



Curriculum Vitae Europass

PERSONAL INFORMATION

SERGIO NARDINI

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Nationality Italian
Date of birth 05 January 1964

WORK EXPERIENCE

November 2017-Present

Full Professor

Università degli Studi della Campania "Luigi Vanvitelli"
Department of Engineering
Real Casa Santa dell'Annunziata
Via Roma, 29 - 81031 Aversa (CE) Italy

June 2016-Present

Chairman of the Board of Sun Energy Europe S.r.l.

Sun Energy Europe Srl., Academic Spin-Off of the Università degli Studi della Campania "Luigi Vanvitelli".
Via B. De Capua, 26
81043 Capua (CE)
Academic spin-off that operates mainly in the energy sector on the use of renewable energy sources and energy efficiency in buildings and industry;
Chairman of the Board and member of the R&D division;
Company administration and new product development and R&D activities

November 2001-October 2017

Associate Professor

Università degli Studi della Campania "Luigi Vanvitelli"
Department of Industrial and Information Engineering
Real Casa Santa dell'Annunziata
Via Roma, 29 - 81031 Aversa (CE) Italy

July 1998-October 2001

Assistant Professor

Università degli Studi di Napoli Federico II
Department of Energy, Applied Thermofluidynamics and Environmental Conditioning
Piazzale Tecchio, 80
Naples (NA), Italy

October 1989-April 1991

Designer

FIAT AUTO S.p.a. - Turin

Automotive industry;
Mechanical Engineer;
Designing car-conditioning systems

CURRENT JOB

Teaching activities

Full Professor

Università degli Studi della Campania "Luigi Vanvitelli"

He is currently a lecturer at the University of Campania "Luigi Vanvitelli" of the following courses:

HEAT TRANSFER, for the bachelor Course in Aerospace Engineering;
TERMOFISIC OF THE BUILDING AND ENERGETIC CERTIFICATION, for the master's degree course in Mechanical Engineering;
TECNiques FOR THE AMBIENTAL CONTROL, master's degree course in Mechanical Engineering;
TERMIC PLANTS FOR BUILDINGS, master's degree course in Civil Engineering
ENERGY EFFICIENCY IN BUILDINGS, Bachelor's degree course in Prevention Techniques in the Environment and Workplace

Other educational activities

- On behalf of CESVITEC he carried out a 30-hours lecture on Heat Exchangers as part of the program "Ciclo Ponte (Napoli) Ingegneria Meccanica Attività '95" addressed to students of the University Diploma in Mechanical Engineering.
- In September 2003 he held a seminar for the UIT Summer School of Thermofluidodynamics entitled "Natural and mixed convective transport in partially open channels and cavities".
- In September 2008 he held a seminar for the UIT Summer School of Thermofluidodynamics entitled "Natural convection in horizontal, inclined and vertical channels".
- On behalf of LOGOS, in 2006, he conducted a 10-hours teaching in thermodynamics as part of the POR 3.3 "Aeronautical Design Technician".
- On behalf of the Department of Energy, Thermofluidodynamics and Environmental Conditioning of the University of Naples Federico II carried out in 2009 a 35-hour lecture on the Monofase Convention and the General Principles of Thermal Plants under the ELIOSLAB Project (Public Laboratory - Private for the development of technologies for high-temperature solar energy Law 297/99 Art).
- On behalf of the Order of Engineers of the province of Caserta, in 2010 he carried out an 8-hours lecture on the energy performance of the building envelope and on the "Design and construction solutions to improve the efficiency of the opaque and transparent envelop" as part of the Training Course for Energy Certifiers
- On behalf of the Order of Engineers of the province of Caserta, in 2012, he carried out a 12-hours lecture on the "Energy Performance of the Building Envelope and geothermal Energy as a renewable energy source" as part of the Energy Certification Training Course.
- On behalf of the Order of Engineers of the province of Caserta, in 2013 he carried out a 6-hours lecture on the energy performance of the building's energy company" as part of the Training Course for Energy Certifiers
- On behalf of the Order of Engineers of the province of Caserta, in 2015 he carried out a 12-hours lecture on the "Building Energy and Physical Foundations, Theory and Lighting Technique and Use and Integration of Renewable Sources such as Solar and Geothermal Energy" as part of the Training Course for Energy Certifiers in accordance with DPR 75/2013.

