Prof. Dr. Giulio Lorenzini

University of Parma

Department of Industrial Systems and Technologies Engineering

Parco Area delle Scienze, 181/A - 43124 Parma (Italy)

mobile phone: +39-392-0887454; email: giulio.lorenzini@unipr.it

Biography in brief

- **1972**: 29 June, born in Bologna (northern Italy)
- **1989**: High school ("liceo classico") diploma (evaluation equal to 60/60)
- **1994**: Master Degree in Nuclear Engineering at Alma Mater Studiorum-University of Bologna (Italy) in 1994 with a "cum laude" evaluation. Thesis related to the course: "Fisica Tecnica" ("Technical Physics")
- **1995**: Professional State Examination awarded in 1995 with an evaluation equal to 120/120
- **A.Y. 1995-'96**: First classified with an evaluation equal to 120/120 in the Academic Year 1995-'96 at the PhD Course admission exam in Nuclear Engineering at Alma Mater Studiorum-University of Bologna
- **1999**: PhD in Nuclear Engineering
- **01.10.1996 – 30.09.2005**: Researcher in "Fisica Tecnica Industriale" ("Industrial Technical Physics") at Alma Mater Studiorum-University of Bologna
- **2002**: Winner of a national competition for the role of Associate Professor of "Fisica Tecnica Industriale" (" Industrial Technical Physics")
- **01.10.2005 – 31.10.2010**: Associate Professor of "Fisica Tecnica Industriale" (" Industrial Technical Physics") at Alma Mater Studiorum-University of Bologna (Italy)
- **2010**: Winner of a national competition for the role of Full Professor of "Fisica Tecnica Ambientale" ("Environmental Technical Physics")
- **01.11.2010 – today**: Full Professor of "Fisica Tecnica Ambientale" ("Environmental Technical Physics") at the University of Parma (Italy)
- **h-index so far: 42** (www.scopus.com)

- **2020 -**: included in Stanford University's "**World's top 2% Scientists**" yearly publication (DOI: 10.13140/RG.2.2.18594.45767)

Scientific and editorial encharges

- Editor-in-Chief for Europe of the *JP Journal of Heat and Mass Transfer* [Scopus-indexed], 2024

- Editorial Board Member of *Frontiers in Heat and Mass Transfer* [Scopus-indexed], 2024

- Guest Editor *Water Science & Technology* (ISSN: 0273-1223), "Special Issue on Applications of Machine Learning and Artificial Intelligence Methods for Sustainable Water Resource Management", 2023

- Advisory Committee Member of the 12th Constructal Law Conference "Freedom, Design and Evolution", Turin, Italy, 21-22 September 2023

- Editor-in-Chief of the international scientific journal **International Journal of Design & Nature and Ecodynamics**, IIETA Publisher (Canada), ISSN:1169-7954 (Print); 1958-5799 (Online), since 20-01-2021

- Editor-in-Chief of the international scientific journal **Revue des Composites et des Matériaux Avancés**, IIETA Publisher (Canada), ISSN:1169-7954 (Print); 1958-5799 (Online), since 29-07-2019

- Editor-in-Chief of the international scientific journal **Mathematical Models of Engineering Problems**, IIETA Publisher (Canada), ISSN:2369-0739 (Print); 2369-0747 (Online), since 08-02-2018

- Guest Editor della Special Issue "Cleaner Energy and Greener Environment: Problems, Solutions and Applications" della rivista scientifica internazionale **Alexandria Engineering Journal**, Elsevier Publisher, ISSN: 1110-0168, 2020. **[ISI JOURNAL]**

- Guest Editor of the Special Issue "Engineering Thermodynamics, Heat Transfer and Fluid Flow in Natural and Industrial Processes" of the international scientific journal **Defect and Diffusion Forum**, Trans. Tech. Publications Ltd. (Switzerland, scientific.net), ISSN: 1662-9507, ISBN-13: 978-3-0357-1329-9, 2017-2019

- Guest Editor della Special Issue "Application of Machine Learning, Artificial Intelligence, Deep Learning and Big Data Analysis in Nanofluids and Nanoparticles Design" della rivista scientifica internazionale **Applied Sciences**, ISSN: 2076-3417, 2020

- Guest Editor della Special Issue **"**Heat Transfer Analysis in Processes of Developing and Applying Renewable Energies and Novel Materials**"** della rivista scientifica internazionale **ASME Journal of Thermal Science and Engineering Applications**, 2018

- Nomination as **Member of the Scientific Council of the International Centre for Heat and Mass Transfer (ICHMT)**, as communicated by the Secretary-General on 22 July 2012

- Elected **Member of the Scientific Council of the International Centre for Heat and Mass Transfer (ICHMT)**, as communicated by the Secretary-General on 29 September 2012

- **Guest Editor** of the "*Special Issue on "Developments in Fundamentals and Applications of Renewable Energy*" (international scientific journal *Thermal Science*, 2017

- **Regional Editor for Europe** of the *International Journal of Heat & Technology* (Publisher: IIETA) since 1 March 2016

- **Associate Editor** of the ASME *Journal of Heat Transfer* (ASME: American Society of Mechanical Engineers) since 1 July 2009

- **Guest Editor** of the ASME *Journal of Heat Transfer* (ASME: American Society of Mechanical Engineers) from 2006 to 30 June 2009

- **Associate Editor** of the ASME *Journal of Electronic Packaging* (ASME: American Society of Mechanical Engineers) from 2004 to 2013

- **Lead Editor** of the "*Special Issue on Advances in Optimization Methods in Heat and Mass Transfer" (ASME Journal of Heat Transfer)*, 2015

- **Editor** of the international scientific journal *Continuum Mechanics and Thermodynamics* (**Springer-Verlag**; ISSN: 0935-1175) since January 2012 (volume 24, issue number 1)

- **Associate Editor** of the *International Journal of Energy and Environmental Engineering*, (**Springer-Verlag**; ISSN: 2008-9163), since 11 July 2014

- **Guest Editor** of the "*Special Issue on Multiscale Discrete Simulation of Complex Systems", Discrete Dynamics in Nature and Society* **[IMPACT FACTOR 2013: 0.82]**, Hindawi Publishing Corporation), 2015

- **Deputy Editor-in-Chief** of the *Journal of Engineering Thermophysics*, an international scientific journal co-published by **Springer-Verlag** (ISSN: 1810-2328) since January 2012 (volume 21, issue number 1)

- **Associate Editor-in-Chief** of the *Journal of Engineering Thermophysics*, an international scientific journal co-published by **Springer-Verlag** (ISSN: 1810-2328) from March 2006 to January 2012

- **Co-Editor-in-Chief** of the *International Journal of Agriculture & Environment*, an international scientific journal (www.engineerspress.com) (ISSN: 2307-2652 online) since March 2013

- **Associate Editor-in-Chief** of *Energy and Power Engineering*, an international scientific journal published in U.S.A. (www.scirp.org) (ISSN: 1949-243X paper; ISSN: 1947-3818 online) since 1 December 2012

- **Editor** of the *Central European Journal of Engineering* since May 2011, an international scientific journal co-published by **Springer-Verlag** (ISSN: 1896-1541 print version; ISSN: 2081-9927 electronic version)

- **Peer Reviewer** since July 2008, as an international scientific expert, for the *Georgian National Science Foundation* (Georgian national institution for the setting of the strategic research – now *Shota Rustaveli National Science Foundation*)

- **Member of the International Advisory Board** of the international scientific journal *Thermal Science* (ISSN: 0354-9836, founded by the Society of Thermal Engineers of Serbia, published by the Institute for Nuclear Sciences, Vincha, Belgrade, Serbia) since 13 August 2012

- **Member of the Editorial Board** of the international scientific journal *Facta Universitatis Mechanical Engineering* [Scopus Indexed] (ISSN 0354-2025; eISSN 2335-0164) dal 23-4-2021

