

3ο Συνέδριο Ελληνικής Εταιρίας Υπολογιστικής Βιολογίας και Βιοπληροφορικής
30-31 Οκτωβρίου 2008, ΕΚΕΤΑ, Θεσσαλονίκη

HSCBB_08

Πρόγραμμα

Program

3rd Conference of the Hellenic Society for Computational Biology and Bioinformatics
30-31 October 2008, CERTH, Thessaloniki

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PROGRAM COMMITTEE

Pantelis G. Bagos - University of Central Greece, Lamia, Greece
Anastasios Chanalaris - Royal Free and UCL Medical School London, U.K.
Stavros J. Hamodrakas - University of Athens, Greece
Ioannis Iliopoulos - University of Crete, Greece
Nikos Kyrpides - Joint Genome Institute, Walnut Creek, CA, U.S.A.
Christos Ouzounis - King's College, London, U.K.
Yiota Poirazi - IMBB Crete, Greece
Vasilis J. Promponas - University of Cyprus, Nicosia, Cyprus
Alexandros Stamatakis - Ludwig-Maximilians Universität, Munich, Germany

LOCAL ORGANIZING COMMITTEE

Pericles A. Mitkas, CERTH, Greece
Yiannis Papastefanou, CERTH, Greece
Fotis Psomopoulos, CERTH, Greece
Zacharias Skouras, University of Thessaloniki, Greece
George Toubaris, CERTH, Greece

ORGANIZING COMMITTEE

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PROGRAM AT A GLANCE

Thursday 30/10/2008

12:45-14:45	Opening Session
14:45-15:00	Coffee break
15:00-17:10	Session I Biological Sequence Analysis <i>Chairs: C. Ouzounis & P. G. Bagos</i>
17:10-17:30	Coffee break
17:30-18:30	Session II Text Analysis and Ontology Data Mining <i>Chairs: I. Iliopoulos & A. Chanalaris</i>
18:10-18:30	Coffee break
18:30-20:00	Session III Round Table Discussion: “A working plan for the Hellenic Society for Computational Biology and Bioinformatics” <i>Chairs: V. J. Promponas, S. J. Hamodrakas, C. Ouzounis, A. Stamatakis, Y. Poirazi, P. G. Bagos, I. Iliopoulos, & A. Chanalaris</i>

Friday 31/10/2008

09:30-11:20	Session IV Inference and Visualization of Large Biological Networks <i>Chairs: Y. Poirazi & A. Chanalaris</i>
11:20-11:30	Coffee break
11:30-12:20	Session V High Performance Computing in Bioinformatics <i>Chairs: A. Stamatakis & V. J. Promponas</i>
12:20-15:00	Lunch break
15:00-17:30	Session VI Structural Bioinformatics <i>Chairs: V. J. Promponas & C. Ouzounis</i>
17:00-17:30	Coffee break
17:30-17:40	Best poster award
17:40-19:00	Round Table Discussion: “Teaching and training in Computational Biology and Bioinformatics” <i>Chairs: V. J. Promponas, S. J. Hamodrakas, C. Ouzounis, A. Stamatakis, Y. Poirazi, P. G. Bagos, I. Iliopoulos, & A. Chanalaris</i>
19:00-19:15	Closing remarks

Opening Session

- 12:45-13:45 Registration
- 13:45-13:50 **Prof. Costas Kiparissides**, Director of CE.R.T.H
Welcome
- 13:50-14:00 **Program committee/Local organizing committee**
Opening remarks
- 14:00-14:15 **Stavros J. Hamodrakas**
Announcing the legal formation of the Hellenic Society for Computational Biology and Bioinformatics
- 14:15-14:45 **Oral presentation**
Christos Ouzounis
The status and trends of bioinformatics in Greece: a personal narrative
- 14:45-15:00 Coffee break

