LEVEL 2 Retrievals

Filters:
- τ is for Level 2
- Solar Zenith Angle $\geq 25^o$
- Size Distr. tails < 15% of maximum
- almucantar symmetrical at **21 angles**

Primary Data-base:
- τ Level 2
- All Solar Zenith angles
- 10 symmetrical angles

Check for Non-sphericity

Sky fitting error filter: error: 5%-15%

error: < 5%

Filters:
$\tau(440) \geq 0.4$
Solar Zenith Angle $\geq 45^o$

Level 2 Spherical Aerosol Retrievals:

-Size distribution
$(0.05\ \mu m < r < 15\mu m)$

- Real Part of Ref. Index
- Imaginary Part of Ref. Index
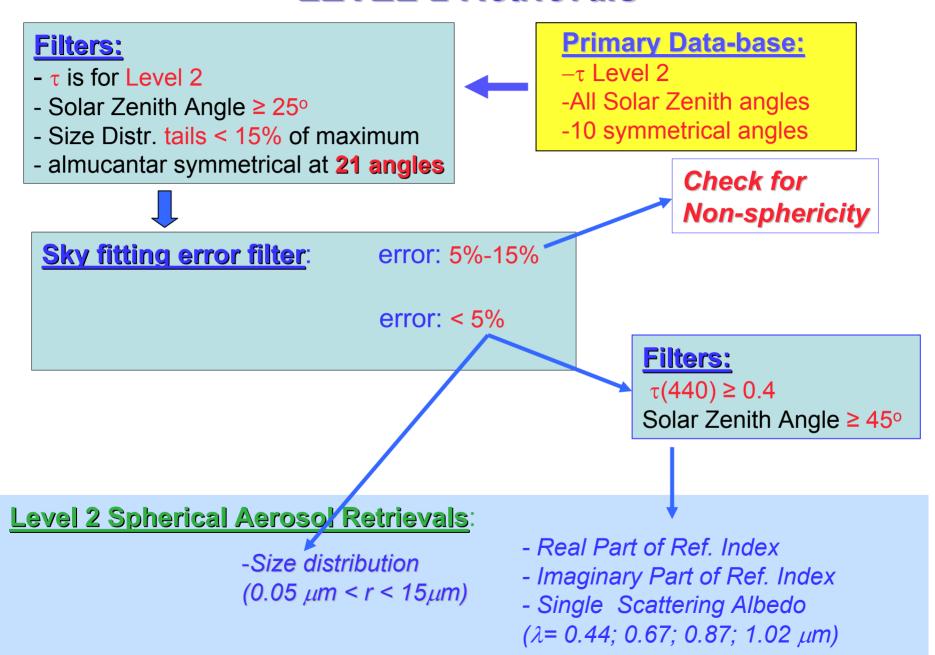- Single Scattering Albedo
$(\lambda = 0.44;\ 0.67;\ 0.87;\ 1.02\ \mu m)$

Level-2 Non-Spherical Aerosol Checks and Processing

Check for NON-SPHERICITY:
- Ångström parameter ≤ 0.6
- Solar Zenith Angle ≥ 45°
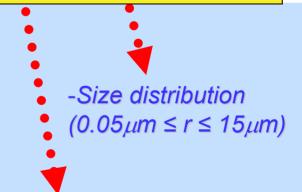- Sky fitting error 5%-15%

Processing almucantars as non-spherical:
(using model of randomly oriented spheroids)

Filter: $\tau(440) \geq 0.4$

Spherical Model Retrievals

Spheroid Model Retrievals

-Size distribution
$(\sim 0.6\mu m \leq r \leq 15\mu m)$

- Real Part of Ref. Index
$(\lambda = 0.87; 1.02 \ \mu m)$

-Imaginary Part of Ref. Index
- Single Scattering Albedo
$(\lambda = 0.44; 0.67; 0.87; 1.02 \ \mu m)$

-Size distribution
$(0.05\mu m \leq r \leq 15\mu m)$

- Real Part of Ref. Index
- Imaginary Part of Ref. Index
- Single Scattering Albedo
$(\lambda = 0.44; 0.67; 0.87; 1.02 \ \mu m)$