

## Workshop NETTAB 2006

# **Distributed Applications, Web Services, Tools and GRID Infrastructures for Bioinformatics**

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and

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<http://www.nettab.org/2006/>

### **Scientific Programme**

<b>Monday, July 10, 2006 (at Is Morus Relais)</b>	
10.00-13.00	Registration and poster hang up
13.00-14.00	Lunch
14.00-14.40	Opening lecture <b>BIOINFOGRID: Bioinformatics GRID based applications overview</b> Luciano Milanesi, Institute of Biomedical Technology CNR-ITB, Milan, Italy
14.40-15.20	Invited lecture <b>ICT technologies involved with GRID infrastructures</b> Roberto Barbera, University of Catania and INFN, Italy
15.20-15.40	Coffee break
15.40-17.00	1 <sup>st</sup> Session <b>GRID infrastructures for bioinformatics</b> <ul style="list-style-type: none"><li>• Replication and Update of Molecular Biology Databases in a Grid Environment, J. Salzemann, N. Jacq, G. Le Mahec, and V. Breton</li><li>• A Grid infrastructure for managing workflows in bioinformatics applications A. Falzone, M. Melato, I. Porro, S. Ratto, A. Schenone, and L. Torterolo</li><li>• A GRID-based multilayer architecture for bioinformatics E. Bartocci, D. Cacciagrande, N. Cannata, F. Corradini, E. Merelli, L. Milanesi, and P. Romano</li><li>• A Service-oriented Grid Infrastructure for Biomedical Data and Compute Services T. Arbona, S. Benkner, J. Fingberg, G. Engelbrecht, M. Hofmann, K. Kumpf, G. Lonsdale and A. Wöhrer</li></ul>
<b>Tuesday, July 11, 2006 (at Is Morus Relais)</b>	
09.00-09.40	Invited lecture <b>Setting up a Bioinformatics service Center in a distributed environment</b> Patricia Rodriguez-Tomé, CRS4 Bioinformatics, Cagliari, Italy
09.40-10.40	2 <sup>nd</sup> Session <b>Web Services, Software Agents, and Ontologies</b> <ul style="list-style-type: none"><li>• XML modeling of miRNA S. Lopez, G. Lu, and Z. Chen</li><li>• Modeling gene expression data via positive Boolean functions F. Ruffino, M. Muselli, and G. Valentini</li><li>• Unsupervised Method as a Quality Control Tool Improves the Microarray Analysis of Brain Gene Expression in Alcohol Research A. Lourdusamy, M. Ubaldi, L. Soverchia, R. Ciccioppo, and E. Merelli</li></ul>

10.40-13.00	Coffee break and poster session
13.00-14.00	Lunch
14.00-15.20	<p>3<sup>rd</sup> Session</p> <p><b>Web Services, Software Agents, and Ontologies (cont.d)</b></p> <ul style="list-style-type: none"> <li>• Extraction of functionally similar bioinformatics workflows J. Seo, S. Senoo, Y. Takenaka, H. Matsuda</li> <li>• Bioinformatics Ontology: Towards the Automatic Generation of Bioinformatics Workflow for Web Services A. Konagaya</li> <li>• A MultiAgent System for Retrieving Bioinformatics Publications from Web Sources A. Addis, A. Manconi, M. Saba, and E. Vargiu</li> <li>• Pathway Assistant: a web portal for metabolic modelling P. Parikka, E. Pitkänen, A. Rantanen, A. Åkerlund, and E. Ukkonen</li> </ul>
15.20-15.40	Coffee break
15.40-16.20	<p>Invited lecture</p> <p><b>The EELA project: Biomedical Applications</b></p> <p>Rafael Mayo Garcia, CIEMAT, Madrid, Spain</p>
16.20-17.00	<p>4<sup>th</sup> Session</p> <p><b>GRID applications and perspectives in genomics and proteomics</b></p> <ul style="list-style-type: none"> <li>• Microarray data infrastructure using GebbaLab A. Emerson, G. Fiameni, S. Giuliani, E. Rossi, and S. Volinia</li> <li>• A GRID approach for finding functional analogous gene products G. Donvito, A. Tulipano, G. P. Maggi, and A. Gisel</li> </ul>
20.00-22.00	Social dinner at "I Giardini di Alice"

### Wednesday, July 12, 2006 (at Is Morus Relais)

09.00-09.40	<p>Invited lecture</p> <p><b>Grid-enabled life science applications: status and perspectives</b></p> <p>Vincent Breton, CNRS – IN2P3, Clermont-Ferrand, France</p>
09.40-10.40	<p>5<sup>th</sup> Session</p> <p><b>GRID applications and perspectives in biomedical informatics</b></p> <ul style="list-style-type: none"> <li>• Clinical-Genomics data modelling using HL7 standards in GebbaLab project S. D'Ascia and G. Frangiamone</li> <li>• A Grid Approach for Large Data Processing in Biomedicine M. Fato, A. Papadimitropoulos, I. Porro, S. Scaglione, A. Schenone, L. Torterolo and F. Viti</li> <li>• ImmunoGrid - The virtual human immune system project A. Emerson and E. Rossi</li> </ul>
10.40-11.20	<p>Invited lecture</p> <p><b>Grid-enabled High Throughput <i>in-silico</i> Screening Against Influenza A Neuraminidase.</b></p> <p>Hurng-Chun Lee, Academia Sinica, Taipei, Taiwan</p>
11.20-11.40	Coffee break

11.40-13.00	<p>Final Session  <b>Perspectives of GRID applications in biomedical research</b>  Panel discussion with all invited speakers</p> <p><b>Presentation of NETTAB 2007 Workshop</b></p> <p><b>The SeaLife project</b>  A. Burger, Heriot-Watt University, Edinburgh, Scotland, United Kingdom</p> <p><b>Farewell</b></p>
13.00-14.00	Lunch
14.30-18.30	<b>Boat tour</b>

**Thursday, July 13, 2006 (at POLARIS Science and Technology Park of Sardinia)**

09.30-11.20	<p>Tutorial 1A  <b>bioMOBY concept, architecture, central repository and related tools</b>  Martin Senger, IRRI, Manila, Philippines</p> <p>Tutorial 1B  <b>GRID Tools and infrastructures</b>  Roberto Barbera, University of Catania and INFN, Italy and  Giorgio P. Maggi, INFN Bari, Italy</p> <ul style="list-style-type: none"> <li>• Introduction to EGEE</li> <li>• Authorisation &amp; Authentication</li> </ul>
11.20-11.40	Coffee break
11.40-13.30	<p>Tutorial 2A  <b>Agents in bioGRID computing</b>  Emanuela Merelli, DMI, University of Camerino, Italy</p> <p>Tutorial 2B  <b>GRID Tools and infrastructures</b>  Roberto Barbera, University of Catania and INFN, Italy and  Giorgio P. Maggi, INFN Bari, Italy</p> <ul style="list-style-type: none"> <li>• Information System</li> <li>• Workload Management System</li> <li>• Data Management</li> </ul>
13.30-14.30	Lunch
14.30-15.15	<b>Meeting with representatives of research groups of POLARIS Science and Technology Park of Sardinia</b>
15.15-15.30	Coffee break
15.30-17.20	<p>Tutorial 3B  <b>HPC infrastructures</b>  Claudio Arlandini, CILEA, segrate, Italy and  Pierfrancesco Zuccato, Exadron-Eurotech, Amaro, Italy</p> <p>Tutorial 3A  <b>New bioinformatics applications based on Web Services technologies and GRID computing</b>  Tiziana Castrignanò, CASPUR, Rome, Italy</p>