- **Member of the Editorial Board** of the international scientific journal *Reports in Mechanical Engineering* [Scopus Indexed] (eISSN 2683-5894; DOI https://doi.org/10.31181/rme250520p) dal 23-4-2021

- **Membro dell'Editorial Board** della rivista scientifica internazionale *Contemporary Mathematics (CM)* [Scopus Indexed] [ISSN: 2705-1064 (Print) 2705-1056 (Online)] dal 2024

- **Member of the Editorial Board** of the *International Journal of Design & Nature and Ecodynamics* (formerly *International Journal of Design & Nature*), an international scientific journal published in England, since number 1 (vol. 1, no. 1, 2007)

- **Member of the Editorial Board** of *The Open Thermodynamics Journal*, an international scientific journal published online, since number 1 (vol. 1, 2007)

- **Member of the Editorial Board** of *The Open Agriculture Journal*, an international scientific journal, since number 1 (vol. 1, 2007)

- **Member of the Editorial Board** of the *International Journal of Sustainable Development and Planning*, an international scientific journal published in England, since 2009 (vol. 3, no. 1, 2009)

- **Member of the Editorial Board** of the *World Journal of Mechanics*, an international scientific journal published in U.S.A. (www.scirp.org), since October 2011

- **Member of the Editorial Board** of *Natural Science*, an international scientific journal published in U.S.A. (www.scirp.org), since December 2011

- **Member of the Editorial Board** of *Irrigation & Drainage Systems Engineering*, an international scientific journal published in U.S.A. (www.omicsonline.org), since December 2011

- **Member of the Editorial Board** of *Agricultural Science*, an international scientific journal published in U.S.A. (www.scirp.org), since December 2011

- **Member of the Editorial Board** of the *Journal of Agricultural Science and Applications*, an international scientific journal published in U.S.A. (www.j-asa.org), since April 2012

- **Member of the Editorial Board** of *Renewable Bioresources*, an international scientific journal published in U.K. (www.hoajonline.com/renewablebioresources), since January 2013

- **Member of the Editorial Board** of the *International Journal of Mechanic Systems Engineering (IJMSE)*, an international scientific journal published in U.S.A. (www.jomse.org/index.aspx), since January 2013

- **Member of the Editorial Board** of the *Science Road Journal (SRJ)*, an international scientific journal published in Ukraine (www.newcpress.com/index.php/srj-editorial-board), since June 2013

- **Member of the Editorial Board** of the *International Journal of Heat & Technology*, an international scientific journal published online, since July 2010

- **Chairman** of the "Field of Interest-Special Interest Group-Power and Machinery-Fruit and Vegetable Production Engineering" (SIG PM 11) of the EurAgEng (European Society of Agricultural Engineers), since June 2003

- **Scientific Referee** for the following international scientific journals:
    - International Journal of Heat and Mass Transfer
    - International Journal of Thermal Sciences
    - Heat and Mass Transfer
    - ASME (American Society Mechanical Engineers) Journal of Heat Transfer
    - ASME (American Society Mechanical Engineers) Journal of Electronic Packaging
    - ASME (American Society Mechanical Engineers) Journal of Thermal Science and Engineering Applications
    - ASME (American Society Mechanical Engineers) Journal of Solar Engineering
    - Applied Thermal Engineering
    - Chemical Engineering Science
    - Energy
    - Energy Conversion and Management
    - Energy and Buildings
    - Continuum Mechanics and Thermodynamics
    - Scientific Reports
    - Thermal Science
    - Heat Transfer Research
    - Heat Transfer Engineering
    - Thermal Science and Engineering Progress
    - Fluid Dynamics Research
    - International Journal of Low-Carbon Technologies

- Numerical Methods for Partial Differential Equations
- Composite Structures
- International Journal of Green Energy
- International Journal of Energy and Environmental Engineering
- Physica A (Elsevier)
- Chinese Journal of Physics (Elsevier)
- Ain Shams Engineering Journal
- Informatics in Medicine Unlocked
- Journal of Molecular Liquids
- Journal of Thermal Analysis and Calorimetry
- Zeitschrift für Angewandte Mathematik und Mechanik
- Sustainable Energy Technologies and Assessments
- Applied Mathematical Modelling
- Energy Reports
- Reliability Engineering and System Safety
- Journal of Advanced Research in Fluid Mechanics and Thermal Sciences
- CFD Letters
- Journal of Food Engineering
- Biosystems Engineering
- Journal of Thermal Science and Engineering Applications
- Water Resources Research
- Journal of Irrigation and Drainage Engineering
- Transactions of the ASABE (American Society Agricultural Biological Engineers)
- Journal of Molecular Liquids
- International Journal of Environmental Engineering
- Computers and Fluids
- Irrigation Science
- Natural Science
- International Journal of Management Science and Engineering Management
- International International Journal of Design and Nature & Ecodynamics
- Mathematical Problems in Engineering
- The Open Agriculture Journal
- Revista Mexicana de Fisica
- Journal of Agricultural Engineering

- **Member of the International Scientific Committee** of the 7*th International Symposium on Advances in Computational Heat Transfer*, Naples (Italy), 28 May-2 June 2017

- **Member of the Advisory Committee** at the Second International Conference on Mechanical Design and Engineering (ICMDE 2016, www.icmde.org), Turin (Italy), 22-24 January 2016

- **Member of the International Scientific Committee** of the *6th International Symposium on Advances in Computational Heat Transfer*, Rutgers University, New Jersey (USA), 25 - 29 May 2015

- **Member of the International Advisory Committee** of the *3rd International Conference on Power Science and Engineering* (ICPSE 2014, www.icpse.org), Barcelona (Spain), 18 - 20 December 2014

- **Member of the Scientific Comitee** of the *International Conference on Agricultural Engineering CIGR-AgEng 2012*, Valencia (Spain), 8 – 12 July 2012

- **Chairman** of the *First International Conference on Monitoring, Simulation, Prevention and Remediation of Dense and Debris Flows "Debris Flow 2006"*, Rhodes (Greece), 7 – 9 June 2006

- **Chairman** of the *First International Conference on Sustainable Irrigation Management, Technologies and Policies "Sustainable Irrigation 2006"*, Bologna (Italy), 5 – 7 September 2006

- **Chairman** of the *"Direct, indirect and in-situ measurements"* session within the *Twelfth International Conference on Computational Methods and Experimental Measurements "CMEM 2005"*, Malta, 20 – 22 June 2005

- **Chairman** of the *"Irrigation Management"* session within the *First International Conference on Sustainable Irrigation Management, Technologies and Policies "Sustainable Irrigation 2006"*, Bologna (Italy), 5 – 7 September 2006

- **Member of the ISAC (International Scientific Advisory Comitee)** of the *Fifth International Conference on Environmental Problems in Coastal Regions "Coastal Environment"*, Alicante (Spain) 26 – 28 April 2004

- **Member of the ISAC (International Scientific Advisory Comitee)** of the *Fifth International Conference on Advances in Fluid Mechanics "AFM 2004"*, Lisbon (Portugal) 22 – 24 March 2004

- **Member of the ISAC (International Scientific Advisory Comitee)** of the *First and Second International Conferences on Evolution, Monitoring, Simulation, Management and Remediation of the Geological Environment and Landscape "Geo-Environment"*: Segovia (Spain) 5 – 7 July 2004, Rhodes (Greece) 6 – 8 June 2006

- **Member of the ISAC (International Scientific Advisory Comitee)** of the *Third International Conference Comparing Design in Nature with Science and Engineering "Design & Nature 2006"*, The New Forest (England) 22 – 24 May 2006

- **Member of the ISAC (International Scientific Advisory Comitee)** of the *Thirteenth International Conference on Computational Methods and Experimental Measurements "CMEM 2007"*, Prague (Czech Republic), 2 – 4 July 2007

