

Invited Talk by

Stephan Günnemann, Technische Universität München

Monday, 05.11.2018, 14:50 – 16:20, room APB 3105

Title:

Robust and Scalable Learning with Graphs

Abstract:

Graph data representing complex interactions between instances is ubiquitous across many application domains. Social networks of interacting users, document citation graphs, or functional brain networks are only a few examples. With the mere size of these graphs being one big challenge, a further key limiting factor for analytics is the data's quality itself: the collected graphs are rarely clean but often noisy, prone to corruptions, and vulnerable to attacks. In this talk, I will present some of our recent works for learning with such graphs, including robust unsupervised graph embeddings and semi-supervised collective classification methods. I will present the underlying modeling principles and I will sketch solutions how to derive scalable and robust learning techniques.

Bio:

Stephan Günnemann is a Professor at the Department of Informatics, Technical University of Munich. He acquired his doctoral degree in 2012 at RWTH Aachen University in the field of computer science. From 2012 to 2015 he was an associate of Carnegie Mellon University, USA; initially as a postdoctoral fellow and later as a senior researcher. Stephan Günnemann has been a visiting researcher at Simon Fraser University, Canada, and a research scientist at the Research & Technology Center of Siemens AG. His research interests include the development of robust and scalable machine learning techniques for non-independent data such as graphs and temporal data.