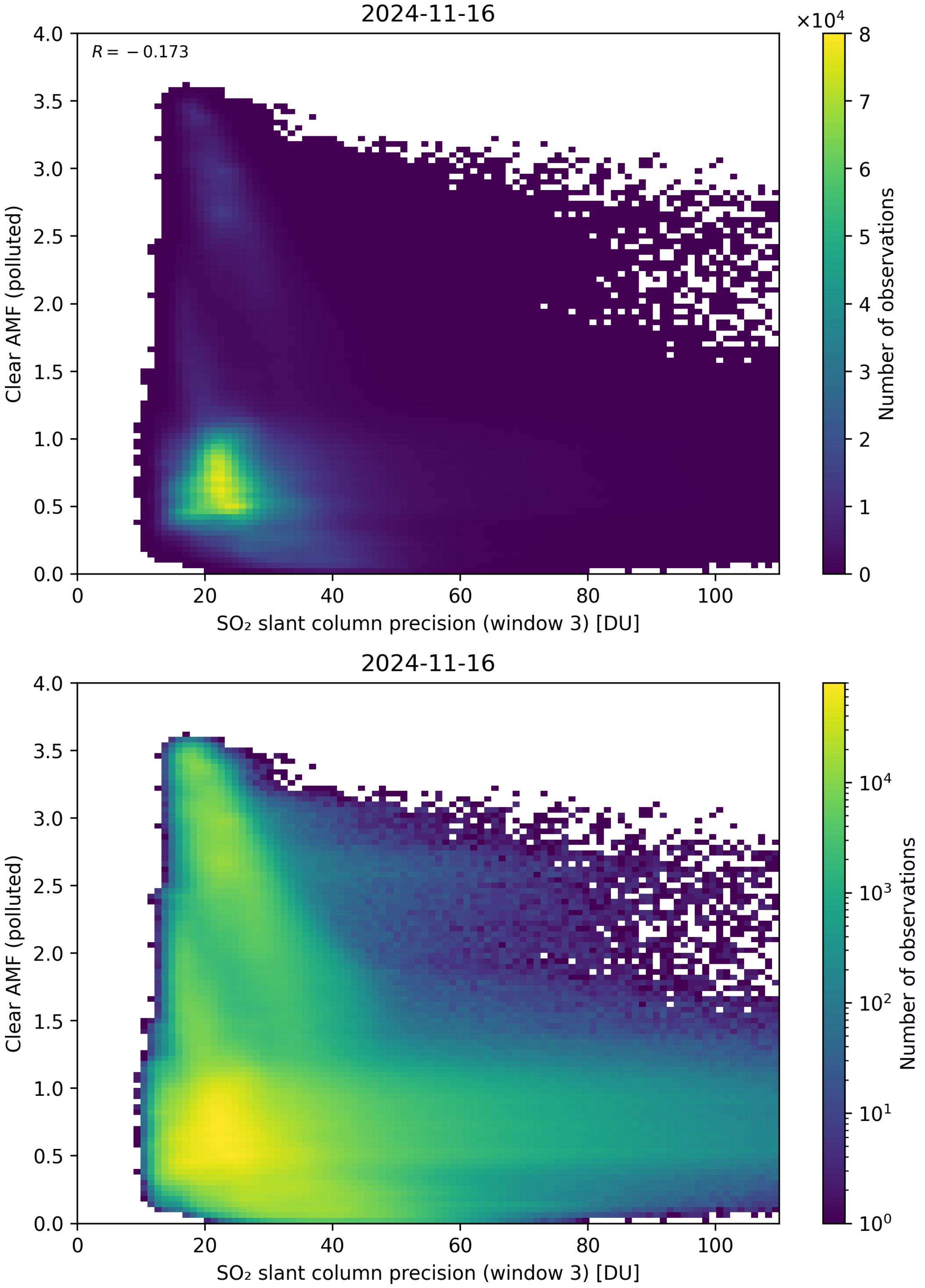
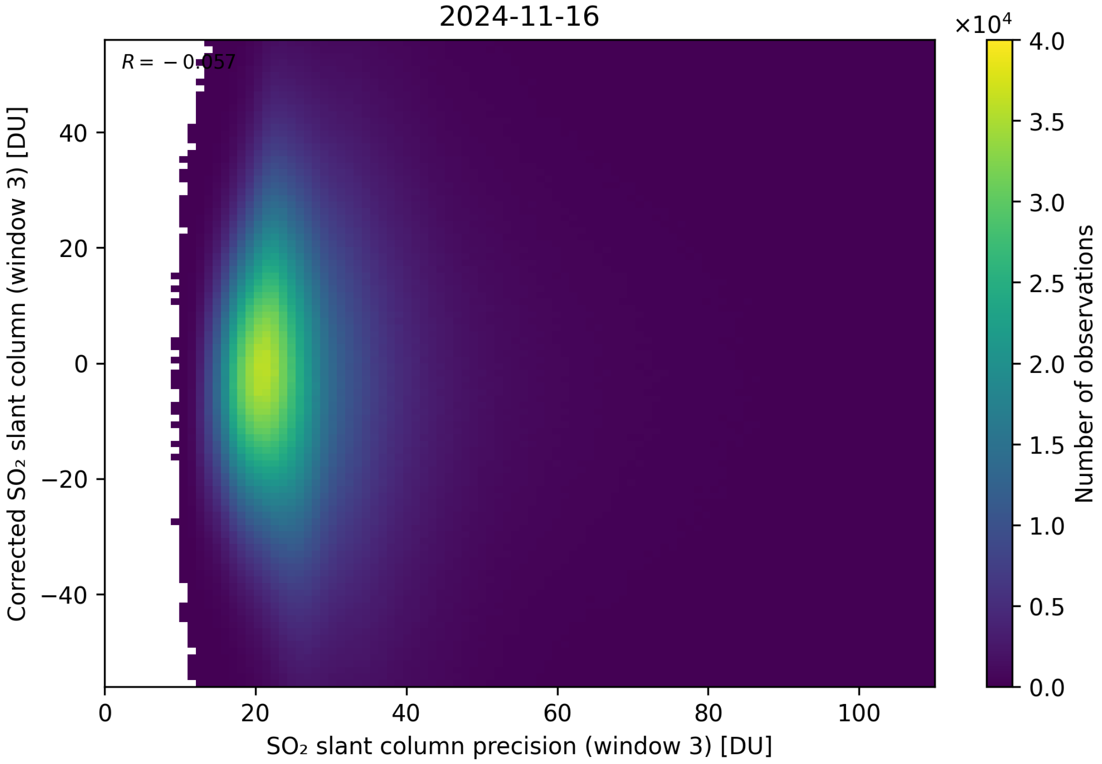


Figure 261: Scatter density plot of “SO_2 slant column precision (window 3)” against “Clear AMF (polluted)” for 2024-11-15 to 2024-11-17.



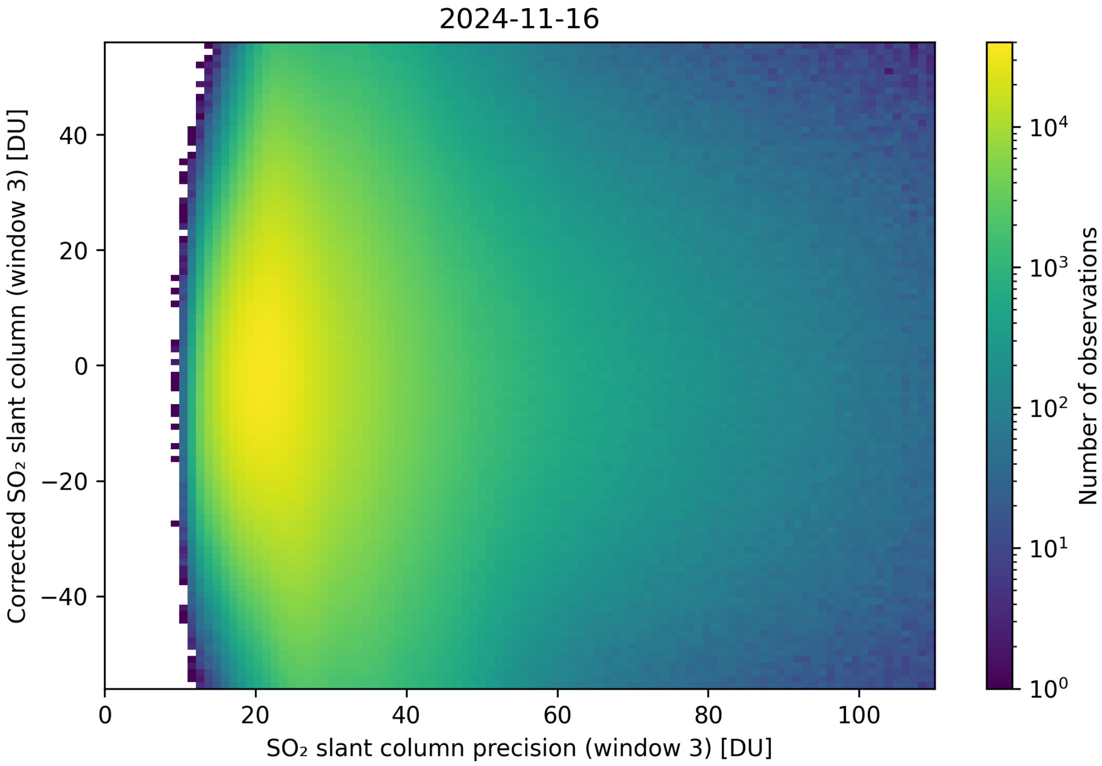


Figure 262: Scatter density plot of “SO_2 slant column precision (window 3)” against “Corrected SO_2 slant column (window 3)” for 2024-11-15 to 2024-11-17.

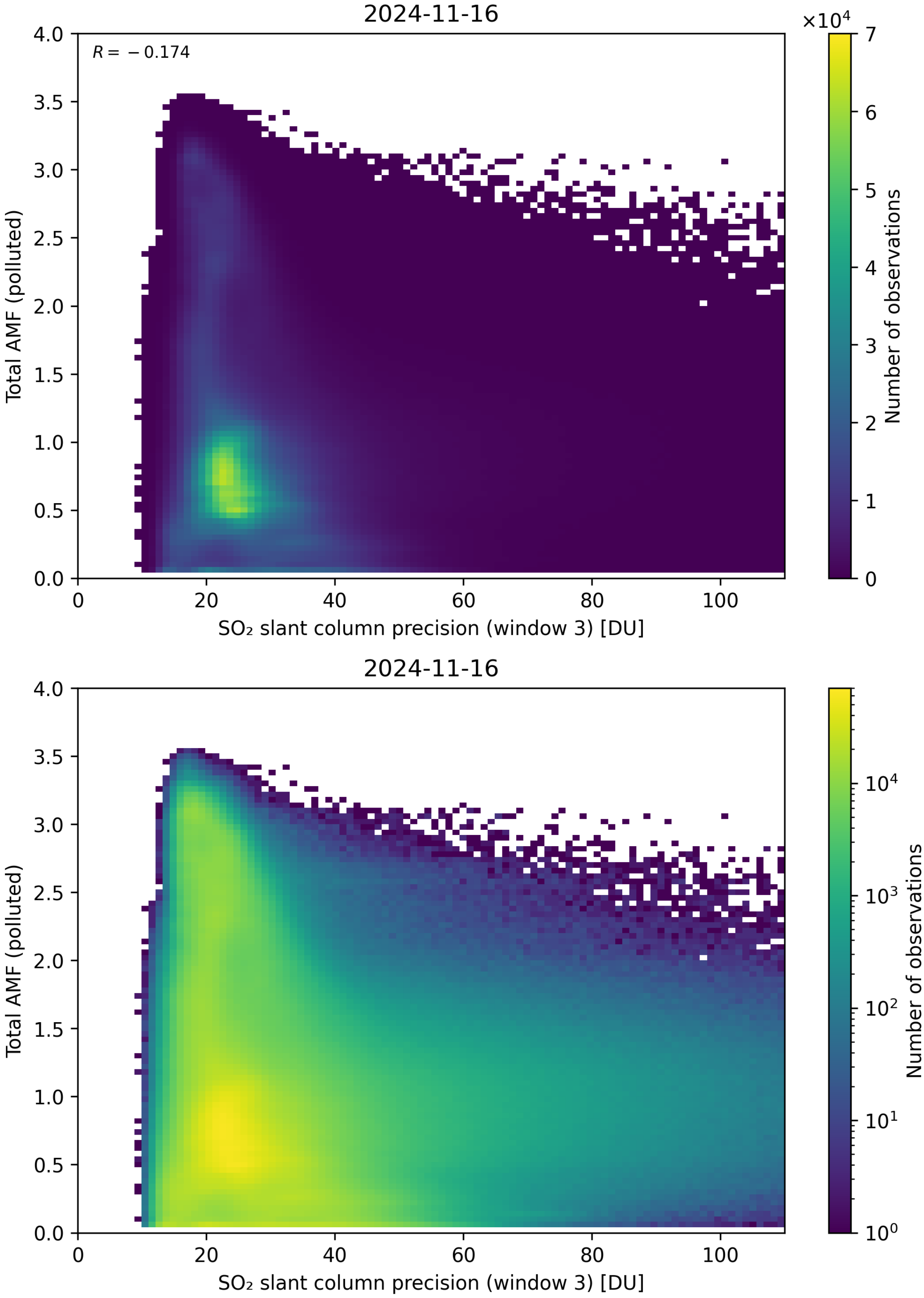


Figure 263: Scatter density plot of “SO_2 slant column precision (window 3)” against “Total AMF (polluted)” for 2024-11-15 to 2024-11-17.

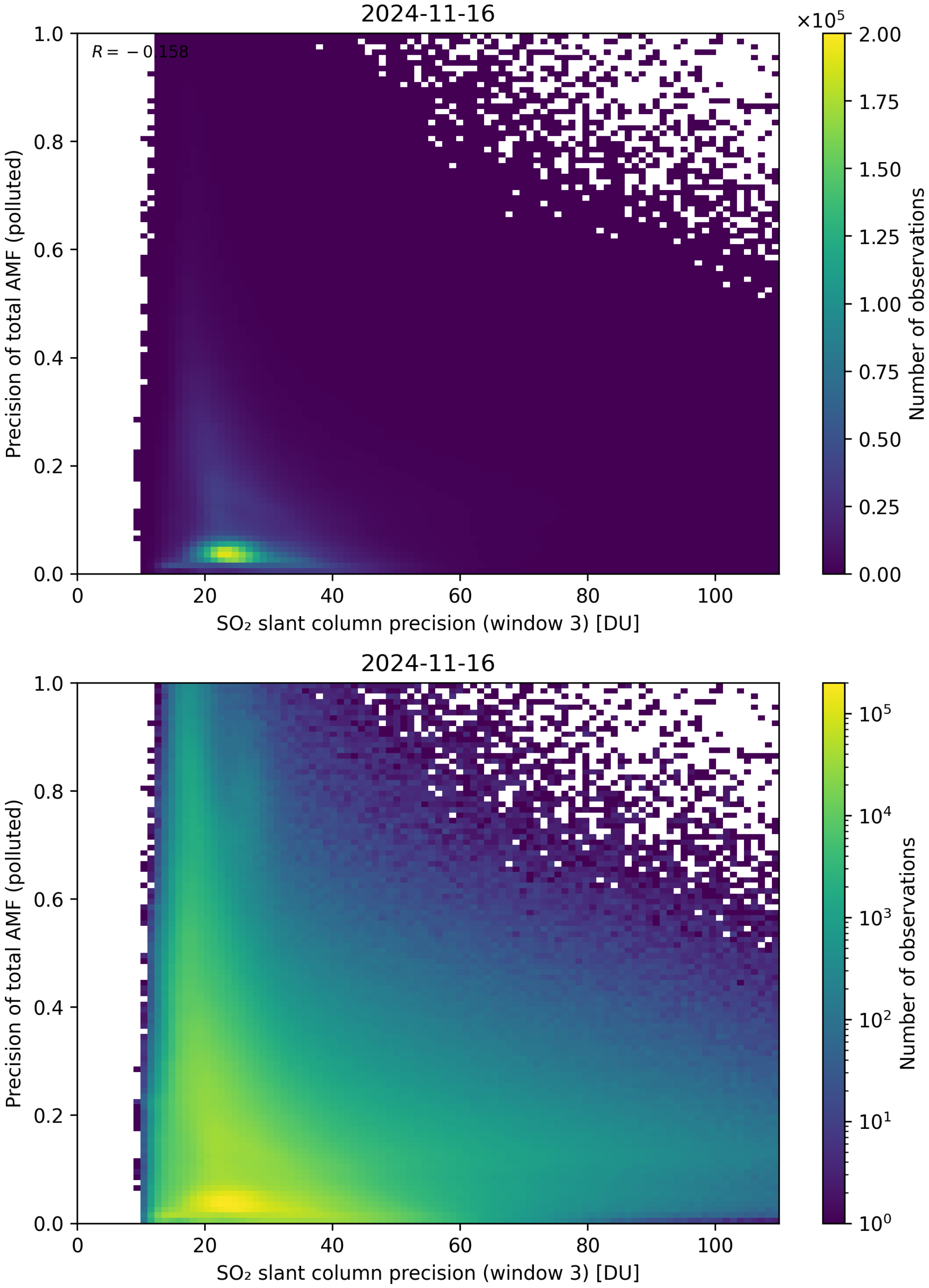


Figure 264: Scatter density plot of “SO_2 slant column precision (window 3)” against “Precision of total AMF (polluted)” for 2024-11-15 to 2024-11-17.

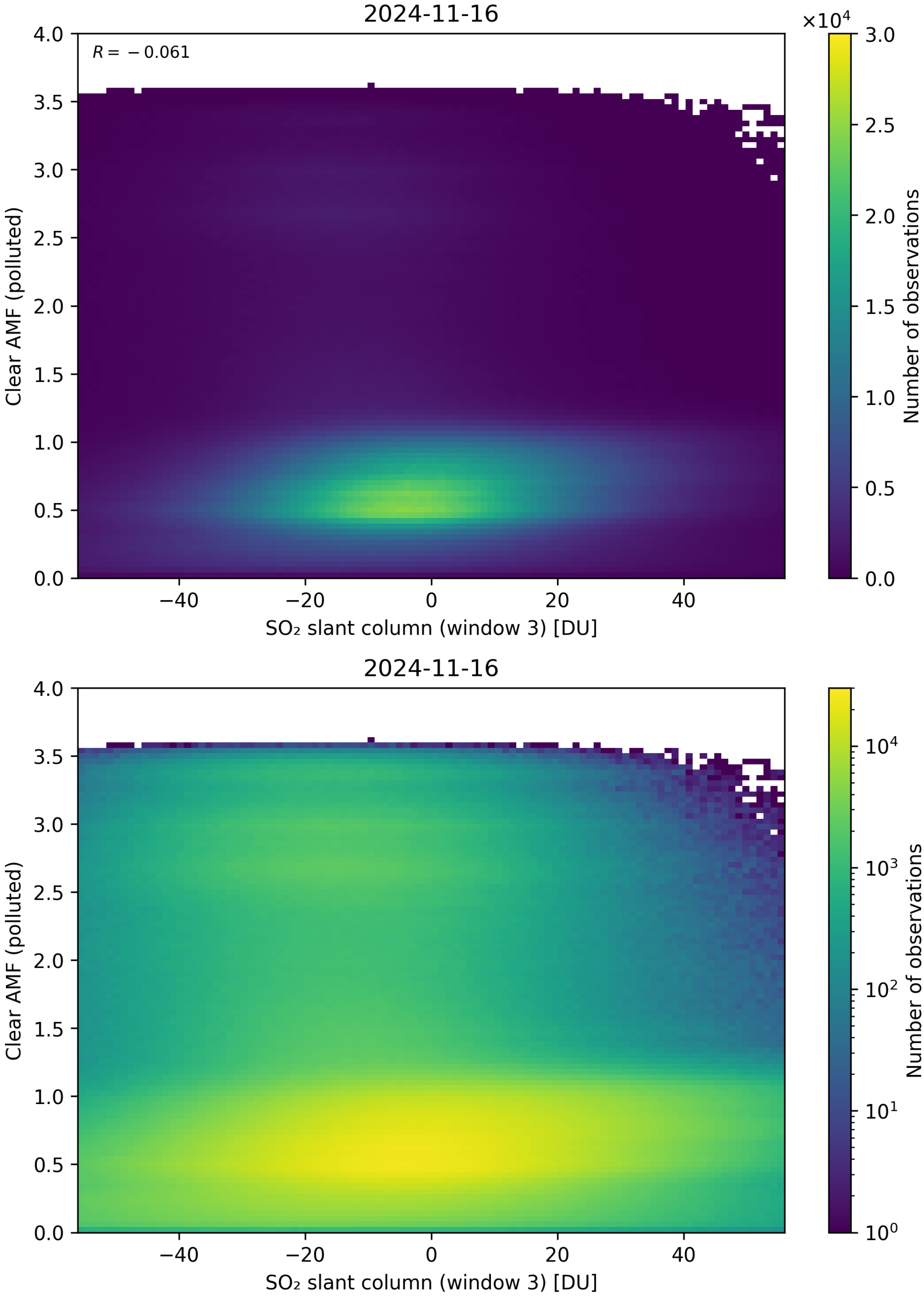


Figure 265: Scatter density plot of “SO_2 slant column (window 3)” against “Clear AMF (polluted)” for 2024-11-15 to 2024-11-17.

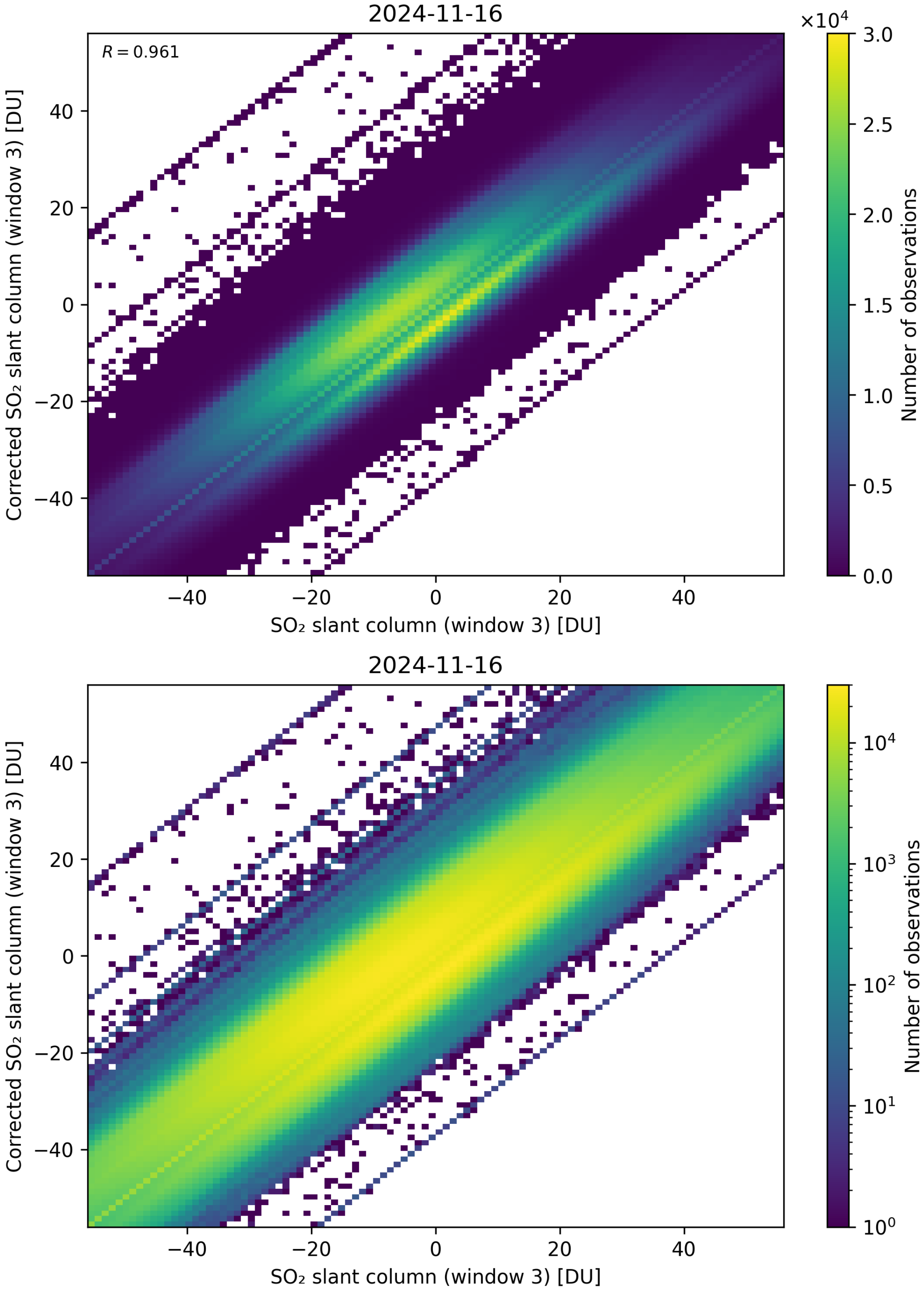
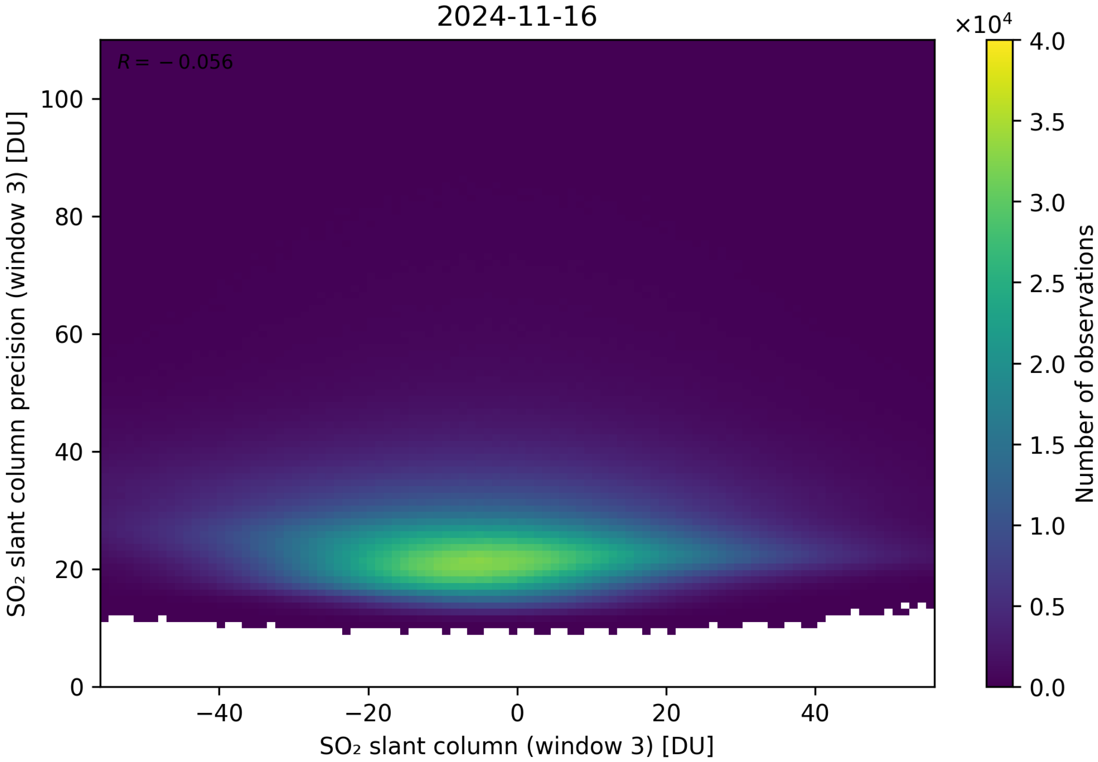


Figure 266: Scatter density plot of “SO_2 slant column (window 3)” against “Corrected SO_2 slant column (window 3)” for 2024-11-15 to 2024-11-17.



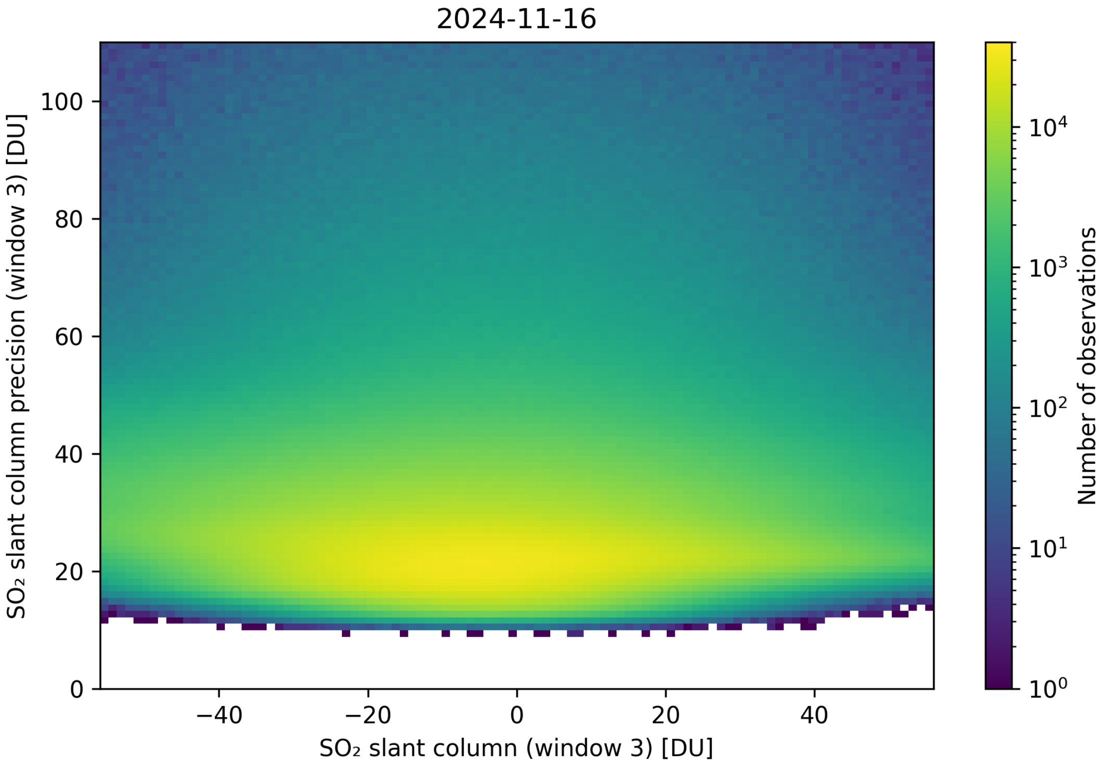


Figure 267: Scatter density plot of "SO_2 slant column (window 3)" against "SO_2 slant column precision (window 3)" for 2024-11-15 to 2024-11-17.

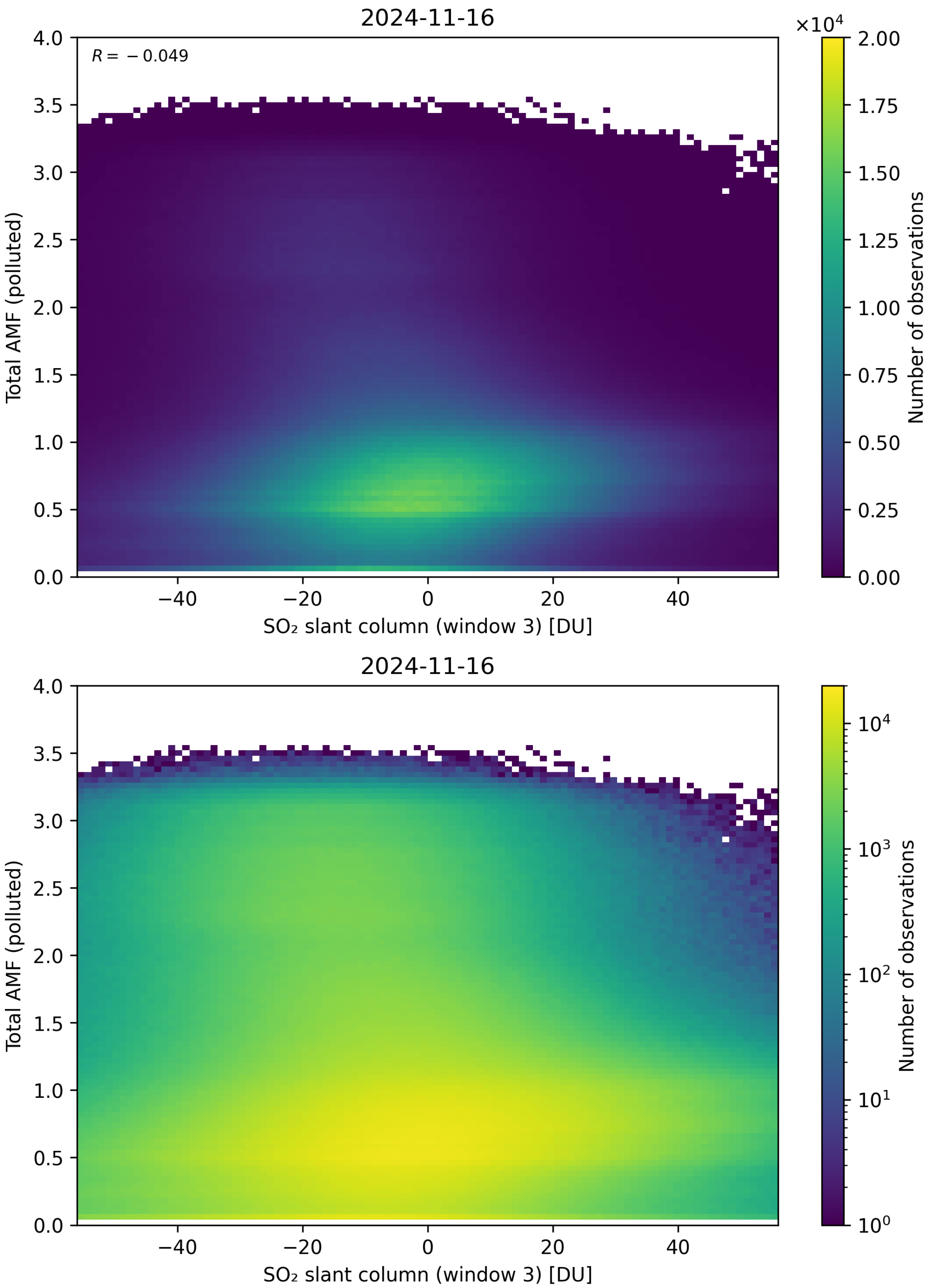


Figure 268: Scatter density plot of “SO_2 slant column (window 3)” against “Total AMF (polluted)” for 2024-11-15 to 2024-11-17.

