

## Title: Psychology-informed Recommender Systems

Personalized recommender systems are essential tools to facilitate human decision making. Most state-of-the-art recommender systems use advanced machine learning techniques to model and predict user preferences from behavioral data. While such systems can provide useful recommendations, their algorithmic design does not incorporate the underlying psychological mechanisms that shape user preferences and behavior.

In this lecture, we will discuss psychology-informed recommender systems, i.e., recommender systems that consider extrinsic and intrinsic human factors. The lecture will first give an overview of the main approaches in recommender systems research. Then, three categories of psychology-informed recommender systems will be introduced: (i) cognition-inspired, (ii) personality-aware, and (iii) affect-aware recommender systems. The lecture then details cognition-inspired systems and shows examples of such systems in the context of music recommendations. The overall aim of the lecture is to illustrate how psychology-informed recommendation systems can improve the recommendation process in a human-centric fashion.