Research activities

- It carries out research mainly in the field of heat transfer.
The research activity can be divided into the following topics: analytical and numerical solutions of thermal management problems in the use of laser sources and electronic beam in technological processes; natural and mixed convection for thermal control of electronic systems and technological processes; technologies for increasing thermal

exchange also with the use of metal foams and nanofluids; active solar systems; passive solar systems.

In particular: 1. Thermal management: numerical and analytical activity on the research and analysis of solutions to linear and non-linear problems in solids with localized sources, such as laser and electronic beam, stationary or moving; analysis of radiative-conductive conjugate fields in thin films.

2. Natural and mixed convection in partially open cavities with experimental activity aimed at natural and mixed convection of air in inclined and horizontal channels with secondary motions that result in three-dimensional effects; evaluation of correlations and optimal configurations of inclined, horizontal and vertical channels and partially open cavities; numeric activity on natural and mixed convection in various geometries of vertical, inclined and horizontal channel in stationary and transient regime in laminar flow; activities oriented to the design and thermal control of electronic systems and ventilated roofs.

3. Analysis of active and passive solar systems: numerical and experimental study of a solar chimney to be integrated into a building's facade for thermal comfort and air quality with the possibility of converting thermal energy into electricity; choice of the best configuration of solar components to be inserted into thermal systems.

4. Increase in thermal exchange: experimental and numerical investigations on impinging jets, promoters of turbulence, porous means even in the presence of nanofluids.

5. Characterization and use of nanofluids in heat transfer: preparation and stabilization of nanofluid mixtures, measurement of thermal conductivity with innovative techniques, numerical and experimental study of forced convection with nanofluids even in porous and microchannel media.

6. Thermal energy storage systems: numerical study of sensible and latent storage systems even with nano-PCM and metal foams.

7. National Electricity Consumption Forecast: Proposal of simple models for forecasting national electricity consumption.

8. Heat transfer in transport: numerical studies on heat shelters in vehicle exhaust systems; numerical studies of thermal and velocity fields in aircraft for thermal comfort; numerical studies of anti-ice systems on the wings of an aircraft with the Piccolo Tube system.

- He is the author of 334 scientific publications (h-index 23, Scopus source);
- He has been supervisor of numerous thesis;
- He is a member of the College of Professors of the PhD in Industrial and Information Engineering of the University of Campania "Luigi Vanvitelli";
- He has been and included in national research projects funded by ENEA, the Ministry of Education, University and Scientific Research, the Ministry of the Environment and research agreements with public and private bodies.
- He is a member of the Italian Union of Thermofluidynamics.
- He is a member of The American Society of Mechanical Engineers (ASME);
- He is a member of the American Society of Thermal and Fluids Engineers (ASTFE).
- He is a reviewer for the Research Grants Council (RGC) in Hong Kong;
- He is an evaluator of proposals for the European Commission;
- He was evaluator of research proposals for the MIUR call "SIR 2014".
- He is a proponent of the Academic Spin Off SUN Energy Europe (SUN e2) – started on 26/06/2015.

Institutional Tasks

- From 11/06/2015 he is the departmental contact for Transfer of Technology activities.
- From 10/05/2017 he is delegated by the Rector to the Working Group "Industrial Doctorate" of the Observatory of the CRUI Foundation.
- From 11/01/2018 he is a delegate of the Department to the Erasmus program.
- From 03/12/2019 he is President of the Students-Teachers Commission of the Department of Engineering.

