

**EUROPEAN  
CURRICULUM VITAE  
FORMAT**



**PERSONAL INFORMATIONS**

Name	<b>GIANLUCA BALDASSARRE</b>
Current affiliation and work address	<b>ISTITUTO DI SCIENZE E TECNOLOGIE DELLA COGNIZIONE, CONSIGLIO NAZIONALE DELLE RICERCHE VIA SAN MARTINO DELLA BATTAGLIA 44, 00185 ROME, ITALY</b>
Position	<b>Researcher</b>
Phone (work)	<b>06 44 595 231</b>
Fax (work)	<b>06 44 595 243</b>
E-mail	<b>gianluca.baldassarre@istc.cnr.it</b>
Web (Personal web pages)	<b><a href="http://www.istc.cnr.it/people/gianluca-baldassarre">http://www.istc.cnr.it/people/gianluca-baldassarre</a></b>
Web (Research group web pages)	<b><a href="http://www.istc.cnr.it/group/locen">http://www.istc.cnr.it/group/locen</a></b>
Sex	<b>Male</b>
Birth date	<b>21 February 1969</b>
Birth place	<b>Rome, Italy</b>
Nationality	<b>Italian</b>

**ACADEMIC POSITIONS**

• Dates	16/02/2009 – Today
Name and address of Institute	Istituto di Scienze e Tecnologie della Cognizione, Consiglio Nazionale delle Ricerche (Istitute of Cognitive Sciences and Technologies, Italian National Research Council), Rome, Italy
Position held	Researcher (permanent position)
Main research topics	"Computational neuroscience" and "developmental robotics" models on: cumulative learning, open-ended development, simple and hierarchical reinforcement learning, intrinsic and estrinsic motivations, eye-hand coordination in organisms and robots, bottom-up and top-down attention in organisms and robots, brain mechanisms underlying classic and operant conditioning, brain hierarchical organization undelyring motor behavior and embodied cognition, mental diseases
• Dates	21/03/2006 – 15/02/2009
Name and address of Institute	Istituto di Scienze e Tecnologie della Cognizione, Consiglio Nazionale delle Ricerche (Istitute of Cognitive Sciences and Technologies, Italian National Research Council), Rome, Italy
Occupation or position held	Researcher (funded by European Project "ICEA")
Main research topics	Computational neuroscience and robotic models of: classic and operant conditioning, drives and emotions, spatial orientation, eye-hand coordination, bottom-up and top-down attention, prediction and planning
Project Team Leader	Gianluca Baldassarre
• Dates	02/03/2005 – 01/03/2006
Name and address of Institute	Istituto di Scienze e Tecnologie della Cognizione, Consiglio Nazionale delle Ricerche (Istitute of Cognitive Sciences and Technologies, Italian National Research Council), Rome, Italy
Occupation or position held	Researcher (funded by European Project "MindRACES")
Main research topics	Neural and robotic models of: eye-hand coordination, bottom-up and top-down prediction and

Project coordinators	planning Rosario Falcone, Cristiano Castelfranchi (Gianluca Baldassarre: Sub-Group Leader)
• Date	02/03/2004– 01/03/2005
Name and address of Institute	Istituto di Scienze e Tecnologie della Cognizione, Consiglio Nazionale delle Ricerche (Institute of Cognitive Sciences and Technologies, Italian National Research Council), Rome, Italy
Occupation or position held	Researcher (funded from European Project “ECAgents”)
Main research topics	Collective robotics, auto-organization, neural networks, genetic algorithms
Project coordinators and supervisors	Stefano Nolfi and Domenico Parisi
• Dates	01/11/2001 – 01/03/2004
Name and address of Institute	Istituto di Scienze e Tecnologie della Cognizione, Consiglio Nazionale delle Ricerche (Institute of Cognitive Sciences and Technologies, Italian National Research Council), Rome, Italy
Occupation or position held	Postdoc (funded by European Project “Swarm-bots”)
Main research topics	Collective robotics, self-organization, neural networks, genetic algorithms
Project team leaders and supervisors	Stefano Nolfi and Domenico Parisi