Session I - Biological Sequence Analysis**Chairs: C. Ouzounis & P. Bagos**

- 15:00-15:30 **Oral presentation**
Pantelis G. Bagos
Hidden Markov Models and applications in Bioinformatics: prediction of transmembrane topology and signal peptides
- 15:30-15:40 **Poster presentation**
Anastasis Oulas, Alexandra Boutla, Katerina Girtzou, Martin Reczko, Kriton Kalantidis and Panayiota Poirazi
SSCprofiler: a combined Sequence, Structure and Conservation profile HMM tool accurately predicts microRNA genes
- 15:40-15:50 **Poster presentation**
Alexandros Tsakogiannis, Nikolaos Papanikolaou, Vasilis J. Promponas and Ioannis Iliopoulos
Gene Order Conservation Studies in three Pyrococcus species
- 15:50-16:00 **Poster presentation**
Jacques Lagnel, Costas S. Tsigenopoulos, Giorgos Kotoulas and Ioannis Iliopoulos
NOBLAST and JAMBLAST: New options and a Java Application Manager for BLAST
- 16:00-16:20 Coffee break
- 16:20-16:30 **Poster presentation**
Ioannis Kirmitzoglou and Vasilis J. Promponas
Effects of different masking strategies on protein sequence database searches with BLASTP
- 16:30-16:40 **Poster presentation**
Margarita Theodoropoulou, Pantelis Bagos, Ioannis Spyropoulos and Stavros J. Hamodrakas
gpDB: a database of GPCRs, G proteins, Effectors and their interactions
- 16:40-17:10 **Oral presentation**
Ioannis Kirmitzoglou, Eleni Mitilinaiou and **Vasilis J. Promponas**
Local compositional extremes in protein sequences: definitions, algorithms and biological relevance
- 17:10-17:30 Coffee break

Session II - Text Analysis and Ontology Data Mining**Chairs: I. Iliopoulos & A. Chanalaris**

- 17:30-17:40 **Poster presentation**
Theodoros G. Soldatos, Sean I. O Donoghue, Venkata P. Satagopam, Adriano Barbosa Silva, Lars J. Jensen, Nigel P. Brown, Georgios A. Pavlopoulos, Evangelos Pafilis and Reinhard Schneider
Martini: Comparing Genes Sets by Keyword Enhancement and Literature Ranking
- 17:40-17:50 **Poster presentation**
Theodosios Theodosiou and Lefteris Angelis
Statistical Methods of Multivariate Analysis of Data from Biological Documents and Ontologies
- 17:50-18:00 **Poster presentation**
Dimitra Alexopoulou, Bill Andreopoulos, Andreas Doms, Khaled Khelif and Michael Schroeder
Biomedical word-sense disambiguation with ontologies and meta-data
- 18:00-18:10 **Poster presentation**
Evangelos Pafilis, Georgios.A.Pavlopoulos, Heiko Horn, Seán I. O.Donoghue, Lars J. Jensen, Michael Kuhn, Nigel P. Brown, Sean Hooper and Reinhard Schneider
Reflect and OntheFly: automated document annotation
- 18:10-18:30 Coffee break

Session III – Round Table Discussion:**“A working plan for the Hellenic Society for Computational Biology and Bioinformatics”****Chairs: V. J. Promponas, S. J. Hamodrakas, C. Ouzounis, A. Stamatakis, Y. Poirazi, P. G. Bagos, I. Iliopoulos, & A. Chanalaris**

- 18:30-19:15 Presentations by the Chairpersons
- 19:15-20:00 Discussion

Session IV - Inference and Visualization of Large Biological Networks**Chairs: Y. Poirazi & A. Chanalaris**

- 9:30-10:00 **Oral presentation**
Andrei Dragomir, Ioannis Maraziotis and **Anastasios Bezerianos**
Computational intelligence for inferring network models from functional genomics and proteomics data
- 10:00-10:10 **Poster presentation**
Georgios A. Pavlopoulos, Seán I. O'Donoghue, Venkata P. Satagopam, Theodoros Soldatos, Evangelos Pafilis, and Reinhard Schneider
Arena3D: A visualization tool for network and clustering analysis
- 10:10-10:20 **Poster presentation**
Ioannis Maraziotis, **Andrei Dragomir** and Anastasios Bezerianos
Targeted Optimized Partition of Protein Interaction Networks Enriched by Gene Expression and Ontology Data
- 10:20-10:30 Coffee break
- 10:30-10:40 **Poster presentation**
Aristotelis Chatziioannou, Panagiotis Moulos and Fragiskos Kolisis
Gene ARMADA: an integrated multi-analysis platform for microarray data implemented in MATLAB
- 10:40-10:50 **Poster presentation**
Eleftherios Pilalis, Aristotelis Chatziioannou and Fragiskos Kolisis.
In silico model of rapeseed embryos central metabolism. A tool for lipid biosynthesis regulation modeling
- 10:50-11:20 **Oral presentation**
Christos Karapiperis, Christos Ouzounis, Nikos Darzentas, Leon Goldovsky and Kleanthis Karapiperis.
Science communication media for scientists and the public
- 11:20-11:30 Coffee break