International experience

- Lectures within the ERASMUS program:
 - Lecture "Natural and Mixed Convection in Open-Ended Cavities", Summer School on Advances in Heat Transfer Enhancement: from basic to nano, September 20-24, 2010 Iasi, Romania.
 - Lecture "Natural and Mixed Convection in Channels and Open Cavities from Basic to Applications", Summer School on Advances in Heat Transfer Enhancement: from basic to nano, September 19-21, 2012, Iasi, Romania.
 - Lecture "Natural and Mixed Convection in Channels and Open Cavities from Basic to Applications", Summer School on Advances in Heat Transfer Enhancement: from basic to nano, September 22-27, 2012, Iasi, Romania.
 - Lecture "Natural and Mixed Convection in Channels and Open Cavities from Basic to Applications", Summer School on Advances in Heat Transfer Enhancement: from basic to nano, September 22-27, 2014, Iasi, Romania.
- Organizing International Conferences:
 - Member of the Local Organizing Committee of the 5th International Conference on Diffusion in Solids and Liquids DSL 2009, Rome, 24-26 June 2009.
 - Member of the Local Organizing Committee of the ASME-ATI-UIT 2010 Conference, Sorrento 16-19 May 2010.
 - Member of the Local Organizing Committee of the ASME-ATI-UIT 2015 Conference, Naples 17-20 May 2015.
 - Member of the Local Organizing Committee of the AIGE-IIETA 2016 Conference, Naples 9-10 May 2016.
 - Co-Chair of the Local Organizing Committee of the 7th International Symposium on Advances in Computational Heat Transfer, CHT-17, Naples May 28 - June 2, 2017.
- Member of the International Scientific Committee of:
 - 1st International Conference on Computational Methods for Thermal Problems, Naples, September 8-10, 2009;
 - 6th Conference on Diffusion in Solids and Liquids, Paris, 5-7 July, 2010;
 - 1st International Conference on Heat Transfer, Tallinn, Estonia, 14 - 16 July 2010;
 - 7th Conference on Diffusion in Solids and Liquids, Algarve, 26-30 June, 2011;
 - 8th Conference on Diffusion in Solids and Liquids, Istanbul, 25-29 June, 2012;
 - 9th Conference on Diffusion in Solids and Liquids, Madrid, 24-28 June, 2013;
 - 10th Conference on Diffusion in Solids and Liquids, Paris, 23-27 June, 2014;
 - 11th Conference on Diffusion in Solids and Liquids, Munich, 22-26 June, 2015;
 - 12th Conference on Diffusion in Solids and Liquids, Split, 26-30 June, 2016;
 - 13th Conference on Diffusion in Solids and Liquids, Vienna, 26-30 June, 2017
 - 14th Conference on Diffusion in Solids and Liquids, Amsterdam, 25-29 June, 2018
 - 15th Conference on Diffusion in Solids and Liquids, Malta, 24-28 June, 2019.
- From 12/2011 to 03/2012 he was Lead Guest Editor of the Special Issue Advances in Mechanical Engineering (Hindawi Publishing Corporation): Natural and Mixed Convection in Open-Ended Cavities;
- From 03/2014 to 07/2014 he was Lead Guest Editor of the Special Issue Advances in Mechanical Engineering (Hindawi Publishing Corporation): Advances in Heat Transfer Enhancement;
- From 05/2015 to 01/2016 he was Guest Editor of the Special Issue for Advances in Mechanical Engineering (SAGE): Advanced Approaches of Modelling & Measurement for Turbulence and Heat Transfer;
- Guest Editor of the Special Issue for Cogent Engineering: Recent Advances in Enhanced Heat Transfer and Engineering Applications;
- Guest Editor of the Special Issue of Heat Transfer Engineering from AIGE-IIETA 2016 Conference on "Heat Transfer in Energy Conversion Systems"
- Guest Editor of the Special Issue for Applied System Innovation: *Solar* Thermal Systems

- Lead Guest Editor of the Special Issue "Advances Heat Transfer Enhancement" of Energies;
- Lead Guest Editor of the Special Issue "Solar Thermal Systems" of Applied System Innovation;
- Lead Guest Editor of the Special Issue "Entropy Generation Minimization II" of Entropy;
- Editorial Board component of:
 - Journal of Thermal Engineering;
 - Journal of Engineering;
 - Metallurgical International;
 - American Journal of Scientific Research and Essays
 - MAYFEB Journal of Mechanical Engineering
- he has been a Session Chair of several international conventions.
- He is the reviewer of submissive articles for publication in several international journals, including:
 - Journal of Heat Transfer
 - International Journal of Heat and Mass Transfer
 - Applied Thermal Engineering
 - Heat Transfer Engineering
 - Energy Conversion and Management
 - Applied Energy
 - International Journal of Thermal Sciences
 - International Journal of Numerical Methods for Heat and Fluid Flow
 - Experimental Thermal and Fluid Science
 - Heat and Mass Transfer
 - International Journal of Heat and Technology
 - Building and Environment
 - International Journal on Heat and Mass Transfer - Theory and Applications (IREHEAT)
 - Computers and Fluids
- It has carried out revisions of articles to be presented at international conferences;