- **Member of the ISAC (International Scientific Advisory Comitee)** of the *Second International Conference on Sustainable Irrigation Management, Technologies and Policies "Sustainable Irrigation 2008"*, Alicante (Spain) 11 – 13 June 2008

- **Member of the ISAC (International Scientific Advisory Comitee)** of the *Second International Conference on Monitoring, Simulation, Prevention and Remediation of Dense and Debris Flows "Debris Flow 2008"*, The New Forest (England), 18 – 20 June 2008

- **Member of the ISAC (International Scientific Advisory Comitee)** of the *Third International Conference on Debris Flow including all aspects of Debris Flow Monitoring, Modelling, Hazard Assessment, Mitigation Measures, Extreme Events, Erosion, Slope Instability and Sediment Transport "Debris Flow 2010"*, Milan (Italy), 24 – 26 May 2010

- **Member of the ISAC (International Scientific Advisory Comitee)** of the *Second International Conference on Second International Conference on Forest Fires "Forest Fires 2010"*, Kos (Greece), 23 – 25 June 2010

- **Editorial Manager** of the *Rivista di Ingegneria Agraria* ("Journal of Agricultural Engineering", an international journal, official publication of the AIIA – Italian Association of Agricultural Engineering, publishing papers in Italian and English), from number 1 – 2002 ("de facto" from number 3 – 2000) to number 1 – 2004

- **Member of the Board of Professors** of the PhD Course in Agricultural Engineering at Alma Mater Studiorum-University of Bologna, from 2004 to 2011

- **Member of the Board of Professors** of the PhD Course in Industrial Engineering at the University of Parma since 2011

- **Member of the Commission** for Italian language knowledge assessment of foreign students (University of Parma, Department of Industrial Engineering)

Prizes and honours awarded

- **1990**: **Prize "Carlo Semenza"** (best student in Calculus), awarded at Alma Mater Studiorum-University of Bologna

- **1995**: **Prize "Prof.Emanuele Foà "** for his Master Degree thesis, awarded at Alma Mater Studiorum-University of Bologna

- **1995**: "***special mention of the Commission***" for his Master Degree thesis, in occasion of the competition organised by the UIT (Italian Union of Thermal Fluid Dynamics)

- **1997**: **letter of congratulations**, at the end of a research period spent by Giulio Lorenzini at the City University of London (UK), sent to his Head of department by Prof. Michael W. Collins (at the time Full Professor at the City University of London, UK) commending the department in "*having a researcher of Ing. Lorenzini's talent in achieving important purposes in so short time*"

- **1997**: **letter of mention**, at the end of a research period spent in England, written by the (at the time) Head of the Department of Mechanical Engineering and Aeronautics at City University (London, UK), Prof. David Thorley, saying "*we have been very impressed by his skill and self denial… we hope to carry on in the future further collaborative research activities with him…*"

- **1997**: **letter of mention**, at the end of a research period spent in England, written by Dr. Francesca Iudicello, at the time Assistant Professor at City University (London, UK), saying "*… his self denial and his ability of understanding the physics of the problems treated is not common… he has highlighted an extraordinary ability in writing high level scientific publications and in presenting his work in English... I and my department have been very impressed by the scientific achievements and potential of Dr. Lorenzini and would like to continue to carry out collaborative work with him...*"

- **1997**: **letter of mention** sent to Prof. Michael W. Collins (City University, London, UK) by Prof. Carlo M. Orlandelli (at that time Prof. Giulio Lorenzini's PhD tutor) saying "*... I have appreciated Giulio Lorenzini's laboriousness as collaborator of mine in research and in teaching… Dr Lorenzini demonstrated enthusiasm towards every task he was encharged of and demonstrated positive abilities in communicating with every member of the staff…*"; in the same document Prof. Orlandelli recommends Giulio Lorenzini to Prof. Collins for his admission to a PhD course in Thermal Fluid Dynamics at City University (London, UK)

- **1997**: **letter of mention** sent to Prof. Michael W. Collins (City University, London) by Prof. Marco Spiga (now Full Professor of "Fisica Tecnica" – ("Industrial Technical Physics") – saying "*...I know Dr Lorenzini as diligent and conscientious, able to produce a valuable contribution in developing the research activity of our department…*"

- **1999**: **letter of mention** by Prof. Carlo M. Orlandelli, at that time Professor of "Gestione dell'Energia" ("Energy Management") at the Faculty of Engineering of the University of Modena-Reggio Emilia at Reggio Emilia, to the Dean of the Faculty Professor Olmes Bisi, saying "*…I suggest Dr Giulio Lorenzini as co-teacher of my course because he is an expert of the subject and he has all the qualifications for this task…*"

- **1999**: **letter of mention** by the Dean of the Faculty of Engineering of the Alma Mater Studiorum-University of Bologna in which he says, on behalf of the whole Faculty, "*... Dr Lorenzini has always fulfilled to his heavy didactical duties with engagement, showing competence and ability in teaching, fully satisfying the Faculty…*"

- **2001**: he is the only "Fisico Tecnico" ("Technical Physics scientist") of the Alma Mater Studiorum-University of Bologna who has been financed by Italian CNR (National Centre of Researches) in the "Agenzia 2000" context, with the research project "Theorical, numerical and experimental analysis of the fluid dynamics optimisation of high thermal fluxes removal through Vapotron effect in industrial problems"

- **2004**: in the third edition of the book "Convection Heat Transfer" by Adrian Bejan (Distinguished Full Professor at Duke University, U.S.A.) Giulio Lorenzini is among those acknowledged for having offered "*help and ideas*"

- **2006:** included, after previous selection among candidates, in the 23rd edition of "Who's Who in the World", published by Marquis (U.S.A.); the book contains biographies of people who distinguished themselves particularly in their professional context

- **2007:** as communicated by Prof. De Wrachien (past-President of EURAGENG, European Association of Agricultural Engineers, and Member Executive Board of CIGR, International Commission of Agricultural Engineering) the journal with impact factor "Irrigation and Drainage" (journal of the ICID, *International Commission on Irrigation and Drainage*) recognises that the paper by Giulio Lorenzini, "Air temperature effect on spray evaporation in sprinkler irrigation" (*Irrigation and Drainage*, 51 (4), 301 – 309, 2002) is *the **10th most quoted paper from 2001 on***

- **2007:** selected as "***best Associate Editor of the year***" for the ASME *Journal of Electronic Packaging* for what relates to the period 2006 – 2007, as communicated by the Editor-in-Chief Prof. Bahgat Sammakia

- **2012:** "**Electronic and Photonic Packaging Division**" **award** (ASME, American Society of Mechanical Engineers) in appreciation to his contributions and outstanding performance as associate editor to the *Journal of Electronic Packaging*

- **2013:** certificate awarded by the *Georgian National Science Foundation* (Georgian national institution for the setting of the strategic research – now *Shota Rustaveli National Science Foundation*) come "***International Peer Reviewer having provided high quality and impartial evaluation of state research grants***"

- **2013:** appointed **member of the scientific jury** (as only Professor of Environmental Technical Physics in Italy) of the "*PREMIO SOSTENIBILITA' 2013*" ("Sustainability Prize 2013"), established by the "Agenzia per l'Energia e lo Sviluppo Sostenibile di Modena" ("Agency for Energy and the Sustainable Development of Modena", Italy) for sustainable construction industry, bio-architecture and city planning, in relation to environmental integration, energy consumption, non-polluting materials and techniques nor harmful for humans

- **2013: scientific reviewer**, invited by the international publisher McGraw-Hill, for the second Italian edition of the monography "Moran, Shapiro, Elementi di fisica tecnica per l'ingegneria (Elements of Technical Physics for Engineers)

- **2019:** in the first edition of the book "*Freedom and Evolution-Hierarchy in Nature Society and Science*" by Professor Adrian Bejan, published by Springer, **Giulio Lorenzini** is acknowledged as one of "**my closest collaborators who pioneered the physics of life, design and evolution everywhere**"