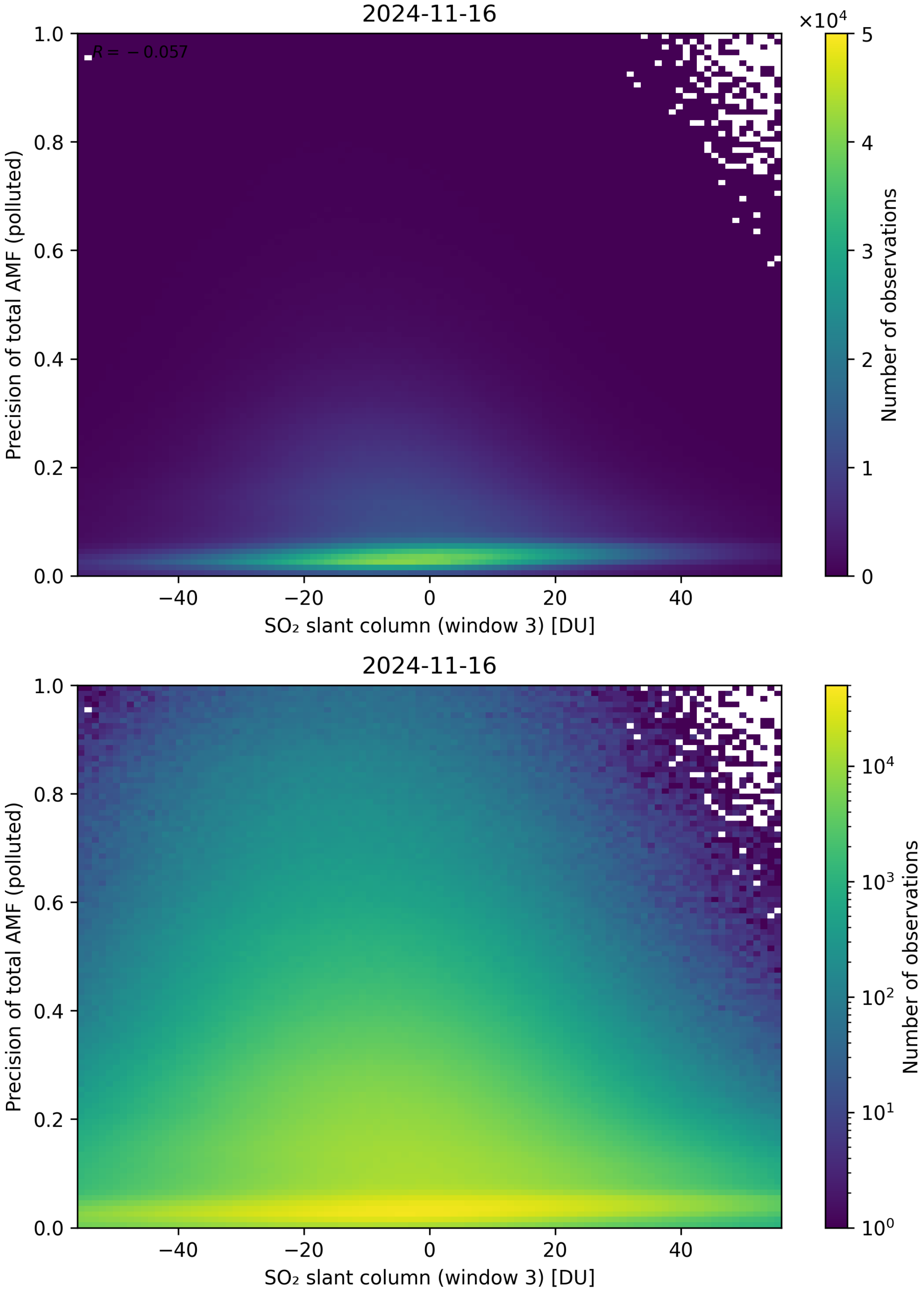


Figure 269: Scatter density plot of “SO_2 slant column (window 3)” against “Precision of total AMF (polluted)” for 2024-11-15 to 2024-11-17.

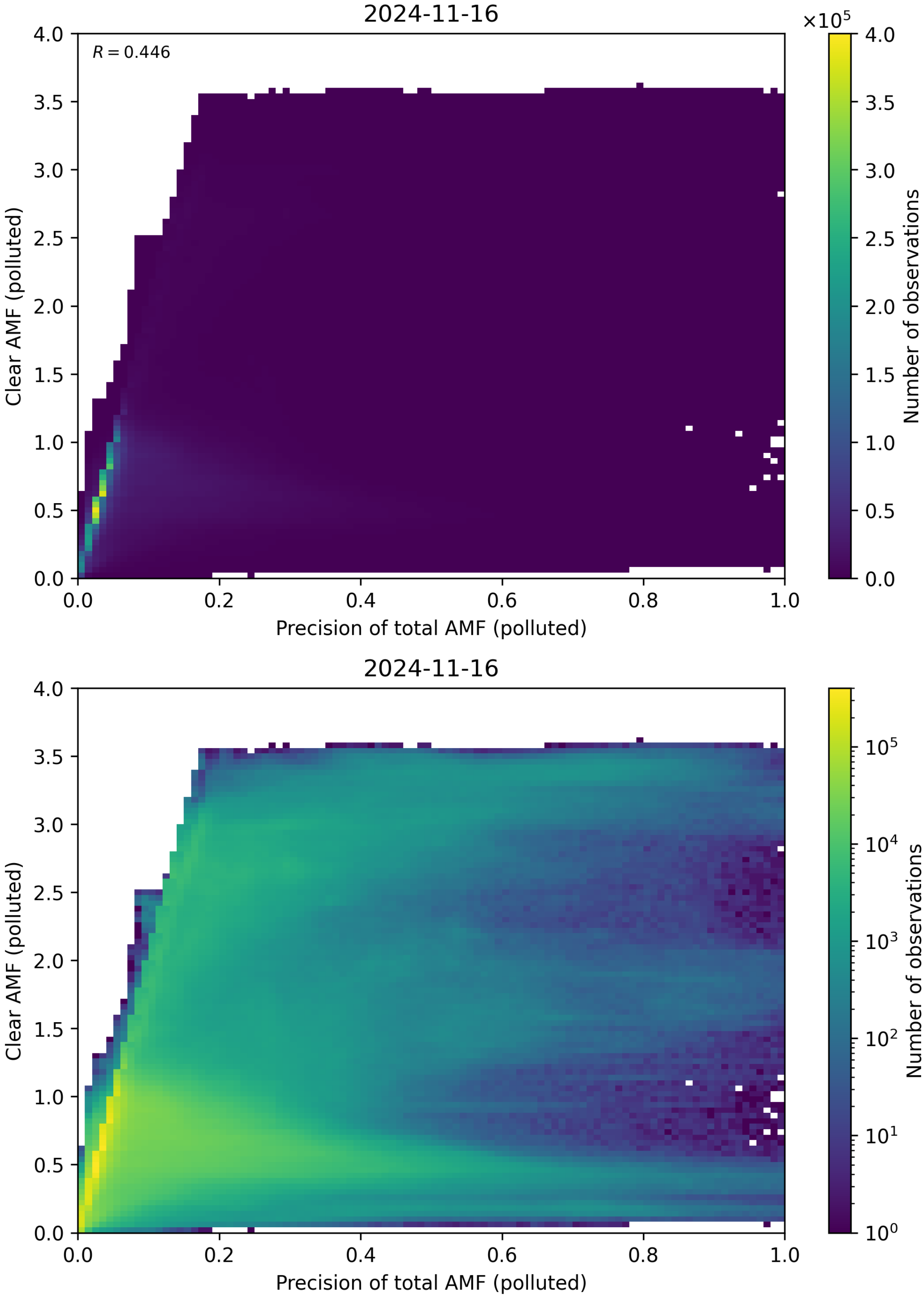
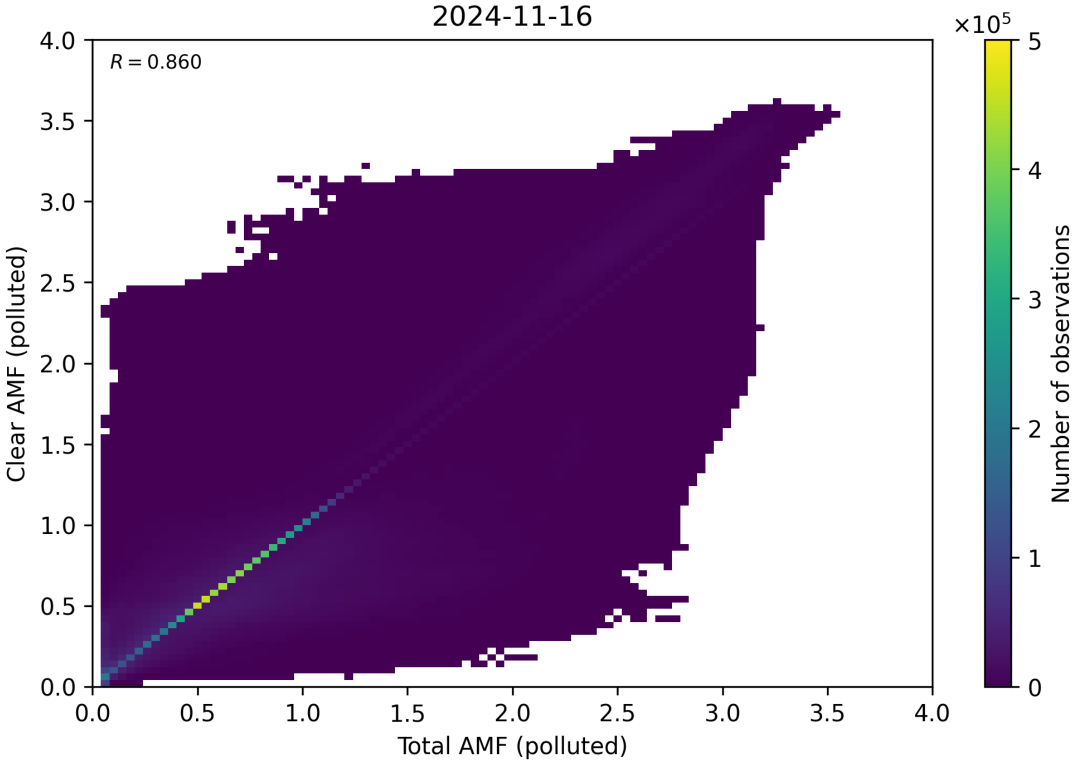


Figure 270: Scatter density plot of “Precision of total AMF (polluted)” against “Clear AMF (polluted)” for 2024-11-15 to 2024-11-17.



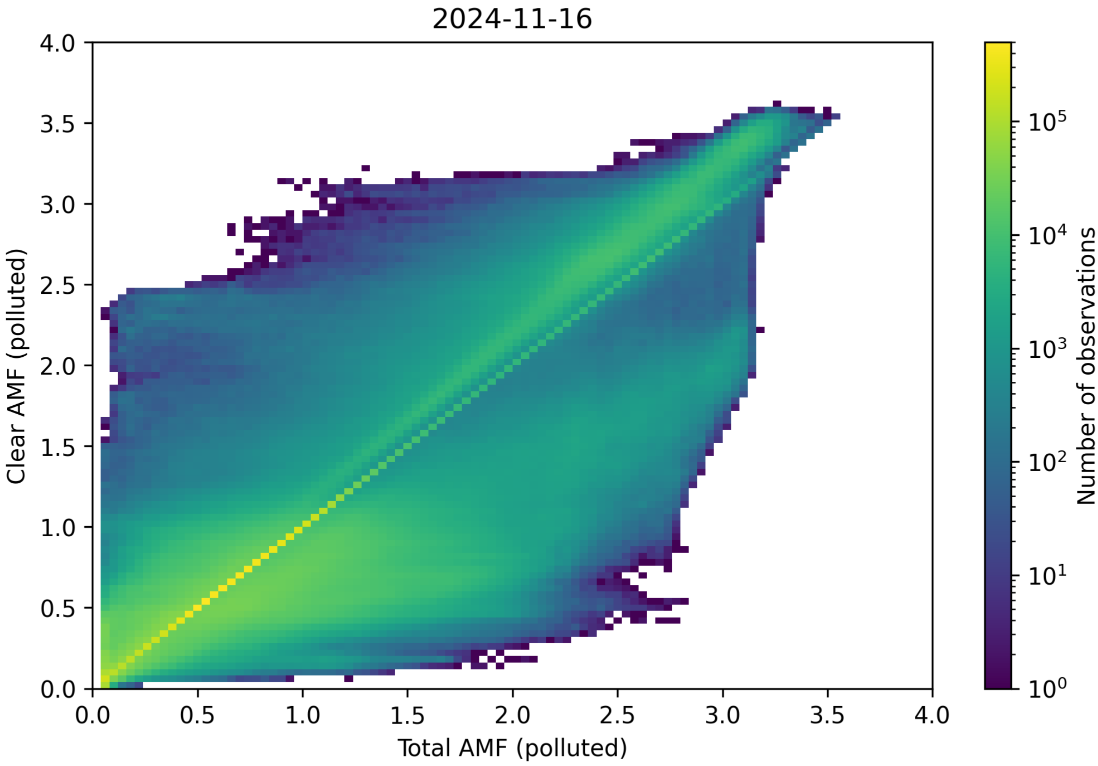


Figure 271: Scatter density plot of “Total AMF (polluted)” against “Clear AMF (polluted)” for 2024-11-15 to 2024-11-17.

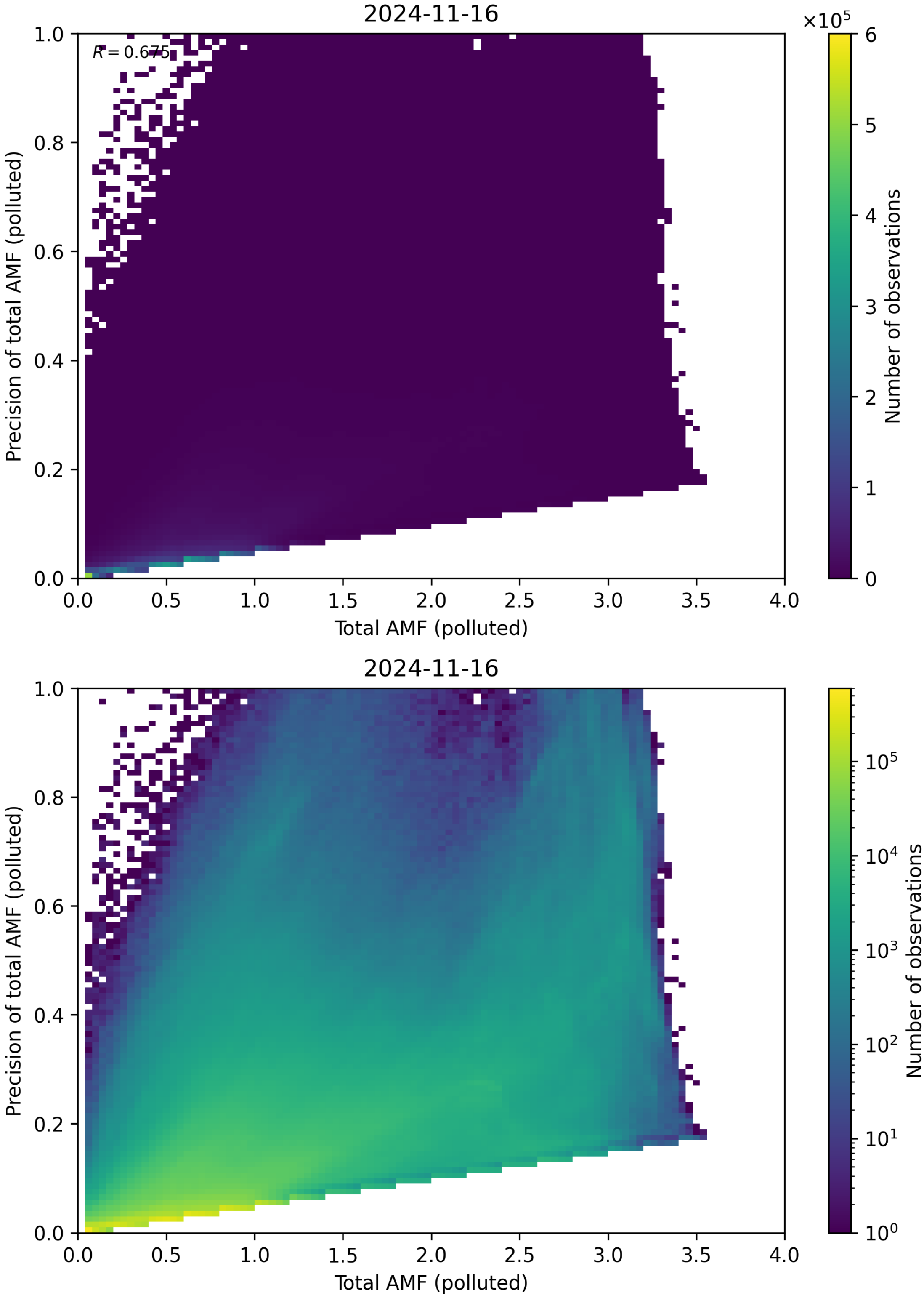
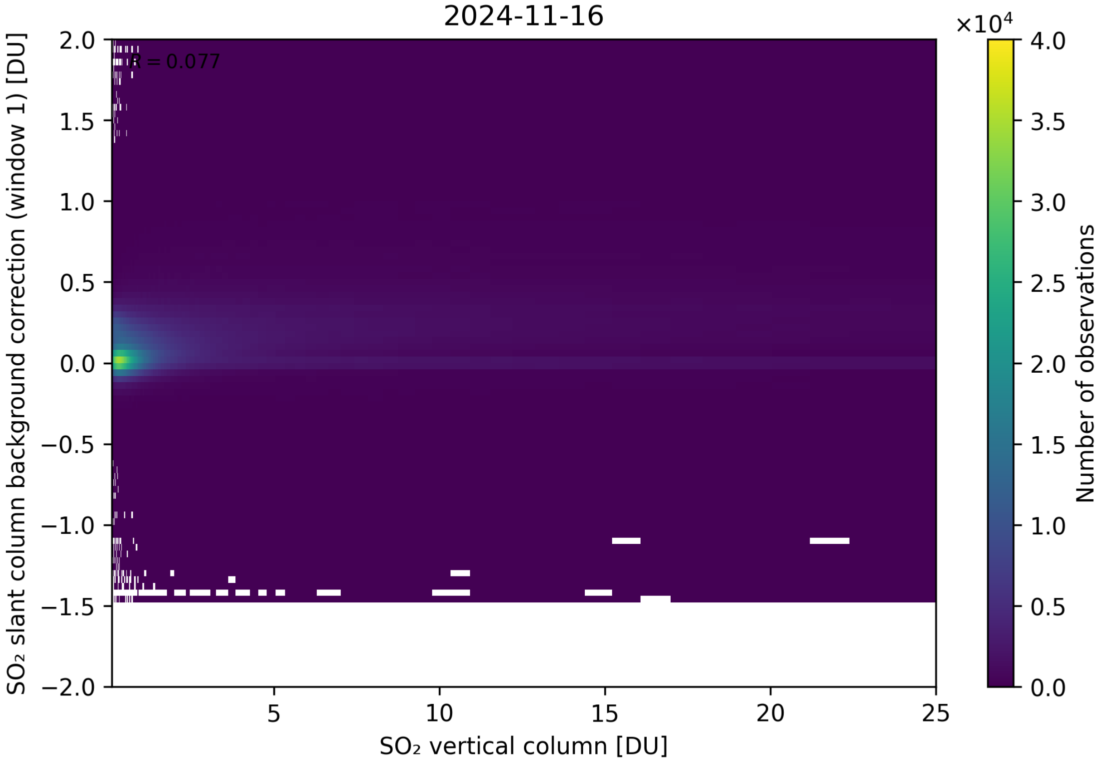


Figure 272: Scatter density plot of “Total AMF (polluted)” against “Precision of total AMF (polluted)” for 2024-11-15 to 2024-11-17.



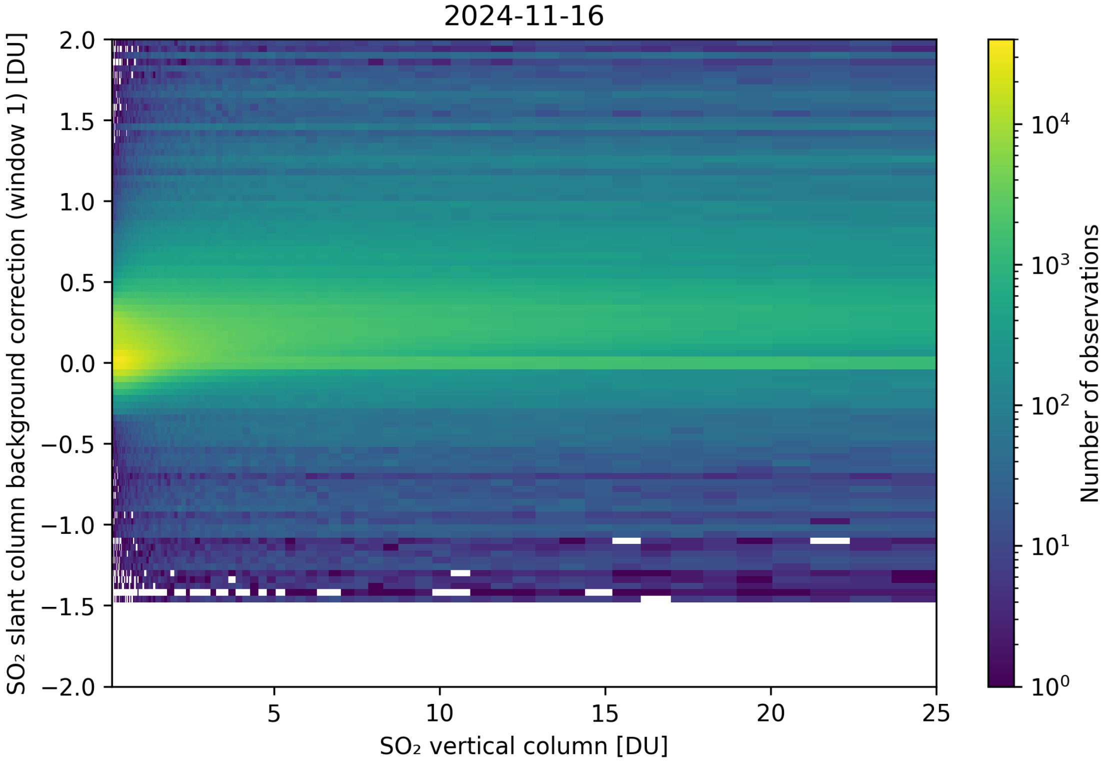


Figure 273: Scatter density plot of “SO_2 vertical column” against “SO_2 slant column background correction (window 1)” for 2024-11-15 to 2024-11-17.

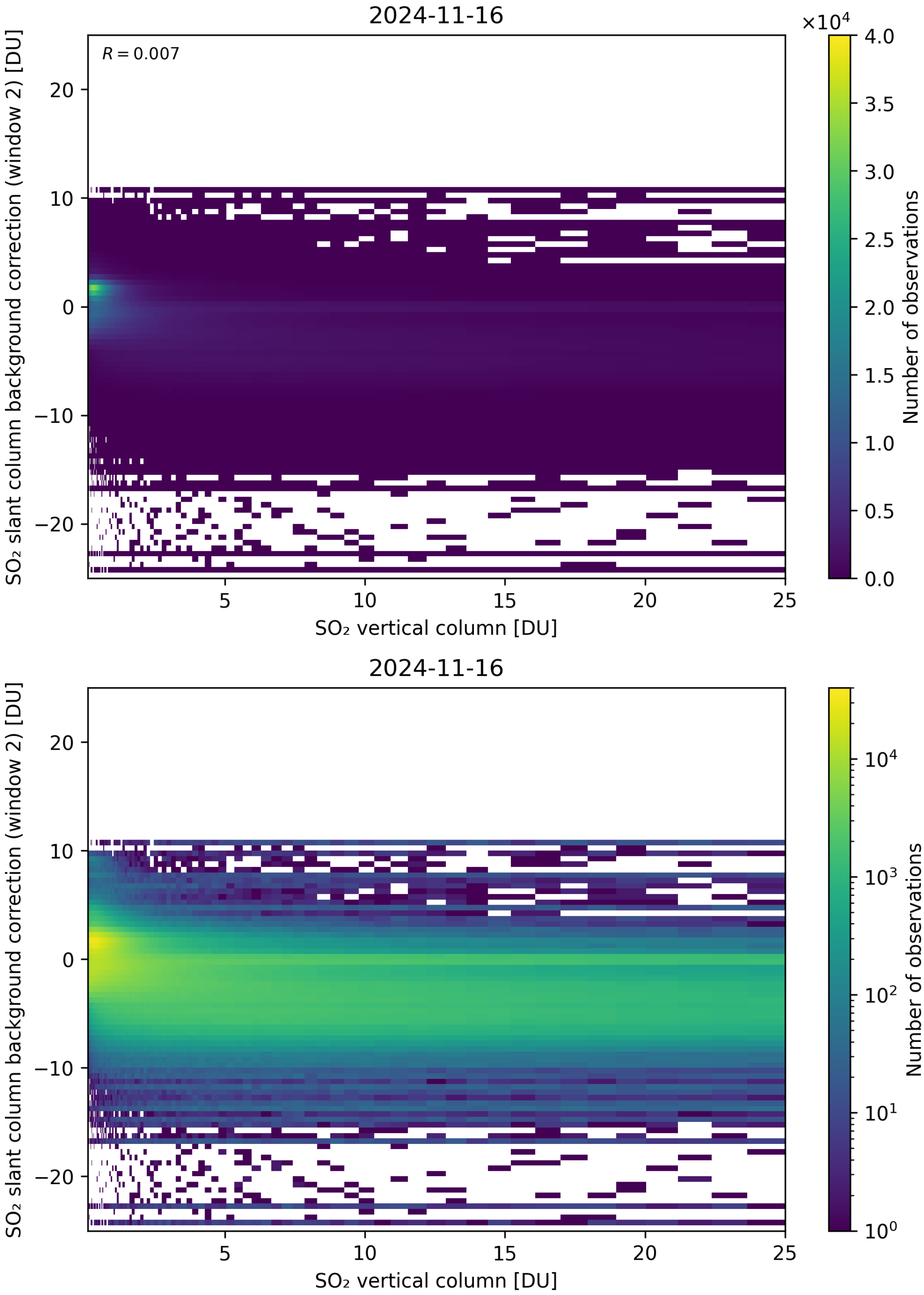


Figure 274: Scatter density plot of “SO_2 vertical column” against “SO_2 slant column background correction (window 2)” for 2024-11-15 to 2024-11-17.

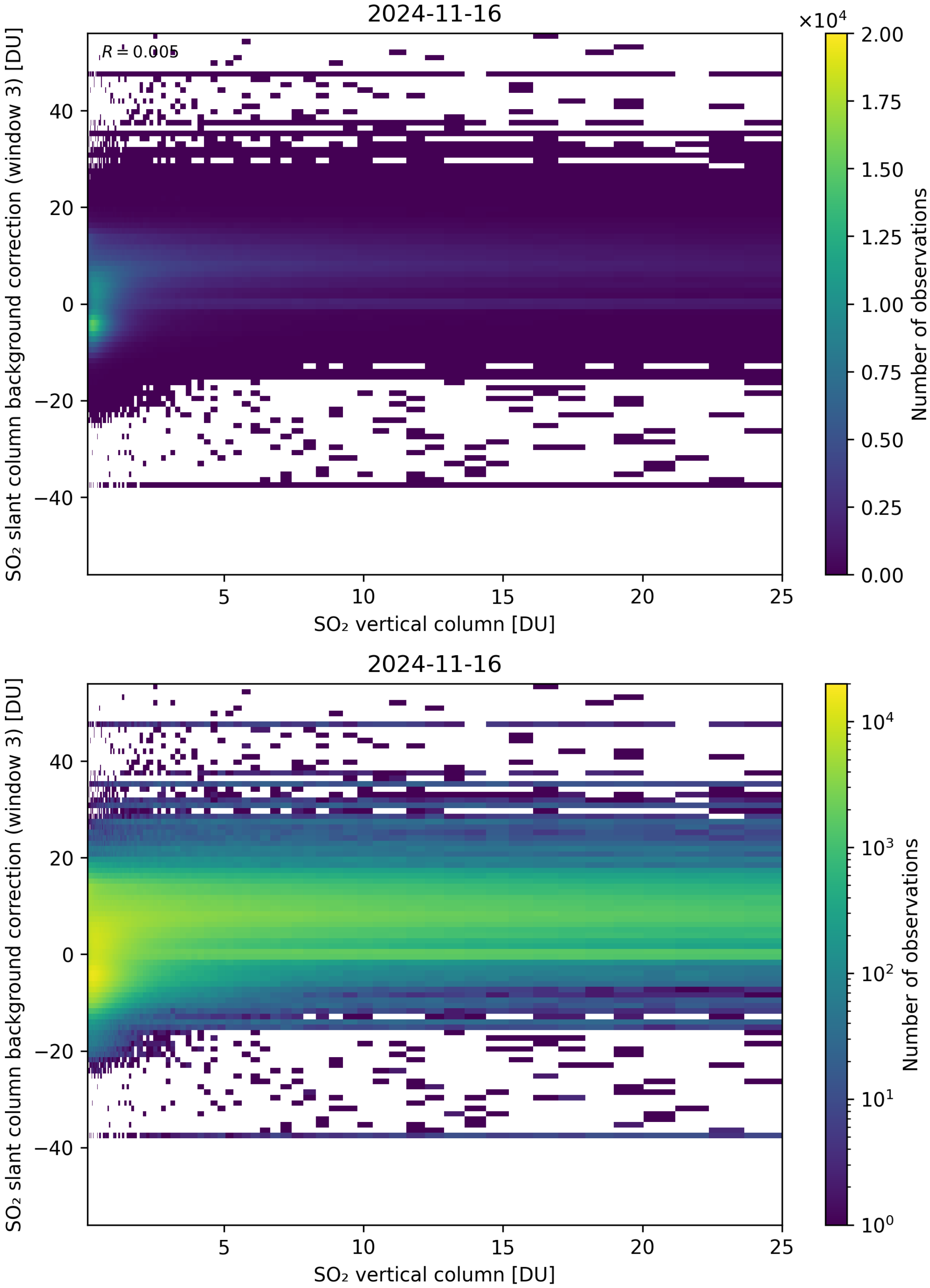


Figure 275: Scatter density plot of “SO_2 vertical column” against “SO_2 slant column background correction (window 3)” for 2024-11-15 to 2024-11-17.

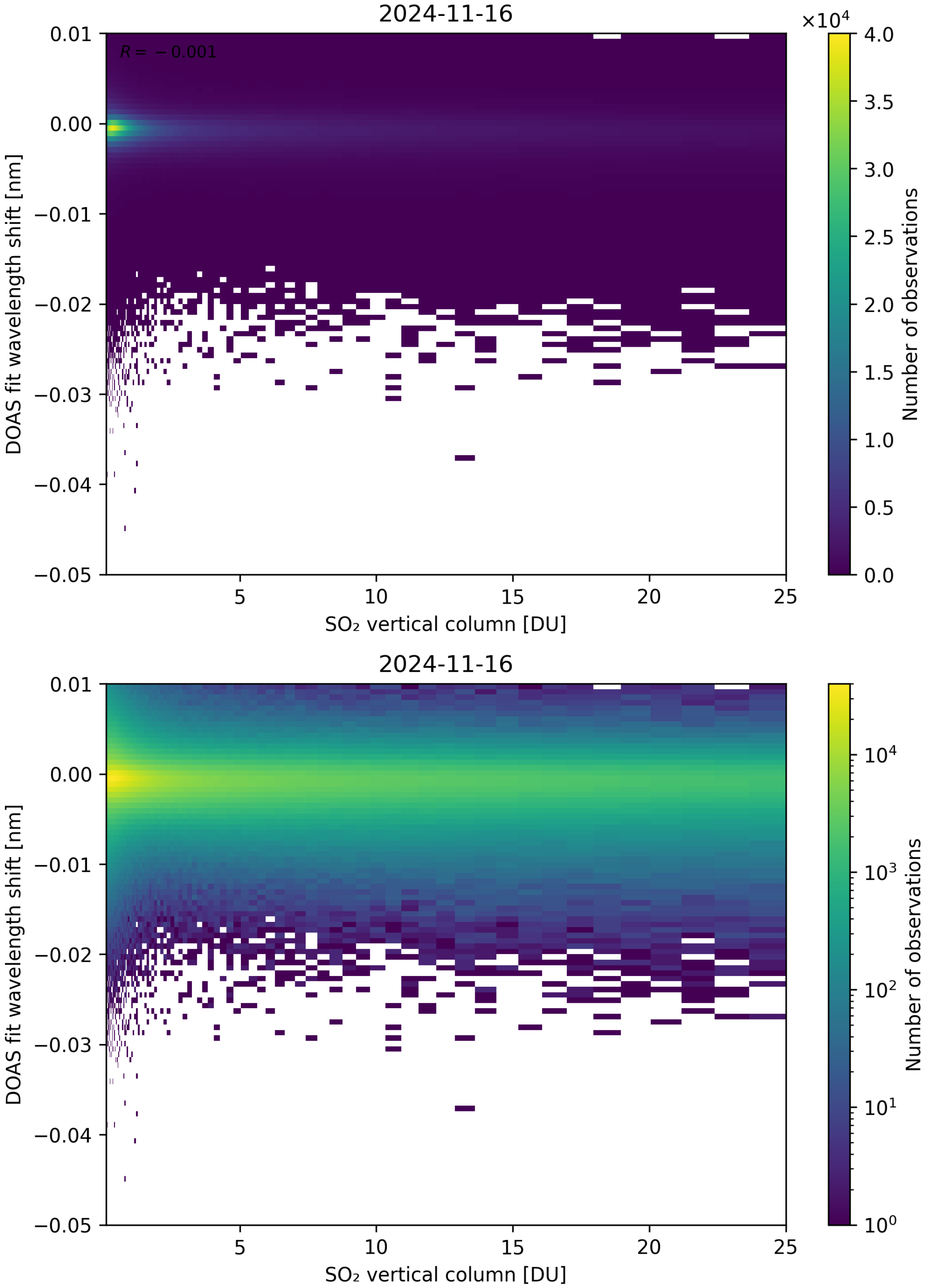


Figure 276: Scatter density plot of "SO_2 vertical column" against "DOAS fit wavelength shift" for 2024-11-15 to 2024-11-17.