European projects

- He participated in the **Maruebb** Project as part of the Erasmus+. The aim of the project was to establish and develop a new Master's degree on 'INNOVATIVE TECHNOLOGIES IN ENERGY EFFICIENTS BUILDINGS' for 3 Russian universities and 2 Armenian universities affiliated with two other Russian universities, in a student-centred or results-based approach. As part of this project, Prof. Sergio Nardini was on a mission to Yekaterinburg (Russia) at Ural Federal University from 08/04/2018 to 14/04/2018.
- He joins the **Nanouptake** – Overcoming Barriers to Nanofluids Market Uptake (COST Action CA15119) programme, which aims to create a network in Europe between Research Institutes and companies to develop and encourage the use of nanofluids as advanced materials for thermal exchange and thermal energy storage to improve the efficiency of thermal exchange and thermal storage systems.
- He is Scientific Responsible for the University of Campania "Luigi Vanvitelli" for the project "Application of Solar Thermal Energy to Processes (**ASTEP**)" funded by the European Commission with the call H2020-LC-SC3-2019-NZE-RES-CC. The project aims to create an innovative high-temperature solar heating for industrial use.

Scientific collaborations

- National collaborations:
University of Bologna, University of Catania, University of Naples Federico II, University of Genoa, University of Modena, University of Trieste, University of Udine.

- International Collaborations:
 - Professor Yogesh Jaluria, Rutgers, the State University of New Jersey, Piscataway, NJ, USA.
 - Professor Kambiz Vafai, University of California Riverside, CA, USA.
 - Professor Guy Lauriat, Université Paris-Est, France.
 - Professor Alina Minea, Technical University GH. Asachi Iasi, Romania.

Agreements

- In 2007 he was scientific responsible of the research agreement with Piaggio Aero Industries S.p.a. with the following subject: "Development and validation of numerical methodologies for the preliminary sizing of: air conditioning system, ice protection system, bleed and management of air from engine air for conditioning and ice control systems in an aircraft";
- In 2009 he was the scientific head of the research agreement with Piaggio Aero Industries S.p.a. with the following object: "Estimate of cabin thermal gradients in stationary conditions for given operating conditions and different window sizes";
- In 2014 he was scientific responsible of agreement with Novartis Farma S.p.a. for the project "Lightning Risk Assessment Study at the Torre Annunziata site".
- In 2015 he was scientific responsible of agreement with Novartis Farma S.p.a. for the project "Energy Audit at the Annunziata Tower Site".

EDUCATION AND TRAINING

1991-1994	PhD – Thesis Title: ‘Experimental Analysis of Natural Convection in Tilted Channels with Uniform Heat Flux’; University of Naples Federico II
March 1989	Qualification as Engineer; University of Naples Federico II
1982-1989	Master’s degree cum laude in Mechanical Engineering; University of Naples Federico II

PERSONAL SKILLS AND SKILLS

MOTHER TONGUE

ITALIAN

OTHER LANGUAGE

ENGLISH

Reading ability	GOOD
Writing ability	GOOD
Oral expression capacity	GOOD

SKILLS AND TECHNICAL SKILLS

Use of commercial software for CFD such as Ansys Fluent, Comsol Multiphysics and for energy analysis such as Energy Plus, Design Builder and Trnsys. Use of instruments for thermal hot-wire anemometry, Laser Doppler, thermocouples, infrared thermography and PIV.

PUBLICATIONS (2015-2019)

