

Invitation to DK Guest Lecture

How Does Groundwater Flow?

Exploratory Computing of Analytic Solutions using Python

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16:00

Lecture Hall HS 02.23 (Universitätsplatz 2, 2nd floor)

Abstract

Groundwater models are essential to investigate how groundwater flows and to evaluate the consequences of management scenarios. Analytic solutions give insights into the flow of groundwater that is more difficult to obtain with grid-based solutions. Analytic solutions have greatly benefited from the development of high-level programming languages such as Python, which makes it easy to evaluate analytic solutions and visualize their results. The power of exploratory computing in Python is demonstrated through the presentation of a handful of analytic solutions. Short Python scripts are presented for all solutions, so that they are all fully reproducible and the effect of the variation of the parameters can be assessed interactively and visually.