

# **Geostationary challenges**

**Atmospheric Composition  
Constellation Meeting 11  
April 29, 2015**

# **GEO Instrument challenges**

- 1. Instrument changing with time, especially temperature**
  - Defocussing → slit function changes**
  - Wavelength grid changes with time (solved by cross-correlation)**
- 2. Large latitude change in N/S swath**
  - Slit characterization**
  - Dynamic range of radiances**

# GEO mission challenges

- 1. Spatial and temporal heterogeneity**
  - **More resolved source regions and source variation**
  - **Greater challenge for *a priori***
- 2. Higher range of SZAs and VZAs may be encountered**
  - **Greater challenge for *a priori***
- 3. Inclusion of visible Chappuis band ozone**
  - **Will EOFs be enough to characterize the surface? How many? 3?**