1. B. Buonomo, A. di Pasqua, D. Ercole, O. Manca, S. Nardini (2019). Numerical Study on Thermal and Fluid Dynamic Behavior of a Compact Heat Exchanger Partially Filled with Metal Foam. *TECNICA ITALIANA*, vol. 63, p. 336-342, ISSN: 0040-1846, doi: 10.18280/ti-ijes.632-432.
2. L. Capasso, A. Diana, O. Manca, S. Nardini, S. Vigna (2019). Numerical investigation on a solar chimney in a building façade under different climatic condition. *TECNICA ITALIANA*, vol. 63, p. 409-416, ISSN: 0040-1846, doi: 10.18280/ti-ijes.632-443.
3. B. Buonomo, D. Ercole, O. Manca, S. Nardini (2019). Numerical study on latent thermal energy storages with PCM partially filled with aluminium foam. *JOURNAL OF PHYSICS. CONFERENCE SERIES*, vol. 1224, ISSN: 1742-6588, doi: 10.1088/1742-6596/1224/1/012039.
4. V. Bianco, F. Cascetta, A. Marino, S. Nardini (2019). Understanding energy consumption and carbon emissions in Europe: A focus on inequality issues. *ENERGY*, vol. 170, p. 120-130, ISSN: 0360-5442, doi: 10.1016/j.energy.2018.12.120
5. E. Lorenzini, O. Manca, R. Mastrullo, S. Nardini, 2019, Selected Papers from the AIGE 2016 Conference on Energy Conversion, Management, Recovery, Saving, Storage and Renewable Systems. DOI:10.1080/01457632.2019.1600861. pp.1-3. In *HEAT TRANSFER ENGINEERING - ISSN:0145-7632*.
6. B. Buonomo, A. di Pasqua, D. Ercole, O. Manca, S. Nardini, Numerical investigation on thermal and fluid dynamic behaviors of a thermoelectric generator in an exhaust automotive line with aluminium foam, Proc. of the International Mechanical Engineering Congress & Exposition, Salt Lake City, Utah, November 8 – 14, 2019.
7. B. Buonomo, A. di Pasqua, P. Ginetti, O. Manca, S. Nardini, Numerical investigation on a flat – tube heat exchanger in metal foam, Proc. of the International Mechanical Engineering Congress & Exposition, Salt Lake City, Utah, November 8 – 14, 2019.
8. B. Buonomo, L. Cirillo, O. Manca, S. Nardini, Effect of nanofluids on Heat transfer enhancement in automotive cooling circuits. In *Atti del 74° CONGRESSO ANNUALE ATI.*, pp. 4, Modena, 11-13 settembre 2019.
9. B. Buonomo, L. Capasso, A. Diana, O. Manca, S. Nardini, A numerical analysis on a solar chimney with an integrated latent heat thermal energy storage. In *Atti del 74° CONGRESSO ANNUALE ATI.*, pp. 4, Modena, 11-13 settembre 2019.
10. B. Buonomo, F. Cascetta, A. Diana, O. Manca, S. Nardini, Numerical investigation on thermal and fluid dynamic analysis of a solar chimney in a building façade. DOI:10.1115/HT2019-3612. In *ASME 2019 Heat Transfer Summer Conference, HT 2019*, collocated with the *ASME 2019 13th International Conference on Energy Sustainability - ISBN:978-0-7918-5931-5*.
11. B. Buonomo, A. di Pasqua, D. Ercole, O. Manca, S. Nardini, Numerical investigation on latent thermal energy storages with Nano-PCM partially filled with aluminum foam, *Proceedings of Eurotherm Seminar #112 in Advances in Thermal Energy Storage*, paper O199, Lleida, Spain - 15-17 May 2019, ISBN 978-84-9144-155-7.
12. L. Capasso, A. Diana, O. Manca and S. Nardini, S. Vigna, Numerical investigation on a solar chimney in a building façade under different climatic condition, 4th AIGE/IIETA International Conference and 13th AIGE 2019 Conference, Matera, Italy, 13-14 June 2019, *TECNICA ITALIANA-Italian Journal of Engineering Science* Vol. 63, No. 2-4, June, 2019, pp. 409-416, doi: 10.18280/ti-ijes.632-443.
13. B. Buonomo, A. di Pasqua, D. Ercole, O. Manca, S. Nardini, Numerical Study on Thermal and Fluid Dynamic Behavior of a Compact Heat Exchanger Partially Filled with Metal Foam, 4th AIGE/IIETA International Conference and 13th AIGE 2019 Conference, Matera, Italy, 13-14 June 2019, *TECNICA ITALIANA-Italian Journal of Engineering Science*, Vol. 63, No. 2-4, June, 2019, pp. 336-342 doi: 10.18280/ti-ijes.632-432.
14. B. Buonomo, A. di Pasqua, O. Manca, S. Nardini, Numerical investigation on thermoelectric generators in an exhaust automotive line with aluminium foam, 37th *UIT Heat Transfer Conference*, Padova, Italy, June 24-26, 2019.
15. B. Buonomo, D. Ercole, O. Manca, S. Nardini, S. Pragliola, Convective heat transfer enhancement by magnetic field in ferrofluids, *Proceedings of 1st*