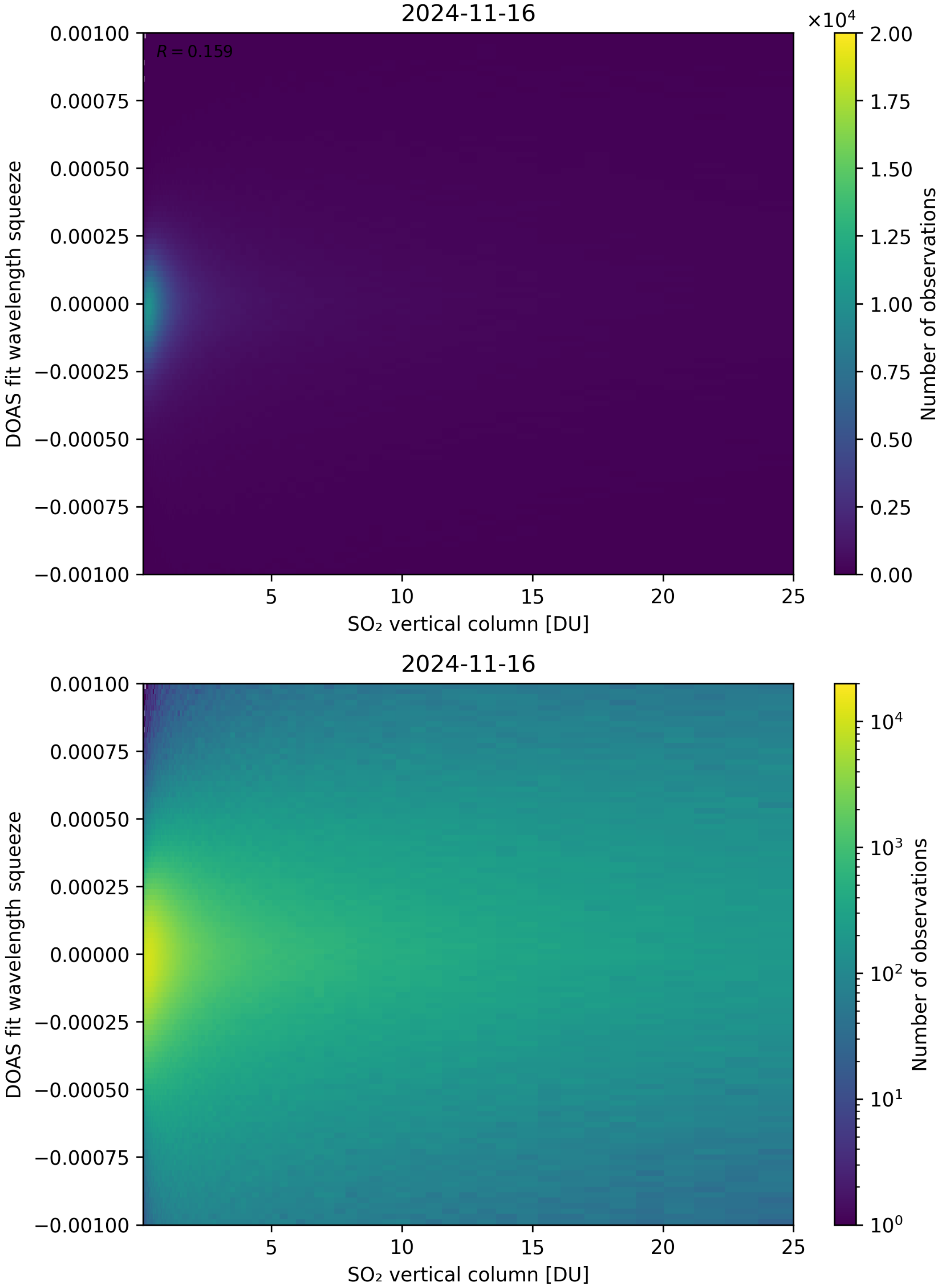


Figure 277: Scatter density plot of “SO_2 vertical column” against “DOAS fit wavelength squeeze” for 2024-11-15 to 2024-11-17.

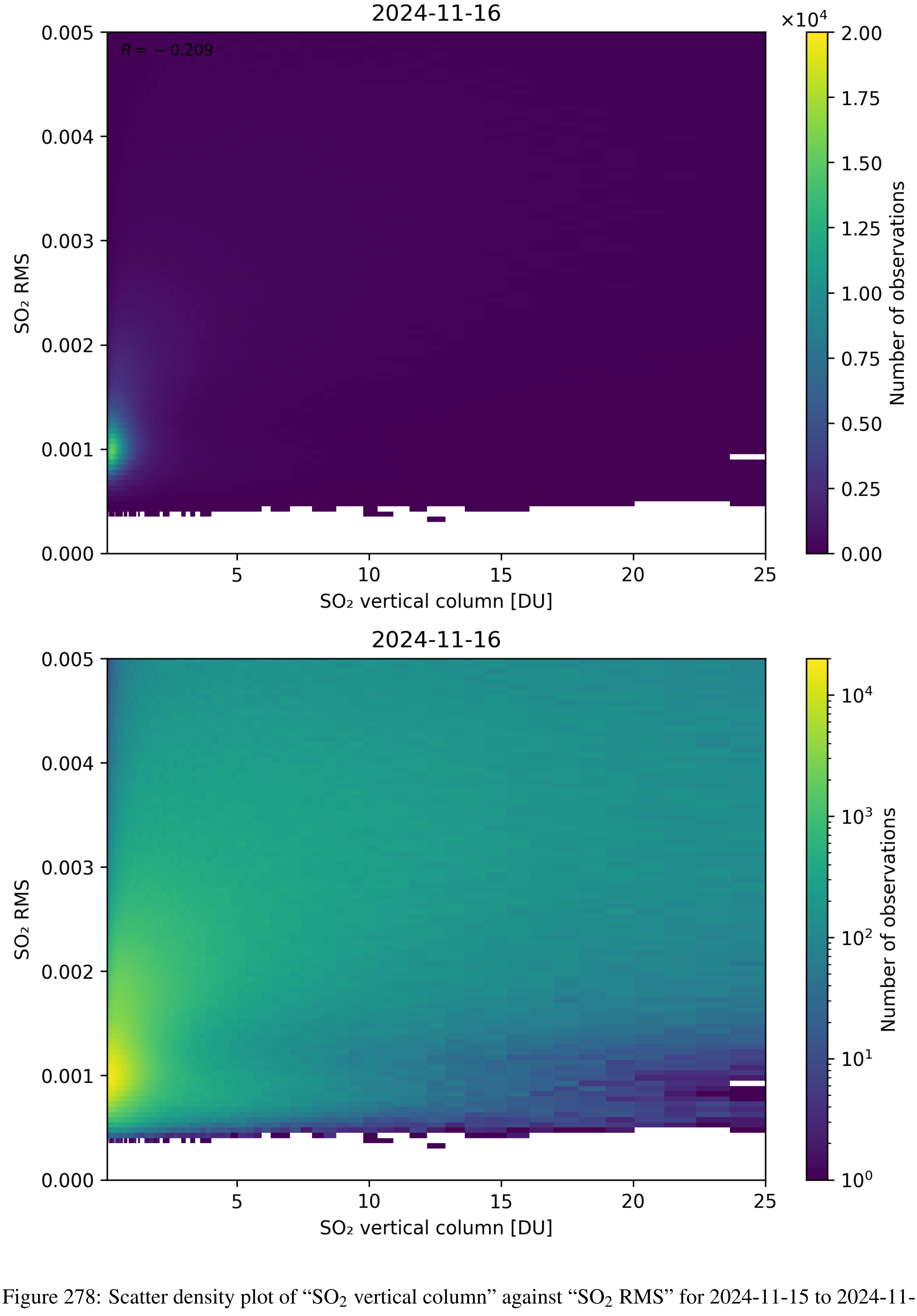


Figure 278: Scatter density plot of “SO_2 vertical column” against “SO_2 RMS” for 2024-11-15 to 2024-11-17.

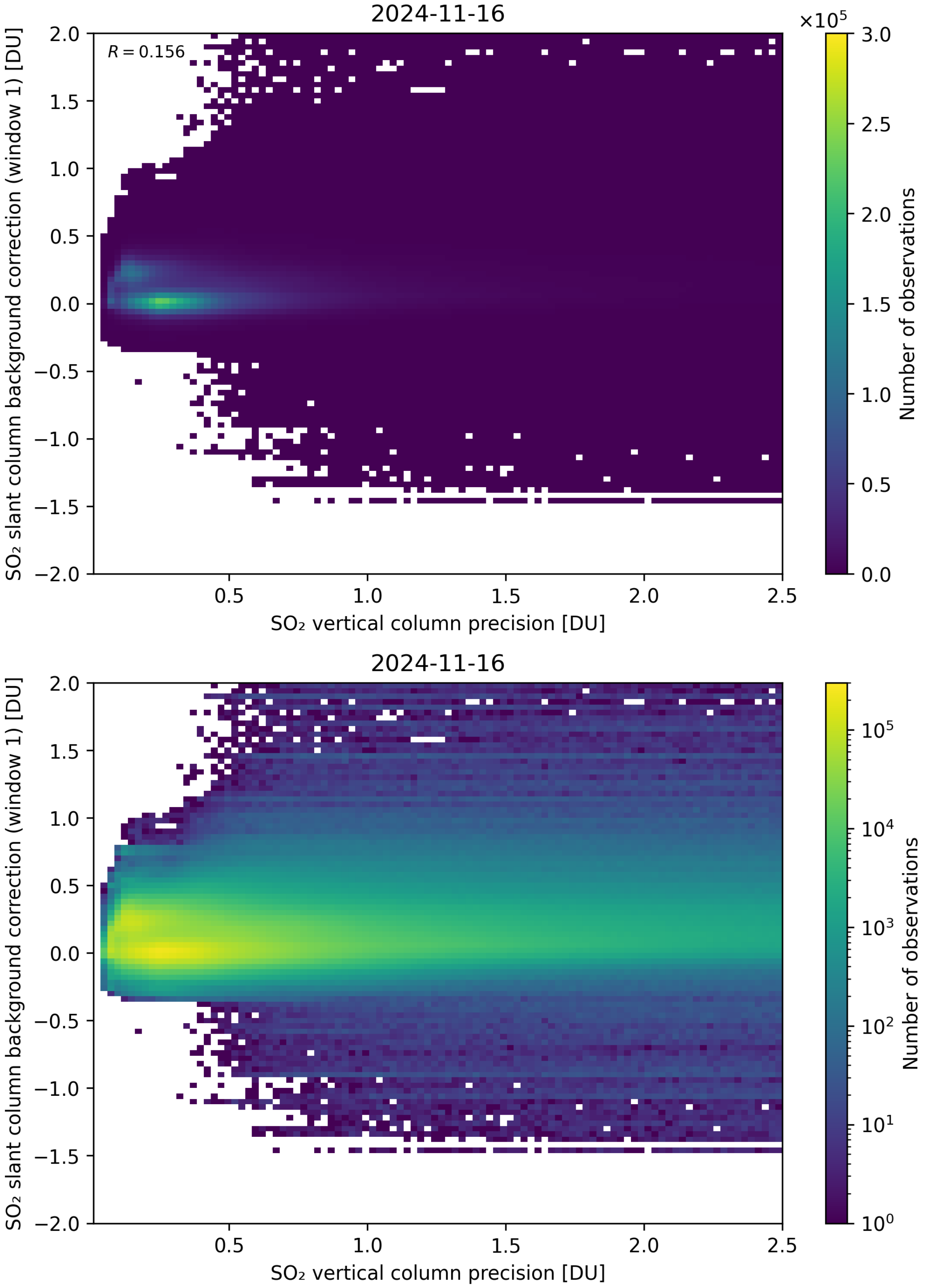
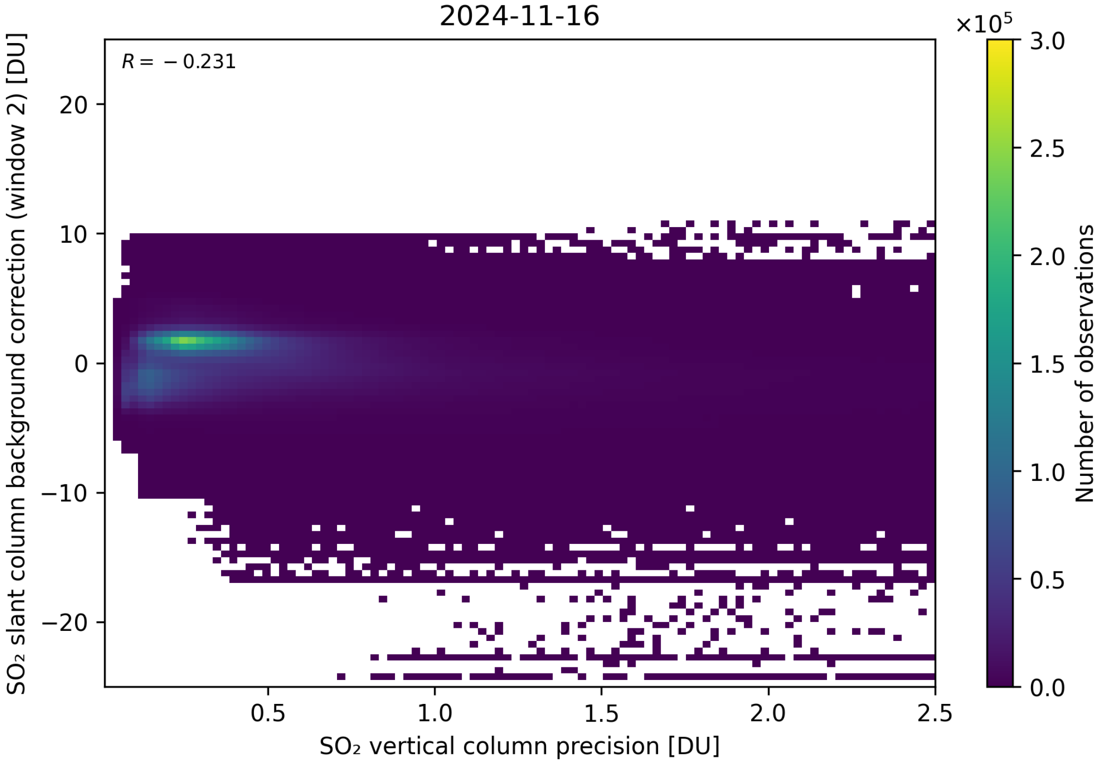


Figure 279: Scatter density plot of "SO_2 vertical column precision" against "SO_2 slant column background correction (window 1)" for 2024-11-15 to 2024-11-17.



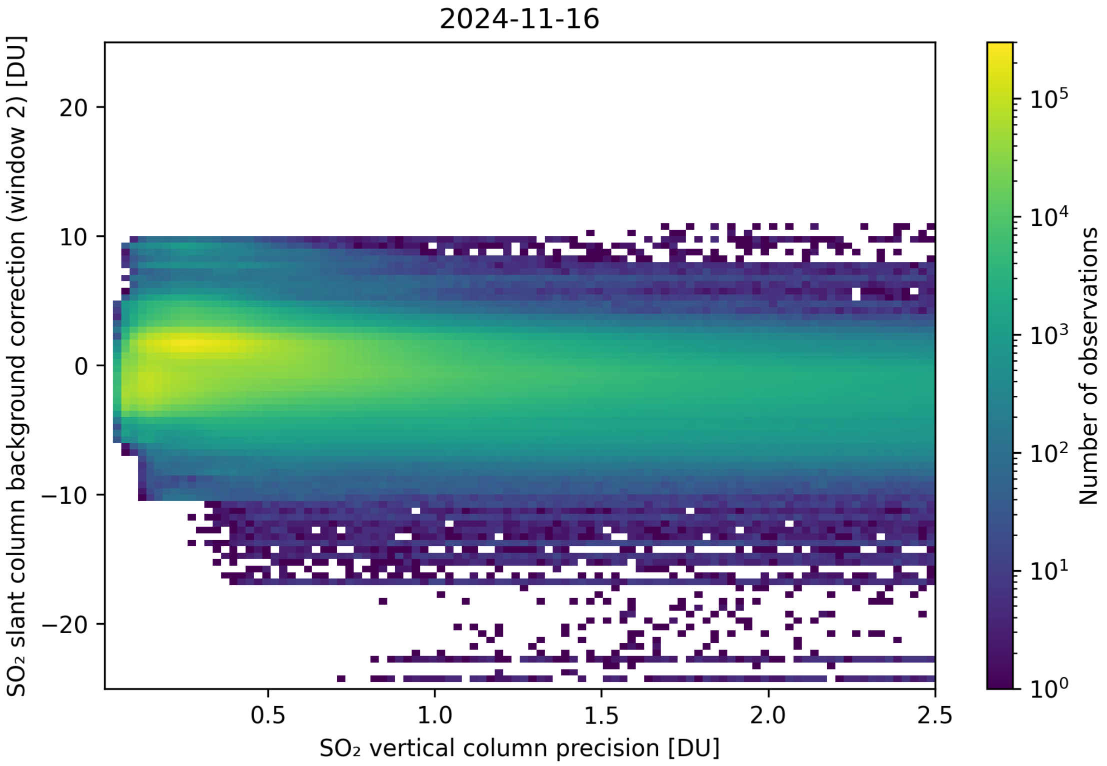


Figure 280: Scatter density plot of "SO_2 vertical column precision" against "SO_2 slant column background correction (window 2)" for 2024-11-15 to 2024-11-17.

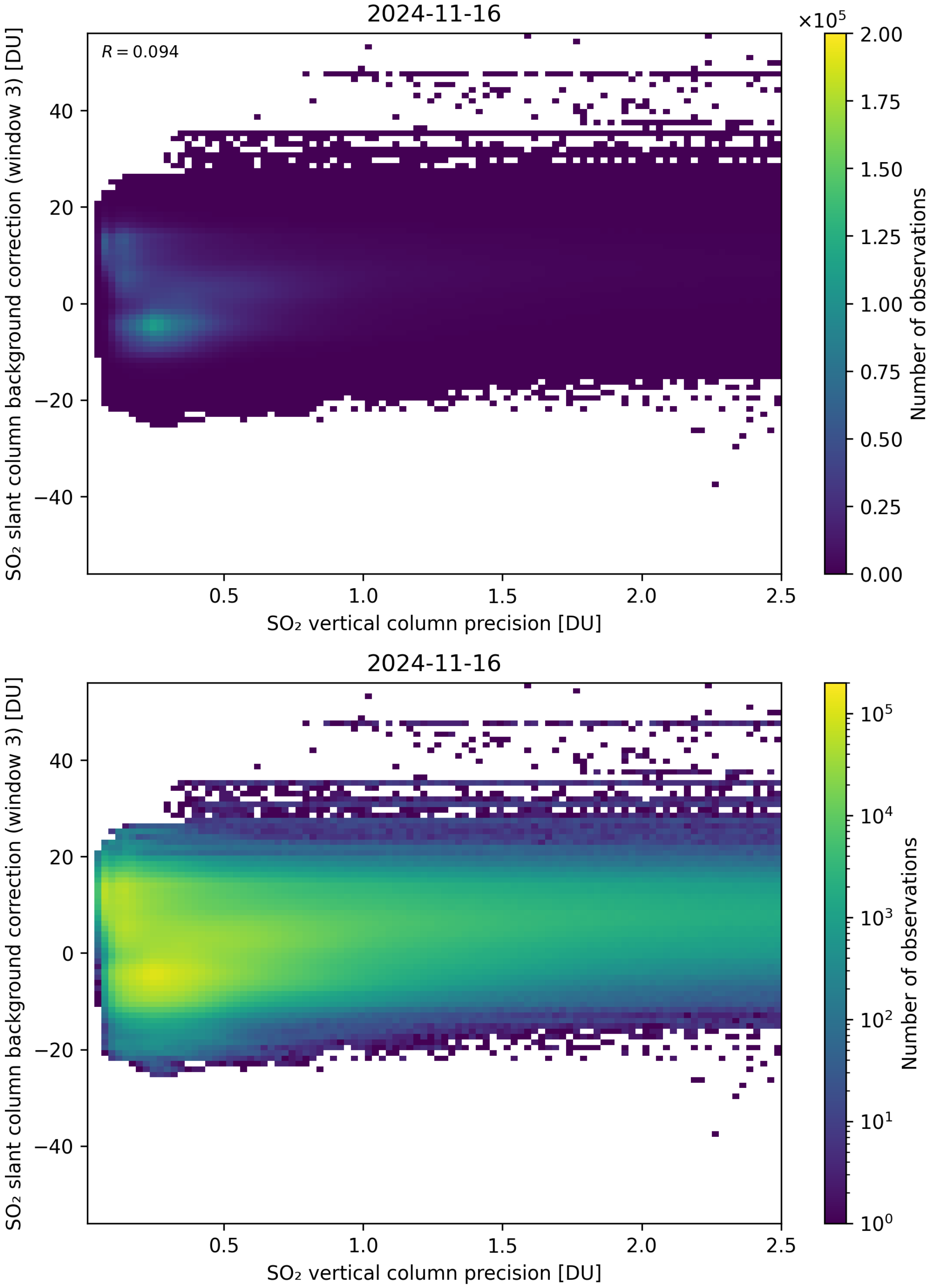


Figure 281: Scatter density plot of “SO_2 vertical column precision” against “SO_2 slant column background correction (window 3)” for 2024-11-15 to 2024-11-17.

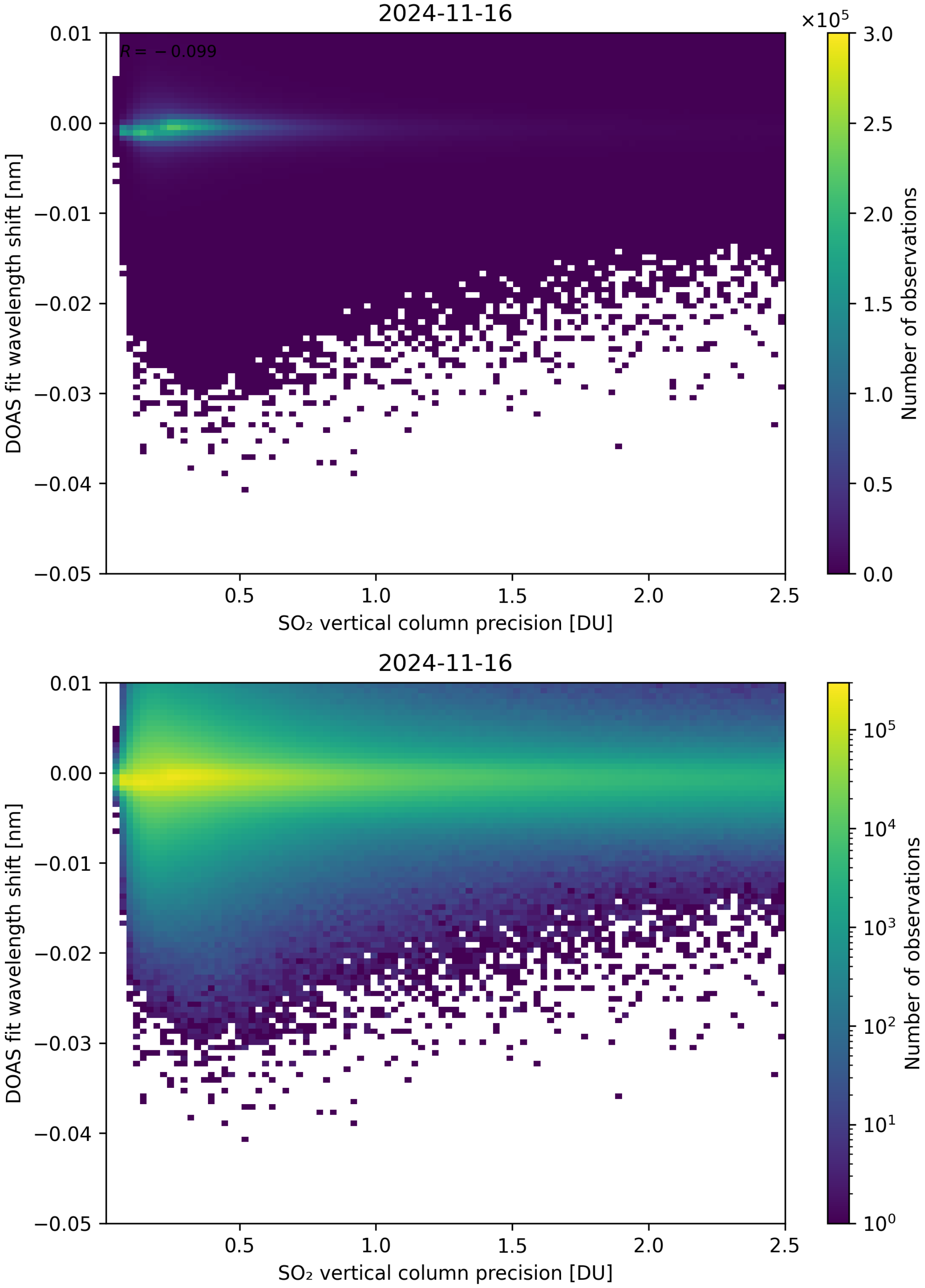


Figure 282: Scatter density plot of “SO_2 vertical column precision” against “DOAS fit wavelength shift” for 2024-11-15 to 2024-11-17.

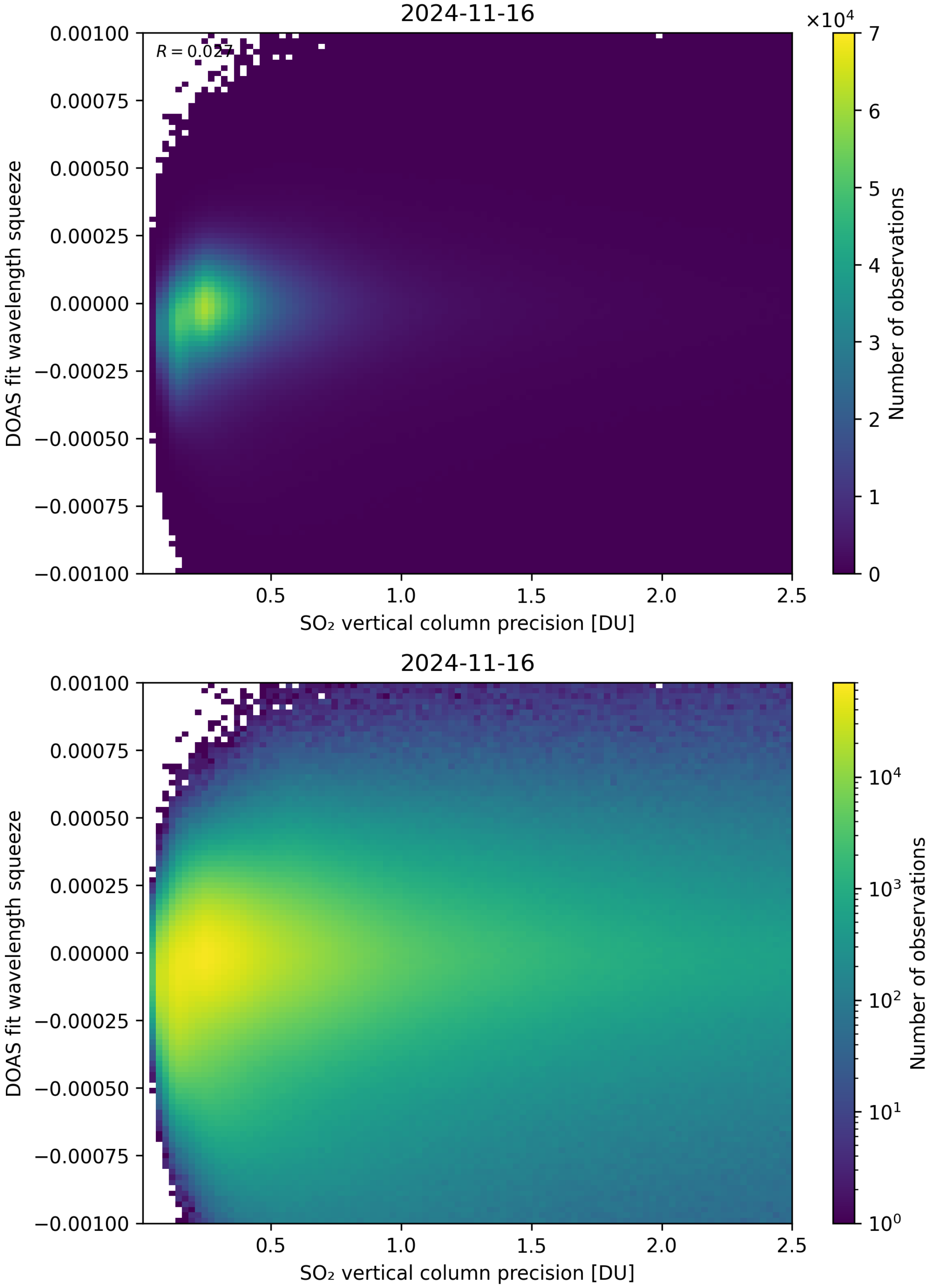


Figure 283: Scatter density plot of “SO_2 vertical column precision” against “DOAS fit wavelength squeeze” for 2024-11-15 to 2024-11-17.

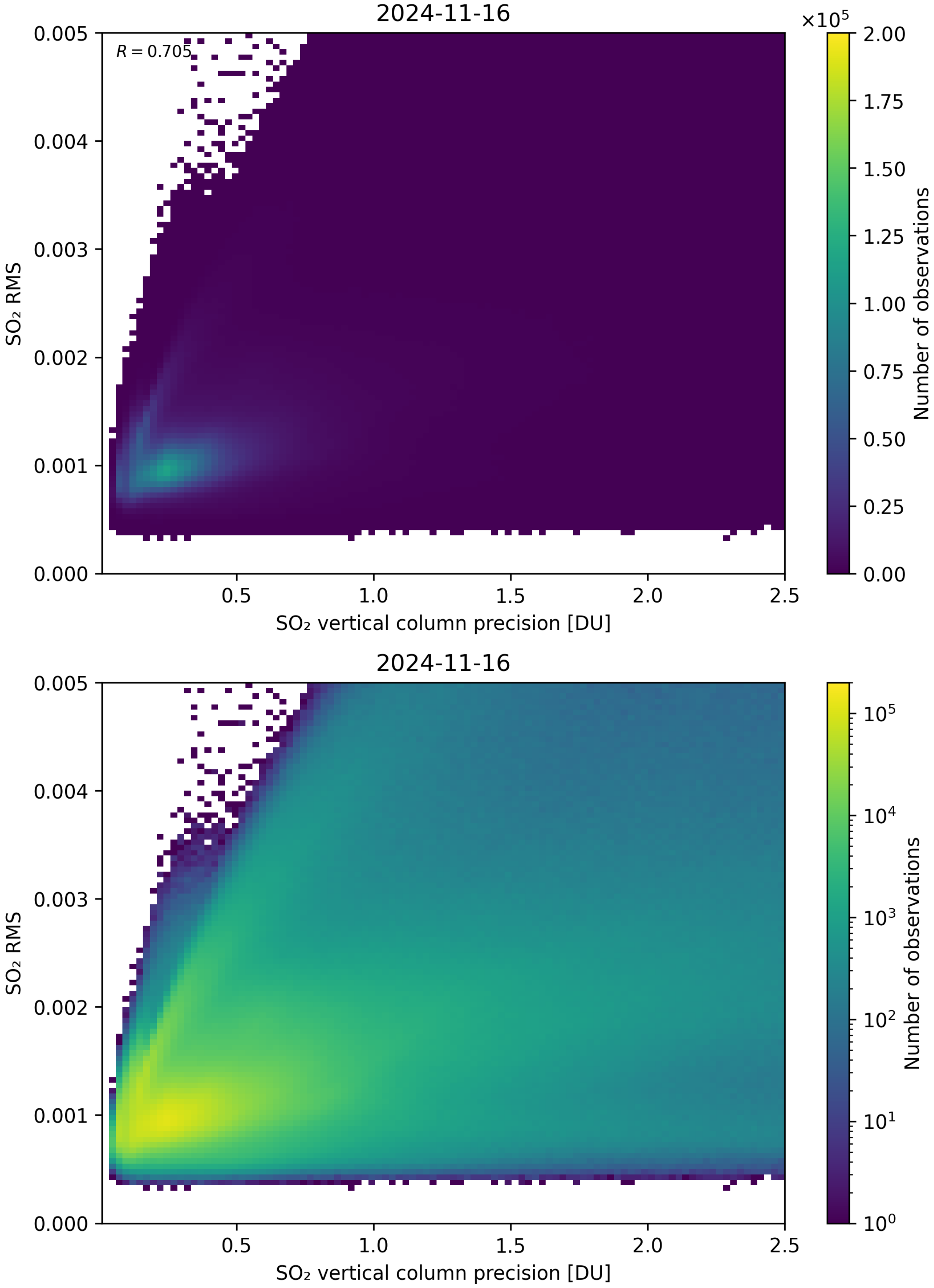


Figure 284: Scatter density plot of “SO_2 vertical column precision” against “SO_2 RMS” for 2024-11-15 to 2024-11-17.

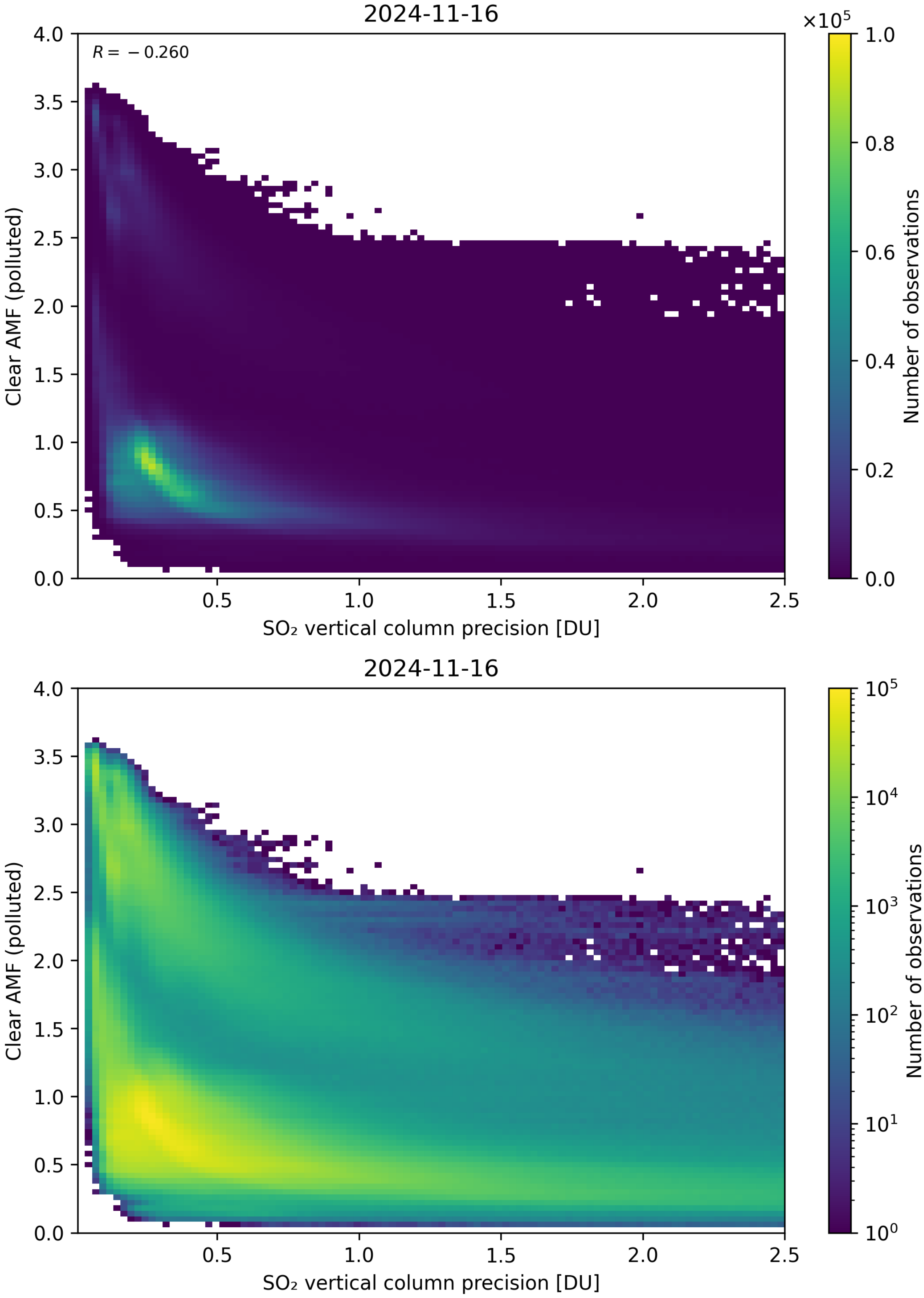


Figure 285: Scatter density plot of “SO_2 vertical column precision” against “Clear AMF (polluted)” for 2024-11-15 to 2024-11-17.

