

L1A : Process RAW to L1A

Raw binary to HDF5 and filter data on SZA.

Processing Parameters and metadata:

HyperInSPACE version: 1.2.0

SZA Filter (L1A): 70.0

Example of HyperSAS with pySAS robot.

/version=R0

/investigators=The_Sampler

/affiliations=Sample_University

/contact=sample@sampleu.edu

/experiment=sample_pySAS

/cruise=sample_cruise

/documents=README.md

/instrument_manufacturer=Satlantic

/instrument_model=HyperSAS

/calibration_date=

/calibration_files=SATTHS0045A.tdf,SAS045_20210306.sip,GPRMC_NMEA0183v3.01.tdf,HLD385F.cal,S
ATMSG.tdf,HSE0488F.cal,HLD0386E.cal,HED0488F.cal,HSL385F.cal,GPGGA_NMEA0183.tdf,HSL0386
E.cal,UMTWR_v0.tdf

/data_type=above_water

/data_status=

/measurement_depth=0

/platform=sample_ship

Process log:

Process Single Level

ProcessL1a.processL1a: 21-Apr-2023 17:42:26

L1AQC : Process L1A to L1AQC

Low level QC (pitch, roll, yaw, and azimuth) and deglitching.

Processing Parameters:

Rotator Home Angle: 0.0

Rotator Delay: 60.0

Pitch/Roll Filter: 5.0

Rel Azimuth Min: 90.0

Rel Azimuth Max: 135.0

ES Dark Window: 11

ES Light Window: 5

ES Dark Sigma: 3.5

ES Light Sigma: 3.5

LT Dark Window: 11

LT Light Window: 5

LT Dark Sigma: 3.5

LT Light Sigma: 2.9

LI Dark Window: 11

LI Light Window: 5

LI Dark Sigma: 3.4

LI Light Sigma: 2.9

Process log:

Process Single Level

Found data: station

Found data: lat

Found data: lon

Found data: heading

Found data: wt

Found data: sal

Found data: wind

Found data: cloud

Found data: waveht

Found data: pitch

Found data: roll

Deglitching file Config/sample_pySAS_anoms.csv found for sample_pySAS. Using these parameters.

ProcessL1aqc.processL1aqc: 21-Apr-2023 18:19:00

Filtering file for GPS status

Percentage of data failed on GPS Status: 0 %

Filtering file for high pitch and roll

Pitch data from ancillary file used.

Roll data from ancillary file used.

Percentage of data out of Pitch/Roll bounds: 0 %

Filtering file for Rotator Delay

Percentage of Tracker data out of Rotator Delay bounds: 100 %

Filtering file for bad Absolute Rotator Angle

Percentage of Tracker data out of Absolute Rotator bounds: 0 %

Filtering file for bad Relative Solar Azimuth

Flag data from: 2021-05-01 08:54:28.532000+00:00 to 2021-05-01 08:54:29.080000+00:00
Flag data from: 2021-05-01 08:54:33.591000+00:00 to 2021-05-01 08:54:33.591000+00:00
Flag data from: 2021-05-01 08:54:48.754000+00:00 to 2021-05-01 08:54:50.088000+00:00
Flag data from: 2021-05-01 08:54:53.090000+00:00 to 2021-05-01 08:54:54.082000+00:00
Flag data from: 2021-05-01 08:54:55.092000+00:00 to 2021-05-01 08:54:56.085000+00:00
Flag data from: 2021-05-01 08:55:09.090000+00:00 to 2021-05-01 08:55:14.079000+00:00
Flag data from: 2021-05-01 08:55:15.088000+00:00 to 2021-05-01 08:55:34.251000+00:00
Flag data from: 2021-05-01 08:55:35.091000+00:00 to 2021-05-01 08:55:40.082000+00:00
Flag data from: 2021-05-01 08:56:04.451000+00:00 to 2021-05-01 08:56:05.089000+00:00
Flag data from: 2021-05-01 08:56:09.519000+00:00 to 2021-05-01 08:56:10.095000+00:00
Flag data from: 2021-05-01 08:56:24.698000+00:00 to 2021-05-01 08:56:25.088000+00:00
Flag data from: 2021-05-01 08:56:34.852000+00:00 to 2021-05-01 08:56:35.087000+00:00
Flag data from: 2021-05-01 08:57:17.093000+00:00 to 2021-05-01 08:57:25.474000+00:00
Flag data from: 2021-05-01 08:57:26.092000+00:00 to 2021-05-01 08:57:30.556000+00:00
Flag data from: 2021-05-01 08:57:31.093000+00:00 to 2021-05-01 08:57:35.614000+00:00
Flag data from: 2021-05-01 08:57:36.094000+00:00 to 2021-05-01 08:57:50.729000+00:00
Flag data from: 2021-05-01 08:57:51.097000+00:00 to 2021-05-01 08:57:55.785000+00:00
Flag data from: 2021-05-01 08:57:56.095000+00:00 to 2021-05-01 08:58:00.861000+00:00
Flag data from: 2021-05-01 08:58:01.092000+00:00 to 2021-05-01 08:58:16.095000+00:00
Flag data from: 2021-05-01 08:58:26.231000+00:00 to 2021-05-01 08:58:27.090000+00:00
Flag data from: 2021-05-01 08:58:31.341000+00:00 to 2021-05-01 08:58:32.089000+00:00
Flag data from: 2021-05-01 08:58:36.359000+00:00 to 2021-05-01 08:58:36.359000+00:00
Flag data from: 2021-05-01 08:58:43.086000+00:00 to 2021-05-01 08:59:01.561000+00:00
Flag data from: 2021-05-01 08:59:02.081000+00:00 to 2021-05-01 08:59:06.576000+00:00
Flag data from: 2021-05-01 08:59:07.085000+00:00 to 2021-05-01 08:59:11.651000+00:00
Flag data from: 2021-05-01 08:59:12.087000+00:00 to 2021-05-01 08:59:26.829000+00:00
Flag data from: 2021-05-01 08:59:27.089000+00:00 to 2021-05-01 08:59:31.880000+00:00
Flag data from: 2021-05-01 08:59:32.095000+00:00 to 2021-05-01 08:59:36.959000+00:00
Flag data from: 2021-05-01 08:59:37.092000+00:00 to 2021-05-01 08:59:48.093000+00:00
Flag data from: 2021-05-01 08:59:49.096000+00:00 to 2021-05-01 08:59:54.083000+00:00
Flag data from: 2021-05-01 09:00:02.304000+00:00 to 2021-05-01 09:00:03.086000+00:00
Flag data from: 2021-05-01 09:00:08.119000+00:00 to 2021-05-01 09:00:12.384000+00:00
Flag data from: 2021-05-01 09:00:27.561000+00:00 to 2021-05-01 09:00:28.087000+00:00
Flag data from: 2021-05-01 09:00:32.513000+00:00 to 2021-05-01 09:00:34.089000+00:00
Flag data from: 2021-05-01 09:00:52.624000+00:00 to 2021-05-01 09:00:53.087000+00:00
Flag data from: 2021-05-01 09:00:59.097000+00:00 to 2021-05-01 09:01:00.093000+00:00
Flag data from: 2021-05-01 09:01:01.097000+00:00 to 2021-05-01 09:01:07.651000+00:00
Flag data from: 2021-05-01 09:01:08.095000+00:00 to 2021-05-01 09:01:12.709000+00:00
Flag data from: 2021-05-01 09:01:13.088000+00:00 to 2021-05-01 09:01:27.910000+00:00
Flag data from: 2021-05-01 09:01:28.098000+00:00 to 2021-05-01 09:01:32.987000+00:00
Flag data from: 2021-05-01 09:01:33.091000+00:00 to 2021-05-01 09:01:37.969000+00:00
Flag data from: 2021-05-01 09:01:38.096000+00:00 to 2021-05-01 09:01:48.099000+00:00
Flag data from: 2021-05-01 09:01:49.091000+00:00 to 2021-05-01 09:01:50.085000+00:00
Flag data from: 2021-05-01 09:01:52.098000+00:00 to 2021-05-01 09:02:13.276000+00:00
Flag data from: 2021-05-01 09:02:15.096000+00:00 to 2021-05-01 09:02:28.088000+00:00
Flag data from: 2021-05-01 09:02:33.533000+00:00 to 2021-05-01 09:02:34.094000+00:00
Flag data from: 2021-05-01 09:03:05.096000+00:00 to 2021-05-01 09:03:08.733000+00:00
Flag data from: 2021-05-01 09:03:09.096000+00:00 to 2021-05-01 09:03:13.793000+00:00
Flag data from: 2021-05-01 09:03:14.097000+00:00 to 2021-05-01 09:03:29.016000+00:00

