**内容简介**

1. **Gerhard Weikum：What Computers Should Know.**

Machines with comprehensive knowledge of the world’s entities and their relationships has been a long-standing vision and challenge of AI. In the last decade, huge knowledge bases (aka. knowledge graphs) have been automatically constructed from web data and text sources, and have become a key asset for search, analytics, recommendations and data integration. This digital knowledge can be harnessed to semantically interpret textual phrases in news, social media and web tables, contributing to natural language processing and data analytics. This talk reviews these advances, discusses recent directions such as acquiring commonsense, and identifies new opportunities and future challenges.

By applying the classic kernel smoothing technique from nonparametric statistics. On the other hand, by assuming that the considered dynamical system admits a unique underlying invariant density function, we are also concerned with the estimation problem of this density. The purpose is achieved by adopting the Parzen-Rosenblatt estimator. Our main results are the consistency and convergence rates of the considered estimators which are derived by employing capacity-dependent arguments and concentration inequalities developed recently in the literature.

1. Zenling Xu: Introduction of Statistical Machine Intelligence & LEarning

Statistical machine intelligence and learning laboratory (Machine Intelligence Statistical & LEarning, SMILE) was affiliated with School of computer science and Engineering and Big Data Research Center, University of Electronic Science and Technology of China. The laboratory is located in the main building B1-201. Professor Xu Zenglin is responsible for SMILE lab.

The main research direction of laboratory bases on machine learning technology and its application. Our research directions include: Semi supervised learning, kernel learning, Bias learning, feature selection and extraction, multi task learning, multi view learning, active learning, online learning, matrix analysis, tensor analysis, deep learning, optimization algorithm, scalable learning, etc. The main application fields include Internet, recommendation system, social network analysis, bioinformatics, neural Informatics, health data analysis, spatial safety data analysis, etc.

1. Tianrui Li: About the Knowledge Graph

The Knowledge Graph is a knowledge base used by Google to enhance its search engine's search results with semantic-search information gathered from a wide variety of sources. Knowledge Graph display was added to Google's search engine in 2012, starting in the United States, having been announced on May 16, 2012. It provides structured and detailed information about the topic in addition to a list of links to other sites. The goal is that users would be able to use this information to resolve their query without having to navigate to other sites and assemble the information themselves. The short summary provided in the knowledge graph is often used as a spoken answer in Google Now searches.