CONFERENCE PROGRAM

Thursday 27th May

14:00 REGISTRATION – IIASS Secretariat

14:45 WELCOME ADDRESS
   G. SCARPETTA, President of IIASS
   F. C. MORABITO, President of SIREN

15:00 *Eduardo R. CAIANIELLO* Lecture
   Pierre BALDI, University of California, Irvine, CA, USA
   15:00-15:45 Computational Problems and Approaches for Understanding Gene Regulation
   15:45-16:15 Deep Neural Architectures, Autoencoders, and Unsupervised Learning

16:15 *Caianiello Memorial Award for the Excellence in Neural Network Research*

16:30 Coffee Break

*Regular Session (Chair: M. GORI)*

17:00 S. ROVETTA, F. MASULLI, M. E. MONVILLE, G. RUSSO
   Context analysis in microRNA data: A Rosetta Stone approach

17:15 M. GORI
   Ill-positionioning in machine learning and automated reasoning

17:30 M. SCARPINITI, F. DI PALMA, R. PARISI, A. UNCINI
   A Geometrically Constrained ICA Algorithm for Blind Separation in Convolutional Environments

17:45 Yibin YE, S. SQUARTINI, F. PIAZZA
   A Group Selection Evolutionary Extreme Learning Machine Approach for Time-Variant Neural Networks

18:00 V. D’AMATO, G. PISCOPO, M. RUSSOLILLO
   Iterative Algorithms for detecting mortality trends in the family of Lee Carter Models
18:15 M. ALAMIA, N. A. BORGHESE  
Creating long gait animation sequences through Reinforcement Learning

18:30 E. FERRARI, M. MUSELLI  
Switching Neural Network: An application to Regression Problems

18:45 M. ABDOLMALEKI, Amir Abolfazi SURATGAR  
Designing a MEMS-based Voltage Controlled Oscillator (VCO) and Compensation the Effect of Temperature Variations Using Neural Network

19:00 M. CACCIOLA, G. RIPEPI, Guang YANG, Gui Yun TIAN, F. C. MORABITO  
Independent Component Analysis based Algorithms for Flaw Classification in Pulsed Eddy Current Data: A Study

19:15 M. N. POSTORINO, G. M. L. SARNE  
A Neural Network Hybrid Recommender System

Friday 28th May

Special Session “THE DYNAMICS OF BIOLOGICAL NETWORKS”

Chairs: R. Serra, M. Villani

9:05 Invited Lecture  
Barbara DROSSEL, Darmstadt University of Technology, Germany  
Random Boolean Networks

9:45 A. BARBIERI, M. VILLANI, R. SERRA, S.A. KAUFFMAN, A. COLACCI  
Cell differentiation in noisy random Boolean network

10:00 A. ROLI, S. BENEDETTINI, R. SERRA, M. VILLANI  
Analysis of attractor distances in Random Boolean Networks

10:15 S. SCARPETTA, A. de CANDIA, F. GIACCO  
Dynamics and storage capacity of cortical networks with small-world topology

10:30 A. FARINACCIO, L. VANNESCHI, P. PROVERO, G. MAURI, M. GIACOBINI  
A Study on Gene Regulatory Network Reconstruction and Simulation

10:45 N. MAMMONE, F. LA FORESTA, F. C. MORABITO  
Discovering network phenomena in the epileptic electroencephalography through permutation entropy mapping
11:00  A. FILISETTI, R. SERRA, M. VILLANI, R. M. FUSCHSLIN, N. PACKARD, S. A. KAUFMANN, I. POLI  
A stochastic model of autocatalytic reaction networks

11:15  G. JURMAN, R. VISINTAINER, C. FURLANELLO  
An introduction to spectral distances in networks

11:30  M. FIASCHÉ, M. CUZZOLA, R. FEDELE, P. IACOPINO, F. C. MORABITO  
Machine Learning and Personalized Modeling for Diagnosis of Acute GvHD: an Integrated Approach

11:45  **Coffee Break**

**Regular Session (Chair: F. PALMIERI)**

12:00  F. PALMIERI, D. CIUONZO  
Data Fusion with Entropic Priors

12:15  U. MANISCALCO, G. PILATO, G. VASSALLO  
Soft Sensor based on E-aNETs

12:30  D. CHICCO, M. RESTA  
An intraday trading model based on Artificial Immune Systems

12:45  A. BERTONI, M. FRASCA, G. GROSSI, G. VALENTINI  
Learning functional linkage networks with a cost-sensitive approach

13:00  **Lunch Break**

14:30  **Invited Lecture**  
Panos PARDALOS, University of Florida, Gainesville, USA  
Connectivity Transition from Interictal to Ictal States on Neocortical Epilepsy

**Regular Session (Chair: B. APOLLONI)**

15:15  M. SCARPINITI, G. BUNKHEILA, R. PARISI, A. UNCINI  
A Pre-Filtering and Post-Filtering Approach to Blind Source Separation

15:30  A. M. ESPOSITO, F. GIUDICEPIETRO, L. D’AURIA, R. PELUSO, M. MARTINI  
A Neural-based Algorithm for Landslide Detection at Stromboli Volcano: Preliminary Results

15:45  E. PASERO  
Non Linear Correlations between Meteo Data and Pollution
16:00  F. GIACCO, S. COLELLA, L. PUGLIESE, S. SCARPETTA  
Application of Self Organizing Maps to multi-temporal and multi-spectral satellite images: classification and change detection

16:15  B. APOLLONI, S. BASSIS  
IPRA: Regressing Data with Independent Parameters

16:39  D. LABATE, F. LA FORESTA, G. INUSO, F. C. MORABITO  
Remarks about Wavelet Analysis in the EEG Artifacts Detection

16:45  E. NOSOVA, G. RAICONI, R. TAGLIAFERRI  
A Combinatorial biclustering algorithm

17:00  S. FERRARI, F. BELLOCCHIO, V. PIURI, N.A. BORGHESE  
Multi-scale Support Vector Regression

17:15  P. BURRASCANO, M. CACCIOLA, F. C. MORABITO, M. RICCI  
Higher order based image deconvolution in electromagnetic non-destructive evaluation of metallic materials

Coffee Break

17:30  PREMIO CAIANIELLO PER LA MIGLIORE TESI DI DOTTORATO NEGLI AMBITI DI RICERCA DELLE RETI NEURALI

18:30  SIREN Society Meeting

20:30  Social Dinner

Saturday 29th May

Special Session COST 2102 - “NONLINEAR SYSTEMS FOR MULTIMODAL HUMAN-MACHINE INTERACTION”

Chairs: Anna ESPOSITO and Stefano SQUARTINI

9:30  M. MARINARO Lecture (Invited)  
G. RIGOLL, TU Munchen, Munich, Germany  
Multimodal Interaction: Methods and Applications for Joint Cooperation Between Humans and Cognitive Systems

10:00  S. SQUARTINI, M. FAGIANI, E. PRINCIPI, F. PIAZZA  
Multichannel Cepstral Domain Feature Warping for Robust Speech Recognition

10:20  M. GRINBERG, V. HALTAKOV, H. STEFANOV
Spreading Activation Mechanisms for Efficient Knowledge Retrieval from Large Datasets

10:40 M. GRASSI, M. FAUNDEZ-ZANUY
Template protection for security enhancement of a biometric face authentication system

11:00 J. ROURE and D. RODRIGUEZ
Demonstration based Policy Learning in a Reduced Driving Environment

11:20 A. ESPOSITO and M. T. RIVIELLO
On the perception of facial emotional expression in children

11:40 E. HRISTOVA
Biosignals and decision making.

12:00 Conference Closing