

LARGE APERTURE SCINTILLOMETER USED OVER A HOMOGENEOUS IRRIGATED AREA

J.Ezzahar⁽¹⁾, G.Chehbouni^(1,2), J.C.B.Hoedjes⁽²⁾, S.Er-raki⁽¹⁾, A.Lakhal⁽¹⁾, J.C.Rodriguez⁽³⁾, A.
Chehbouni⁽¹⁾, G.boulet^(1,2), B.Ducemin^(1,2), P.Gentine^(1,2), R.Hadria⁽¹⁾, N.Guemouria⁽¹⁾.

Corresponding Author (Jamal Ezzahar) j.ezzahar@ucam.ac.ma

- (1) Faculté des Sciences Semlalia de Marrakech. BP 2390 Marrakech, Maroc.
- (2) Centre d'Etudes Spatiales de la Biosphère BP 31055 cedex Toulouse, France
- (3) IMADES: Instituto del Medio Ambiente y el Desarrollo Sostenible (Hermosillo, Mexique)

Abstract

Scintillometer offer the unique possibility of measuring the vertical flux of sensible heat averaged over distances comparable with the footprint of satellite images. A Large Aperture Scintillometers (LAS) were installed over a wheat field, located in the suburb of Marrakech city (Morocco), surrounded by other parcels of wheat approximately the same growth stage. Pathlength for scintillometer was 690m. Under day time conditions, the comparison against reference fluxes obtained from eddy correlation systems shows a good agreement in dry and wet conditions.

Keywords: Large Aperture Scintillometer, optical scintillations, eddy correlation, sensible heat flux, evapotranspiration, footprint.