



AVVISO DI SEMINARI

Dr. Sašo Džeroski

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Venerdì 23 aprile 2010 ore 11.00, Aula Gödel, II piano, Dipartimento di Informatica

EQUATION DISCOVERY FOR ECOLOGY AND SYSTEMS BIOLOGY

The discovery of differential equations from measured data has been studied in the area of machine learning under the topic of computational scientific discovery, and more specifically equation discovery, for almost two decades. The talk will describe state-of-the-art methods for discovering differential equations from measured data and domain knowledge. It will then discuss several applications in the area of ecology (modelling aquatic ecosystems) and systems biology (such as the modeling of a glycolysis network and endosome maturation).

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 been actively involved in many EU-funded research projects (ESPRIT III project ILP, ESPRIT IV projects ILP2 and METAL, FP5 projects ECOGEN and cInQ, FP6 projects SIGMEA, EETPipeline, and IQ, which he coordinated), as well as the the EU-funded Networks of Excellence in ILP (Inductive Logic Programming) ILPnet and ILPnet2, the latter of which he coordinated. Most relevant to this talk is the current FP7 project PHAGOSYS (Systems biology of phagosome formation and maturation- modulation by intracellular pathogens). 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).