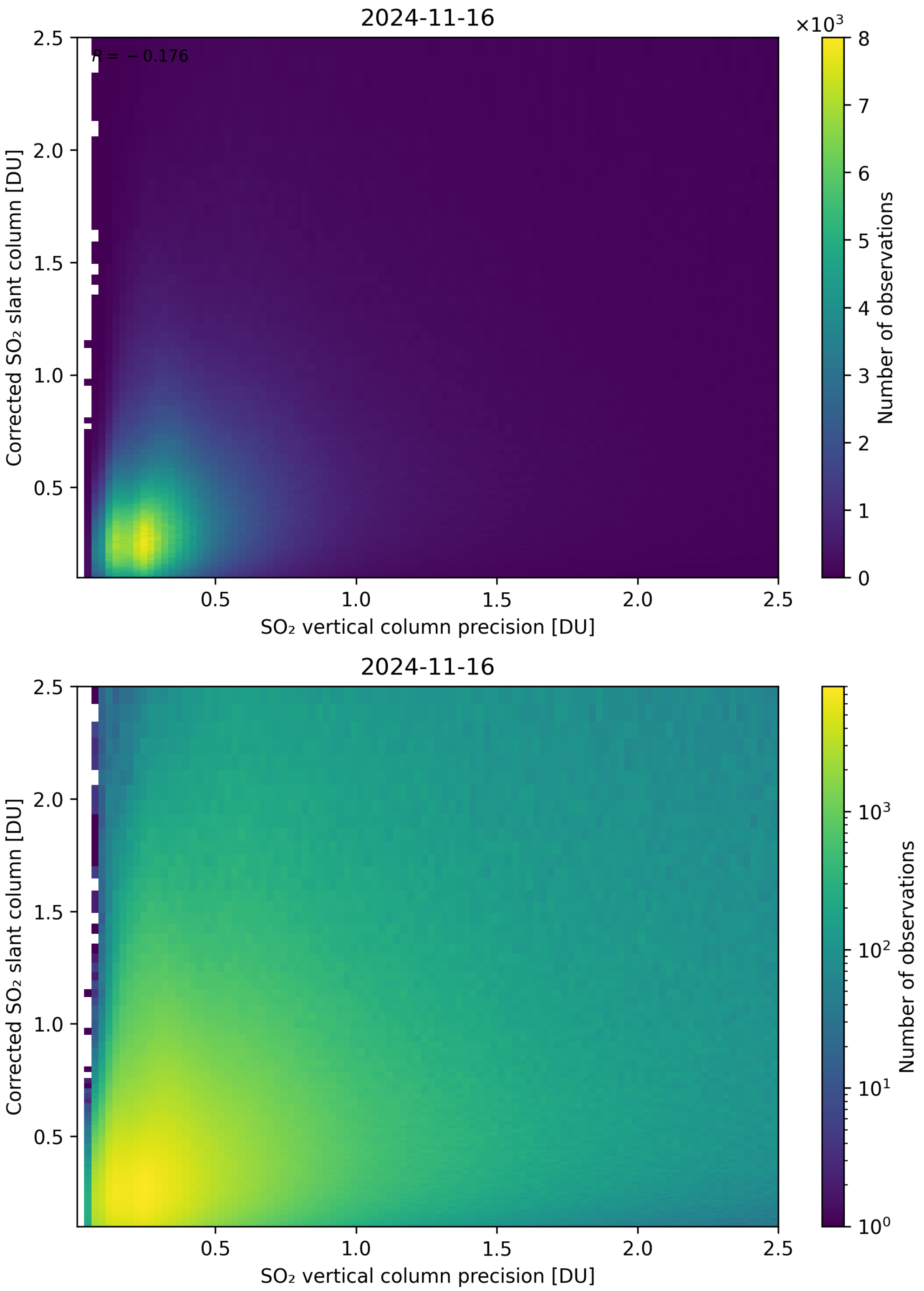


Figure 286: Scatter density plot of "SO_2 vertical column precision" against "Corrected SO_2 slant column" for 2024-11-15 to 2024-11-17.

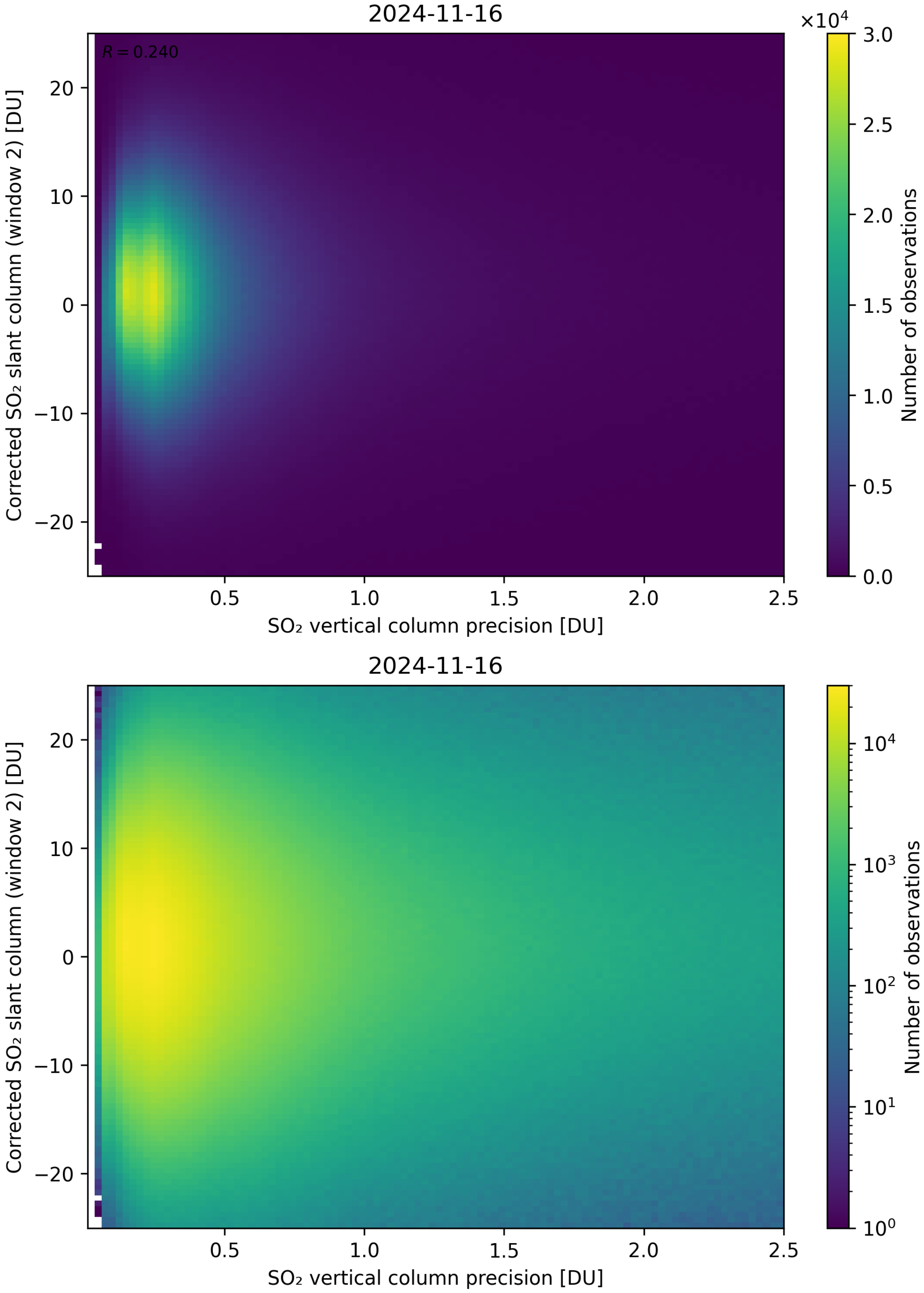


Figure 287: Scatter density plot of “SO_2 vertical column precision” against “Corrected SO_2 slant column (window 2)” for 2024-11-15 to 2024-11-17.

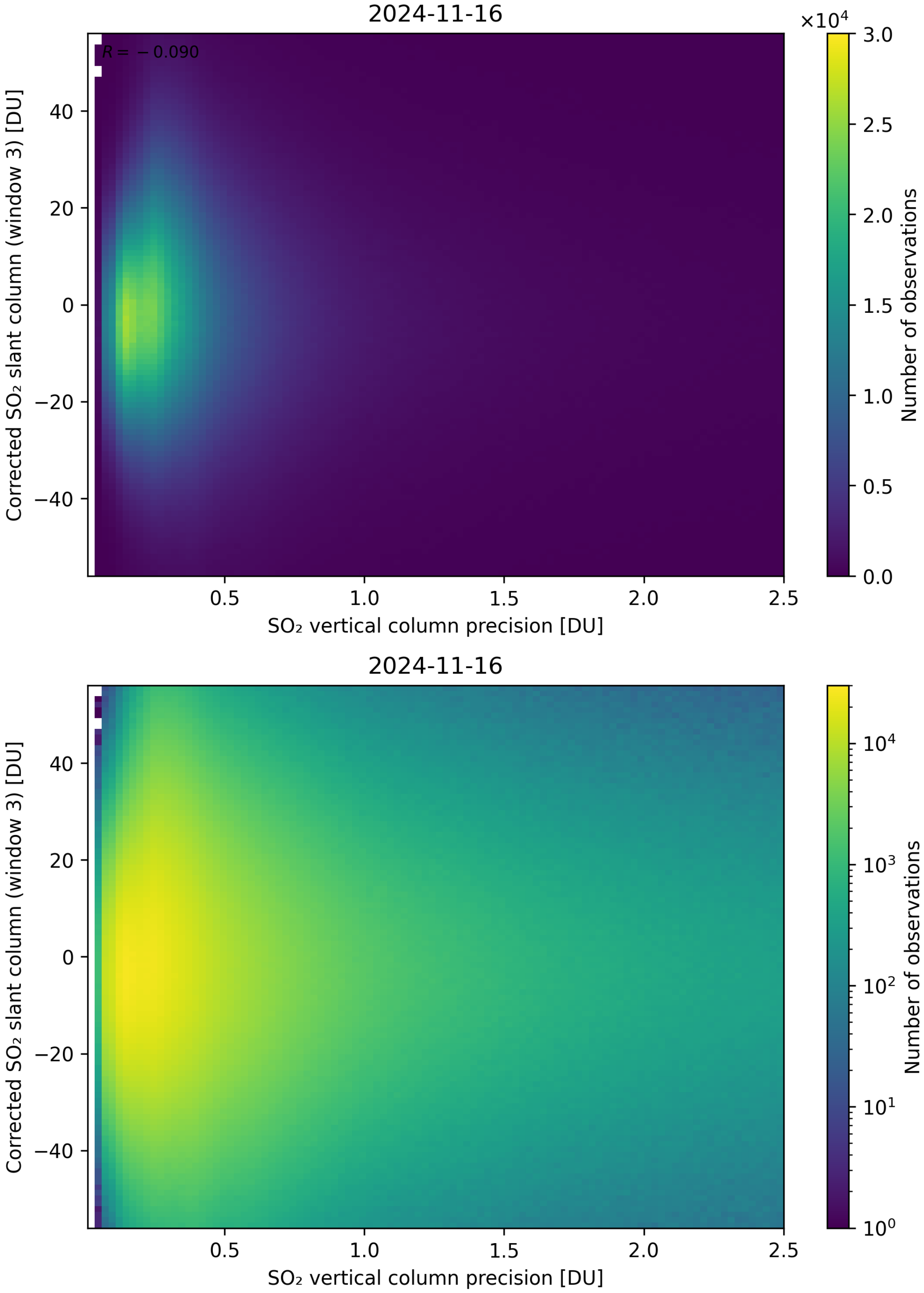


Figure 288: Scatter density plot of "SO_2 vertical column precision" against "Corrected SO_2 slant column (window 3)" for 2024-11-15 to 2024-11-17.

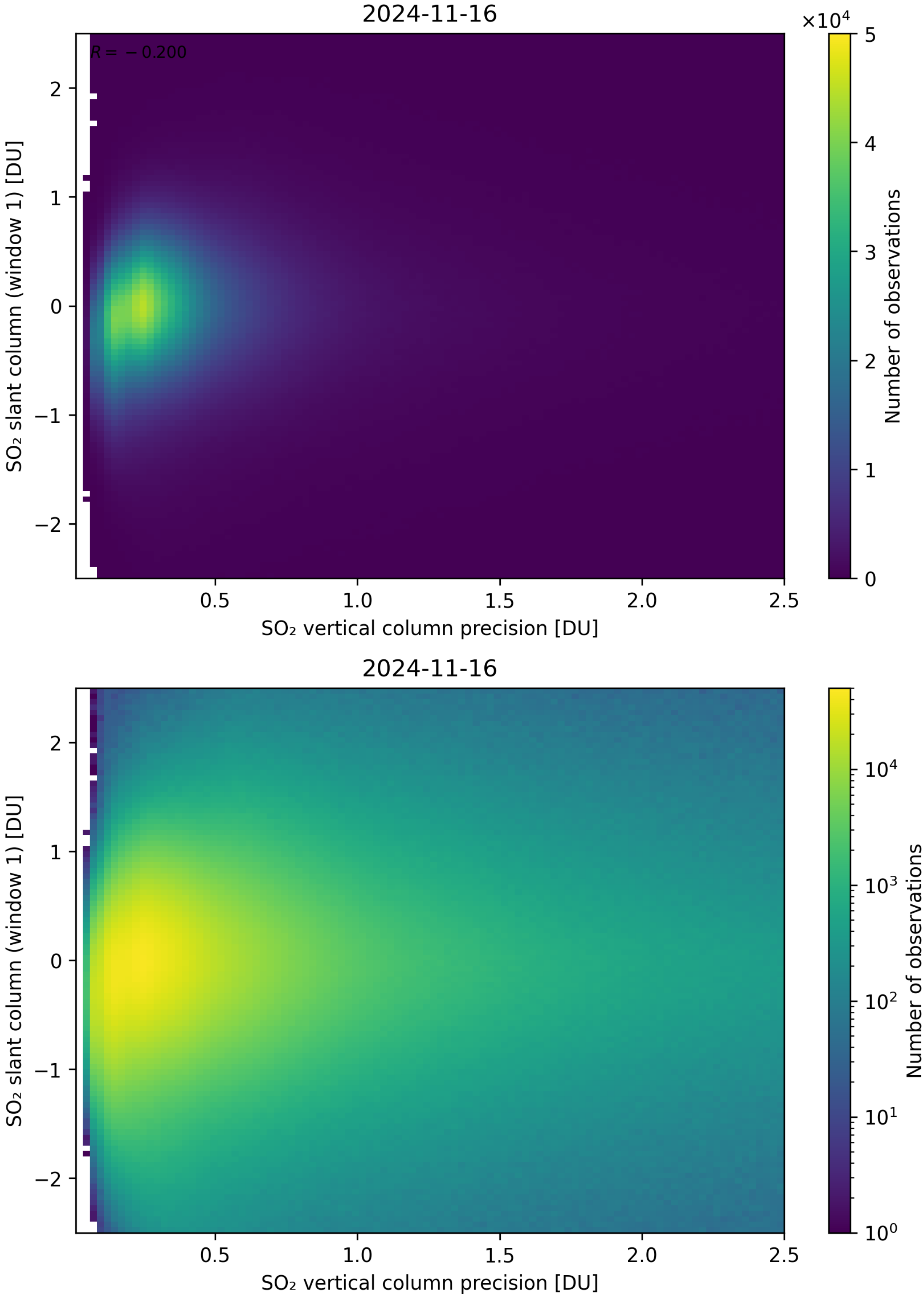
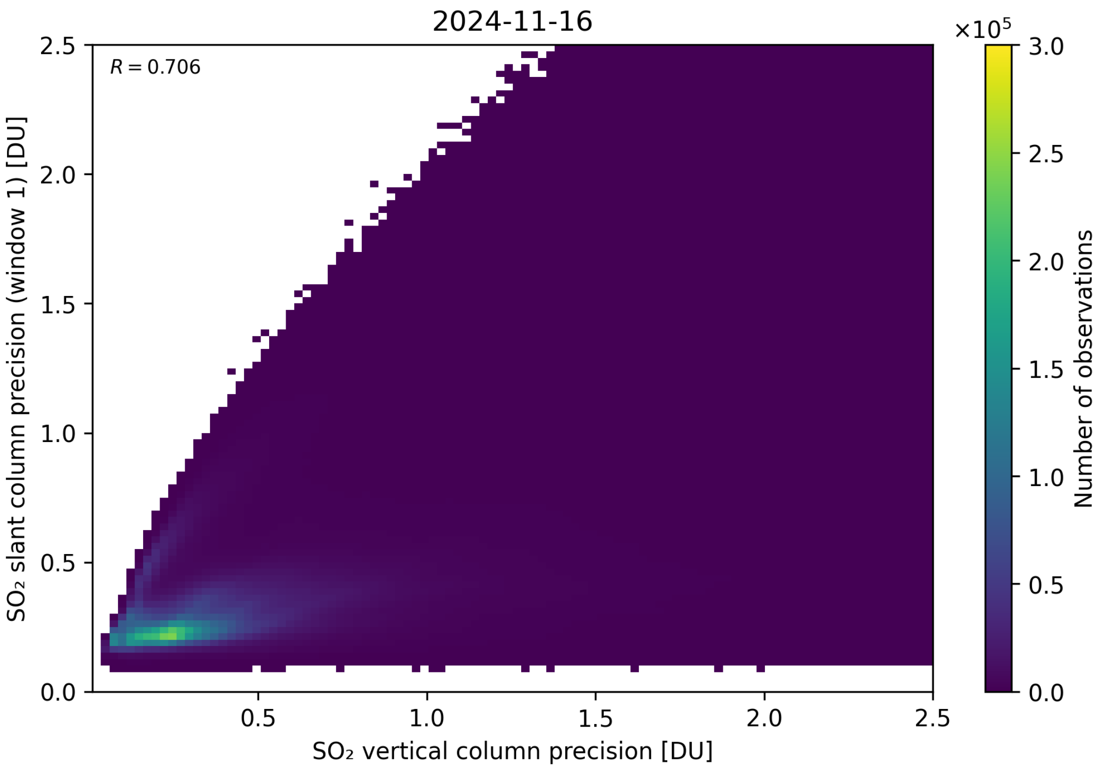


Figure 289: Scatter density plot of “SO_2 vertical column precision” against “SO_2 slant column (window 1)” for 2024-11-15 to 2024-11-17.



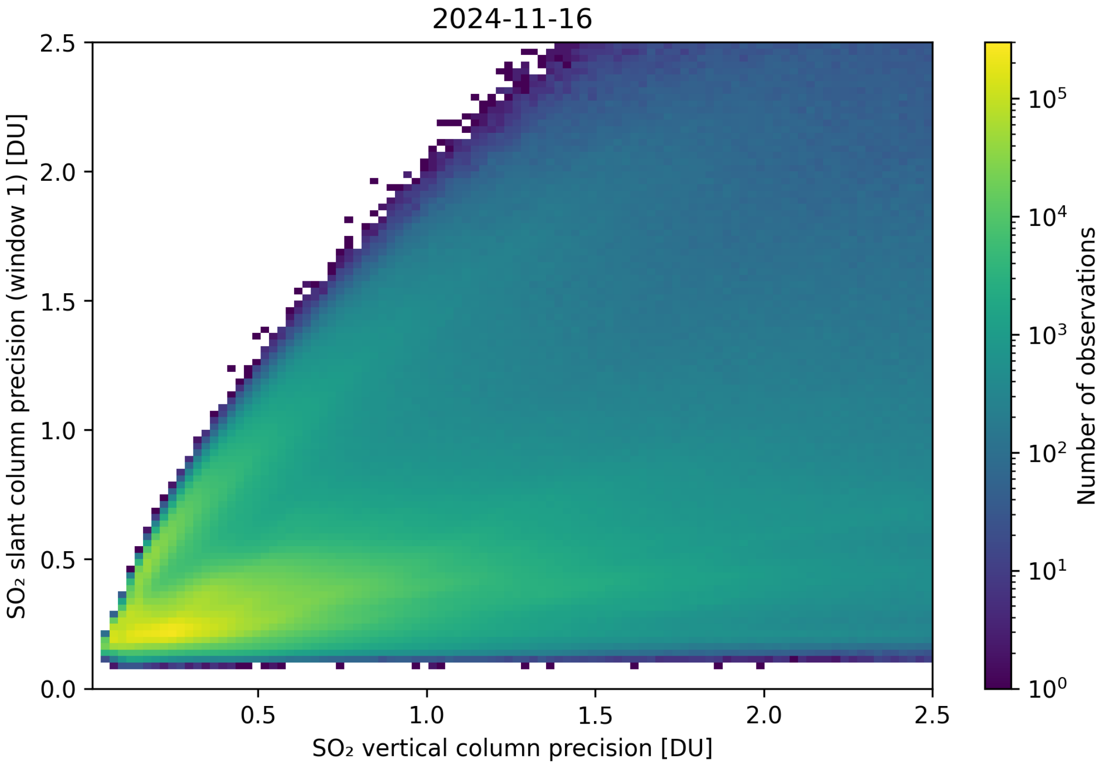


Figure 290: Scatter density plot of "SO_2 vertical column precision" against "SO_2 slant column precision (window 1)" for 2024-11-15 to 2024-11-17.

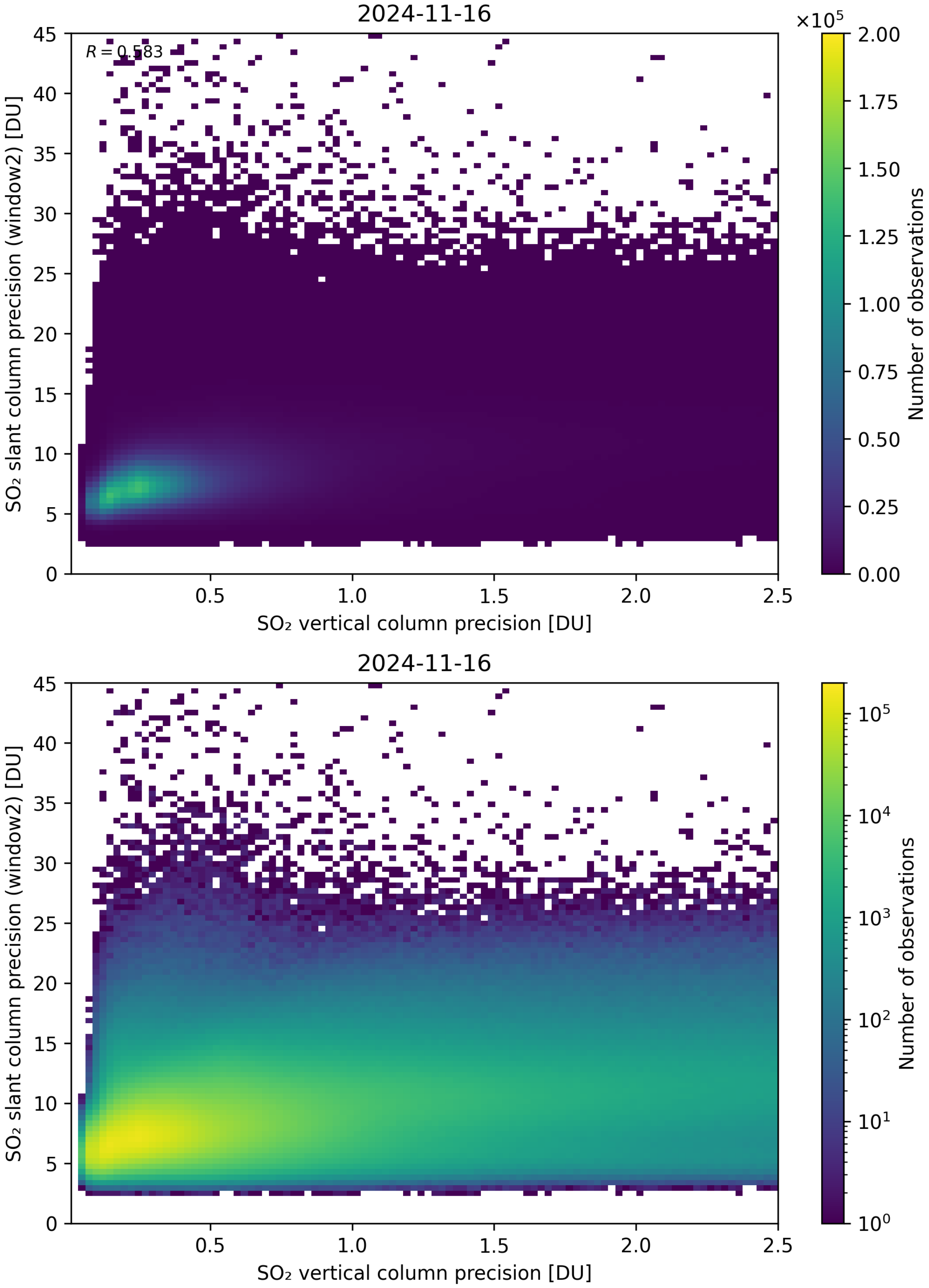


Figure 291: Scatter density plot of “SO_2 vertical column precision” against “SO_2 slant column precision (window2)” for 2024-11-15 to 2024-11-17.

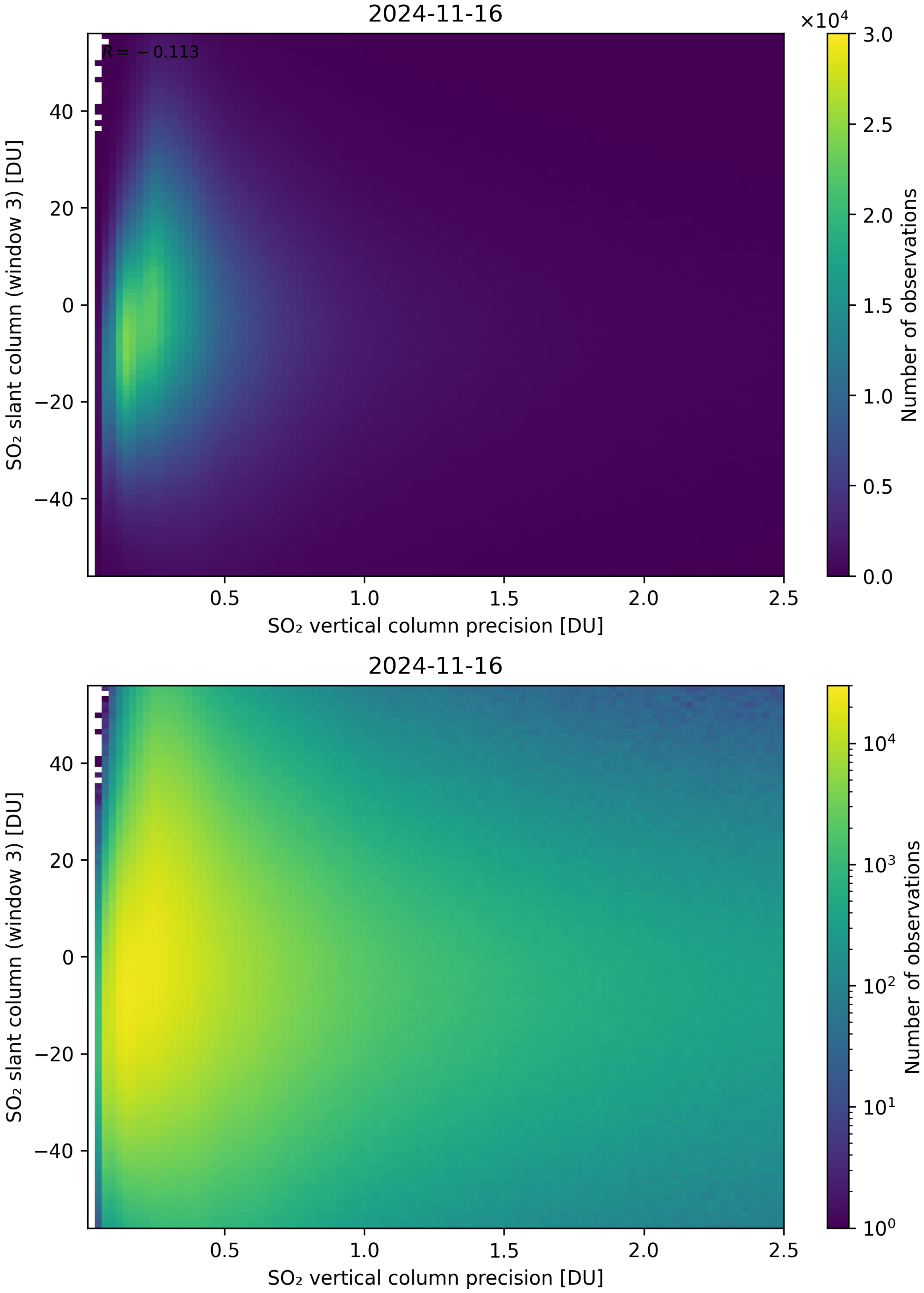


Figure 292: Scatter density plot of “SO_2 vertical column precision” against “SO_2 slant column (window 3)” for 2024-11-15 to 2024-11-17.

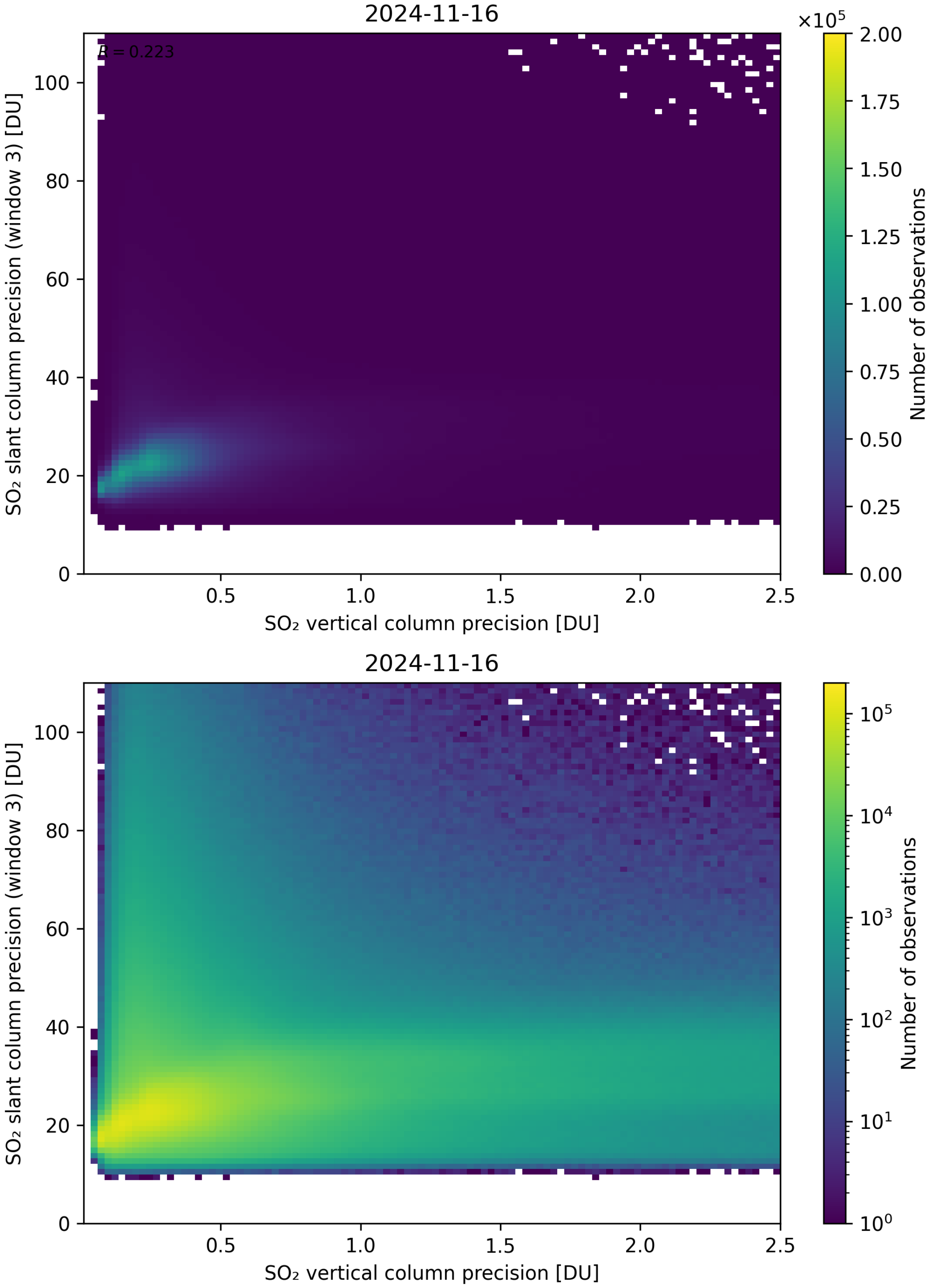


Figure 293: Scatter density plot of “SO_2 vertical column precision” against “SO_2 slant column precision (window 3)” for 2024-11-15 to 2024-11-17.

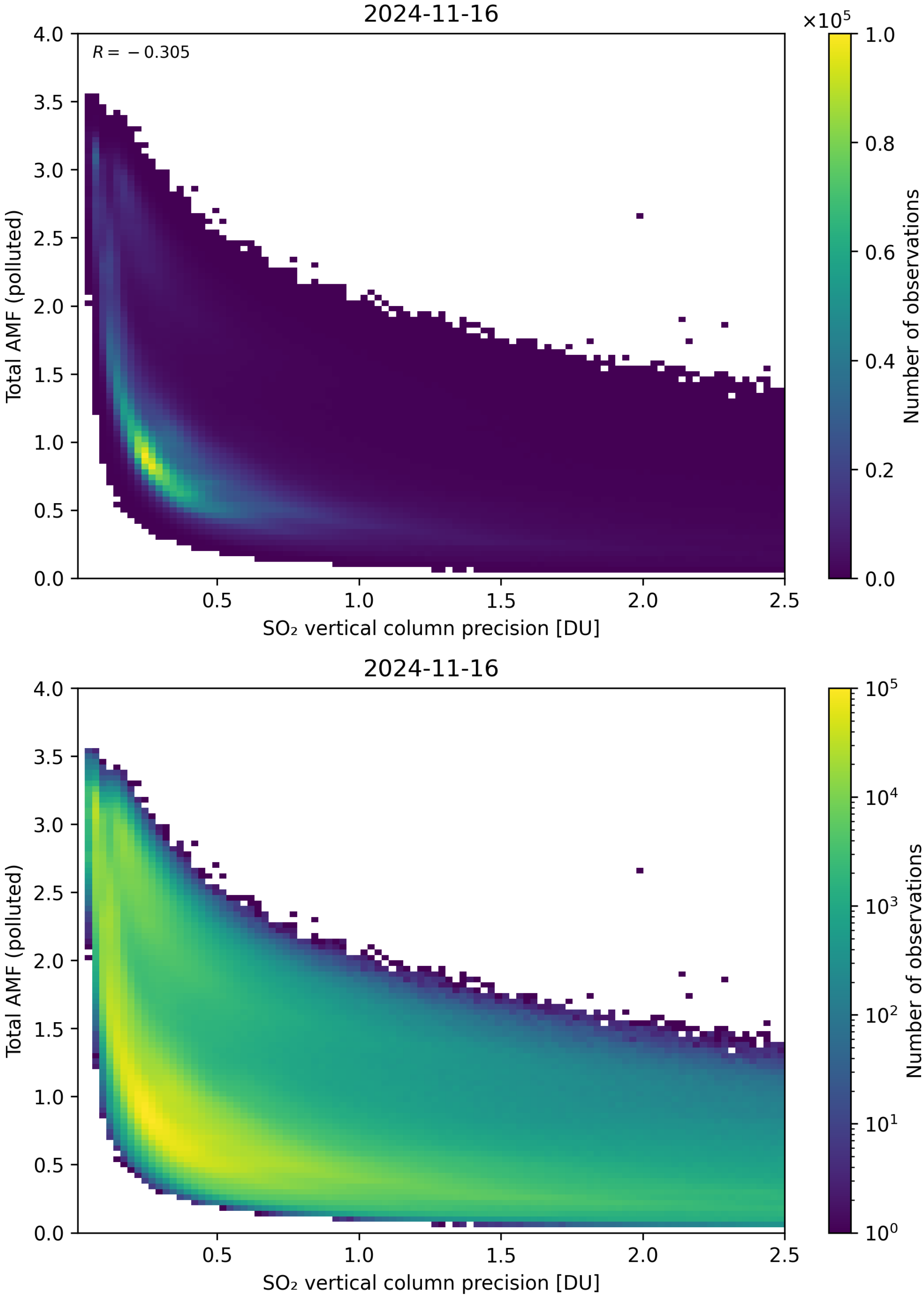


Figure 294: Scatter density plot of "SO_2 vertical column precision" against "Total AMF (polluted)" for 2024-11-15 to 2024-11-17.

