



Evolutionary Computing in Optimization
and Data Mining

June 19 - 22, 2017

Alexandru Ioan Cuza University of Iasi,
Romania

Invited speaker: **Camelia CHIRA**

Presentation: **Computational Intelligence Models for Complex Problems in Social Networks, Traffic Optimization and Microarray Analysis**

Abstract: Computational Intelligence offers many classes of search and optimization methods that can be applied to a variety of complex problems. The focus of the talk will be on the design and development of evolutionary models to address complex problems in static and dynamic environments. Evolutionary algorithms implement a powerful search mechanism based on the concept of evolution and operators such as selection, crossover and mutation. Different evolutionary models are presented and discussed, analysing their performance for community detection in dynamic complex networks, traffic assignment and gene selection in microarray analysis.

Personal Webpage: <http://users.utcluj.ro/~cchira/>

Short bio: Camelia Chira is a senior researcher and lecturer within the Department of Computer Science at Technical University of Cluj-Napoca, Romania. She received her Master (2002) and PhD (2005) degrees from Galway-Mayo Institute of Technology (Ireland) in the area of agent-based systems for distributed collaborative design environments. She participated in several research projects (both as a member and principal investigator) in the area of Artificial Intelligence and complex systems. Her main research interests include evolutionary computation, machine learning, swarm intelligence and multi-agent systems with applications ranging from distributed cooperative work and optimization to social network analysis, data mining and bioinformatics. She is the author of over 100 peer reviewed scientific publications and serves as a board review member to several journals and conferences.