## ACADEMIC EDUCATION

• Dates	10/1998 – 10/2001
Name and type of organisation providing education	Department of Computer Science, University of Essex, Colchester (UK)
Title or awarded qualification	PhD in Computer Science (Diploma: 03/04/2003)
Main knowledge acquired	Robotics, C++ programming, neural networks, reinforcement learning, planning, navigation
Title of thesis	"Planning with neural networks and reinforcement learning"
Supervisor	Prof. Jim Doran
• Dates	11/1997 – 09/1998
Name and type of organisation providing education	Istituto di Scienze e Tecnologie della Cognizione, Consiglio Nazionale delle Ricerche (Institute of Cognitive Sciences and Technologies, Italian National Research Council), Rome, Italy
Title or awarded qualification	Research Training
Main topics	Neural networks, selective attention, agent models for studying cultural evolution
Supervisor	Prof. Domenico Parisi
• Dates	11/1996 – 06/1997 (Diploma: 23/02/1998)
Name and type of organisation providing education	Facolta' di Psicologia, Univeristà di Roma “La Sapienza” Department of Psychology, University of Rome “La Sapienza”, Rome, Italy
Title or awarded qualification	Specialization course in Cognitive Psychology and Neural Networks
Main subjects	Cognitive psychology, neural networks, simulation of eye-hand coordination
Title of thesis	"Apprendimento per rinforzo e coordinazione sensomotora" (Reinforcement learning and sensorymotor coordination)
Supervisors	Prof. Eliano Pessa, Prof.sa Lucia Zanello
• Dates	11/1988 – 04/1997
Name and type of organisation providing education	Facoltà di Economia e Commercio, Università di Roma “La Sapienza”, Rome, Italy (Department of Economics, University of Rome “La Sapienza”, Rome, Italy)
Title or awarded qualification	Laurea in Economia e Commercio (BA and MA in Economics; Viva and Diploma: 16/04/1997)
Main subjects	Mathematics, Statistics, Econometrics, Microeconomics, Macroeconomics, Accounting, Business Economics, Law (Additional courses attended for personal interest: Philosophy of Science, Logics, Psychology, Neural Networks)
Title of thesis	"Reti neurali ed algoritmi genetici per i modelli simulativi di teoria della razionalità limitata - Applicazioni ai mercati oligopolistici" (Neural networks and genetic algorithms for the simulation models of bounded rationality theory - An application to oligopolistic markets )
Supervisors	Prof. Mario Baldassarri, Prof. Giovanni Dosi, Prof. Eliano Pessa

Final Mark	110/110 e lode (summa con laude)
• Dates	09/1983 – 07/1988
Name and type of organisation providing education	Liceo Scientifico "Cavour", Rome, Italy
Title or awarded qualification	High school diploma
Main subjects	Mathematics, Geometry, Biology, Astronomy, Physics, Italian, Latin, English
Final Mark	55/60