Scientific-professional associations (past and present)

- Member **ASME** (American Society of Mechanical Engineers)

- Member **ASCE** (American Society of Civil Engineers)

- Member **ASHRAE** (American Society of Heating Refrigerating and Air-conditioning Engineers)

- Member **EurAgEng** (European Society of Agricultural Engineers)

- Member **UIT** (Unione Italiana di Termofluidodinamica – Italian Union of Thermal Fluid Dynamics)

- Member **AIIA** (Associazione Italiana di Ingegneria Agraria – Italian Association of Agricultural Engineers)

- Member **AIGE** (Associazione Italiana Gestione dell'Energia – Italian Association of Energy Management)

- Member of the "Ordine degli Ingegneri della provincia di Bologna" ("Engineers Society of Bologna", professional association)

Teaching

He has been co-encharged for the teaching of the following teachings:

- **Fisica Tecnica ("Technical Physics")** (A.Y. 1996-'97; Faculty of Engineering, Alma Mater Studiorum-University of Bologna at Reggio Emilia)
- **Gestione dell'Energia** ("Energy Management") (A.Y. 1996-'97, A.Y. 1997-'98; Faculty of Engineering, Alma Mater Studiorum-University of Bologna at Reggio Emilia)
- **Gestione dell'Energia** ("Energy Management") (A.Y. 1997-'98; Faculty of Engineering, Alma Mater Studiorum-University of Bologna)
- **Gestione dell'Energia** ("Energy Management") (A.Y. 1998-'99; Faculty of Engineering, University of Modena-Reggio Emilia at Reggio Emilia)
- **Fisica Tecnica ("Technical Physics")** (A.Y. 1998-'99; Faculty of Engineering, Alma Mater Studiorum-University of Bologna)

He was (in black) / is presently (in blue) Member or President of the examining commissions for the following teachings:

- **Fisica Tecnica ("Technical Physics")** (A.Y. 1996-'97, A.Y. 1997-'98, A.Y. 1998-'99; Faculty of Engineering, Alma Mater Studiorum-University of Bologna)
- **Fisica Tecnica ("Technical Physics")** (A.Y. 1996-'97, Faculty of Engineering , Alma Mater Studiorum-University of Bologna at Reggio Emilia)
- **Sicurezza ed Analisi di Rischio** ("Industrial Plants Safety and Risk Analysis") (A.Y. 1996-'97; Faculty of Engineering, Alma Mater Studiorum-University of Bologna)
- **Gestione dell'Energia** ("Energy Management") (A.Y. 1996-'97, A.Y. 1997-'98; Faculty of Engineering, Alma Mater Studiorum-University of Bologna at Reggio Emilia)
- **Gestione dell'Energia** ("Energy Management") (A.Y. 1998-'99; Faculty of Engineering, University of Modena-Reggio Emilia at Reggio Emilia)
- **Gestione dell'Energia** ("Energy Management") (A.Y. 1997-'98, A.Y. 1998-'99; Faculty of Engineering, University of Bologna)
- **Fisica Tecnica ("Technical Physics")** (A.Y. 1999- 2000, Faculty of Engineering, Alma Mater Studiorum-University of Bologna at Forlì)
- **Misure Meccaniche, Termiche e Collaudi** ("Mechanical and Thermal Measurements and Tests") (A.Y. 1999-2000; Faculty of Medicine and Surgery, Alma Mater Studiorum-University of Bologna)
- **Fisica** ("Physics") (A.Y. 2003-'04; Faculty of Agriculture, Alma Mater Studiorum-University of Bologna at Cesena)

- **Meccanica e Idraulica Agraria** ("Agricultural Mechanics and Hydraulics") (A.Y. 2003-'04, A.Y. 2004-'05, A.Y. 2005-'06; Specialistic Degree Course in Design and Management of Agro-Land and Forestry Ecosystems and of Landscape, Faculty of Agriculture, Alma Mater Studiorum-University of Bologna)

- **Idraulica Agraria e Riassetto Idraulico del Territorio** ("Agricultural Hydraulics and Hydraulic Land Planning") (A.Y. 2001-'02, A.Y. 2002-'03, A.Y. 2003-'04 A.Y. 2004-'05, A.Y. 2005-'06, A.Y. 2006-'07, A.Y. 2007-'08; Faculty of Agriculture, Alma Mater Studiorum-University of Bologna)

- **Ingegneria Alimentare** ("Alimentary Engineering") (A.Y. 2005-'06, A.Y. 2006-'07, A.Y. 2007-'08); Specialistic Degree Course in Food Science and Technology, Faculty of Agriculture, Alma Mater Studiorum-University of Bologna at Cesena)

- **Elementi di Fisica** ("Elements of Physics") (A.Y. 2005-'06, A.Y. 2006-'07, A.Y. 2007-'08; Faculty of Agriculture, Alma Mater Studiorum-University of Bologna)

- **Fisica** ("Physics") (A.Y. 2008-'09; Faculty of Agriculture, Alma Mater Studiorum-University of Bologna)

- **Fisica Applicata** ("Applied Physics") (A.Y. 2003-'04, A.Y. 2004-'05, A.Y. 2005-'06, A.Y. 2006-'07, A.Y. 2007-'08; Faculty of Agriculture, Alma Mater Studiorum-University of Bologna at Cesena)

- **Fisica Tecnica ("Technical Physics")** (A.Y. 2003-'04, A.Y. 2004-'05, A.Y. 2005-'06, A.Y. 2006-'07, A.Y. 2007-'08, A.Y. 2008-'09, A.Y. 2009-'10, A.Y. 2010-'11; Faculty of Agriculture, Alma Mater Studiorum-University of Bologna at Cesena)

- **Sistemi di Gestione dell'Energia** ("Energy Management Systems") (A.Y. 2004-'05, A.Y. 2005-'06, A.Y. 2006-'07, A.Y. 2007-'08, A.Y. 2008-'09, A.Y. 2009-'10, A.Y. 2010-'11; Specialistic/Master Degree Course in Design and Management of Agro-Land and Forestry Ecosystems and of Landscape, Faculty of Agriculture, Alma Mater Studiorum-University of Bologna)

- **Impianti dell'Industria Alimentare** ("Alimentary Industry Plants") (A.Y. 2010-'11; Degree Course in Food Science and Technology, University of Parma)

- **Energetica** ("Energetics") (A.Y. 2011-'12, A.Y. 2012-'13; A.Y. 2013-'14; A.Y. 2014-'15; A.Y. 2015-'16; A.Y. 2016-'17; Master Degree Course in Food Science and Technology, University of Parma)

- **Fisica Tecnica ("Technical Physics")** (A.Y. 2012-'13; A.Y. 2013-'14; A.Y. 2014-'15; A.Y. 2015-'16; A.Y. 2016-'17; A.Y. 2017-'18; A.Y. 2018-'19; A.Y. 2019-'20; A.Y. 2020-'21; A.Y. 2021-'22; A.Y. 2022-'23; A.Y. 2023-'24; Degree Course in Management Engineering, University of Parma)

- **Fisica Tecnica ("Technical Physics")** (A.Y. 2024-'25; Degree Course in Architecture, University of Parma)

- **Fisica Tecnica ("Technical Physics")** (A.Y. 2011-'12; A.Y. 2012-'13; A.Y. 2013-'14; A.Y. 2014-'15; A.Y. 2015-'16; A.Y. 2016-'17; A.Y. 2017-'18; A.Y. 2018-'19; A.Y. 2019-'20; A.Y. 2020-'21; A.Y. 2021-'22; A.Y. 2022-'23; A.Y. 2023-'24, A.Y. 2024-'25; Degree Course in Food Science and Technology, University of Parma)

- **Problemi Matematici per la Fisica Tecnica ("Mathematical Problems for Technical Physics")** (A.Y. 2022-'23; A.Y. 2023-'24, A.Y. 2024-'25; Degree Course in Food Science and Technology, University of Parma)

