



## Earth Sciences - V.P. POSITION

### DESCRIPTION OF THE PHD PROGRAM

The research carried out as part of the PhD in Earth Sciences is mainly focused on Geochemistry and Isotope Geochemistry, Hydrogeology, Geomorphology, Applied Geophysics, Structural Geology, Micropaleontology, Sedimentology. With emphasis on the topic at hand, the research activities have been developing since 1989 in the specific context of the application of stable isotope geochemistry techniques to several fields of Earth Sciences, and in particular:

- (i) Isotope proxies (C, N, O, H) to identify and understand past diet and past climatological and environmental conditions;
- (ii) Isotope analysis of H and O to document large-scale isotope variations in the hydrological systems;
- (iii) Bio-isotopes to infer the provenance and processing of food.

Our professors and researchers, including the PhD supervisor, have substantial international experience in the field, with collaborations ranging from the University of Namur, Belgium, to the Masstwin Project in Ljubljana, Slovenia, Muséum National d'Histoire Naturelle and the Collège de France in Paris, France etc.

### DESCRIPTION OF THE SCIENTIFIC FIELD & VISITING PROFESSOR PROFILE

Scientific Field:

Development of agricultural and animal husbandry activities vs. safeguarding the water resources: research of optimal activities by applying isotopic hydrology techniques.

Request motivation:

Giving a greater impulse to the development of these topics, with the support of a foreign expert, would allow for a further emphasis on the specificity, completeness, multidisciplinary and the excellence of the research carried out at the University of Parma in terms of "Food".

### DESCRIPTION OF THE DIDACTIC ACTIVITIES OF THE VISITING PROFESSOR

Supervision of 1 PhD thesis, as a member of the Professor's College;

Development of 1 Isotopic Hydrology Course and seminar cycle for the PhD students in Earth Science and other UniPr PhD students that develop thesis in "Food";

Experimental didactic activities at the Isotopic Geochemistry Laboratory at the University of Parma's Earth Science Complex;

Didactic activity (teacher-led and in laboratory) at the home institution (6-24 months).

**Presence at the University of Parma: At least of 1 month per year for 3 years, for a minimum total of 3 months.**