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Laser A:

1064nm, linearly-polarized at 45°
Detection of dust orientation flags

Laser B:

1064nm, elliptically-polarized
Detection of effective radius and refractive index

Telescope B:

Collects the backscattered light from both lasers
The detection unit measures the circularly-polarized backscattered light (co- and cross-polar)

Telescope A:

Collects the backscattered light from both lasers
The detection unit measures the linearly polarized backscattered light at 0° and 90°



- “WALL-E” polarization lidar measures dust orientation and microphysical properties
- Operates at 1064nm, so as to better probe the larger dust particles
- On 16/11/2020 WALL-E measured a dust layer at 1-3 km above Athens, with VLDR=0.1 and no orientation

