

ES01: Forms and Processes of bedrock erosion in fluvial and glacial landscapes

Conveners: Eva Kwooll¹, Jeremy Venditti², and Flavien Beaud³

Co-chairs: Eva Kwooll¹, Jeremy Venditti², and Flavien Beaud³

¹ Department of Geography, SFU, Burnaby, BC, V5A 1S6
Phone: 778 681 6565, E-mail: eva_kwooll@sfu.ca

² Department of Geography, SFU, Burnaby, BC, V5A 1S6
Phone: 604 767 2247, E-mail: jeremy_venditti@sfu.ca

³ Department of Earth Sciences, SFU, Burnaby, BC, V5A 1S6
Phone: 778 232 6953, E-mail: fbeaud@sfu.ca

Session Description

The erosion of bedrock in mountain terrain is one of the key processes determining the evolution of landscapes over time. In these settings, hillslope, glacial and fluvial processes act to carve out steep mountain valleys with distinct land forms. Bedrock erosion occurs through a variety of processes from plucking of entire rock blocks, abrasion by sediment load, chemical solution and rock fall. The relative magnitude of each process depends on the geological setting and the underlying mechanism, namely the flow of water or ice or the stability of a rock wall. In this interdisciplinary session, we aim to bring together fluvial and glacial geomorphologists / glaciologists / hydrologists working on bedrock erosion in mountain landscapes. We invite novel contributions across the variety of spatial and temporal scales inherent to these complex systems. Studies will include state of the art field projects, laboratory experiments and numerical models. We particularly invite contributions aimed to disentangle the relative importance of individual bedrock erosion processes and resulting sediment yield.

Primary Affiliation: CGU / Earth Surface Processes