Flag data from: 2021-05-01 09:03:29.086000+00:00 to 2021-05-01 09:03:49.223000+00:00
Flag data from: 2021-05-01 09:03:50.097000+00:00 to 2021-05-01 09:03:54.359000+00:00
Flag data from: 2021-05-01 09:03:55.095000+00:00 to 2021-05-01 09:03:59.341000+00:00
Flag data from: 2021-05-01 09:04:00.096000+00:00 to 2021-05-01 09:04:14.443000+00:00
Flag data from: 2021-05-01 09:04:36.099000+00:00 to 2021-05-01 09:04:36.099000+00:00
Flag data from: 2021-05-01 09:04:37.097000+00:00 to 2021-05-01 09:04:44.713000+00:00
Flag data from: 2021-05-01 09:04:45.096000+00:00 to 2021-05-01 09:04:49.092000+00:00
Flag data from: 2021-05-01 09:04:59.830000+00:00 to 2021-05-01 09:04:59.830000+00:00
Flag data from: 2021-05-01 09:05:15.046000+00:00 to 2021-05-01 09:05:15.092000+00:00
Flag data from: 2021-05-01 09:05:20.090000+00:00 to 2021-05-01 09:05:21.094000+00:00
Flag data from: 2021-05-01 09:05:40.350000+00:00 to 2021-05-01 09:05:41.095000+00:00
Flag data from: 2021-05-01 09:05:45.390000+00:00 to 2021-05-01 09:05:46.096000+00:00
Flag data from: 2021-05-01 09:06:05.550000+00:00 to 2021-05-01 09:06:06.097000+00:00
Flag data from: 2021-05-01 09:06:10.624000+00:00 to 2021-05-01 09:06:11.087000+00:00
Flag data from: 2021-05-01 09:06:27.100000+00:00 to 2021-05-01 09:06:35.724000+00:00
Flag data from: 2021-05-01 09:06:36.093000+00:00 to 2021-05-01 09:06:40.799000+00:00
Flag data from: 2021-05-01 09:06:41.099000+00:00 to 2021-05-01 09:06:45.856000+00:00
Flag data from: 2021-05-01 09:06:46.095000+00:00 to 2021-05-01 09:07:01.024000+00:00
Flag data from: 2021-05-01 09:07:01.097000+00:00 to 2021-05-01 09:07:26.294000+00:00
Flag data from: 2021-05-01 09:07:27.099000+00:00 to 2021-05-01 09:07:31.425000+00:00
Flag data from: 2021-05-01 09:07:32.093000+00:00 to 2021-05-01 09:07:46.428000+00:00
Flag data from: 2021-05-01 09:07:47.101000+00:00 to 2021-05-01 09:07:51.494000+00:00
Flag data from: 2021-05-01 09:07:52.104000+00:00 to 2021-05-01 09:07:56.549000+00:00
Flag data from: 2021-05-01 09:07:58.099000+00:00 to 2021-05-01 09:07:59.096000+00:00
Flag data from: 2021-05-01 09:08:06.622000+00:00 to 2021-05-01 09:08:07.097000+00:00
Flag data from: 2021-05-01 09:08:38.100000+00:00 to 2021-05-01 09:08:42.101000+00:00
Flag data from: 2021-05-01 09:08:43.096000+00:00 to 2021-05-01 09:08:56.103000+00:00
Flag data from: 2021-05-01 09:09:19.099000+00:00 to 2021-05-01 09:09:19.099000+00:00
Flag data from: 2021-05-01 09:09:21.102000+00:00 to 2021-05-01 09:09:27.454000+00:00
Flag data from: 2021-05-01 09:09:28.100000+00:00 to 2021-05-01 09:09:32.519000+00:00
Flag data from: 2021-05-01 09:09:33.096000+00:00 to 2021-05-01 09:09:43.101000+00:00
Flag data from: 2021-05-01 09:09:57.842000+00:00 to 2021-05-01 09:09:58.099000+00:00
Flag data from: 2021-05-01 09:10:02.918000+00:00 to 2021-05-01 09:10:03.100000+00:00
Flag data from: 2021-05-01 09:10:11.105000+00:00 to 2021-05-01 09:10:17.995000+00:00
Flag data from: 2021-05-01 09:10:18.104000+00:00 to 2021-05-01 09:10:33.220000+00:00
Flag data from: 2021-05-01 09:10:34.102000+00:00 to 2021-05-01 09:10:38.339000+00:00
Flag data from: 2021-05-01 09:10:39.098000+00:00 to 2021-05-01 09:10:43.434000+00:00
Flag data from: 2021-05-01 09:10:44.105000+00:00 to 2021-05-01 09:10:53.610000+00:00
Flag data from: 2021-05-01 09:10:54.099000+00:00 to 2021-05-01 09:10:58.496000+00:00
Flag data from: 2021-05-01 09:11:13.627000+00:00 to 2021-05-01 09:11:14.096000+00:00
Flag data from: 2021-05-01 09:11:33.781000+00:00 to 2021-05-01 09:11:34.093000+00:00
Flag data from: 2021-05-01 09:11:38.825000+00:00 to 2021-05-01 09:11:39.095000+00:00
Flag data from: 2021-05-01 09:11:58.999000+00:00 to 2021-05-01 09:12:02.096000+00:00
Flag data from: 2021-05-01 09:12:12.101000+00:00 to 2021-05-01 09:12:14.029000+00:00
Flag data from: 2021-05-01 09:12:14.102000+00:00 to 2021-05-01 09:12:28.099000+00:00
Flag data from: 2021-05-01 09:12:39.278000+00:00 to 2021-05-01 09:12:40.100000+00:00
Flag data from: 2021-05-01 09:12:47.094000+00:00 to 2021-05-01 09:12:49.448000+00:00
Flag data from: 2021-05-01 09:12:50.103000+00:00 to 2021-05-01 09:12:59.452000+00:00
Flag data from: 2021-05-01 09:13:02.102000+00:00 to 2021-05-01 09:13:04.095000+00:00

Flag data from: 2021-05-01 09:13:05.093000+00:00 to 2021-05-01 09:13:14.506000+00:00
Flag data from: 2021-05-01 09:13:15.101000+00:00 to 2021-05-01 09:13:19.581000+00:00
Flag data from: 2021-05-01 09:13:20.105000+00:00 to 2021-05-01 09:13:24.647000+00:00
Flag data from: 2021-05-01 09:13:25.099000+00:00 to 2021-05-01 09:13:39.830000+00:00
Flag data from: 2021-05-01 09:13:42.101000+00:00 to 2021-05-01 09:13:56.099000+00:00
Flag data from: 2021-05-01 09:14:15.316000+00:00 to 2021-05-01 09:14:16.099000+00:00
Flag data from: 2021-05-01 09:14:20.364000+00:00 to 2021-05-01 09:14:21.098000+00:00
Flag data from: 2021-05-01 09:14:35.543000+00:00 to 2021-05-01 09:14:36.100000+00:00
Flag data from: 2021-05-01 09:14:40.587000+00:00 to 2021-05-01 09:14:41.097000+00:00
Flag data from: 2021-05-01 09:14:51.102000+00:00 to 2021-05-01 09:15:10.899000+00:00
Flag data from: 2021-05-01 09:15:12.102000+00:00 to 2021-05-01 09:15:23.096000+00:00
Flag data from: 2021-05-01 09:15:31.267000+00:00 to 2021-05-01 09:15:31.267000+00:00
Flag data from: 2021-05-01 09:15:46.394000+00:00 to 2021-05-01 09:15:47.093000+00:00
Flag data from: 2021-05-01 09:15:51.440000+00:00 to 2021-05-01 09:15:52.107000+00:00
Flag data from: 2021-05-01 09:16:06.100000+00:00 to 2021-05-01 09:16:21.728000+00:00
Flag data from: 2021-05-01 09:16:22.102000+00:00 to 2021-05-01 09:16:41.988000+00:00
Flag data from: 2021-05-01 09:16:42.100000+00:00 to 2021-05-01 09:16:47.037000+00:00
Flag data from: 2021-05-01 09:16:47.106000+00:00 to 2021-05-01 09:17:02.283000+00:00
Flag data from: 2021-05-01 09:17:04.107000+00:00 to 2021-05-01 09:17:07.279000+00:00
Flag data from: 2021-05-01 09:17:09.104000+00:00 to 2021-05-01 09:17:12.325000+00:00
Flag data from: 2021-05-01 09:17:13.106000+00:00 to 2021-05-01 09:17:27.463000+00:00
Flag data from: 2021-05-01 09:17:28.101000+00:00 to 2021-05-01 09:17:41.101000+00:00
Flag data from: 2021-05-01 09:17:47.837000+00:00 to 2021-05-01 09:17:48.103000+00:00
Flag data from: 2021-05-01 09:18:02.975000+00:00 to 2021-05-01 09:18:03.105000+00:00
Flag data from: 2021-05-01 09:18:08.021000+00:00 to 2021-05-01 09:18:08.108000+00:00
Flag data from: 2021-05-01 09:18:33.245000+00:00 to 2021-05-01 09:18:34.101000+00:00
Flag data from: 2021-05-01 09:18:52.107000+00:00 to 2021-05-01 09:18:58.511000+00:00
Flag data from: 2021-05-01 09:18:59.106000+00:00 to 2021-05-01 09:19:03.556000+00:00
Flag data from: 2021-05-01 09:19:04.103000+00:00 to 2021-05-01 09:19:08.599000+00:00
Flag data from: 2021-05-01 09:19:09.107000+00:00 to 2021-05-01 09:19:19.109000+00:00
Flag data from: 2021-05-01 09:19:33.909000+00:00 to 2021-05-01 09:19:34.106000+00:00
Flag data from: 2021-05-01 09:19:38.956000+00:00 to 2021-05-01 09:19:39.103000+00:00
Flag data from: 2021-05-01 09:20:03.108000+00:00 to 2021-05-01 09:20:09.322000+00:00
Flag data from: 2021-05-01 09:20:10.106000+00:00 to 2021-05-01 09:20:14.368000+00:00
Flag data from: 2021-05-01 09:20:15.107000+00:00 to 2021-05-01 09:20:27.104000+00:00
Flag data from: 2021-05-01 09:20:44.885000+00:00 to 2021-05-01 09:20:50.107000+00:00
Flag data from: 2021-05-01 09:20:53.103000+00:00 to 2021-05-01 09:21:12.106000+00:00
Flag data from: 2021-05-01 09:21:13.105000+00:00 to 2021-05-01 09:21:15.107000+00:00
Flag data from: 2021-05-01 09:21:16.114000+00:00 to 2021-05-01 09:21:29.094000+00:00
Flag data from: 2021-05-01 09:21:35.647000+00:00 to 2021-05-01 09:21:35.647000+00:00
Flag data from: 2021-05-01 09:21:55.101000+00:00 to 2021-05-01 09:21:57.110000+00:00
Flag data from: 2021-05-01 09:21:59.107000+00:00 to 2021-05-01 09:22:06.104000+00:00
Flag data from: 2021-05-01 09:22:16.307000+00:00 to 2021-05-01 09:22:17.103000+00:00
Flag data from: 2021-05-01 09:22:30.103000+00:00 to 2021-05-01 09:22:42.101000+00:00
Flag data from: 2021-05-01 09:22:56.970000+00:00 to 2021-05-01 09:22:57.102000+00:00
Flag data from: 2021-05-01 09:22:58.100000+00:00 to 2021-05-01 09:23:02.099000+00:00
Flag data from: 2021-05-01 09:23:27.441000+00:00 to 2021-05-01 09:23:27.441000+00:00
Flag data from: 2021-05-01 09:23:42.626000+00:00 to 2021-05-01 09:23:43.100000+00:00
Flag data from: 2021-05-01 09:23:47.672000+00:00 to 2021-05-01 09:23:50.108000+00:00

