

The Use of Scintillation for Astronomical Site Testing

M. S. Sarazin (1) and A. Tokovinin (2)

(1) European Southern Observatory, Garching, Germany (msarazin@eso.org), (2) Cerro Tololo Inter-American Observatory ,
Chile (atokovinin@ctio.noao.edu)

When site testing for future astronomical facilities (Extremely Large Telescopes, ELT), teams around the world use scintillation to locate the optically turbulent layers within the atmosphere. Several dedicated instruments are described which have been developed to retrieve the whole vertical Cn² profile from close to the ground up to about 20km.

MASS (Multi Aperture Scintillation Sensor) high altitude profilers in particular, when used in a network, can provide a 3D tracking of clear air turbulence during nighttime over large areas.