He was (in black) / is presently (in blue) Professor of the following teachings:

- **Misure Meccaniche, Termiche e Collaudi** ("Mechanical and Thermal Measurements and Tests") (A.Y. 1999-2000; Faculty of Medicine and Surgery, Alma Mater Studiorum-University of Bologna)

- **Fisica Tecnica ("Technical Physics")** (A.Y. 1999- 2000, Faculty of Engineering, Alma Mater Studiorum-University of Bologna at Forlì)

- **Fisica** ("Physics") (A.Y. 2003-'04; Faculty of Agriculture, Alma Mater Studiorum-University of Bologna at Cesena)

- **Idraulica Agraria e forestale** ("Agricultural and Forestry Hydraulics") (A.Y. 2003-'04, A.Y. 2004-'05, A.Y. 2005-'06; Specialistic Degree Course in Design and Management of Agro-Land and Forestry Ecosystems and of Landscape, Faculty of Agriculture, Alma Mater Studiorum-University of Bologna)

- **Impianti Trattamento Reflui** ("Waste Water Treatment Plants") (A.Y. 2005-'06; Specialistic Degree Course in Food Science and Technology, Faculty of Agriculture, Alma Mater Studiorum-University of Bologna at Cesena)

- **Principi di Idraulica Agroterritoriale** ("Principles of Agro-Land Hydraulics") (A.Y. 2001-'02, A.Y. 2002-'03, A.Y. 2003-'04 A.Y. 2004-'05, A.Y. 2005-'06, A.Y. 2006-'07, A.Y. 2007-'08; Faculty of Agriculture, Alma Mater Studiorum-University of Bologna)

- **Elementi di Fisica** ("Elements of Physics") (A.Y. 2005-'06, A.Y. 2006-'07, A.Y. 2007-'08; Faculty of Agriculture, Alma Mater Studiorum-University of Bologna)

- **Fisica** ("Physics") (A.Y. 2008-'09; Faculty of Agriculture, Alma Mater Studiorum-University of Bologna)

- **Fisica Tecnica ("Technical Physics")** (A.Y. 2003-'04, A.Y. 2004-'05, A.Y. 2005-'06, A.Y. 2006-'07, A.Y. 2007-'08, A.Y. 2008-'09, A.Y. 2009-'10, A.Y. 2010-'11; Faculty of Agriculture, Alma Mater Studiorum-University of Bologna at Cesena)

- **Gestione dell'Energia** ("Energy Management") (A.Y. 2004-'05, A.Y. 2005-'06, A.Y. 2006-'07, A.Y. 2007-'08, A.Y. 2008-'09, A.Y. 2009-'10, A.Y. 2010-'11; Specialistic/Master Degree Course in Design and Management of Agro-Land and Forestry Ecosystems and of Landscape, Faculty of Agriculture, Alma Mater Studiorum-University of Bologna)

- **Impianti dell'Industria Alimentare** ("Alimentary Industry Plants") (A.Y. 2010-'11; Degree Course in Food Science and Technology, University of Parma)

- **Energetica** ("Energetics") (A.Y. 2011-'12, A.Y. 2012-'13; A.Y. 2013-'14; A.Y. 2014-'15; A.Y. 2015-'16; A.Y. 2016-'17; Master Degree Course in Food Science and Technology, University of Parma)

- **Fisica Tecnica ("Technical Physics")** (A.Y. 2012-'13; A.Y. 2013-'14; A.Y. 2014-'15; A.Y. 2015-'16; A.Y. 2016-'17; A.Y. 2017-'18; A.Y. 2018-'19; A.Y. 2019-'20; A.Y. 2020-'21; A.Y. 2021-'22; A.Y. 2022-'23; A.Y. 2023-'24; Degree Course in Management Engineering, University of Parma)

- **Fisica Tecnica ("Technical Physics")** (A.Y. 2024-'25; Degree Course in Architecture, University of Parma)

- **Fisica Tecnica ("Technical Physics")** (A.Y. 2011-'12; A.Y. 2012-'13; A.Y. 2013-'14; A.Y. 2014-'15; A.Y. 2015-'16; A.Y. 2016-'17; A.Y. 2017-'18; A.Y. 2018-'19; A.Y. 2019-'20; A.Y. 2020-'21; A.Y. 2021-'22; A.Y. 2022-'23; A.Y. 2023-'24, A.Y. 2024-'25; Degree Course in Food Science and Technology, University of Parma)

- **Problemi Matematici per la Fisica Tecnica ("Mathematical Problems for Technical Physics")** (A.Y. 2022-'23; A.Y. 2023-'24, A.Y. 2024-'25; Degree Course in Food Science and Technology, University of Parma)

Invited lectures

- **12.12.1997**: **invited seminar** entitled "Experimental Heat Transfer in Two Phase Flow" to the students of the *MSc (Master of Science) Course in Energy Management* (teaching "Heat Transfer"), City University of London, UK

- **30.08 – 03.09.1999**: **invited lecture** on the Vapotron and Hypervapotron effects in occasion of the "*Second Summer School of Thermal Fluid Dynamics on Two-Phase Flow Thermal Fluid Dynamics*", organised by the U.I.T. (Italian Union of Thermal Fluid Dynamics) aimed at PhD students, Post-PhD students and young researchers

- **07.06.2006: invited lecture** entitled "Gullies and debris flows analysis: a case study in Sardinia and a rheological modelling approach" at the *First International Conference on Monitoring, Simulation, Prevention and Remediation of Dense and Debris Flows* held in Rhodes (Greece)

- **05.09.2006: invited lecture** entitled "Theoretical and experimental analysis on the thermal fluid dynamics of water droplets in irrigation" at the *First International Conference on Sustainable Irrigation, Management, Technologies and Policies* held in Bologna (Italy)

- **17 - 19.11.2014: invited lecture entitled** "Modelling droplet evaporation in air. Challenges and perspectives" at the XXXI Siberian Thermophysics Seminar, Novosibirsk (Russia)

- **18 - 20.12.2014: Keynote Speech** at the Third International Conference on Power Science and Engineering (ICPSE 2014, www.icpse.org), Barcelona (Spain)

- **22-24.01-2016: Keynote Speech** at the Second International Conference on Mechanical Design and Engineering (ICMDE 2016, www.icmde.org), Turin (Italy)

Other didactical information

- **1995**: for the teaching "Termotecnica del Reattore" ("Thermal Techniques for Nuclear Reactors"), Faculty of Engineering, Alma Mater Studiorum-University of Bologna, he held a seminar on the topic of heat transfer from finned surfaces

- **1995**: for the teaching "Sicurezza e Analisi di Rischio" ("Safety and Risk Analysis"), Faculty of Engineering, Alma Mater Studiorum-University of Bologna, he held a seminar on the topic "Generation and Extinction of fires"

- **1995**: for the teaching "Termotecnica del Reattore" ("Thermal Techniques for Nuclear Reactors"), Faculty of Engineering, Alma Mater Studiorum-University of Bologna, he held a seminar on the topic of advanced methods for thermal removal

- **1996**: for the teaching "Termotecnica del Reattore" ("Thermal Techniques for Nuclear Reactors"), Faculty of Engineering, Alma Mater Studiorum-University of Bologna, he held some seminars on the topic of Heat Transfer

- **1997**: for the teaching "Termotecnica del Reattore" ("Thermal Techniques for Nuclear Reactors"), Faculty of Engineering, Alma Mater Studiorum-University of Bologna, he held some seminars on the topic of Heat Transfer

- **1997**: he attended the "Summer School of Thermal Fluid Dynamics" organised by UIT (Italian Union of Thermal Fluid Dynamics) near Siena (Italy) from 31st August to 6th September