Flag data from: 2021-05-01 09:24:01.098000+00:00 to 2021-05-01 09:24:13.090000+00:00
Flag data from: 2021-05-01 09:24:15.106000+00:00 to 2021-05-01 09:24:30.097000+00:00
Flag data from: 2021-05-01 09:24:33.422000+00:00 to 2021-05-01 09:24:34.102000+00:00
Flag data from: 2021-05-01 09:24:53.653000+00:00 to 2021-05-01 09:24:55.101000+00:00
Flag data from: 2021-05-01 09:25:13.888000+00:00 to 2021-05-01 09:25:14.094000+00:00
Flag data from: 2021-05-01 09:25:18.934000+00:00 to 2021-05-01 09:25:19.101000+00:00
Flag data from: 2021-05-01 09:25:39.167000+00:00 to 2021-05-01 09:25:41.099000+00:00
Flag data from: 2021-05-01 09:25:43.106000+00:00 to 2021-05-01 09:25:49.261000+00:00
Flag data from: 2021-05-01 09:25:50.101000+00:00 to 2021-05-01 09:26:04.407000+00:00
Flag data from: 2021-05-01 09:26:05.103000+00:00 to 2021-05-01 09:26:09.455000+00:00
Flag data from: 2021-05-01 09:26:11.103000+00:00 to 2021-05-01 09:26:14.505000+00:00
Flag data from: 2021-05-01 09:26:15.106000+00:00 to 2021-05-01 09:26:29.647000+00:00
Flag data from: 2021-05-01 09:26:30.103000+00:00 to 2021-05-01 09:26:34.693000+00:00
Flag data from: 2021-05-01 09:26:36.100000+00:00 to 2021-05-01 09:26:49.877000+00:00
Flag data from: 2021-05-01 09:26:50.108000+00:00 to 2021-05-01 09:27:00.011000+00:00
Flag data from: 2021-05-01 09:27:00.108000+00:00 to 2021-05-01 09:27:15.226000+00:00
Flag data from: 2021-05-01 09:27:17.103000+00:00 to 2021-05-01 09:27:20.266000+00:00
Flag data from: 2021-05-01 09:27:21.109000+00:00 to 2021-05-01 09:27:32.102000+00:00
Flag data from: 2021-05-01 09:27:45.573000+00:00 to 2021-05-01 09:27:46.098000+00:00
Flag data from: 2021-05-01 09:27:50.621000+00:00 to 2021-05-01 09:27:51.100000+00:00
Flag data from: 2021-05-01 09:28:00.110000+00:00 to 2021-05-01 09:28:05.801000+00:00
Flag data from: 2021-05-01 09:28:06.106000+00:00 to 2021-05-01 09:28:16.104000+00:00
Flag data from: 2021-05-01 09:28:43.106000+00:00 to 2021-05-01 09:28:46.271000+00:00
Flag data from: 2021-05-01 09:28:47.104000+00:00 to 2021-05-01 09:28:54.103000+00:00
Flag data from: 2021-05-01 09:29:16.678000+00:00 to 2021-05-01 09:29:17.099000+00:00
Flag data from: 2021-05-01 09:29:21.723000+00:00 to 2021-05-01 09:29:22.101000+00:00
Flag data from: 2021-05-01 09:29:36.860000+00:00 to 2021-05-01 09:29:37.100000+00:00
Flag data from: 2021-05-01 09:29:41.907000+00:00 to 2021-05-01 09:29:42.104000+00:00
Flag data from: 2021-05-01 09:29:56.110000+00:00 to 2021-05-01 09:30:17.214000+00:00
Flag data from: 2021-05-01 09:30:18.101000+00:00 to 2021-05-01 09:30:32.355000+00:00
Flag data from: 2021-05-01 09:30:33.094000+00:00 to 2021-05-01 09:30:48.096000+00:00
Flag data from: 2021-05-01 09:31:03.098000+00:00 to 2021-05-01 09:31:12.959000+00:00
Flag data from: 2021-05-01 09:31:14.098000+00:00 to 2021-05-01 09:31:18.004000+00:00
Flag data from: 2021-05-01 09:31:18.100000+00:00 to 2021-05-01 09:31:29.094000+00:00
Flag data from: 2021-05-01 09:31:48.322000+00:00 to 2021-05-01 09:31:58.398000+00:00
Flag data from: 2021-05-01 09:31:59.093000+00:00 to 2021-05-01 09:32:20.096000+00:00
Flag data from: 2021-05-01 09:32:33.975000+00:00 to 2021-05-01 09:32:35.086000+00:00
Flag data from: 2021-05-01 09:32:39.018000+00:00 to 2021-05-01 09:32:39.018000+00:00
Flag data from: 2021-05-01 09:32:49.099000+00:00 to 2021-05-01 09:33:00.100000+00:00
Flag data from: 2021-05-01 09:33:19.586000+00:00 to 2021-05-01 09:33:21.091000+00:00
Flag data from: 2021-05-01 09:33:34.756000+00:00 to 2021-05-01 09:33:49.918000+00:00
Flag data from: 2021-05-01 09:33:50.094000+00:00 to 2021-05-01 09:33:54.958000+00:00
Flag data from: 2021-05-01 09:33:55.096000+00:00 to 2021-05-01 09:34:10.095000+00:00
Flag data from: 2021-05-01 09:34:11.092000+00:00 to 2021-05-01 09:34:13.090000+00:00
Flag data from: 2021-05-01 09:34:20.358000+00:00 to 2021-05-01 09:34:21.093000+00:00
Flag data from: 2021-05-01 09:34:25.400000+00:00 to 2021-05-01 09:34:26.093000+00:00
Flag data from: 2021-05-01 09:34:40.528000+00:00 to 2021-05-01 09:34:41.086000+00:00
Flag data from: 2021-05-01 09:34:45.569000+00:00 to 2021-05-01 09:34:46.093000+00:00
Flag data from: 2021-05-01 09:35:00.699000+00:00 to 2021-05-01 09:35:01.094000+00:00

Flag data from: 2021-05-01 09:35:05.740000+00:00 to 2021-05-01 09:35:06.092000+00:00
Flag data from: 2021-05-01 09:35:29.096000+00:00 to 2021-05-01 09:35:31.095000+00:00
Flag data from: 2021-05-01 09:35:32.103000+00:00 to 2021-05-01 09:35:56.247000+00:00
Flag data from: 2021-05-01 09:35:58.101000+00:00 to 2021-05-01 09:36:16.557000+00:00
Flag data from: 2021-05-01 09:36:18.103000+00:00 to 2021-05-01 09:36:21.598000+00:00
Flag data from: 2021-05-01 09:36:22.100000+00:00 to 2021-05-01 09:36:26.640000+00:00
Flag data from: 2021-05-01 09:36:27.102000+00:00 to 2021-05-01 09:36:36.726000+00:00
Flag data from: 2021-05-01 09:36:37.096000+00:00 to 2021-05-01 09:36:57.096000+00:00
Flag data from: 2021-05-01 09:36:58.104000+00:00 to 2021-05-01 09:37:07.031000+00:00
Flag data from: 2021-05-01 09:37:07.098000+00:00 to 2021-05-01 09:37:28.097000+00:00
Flag data from: 2021-05-01 09:37:32.390000+00:00 to 2021-05-01 09:37:33.095000+00:00
Flag data from: 2021-05-01 09:37:37.438000+00:00 to 2021-05-01 09:37:38.098000+00:00
Flag data from: 2021-05-01 09:37:52.573000+00:00 to 2021-05-01 09:37:53.100000+00:00
Flag data from: 2021-05-01 09:37:57.621000+00:00 to 2021-05-01 09:37:58.100000+00:00
Flag data from: 2021-05-01 09:38:10.106000+00:00 to 2021-05-01 09:38:22.947000+00:00
Flag data from: 2021-05-01 09:38:23.101000+00:00 to 2021-05-01 09:38:27.939000+00:00
Flag data from: 2021-05-01 09:38:29.098000+00:00 to 2021-05-01 09:38:38.104000+00:00
Flag data from: 2021-05-01 09:38:43.232000+00:00 to 2021-05-01 09:38:43.232000+00:00
Flag data from: 2021-05-01 09:38:58.372000+00:00 to 2021-05-01 09:38:59.095000+00:00
Flag data from: 2021-05-01 09:39:03.417000+00:00 to 2021-05-01 09:39:04.103000+00:00
Flag data from: 2021-05-01 09:39:18.556000+00:00 to 2021-05-01 09:39:19.095000+00:00
Flag data from: 2021-05-01 09:39:23.604000+00:00 to 2021-05-01 09:39:24.105000+00:00
Flag data from: 2021-05-01 09:39:47.095000+00:00 to 2021-05-01 09:39:47.095000+00:00
Flag data from: 2021-05-01 09:39:49.100000+00:00 to 2021-05-01 09:39:53.985000+00:00
Flag data from: 2021-05-01 09:39:54.105000+00:00 to 2021-05-01 09:39:59.033000+00:00
Flag data from: 2021-05-01 09:39:59.100000+00:00 to 2021-05-01 09:40:14.217000+00:00
Flag data from: 2021-05-01 09:40:15.103000+00:00 to 2021-05-01 09:40:29.410000+00:00
Flag data from: 2021-05-01 09:40:32.104000+00:00 to 2021-05-01 09:40:50.102000+00:00
Flag data from: 2021-05-01 09:40:54.101000+00:00 to 2021-05-01 09:40:59.866000+00:00
Flag data from: 2021-05-01 09:41:00.106000+00:00 to 2021-05-01 09:41:21.099000+00:00
Flag data from: 2021-05-01 09:41:25.245000+00:00 to 2021-05-01 09:41:26.096000+00:00
Flag data from: 2021-05-01 09:41:30.293000+00:00 to 2021-05-01 09:41:32.110000+00:00
Flag data from: 2021-05-01 09:41:35.093000+00:00 to 2021-05-01 09:41:36.102000+00:00
Flag data from: 2021-05-01 09:41:45.528000+00:00 to 2021-05-01 09:41:46.100000+00:00
Flag data from: 2021-05-01 09:41:50.576000+00:00 to 2021-05-01 09:41:51.099000+00:00
Flag data from: 2021-05-01 09:42:05.718000+00:00 to 2021-05-01 09:42:06.105000+00:00
Flag data from: 2021-05-01 09:42:28.101000+00:00 to 2021-05-01 09:42:35.097000+00:00
Flag data from: 2021-05-01 09:42:50.104000+00:00 to 2021-05-01 09:42:56.465000+00:00
Flag data from: 2021-05-01 09:42:58.106000+00:00 to 2021-05-01 09:43:01.460000+00:00
Flag data from: 2021-05-01 09:43:02.103000+00:00 to 2021-05-01 09:43:06.507000+00:00
Flag data from: 2021-05-01 09:43:07.102000+00:00 to 2021-05-01 09:43:13.096000+00:00
Flag data from: 2021-05-01 09:43:14.098000+00:00 to 2021-05-01 09:43:21.744000+00:00
Flag data from: 2021-05-01 09:43:22.105000+00:00 to 2021-05-01 09:43:26.793000+00:00
Flag data from: 2021-05-01 09:43:27.105000+00:00 to 2021-05-01 09:43:38.105000+00:00
Flag data from: 2021-05-01 09:44:12.314000+00:00 to 2021-05-01 09:44:13.100000+00:00
Flag data from: 2021-05-01 09:44:17.361000+00:00 to 2021-05-01 09:44:18.099000+00:00
Flag data from: 2021-05-01 09:44:32.503000+00:00 to 2021-05-01 09:44:33.098000+00:00
Flag data from: 2021-05-01 09:44:39.105000+00:00 to 2021-05-01 09:44:42.582000+00:00
Flag data from: 2021-05-01 09:44:43.103000+00:00 to 2021-05-01 09:44:47.625000+00:00