## ACTIVITIES AND ROLES

### SCIENTIFIC PROJECTS

• Dates	01/2009 – 04/2013 (4 years and 4 months)
Role	Coordinator of European Integrated Project
Type of project	European Integrated Project (IP)
Name and grant agreement number of Project	"IM-CLeVeR – Intrinsically Motivated Cumulative Learning Robots", Grant Agreement No. ICT-IP-231722
Funding agency	European Commission, 7th Framework Programme (FP7/2007-2013), "Challenge 2 - Cognitive Systems, Interaction, Robotics"
Total budget	7,726,783 euros
EU "Requested Funds"	5,899,884 euros
Numer of partners	7
• Dates	01/2009 – 04/2013 (4 years and 4 months)
Role	Team Leader
Unit	Consiglio Nazionale delle Ricerche, Istituto di Scienze e Tecnologie della Cognizione (National Research Council, Institute of Cognitive Sciences and Technologies), LOCEN-Laboratory of Computational Embodied Neuroscience (research group)
Type of project	European Integrated Project (IP)
Name and grant agreement number of Project	"IM-CLeVeR – Intrinsically Motivated Cumulative Learning Robots", Grant Agreement No. ICT-IP-231722
Funding agency	European Commission, 7th Framework Programme (FP7/2007-2013), "Challenge 2 - Cognitive Systems, Interaction, Robotics"
Total budget	2,151,136 euros
EU "Requested Funds"	1,681,479 Euros
• Dates	01/2006 – 12/2009
Role	Team Leader
Type of project	European Integrated Project (IP)
Name and grant agreement number of Project	"ICEA-Integrating Cognition Emotion and Autonomy", Grant Agreement No. FP7-ICT-IP-027819
Funding agency	European Commission, 7th Framework Programme (FP7/2007-2013), "Challenge 2 - Cognitive Systems, Interaction, Robotics"
Unit	Consiglio Nazionale delle Ricerche, Istituto di Scienze e Tecnologie della Cognizione (National Research Council, Institute of Cognitive Sciences and Technologies), LOCEN-Laboratory of Computational Embodied Neuroscience (research group)
Total budget of Unit	1,248,067 Euros
EU "Requested Funds" of Unit	630,000 Euros
Numer of partners of whole project	8
• Dates	10/2004 – 12/2007
Role	Sub-Group Leader
Type of project	Specifically Targeted Research European Project (STREP)
Name and grant agreement number of Project	"MindRACES – from Reactive to Anticipatory Cognitive Embodied Systems", Grant Agreement No. FP6-511931

Funding agency	European Commission, 6th Framework Programme (FP6/2000-2006)
Unit	Consiglio Nazionale delle Ricerche, Istituto di Scienze e Tecnologie della Cognizione (National Research Council, Institute of Cognitive Sciences and Technologies), Rome, Italy
Total budget of Unit	1,194,506
EU "Requested Funds" of Unit	638,693 Euros (Sub-group: 120,000 Euros)
Numer of partners whole project	8

## RESEARCH DIRECTION EXPERIENCES

• Date	2006 – Today
Role	Reserch group coordinator
Research group name	Laboratory of Computational Embodied Neuroscience (LOCEN)
Institute	Istituto di Scienze e Tecnologie della Cognizione, Consiglio Nazionale delle Ricerche (Istitute of Cognitive Sciences and Technologies, Italian National Research Council), Rome, Italy
Web site	<a href="http://www.istc.cnr.it/group/locen">http://www.istc.cnr.it/group/locen</a>
• Dates	01/2009 – Today
Role	Responsabile of iCub Humanoid Robot and Laboratory of Robotics
Experimetnal equipment and infrastructure	iCub Humanoid Robot, robotics lab
Institute	Istituto di Scienze e Tecnologie della Cognizione, Consiglio Nazionale delle Ricerche (Istitute of Cognitive Sciences and Technologies, Italian National Research Council), Rome, Italy
Value of equipment and infrastructure	Robot: 200.000 Euros. Laboratory instruments: 10.000 Euro
Web site on the robot	<a href="http://www.icub.org/">http://www.icub.org/</a>
• Dates	2010 – Today
Role	Responsible of CNR-ISTC Research Project Module
Name of Research Project Module	Computational Embodied Neuroscience,
Code	SV.P16.008
Project	Animal models for the study of behavioural and physiopathological processes
Institute Running the Project	Dipartimento Scienze della Vita, Consiglio Nazionale delle Ricerche (Department of Life Science, National Research Council)
Implementing Institute	Istituto di Scienze e Tecnologie della Cognizione, Consiglio Nazionale delle Ricerche (Istitute of Cognitive Sciences and Technologies, Italian National Research Council) Rome, Italy
Web site	<a href="http://www.cnr.it/commesse/Scheda_Commissa.html?id_comm=7902">http://www.cnr.it/commesse/Scheda_Commissa.html?id_comm=7902</a>
• Dates	2010 – Today
Role	Responsible of CNR-ISTC Research Project Module
Nome Modulo, Codice	Innovative computational models for Bioinformatics, INT.P02.013
Name of Research Project Module	Bioinspired self-organising architectures and algorithms for the control of robotos and machines, INT.P02.013.002
Code	
Project	Bioinformatics
Institute Running the Project	Dipartimento di Tecnologie dell'Informazione e Comunicazione, Consiglio Nazionale Ricerche (Department of Information and Communication Technology, National Research Council)
Implementing Institute	Istituto di Scienze e Tecnologie della Cognizione, Consiglio Nazionale delle Ricerche (Istitute of Cognitive Sciences and Technologies, Italian National Research Council), Rome, Italy
Web site	<a href="http://www.cnr.it/commesse/Scheda_Modulo.html?id_mod=6482">http://www.cnr.it/commesse/Scheda_Modulo.html?id_mod=6482</a>

