



# UNIVERSITÀ DI PAVIA

## Corso di Dottorato in Scienze della Terra e dell'Ambiente

### FORM PER PROGETTI BANDO DOTTORATO

#### 1. Project title

Study of the first continental tectono-stratigraphic phases of the Alpine Cycle in the Basque-Cantabrian area of the Pyrenees.

#### 2. Proposer

Surname	Ronchi
Name	Ausonio

#### 3. Research Unit

Surname	Name	Institution
Fernández Barrenechea	José	Departamento de Mineralogía y Petrología, Facultad de Geología, Universidad Complutense de Madrid, Spain
López Gómez	José	Instituto de Geociencias, IGEO (UCM,CSIC), Madrid, Spain
Nemesio	Heredia	Instituto Geologico y Minero de Espana (IGME), Oviedo, Spain

#### 4. Key words

(Max. 5 – at least 2)

Basque Pyrenees, Permian, Triassic

#### 5. Abstract

(Max.1.500 characters with spaces)

The Pyrenean-Cantabrian orogenic belt extends W-E for about 1000 km in the northern Iberian Peninsula, between the Mediterranean Sea and the Atlantic Ocean. This orogen resulted from the collision between Iberia and Eurasia in Cenozoic times. The Permian and Triassic continental record represents the beginning of Alpine Cycle in this area. Permian sediments crop out in small, elongated basins, while Triassic basins were laterally connected and occupied wider areas. Based on integrated stratigraphic, sedimentary, mineralogy, tectonic, and magmatic data from well-dated units carried out in the last decade by the applicant research group, a stratigraphic frame has been described for the Permian and Triassic sedimentary record of the eastern (Pyrenees) and western (Cantabrian Mountains) parts of this orogen. However, the central area, or Basque-Cantabrian area, which does not exceed 100 km in length, has not been studied since the middle of the last century. This area, which is the focus of this application, is key to understanding the evolution of the Pyrenean-Cantabrian orogen, because it is the link between the best-known eastern and western areas of this orogen. Furthermore, it is also key, because this orogen has its



**UNIVERSITÀ DI PAVIA**

**Corso di Dottorato in Scienze della Terra  
e dell'Ambiente**

lateral continuation throughout Central Europa. This research would be carried out by means of structural-stratigraphic, sedimentological, mineralogical and paleosols study, and with support from the analysis of volcanic rocks and the possible obtaining of dating through palynological and radiometric data. A geological-structural map will be made coupled with drone-based aerophotogrammetry aiding in the recognition and characterization of the main fault sets.