Flag data from: 2021-05-01 09:44:48.102000+00:00 to 2021-05-01 09:45:02.762000+00:00
Flag data from: 2021-05-01 09:45:03.103000+00:00 to 2021-05-01 09:45:07.806000+00:00
Flag data from: 2021-05-01 09:45:08.112000+00:00 to 2021-05-01 09:45:23.032000+00:00
Flag data from: 2021-05-01 09:45:23.103000+00:00 to 2021-05-01 09:45:28.021000+00:00
Flag data from: 2021-05-01 09:45:28.103000+00:00 to 2021-05-01 09:45:43.195000+00:00
Flag data from: 2021-05-01 09:45:44.104000+00:00 to 2021-05-01 09:45:48.235000+00:00
Flag data from: 2021-05-01 09:45:49.102000+00:00 to 2021-05-01 09:45:53.277000+00:00
Flag data from: 2021-05-01 09:45:54.103000+00:00 to 2021-05-01 09:46:03.416000+00:00
Flag data from: 2021-05-01 09:46:04.103000+00:00 to 2021-05-01 09:46:08.405000+00:00
Flag data from: 2021-05-01 09:46:09.105000+00:00 to 2021-05-01 09:46:13.447000+00:00
Flag data from: 2021-05-01 09:46:14.102000+00:00 to 2021-05-01 09:46:24.103000+00:00
Flag data from: 2021-05-01 09:46:38.764000+00:00 to 2021-05-01 09:46:39.099000+00:00
Flag data from: 2021-05-01 09:46:43.806000+00:00 to 2021-05-01 09:46:44.106000+00:00
Flag data from: 2021-05-01 09:46:49.101000+00:00 to 2021-05-01 09:47:00.098000+00:00
Flag data from: 2021-05-01 09:47:14.106000+00:00 to 2021-05-01 09:47:26.097000+00:00
Flag data from: 2021-05-01 09:47:38.108000+00:00 to 2021-05-01 09:47:49.676000+00:00
Flag data from: 2021-05-01 09:47:51.106000+00:00 to 2021-05-01 09:47:55.103000+00:00
Flag data from: 2021-05-01 09:47:58.111000+00:00 to 2021-05-01 09:48:09.942000+00:00
Flag data from: 2021-05-01 09:48:10.106000+00:00 to 2021-05-01 09:48:14.987000+00:00
Flag data from: 2021-05-01 09:48:15.109000+00:00 to 2021-05-01 09:48:24.103000+00:00
Flag data from: 2021-05-01 09:48:40.344000+00:00 to 2021-05-01 09:48:41.101000+00:00
Flag data from: 2021-05-01 09:48:45.386000+00:00 to 2021-05-01 09:48:46.104000+00:00
Flag data from: 2021-05-01 09:48:56.100000+00:00 to 2021-05-01 09:48:59.103000+00:00
Flag data from: 2021-05-01 09:49:05.650000+00:00 to 2021-05-01 09:49:06.103000+00:00
Flag data from: 2021-05-01 09:49:19.108000+00:00 to 2021-05-01 09:49:20.105000+00:00
Flag data from: 2021-05-01 09:49:26.109000+00:00 to 2021-05-01 09:49:28.110000+00:00
Flag data from: 2021-05-01 09:49:29.107000+00:00 to 2021-05-01 09:49:49.113000+00:00
Flag data from: 2021-05-01 09:50:06.454000+00:00 to 2021-05-01 09:50:11.443000+00:00
Flag data from: 2021-05-01 09:50:21.584000+00:00 to 2021-05-01 09:50:22.109000+00:00
Flag data from: 2021-05-01 09:50:26.628000+00:00 to 2021-05-01 09:50:27.106000+00:00
Flag data from: 2021-05-01 09:50:30.118000+00:00 to 2021-05-01 09:50:30.118000+00:00
Flag data from: 2021-05-01 09:50:31.109000+00:00 to 2021-05-01 09:50:36.704000+00:00
Flag data from: 2021-05-01 09:50:37.113000+00:00 to 2021-05-01 09:50:50.113000+00:00
Flag data from: 2021-05-01 09:50:58.113000+00:00 to 2021-05-01 09:51:17.128000+00:00
Flag data from: 2021-05-01 09:51:27.268000+00:00 to 2021-05-01 09:51:28.108000+00:00
Flag data from: 2021-05-01 09:51:42.391000+00:00 to 2021-05-01 09:51:43.110000+00:00
Flag data from: 2021-05-01 09:51:47.433000+00:00 to 2021-05-01 09:51:48.104000+00:00
Flag data from: 2021-05-01 09:52:07.595000+00:00 to 2021-05-01 09:52:08.112000+00:00
Flag data from: 2021-05-01 09:52:17.111000+00:00 to 2021-05-01 09:52:32.794000+00:00
Flag data from: 2021-05-01 09:52:33.111000+00:00 to 2021-05-01 09:52:37.836000+00:00
Flag data from: 2021-05-01 09:52:38.111000+00:00 to 2021-05-01 09:52:52.962000+00:00
Flag data from: 2021-05-01 09:52:53.112000+00:00 to 2021-05-01 09:52:58.003000+00:00
Flag data from: 2021-05-01 09:52:58.117000+00:00 to 2021-05-01 09:53:03.046000+00:00
Flag data from: 2021-05-01 09:53:03.104000+00:00 to 2021-05-01 09:53:11.104000+00:00
Flag data from: 2021-05-01 09:53:26.106000+00:00 to 2021-05-01 09:53:31.111000+00:00
Flag data from: 2021-05-01 09:53:48.709000+00:00 to 2021-05-01 09:54:00.105000+00:00
Flag data from: 2021-05-01 09:54:04.116000+00:00 to 2021-05-01 09:54:14.005000+00:00

Percentage of data out of Relative Solar Azimuth bounds: 49 %

Eliminate combined filtered data from datasets.*****

Remove GPS Data

Length of dataset prior to removal 7200 long
Length of records removed from dataset: 3521
Data end 3679 long, a loss of 49 %

Remove ES_DARK Data

Length of dataset prior to removal 598 long
Length of records removed from dataset: 285
Data end 313 long, a loss of 48 %

Remove LT_DARK Data

Length of dataset prior to removal 627 long
Length of records removed from dataset: 308
Data end 319 long, a loss of 49 %

Remove LI_DARK Data

Length of dataset prior to removal 446 long
Length of records removed from dataset: 219
Data end 227 long, a loss of 49 %

Remove ES_LIGHT Data

Length of dataset prior to removal 2987 long
Length of records removed from dataset: 1447
Data end 1540 long, a loss of 48 %

Remove LT_LIGHT Data

Length of dataset prior to removal 3134 long
Length of records removed from dataset: 1525
Data end 1609 long, a loss of 49 %

Remove LI_LIGHT Data

Length of dataset prior to removal 2812 long
Length of records removed from dataset: 1361
Data end 1451 long, a loss of 48 %

Remove SOLARTRACKER_pySAS Data

Length of dataset prior to removal 8378 long
Length of records removed from dataset: 4096
Data end 4282 long, a loss of 49 %

ProcessL1aqc.processL1aqc: 21-Apr-2023 18:19:14

Screening GPS for clean timestamps.

Screening ES_DARK for clean timestamps.

Screening LT_DARK for clean timestamps.

Screening LI_DARK for clean timestamps.

Screening ES_LIGHT for clean timestamps.

Screening LT_LIGHT for clean timestamps.

Screening LI_LIGHT for clean timestamps.

Screening SOLARTRACKER_pySAS for clean timestamps.

Screening ANCILLARY_METADATA for clean timestamps.

ES

Deglitching dark

Data reduced by 27 (9%)

Deglitching light

Data reduced by 95 (6%)

LI

Deglitching dark

Data reduced by 21 (9%)
Deglitching light
Data reduced by 292 (20%)
LT
Deglitching dark
Data reduced by 25 (8%)
Deglitching light
Data reduced by 114 (7%)
L1AQC file produced:

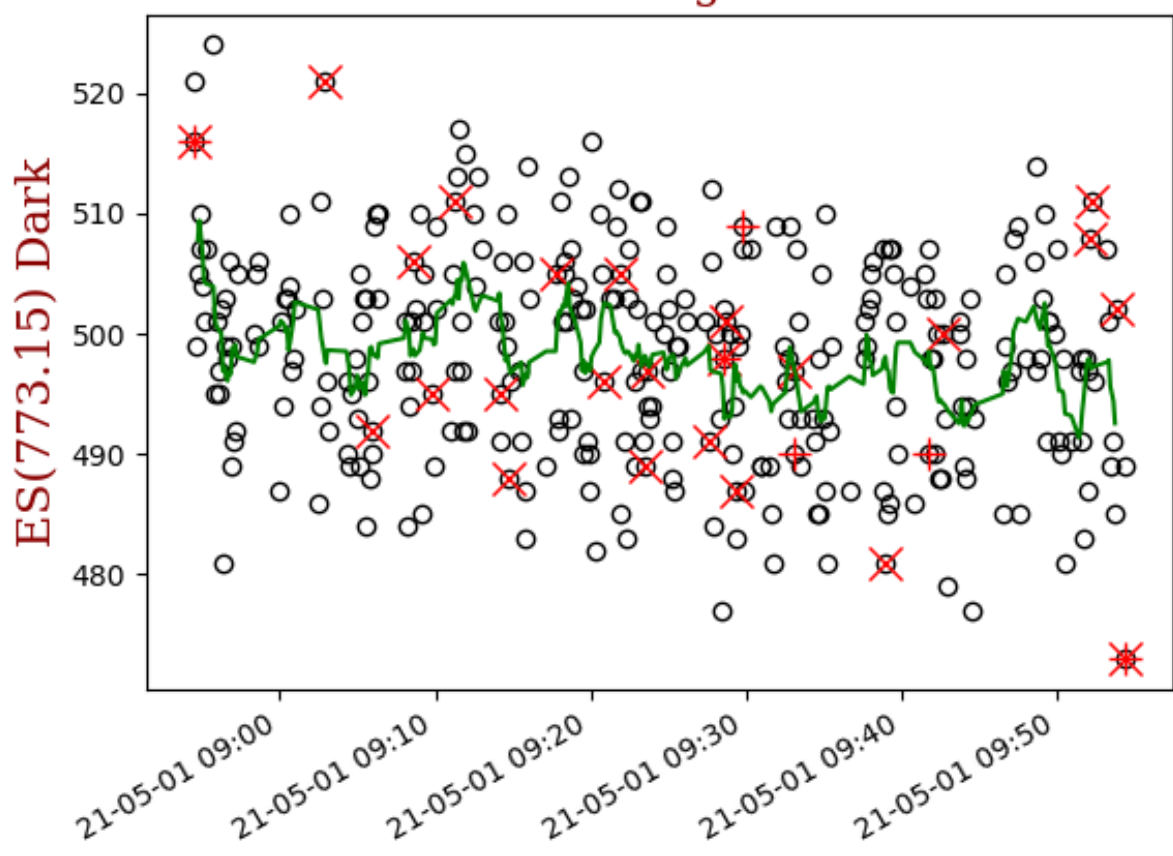
```
/ssdwork/GitRepos/HyperInSPACE/Data/Sample_Data/L1AQC/SAMPLE_HYPERSAS_pySAS_L1AQC.hdf
Process                               Single                               Level:
/ssdwork/GitRepos/HyperInSPACE/Data/Sample_Data/L1AQC/SAMPLE_HYPERSAS_pySAS_L1AQC.hdf
- SUCCESSFUL
id: SATTHS0045
id: $GPRMC
id: SATHLD0385
id: SATMSG
id: SATHSE0488
id: SATHLD0386
id: SATHED0488
id: SATHSL0385
id: $GPGGA
id: SATHSL0386
id: UMTWR
```

Example Deglitching

Randomized. Complete plots of hyperspectral deglitching from anomaly analysis can be found in [output_directory]/Plots/L1AQC_Anoms.

