



AVVISO DI SEMINARI

Dr. Sašo Džeroski

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Mercoledì 21 aprile 2010 ore 10.00, Aula Gödel, II piano, Dipartimento di Informatica

PREDICTIVE CLUSTERING TREES AND ITS USE IN BIOINFORMATICS / SYSTEMS BIOLOGY

Predictive clustering trees are an approach to data analysis that includes elements of both clustering and predictive modelling. They allow for conceptual clustering, where we seek both clusters and their descriptions, as well as simultaneous prediction of several target variables. The talk will introduce predictive clustering trees, present methods for learning them and summarize some of their applications in bioinformatics and systems biology (predicting gene functions, relating gene function to gene expression profiles, and relating gene function and compound structure to phenotypical profiles).

Sašo Džeroski is a scientific councillor at the Jozef Stefan Institute and associate professor at the Jozef Stefan International Postgraduate School, both in Ljubljana, Slovenia. His work is mainly in the area of machine learning and data mining (constraint-based data mining, data mining query languages, inductive logic programming, relational data mining, equation discovery and inductive databases) and their applications (mainly in environmental and life sciences). He has participated in and lead a number of national and international projects. His projects involving environmental applications of machine learning/data mining include: FP6 Project LifeSciHealth-2005-037260 EETP, European Embryonal Tumor Pipeline, EU FP6 IST FET project IQ: Inductive Queries for Mining Patterns and Models, Bilateral SI-CRO Project. Inductive Databases for Genomics and Proteomics. He has been actively involved in many other EU-funded research projects (ESPRIT III project ILP, ESPRIT IV projects ILP2 and METAL, FP5 projects ECOGEN and cInQ, FP6 projects SIGMEA, IQ and EETPipeline, FP7 project PHAGOSYS), as well as the the EU-funded Networks of Excellence in ILP (Inductive Logic Programming) ILPnet and ILPnet2, the latter of which he coordinated. He is co-author/co-editor of ten books/volumes, the latest two being »Computational Discovery of Scientific Knowledge« and »Knowledge Discovery in Inductive Databases« (Springer, Berlin 2007).

Seminario per: 1) Dottorato in Informatica; 2) Progetto formativo PS_092 (DIPIS).