## TEACHING EXPERIENCE

- Dates 11/2010 – 07/2014 (4 academic years)  
Institute Facoltà di Psicologia, Università di Roma "La Sapienza", Roma  
(Department of Psychology, University of Rome "La Sapienza", Rome, Italy)  
Position Lecturer (non-permanent position)  
Main activities and responsibilities Lecturer of University Course: "Embodied Computational Neuroscience"
- Dates 11/2001 – 07/2003 (2 academic years)  
Institute Facoltà di Psicologia, Seconda Università di Napoli, Caserta  
(Department of Psychology, Second University of Naples, Caserta, Italy)  
Position Lecturer (non-permanent position)  
Main activities and responsibilities Lecturer of University Course: "Computer Science for Psychologists"
- Dates 11/1999 – 10/2001  
Institute Department of Computer Science, University of Essex, Colchester, UK  
Occupation or position held Teaching Assistant in university and master courses  
Main activities and responsibilities Teaching courses:  
CC 181 Introduction to Artificial Intelligence (Dr. Paul Scott)  
CC 262 Robot programming (Dr. Husheng Hu)  
CC 362 Mobile robotics (Dr. Husheng Hu)  
CC 462 Behaviour-based robotics (Dr. Dong Bin)

## PHD SUPERVISOR AND CO-SUPERVISOR

- Dates 10/2012 – 10/2015 (planned)  
Role Supervisor  
Degree PhD in Computer Science  
Institute Department of Computer Science, University of Plymouth, Plymouth, UK  
Candidate Valerio Sperati  
Title of thesis Gaze control and intrinsic motivation
- Dates 10/2011 – 06/2015 (planned)  
Role Co-supervisor (Supervisor: Angelo Cangelosi)  
Degree PhD in Computer Science  
Institute Department of Computer Science, University of Plymouth, Plymouth, UK  
Candidate Kristsana Seepanomwan  
Title of thesis Mental imaging in robots and organisms
- Dates 10/2012 – 10/2015 (planned)  
Role Co-supervisor (informal; Supervisor: Marco Mirolli)  
Degree PhD in Computer Science  
Institute Department of Computer Science, University of Plymouth, Plymouth, UK  
Candidate Giuliano Santucci  
Title of thesis Computational modelling of intrinsically motivated learning
- Dates 10/2006 – 01/2009 (Viva: 11 January 2009)  
Role Co-supervisor (Supervisor: Stefano Puglisi-Allegra)  
Degree PhD in Psychobiology and Psychopharmacology  
Institute Department of Psychology, University of Rome "La Sapienza", Rome, Italy  
Candidate Vincenzo Fiore  
Title of thesis Corticolimbic catecholamines in stress: modelling the appraisal of controllability
- Dates 01/2008 – 04/2011 (Viva: 13/04/2011)  
Role Co-supervisor (Supervisor: Eugenio Guglielmelli)  
Degree PhD in Biomedical Engineering

