

CV and topics Luca Maria Gambardella



Luca Maria Gambardella is Director of IDSIA,
Dalle Molle Institute for Artificial Intelligence, SUPSI-USI in Manno,
Professor of Advanced Algorithms and Artificial Intelligence.
Phd in Engineering Sciences and Technology
MD Computer Science

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Biography:

- since 2016 Member of the BRIDGE Discovery Evaluation Panel
- since 2016 Director of the Artificial Intelligence Master, Informatics Faculty, USI, University of Lugano
- 2015 President of the EURO Excellence in Practice Award EEPA 2015
- since 2015 Phd in Engineering Sciences and Technology, ULB, École Polytechnique de Bruxelles, BE
- 2012-2013 Jury member of the EURO Excellence in Practice Award EEPA 2012-2013
- since 2012 Responsible of the SUPSI Master MSE Research Unit in Intelligent Systems, Manno
- since 2012 Director of IDSIA, Manno
- since 2011 President of the Swiss Operations Research Society (SVOR/ASRO)
- 2007-2011 Director of the Intelligent System Master, USI, University of Lugano
- 2006 Adjunct Professor, Informatics Faculty, USI, University of Lugano
- since 2006 Lecture of Artificial Intelligence, Informatics Faculty, USI, University of Lugano
- since 2006 Technology consultant for TicinoTransfer and Fondazione Agire, Lugano. Interface between academic institutions and industrial partners to introduce and promote innovation
- 2003 Professor SUPSI, University of Applied Science of Southern Switzerland, Manno
- since 2001 Chief Scientific Officer of AntOptima sa, a spin-off of IDSIA, Lugano
- since 1998 Lecture of Advanced Algorithms, SUPSI Dep. of Technology and Innovation, Manno
- 1995-2012 co-Director of IDSIA, Lugano-Manno
- 1992 Visiting Senior Scientist at the International Computer Science Institute, Berkeley, CA, USA
- 1988-1995 Research Director at IDSIA, Lugano
- 1986-1988 CEO of Archimede sas. Expert Systems, Artificial Intelligence, Lisp, Italy
- 1985 Master in Computer Science, University of Pisa, Italy

Topics:

Artificial Intelligence with focus on meta-heuristics algorithms, machine learning and swarm intelligence
Operational Research and IT with focus on scheduling, vehicle routing and robust optimization
Autonomous Devices/Robotics with focus on robotic swarm, mobile robots and drones.

Management Experiences:

- Director of IDSIA (approximately 60 staff members).
- He has been awarded more than 14.0 million CHF in research funding for his research lab, (including other labs and partners the total amounts to more than 59 million CHF).
- He has been awarded 23 Swiss National Science Foundation projects (17 as principal investigator), 7 European Projects, 14 CTI Projects (12 as principal investigator), 1 Hasler Foundation Project, 8 Industrial projects (6 as principal investigator).
- Supervisor of 14 PhD theses (four in progress).
- Responsible SUPSI Master MSE Research Unit in Intelligent System.
- Responsible USI Master in Artificial Intelligence.

Citations:

- He has proposed and published several state of the art bio-inspired distributed optimization algorithms for the travelling salesman problem, the vehicle routing problem with time windows, the quadratic assignment problem, the sequential ordering problems, and the flexible job shop problem.
- He has published 282 papers including peer review journals (76) international conferences (187) book chapters (18) and book(1).
- The total number of citations to his papers is more than 40'400 (source: Google scholar). His h-number is 60.
- His paper on Ant Colony Optimization (IEEE 1997) received more than 8'000 citations and it is the second most cited paper ever published by the IEEE Transactions on Evolutionary Computation. His paper on Ant Colony Optimization (Artificial Life 1999) received more than 3,200 citations and it is the most cited paper ever published by the Artificial Life journal.

Patents:

- European Patent Office. Designation as inventor. Patent n.: 13181909.6 – 1806. Date: 13.11.2013. Title: Method for recharging an accumulator of an electric vehicle.
- Swiss Patent. Sistema di guida di un drone. Patent PAR006BCH, 0082/15
- Pending International Patent Application on Boiler application
- Pending European Patent Application on "Surface Interpreter"

Recent Awards:

- Special Swiss ICT Award 2016: "Istituto Dalle Molle di Studi sull'Intelligenza Artificiale" it represents one of the best research institutes at the international level in the field of bio-inspired artificial intelligence. (with Juergen Schmidhuber).
- "Watt d'Or", Swiss award for best energy projects 2015, category "Energy technologies", Scuola universitaria professionale della Svizzera italiana & Alpiq InTec Gruppe with project GridSense.