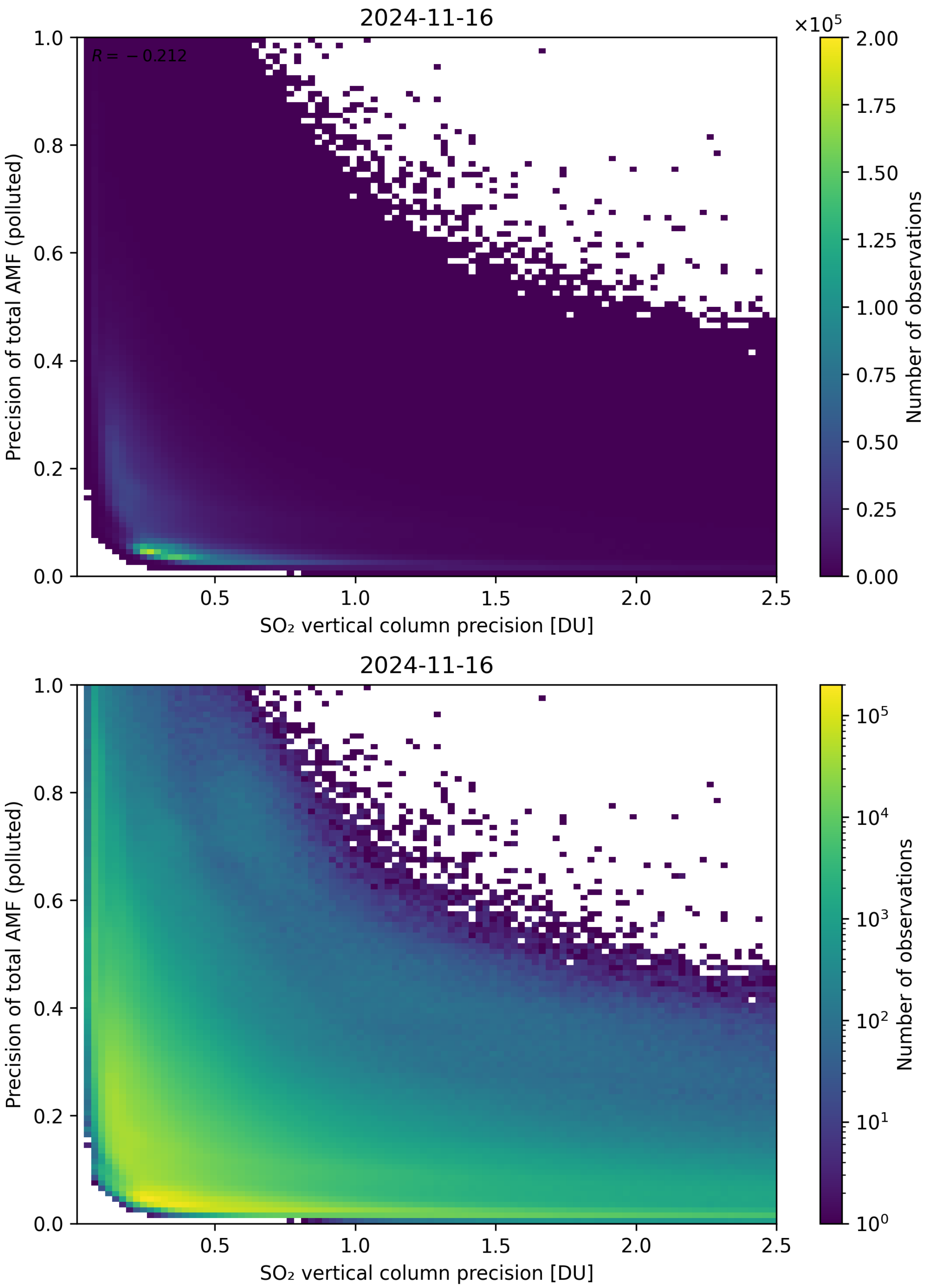


Figure 295: Scatter density plot of "SO_2 vertical column precision" against "Precision of total AMF (polluted)" for 2024-11-15 to 2024-11-17.

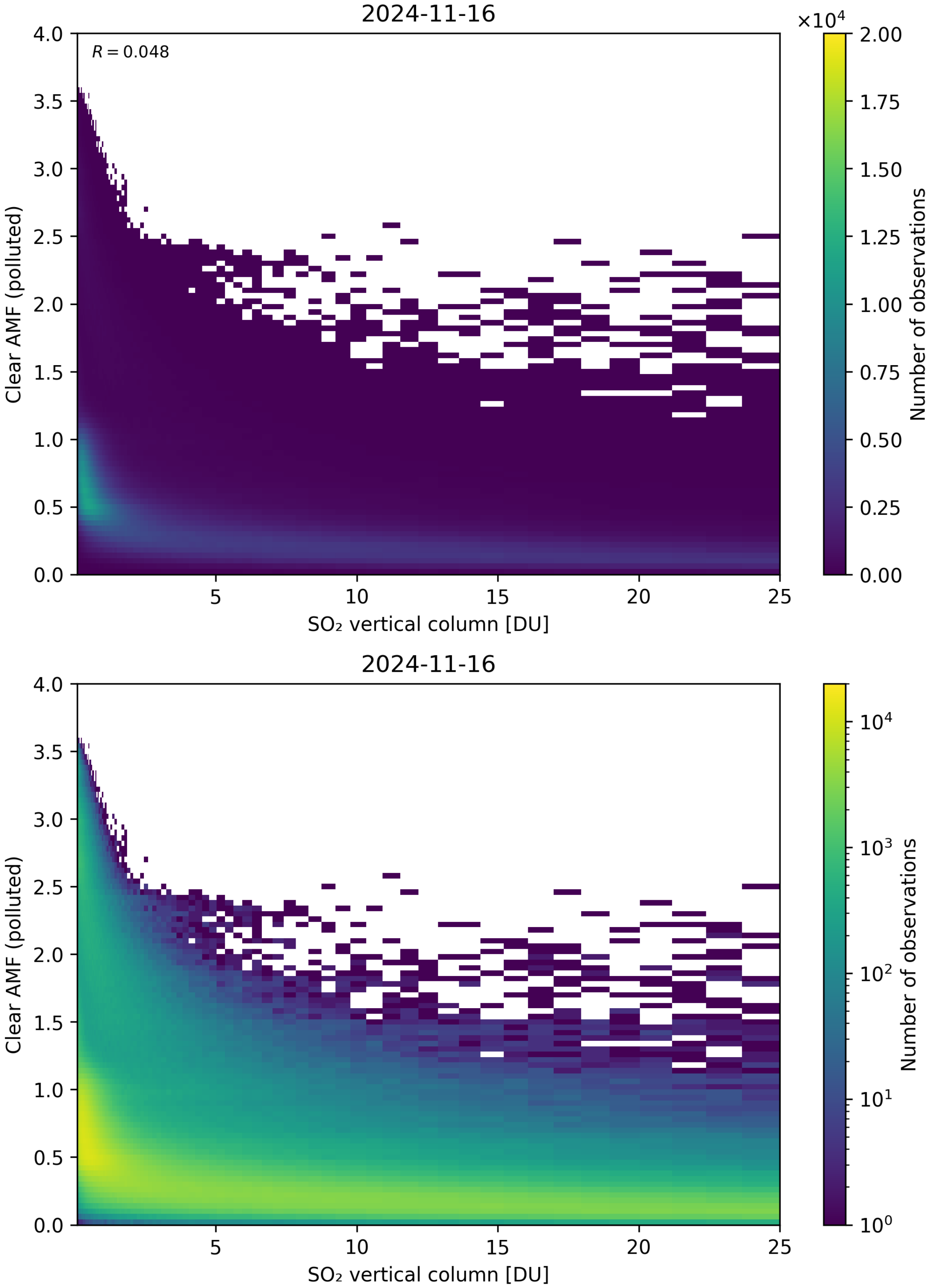


Figure 296: Scatter density plot of “SO_2 vertical column” against “Clear AMF (polluted)” for 2024-11-15 to 2024-11-17.

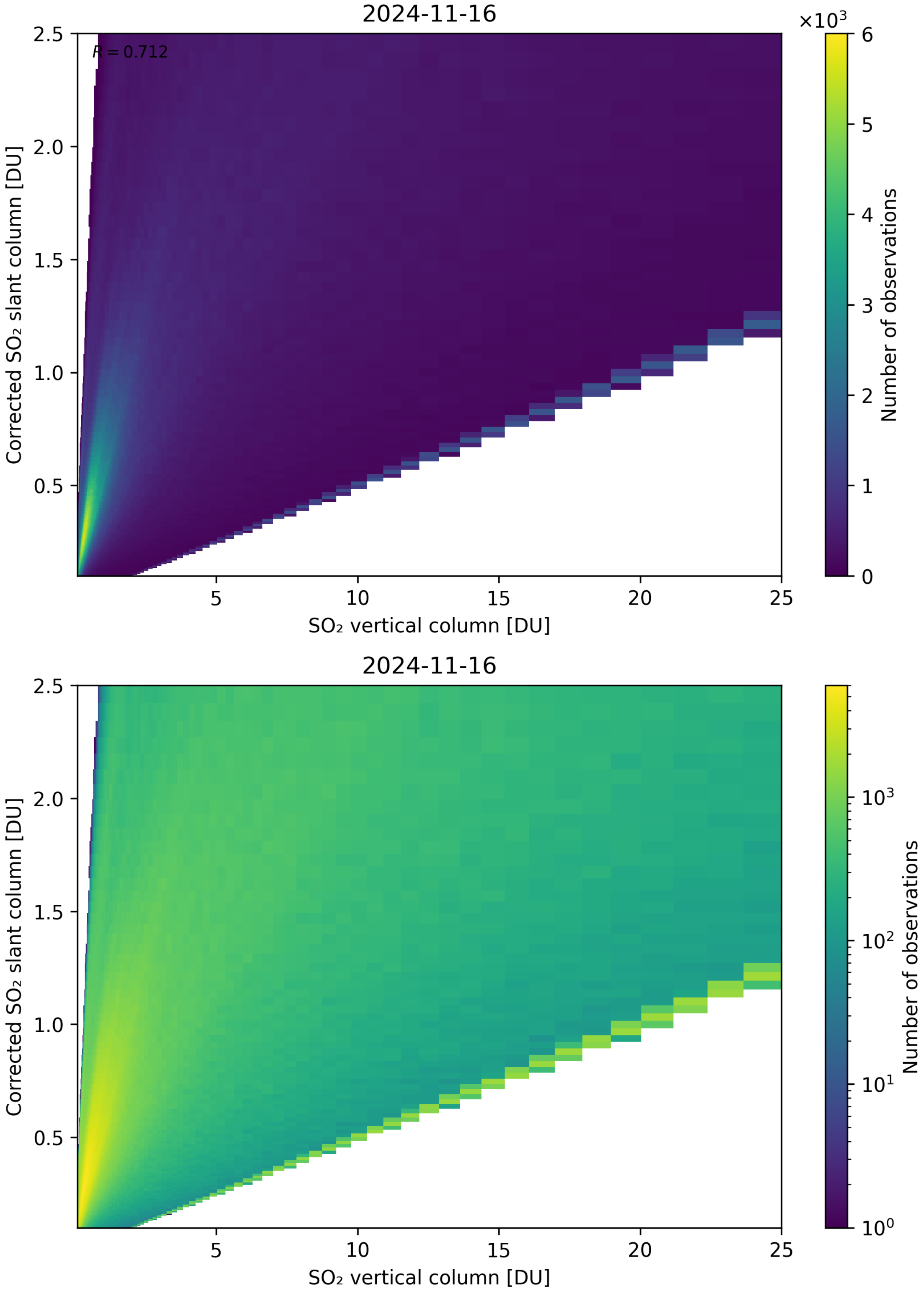


Figure 297: Scatter density plot of "SO_2 vertical column" against "Corrected SO_2 slant column" for 2024-11-15 to 2024-11-17.

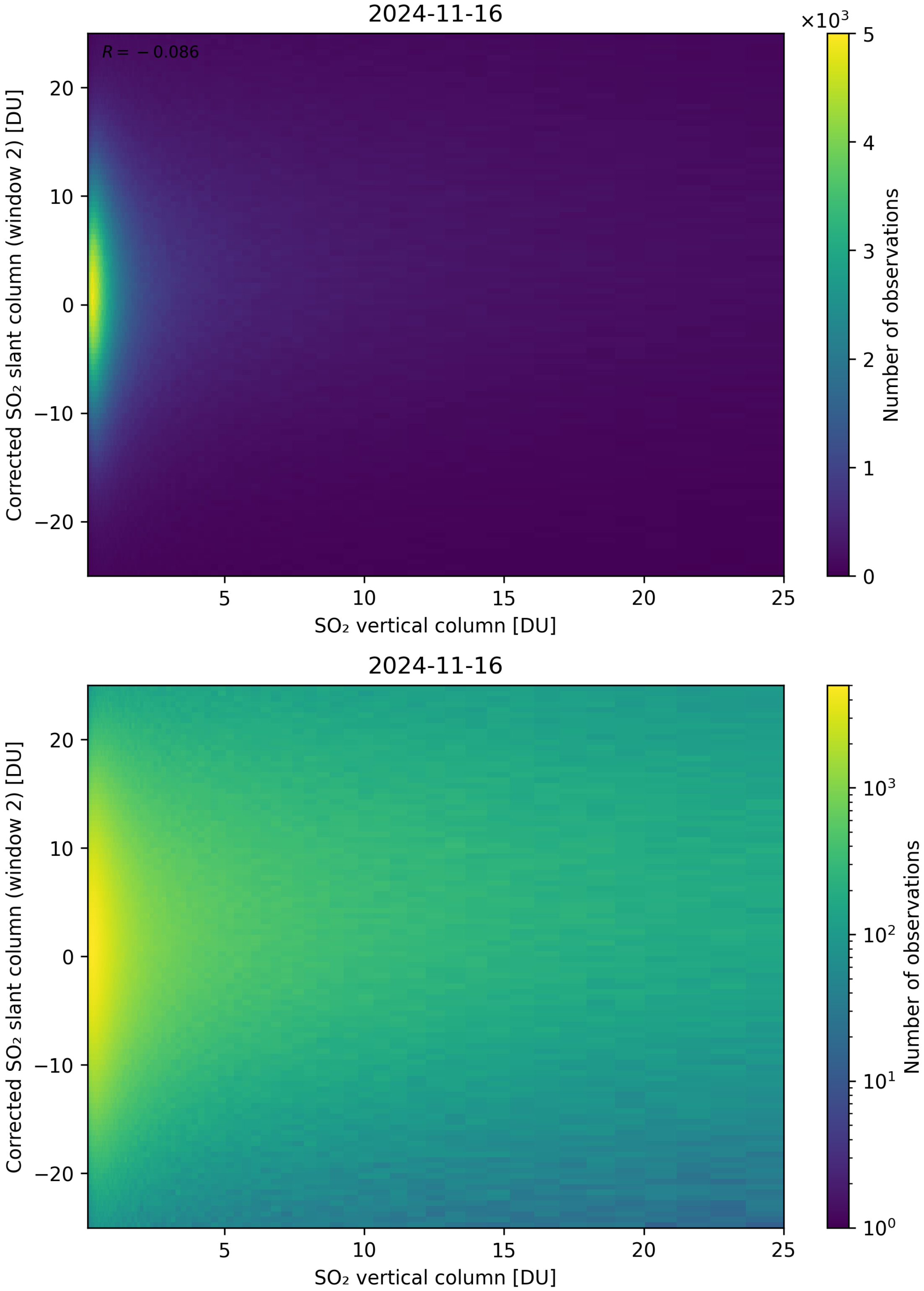


Figure 298: Scatter density plot of “SO_2 vertical column” against “Corrected SO_2 slant column (window 2)” for 2024-11-15 to 2024-11-17.

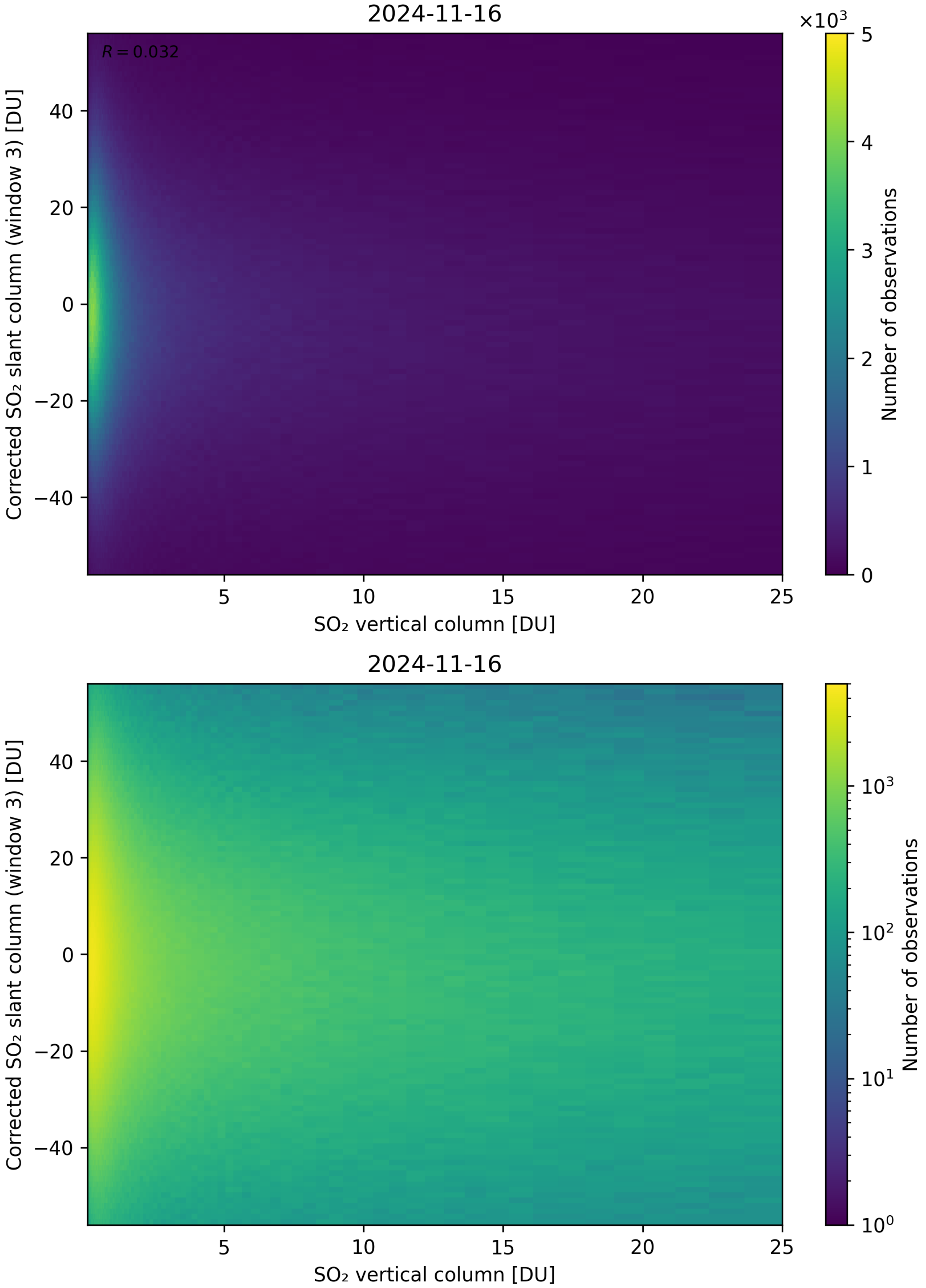


Figure 299: Scatter density plot of “SO_2 vertical column” against “Corrected SO_2 slant column (window 3)” for 2024-11-15 to 2024-11-17.

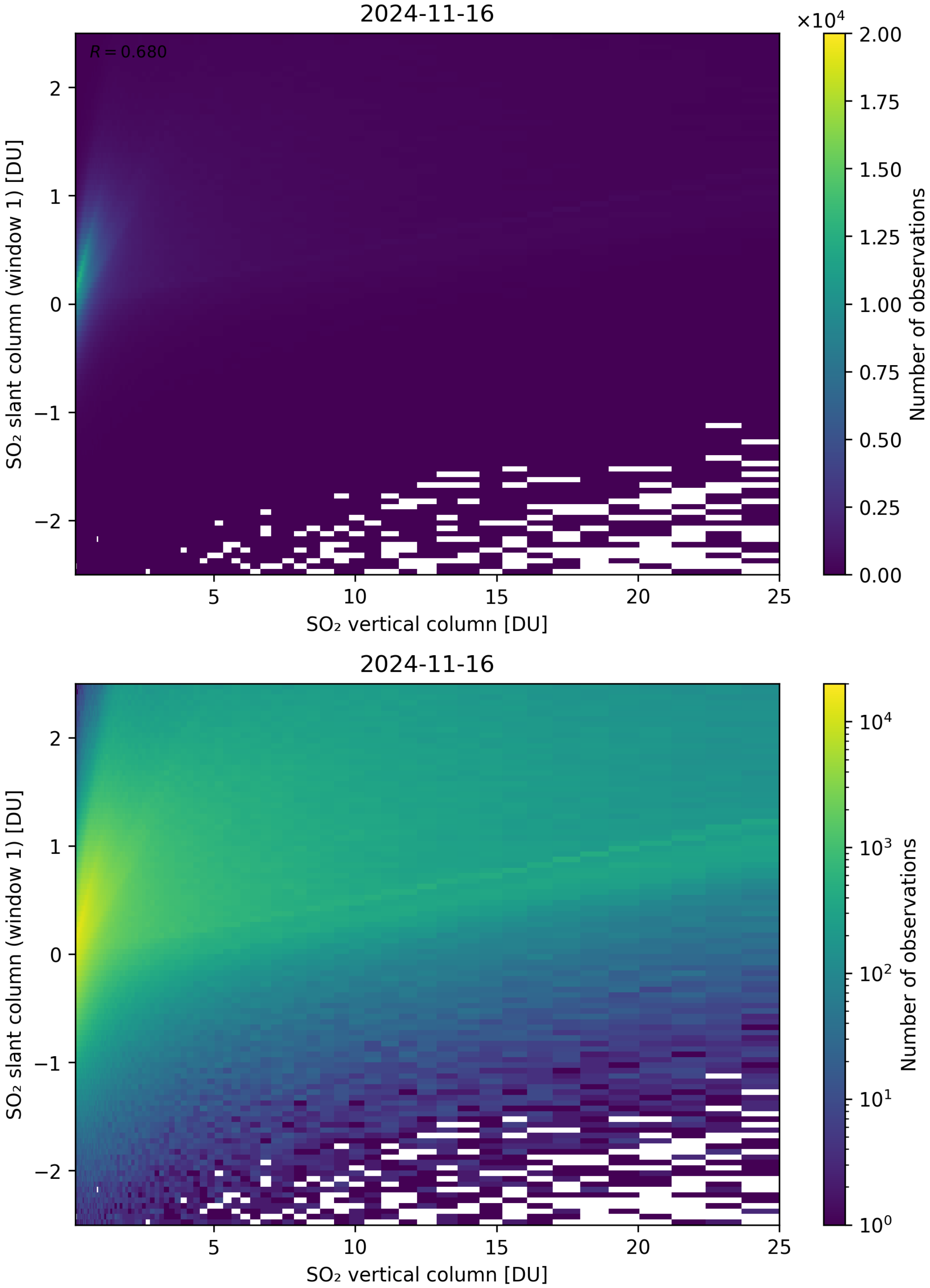


Figure 300: Scatter density plot of “SO_2 vertical column” against “SO_2 slant column (window 1)” for 2024-11-15 to 2024-11-17.

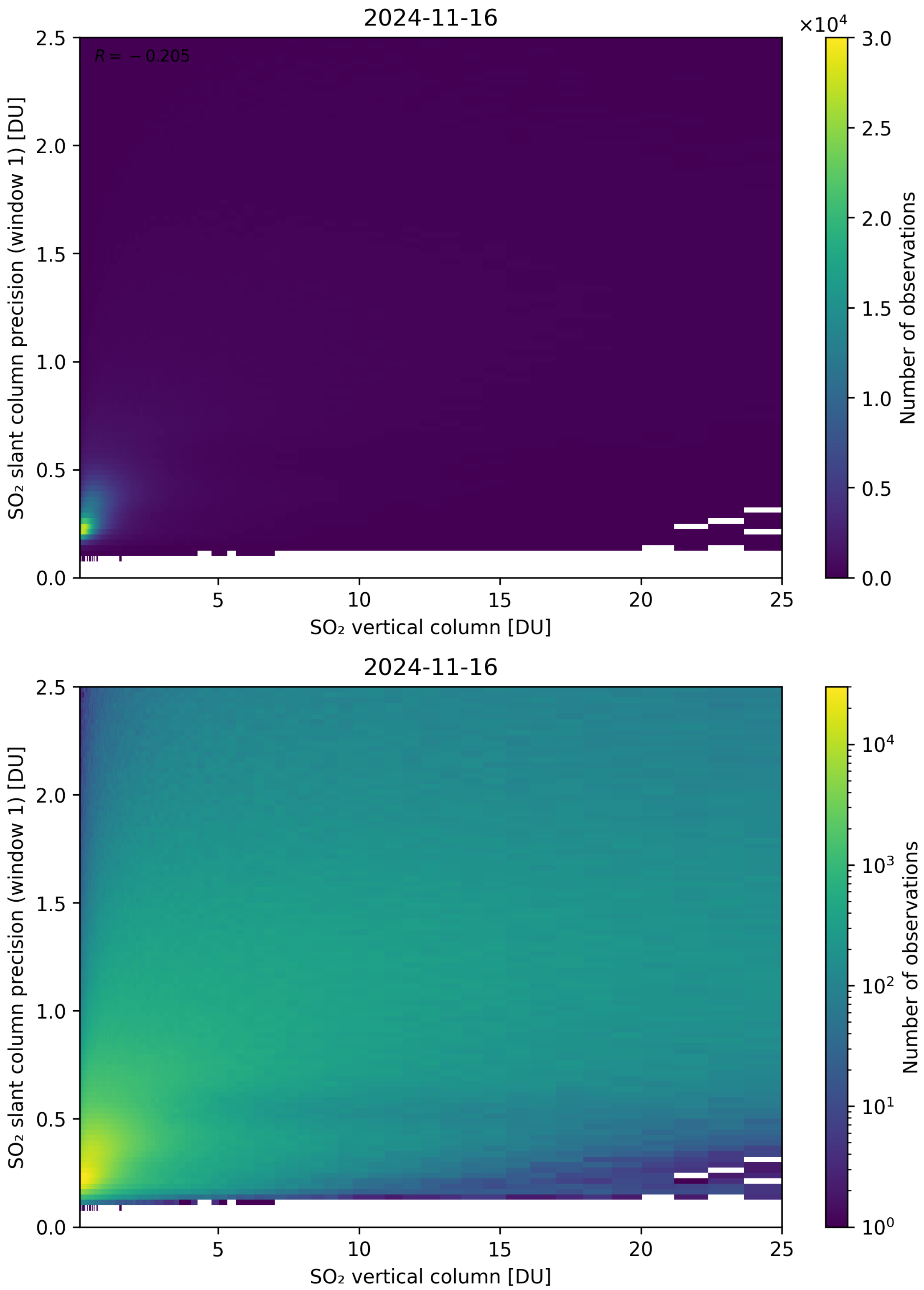


Figure 301: Scatter density plot of "SO_2 vertical column" against "SO_2 slant column precision (window 1)" for 2024-11-15 to 2024-11-17.

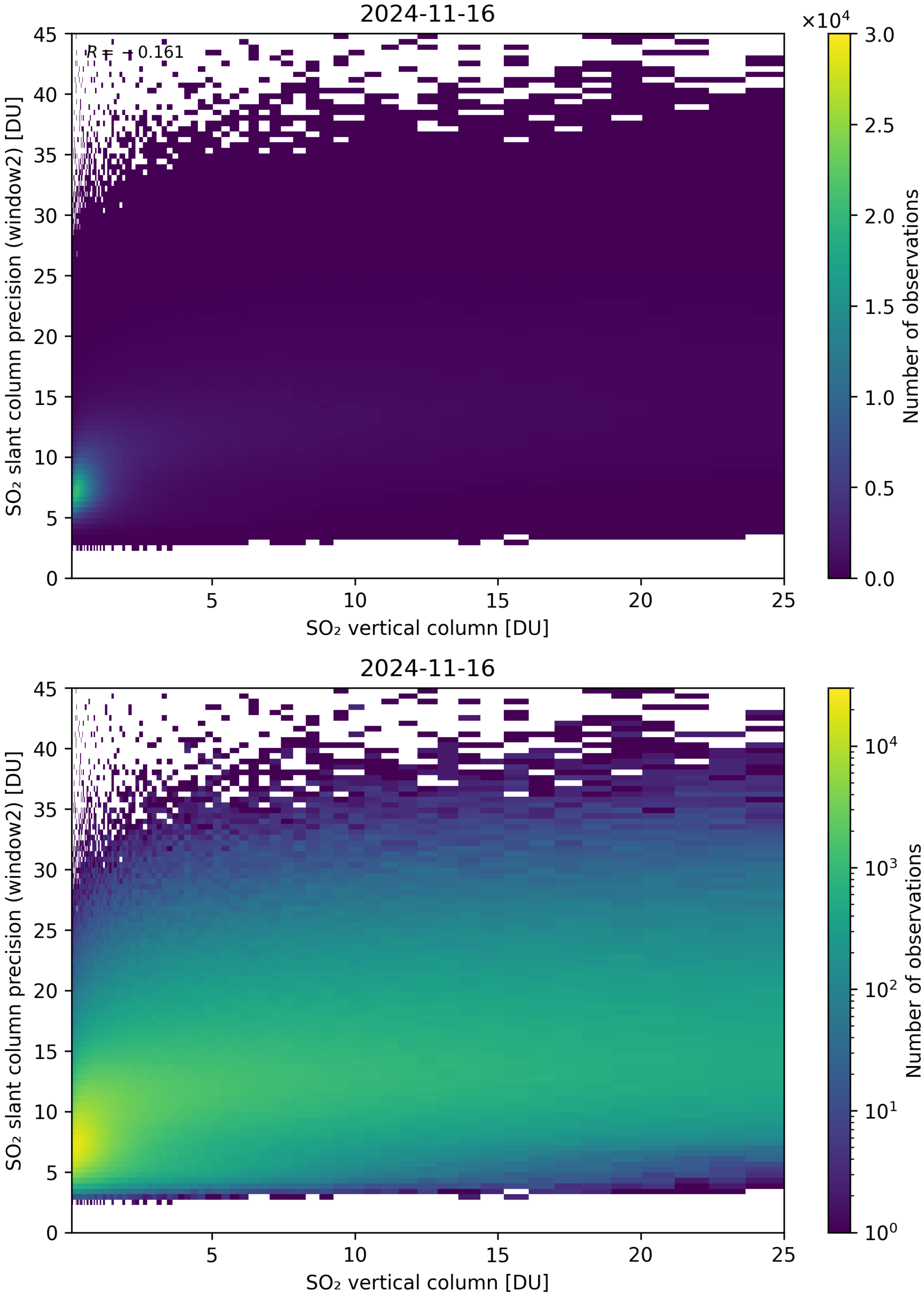


Figure 302: Scatter density plot of “SO_2 vertical column” against “SO_2 slant column precision (window2)” for 2024-11-15 to 2024-11-17.

