

Daniel D. McCracken  
Computational Sciences Seminar Series

**Prof. Nikolay G. Zagoruiko**

Sobolev Institute of Mathematics, Russian Academy of Sciences and  
Dept. of Computer Science, Novosibirsk University

Wednesday, April 26,  
11:00 AM Shaw Smyser Bldg., room 115

**Ontology of Data Mining subject domain  
and methods for solving Data Mining tasks**

**ABSTRACT**

Data Mining is concerned with different methods of automatic discovery of knowledge concealed in the empirical data. It uses this knowledge to select most informative features, and solve classification and forecasting problems. Data Mining ontology captures the main concepts of this subject domain and relations between them. This presentation will (1) explain methods to construct this ontology, (2) provide a classification of data mining problems, (3) survey well-known data mining methods, and (4) describe some original methods and examples of their application in bioinformatics, spectroscopy, and economics.

**About the speaker:**

Dr. Nikolay G. Zagoruiko is one of the pioneers of data mining and knowledge discovery fields, who has worked in these fields for 40 years. He is a founder of a well-known Pattern Recognition research laboratory at the Sobolev Institute of Mathematics of Russian Academy of Sciences, and a leader of the research team in the area of machine methods of automatic knowledge discovery, and pattern recognition. He has advised 22 PhD and five Doctor of Science candidates, and is an author of 13 monographs and over 200 papers. He and members of his research team have developed a series of original data mining and knowledge discovery algorithms. Prof. Zagoruiko teaches "Artificial Intelligence" and "Data Mining" at the Dept. of Computer Science at Novosibirsk University. His most recent work is concentrated on problem of Text Mining and Ontology.