- **1998**: for the teaching "Termotecnica del Reattore" ("Thermal Techniques for Nuclear Reactors"), Faculty of Engineering, Alma Mater Studiorum-University of Bologna, he held some seminars on the topic of Thermal Problems due to fires in Confined Environment

- **1999**: for the teaching "Sicurezza e Analisi di Rischio" ("Safety and Risk Analysis"), Faculty of Engineering, Alma Mater Studiorum-University of Bologna, he held a seminar on the topic "Fire Prevention Plants and Standards"

- **2001**: he held the seminar "Hydrostatics of soft and swelling soils" for PhD Students in Agricultural Engineering at the Faculty of Agriculture of the Alma Mater Studiorum-University of Bologna

- **2001**: he held the seminar "Evapotranspiration" for PhD Students in Agricultural Engineering at the Faculty of Agriculture of the Alma Mater Studiorum-University of Bologna

- **2002**: in the dates 28.10 and 30.10 he held the seminar "Theory and Applications of Heat Exchangers" for the teaching "Termotecnica del Reattore" ("Thermal Techniques for Nuclear Reactors"), Faculty of Engineering, Alma Mater Studiorum-University of Bologna

- **2002**: in the dates 20.11 and 25.11 he held the seminar "Mixtures of Air and Water Vapour: Definitions, Psychrometric Diagrams and Transformations of Humid Air" for the teaching "Termotecnica del Reattore" ("Thermal Techniques for Nuclear Reactors"), Faculty of Engineering, Alma Mater Studiorum-University of Bologna

- **Academic Year 2002-2003**: he held a 15 hours teaching within the teaching "Termotecnica del Reattore" ("Thermal Techniques for Nuclear Reactors"), Faculty of Engineering, Alma Mater Studiorum-University of Bologna

- **2005**: on date 17.06 he held a seminar about civil air conditioning for the students of the Master Course "Facility Management and Global Service" of the Alma Mater Studiorum-University of Bologna

- **2007**: on date 16.11 he held a seminar entitled "Pannelli e sistemi fotovoltaici - Progettazione, resa, accumulo. Valutazioni economiche" ("Photovoltaic panels and systems – Design, yield, accumulation. Economic evaluations") for the students of the High Formation Course "Energetica degli Edifici" ("Energetics in Buildings") organised by the Fundation Alma Mater of Bologna

Scientific and didactical publications

(in blue those in English)

Scientific Monographies

1. **Giulio Lorenzini**, Natascia Mazza, "Debris flows: phenomenology and rheological modellisation", *Witpress*, Southampton (UK) / Boston (USA), ISBN 1-85312-802-3, 2004.

2. **Giulio Lorenzini**, Cesare Biserni, Giuseppe Flacco, "Solar Thermal and Biomass Energy", *Witpress*, Southampton (UK) / Boston (USA), ISBN 978-1-84564-147-4, 2010.

3. **Giulio Lorenzini**, Simone Moretti, Alessandra Conti, "Fin shape thermal optimization using Bejan's Constructal theory" , *Morgan & Claypool Publishers*, San Francisco / Ft. Collins / Princeton / Bonita Springs / Seattle (USA), ISBN 9781608456079 (paperback); ISBN 9781608456086 (ebook), 2011.

4. Alessandra De Angelis, Onorio Saro, **Giulio Lorenzini**, Stefano D'Elia, Marco Medici, "Simplified Models for Assessing Heat and MassTransfer in EvaporativeTowers", *Morgan & Claypool Publishers*, San Francisco / Ft. Collins / Princeton / Bonita Springs / Seattle (USA), ISBN 9781627051910, doi:10.2200/S00501ED1V01Y201304ENG022, 2013.

Didactical Monographies

5. **Giulio Lorenzini**, Giampietro Fabbri, "Genesi e prevenzione degli incendi"- *Pitagora Editrice*, Bologna, ISBN 88-371-0826-5, 1996.

6. Paolo Tartarini, **Giulio Lorenzini**, Giampietro Fabbri, "Esercizi di Termotecnica", *Edizioni ETS*, Pisa, ISBN 88-7741-954-7, 1996.

7. **Giulio Lorenzini**, "Lezioni di Fisica Tecnica 1"- *Pitagora Editrice*, Bologna, ISBN 88-371-1792-2, 2009.

8. **Giulio Lorenzini**, "Elementi di Fisica Tecnica"- *Pitagora Editrice*, Bologna, ISBN 88-371-1922-4, 2016.

Scientific Papers

9. Paolo Tartarini, Filippo Gavelli, **Giulio Lorenzini**, "Analisi numerica della propagazione di onde di pressione in gallerie ferroviarie", *Tecnica Italiana*, no. 3, 183 – 193, 1994.

10. **Giulio Lorenzini**, "Asportazione di elevati flussi termici mediante ebollizione: applicazioni al raffreddamento dei componenti elettronici" (Tesi di laurea in Fisica Tecnica – *pubblicazione depositata in Procura della Repubblica e Prefettura ai sensi del D.L. n° 660, 31-08-1945*), 1994.

11. Giampietro Fabbri, **Giulio Lorenzini,** "Asportazione di elevati flussi termici da superfici alettate mediante ebollizione", *Tecnica Italiana*, no. 4, 239 – 247, 1994.

12. Giampietro Fabbri, **Giulio Lorenzini,** "High thermal fluxes removal from finned surfaces under boiling conditions", *International Journal of Heat and Technology*, 13(1), 29 – 40, 1995.

13. Giampietro Fabbri, **Giulio Lorenzini**, "A Hypervapotron effect application for high power electronic devices cooling", *International Journal of Heat and Technology*, 13 (1), 75 – 84, 1995.

14. Giampietro Fabbri, **Giulio Lorenzini**, "Analisi numerica bidimensionale di dissipatori a profilo sinusoidale", *Atti XIII Congresso Nazionale dell'Unione Italiana di Termofluidodinamica (U.I.T.)*, Bologna, 22 – 23 giugno, 491 – 499, 1995.

15. Giampietro Fabbri, **Giulio Lorenzini**, "Raffreddamento di superfici alettate mediante effetto Hypervapotron", *Atti XIII Congresso Nazionale dell'Unione Italiana di Termofluidodinamica (U.I.T.)*, Bologna, 22 – 23 giugno, 319 – 331, 1995.

16. Giampietro Fabbri, **Giulio Lorenzini**, "Determinazione sperimentale del coefficiente di convezione da dissipatori a profilo ondulato", *Atti 50° Congresso Nazionale dell'Associazione Termotecnica Italiana (A.T.I.)*, Saint-Vincent, 11 – 15 settembre, Vol. 1, 77 - 86, 1995.

17. Giampietro Fabbri, **Giulio Lorenzini**, Marco Spiga, "Analisi di un sistema di cogenerazione in un'industria ceramica", *Atti 50° Congresso Nazionale dell'Associazione Termotecnica Italiana (A.T.I.)*, Saint-Vincent, 11 – 15 settembre, Vol. 1, 733 - 743, 1995.

18. Giampietro Fabbri, **Giulio Lorenzini**, "Experimental calculation of convective heat transfer coefficient for wavy profile fins", *Proc. 2nd European Thermal Sciences and 14th UIT National Heat Transfer Conference*, Rome (Italy), 29 – 31 May, Vol. 1, 585 – 591, 1996.

19. Giampietro Fabbri, **Giulio Lorenzini**, David Alexandro Quiros "Experimental analysis of the convection coefficient in conduits with wavy walls", *International Journal of Heat and Technology*, 14 (1), 45 – 57, 1996.

20. Giampietro Fabbri, **Giulio Lorenzini**, Carlo Maria Orlandelli, "Experimental analysis of heat removal from finned surfaces under boiling conditions", *Proc. Fifth International Conference on Multiphase Flow in Industrial Plants*, Amalfi (Italy), 26 – 27 September, 183 – 190, 1996.

