

Exploring landscapes and ecosystems by studying their streams

January 16, 2019 at 12:00 noon

James Kirchner

Dept. of Environmental System Sciences, ETH Zurich

Streams integrate the water, solutes, and sediments from their drainage basins, and thus they act as mirrors of the surrounding landscape. Patterns of streamflow, chemistry, and sediment flux can therefore shed light on physical, chemical, and biological processes at the scale of whole ecosystems. Here I present several examples of current and recent research on groundwater cycles, stream flow, and stream chemistry that illustrate the close coupling between landscapes and the waters that drain them.

James Kirchner received his PhD from the University of California, Berkeley where he became a professor in 1991. Since August 2007, he has been full Professor of Physics of Environmental Systems at the ETH Zurich and became the Director of the Swiss Federal Institute for Forest, Snow and Landscape Research in 2012. His wide research interests range from watershed hydrology and biogeochemistry to geomorphology and landscape evolution.



The new Earth Surface Dynamics seminar series aims to bring together the broad range of researchers on Telegrafenberg looking at Earth surface processes (e.g., hydrology, geochemistry, geobiology, geochemical/carbon cycling, geomorphology) once a month. The aim for these talks is to be broad and accessible and deal with big, global topics, so that non-experts and specialists alike can find them enlightening.

Main lecture room, Haus H
Telegrafenberg, 14473 Potsdam

HELMHOLTZ CENTRE POTSDAM
**GFZ GERMAN RESEARCH CENTRE
FOR GEOSCIENCES**