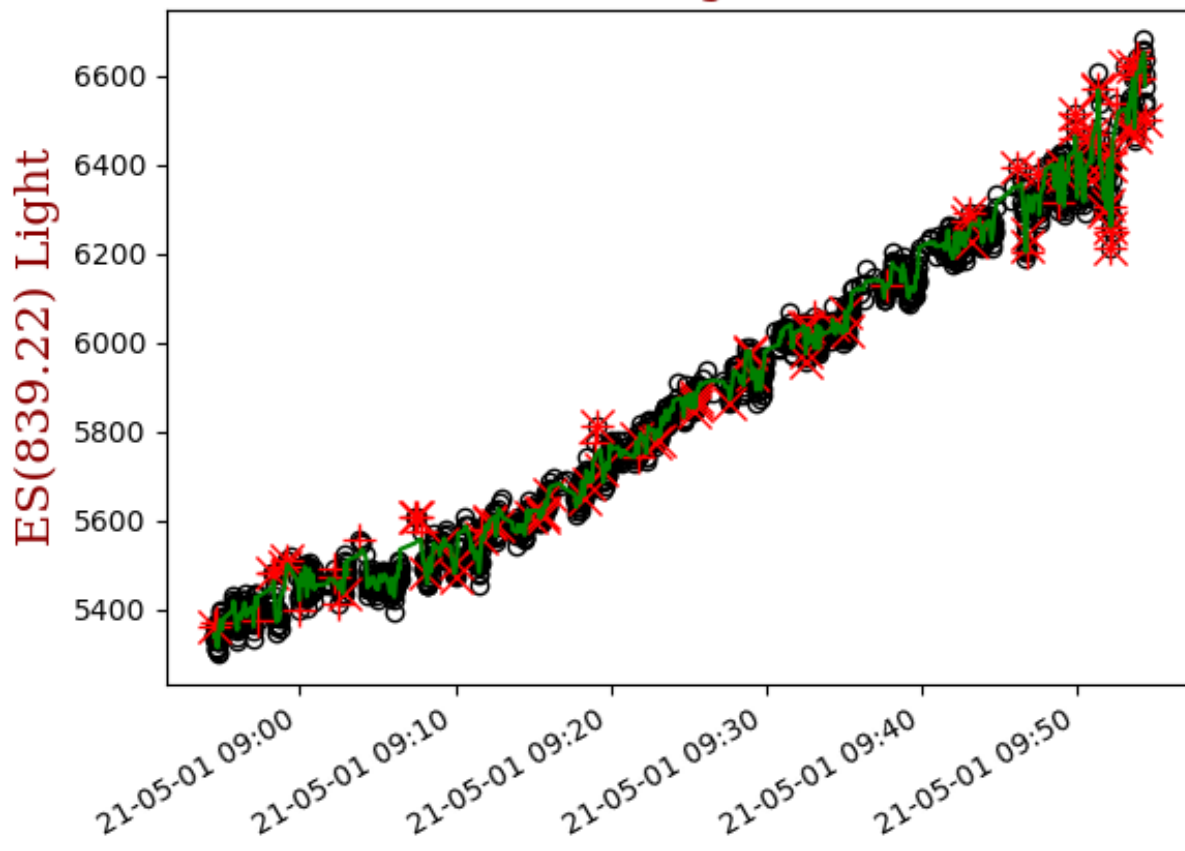
Marked for exclusions in ALL bands

WindowSize = 11 Sigma Factor = 3.5



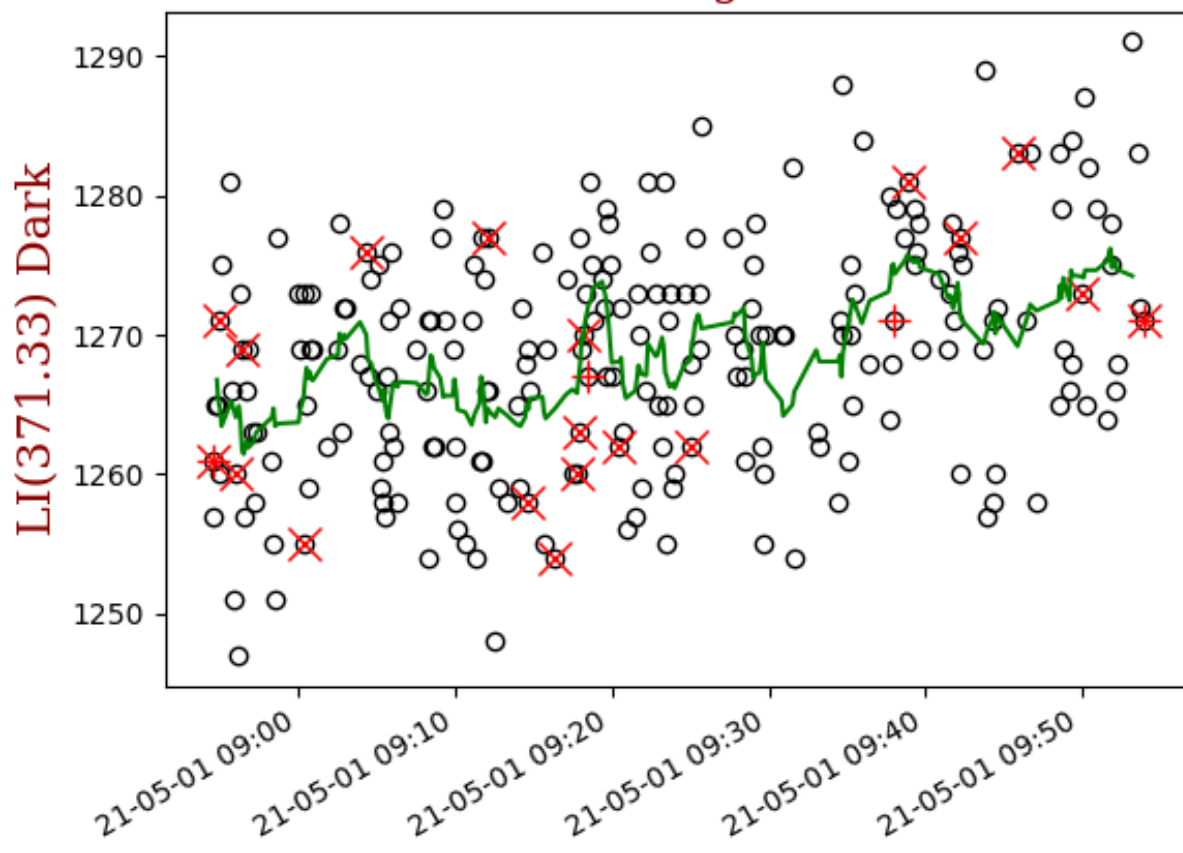
Marked for exclusions in ALL bands

WindowSize = 5 Sigma Factor = 3.5



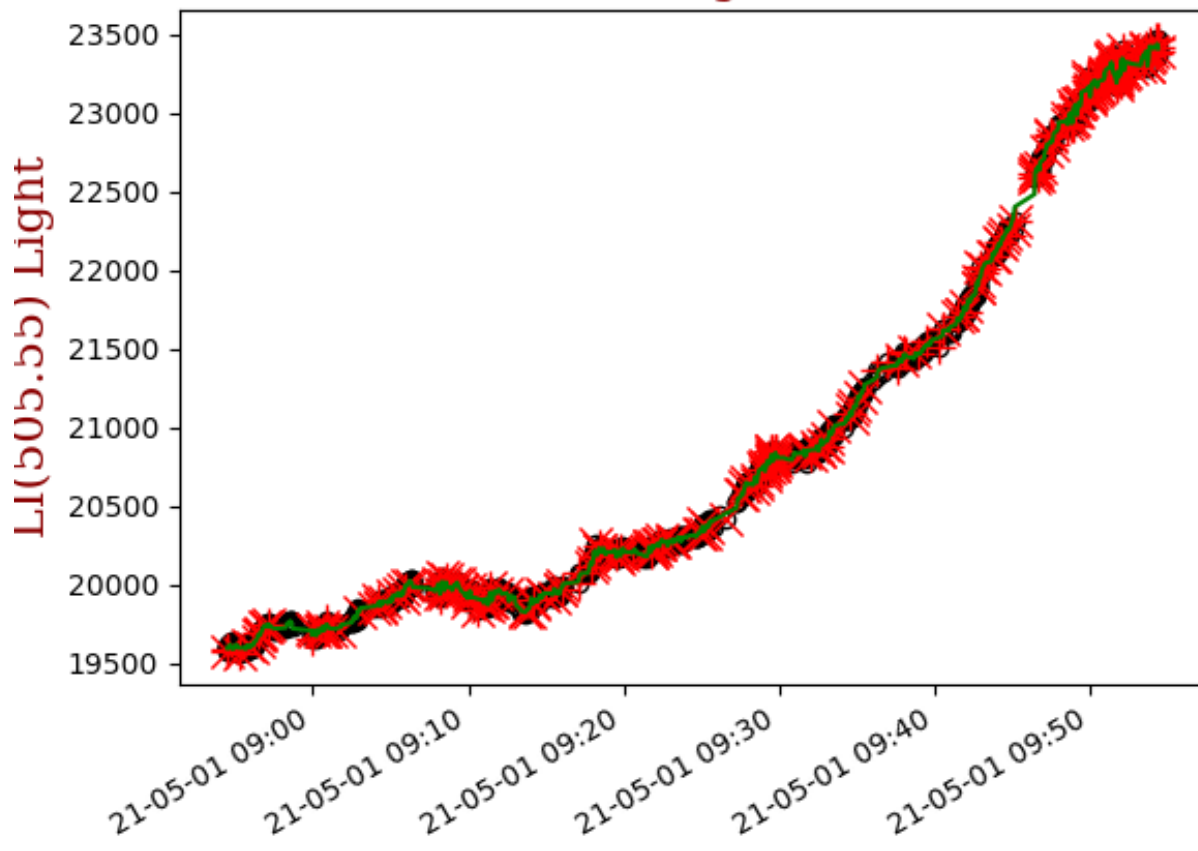
Marked for exclusions in ALL bands

WindowSize = 11 Sigma Factor = 3.4



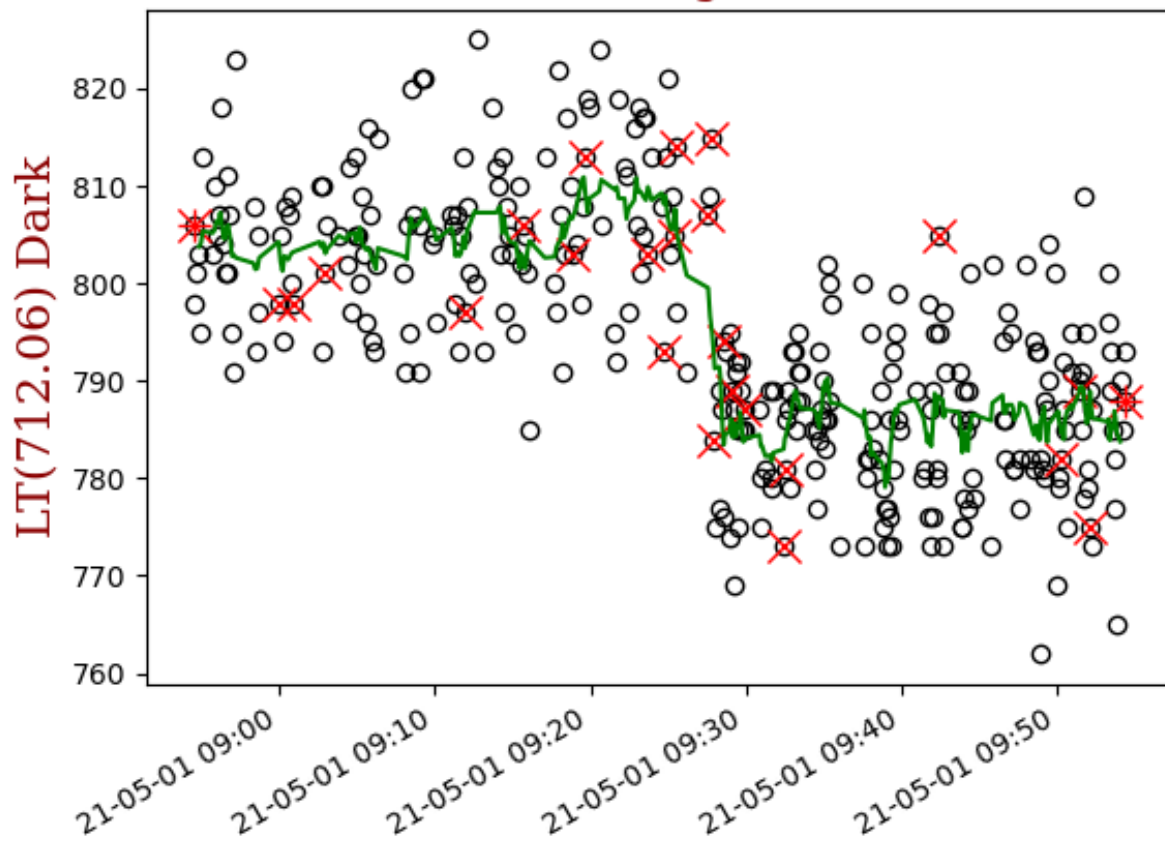
Marked for exclusions in ALL bands

WindowSize = 5 Sigma Factor = 2.9



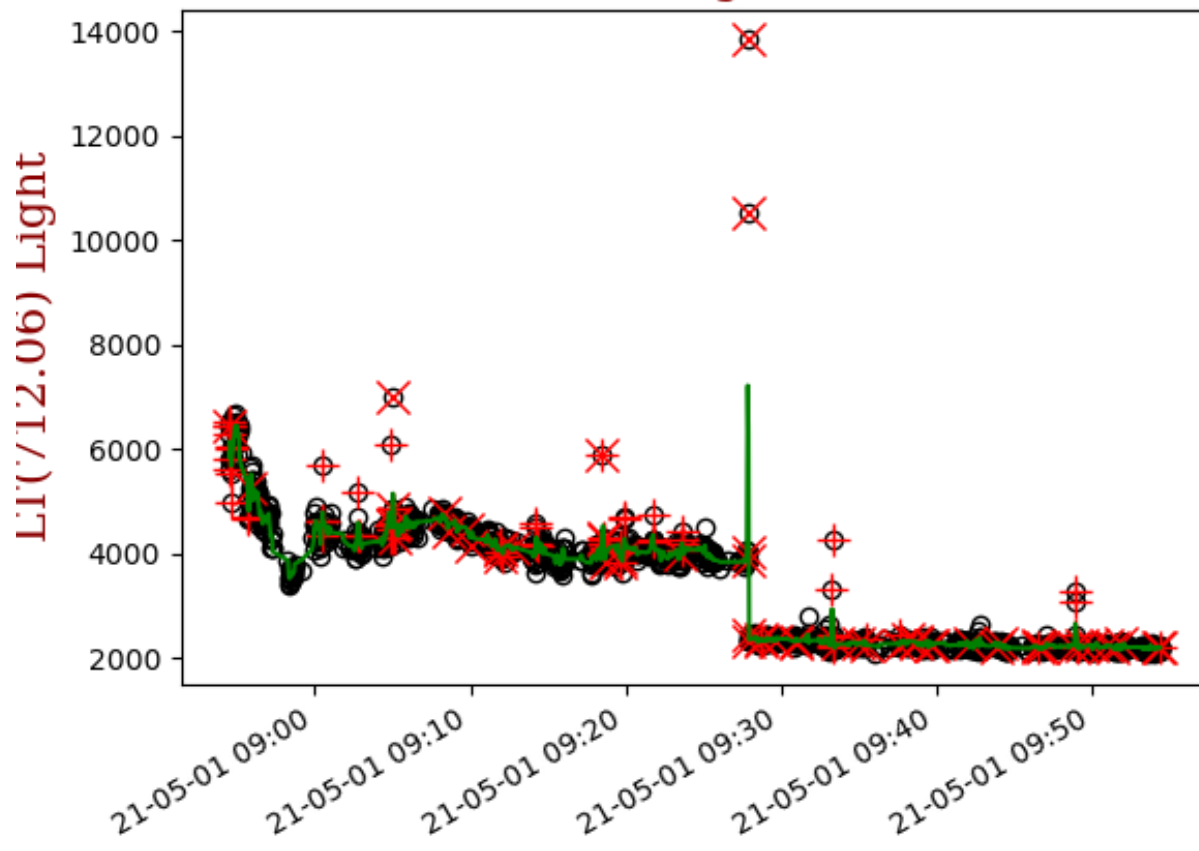
Marked for exclusions in ALL bands

WindowSize = 11 Sigma Factor = 3.5



Marked for exclusions in ALL bands

WindowSize = 5 Sigma Factor = 2.9



L1B : Process L1AQC to L1B

Dark correction. Calibration and/or full characterization. Match timestamps & wavebands.

Processing Parameters: None

Cal. Type: Default/Factory

Wavelength Interp Int: 3.3 nm

Process log:

Process Single Level

ProcessL1b:

/ssdwork/GitRepos/HyperInSPACE/Data/Sample_Data/L1AQC/SAMPLE_HYPERSAS_pySAS_L1AQC.hdf

ProcessL1b.processL1b: 21-Apr-2023 18:30:18

Dark Correction: ES

Dark Correction: LI

Dark Correction: LT

ProcessL1b_DefaultCal.processL1b: 21-Apr-2023 18:31:03

Applying factory calibrations.

Group: ANCILLARY_METADATA

Group: ES

File: SATHSE0488

Group: GPS

File: \$GPRMC

Group: LI

File: SATHSL0385

Group: LT

File: SATHSL0386

Group: SOLARTRACKER_pySAS

File: UMTWR

ProcessL1b_Interp.processL1b_Interp: 21-Apr-2023 18:31:06

