SUPER – Stuttgart University Program for Experiencing Research
Project Information

Institute’s Information

Name of Institute  Institute of Modelling Hydraulic and Environmental Systems (IWS)
Contact Person  PD Dr.-Ing. Claus Haslauer
Phone  
E-mail  claus.haslauer@iws.uni-stuttgart.de

Duration of Project/Number of Students

June/July  1
June/July/August  1
Number of Students  up to 2

Name of Project  Heat as Water Quality Parameter in Subsurface Drinking Water Pipes

Beneficial Skills & Knowledge  You are excited to wrangle with data!

Description of Work

Warm water in drinking water pipes is a threat to drinking water quality.

In summer, under asphalt, in non-central locations of a distribution network, temperatures of larger than 25 °C have been observed.

The sun and other hydro-meteorological parameters as well as land-use and subsurface properties determine how heat together with water travels from the land surface downwards and into drinking water pipes. At our field site we observe all relevant parameters. We build mathematical models (pde-based and statistical) to estimate the water temperature in drinking water pipes based on observations.

Broadly, these same processes are relevant for any geothermal application.