ATMOS 21 - The Status of the FDR4ATMOS Project

FDR4ATMOS Team

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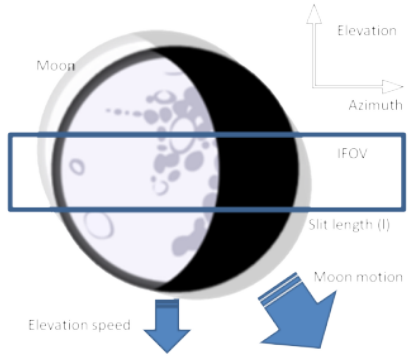
Task A: Improving SCIAMACHY Level 1

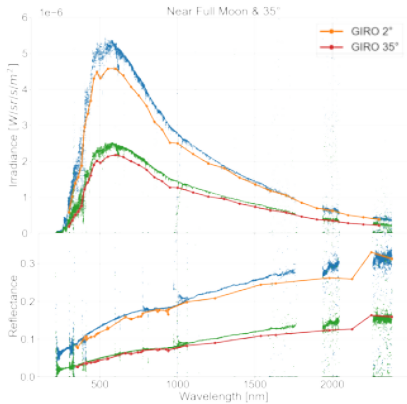
Goals:

1. Improving Level 1 degradation model and change format to netCDF
2. Provide the users with spectrally resolved full disk lunar irradiances & reflectances for the time from 2002 - 2012

SCIAMACHY Lunar observations

- SCIAMACHY made regular Moon measurements and covered a large range of observation parameters
- The spectral range (240 - 2384nm) and high resolution of the observations constitute a unique data set
- In 10 years the moon was observed 1123 times
- We validated our results with the GIRO/ROLO model
- We additionally provide the individual measurements and additional parameters to be used in further analysis like lunar phase angle, lunar latitude and longitude etc.

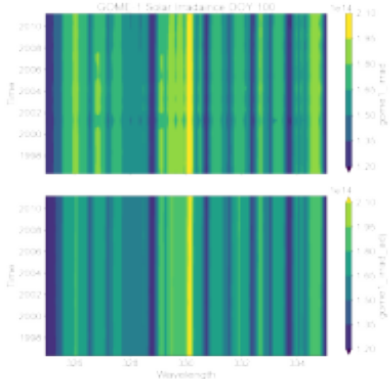




Task B: Long time series across different instruments

Goals:

- For the first time, create a cross instrument time series for high resolution spectral imagers
- Serve as a pathfinder project to combine data from other instruments to generate decadal time series
- Develop harmonisation procedures that keeps spectral features the trace gas retrieval relies on
- Generate harmonised Level 1 (reflectances and irradiances)
- Provide the user with uncertainties based on metrological principles
- Start with well known instruments GOME-1 and SCIAMACHY spanning the years 1995-2012



Definition (FDR)

FDRs or Fundamental Data Records are intended to provide a consistent time series over several decades that are independent of the instrument that performed the measurements. The time series must be of known quality and should be stable for early trend detection and analysis.