Institute	University Campus Bio-Medico, Rome, Italy
Candidate	Daniele Caligiore
Title of thesis	TRoPICALS: A Computational Embodied Neuroscience Model of Compatibility Effect
• Dates	10/2006 – 12/2009 (Viva: 15 December 2009)
Role	Co-supervisor (Supervisor: Stefano Puglisi-Allegra)
Degree	PhD in Psychobiology and Psychopharmacology
Institute	Department of Psychology, University of Rome "La Sapienza", Rome, Italy
Candidate	Francesco Mannella
Title of thesis	Exploring the Psychobiology of Emotions and Motivations through Computational Models
• Dates	01/2006 – 04/2009 (Viva: 8 April 2009)
Role	Co-supervisor (Supervisor: Giulio Sandini)
Degree	Scuola di Dottorato di Scienze e Tecnologie per la Società dell'Informazione (PhD in Sciences and Technologies for Information Society)
Institute	University of Genoa, Genoa, Italy
Candidate	Dimitri Ognibene
Title of thesis	Ecological adaptive perception from a neuro-robotic perspective: theory, architecture and experiments

## MA SUPERVISOR AND Co-SUPERVISOR

• Dates	01/2014 – 07/2014 (Viva: 22 July 2014)
Role	Co-supervisor (Supervisor: Stefano Puglisi-Allegra)
Degree	Laurea Magistrale - Corso di Neuroscienze Cognitive e Riabilitazione Psicologica (MA Science in Cognitive Neuroscience and Psychological Rehabilitation)
Institute	Department of Medicine and Psychology, University of Rome "La Sapienza", Rome, Italy
Candidate	Tania Moretta
Title of thesis	Relazione tra l'effetto 'Pavlovian-instrumental transfer' specifico e la probabilita' di ricompensa strumentale
• Dates	06/2013 – 12/2013 (Viva: 13 December 2013)
Role	Co-supervisor (Supervisor: Loredana Zollo)
Degree	Laurea Specialisitica in Ingegneria Biomedica (MA Science in Biomedical Engineering)
Institute	University Campus Bio-Medico, Rome, Italy
Candidate	Valentina Meola
Title of thesis	Controllo bioispirato di una mano robotica per compiti di manipolazione ciclica (Bio-inspired control of a robotic hand for rythmic manipulation tasks)
• Dates	09/2013 – 07/2013 (Viva: 17 July 2013)
Role	Co-supervisor (Supervisor: Stefano Puglisi-Allegra)
Degree	Laurea Magistrale - Corso di Neuroscienze Cognitive e Riabilitazione Psicologica (MA Science in Cognitive Neuroscience and Psychological Rehabilitation)
Institute	Department of Medicine and Psychology, University of Rome "La Sapienza", Rome, Italy
Candidate	Emilio Cartoni
Title of thesis	Pavlovian to instrumental transfer: un modello computazionale bayesiano con cause latenti
• Dates	01/01/ 2011 – 17/02/2011 (17 February 2011)
Role	Co-supervisor (Supervisor: Eugenio Guglielmelli)
Degree	Laurea Specialisitica in Ingegneria Biomedica (MA Science in Biomedical Engineering)
Institute	University Campus Bio-Medico, Rome, Italy
Candidate	Paolo Tommasino
Title of thesis	Sviluppo di neurocontrollori ad apprendimento per rinforzo e validazione sperimentale su robot (Development of neurocontrollers for reinforcement learning and validation with robots)