21. **Giulio Lorenzini**, Maria Roberta Randi, Paolo Tartarini "Analisi sperimentale del fenomeno dell'evaporazione a gocce al variare del grado di purezza del liquido e della conducibilità termica del solido", *Atti 51° Congresso Nazionale dell'Associazione Termotecnica Italiana (A.T.I.)*, Udine, 16 – 20 settembre, Vol. 1, 261 – 272, 1996.

22. Giampietro Fabbri, **Giulio Lorenzini**, Marco Spiga "Analysis of the drying process in a ceramic factory", *Proc. Fifth International Conference on Multiphase Flow in Industrial Plants*, Amalfi (Italy), 26 – 27 September, 139 – 146, 1996.

23. Roberto Lazzarini, **Giulio Lorenzini**, Vittorio Verni "Qualità, normativa e impresa", *Tecnica Italiana*, no. 2, 43 – 57, 1996.

24. **Giulio Lorenzini**, "Sul problema di contenimento nei reattori veloci refrigerati al sodio", *Tecnica Italiana*, no. 3, 93 – 97, 1996.

25. Giampietro Fabbri, **Giulio Lorenzini,** "Cogenerazione applicata all' industria ceramica", *L'Installatore Italiano*, no. 6, 777 – 783, 1997.

26. **Giulio Lorenzini**, Giampietro Fabbri, Maria Roberta Randi, "Cogenerazione di elettricità e calore", *Tecnica Italiana*, no. 1, 25 – 37, 1997.

27. Roberto Lazzarini, **Giulio Lorenzini**, Vittorio Verni, "Qualità - Un fattore strategico per le imprese", *Fluid*, no. 3, 74 – 80, 1997.

28. Enrico Lorenzini, **Giulio Lorenzini**, Paolo Tartarini, "A 'D.V.F.C' analysis in a condition of boiling on a flat surface", *Atti 52° Congresso Nazionale dell'Associazione Termotecnica Italiana (A.T.I.)*, Cernobbio (Como), 22 – 26 settembre, Vol. 1, 563 – 572, 1997.

29. **Giulio Lorenzini**, Enrico Lorenzini, "Scambio termico in un condotto alettato esternamente", *Atti XV Congresso Nazionale dell'Unione Italiana di Termofluidodinamica (U.I.T.)*, Torino, 19 – 20 giugno, Vol. 1, 349-360, 1997.

30. **Giulio Lorenzini**, Carlo Maria Orlandelli, "Studio sperimentale dell' effetto Vapotron in regime di circolazione naturale", *Atti XV Congresso Nazionale dell'Unione Italiana di Termofluidodinamica (U.I.T.)*, Torino, 19 – 20 giugno, Vol. 2, 651 – 659, 1997.

31. Paolo Tartarini, **Giulio Lorenzini**, Maria Roberta Randi, Marino Di Marzo, "Experimental and numerical study on evaporative spray cooling of hot surfaces", *Proc. 4th World Conference on Experimental Heat Transfer, Fluid Mechanics and Heat Transfer*, Brussels (Belgium), 2 – 6 June, Vol. 2, 1319 – 1326, 1997.

32. **Giulio Lorenzini**, Maria Roberta Randi, Paolo Tartarini, "Experimental tests on multi-droplet boiling systems", presented at *European Two-Phase Flow Group Meeting* (Session C – Heat Transfer and CHF), Brussels (Belgium), 6 – 7 June, 1997.

33. **Giulio Lorenzini,** "A numerical study of the flow disturbance caused by an intravascular Doppler catheter in a blood vessel", *Proc.2nd International Conference on Advances in Fluid Mechanics*, Udine (Italy), 13 – 15 May, 103 – 112, 1998.

34. **Giulio Lorenzini**, Maria Roberta Randi, Paolo Tartarini, "Experimental study of water droplet boiling on hot, non-porous surfaces using infrared thermography" (C541/042/98), *Proc. International Conference on Optical Methods and Data Processing in Heat and Fluid Flow*, London (UK), 16 – 17 April, 269 – 278, 1998.

35. **Giulio Lorenzini**, Maria Roberta Randi, "Scambio termico durante la formazione di bolle", *Atti 53° Congresso Nazionale dell'Associazione Termotecnica Italiana (A.T.I.)*, Firenze, 15 – 18 settembre, Vol. 1, 693 – 705, 1998.

36. **Giulio Lorenzini**, Marco Manzan, Carlo Nonino, "Analisi agli elementi finiti dell'effetto camino in condotti piani verticali con flusso termico imposto", *Atti 53° Congresso Nazionale dell'Associazione Termotecnica Italiana (A.T.I.)*, Firenze, 15 – 18 settembre, Vol. 1, 719 – 730, 1998.

37. **Giulio Lorenzini**, Onorio Saro, Michael W. Collins, "Effect of intravascular Doppler catheter on velocity distribution of blood in a coronary artery: a finite element modelling approach", *Biomedicine & Pharmacotherapy*, 52 (7/8), 319, 1998 **[IMPACT FACTOR 1998: 0.699]**.

38. **Giulio Lorenzini**, Onorio Saro, Michael W. Collins, "A CFD investigation of the velocity field and of pressure loss for a turbulent fluid inside an internally finned duct", *Atti XVII Congresso Nazionale dell'Unione Italiana di Termofluidodinamica (U.I.T.)*, Ferrara, 30 giugno – 2 luglio, Vol. 1, 3 – 13, 1999.

39. **Giulio Lorenzini**, Carlo Maria Orlandelli, "L'effetto Vapotron in convezione naturale: test sperimentali in condizioni quasi-statiche e studio di frequenza del fenomeno", *Atti XVII Congresso Nazionale dell'Unione Italiana di Termofluidodinamica (U.I.T.)*, Ferrara, 30 giugno – 2 luglio, Vol. 1, 151 – 162, 1999.

40. **Giulio Lorenzini**, "A numerical approach to the problem of conjugate heat transfer in turbulent forced convection for a fluid in a pipe with internal longitudinal fins", *Proc. First International Conference on Engineering Thermophysics,* Beijing (China), 18 – 21 August, 194 – 203, 1999.

41. **Giulio Lorenzini**, Onorio Saro, "Finite Element solution for velocity and temperature in developing laminar pipe flow", *Proc. 9th International Conference on Computational Methods And Experimental Measurements*, Sorrento (Italy), 27 – 29 April, 315 – 324, 1999.

42. Carlo Nonino, **Giulio Lorenzini**, Marco Manzan, "Comparisons of Finite Element solutions for the Chimney effect between heated parallel plates", *Proc. 3rd Baltic Heat Transfer Conference "Progress in Engineering Heat Transfer"*, Gdansk (Poland), 22 – 24 September, 415-422, 1999.

43. **Giulio Lorenzini**, Onorio Saro, Michael W. Collins, David H. Evans, "Finite Element modelling applied to velocity field in region of an intravascular Doppler catheter: study for symmetric annulus", *Internal Medicine. Clinical and Laboratory*, 7 (1 – 3), 25 – 31 , 1999.

44. Paolo Tartarini, **Giulio Lorenzini**, Maria Roberta Randi, "Experimental study of water droplet on hot, non-porous surfaces", *Heat and Mass Transfer*, 34 (6), 437 – 447, 1999 **[IMPACT FACTOR 1999: 0.305]**.

45. Sylvain Lalot, **Giulio Lorenzini**, "Homogeneous heating of cylindrical samples using Joule effect", *International Journal of Heat and Technology*, 17 (1), 29 – 36, 1999.

46. Enrico Lorenzini, Carlo Maria Orlandelli, **Giulio Lorenzini**, Cesare Biserni, "Effetto Vapotron in regime di convezione forzata", *Inarcos*, no. 10 (dicembre), 1019, 1999.

