

NSF-Funded PhD Opportunity – UNC Charlotte

Starting Fall 2019, an NSF-Funded RA position to examine the broad problem of how mechanical weathering via subcritical fracture (e.g. Eppes & Keanini, 2017) influences long-term landscape evolution. Student will have the opportunity to design a PhD project to suit their interests under this broad topic. Options include: conducting field work to characterize fractures in diverse, natural settings; building numerical models linking environmental stresses with subcritical cracking and erosion; completing 3D visualization and spatial-statistical analyses of acoustic emission recordings of real-time fracture; and/or performing laboratory mechanical testing and microscopic analyses for rock mechanical and/or mineralogical properties.

Students should apply to either the PhD in “Infrastructure and Environmental Systems” – a multidisciplinary PhD program joint with Civil Engineering – or the PhD in Geography. Students may chose a ‘route’ through these degrees that is as traditional (Geology, Earth Sciences or Geography) or as multidisciplinary (incorporating any of the above as well as Engineering, GIS) as they like.

Application Deadline is Feb 1, 2019.

Email or call for more information, or find me at GSA – I am usually the tallest woman there - and am always at the Quaternary Geology and Geomorphology Division meeting and social on Tuesday night. Happy to meet with you at the meeting if you email ahead.

Missy

ABOUT UNC Charlotte & its Earth sciences programs:

UNC Charlotte is a rapidly growing doctoral-granting urban university located in the largest metropolitan area between Washington DC, and Atlanta, GA. The University is a Carnegie Foundation Community Engagement campus. More than 28,000 students, including over 9000 ethnic minority students and almost 2000 international students, are currently enrolled at the University.

The Department of Geography and Earth Sciences is a diverse community of social and physical scientists comprised of ~35 faculty members and more than 100 graduate students from a variety of disciplinary backgrounds. The Department’s mission is to create and disseminate scientific knowledge about the social and natural systems of the Earth and their interactions through scholarly research, teaching and service. The Department is committed to rigorous high-level research and excellence in teaching. The Department offers undergraduate degrees in Geography, Earth and Environmental Sciences, Geology, Environmental Studies, and Meteorology. At the graduate level, the Department offers an M.A. and a PhD in Geography, an M.S. in Earth Sciences, and a graduate certificate in Geographic Information Science & Technology. In addition, the department is a core participant in several interdisciplinary graduate programs on campus, including, Ph.D. programs in Public Policy (PPOL) and Infrastructure and Environmental Systems (INES), and the Master’s in Urban Design (MUD).

Eppes, M.-C. and R. Keanini (2017). "Mechanical weathering and rock erosion by climate-dependent subcritical cracking." *Reviews of Geophysics* 55(2): 470-508.