

Rivers, incision, erosion, and the geodynamics of the northern Apennines

Frank Pazzaglia
Lehigh University

In this talk, I will describe the use of rivers and river terraces to quantify incision rates and how those incision rates in general could be converted into rates of rock deformation. I'll devote some time to understanding the terrace genesis mechanism which is central to correct interpretations, but commonly mis-used by tectonic geomorphologists and others. Lastly, I will use my recent work in a CD project in the northern Apennines to illustrate how tectonic geomorphology and river studies define an important boundary condition for the various geodynamic models that are being tested.