- Dates 06/2010 – 12/2010 (Viva: December 2010)
- Role Co-supervisor (Supervisor: Stefano Puglisi-Allegra)
- Degree Laurea Magistrale - Corso di Neuroscienze Cognitive e Riabilitazione Psicologica (MA Science in Cognitive Neuroscience and Psychological Rehabilitation)
- Institute Department of Medicine and Psychology, University of Rome "La Sapienza", Rome, Italy
- Candidate Massimiliano Patacchiola
- Title of thesis Percezione corporea mediante reti neurali (Body perception with neural networks)
  
- Dates 12/2009 – 05/2010 (Viva: 24 May 2010)
- Role Co-supervisor (Supervisor: Loredana Zollo)
- Degree Laurea Specialistica in Ingegneria Biomedica (MA Science in Biomedical Engineering)
- Institute University Campus Bio-Medico, Rome, Italy
- Candidate Anna Lisa Ciancio
- Title of thesis Controllo di una mano robotica antropomorfa basata sull'uso congiunto di CPG e rete neurale con apprendimento per rinforzo (Control of a robotic anthropomorphic hand based on CPGs, neural networks, and reinforcement learning)
  
- Dates 30/09/2006 – 14/12/2007 (Viva: 14 December 2007)
- Role Co-supervisor (Supervisor: Stefano Puglisi-Allegra)
- Degree Laurea Triennale in Psicologia (Master Thesis in Psychology)
- Institute Department of Psychology, University of Rome "La Sapienza", Rome, Italy
- Candidate Alberto Venditti
- Title of thesis Vigore nell'azione in esperimenti di condizionamento operante nei ratti: un modello computazionale (Vigor of action in experiments of instrumental conditioning with rats: a computational model)
  
- Dates 01/04/2006 – 14/03/2005 (Viva: 14 March 2005)
- Role Co-supervisor (Supervisor: Orazio Miglino)
- Degree Laurea in Psicologia Generale e Sperimentale (Master Thesis in Psychology)
- Institute Department of Psychology, University of Rome "La Sapienza", Rome, Italy
- Candidate Francesco Mannella
- Title of thesis Apprendimento per rinforzo ed esplorazione dello spazio in Gallus-Gallus: un modello computazionale (Reinforcement learning and exploration of space in Gallus-Gallus: a computational model)

## OTHER ACHIEVEMENTS

### AWARDS AND SCHOLARSHIPS

- Date 25/08/11
- Positioning for Best Conference Articles Second Best Conference Paper
- Bodies Assigning the Prize Prizes Committee, International Conference on Development and Learning (ICDL-2011)
  
- Date 10/1998 – 10/2001
- PhD Scholarship Full funding for 3 year PhD
- Institute Department of Computer Science, University of Essex, Colchester, UK
- Bodies Assigning the Scholarship Head of Department and Postgraduate Research Committee
  
- Date 1998
- Prize "Angelo Costa" Prize 1997 for Best National MA Research Thesis in Economics
- Bodies Assigning the Prize Rivista di Politica Economica, International Evaluation Committee, Rome