Session V - High Performance Computing in Bioinformatics**Chairs: A. Stamatakis & V. J. Promponas**

- 11:30-12:00 **Oral presentation**
Alexandros Stamatakis and Vincent Rousset
Phylogenetic Bootstrapping under Resource Constraints: Higher Model Accuracy or more Replicates?
- 12:00-12:10 **Poster presentation**
Fotis Psomopoulos and Pericles A. Mitkas
Sizing Up: Bioinformatics in a Grid Context
- 12:10-12:20 **Poster presentation**
Euripides Sotiriades, Grigorios Chrysos Chrysos, Georgios-Grigorios Mplemenos, Panagiotis Afratis, Nikolaos Alachiotis, Panagiotis Dagritzikos, Constantinos Galanakis, Christos Kagiavas, Miltiadis Smerdis, Yannis Papaefstathiou, Dionisios Pnevmatikatos and Apostolos Dollas
Special purpose processors for performance boosting of Bioinformatics Algorithms
- 12:20-15:00 Lunch break

Session VI - Structural Bioinformatics**Chairs: V. J. Promponas & C. Ouzounis**

- 15:00-15:30 **Oral presentation**
Georgios A. Dalkas, Athanasios Papakyriakou, Alexios Vlamis-Gardikas and **Georgios Spyroulias**
Docking and Molecular Dynamics Simulations to gain an atomic level insight into Anthrax Lethal Factor (LF) Substrate interaction
- 15:30-15:40 **Poster presentation**
Kimon Frousios, Vassiliki Iconomidou and Stavros J. Hamodrakas
AMYPRED: A web tool for a consensus prediction of amyloidogenic determinants in protein sequences
- 15:40-15:50 **Poster presentation**
Panagiota Georgoulia, Pougounia K., Kokkinidis M. and Nicholas Glykos
Anti, syn or both? Molecular Dynamics Studies of native Rop and friends
- 15:50-16:00 **Poster presentation**
Maria Konstantakaki, Socrates Tzartos, Konstantinos Poulas and Elias Eliopoulos
Modelling studies on the nicotinic acetylcholine receptor
- 16:00-16:10 Coffee break
- 16:10-16:20 **Poster presentation**
Georgios Tsaousis, Konstantinos Tsirigos, Xanthi Andrianou, Pantelis Bagos and Stavros J. Hamodrakas
Transmembrane protein topology prediction improves by 30% incorporating experimental information: a literature survey and the ExTopoDB database
- 16:20-16:30 **Poster presentation**
Ioannis Filippis, Tijana Milenkovic, Michael Lappe and Natasa Przulj
Optimized null model for protein structure networks
- 16:30-17:00 **Oral presentation**
Petros Gkazonis, Athanasios Papakyriakou and **Georgios Spyroulias**
Conformational Plasticity of Ring finger E3 Ubiquitin ligases of p53 tumor suppressor protein
- 17:00-17:30 Coffee break

Session VII – Round Table Discussion:**“Teaching and training in Computational Biology and Bioinformatics”****Chairs: V. J. Promponas, S. J. Hamodrakas, C. Ouzounis, A. Stamatakis, Y. Poirazi, P. G. Bagos, I. Iliopoulos, & A. Chanalaris**

- 17:30-17:40 **Best poster award**
A membership to HSCBB – ISCB + 1 year subscription to Bioinformatics [Sponsored by C. Georgiou Lab Supplies, Nicosia, Cyprus]
- 17:40-18:10 **Oral presentation**
Katerina Perdikuri and Athanasios Tsakalidis
Teaching Bioinformatics in Undergraduate Computer Scientists: Needs and Challenges
- 18:10-18:25 Presentations by the Chairpersons
- 18:25-19:00 Discussion
- 19:00-19:15 **Program committee/Local organizing committee**
Closing remarks