47. **Giulio Lorenzini**, "Studio Sperimentale dello smaltimento di elevati flussi termici mediante effetto Vapotron. Analisi numerica dell'asportazione di flussi termici da superfici alettate in regime mono- e bifase" (Tesi di Dottorato di Ricerca in Ingegeneria Nucleare – *pubblicazione depositata in Procura della Repubblica e Prefettura ai sensi del D.L. n° 660, 31-08-1945*), 1999.

48. Cesare Biserni, **Giulio Lorenzini**, Carlo Maria Orlandelli, "Frequency analysis of the Vapotron effect in forced convection: a challenge for numerical descriptions of multiphase flow", *Proc. 1st International Conference on Computational Methods in Multiphase Flow*, Orlando (USA), 14 – 16 March, 173 – 182, 2001.

49. **Giulio Lorenzini**, "Experimental study of the Vapotron effect in natural convection applied to the cooling of a high thermal flux delivering finned surface: augmentation of the heat exchange coefficient", *International Journal of Heat and Technology*, 19 (1), 99 – 106, 2001.

50. **Giulio Lorenzini**, Antonio Valenti, "Determination of the heat transfer coefficient for variable geometries and thermal flows", *Atti 56° Congresso Nazionale dell'Associazione Termotecnica Italiana (A.T.I.)*, Napoli, 10 – 14 settembre, Vol. 1, 369 – 380, 2001.

51. Cesare Biserni, **Giulio Lorenzini**, Carlo Maria Orlandelli, "Studio sperimentale dell'effetto Vapotron in regime di convezione forzata: analisi preliminare della natura pulsante del fenomeno", *Atti XIX Congresso Nazionale dell'Unione Italiana di Termofluidodinamica (U.I.T.)*, Modena, 25 – 27 giugno, 213 – 217, 2001.

52. Roberto Lazzarini, **Giulio Lorenzini**, Matteo Simoncelli, "Macchine per la produzione di gelato", *Il Freddo*, Elsevier, no. 4, settembre, 54 – 59, 2001.

53. **Giulio Lorenzini**, "Steady and transient infiltration in unsaturated soils with hydraulic diffusivity dependent on volumetric soil water content", *Proc. 4th International Conference on Advances In Fluid Mechanics*, Ghent (Belgium), 15 – 17 May, 345 – 353, 2002.

54. Cesare Biserni, **Giulio Lorenzini**, "Experimental tests on subcooled boiling heat transfer under forced convection conditions", *Journal of Engineering Thermophysics*, 11 (1), 73 – 81, 2002.

55. **Giulio Lorenzini**, Natascia Mazza, "A debris flow phenomenological analysis in the vicinity of coastal regions", *Proc. 4th International Conference on Environmental Problems in Coastal Regions*, Rhodes (Greece), 16 – 18 September, 171 – 180, 2002.

56. Cesare Biserni, **Giulio Lorenzini**, Cristian Rabiti, "Studio sperimentale e numerico dell'effetto Vapotron in regime di convezione forzata", *Atti 57° Congresso Nazionale dell'Associazione Termotecnica Italiana (A.T.I.)*, Pisa, 17 – 20 settembre, Sessione II (Trasmissione del calore), 51 – 55, 2002.

57. Cesare Biserni, **Giulio Lorenzini**, "A Vapotron effect industrial application for finned surfaces cooling", *Proc. Eighth International Conference on Multiphase Flow in Industrial Plants*, Alba (Cuneo, Italy), 18 – 20 September, 316 – 326, 2002.

58. **Giulio Lorenzini,** "Air temperature effect on spray evaporation in sprinkler irrigation", *Irrigation and Drainage*, 51 (4), 301 – 309, 2002 **[IMPACT FACTOR 2002: 0.357]**.

59. **Giulio Lorenzini**, Cesare Biserni, "A Vapotron effect application for electronic equipment cooling", *ASME Journal of Electronic Packaging*, 125 (4), 475 – 479, 2003 [**IMPACT FACTOR 2003: 0.378**].

60. **Giulio Lorenzini**, "Theoretical study on water infiltration in unsaturated soils", *Journal of Engineering Thermophysics*, 12 (1), 39 – 48, 2003.

61. **Giulio Lorenzini**, Natascia Mazza, "A rheologic approach to debris flow modelling", *Proc. 2nd International Conference on Water Resources Management*, Las Palmas de Gran Canaria (Spain), 30 April – 2 May, 355 – 364, 2003.

62. **Giulio Lorenzini**, Natascia Mazza, "Buckingham's theorem application to quadratic method description of debris flow rheology: comparison of laboratory to calculated data", *Journal of Engineering Thermophysics*, 12 (4), 325 – 337, 2003.

63. **Giulio Lorenzini**, Daniele De Wrachien "Phenomenological analysis of sprinkling spray evaporation: the air friction effect", *Rivista di Ingegneria Agraria*, no. 4, 49 – 54, 2003.

64. **Giulio Lorenzini**, "Experimental analysis of buoyancy effects on velocity variation in a light coil", *Atti XXI Congresso Nazionale dell'Unione Italiana di Termofluidodinamica (U.I.T.)*, Udine, 23 – 25 giugno, 127 – 130, 2003.

65. **Giulio Lorenzini**, "Preliminary analysis and design of an experimental apparatus for air thermal stratification use in energy conversion", *Giornata di Studio "Lorenzo Agnoletto"*, Udine, 26 giugno, 15 – 22, SGEditoriali, Padova, ISBN 88-86281-91-9, 2003.

66. **Giulio Lorenzini**, "Hot plate induced temperature gradient effect on the upper lying environmental flow field", *Journal of Engineering Thermophysics*, 12 (2), 177 – 181, 2003.

67. **Giulio Lorenzini**, "Water infiltration in swelling soils: a continuum approach", *Journal of Engineering Thermophysics*, 12 (3), 233 – 241, 2003.

68. **Giulio Lorenzini**, "Potere previsionale di un modello matematico di debris flow", *Quaderni di Geologia Applicata*, 10 (2), 121 – 131, 2003.

69. Cesare Biserni, Alberto Fichera, Danilo Guglielmino, **Giulio Lorenzini**, "Non linear dynamics of the Vapotron effect", *Proc. International Symposium on Transient Convective Heat and Mass Transfer in Single and Two-Phase Flows*, Cesme (Izmir, Turkey), 17 – 22 August, 159 – 161, 2003.

70. **Giulio Lorenzini**, "Simplified modelling of sprinkler droplet dynamics", *Biosystems Engineering*, 87 (1), 1 – 11, 2004 [**IMPACT FACTOR 2004: 0.496**].

71. **Giulio Lorenzini**, "Natural hazards in mountainous environment and theoretical assessments: differences and analogies", *Proc. 1st International Conference on Monitoring, Management, Simulation and Remediation of the Geological Environment*, Segovia (Spain), 5 – 7 July, 113 – 122, 2004.

72. **Giulio Lorenzini**, "A 'Tochnog' application for blood flow simulation in human vessels", *Proc. 5th International Conference on Advances in Fluid Mechanics*, Lisbon (Portugal), 22 – 24 March, 331 – 341, 2004.

73. **Giulio Lorenzini**, Daniele De Wrachien, "Theoretical and experimental analysis of spray flow and evaporation in sprinkler irrigation", *Irrigation and Drainage Systems*, 18 (2), 155 – 166, 2004.

74. **Giulio Lorenzini**, Cesare Biserni, "Numerical investigation on mixed convection in a non-newtonian fluid inside a vertical duct", *International Journal of Thermal Sciences*, 43 (12), 1153 – 1160, 2004 **[IMPACT FACTOR 2004: 0.600]**.

75. **Giulio Lorenzini**, Daniele De Wrachien, "Performance assessment of sprinkler irrigation systems: perspective of a new approach", *Proc. AGENG2004 International Conference on Agricultural Engineering "Engineering the Future"*, Session 5 (Irrigation and Drainage), Leuven (Belgium), 12 – 16 September, 2004.

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Giulio Lorenzini