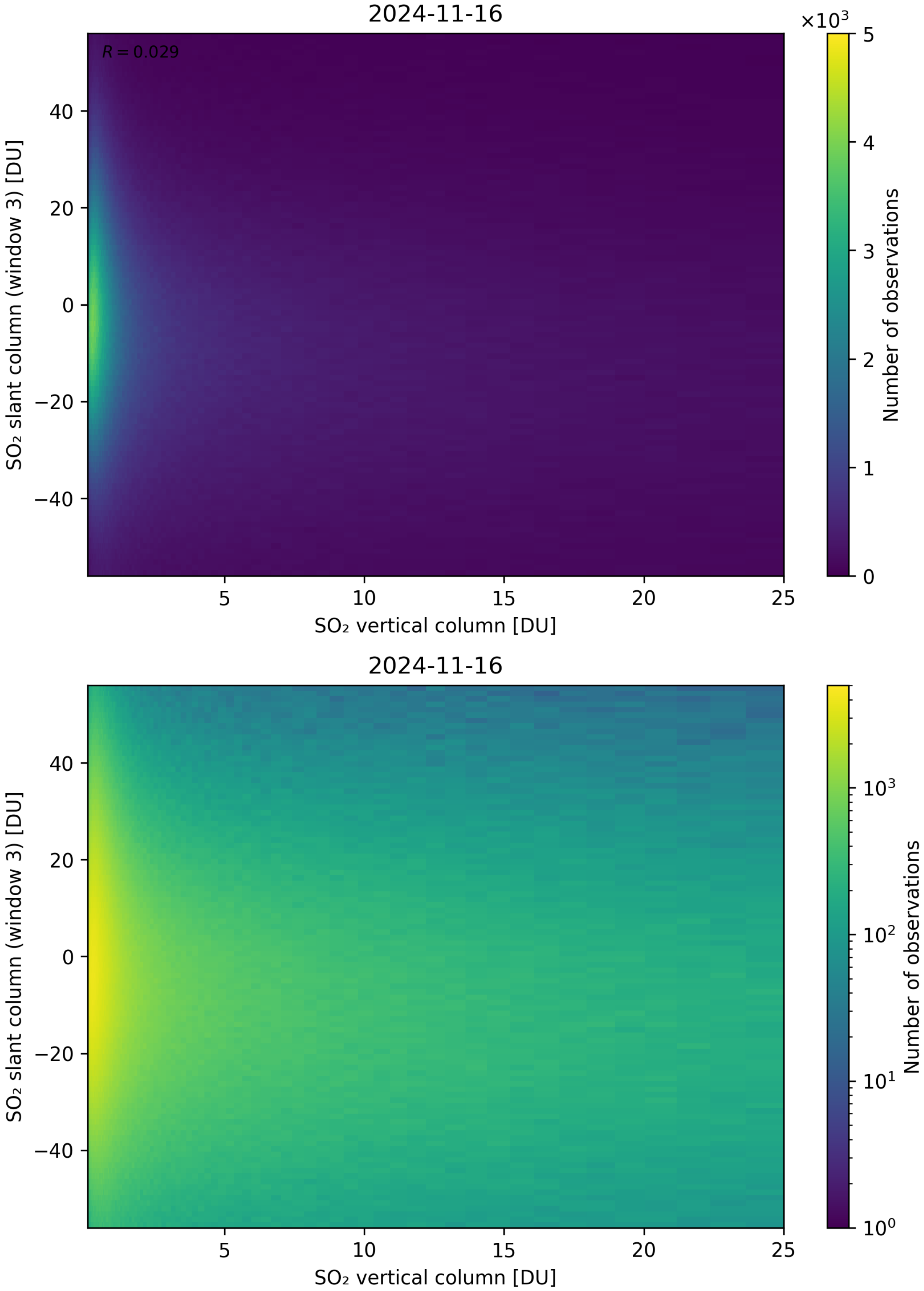
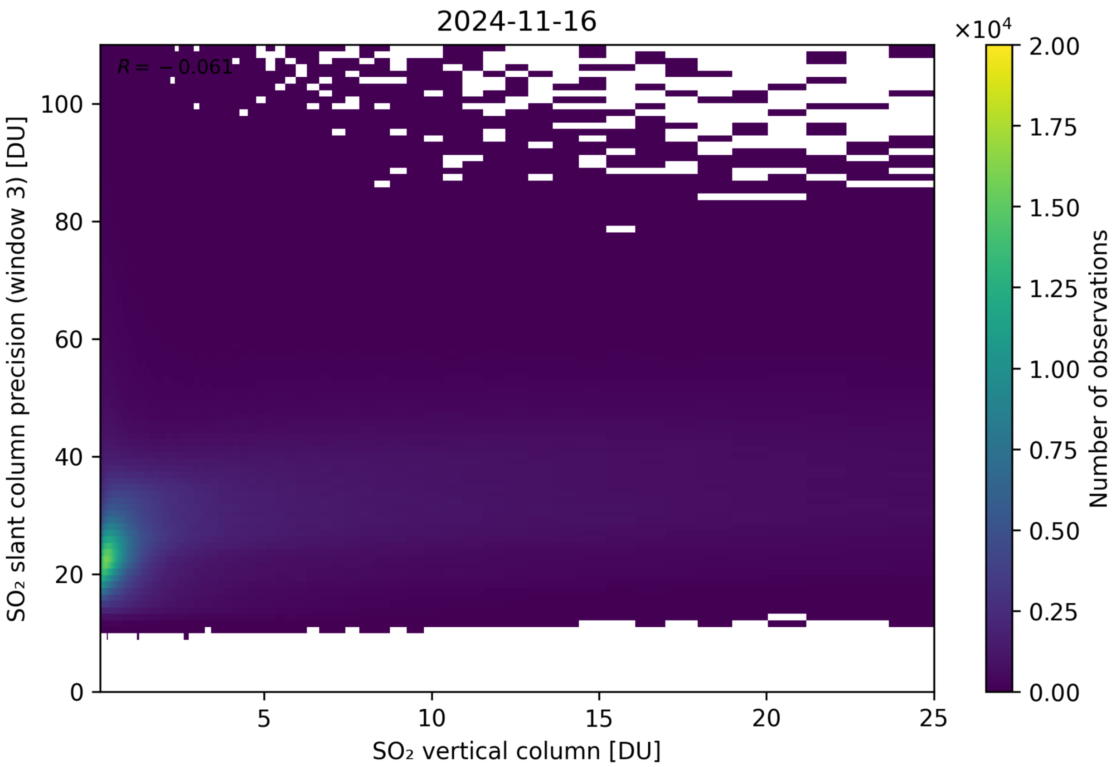


Figure 303: Scatter density plot of “SO_2 vertical column” against “SO_2 slant column (window 3)” for 2024-11-15 to 2024-11-17.



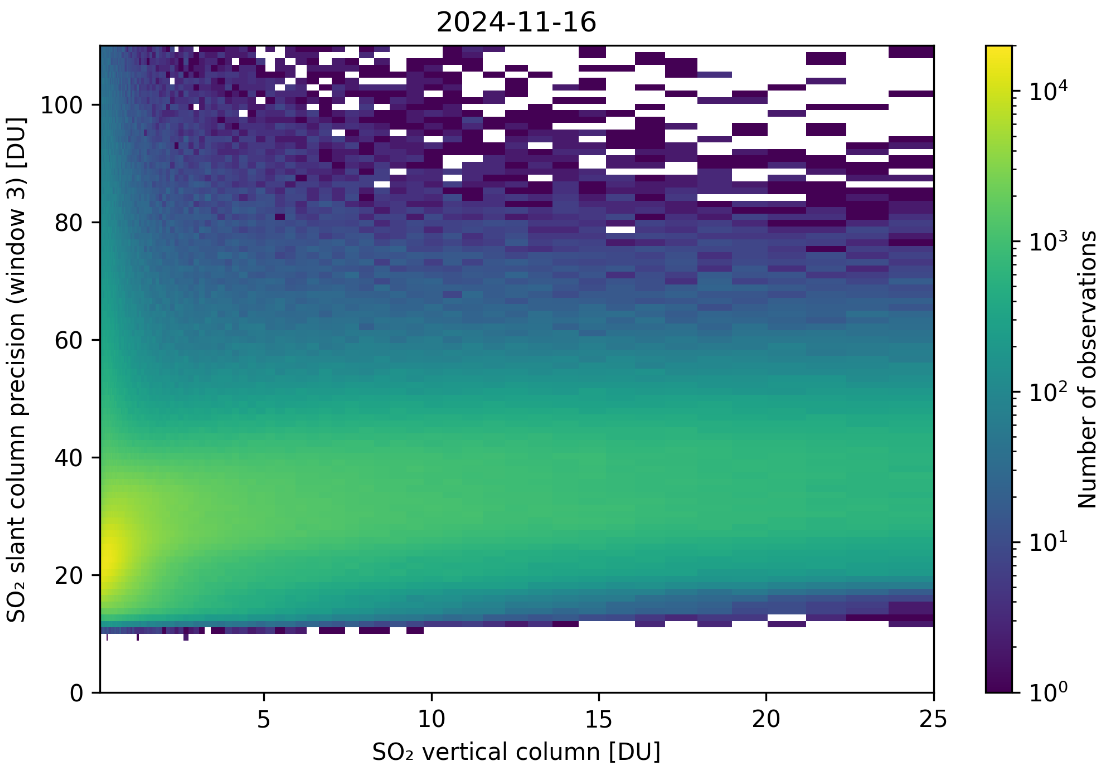


Figure 304: Scatter density plot of “SO_2 vertical column” against “SO_2 slant column precision (window 3)” for 2024-11-15 to 2024-11-17.

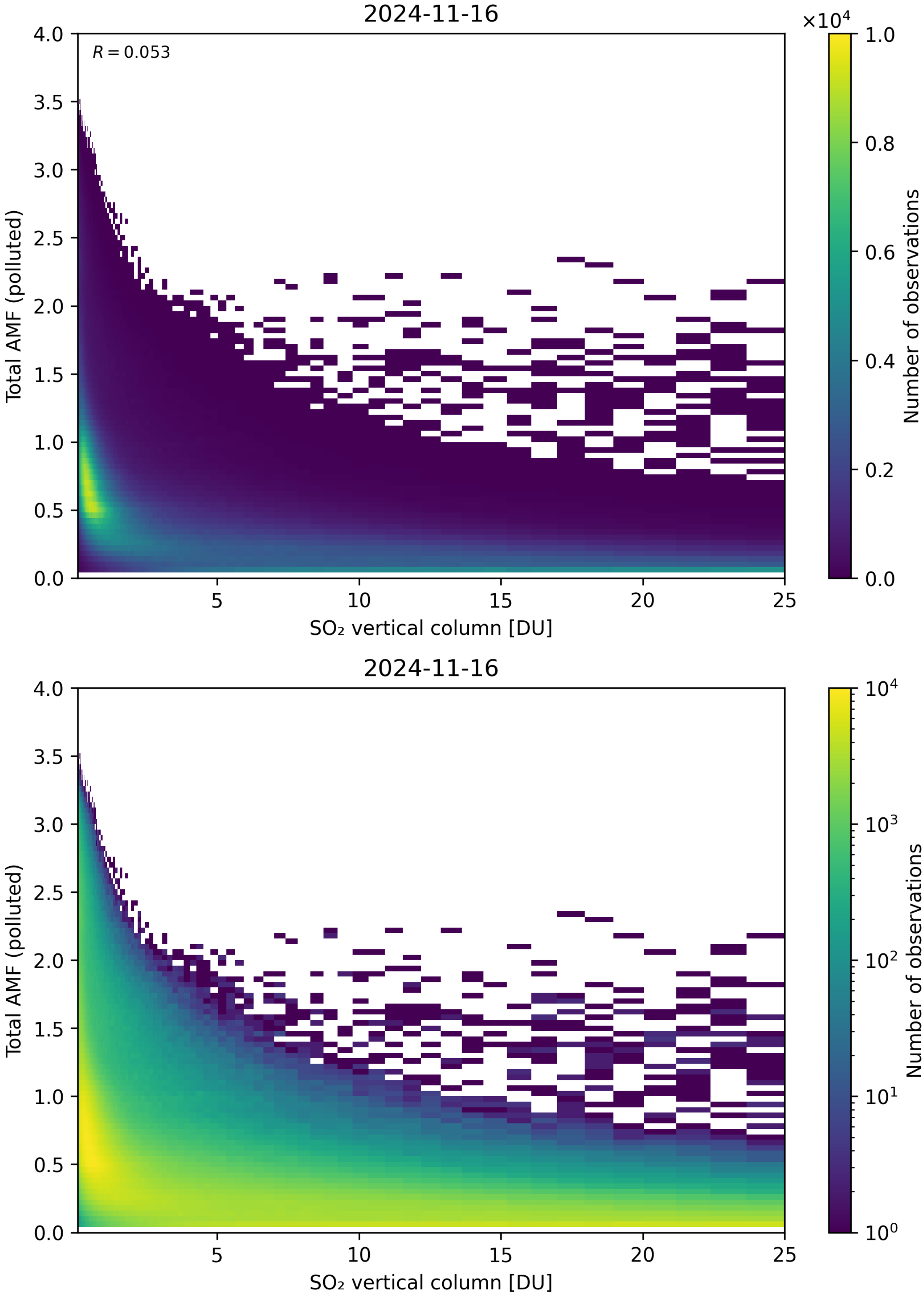


Figure 305: Scatter density plot of “SO_2 vertical column” against “Total AMF (polluted)” for 2024-11-15 to 2024-11-17.

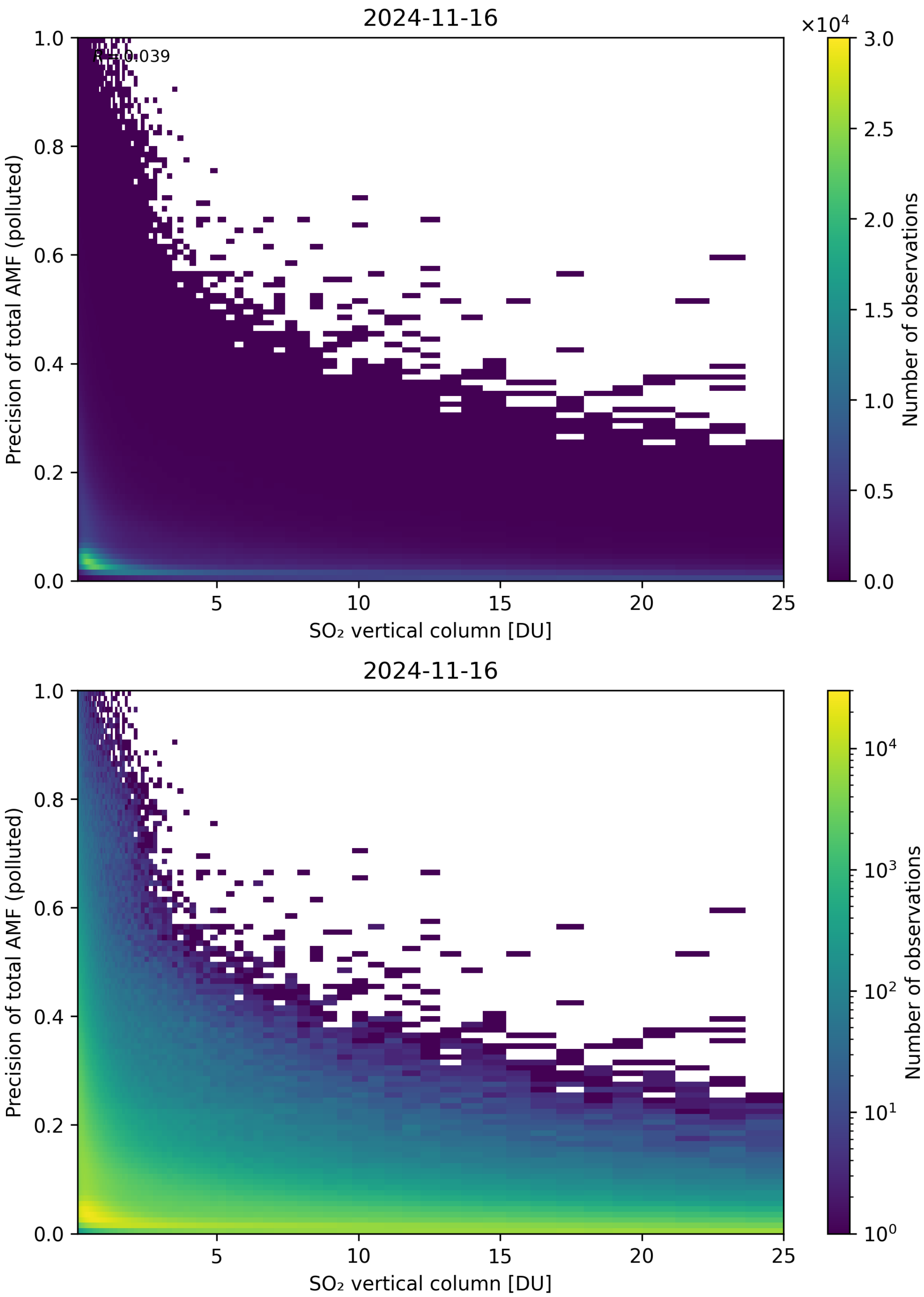


Figure 306: Scatter density plot of “SO_2 vertical column” against “Precision of total AMF (polluted)” for 2024-11-15 to 2024-11-17.

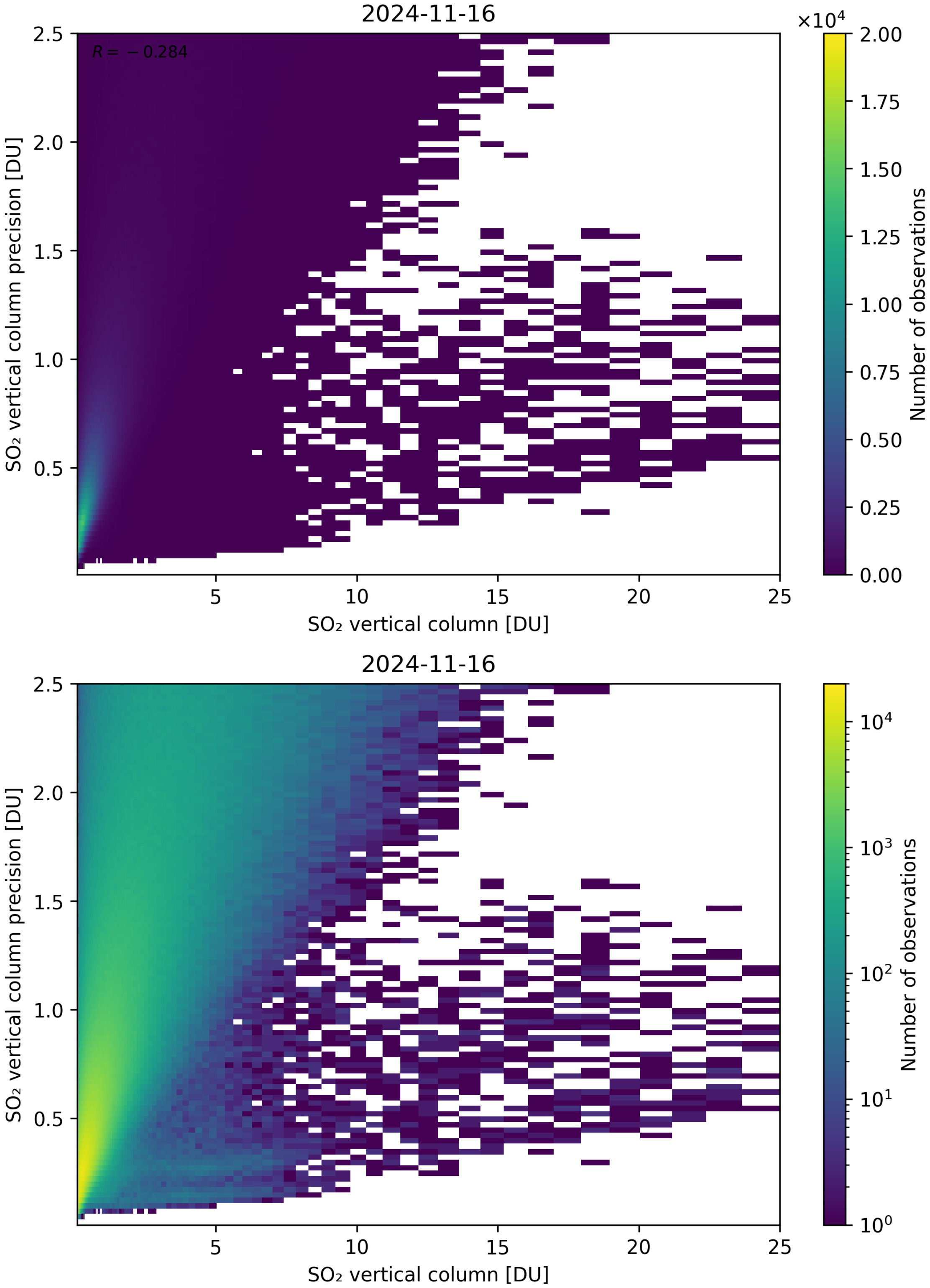


Figure 307: Scatter density plot of “SO_2 vertical column” against “SO_2 vertical column precision” for 2024-11-15 to 2024-11-17.

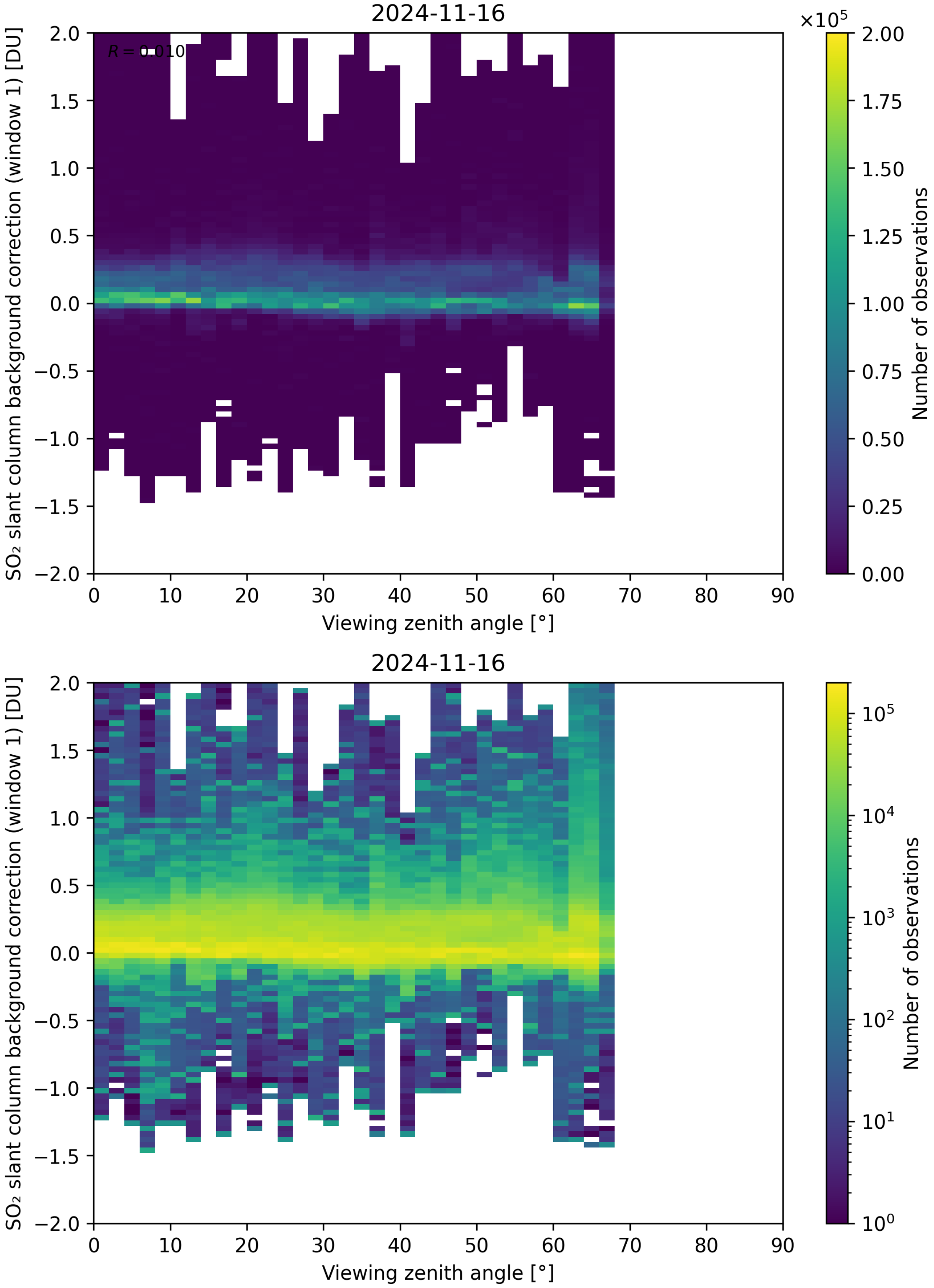


Figure 308: Scatter density plot of “Viewing zenith angle” against “SO_2 slant column background correction (window 1)” for 2024-11-15 to 2024-11-17.

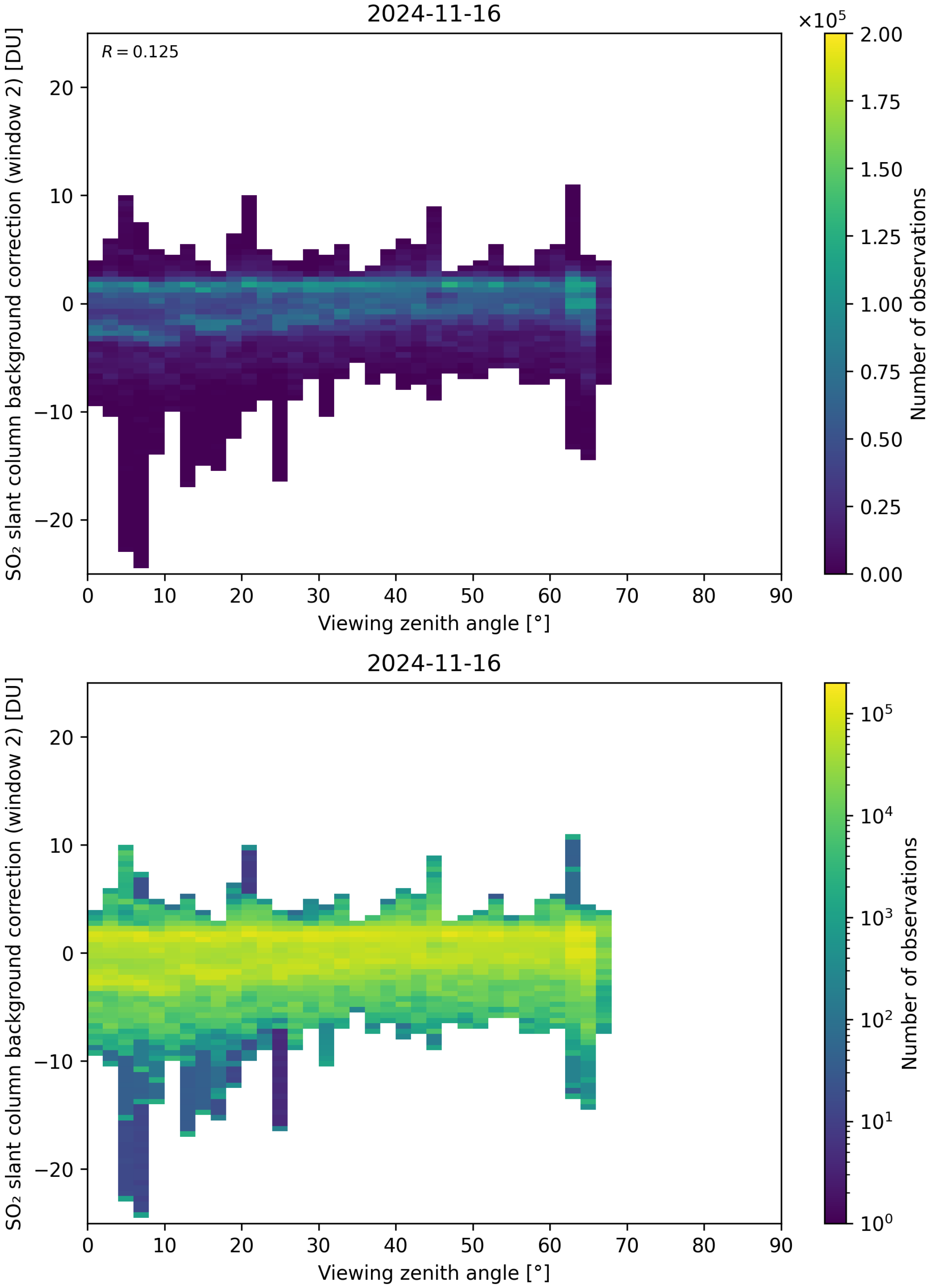


Figure 309: Scatter density plot of "Viewing zenith angle" against "SO_2 slant column background correction (window 2)" for 2024-11-15 to 2024-11-17.

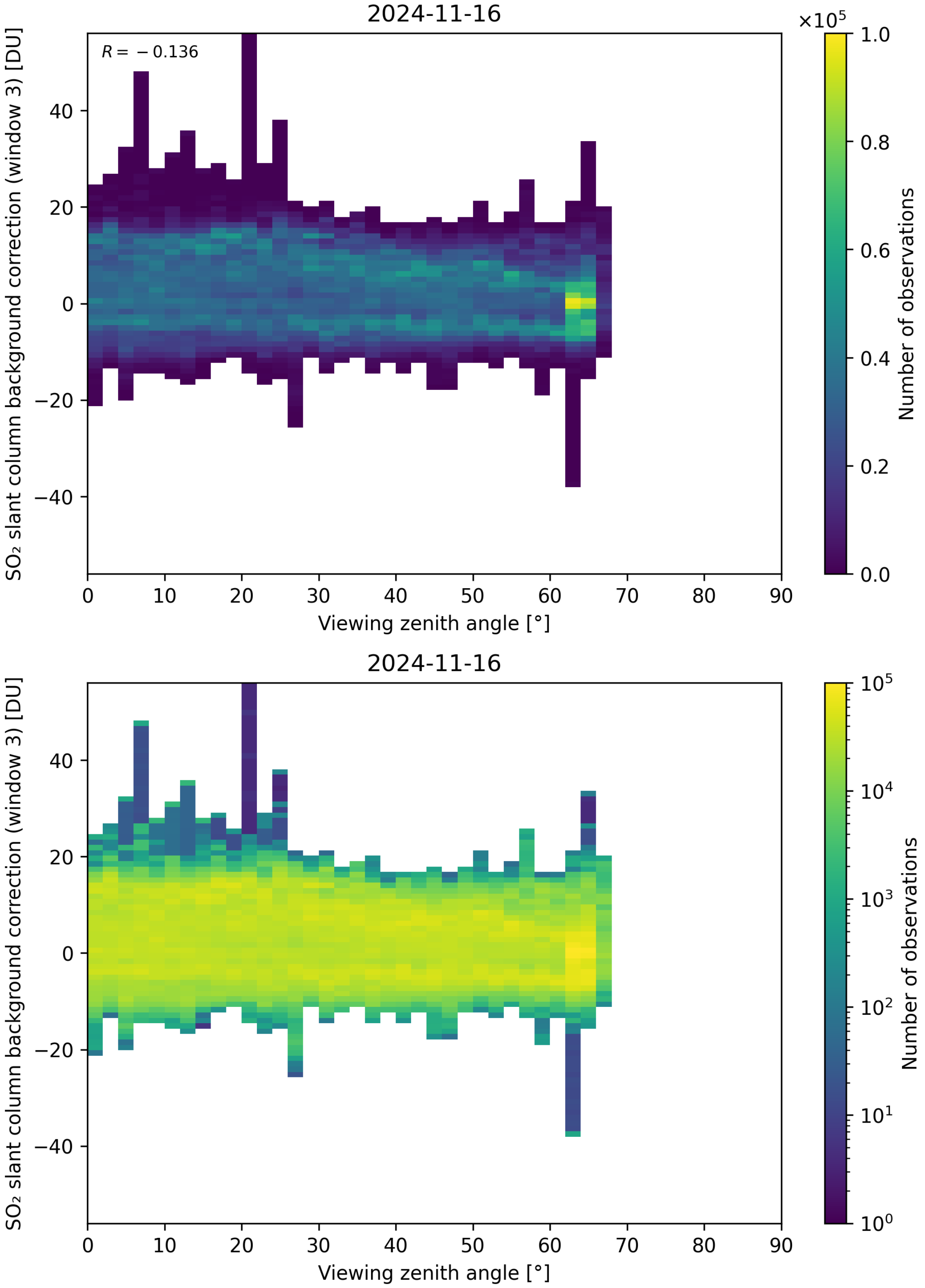
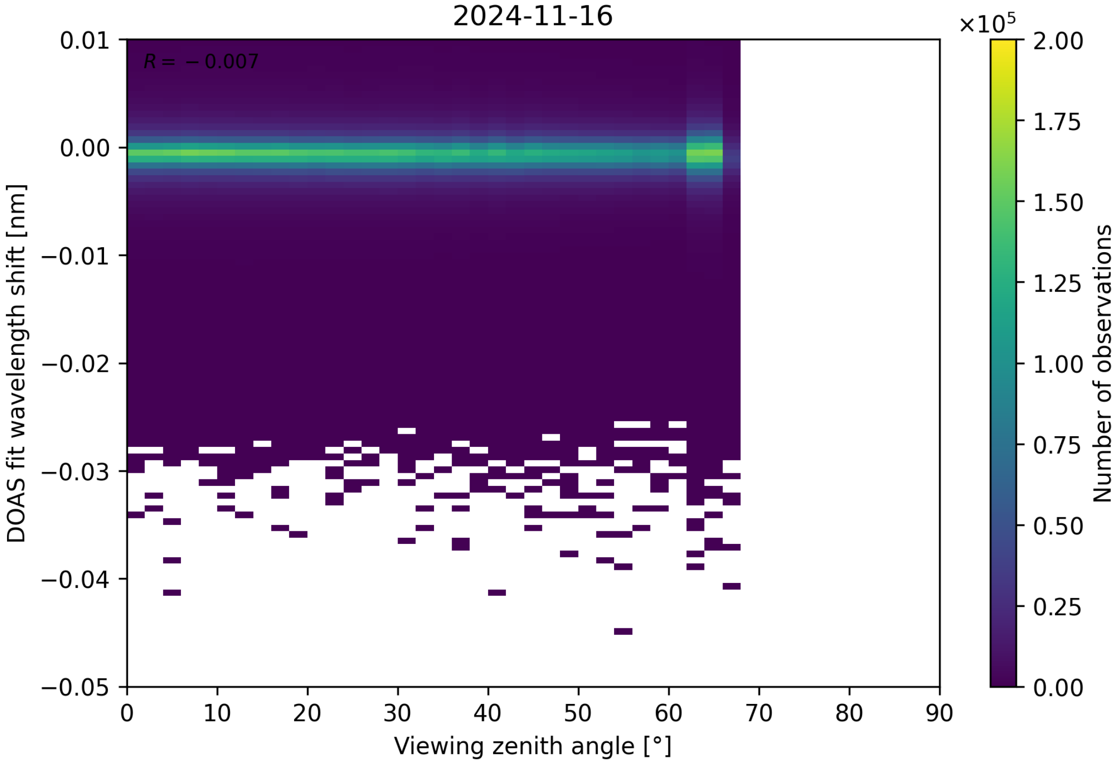


Figure 310: Scatter density plot of “Viewing zenith angle” against “SO_2 slant column background correction (window 3)” for 2024-11-15 to 2024-11-17.



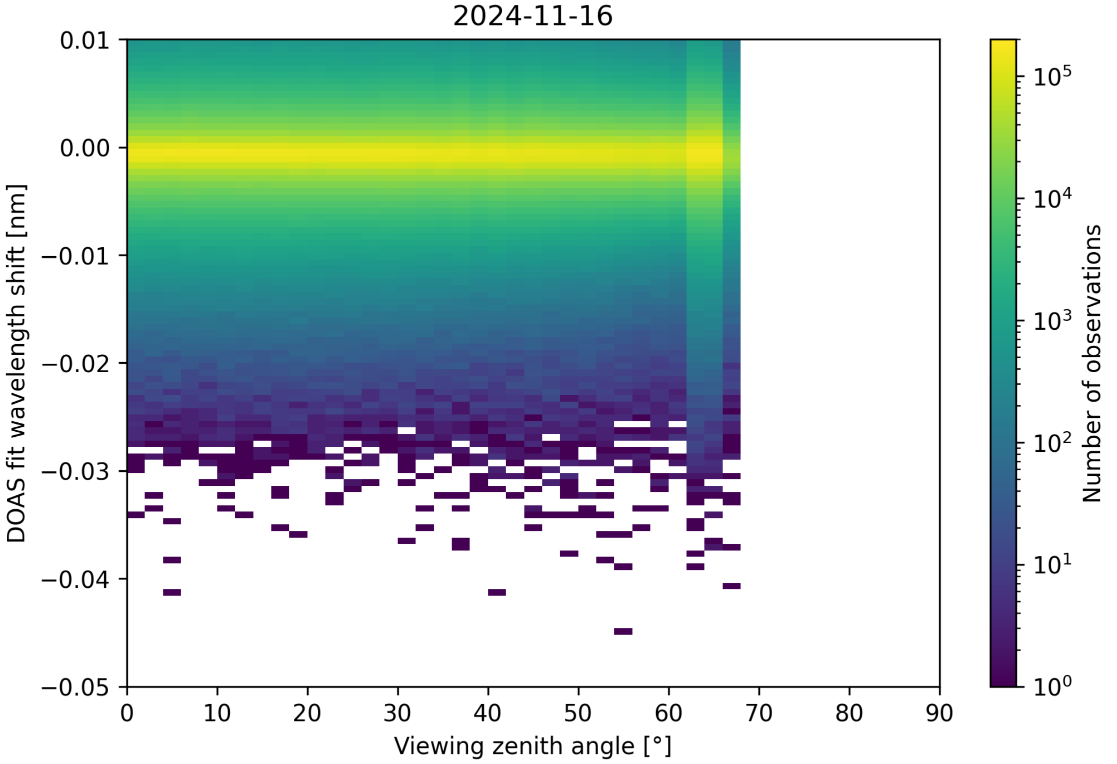


Figure 311: Scatter density plot of “Viewing zenith angle” against “DOAS fit wavelength shift” for 2024-11-15 to 2024-11-17.