LI has fewest records - interpolating to LI. This should raise a red flag; 1159 records

Interpolate Data ES

Interpolate Data LI

Skip. Other instruments are being interpolated to this one.

Interpolate Data LT

Interpolate Data LATITUDE

Interpolate Data LONGITUDE

Interpolate Data COURSE

Interpolate Data SOG

Interpolate Data REL_AZ

Interpolate Data SZA

Interpolate Data SOLAR_AZ

Interpolate Data POINTING

Interpolate Data HEADING

Interpolate Data REL_AZ

Interpolate Data SZA

Interpolate Data SOLAR_AZ

Interpolate Data STATION

found NaN 146

found NaN 158

Interpolate Data HEADING

Interpolate Data LATITUDE

Interpolate Data LONGITUDE

Interpolate Data SALINITY

Interpolate Data SST

Interpolate Data WINDSPEED

Interpolate Data CLOUD

found NaN 146

found NaN 158

Interpolate Data WAVE_HT

found NaN 146

found NaN 158

Interpolate Data PITCH

Interpolate Data ROLL

L1B file produced:

/ssdwork/GitRepos/HyperInSPACE/Data/Sample_Data/L1B/SAMPLE_HYPERSAS_pySAS_L1B.hdf

Process	Single	Level:
/ssdwork/GitRepos/HyperInSPACE/Data/Sample_Data/L1B/SAMPLE_HYPERSAS_pySAS_L1B.hdf		-

SUCCESSFUL

id: SATTHS0045

id: \$GPRMC

id: SATHLD0385

id: SATMSG

id: SATHSE0488

id: SATHLD0386

id: SATHED0488

id: SATHSL0385

id: \$GPGGA

id: SATHSL0386

id: UMTWR

Example Temporal Interpolations

Randomized. Complete plots of hyperspectral interpolations can be found in

[output_directory]/Plots/L1B_Interp.

None found.

L1BQC : Process L1B to L1BQC

Apply more quality control filters.