- International Conference on Nanofluids (ICNf2019) and the 2nd European Symposium on Nanofluids (ESNf2019), Castelló, Spain, 26-28 June 2019, pp. 65-68, doi: 10.6035/CA15119.03, ISBN 978-84-685-3917-1.
16. Buonomo, B., di Pasqua, A., Ercole, D., Manca, O., Nardini, S., Numerical investigation on aluminum foam application in a tubular heat exchanger, (2018) *Heat and Mass Transfer/Waerme- und Stoffuebertragung*, 54 (8), pp. 2589-2597. DOI: 10.1007/s00231-018-2305-7, ISSN: 09477411
 17. Bianco, V., Diana, A., Manca, O., Nardini, S., Numerical investigation of an inclined rectangular cavity for ventilated roofs applications, (2018) *Thermal Science and Engineering Progress*, 6, pp. 426-435. DOI: 10.1016/j.tsep.2018.02.016, ISSN: 24519049. DOI: 10.1201/b18614, ISBN: 9781439885574; 9781439885543
 18. Buonomo, B., Ercole, D., Manca, O., Nardini, S., Nanoparticles and metal foam in thermal control and storage by phase change materials, (2018) *Handbook of Thermal Science and Engineering*, pp. 859-883. DOI: 10.1007/978-3-319-26695-4_39, ISBN: 9783319266954; 9783319266947
 19. Barbato, M., Cirillo, L., Menditto, L., Moretti, R., Nardini, S., Feasibility study of a geothermal energy system for indoor swimming pool in Campi Flegrei area, (2018) *Thermal Science and Engineering Progress*, 6, pp. 421-425. DOI: 10.1016/j.tsep.2018.02.013, ISSN: 24519049
 20. Buonomo, B., Cascetta, F., Cirillo, L., Manca, O., Nardini, S., Thermal and fluid dynamic analysis of a solar chimney integrated in a building façade, (2018) *International Heat Transfer Conference, 2018-August*, pp. 7703-7710. ISSN: 2377424X
 21. Buonomo, B., Manca, O., Nappo, S., Nardini, S., Numerical investigation on laminar slot-jet impinging on a surface at uniform heat flux in a channel partially filled with a porous medium, (2018) *Energy Procedia*, 148, pp. 790-797. DOI: 10.1016/j.egypro.2018.08.131, ISSN: 18766102
 22. Cascetta, F., Cirillo, L., Nardini, S., Vigna, S., Transient Simulation of a Solar Cooling System for an Agro-Industrial Application, (2018) *Energy Procedia*, 148, pp. 328-335. DOI: 10.1016/j.egypro.2018.08.085, ISSN: 18766102
 23. Buonomo, B., Cascetta, F., Cirillo, L., Nardini, S., Application of nanofluids in solar cooling system: Dynamic simulation by means of TRNSYS software, (2018) *Modelling, Measurement and Control B*, 87 (3), pp. 143-150. DOI: 10.18280/mmc-b.870305, ISSN: 12595969
 24. Buonomo, B., Ercole, D., Manca, O., Nardini, S., Numerical investigation on Nano-PCM in aluminum foam in latent thermal energy storages, (2018) *Modelling, Measurement and Control B*, 87 (3), pp. 207-212. DOI: 10.18280/mmc-b.870313, ISSN: 12595969
 25. Buonomo, B., Di Pasqua, A., Ercole, D., Manca, O., Nardini, S., Numerical investigation on thermal and fluid dynamic behaviors of heat exchanger in aluminium foam, (2018) *International Heat Transfer Conference, 2018-August*, pp. 4885-4892. ISSN: 2377424X
 26. Cascetta, F., Cirillo, L., Della Corte, A., Nardini, S., Comparison between different solar cooling thermally driven system solutions for an office building in Mediterranean Area, (2017) *International Journal of Heat and Technology*, 35 (1), pp. 130-138. DOI: 10.18280/ijht.350118, ISSN: 03928764
 27. Cascetta, F., Di Lorenzo, R., Nardini, S., Cirillo, L. A Trnsys Simulation of a Solar-Driven Air Refrigerating System for a Low-Temperature Room of an Agro-Industry site in the Southern part of Italy, (2017) *Energy Procedia*, 126, pp. 329-336. DOI: 10.1016/j.egypro.2017.08.259, ISSN: 18766102
 28. Bianco, V., Diana, A., Manca, O., Nardini, S., Thermal behavior evaluation of ventilated roof under summer and winter conditions, (2017) *International Journal of Heat and Technology*, 35 (Special Issue 1), pp. S353-S360. DOI: 10.18280/ijht.35Sp0148, ISSN: 03928764
 29. Barbato, M., Cirillo, L., Menditto, L., Moretti, R., Nardini, S., Geothermal energy application in campi flegrei area: The case study of a swimming pool building, (2017) *International Journal of Heat and Technology*, 35 (Special Issue 1), pp. S102-S107. DOI: 10.18280/ijht.35Sp0114, ISSN: 03928764
 30. Buonomo, B., Diana, A., Manca, O., Nardini, S., Numerical investigation on natural convection in horizontal channel partially filled with aluminium foam and heated from above, (2017) *Journal of Physics: Conference Series*, 923 (1), art. no. 012049, DOI: 10.1088/1742-6596/923/1/012049, ISSN: 17426588

