



# Luca Antonio Tagliafico

Full professor

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## *Education and training*

1981

### **Laurea Ingegneria Meccanica (Master Degree in Mechanical Engineering)**

Thermal transients in variable physical properties materials effects on the final stress-strain conditions

University of Genoa - Genoa - IT

1976

### **Maturità Classica**

57/60

Liceo Classico 'Andrea D'Oria' - Genoa - IT

## *Academic experience*

2000 - ONGOING

### **Full Professor**

University of Genoa - Genoa - IT

Teaching and Research in Applied Engineering thermodynamics and Heat Trasfer Air Conditioning and building physics. Management acitivities for Master and DOctorate courses.

1992 - 1999

### **Asociate Professor**

University of Genoa

## *Language skills*

### **Italian**

Mother tongue

### **English**

Proficient

### **French**

Basic

## *Teaching activity*

Courses held at present (as Full Professor of Applied Technical Physics)

Energy and Mechanical Engineering Thermodynamics

Heating, ventilation and Air conditioning plants

Lighting

Also hold in the past in variuos ways, the following courses:  
Energy management systems for HVAC (CLS Mechanical Eng)  
Environmental COnditioning 1 (CLS Biomedical Engineering)  
Renewable Energy 1 (CLS Mechanical Eng)  
Energy 2 (CLS Mechanical Eng)  
Refrigeration 1 (CLS Mechanical Eng)  
Management of energy systems for air conditioning (CLS Mechanical Eng)  
Materials for Renewable Energy (CLS Industrial Chemistry)  
Applied Thermodynamics (Eng. Mech.)  
Technical equipments (Civil Eng),

## ***Postgraduate research and teaching activity***

### **Supervision of PhD students, residents and post-doctoral fellows**

Tutor for several PhD Students since 1993 (as a mean, one per year) with some additional researchers

### **PhD committees membership**

Head of the PhD IMEG (Mechanical, Energy and Management Engineering)

## ***Research interests***

Born 19.2.1957 un Genoa (Italy). Luca A. Tagliafico is full professor of Engineering Thermodynamics and Heat Transfer at the Engineering Faculty of the University of Genoa since Feb. 2000. He is the Dean of the Mechanical Engineering Bachelor and Master degree at the Engineering Faculty of University of Genoa since dec. 2004. He is author of more than 100 scientific papers and operates as a reviewer for the journals Int. J. of Refrigeration and for Int. J. of HVAC&Research, IL FREDDO, Heat and Technology, Rev. General de Thermique. He develops research activities at DITEC since 1981 in the fields of heat transfer, thermal and fluid dynamics and engineering thermodynamics. His early works are related to polymer extrusion technologies, cooling techniques and power conversion systems. In more recent years he has been studying optimisation techniques for heat transfer equipment in several applications, such as space radiators, small refrigeration appliances (house-hold and super-market refrigerators), in the framework of a study on the reduction of energy consumption in household appliances (with industrial and governmental grants). More recently he is working on energy and environmental issues of industrial and civil plants for rational use of energy and exploitation of renewable energy resources, coupled to advanced refrigeration systems and heat pumps. Since year 2002 his research group is involved in the studies on magnetic refrigeration systems at room temperatue and thermodynamic related problems. In 2005 he joined the scientific advisory board of the Int. Conference on Magnetic Refrigeration at Room Temperature, and became a member of the IIR Working Party (Commission B2 - A1 with E2). He is memembr of ASME, IIR, UIT, ATI. (updated 18.05.2010)

Conducts review of research projects and technology transfer for the MIUR (Ministry of Education, University and Research) and MAP (Ministry of Productive Activities), the MSE (Ministry of Economic Development) and several regions (Lazio, Veneto, Umbria, Puglia).

Since 1981, holds at the DIPTM (TEC sec.) research in the field of heat transfer, applied thermodynamics, the fluid dynamics and energetics, with particular reference to energy processes, renewable energy and technological innovation in refrigeration.

He has worked in the past on plasticating processing and optimization and thermodynamics thermokinetics components for cooling and refrigeration. He furthermore employed optimization methods of heat transfer in various technological fields, such as: i) thermodynamic methods (first and second law of thermodynamics) for the optimization of compact heat exchangers ii) minimization of innovative liquid mass radiators (in liquid droplets and liquid sheets, LDR and LSR-tube heat pipes HPR) in power plants for space applications, iii) study of refrigeration systems and optimization of energy components (condensers and evaporators) for household refrigerators and freezers.

It also deals, in recent years, analysis of environmental impact and energy saving systems for civil and industrial use of energy. Since 2002 he is studying engineering and thermodynamic aspects on magnetic refrigeration at room temperature. For this subject he is part of the scientific committee of Magnetic Working Group of Refrigeration IIR (International Institute of Refrigeration - Commission B2, A1 with E2).

Member ASME, IIR, ITU, ATI.

My bibliometrics:(Scopus, 28.2.2018)

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Documents: 72 - citations 550 from 466 documents - average citations per paper: 5.42 - h-INDEX 13 .

Results of the National Italia Research evaluation Exercise (VQR) 2010-2014: 100%