Processing Parameters:

Max Wind: 10.0

Min SZA: 15.0

Max SZA: 60.0

Filter Sigma Es: 5.0

Filter Sigma Li: 8.0

Filter Sigma Lt: 3.0

Process log:

Process Single Level

Model data for Wind and AOD may be used to replace blank values. Reading in model data...

Ancillary file found locally: GMAO_MERRA2.20210501T080000.MET.nc

Ancillary file found locally: GMAO_MERRA2.20210501T080000.AER.nc

Ancillary file found locally: GMAO_MERRA2.20210501T090000.MET.nc

Ancillary file found locally: GMAO_MERRA2.20210501T090000.AER.nc

Filling in field data with model data where needed.

Filling in ancillary data with default values where still needed.

Applying Lt(NIR)>Lt(UV) quality filtering to eliminate spectra.

0.0% of spectra flagged

Percentage of data out of Wind limits: 0 %

Percentage of data out of SZA limits: 0 %

Applying spectral filtering to eliminate noisy spectra.

0.2% of Es data flagged

0.0% of Li data flagged

4.7% of Lt data flagged

Remove IRRADIANCE Data

Length of dataset prior to removal 1159 long

Length of dataset after removal 1103 long: 5% removed

Remove RADIANCE Data

Length of dataset prior to removal 1159 long

Length of dataset after removal 1103 long: 5% removed

Remove ANCILLARY Data

Length of dataset prior to removal 1159 long

Length of dataset after removal 1103 long: 5% removed

L1BQC file produced:

/ssdwork/GitRepos/HyperInSPACE/Data/Sample_Data/L1BQC/SAMPLE_HYPERSAS_pySAS_L1BQC.hdf

Process Single Level:

/ssdwork/GitRepos/HyperInSPACE/Data/Sample_Data/L1BQC/SAMPLE_HYPERSAS_pySAS_L1BQC.hdf

- SUCCESSFUL

id: SATTHS0045

id: \$GPRMC

id: SATHLD0385

id: SATMSG

id: SATHSE0488

id: SATHLD0386

id: SATHED0488
id: SATHSL0385
id: \$GPGGA
id: SATHSL0386
id: UMTWR

L2 : Process L1BQC to L2

Apply temporal binning, station selection, glint correction, NIR corrections, reflectance calculation, and OC product calculation.

Processing Parameters:

Ensemble Duration: 300 sec

Glint_Correction: Mobley 1999

NIR Correction: Mueller and Austin 1995

Remove Negatives: ON

Process log:

Process Single Level

ProcessL2:

/ssdwork/GitRepos/HyperInSPACE/Data/Sample_Data/L1BQC/SAMPLE_HYPERSAS_pySAS_L1BQC.hdf

Binning datasets to ensemble time interval.

100 spectra in slice (ensemble).

10 spectra remaining in slice to average after filtering to lowest 10.0%.

Calculating M99 glint correction with complete LUT

Perform simple residual NIR subtraction.

95 spectra in slice (ensemble).

10 spectra remaining in slice to average after filtering to lowest 10.0%.

Calculating M99 glint correction with complete LUT

Perform simple residual NIR subtraction.

90 spectra in slice (ensemble).

9 spectra remaining in slice to average after filtering to lowest 10.0%.

Calculating M99 glint correction with complete LUT

Perform simple residual NIR subtraction.

132 spectra in slice (ensemble).

13 spectra remaining in slice to average after filtering to lowest 10.0%.

Calculating M99 glint correction with complete LUT

Perform simple residual NIR subtraction.

97 spectra in slice (ensemble).

10 spectra remaining in slice to average after filtering to lowest 10.0%.

Calculating M99 glint correction with complete LUT

Perform simple residual NIR subtraction.

136 spectra in slice (ensemble).

14 spectra remaining in slice to average after filtering to lowest 10.0%.

Calculating M99 glint correction with complete LUT

Perform simple residual NIR subtraction.

80 spectra in slice (ensemble).

8 spectra remaining in slice to average after filtering to lowest 10.0%.

Calculating M99 glint correction with complete LUT

Perform simple residual NIR subtraction.

93 spectra in slice (ensemble).

9 spectra remaining in slice to average after filtering to lowest 10.0%.

Calculating M99 glint correction with complete LUT

Perform simple residual NIR subtraction.

126 spectra in slice (ensemble).

13 spectra remaining in slice to average after filtering to lowest 10.0%.

Calculating M99 glint correction with complete LUT

Perform simple residual NIR subtraction.

68 spectra in slice (ensemble).

7 spectra remaining in slice to average after filtering to lowest 10.0%.

Calculating M99 glint correction with complete LUT

Perform simple residual NIR subtraction.

65 spectra in slice (ensemble).

6 spectra remaining in slice to average after filtering to lowest 10.0%.

Calculating M99 glint correction with complete LUT

Perform simple residual NIR subtraction.

21 spectra in slice (ensemble).

2 spectra remaining in slice to average after filtering to lowest 10.0%.

Calculating M99 glint correction with complete LUT

Perform simple residual NIR subtraction.

Filtering reflectance spectra for negative values.

0.0% of Rrs_HYPER spectra flagged

0.0% of nLw_HYPER spectra flagged

Processing chlor_a

Processing kd490

Processing Wei QA

Processing avw

Processing QWIP

Processing CDOM, Sg, DOC

Processing qaa

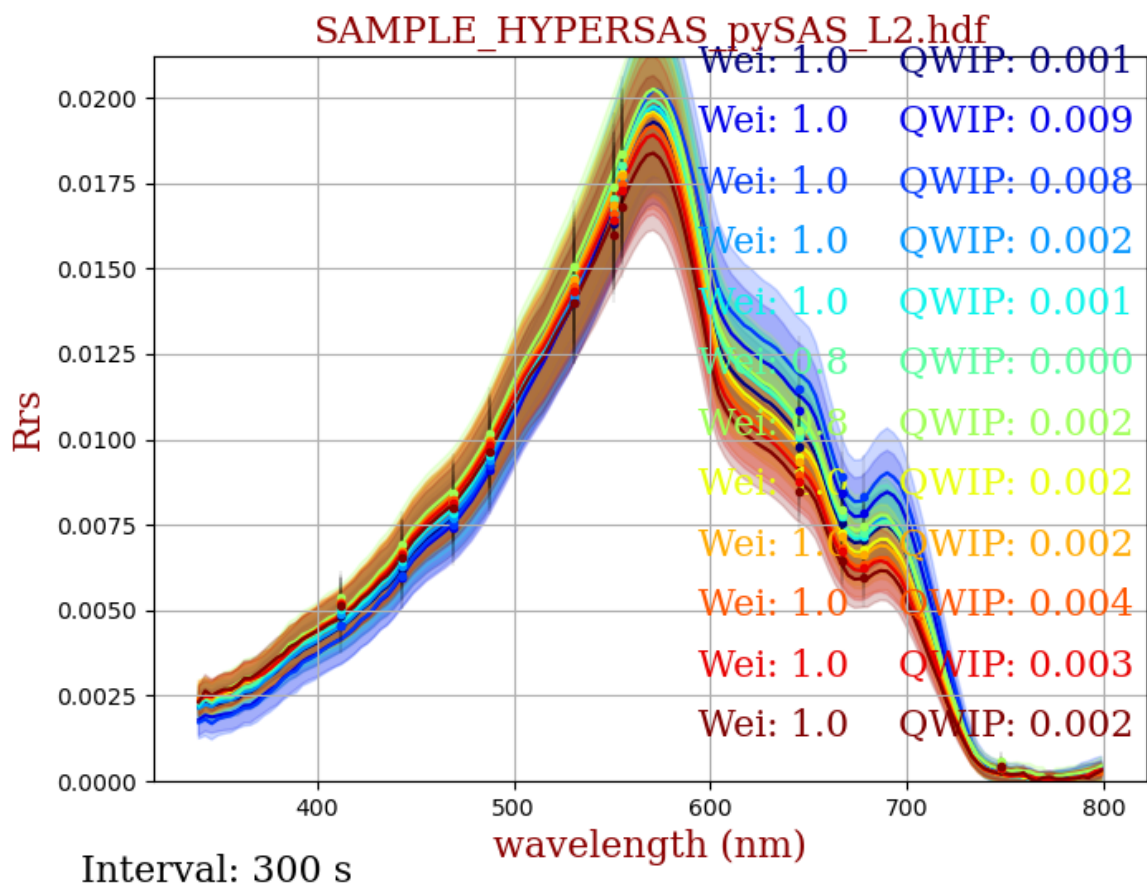
L2 file produced:

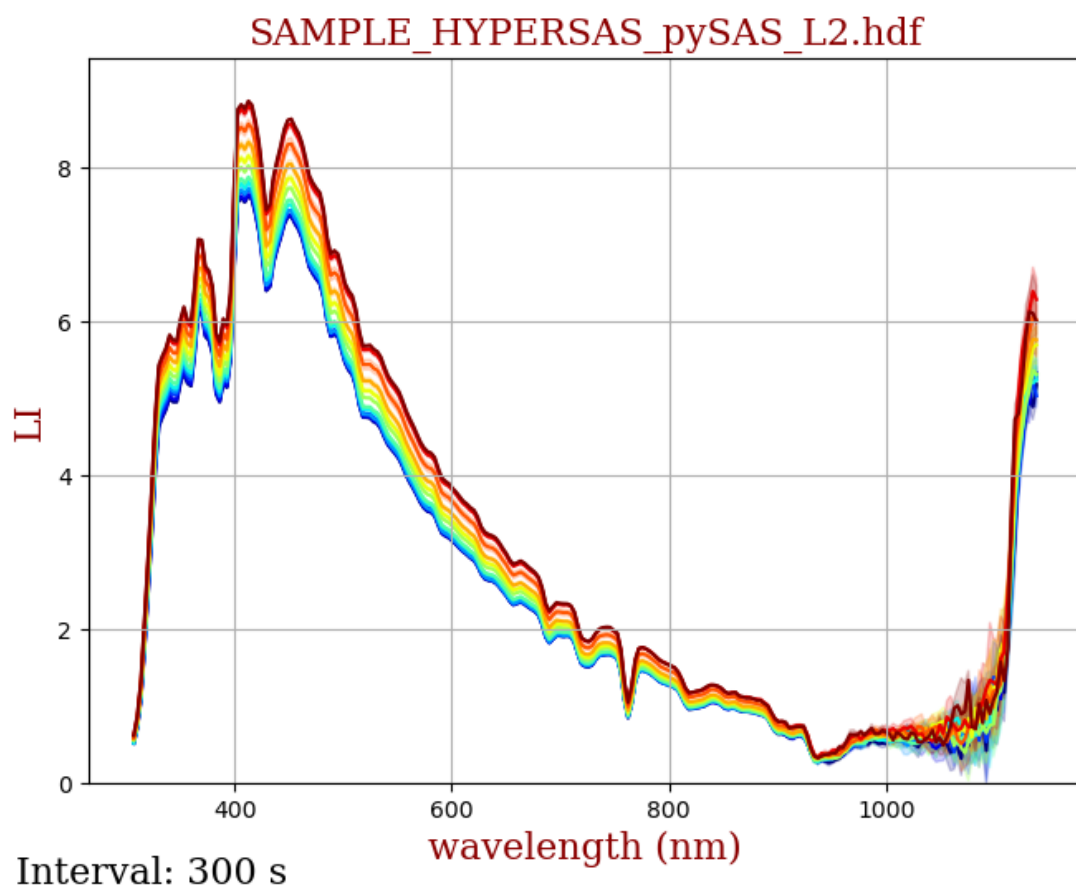
/ssdwork/GitRepos/HyperInSPACE/Data/Sample_Data/L2/SAMPLE_HYPERSAS_pySAS_L2.hdf