31. Buonomo, B., Diana, A., Manca, O., Nardini, S., Local Thermal Non-Equilibrium Investigation on Natural Convection in Horizontal Channel Heated from above and Partially Filled with Aluminum Foam, (2017) Energy Procedia, 126, pp. 42-49. DOI: 10.1016/j.egypro.2017.08.055, ISSN: 18766102
32. Buonomo, B., Cirillo, L., Manca, O., Nardini, S., Tamburrino, S., Numerical investigation on forced convection in rectangular cross section micro-channels with nanofluids, (2017) Journal of Physics: Conference Series, 796 (1), art. no. 012013, DOI: 10.1088/1742-6596/796/1/012013, ISSN: 17426588
33. Buonomo, B., Cirillo, L., Manca, O., Nardini, S., A numerical and experimental analysis on confined impinging round jets in porous media, (2017) International Symposium on Advances in Computational Heat Transfer, pp. 789-802. ISSN: 25785486, ISBN: 9781567004618
34. Buonomo, B., Cirillo, L., Manca, O., Nardini, S., A numerical and experimental investigation on impinging round jets in channel partially filled with porous media, (2017) ASME 2017 Heat Transfer Summer Conference, HT 2017, 2, art. no. HT2017-4973, DOI: 10.1115/HT2017-4973, ISBN: 9780791857892
35. Buonomo, B., Diana, A., Manca, O., Nardini, S., Numerical investigation on laminar round-jet impinging on a surface at uniform heat flux in a channel partially filled with a porous medium, (2017) Journal of Physics: Conference Series, 796 (1), art. no. 012012, DOI: 10.1088/1742-6596/796/1/012012, ISSN: 17426588
36. Bianco, V., Diana, A., Manca, O., Nardini, S., Radiation effect on transient natural convection in ventilated roofs, (2017) International Symposium on Advances in Computational Heat Transfer, pp. 803-823. ISSN: 25785486, ISBN: 9781567004618
37. Bianco, V., Manca, O., Minea, A.A., Nardini, S., Comparative methods in convective heat transfer enhancement by nanofluids entropy generation, (2017) Advances in New Heat Transfer Fluids: From Numerical to Experimental Techniques, pp. 29-49. DOI: 10.1201/9781315368184, ISBN: 9781498751865; 9781498751858
38. Buonomo, B., Cirillo, L., Manca, O., Nardini, S., Experimental investigation on heat transfer enhancement by transversal ribs in channels, (2017) ASME International Mechanical Engineering Congress and Exposition, Proceedings (IMECE), 8, .DOI: 10.1115/IMECE2017-72032, ISBN: 9780791858431
39. Buonomo, B., Diana, A., Manca, O., Nardini, S., Numerical investigation on a modified "piccolo tube" system in aircraft anti-icing, (2017) ASME 2017 Heat Transfer Summer Conference, HT 2017, 1, DOI: 10.1115/HT2017-4986, ISBN: 9780791857885
40. Buonomo, B., Ercole, D., Manca, O., Nardini, S., Numerical investigation on thermal behaviors of two-dimensional latent thermal energy storage with PCM and aluminum foam, (2017) Journal of Physics: Conference Series, 796 (1), art. no. 012031, DOI: 10.1088/1742-6596/796/1/012031, ISSN: 17426588
41. Andreozzi, A., Manca, O., Nardini, S., Ricci, D., Forced convection enhancement in channels with transversal ribs and nanofluids, (2016) Applied Thermal Engineering, 98, pp. 1044-1053. DOI: 10.1016/j.applthermaleng.2015.12.140, ISSN: 13594311
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