

## SEMINAR ANNOUNCEMENT

May 8th, 2025 at 14:30 CET Room Sala Seminari – Building Abacus – U14

## Ranking in the Age of Big Data

Speaker Prof. Davide Martinenghi Politecnico di Milano

## Abstract:

Ranking is a ubiquitous concern in the context of decision making and search. In this talk, I will present the main approaches adopted in data-intensive applications to rank items and select the best options.

After a brief historical overview covering a few well-known voting systems, I will move to the classical top-k queries and skyline queries, and discuss their advantages and limitations. I will then explore recent proposals hybridizing and extending these two approaches to get the best of both worlds, while also considering orthogonal aspects relevant for ranking items, such as fairness and diversification.

**Bio**: Davide Martinenghi is an Associate Professor of Computer Science and Engineering at Politecnico di Milano, Italy. He received his Ph.D. in Computer Science from Roskilde University, Denmark. His research interests span several database topics, such as Ranking, Preferences, Conceptual Modeling, Data and Constraints, Logic, and Big Data. He is the author of more than 100 publications and the recipient of several awards, including the ICDE 2023 award (Industry and Applications) for the incremental management of Knowledge Graphs.

He is the local coordinator of a European project fostering the development of "Emotion Artificial Intelligence" and an Italian PRIN project on Data Quality. He is also the director of several European MSc Programs for the EIT Digital consortium.

Contact person for the seminar: gabriella.pasi@unimib.it