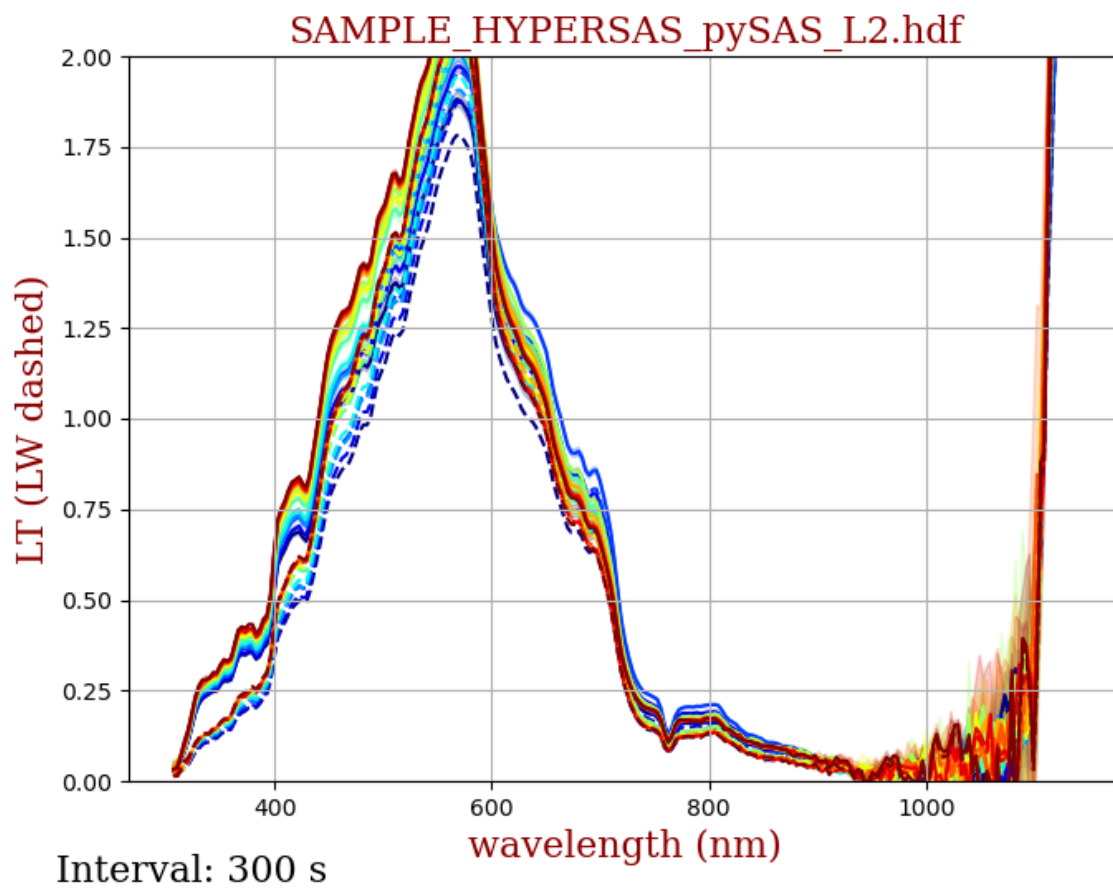
Output SeaBASS for HDF:

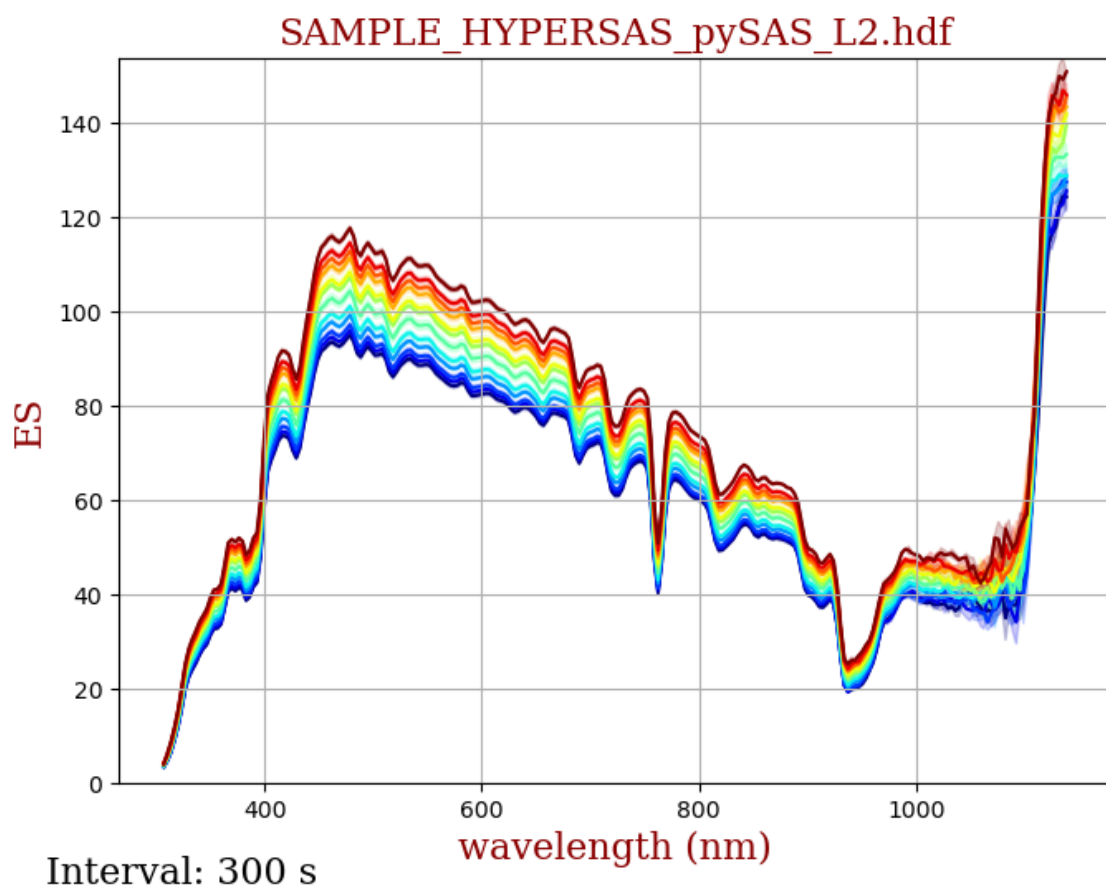
/ssdwork/GitRepos/HyperInSPACE/Data/Sample_Data/L2/SAMPLE_HYPERSAS_pySAS_L2.hdf

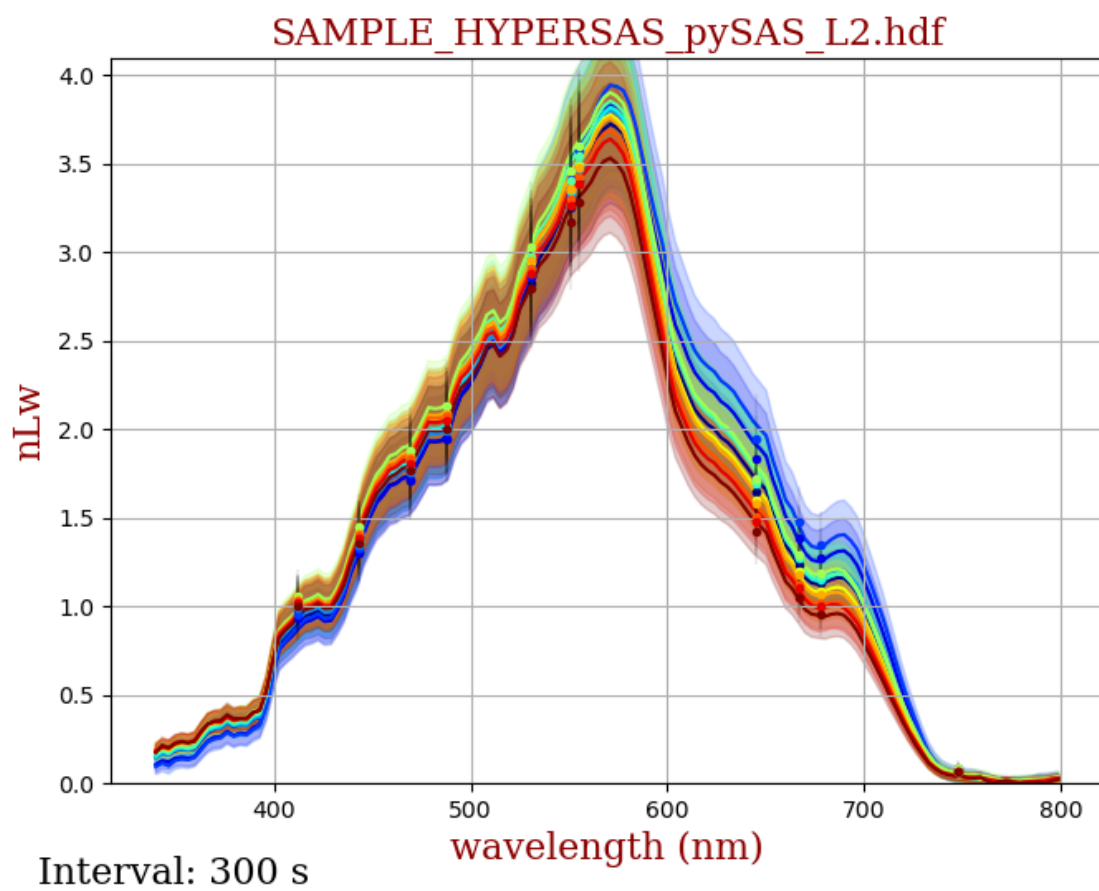
Radiometry











Derived Spectral Products

