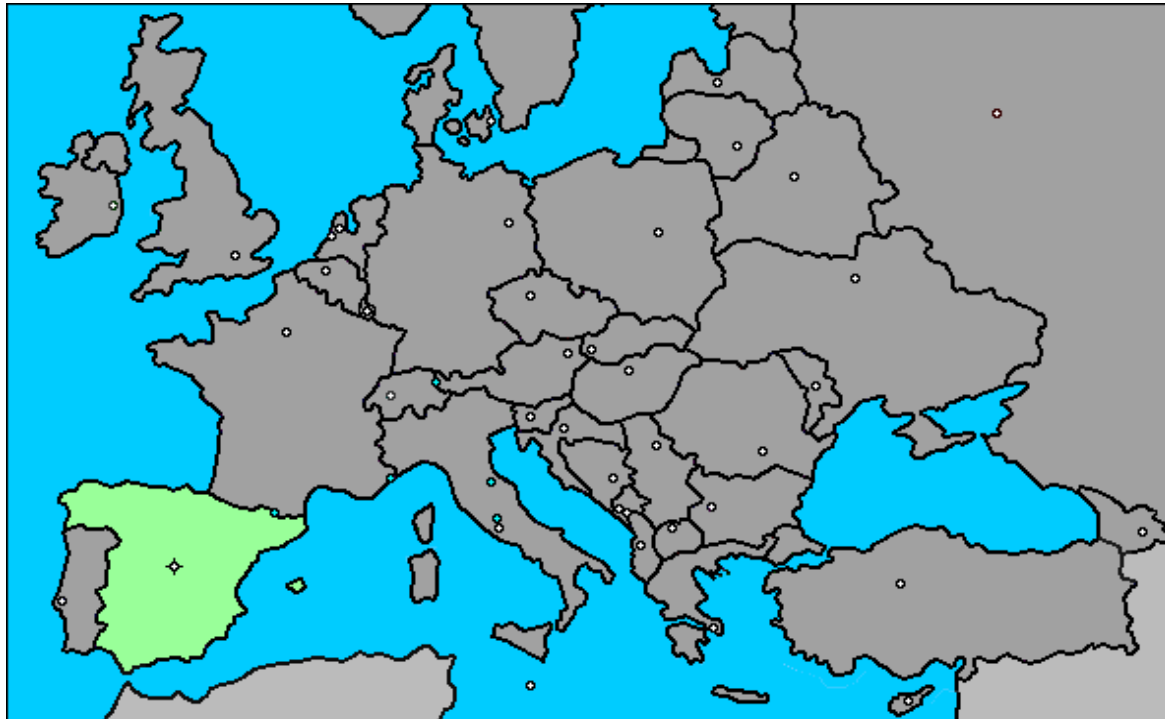


**TRAINING SCHOOL: Long term
changes and climatology of
biologically effective
UV Radiation over Europe**

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Curriculum

- I received my Bachelor of Science degree in Environmental Sciences from the University of Extremadura in 2006.
- Since 2007 I am a PhD. D. Grant holder (Physics Department of the University of Extremadura), under a project entitled: “Measure and analysis of the UV radiation, ozone and aerosols in Extremadura”.



Atmospheric aerosols

- Aerosols are microscopic solid or liquid particles in suspension in a gas.
- Aerosols can affect the Earth's radiation budget and the temperature field by changing the energy balance and the distribution of solar radiation in the atmosphere.



Atmospheric aerosols

- Aerosols can cause effects:
 - **Direct** (based on the interaction of radiation with the particles).
 - **Indirect** (radiative effects that result from the modification by aerosols of the abundance and properties of clouds).



Atmospheric aerosols

- Knowledge of the parameters that determine the optical properties of atmospheric aerosols is essential for the determination of their climate effects.
- Improved aerosols climatologies may enable more accurate estimations of the direct and indirect aerosols forcing.

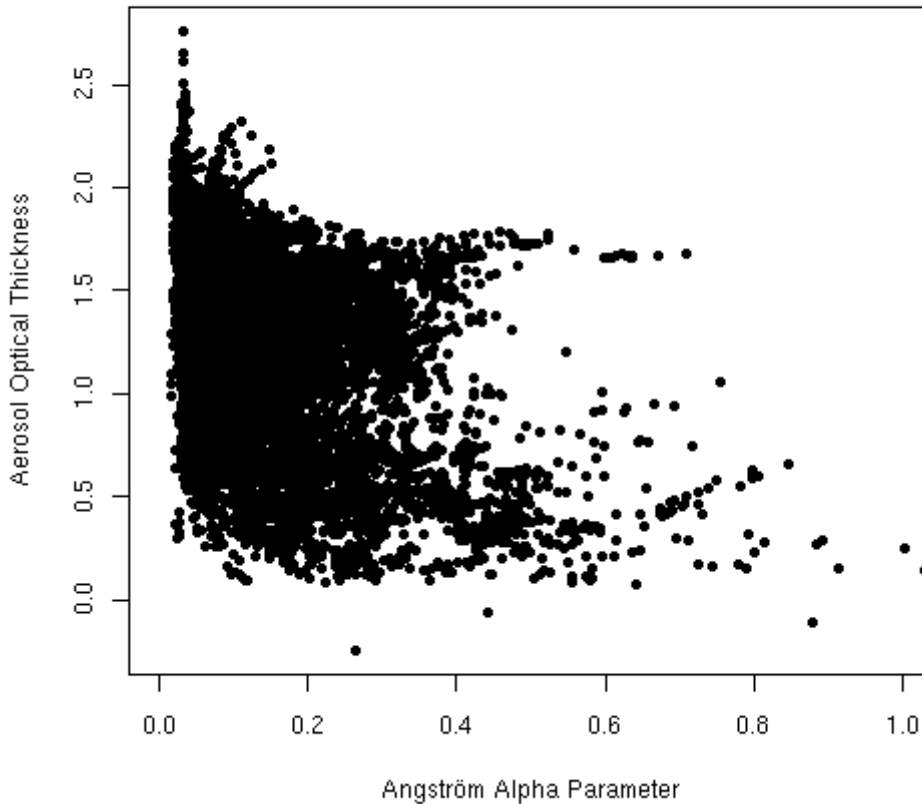
Atmospheric aerosols

- Ground-based Sun photometry provide optical properties for characterization of atmospheric aerosols.
- There is one CIMEL 318 in Extremadura .



Optical parameters

CACERES



- This figure show 2 parameters: aerosol optical depth and Angström alpha parameter for the station of Cáceres for the period 2005-2007.



Future lines

- As soon as I have characterized aerosols, I will study their influence in the ultraviolet radiation.
- The information about optical properties will be implemented in empirical and physically-based models of prediction of ultraviolet radiation.



THANK YOU ALL