

## CURRICULUM VITAE, LUCA MARIA GAMBARDELLA, 2020



Full Professor, Faculty of Informatics, USI, University of Lugano  
Dalle Molle Institute for Artificial Intelligence, USI-SUPSI, Lugano  
Artificial Intelligence Master Director, Faculty of Informatics, USI, Lugano  
Phd in Engineering Sciences and Technology  
MD Computer Science

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### PROFESSIONAL PREPARATION AND APPOINTMENTS:

#### Professional Appointments

2020 - now Co-Founder & CTO Head of Applied AI, Artificially SA, Lugano  
2016 - now Director, Artificial Intelligence Master, Faculty of Informatics, USI, University of Lugano  
2012 - 2020 Director, IDSIA, Dalle Molle Institute for Artificial Intelligence, USI-SUPSI, Manno  
2012 - 2020 Director, SUPSI Master MSE Research Unit in Intelligent Systems, Manno  
2007 - 2011 Director, Intelligent System Master, USI, University of Lugano  
2001 - 2020 Chief Scientific Officer of AntOptima sa, a spin-off of IDSIA, Lugano  
1995 - 2012 co-Director, IDSIA, Lugano-Manno  
1988 - 1995 Research Director, IDSIA, Lugano

#### Academic Appointments

2020 - now Full Professor, Faculty of Informatics, USI, University of Lugano  
2006 - 2020 Adjunct Professor, Faculty of Informatics, USI, University of Lugano  
2003 - 2020 Professor SUPSI, University of Applied Science of Southern Switzerland, Manno  
1992 Visiting Senior Scientist, the International Computer Science Institute, Berkeley, CA, USA

#### Professional Preparation

2015 PhD in Engineering Sciences and Technology, ULB, École Polytechnique de Bruxelles, BE  
1985 Master in Computer Science, Faculty of Informatics, University of Pisa, Italy

#### Lectures (semester courses)

2018 - now Artificial Intelligence, Master of Artificial Intelligence, Faculty of Informatics, USI, Lugano  
2008 - 2010 Heuristics, Intelligent Systems Master, Informatics Faculty, USI, Lugano  
2007 - now Advanced Algorithms, PAP class, SUPSI Department of Technology and Innovation, Manno  
2006 Applications of Discrete Optimization, Master and PHD course, Milan Polytechnic  
2006 - now Artificial Intelligence, Bachelor in informatics, Faculty of Informatics, USI, Lugano  
1998 - now Advanced Algorithms, SUPSI Department of Technology and Innovation, Manno

## **Summary of Service and Other Professional Appointments**

2016 - now Member, the Swiss BRIDGE Discovery Evaluation Panel

2015 President, the EURO Excellence in Practice Award EEPA 2015

2012 - 2013 Jury member, the EURO Excellence in Practice Award EEPA 2012-2013

2011 - 2017 President, the Swiss Operations Research Society (SVOR/ASRO)

## **RESEARCH INTERESTS:**

- Artificial Intelligence with focus on meta-heuristics, swarm intelligence and machine learning.
- Robotics with focus on robotic swarms, mobile robots, drones and educational robotics.

## **SUMMARY OF ACADEMIC LEADERSHIP ACTIVITIES:**

- He has been awarded more than 16.0 million CHF in research funding for his research lab, (including other labs and partners the total amounts to more than 61 million CHF).
- He has been awarded 26 Swiss National Science Foundation projects (20 as principal investigator), 7 European Projects, 15 CTI/Innosuisse Projects (13 as principal investigator), 1 Hasler Foundation Project, 10 Industrial projects (6 as principal investigator).
- Supervisor of 13 PhD theses (five in progress).

## **SUMMARY OF SCHOLARLY PUBLICATIONS:**

- 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.
- He has published more than 300 papers. The total number of citations to his papers is more than 55'000 (source: Google scholar). His h-number is 70.

## **RECENT AWARDS:**

- HRI 2019 Best demo award and honorable mention for best video award, 2019.
- SNF Optimus Agora Prize in 2018 for the project "Introducing People to Research in Robotics through an Extended Peer Community in Southern Switzerland"
- Special Swiss ICT Award 2016: IDSIA 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.

## **PATENTS:**

- Patent n.: 13181909.6 Method for recharging an accumulator of an electric vehicle.
- Patent. Sistema di guida di un drone. Patent PCT/IB2016/050192
- European Patent Nr. 16 200 826.2 EP3326749 "Surface Interpreter"

## **ARTWORK INSTALLATION:**

- "NeuralRope#1. Inside an Artificial Brain", with Alex Dorici. Pedestrian Tunnel Lugano-Besso. An interactive permanent installation of 100m reproducing an Artificial Neural Networks, 2019