Title: Study of the pollen concentration by means of LIDAR fluorescence

Description: The atmospheric pollution characterization unit studies through advanced instrumentation different problems presented by urban pollution in Madrid. Within the framework of the project "Characterization of properties and origin of atmospheric particulate matter" it is proposed to study the concentration of pollen present in the atmosphere using a LIDAR (Light Detection And Ranging) system. To this end, a fluorescence channel will be incorporated into the lidar system and series of experimental pollen measurements will be carried out to correlate them with other instruments (Hirst collectors, automatic monitors). The candidate will work on the experimental development of the fluorescence channel, the analysis of experimental measurements of fluorescence and correlation with pollen measurements and synoptic situations, as well as in various experimental campaigns that the unit periodically carries out.

Applicants must be at the end of the deadline for submitting applications in possession of the Bachelor's Degree, Engineering, Architecture, University Graduation with a degree of at least 300 ECTS credits (European Credit Transfer System) or university master's degree, or equivalent in Physical, Chemical, Biological or Environmental Sciences, and have the admission or be in a position to have it, to a doctoral programme. A good level of English and programming knowledge (Matlab, Python) will be valued.

The deadline for applications is July 31st and the official call is placed at: https://www.ciemat.es/cargarAplicacionOfertaEmpleo.do?identificado=2071

For any further questions, please contact the supervisor: Francisco Molero Menéndez. f.Molero@ciemat.es