

## **Kolloquium „Statistische Methoden in der empirischen Forschung“**

Wann: 31. Oktober 2023, 17:00 – 18:30 Uhr

Wo: [Campus Charité Mitte | Hörsaal der Nervenlinik | Bonhoefferweg 3, 10117 Berlin](#)

Online-Übertragung: der Link wird auf der [Website](#) zur Verfügung gestellt

**Alexandra Carpentier (Universität Potsdam)**

### **Multi-Armed Bandits with Applications**

In this talk I will present the bandit model, which is a simple model for sequential decision making under noise. At each time  $t$ , a learner can choose among  $K$  options - termed arms - and collects a sample - termed reward - corresponding to this arm. Its aim is to fulfill an objective, as e.g. maximising the sum of collected samples. There are many applications to this, spanning from medical trials, to recommender systems. Depending on the objective of the learner, one needs to adapt the algorithms. In this talk, I will describe some problems corresponding to different objectives and presented some associated algorithms.