**KEYNOTES IN CONFERENCES,  
INTERNATIONAL SCHOOLS**

• Date	11/10/2013
Venue	CNR (National Research Council), Rome, Italy.
Event, Type of Presentation	Plenary presentation
Title of Presentation	Computational Models of Intrinsic Motivations for Robots and Animals
• Date	10-15/02/2013
Venue	Schloss Dagstuhl, Leibniz-Zentrum für Informatik, Dagstuhl, Germany
Event, Type of Presentation	Invited speech at Dagstuhl Seminar 13072 "Mechanisms of Ongoing Development in Cognitive Robotics"
Title of Presentation	What Are Intrinsic Motivations? A Biological and Computational Perspective
• Date	03-08/12/12
Venue	Frankfurt am Main, Germany
Event, Type of Presentation	International Winter School on Intrinsically-Motivated Cumulative-Learning Versatile Robots
Title of Presentation	Intrinsic Motivations: Functions, Brain Mechanisms, and Computational Models
• Date	28/02/2012
Venue	Department of Psychology, University of Rome "La Sapienza", Rome, Italy
Event, Type of Presentation	Plenary presentation
Title of Presentation	Intrinsic Motivations for Cumulative Learning in Organisms and Robots
• Date	24-27/08/11
Venue	Frankfurt am Main, Germany
Event, Type of Presentation	Presentation at the International Conference on Development and Learning and Epigenetic Robotics (Special session dedicated to IM-CLeVeR project)
Title of Presentation	Bio-constrained models of the Board Experiment with Children and Monkeys
• Date	24-27/08/11
Venue	Frankfurt am Main, Germany
Event, Type of Presentation	Presentation at the International Conference on Development and Learning and Epigenetic Robotics (Special workshop dedicated to the IM-CLeVeR project)
Title of Presentation	The IM-CLeVeR Project: Intrinsic Motivations in Animals and Robots
• Date	7/05/2011
Venue	Capo Caccia, Sardinia, Italy
Event, Type of Presentation	Plenary presentation at the Capo Caccia Cognitive Neuromorphic Engineering Workshop
Title of Presentation	The IM-CLeVeR Project: Concept, Objectives and Achievements
• Date	20/08/2010
Venue	Ann Arbor, USA
Event, Type of Presentation	Presentation within Workshop at the International Conference on Development and Learning (ICDL2010)
Title of Presentation	The IM-CLeVeR Project Update
• Date	18/01/2010
Venue	Sestri Levante, Italy
Event, Type of Presentation	Invited presentation at The iCub Workshop
Title of Presentation	Cumulative Learning of Skills in Robots
• Date	14/11/2009
Venue	Venice, Italy
Event, Type of Presentation	Keynote speech, International Conference on Epigenetic Robotics (EpiRob09), First Workshop on Intrinsically Motivated Cumulative Learning in Animals and robots



Title of Presentation IM-CLeVeR - Intrinsically Motivated Cumulative Learning Versatile Robots

• Date 20/12/2005

Venue Department of Psychology, University of Trieste, Trieste, Italy

Event, Type of Presentation Plenary Lecture

Title of Presentation Un modello computazionale, basato su reti neurali ed apprendimento per rinforzo, di pulcini che imparano a localizzare il centro di arene chiuse (A computational model, based on neural networks and reinforcement learning, of chicks that learn to localise the centre of close arenas)

### CONFERENCE CHAIR AND PROGRAM CHAIR

• Date 6-8/06/2013

Venue Rome, Italy

Role Chair

Event Second International Workshop on Intrinsic Motivations and Open-ended Development in Animals, Humans and Robots (IMOD-2013)

Website <http://www.im-clever.eu/announcements/events/cnr-workshop-on-intrinsic-motivations>

• Date 15-17/11/2009

Venue Rome, Italy

Role Chair

Event First International Workshop on Intrinsic Motivations and Open-ended Development in Animals, Humans and Robots (IMOD-2009)

Website <http://www.im-clever.eu/documents/announcements/events/im-clever-international-workshop>

• Date 25-29/09/2006

Venue Rome, Italy

Role Co-chair

Event From Animals to Animats 9 – The Ninth International Conference on Simulation of Adaptive Behavior (SAB2006)

Website <http://www.informatik.uni-trier.de/~Ley/db/conf/sab/index.html>

• Date 26/06/2008

Venue Munich, Germany

Role Co-Chair

Event Fourth Workshop on Anticipatory Behavior in Adaptive Learning Systems (ABiALS 2008)

Website <http://www.psychologie.uni-wuerzburg.de/ABiALS/call.html>

• Date 30/09/2006

Venue Rome, Italy

Role Co-Chair

Event Third Workshop on Adaptive Behavior in Anticipatory Learning Systems (ABiALS 2006)

