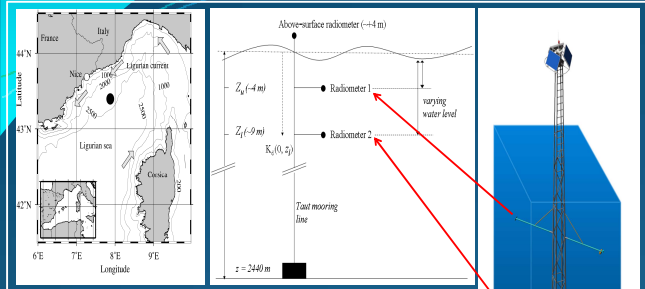


Field characterization of wave-induced underwater light field fluctuations

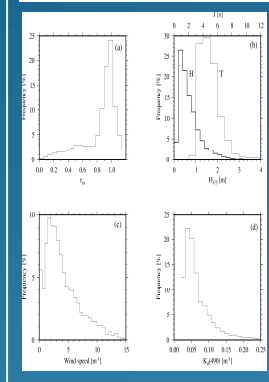
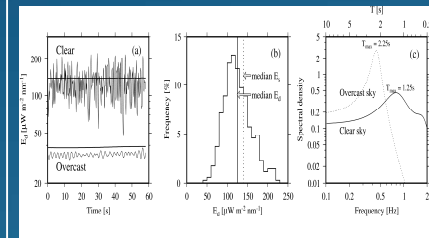
David ANTOINE & Pierre GERNEZ
 Laboratoire d'Océanographie de
 Villefranche, France



also at ACRI-st, France

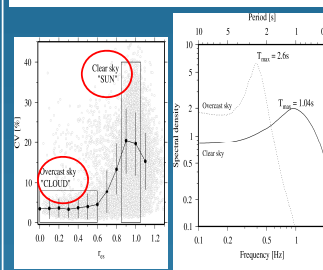
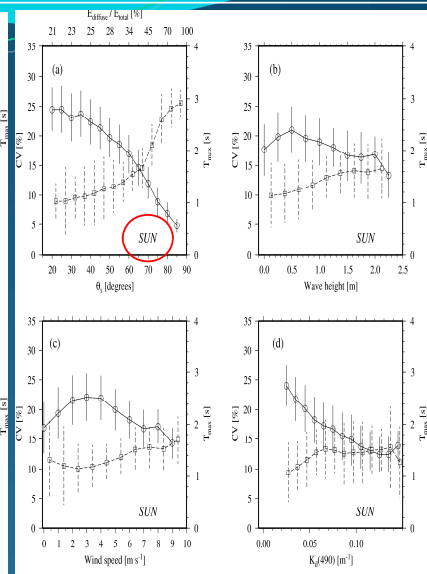
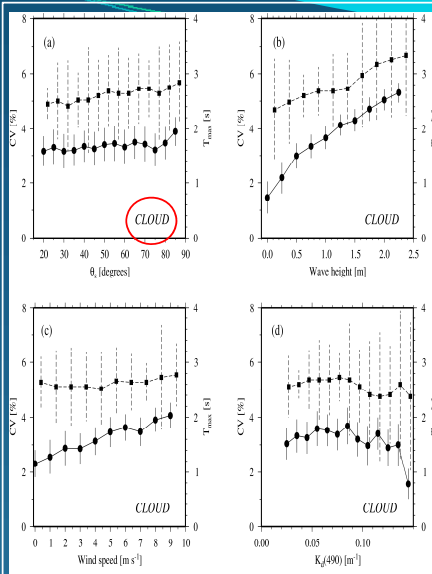


The site Measurement principle [1] (Mediterranean, clear Case 1 waters)



Environmental conditions and data (E_d & E_u) collection

1



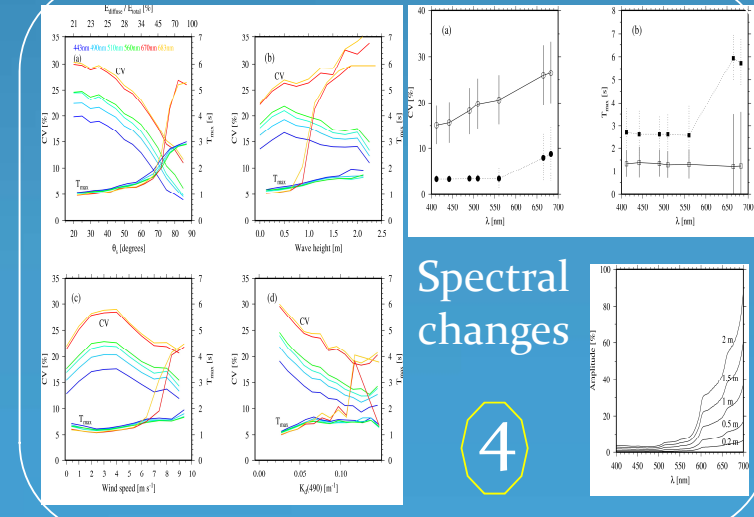
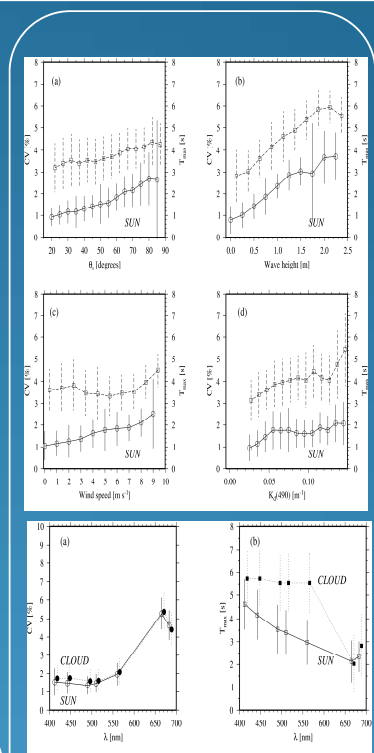
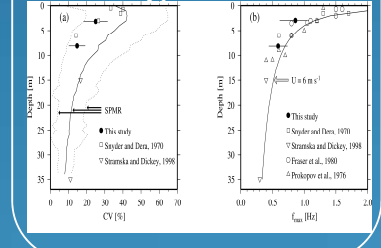
Global characteristics of E_d fluctuations

2

Goal: provide a thorough field description of the characteristics (period T_{max} & amplitude: CV in %) of underwater light field fluctuations in relation to environmental conditions (sun elevation, wave characteristics, wind, depth, vs clear skies, water clarity and wavelength) in complement to previous works often carried out in coastal waters or at a single band [e.g., refs 2-8] or from modeling studies [e.g., ref 9]

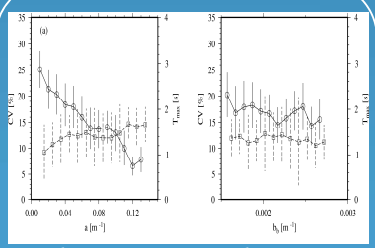
Depth changes

3



Spectral changes

4

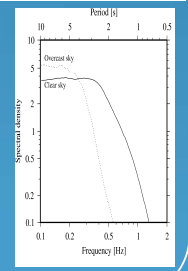


Changes with IOPs

5

What about E_u ?

6



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