

Geowissenschaftliches Kolloquium

Controls on channel migration and the lateral erosion by rivers

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The lateral migration of channels drives the erosion of uplifting landscapes, the formation of stratigraphy, and the

reworking of sediment, nutrients, and carbon in fluvial deposits. Here, I explore the controls on lateral channel migration using a combination of results from sandbox experiments and a field study in the Tian Shan foreland. In addition, I discuss whether river valleys that are formed by lateral erosion can be used as topographic markers for the climatic and tectonic conditions that shape landscapes.



After receiving a B.A. and M.Sc. from the University of Cambridge, and a Ph.D. from the University of California, Santa Barbara, Aaron Bufe joined the GFZ in 2017 as a postdoctoral researcher. His research interests revolve around chemical and physical mass fluxes on Earth's surface. Recently, he has been working on the impact of physical erosion processes on chemical weathering.

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