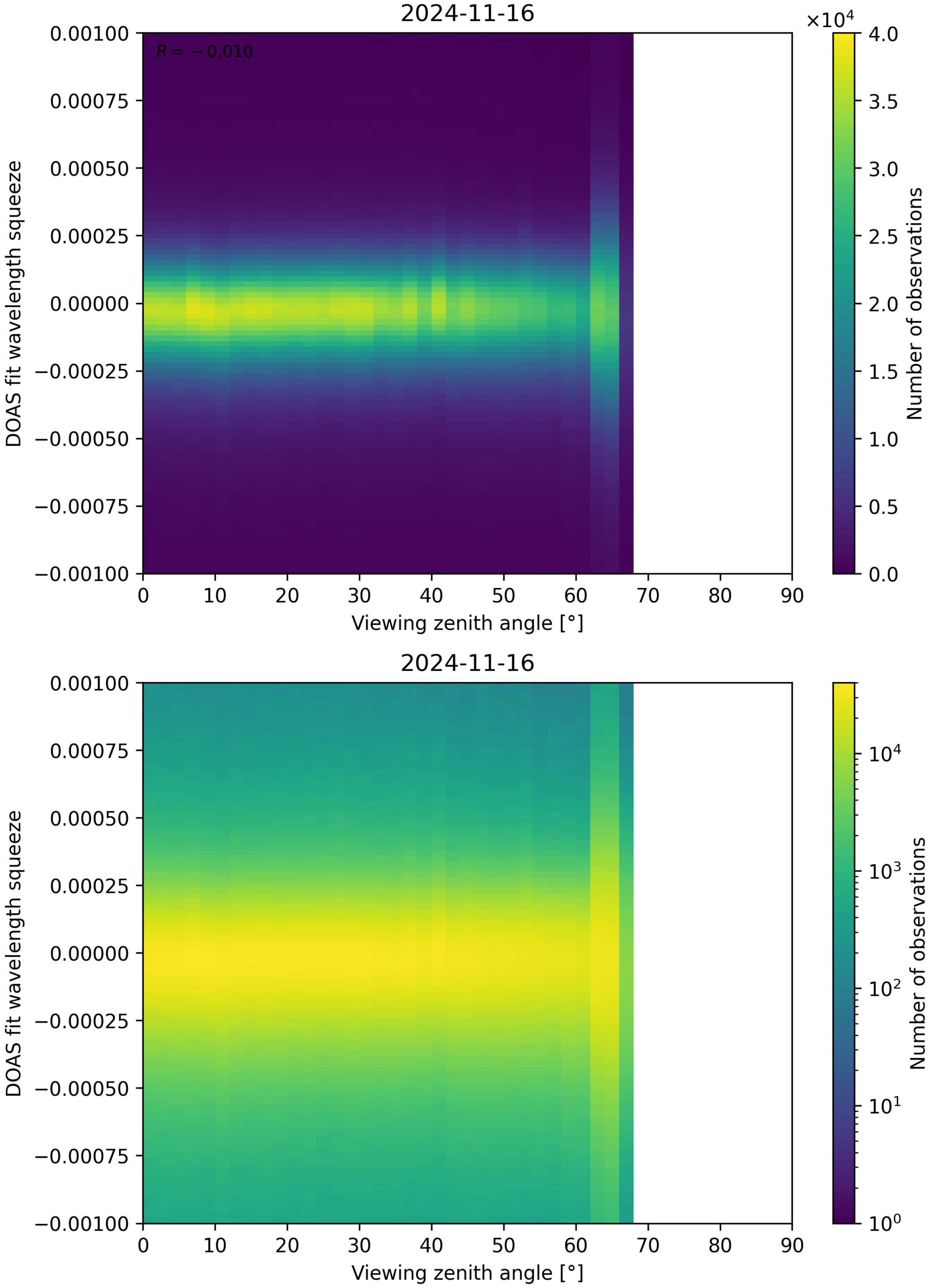


Figure 312: Scatter density plot of “Viewing zenith angle” against “DOAS fit wavelength squeeze” for 2024-11-15 to 2024-11-17.

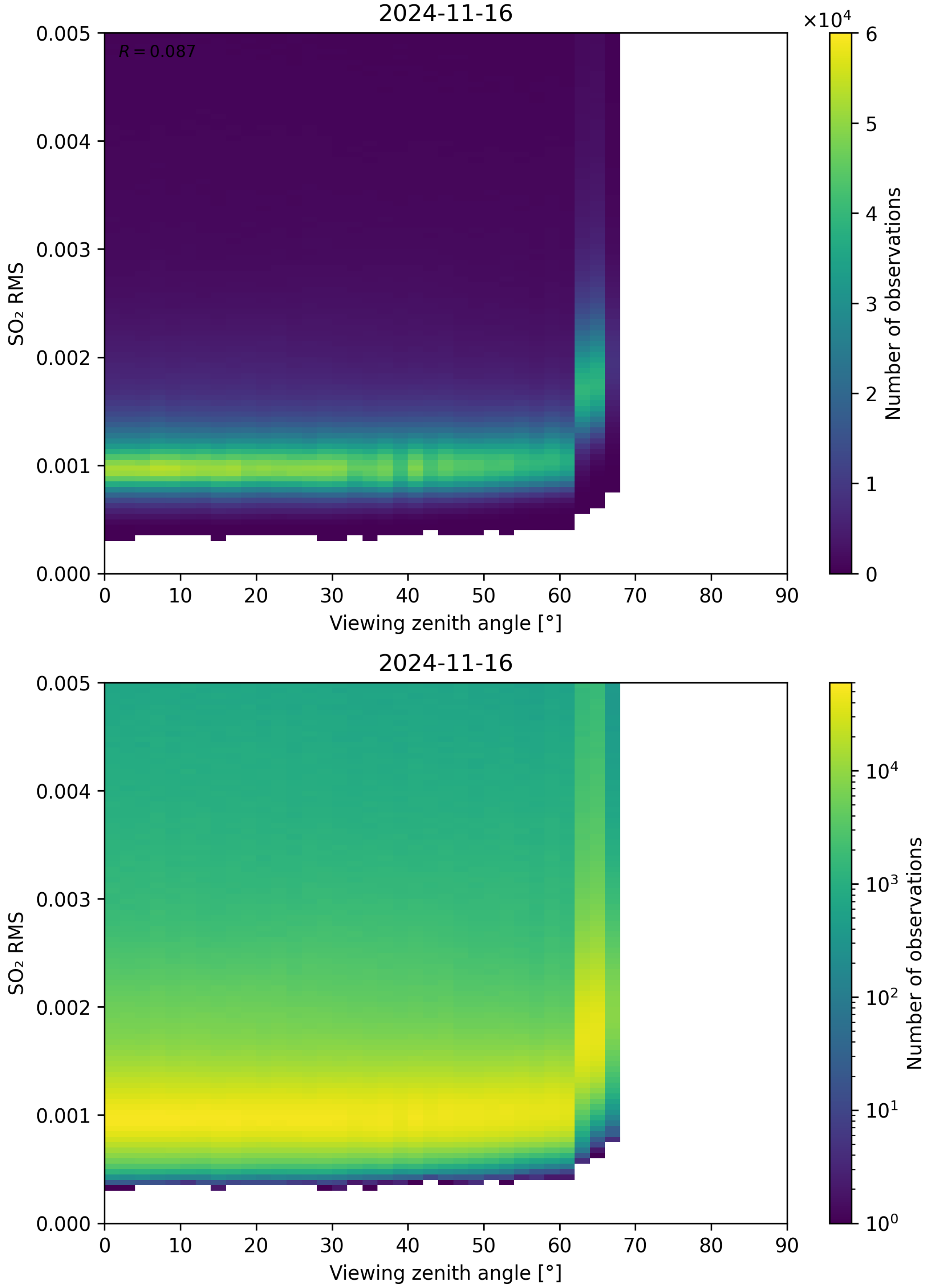


Figure 313: Scatter density plot of “Viewing zenith angle” against “SO_2 RMS” for 2024-11-15 to 2024-11-17.

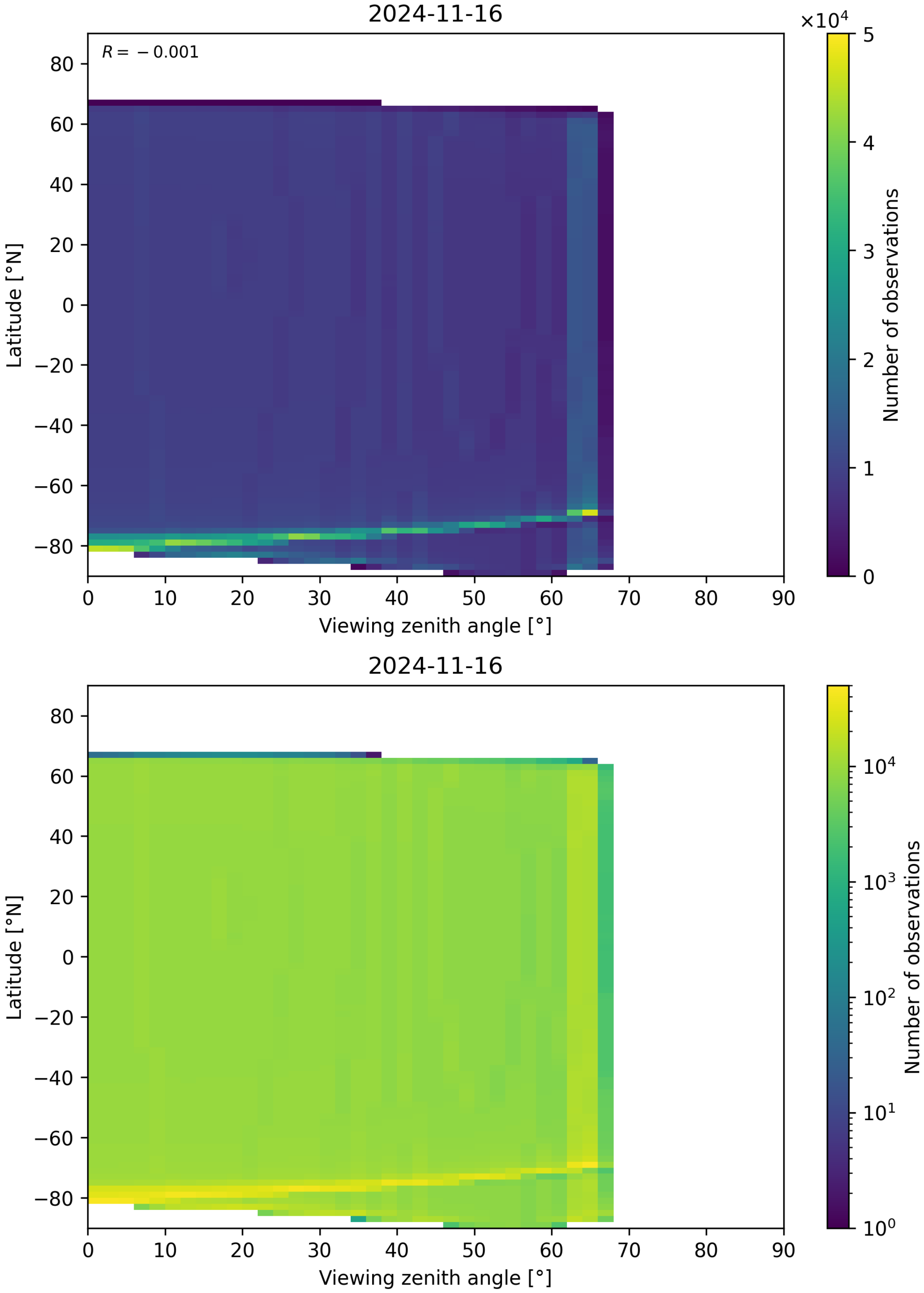


Figure 314: Scatter density plot of “Viewing zenith angle” against “Latitude” for 2024-11-15 to 2024-11-17.

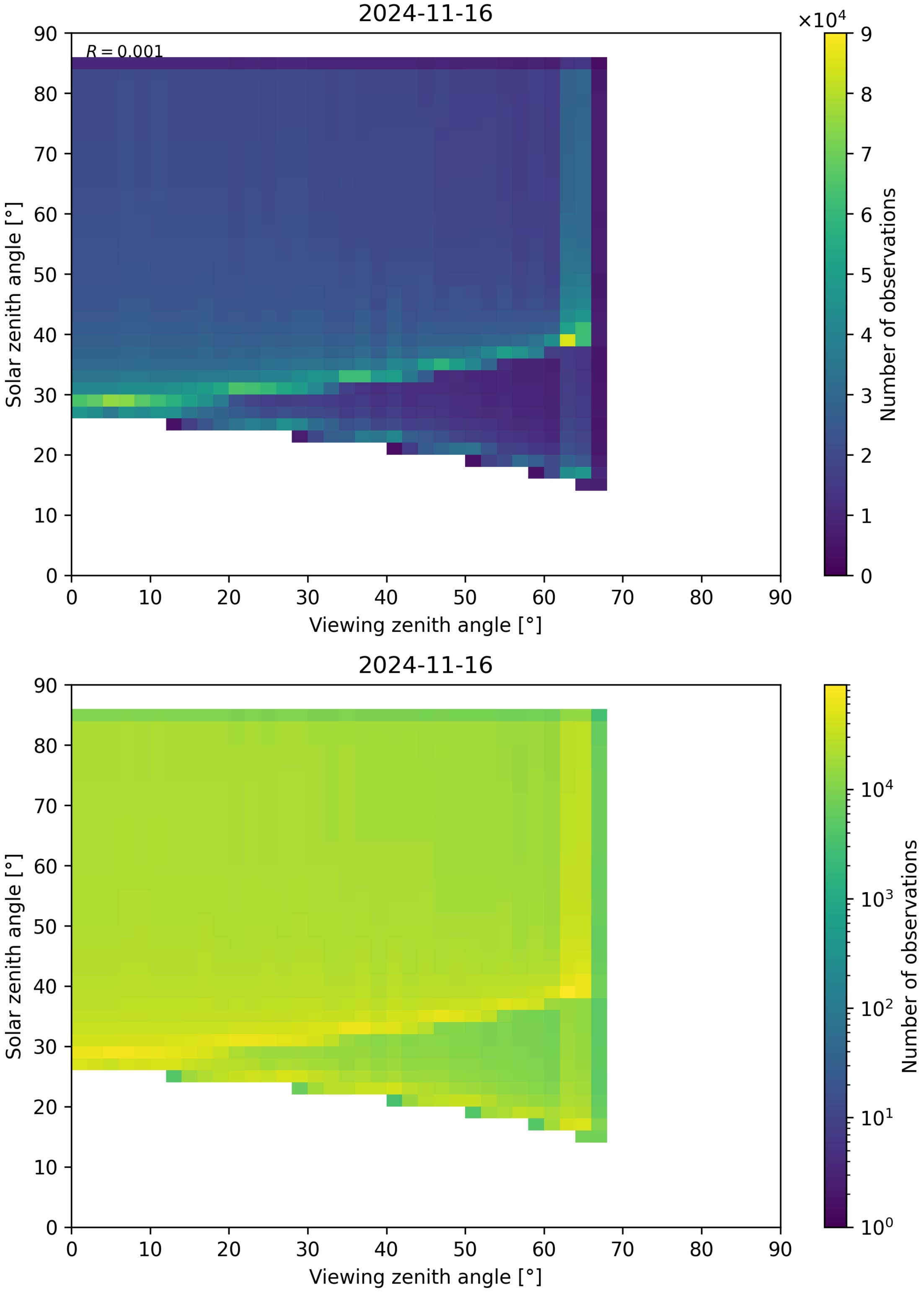
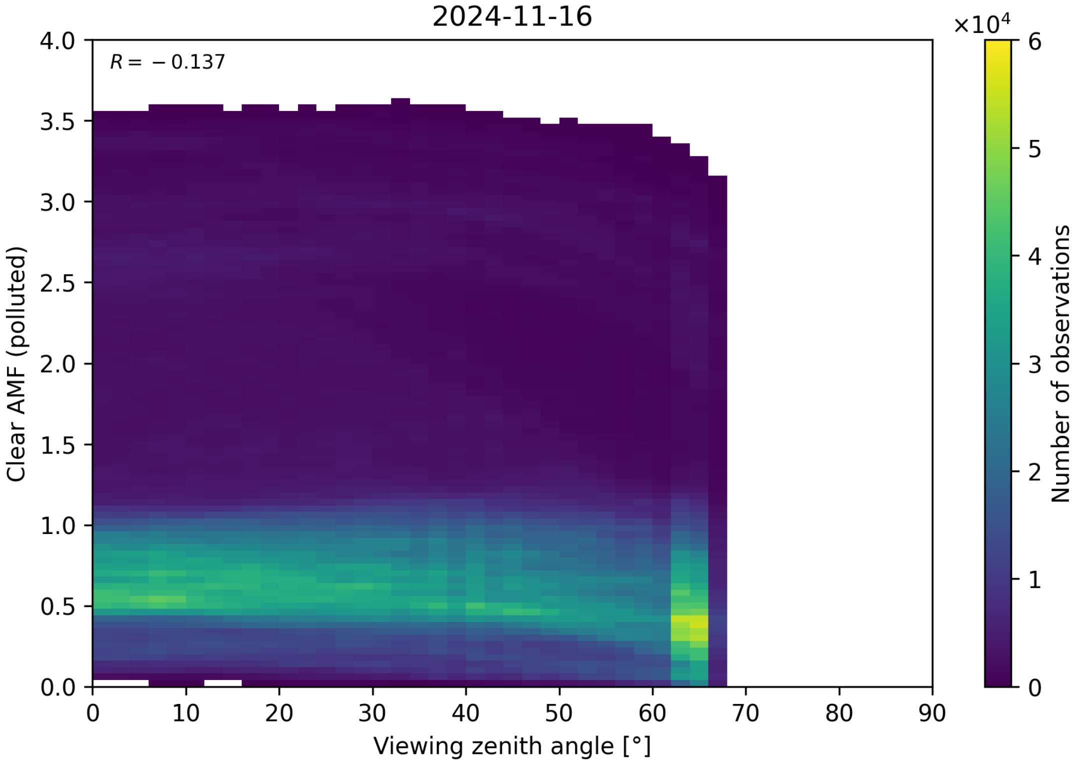


Figure 315: Scatter density plot of “Viewing zenith angle” against “Solar zenith angle” for 2024-11-15 to 2024-11-17.



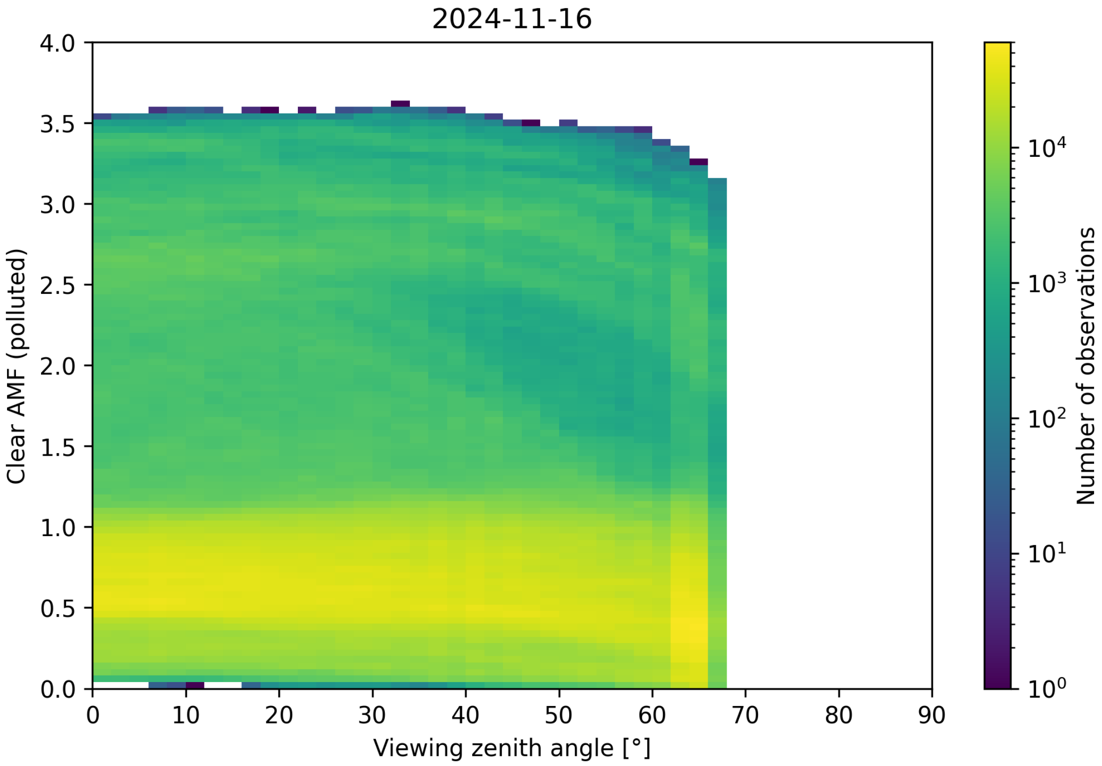


Figure 316: Scatter density plot of “Viewing zenith angle” against “Clear AMF (polluted)” for 2024-11-15 to 2024-11-17.

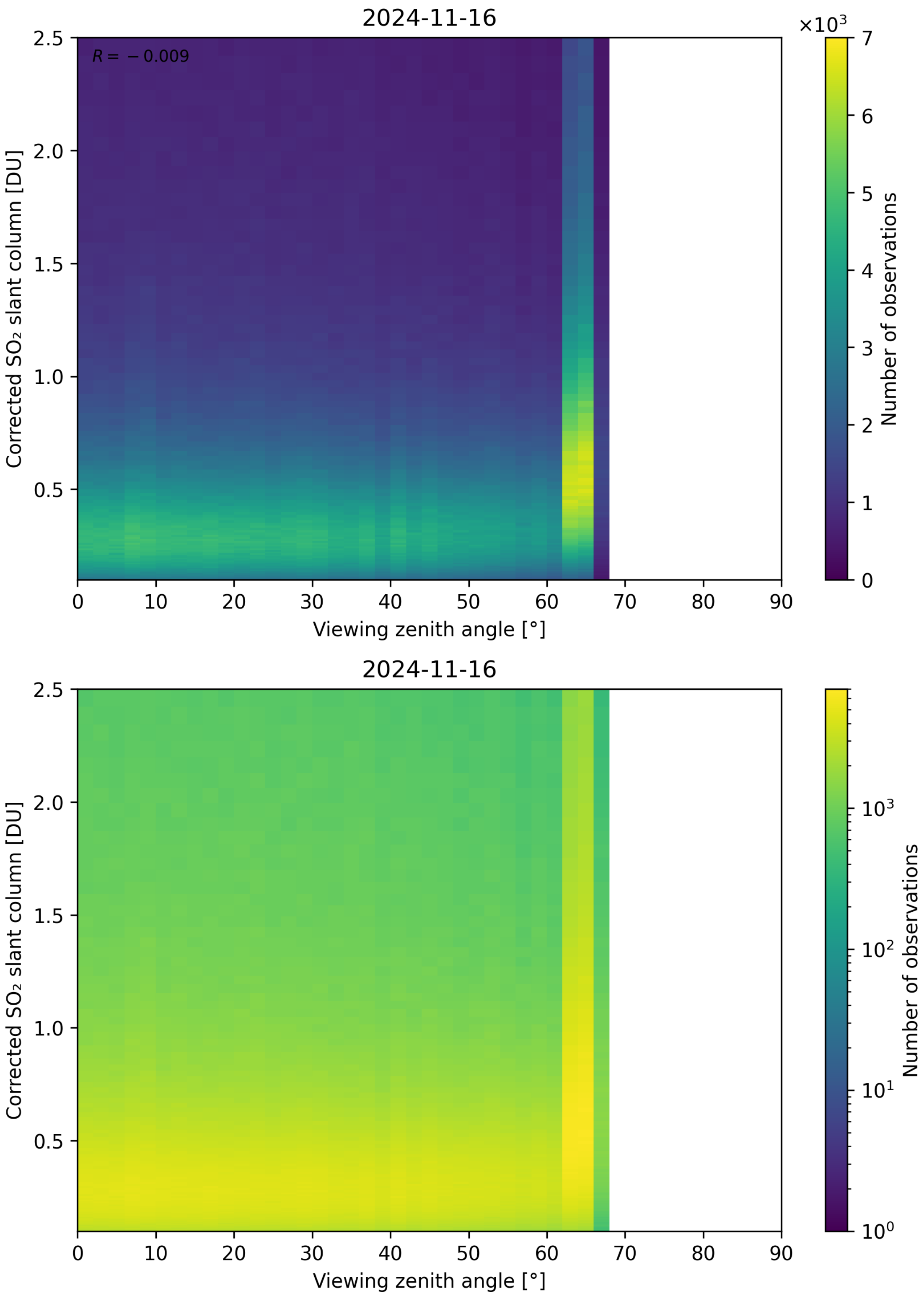


Figure 317: Scatter density plot of “Viewing zenith angle” against “Corrected SO_2 slant column” for 2024-11-15 to 2024-11-17.

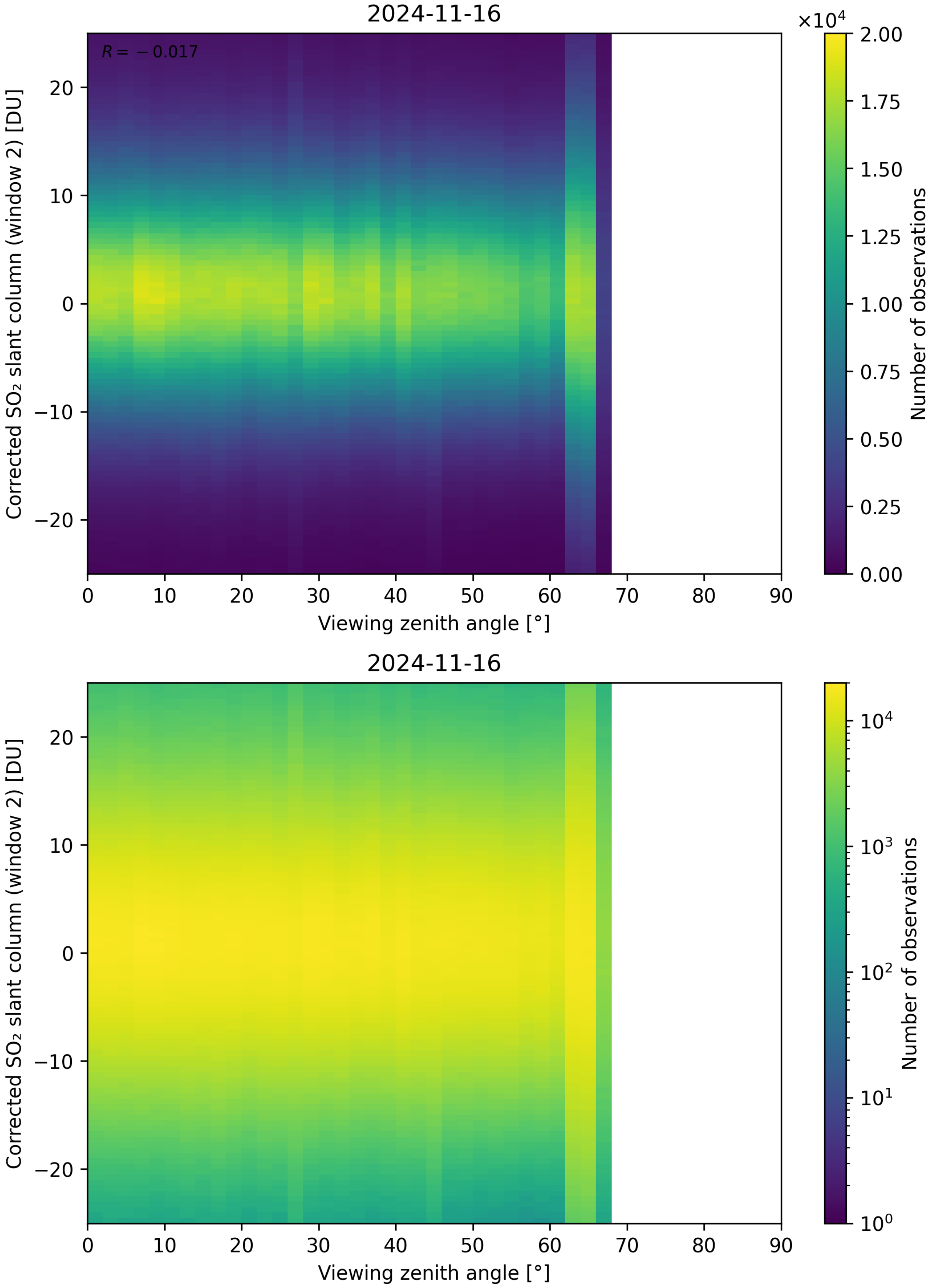


Figure 318: Scatter density plot of “Viewing zenith angle” against “Corrected SO_2 slant column (window 2)” for 2024-11-15 to 2024-11-17.

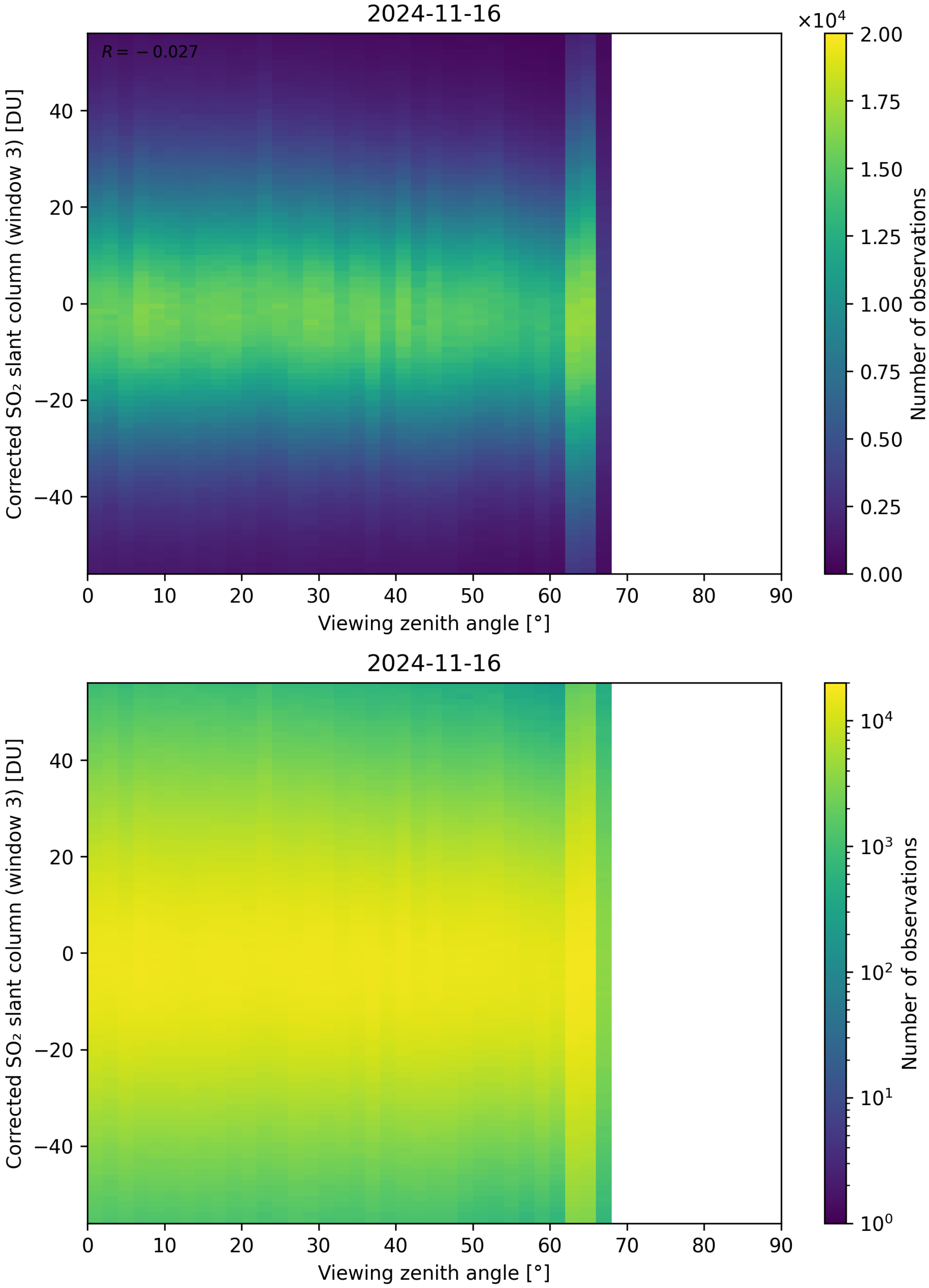
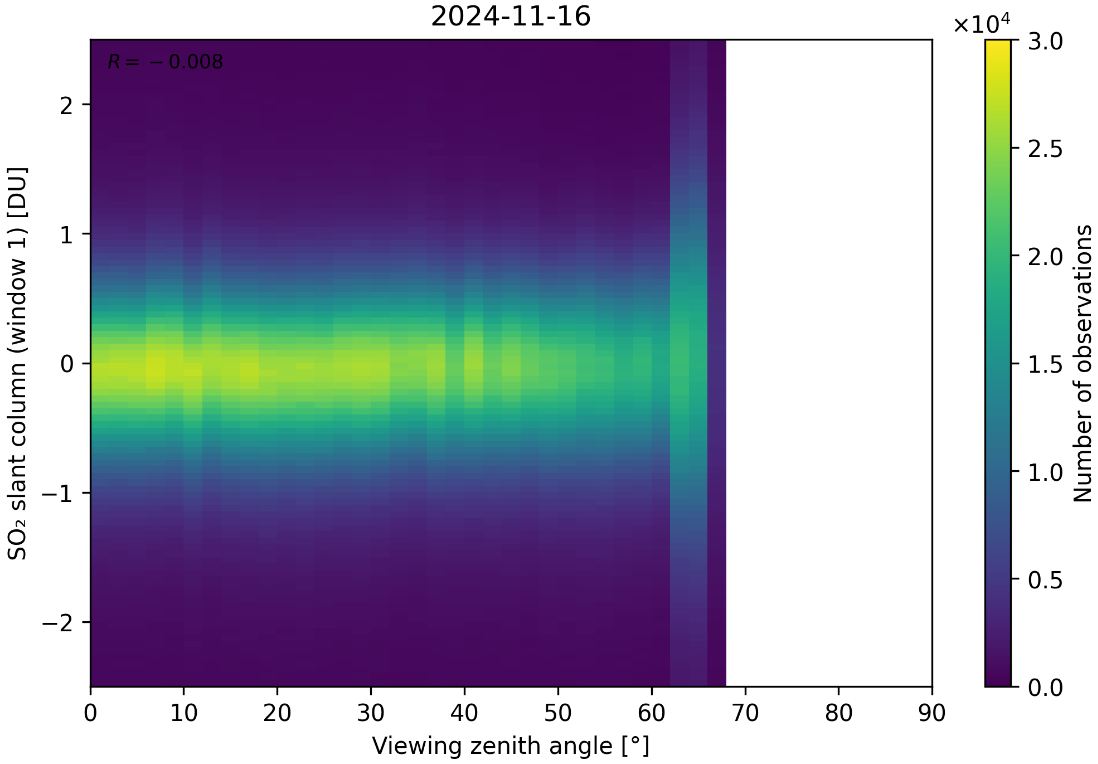


Figure 319: Scatter density plot of “Viewing zenith angle” against “Corrected SO_2 slant column (window 3)” for 2024-11-15 to 2024-11-17.



