ERC Research engineer position – 2 years

Objective: developing a new generation of landscape evolution modelling

Position description: The Department of Geosciences at the University of Rennes 1 seeks to hire a high-level research engineer in the development of a new landscape evolution model in the framework of the ERC FEASIBLe project (https://osur.univ-rennes1.fr/Feasible/). The successful candidate will 1) co-lead the development of a new and open-source landscape evolution, 2) support the development, numerical implementation and use of new algorithms to simulate river hydrodynamics, landsliding, erosion and sediment transport and fault dynamics, 3) setup and maintain a GitHub deposit for this new model and 4) contribute to the writing of papers on this new model. This research activity will focus on mountain ranges impacted by natural disasters (e.g., earthquakes, typhoons...). The candidate will work in close collaboration with Philippe Steer and other members of the ERC project, specialized in geomorphology, extreme events, landscape evolution numerical modelling and Lidar/SFM data analysis (e.g., change detection, classification).

Qualifications: Candidates will hold a PhD in numerical modelling in Earth Sciences with a research interest in geomorphology, tectonics and/or hydrology/hydrodyanmics. Candidates should have demonstrated abilities in high-performance programming (e.g., Matlab, C++, Python). Ability to work in an international environment, to communicate and to write scientific papers are expected. Although prior knowledge of French is not mandatory, spoken and written English proficiency is needed.

Applications: should be sent to Philippe Steer (philippe.steer@univ-rennes1.fr) before the 1st of December 2021 and should include 1) a cover letter with a description of qualifications, experiences and motivations and the names and contact information of three references, 2) a Curriculum Vitae that includes publications and contribution to international conferences, and 3) up to three reprints of research publications. The successful candidate is expected to start in January 2022.

Context: Rennes, the capital of Brittany, is a very lively human-scale city and is located just 1,5 hour away from Paris and less than 1 hour from sunny beaches. University Rennes 1 is amongst the ten main universities in France. It is a multidisciplinary university, famous for its excellence and dynamic research. The Geosciences department is a large and multidisciplinary research centre which is internationally recognized for its quality in environmental research, in particular in hydro(geo)logy, geomorphology and numerical modelling.

Salary: The salary will depend on experience and qualification of the candidate.

Questions: may be directed to Philippe Steer (philippe.steer@univ-rennes1.fr)