

**IWR COLLOQUIUM WINTER SEMESTER 2023/24**

## **Prof. Klaus-Robert Müller**

Director, Berlin Institute for the Foundations of Learning and Data ·  
Machine Learning Group, Technische Universität Berlin

# **Machine Learning and AI for the Sciences: toward understanding**

In recent years, machine learning (ML) and artificial intelligence (AI) methods have begun to play a more and more enabling role in the sciences and in industry.

In particular, the advent of large and/or complex data corpora has given rise to new technological challenges and possibilities.

In his talk, Müller will touch upon the topic of ML applications in the sciences, in particular in chemistry and physics. He will also discuss possibilities for extracting information from machine learning models to further our understanding by explaining nonlinear ML models. Finally, Müller will briefly discuss perspectives and limitations.

**Also streamed  
via Zoom**



**January 30, 2024 • 16:15**

Mathematikon • Conference Room / 5th Floor  
Im Neuenheimer Feld 205 • 69120 Heidelberg  
[www.iwr.uni-heidelberg.de/events/iwr-colloquium](http://www.iwr.uni-heidelberg.de/events/iwr-colloquium)

### **HGS MathComp Mixer**

Prior to the IWR-Colloquium: Get-together for all members of the HGS MathComp  
**15:30 • Mathematikon • Common Room / 5th Floor**