

Bioinformatics and Multi-Agent Systems (BIXMAS 2002)

Workshop Program

Bologna, Italy
July 15, 2002

8:30-8:40 Welcome and Introduction – *Andrew Williams and Keith Decker, Co-Chairs*
8:40-9:10 Invited Talk: NETTAB: Agents in Bioinformatics – *Paolo Romano*

DNA and Protein Sequence Analysis

9:10-9:40 DNA Sequencing Hybridization Based on Multi-Castes Ant System
C. Bertelle, A. Dutot, F. Guinand, and D. Olivier
9:40-10:10 Prediction of Secondary Structure of a Protein Using Multi-Agent System
P.D. Kandula and K. Karlapalem
10:10-10:30 Invited Talk: Data explosion in biology: Agents to the rescue – *Michael Schroeder*

10:30-11:00 BREAK

11:00-11:30 An Approximate DNA String Matching Algorithm Using Agents – *K. Kaplan and J.J. Kaplan*

Ontologies and Knowledge-based Systems

11:30-11:50 Disease Genes Discovery via Phenotyping using Multi-Agent Ontology Consensus
A.B. Williams, V. Chong, A. Lotery
11:50-12:20 A Multi-agent System to Facilitate Knowledge Discovery: an Application to Bioinformatics
A.L.C. Bazzan, L. F. Schroeder

12:30-1:30 LUNCH BREAK

1:30-1:50 A Framework for Collaborative Construction of Molecular Biology Ontologies
J. T. Fernandez-Breis, R. Martinez-Bejar, and F. Martin-Rubio

Multi-Agent Architectures

1:50-2:10 DIAL-B for Bioinformatics: Distributed Intelligent Agents in Lisp for Bioinformatics
D. McShan, I. Shah
2:10-2:40 BDI-Modelling of Intracellular Dynamics
C.M. Jonker, J.L. Snoep, J. Treur, H.V. Westerhoff, W.C.A. Wijngaards
2:40-3:00 Distributed Medical Diagnosis with Abductive Logic Agents
A. Ciampolini, P. Mello, S. Storari

Biological and Biomedical Applications

3:00-3:20 Invited Talk: Application of Agents to Fungal Genomics – *Gregory Butler*

3:30-4:00 BREAK

4:00-4:20 An Agent Modeling Approach to Complex Biological Pathways
L.C. Pouchard, R. Ward, M. Leuze
4:20-4:50 Invited Talk: BioMAS: A Multi-agent system for genomic annotation – *K. Decker*
4:50-5:10 Multi-Agent Systems: A Useful Tool for the Modelization and Simulation of the Blood Coagulation Cascade – *S. Kerdelo, J.-F. Abgrall, J. Tisseau*
5:10-5:30 Biological Cell Model by Communicative Agents – *G. Resconi*
5:30-5:50 Invited Talk: Web Crawling Agents for Retrieving Biomedical Information
P. Srinivasan, J. Mitchell, O. Bodenreider, G. Pant, F. Menczer

5:50-6:00 CLOSING REMARKS