Website <http://www.psychologie.uni-wuerzburg.de/ABiALS/ABiALS2006/>

### SCIENTIFICS INTERESTS

#### COMPLEX ADAPTIVE SYSTEMS

#### MACHINE LEARNING

- Self-organisation mechanisms
- Embodied and situated learning systems
- Neural networks (feed-forward networks, echostate networks, self-organasing networks, deep-belief networks)
- Reinforcement learning (TD, policy search methods), supervised learning, unsupervised learning, Hebbian learning
- Evolutionary algorithms
- Architectures for hierarchical motor learning
- Basics of probabilistic/Bayesian systems

- ROBOTICS
  - Intrinsically-motivated, goal-based, open-ended learning in robots
  - Autonomous learning of hierarchies of motor skills
  - Dynamic movement primitives
- PSYCHOLOGY
  - Extrinsic (appetitive and aversive/homeostatic) motivations, intrinsic motivations
  - Classical and instrumental conditioning (habitual and goal-directed behaviour)
  - Hierarchical organisation of motor control
  - Embodied cognition
  - Bottom-up and top-down attention
- SYSTEM NEUROSCIENCE
  - Computational system neuroscience
  - Basal ganglia (ventral, dorsomedial, and dorsolateral BG)
  - Visual cortical pathways (ventral and dorsal; sensorial and motor)
  - Prefrontal cortex system
  - Amygdala, hippocampus, cerebellum
  - STDP, Hebbian learning, dopamine-based trial-and-error learning, cereb. supervised learning
  - Mental diseases
- ECONOMICS
  - General economic systems, policy making
  - Agent-based models
  - Value, subjective well-being

### PROFESSIONAL EXPERIENCE

- Dates 04/1996 – 03/1997
- Name and address of employer ELIS - Educazione Lavoro Istruzione Sport, Rome
- Type of business or sector No-profit body for instruction and professional training
- Occupation or position held Civil Service Officer
- Main activities and responsibilities Preparation of professional courses. Preparation of European Projects.

### PERSONAL SKILLS AND COMPETENCIES

MOTHER TONGUE **ITALIAN**

OTHER LANGUAGES **ENGLISH**

- Reading skills Excellent
- Writing skills Excellent
- Verbal skills Excellent
- Certificate Toefl test (November 1997) Final mark: 610/668
- Experiences abroad
  - 3 years in England in academic environment (PhD: 1998-2001)
  - 6 months in the United States in familiar environment (1987, 1988, 1991)

COMPUTER SKILLS

- Excellent programming general skills
- Prolongued experience with programming languages: C, C++, Matlab
- Daily-user knowledge of Windows and Linux operative systems
- Daily-user knowledge of Open Office

PERSONAL SKILLS

- Excellent supervisory and teaching skills, based on a deep capacity to understand the others
- Very open-minded
- Empathic, concerned behaviour
- Deeply analytic (sometimes perfectionist); intermittently highly/low synthetic

EDITORIAL ACTIVITIES

- Referee for:
- Intelligent Systems
  - Artificial Life
  - Adaptive Behavior
  - Journal of Autonomous Robots
  - IEEE Transactions on Neural Networks
  - IEEE Transactions on Evolutionary Computation
  - Quarterly Journal of Cognitive Science

ARTISTIC SKILLS AND COMPETENCES	<ul style="list-style-type: none"> <li>• Basic level for piano (4 years private lessons) and guitar (self-educated)</li> <li>• Good skill in artistic and technical design</li> <li>• Excellent manual skills (acquired making wooden and iron objects)</li> </ul>
MILITARY SERVICE	04/1996 – 03/1997: Alternative civil service in no-profit body “ELIS – Istruzione Lavoro e Sport”, Rome
DRIVING LICENCE	Drive car licence (Italian “Patente B”)

# Publications

## Theses (Italian and English)

1. Baldassarre G. (1997). *Reti neurali ed algoritmi genetici per i modelli simulativi di teoria della razionalità limitata - Applicazioni ai mercati oligopolistici*. Tesi di Laurea. Roma: Facoltà di Economia e Commercio, Università di Roma "La Sapienza".
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