

## DiSCourse Seminar

The Digital Science Center and the Unit of Energy Efficient Buildings would like to invite you to the following guest lecture:

**Gabriel Rojas**  
University of Innsbruck

### Fault Detection in Buildings Using Data-Driven Models

The operation of modern buildings has become increasingly complex. While a few decades ago, building services were mostly limited to providing space heating and hot water, modern buildings also incorporate ventilation, cooling and shading systems. Many studies show that misadjusted and faulty building services often stay undetected for long periods of time, compromising efforts to reduce energy use of the building sector. The growing availability of online data from e.g. smart meters or building automation has fuelled the development of fault detection methods. This presentation gives an overview of the state of the art and provides insights into ongoing national and international projects investigating different approaches. It will focus on the applicability of simplified data-driven building models used to predict the thermal behaviour of buildings as a fundamental element for anomaly detection.

#### About the speaker

[Gabriel Rojas](#) is an assistant professor at the University of Innsbruck and affiliated with both the Unit of Energy Efficient Buildings at the Department of Structural Engineering and Material Sciences and the Digital Science Center (DiSC). His academic work centres on energy-efficient construction, with a special focus on indoor air quality and thermal comfort, among other things.

**Date and Time:** Friday, 25 March 2022, 12:00 (CET)

**Please note:** This presentation will be given **online** in [Big Blue Button](#). Participants do not need to register.

**Guests are welcome!**