



UNIVERSITY OF GENOA
DIME Department of Mechanical, Energy, Management and Transportation Engineering
TEC Division – Therma Energy, Energetics and HVAC
Via All’Opera Pia, 15/A – 16145 Genoa – Italy
phone +39 0103532880 – fax +3910311870 – e.mail tgl@dittec.unige.it

Curriculum vitae Prof. Ing. Luca A. TAGLIAFICO (Short Curriculum)

Full time Professor at the POLYTECHNIC SCHOOL of the University of Genoa
Department of Mechanical Engineering, Energy Management and Transportation (DIME)
Scientific Subject Sector ING-IND / 10 - Industrial Technical Physics

Born in Genoa
Degree in Mechanical Engineering with 110/110 points and honors in 1981

CURRENT POSITIONS

Teaching

Lecturer in charge of the following courses at the Polytechnic School:

- Energetics and Applied Thermodynamics (CLM Mechanical Engineering Energy and Aeronautics): Energy Module and Refrigeration Module
- Building Physics (CLM Building Retrofitting Engineering) Lighting module

Research

- Coordinator of the Research Unit of Genoa of the PRIN 2015 Project Clean Heating And Cooling Technologies For An Energy Efficient Smart Grid
- Contact person for various contracts with industry (most recent October 2021)
- Member of the Energy Saving Working Group of the University of Genoa (since year 2000)
- Eligible candidate as a member of the Evaluation Committee ASN 2018-2020
- Coordinator of the Research Unit of Genoa of the FIRS2019 Project “SUSSTAINEBLE” – 2021-2023

Coordination

- Coordinator of the PhD course in Mechanical, Energy and Management Engineering (PhD IMEG)
- Representative for Italy at the International Institute of Refrigeration (IIR) and member of Commissions B2, A1 with E2.
- Inserted in the lists of the MISE and MIUR Ministries for the evaluation of the national research projects
- Contact person for Liguria, Tuscany and Emilia Romagna of the Executive of the Italian Association of Technical Physics
- Contact person for the Order of Engineers of the Province of Genoa in the UNI Group on Energy Savings in Buildings UNI / CT 023 and UNI / CT 023 / GL 10

Personal profile

Graduated in 1981, after a brief experience in industry in 1982, he carried out his research and teaching activity at the University of Genoa, as a professor of engineering, where he served as a researcher in Technical Physics since November 1983. Formerly invited professor at the Institut Polytechnique de Grenoble, France, in the role of Maitre de Conferences 2me class, he moved to the role of associate professor in 1992 and that of full professor in 1.2.2000.

Author of over 170 printed publications and scientific reviewer of many international journals, he continues to carry out research in his field with commitment, producing as co-author about 5 new publications per year indexed on Scopus. He currently has 82 works indexed on Scopus and has an "H-index" of 17, with about 870 citations (the overall national medians in its SSD are 6 and 123 respectively) and is registered in the list of suitable professors as commissioner for national scientific qualification (ASN 2018-2020)



In recent years he held the following institutional positions:

- Director of the II level Master in Large-scale Industrial Plant Engineering (2002-2004)
- President of the Council of Study Programs in Mechanical Engineering (which included CL and CLM Mechanical Engineering, CLM Mecchatronic eng., CLM Mechanical and Aeronautical eng.) (2004 - 2011, renewed elected office)
- Director of the International Master "Master in Innovative Technologies for Energy Saving and Environmental Control - GreenMA", European project Tempus nr. 530620-TEMPUS-1-2012-JPCR (2015).
- Director of the International MASTER MARUEEB Innovative Technologies in Energy Efficient Buildings for Russian and Armenian Universities and Stakeholders (MARUEEB) - European Project MARUEEB project 561890-EPP-1-2015-1-IT-EPPKA2-CBHE-JP (2016-17)

Research activity

He carries out research activities at UNIGE since 1981, in the field of heat transfer, applied thermodynamics, thermal and fluid dynamics, energy, with particular reference to energy processes, renewable energy resources and technological innovation in refrigeration and environmental conditioning systems, green buildings.

He studied environmental impact analysis and energy saving for civil and industrial plants for the rational use of energy for several years. Since 2002 he has been studying engineering and thermodynamic aspects on the subject of solar-assisted heat pumps. His actual specific field of interest is room-temperature magnetic refrigeration (RTMR), a sector for which he is a member of the scientific committee of the Magnetic Refrigeration Working Group of the IIR (International Institut of Refrigeration - Commission B2 , A1 with E2).

He works in the role of reviewer of research and technology transfer projects for MIUR (Ministry of Education, University and Research) and for MAP (Ministry of Productive Activities), MISE (Ministry of Economic Development) and various Regional districts (Lazio, Veneto, Umbria, Puglia).

He is an expert member and reviewer of projects for the European Community (FP6, FP7, and others) in the field of energy and renewable energy resources.

5 selected papers

1. L. Tagliafico, G. Tanda "A thermodynamic method for the comparison of plate-fin heat exchanger performance", ASME Journal of Heat Transfer, Technical Note, Vol 118, pp.805-809, 1996.
2. F. Scarpa, L.A. Tagliafico, G. Tagliafico, "Integrated Solar-Assisted Heat Pumps For Water Heating Coupled To Gas Burners; Control Criteria For Dynamic Operation", Applied Thermal Engineering, Vol. 31, no.1, 2011.
3. De Rosa M., Ruiz-Calvo F., Corberan J.M., Montagud C., Tagliafico L.A.: "A novel TRNSYS type for short-term borehole heat exchanger simulation: B2G model", Energy Conversion and Management, Vol. 100, 2015.
4. Mattia De Rosa; Vincenzo Bianco; Federico Scarpa; Luca A. Tagliafico; Historical trends and current state of heating and cooling degree days in Italy; 10.1016/j.enconman.2014.11.022; Energy Conversion And Management, 2015
5. Bianco, V., De Rosa, M., Scarpa, F., Tagliafico, L.A., "Analysis of energy demand in residential buildings for different climates by means of dynamic simulation", International Journal of Ambient Energy 37 (2), pp. 108-120, 2016.

Genoa, 07/nov/2021

(Prof. Ing. Luca A. Tagliafico)

I authorize the publication of this curriculum on internet portals