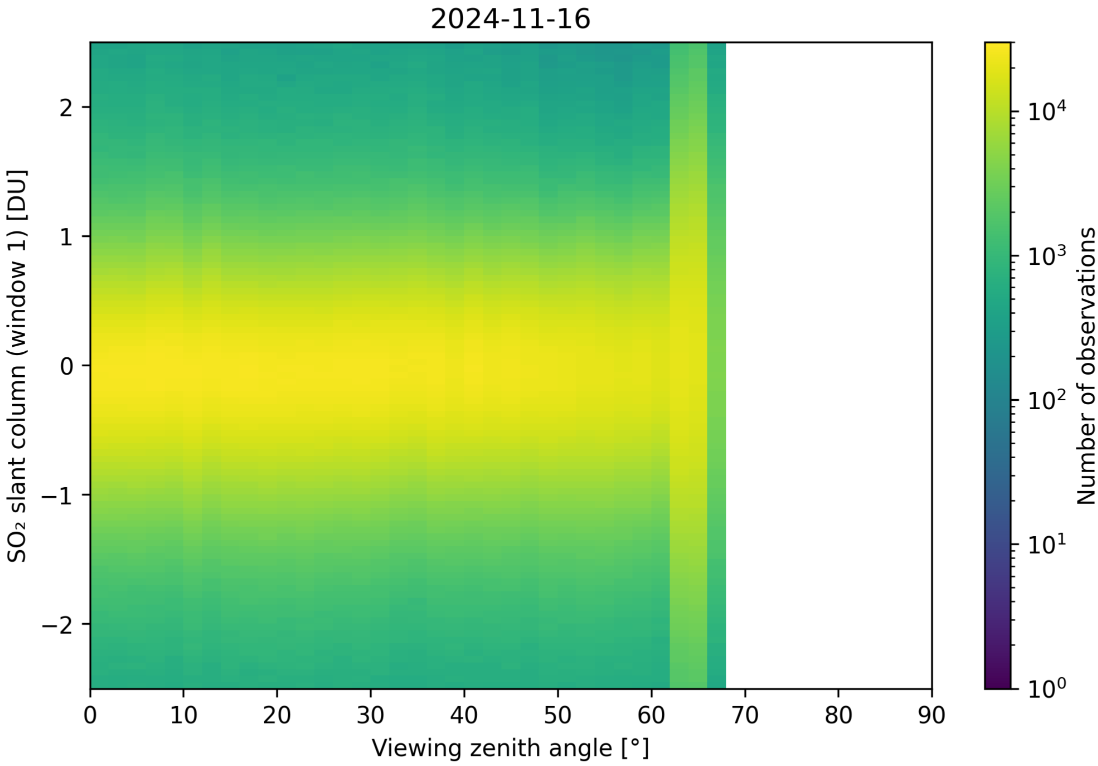


Figure 320: Scatter density plot of “Viewing zenith angle” against “SO_2 slant column (window 1)” for 2024-11-15 to 2024-11-17.

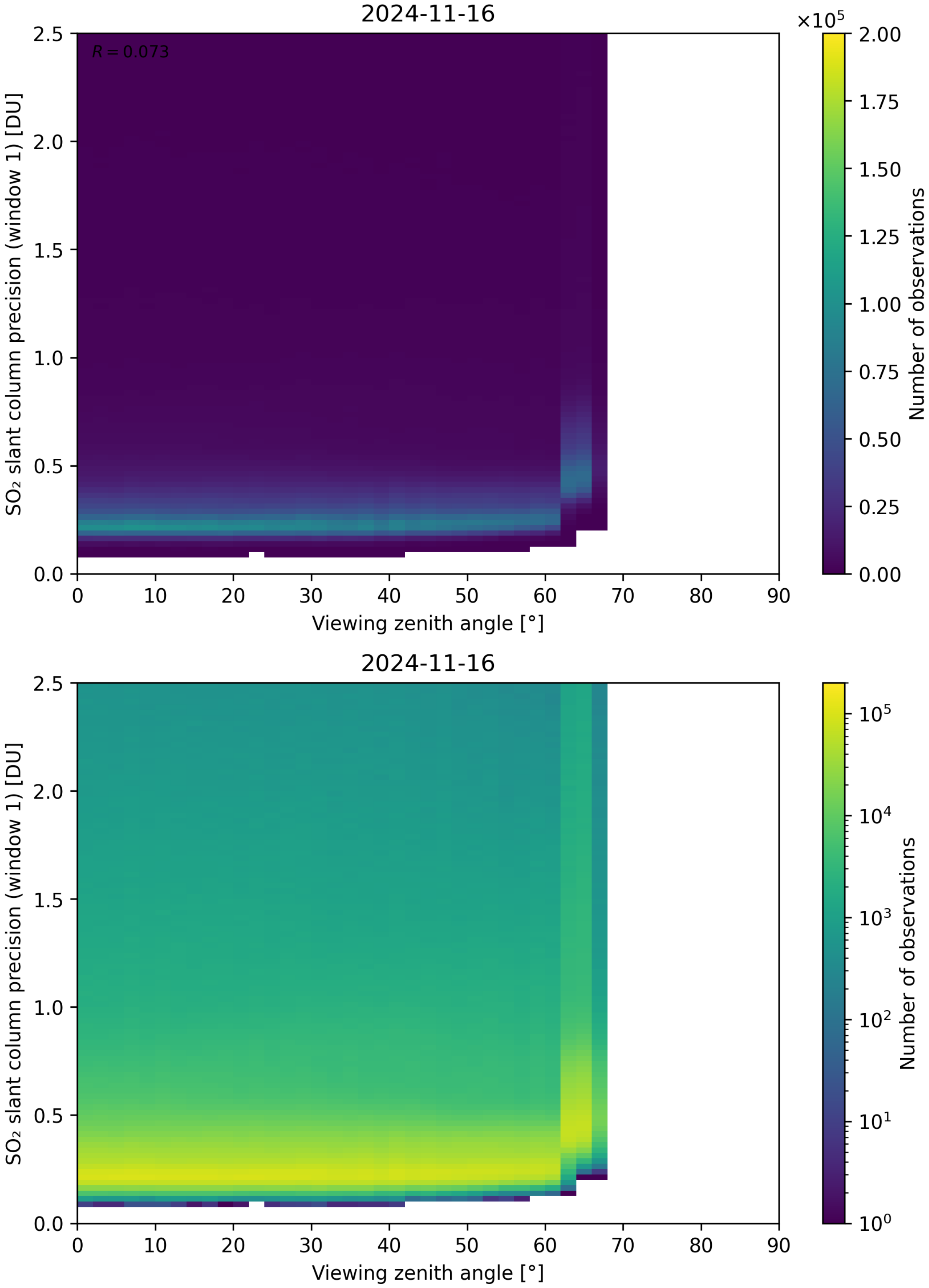


Figure 321: Scatter density plot of “Viewing zenith angle” against “SO_2 slant column precision (window 1)” for 2024-11-15 to 2024-11-17.

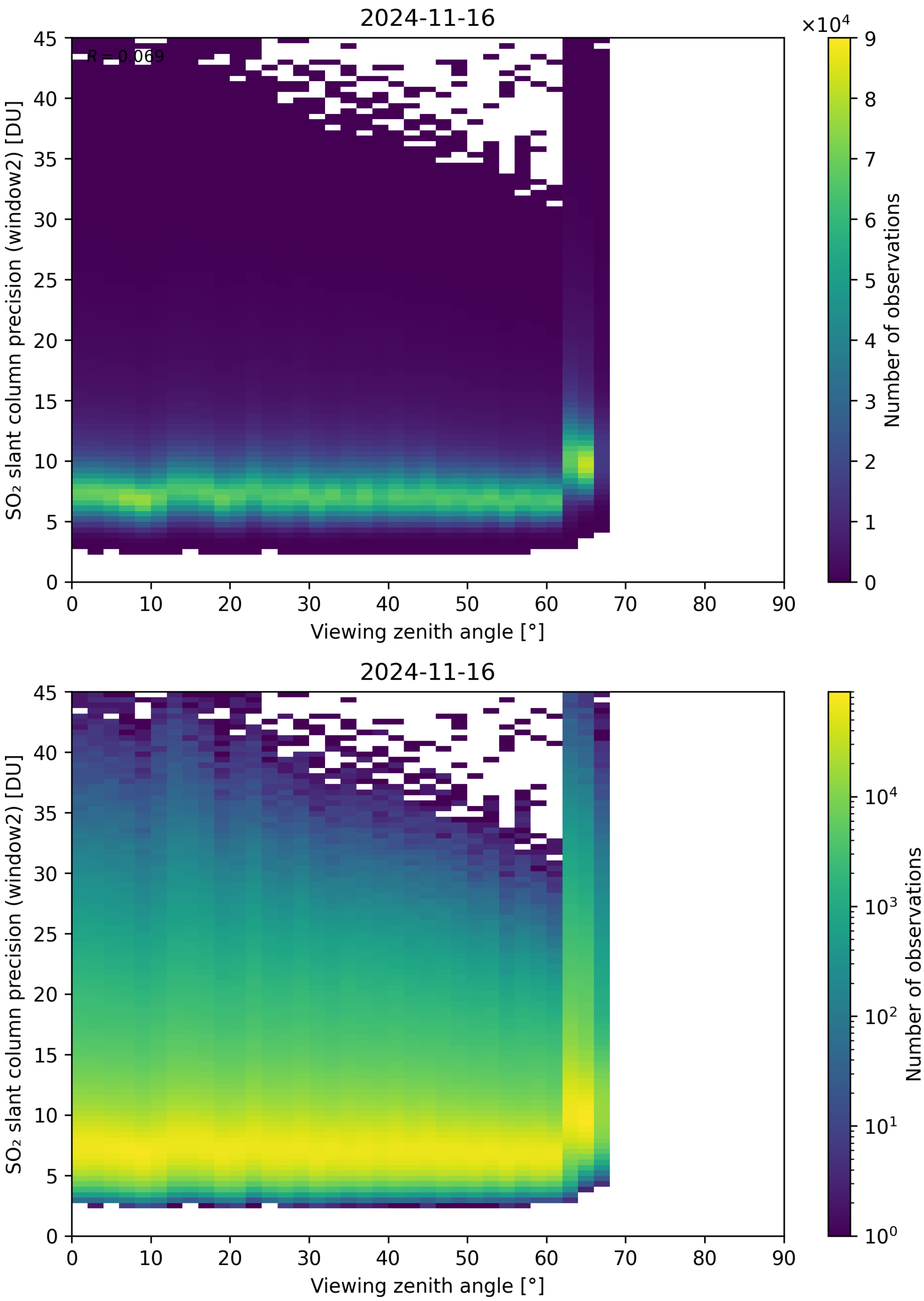


Figure 322: Scatter density plot of “Viewing zenith angle” against “SO_2 slant column precision (window2)” for 2024-11-15 to 2024-11-17.

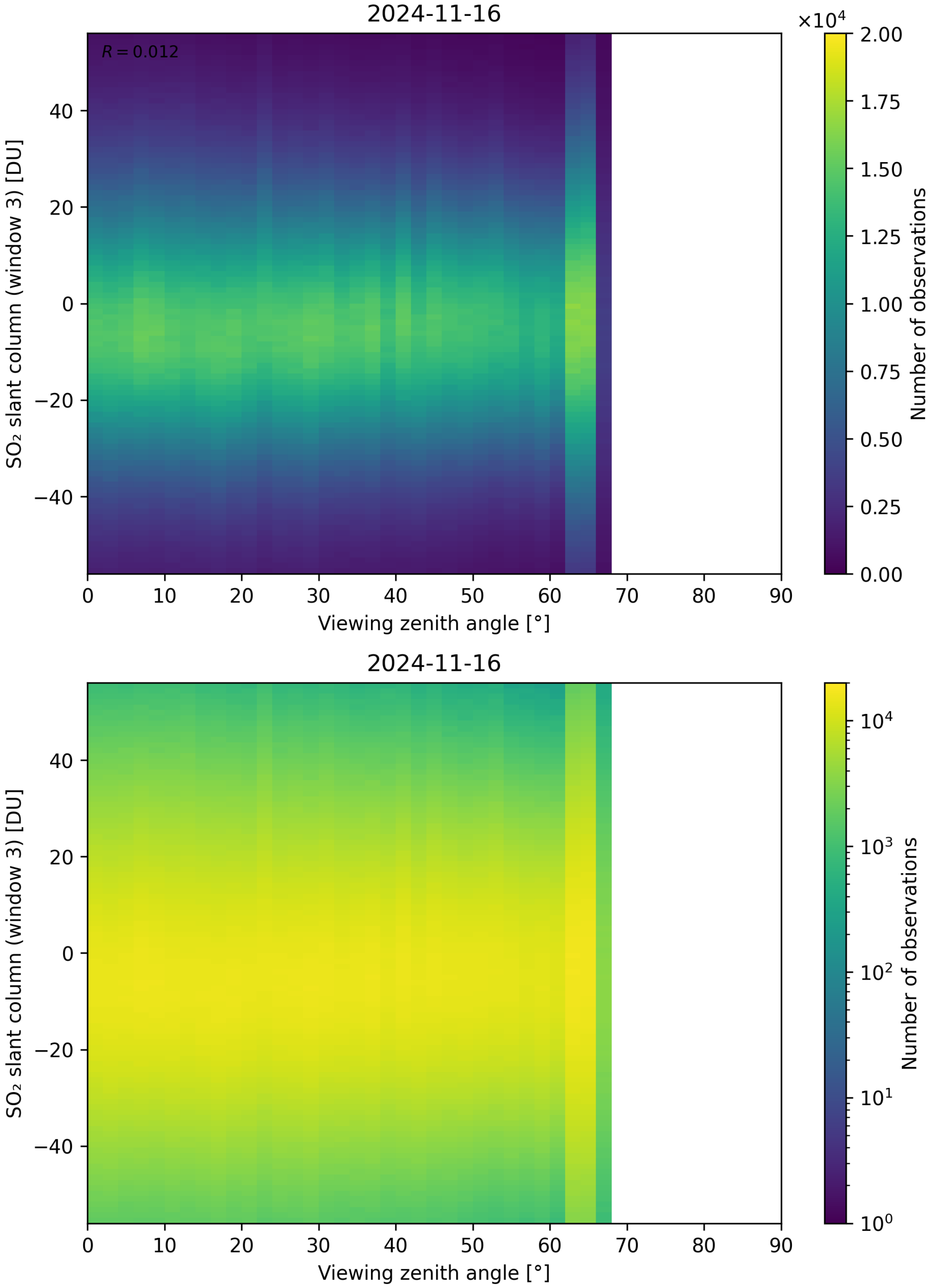


Figure 323: Scatter density plot of “Viewing zenith angle” against “SO_2 slant column (window 3)” for 2024-11-15 to 2024-11-17.

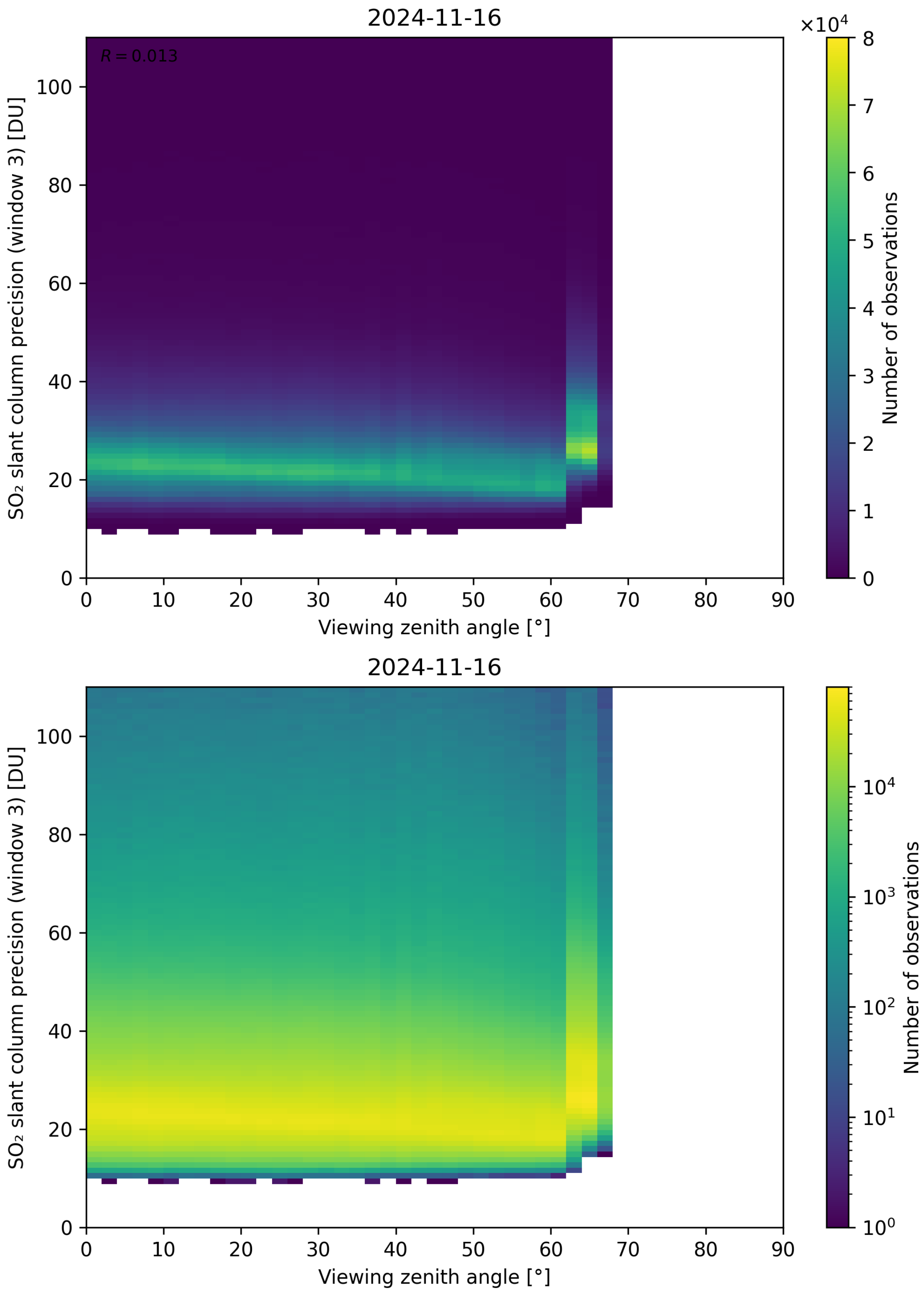


Figure 324: Scatter density plot of “Viewing zenith angle” against “SO_2 slant column precision (window 3)” for 2024-11-15 to 2024-11-17.

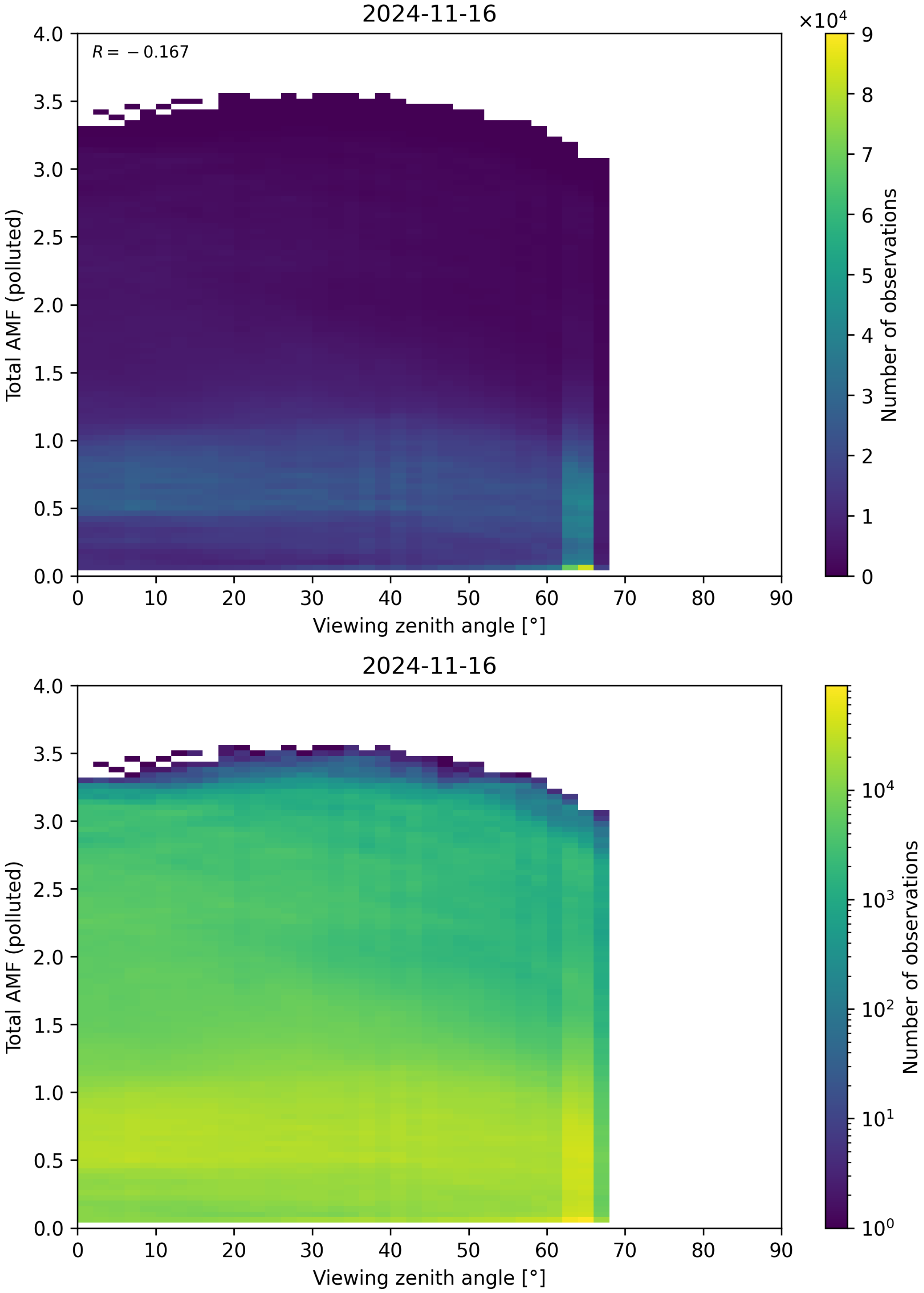


Figure 325: Scatter density plot of “Viewing zenith angle” against “Total AMF (polluted)” for 2024-11-15 to 2024-11-17.

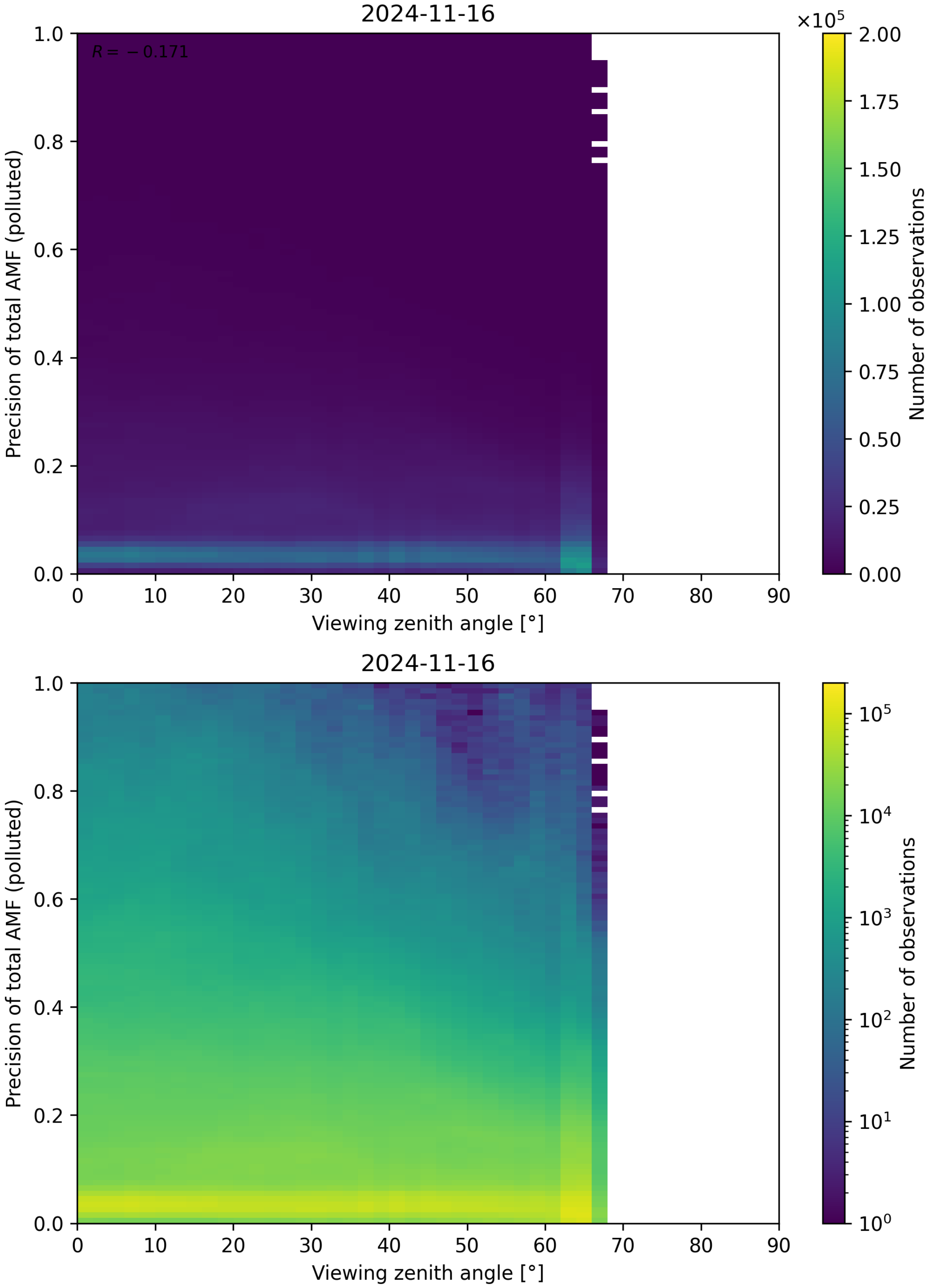


Figure 326: Scatter density plot of “Viewing zenith angle” against “Precision of total AMF (polluted)” for 2024-11-15 to 2024-11-17.

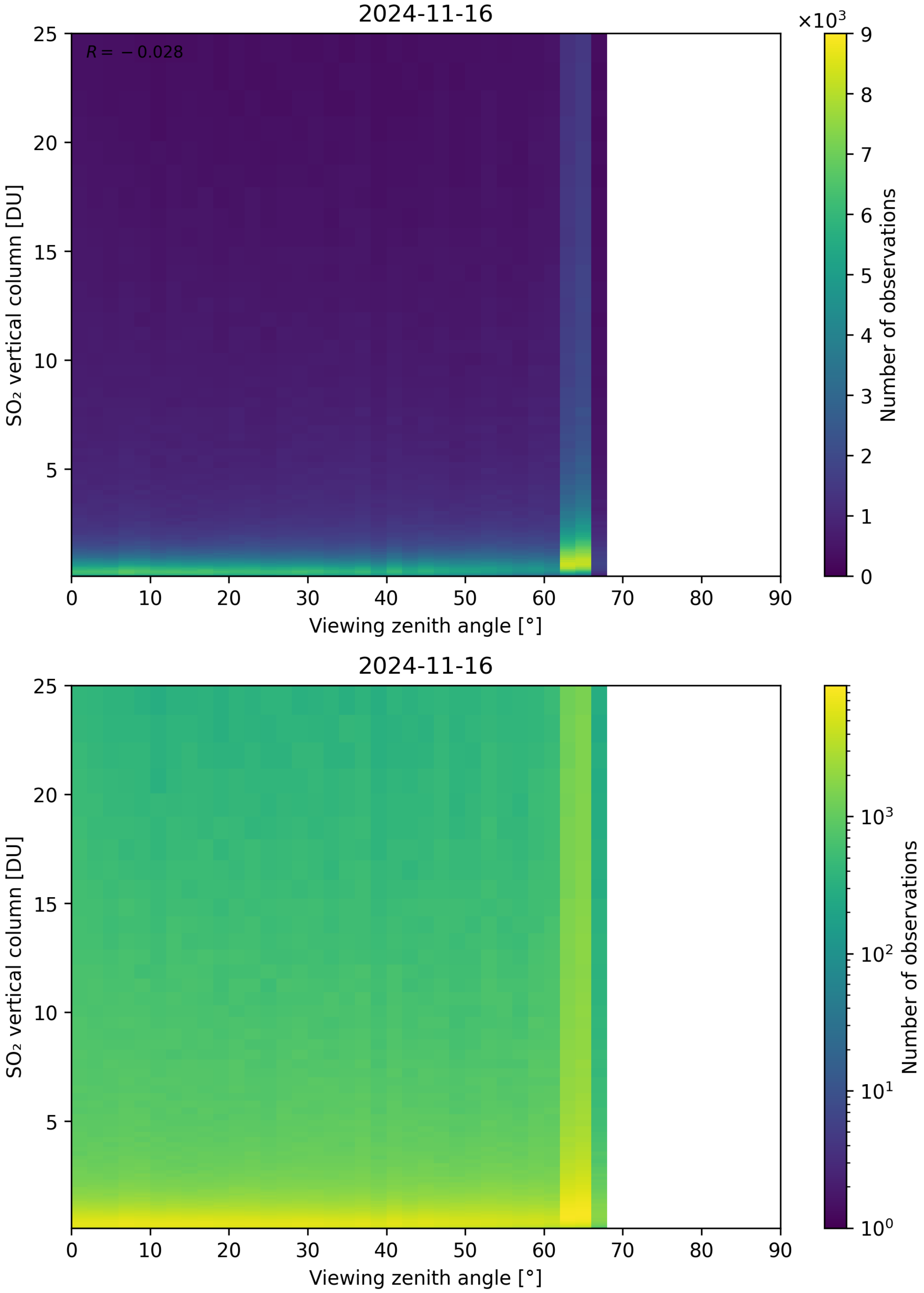


Figure 327: Scatter density plot of “Viewing zenith angle” against “SO_2 vertical column” for 2024-11-15 to 2024-11-17.

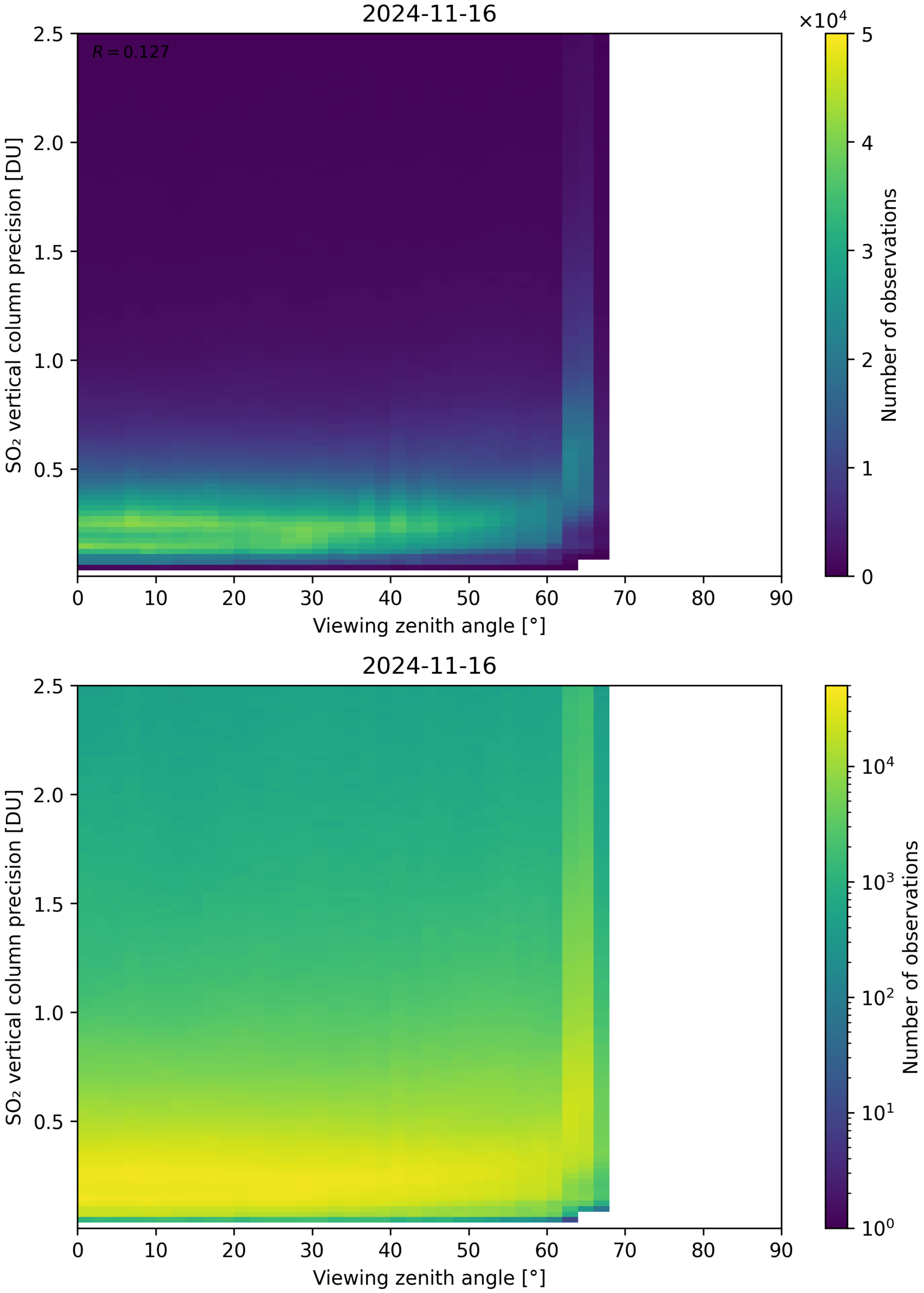


Figure 328: Scatter density plot of “Viewing zenith angle” against “SO_2 vertical column precision” for 2024-11-15 to 2024-11-17.

Contents

List of Figures

List of Tables

11 Copyright information of 'PyCAMA'

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