

Europass Curriculum Vitae

Personal information

First name(s) / Surname(s) **Marco Fossa**
Address(es) 15, Via Opera Pia, 16145, Genova, Italy (work Address)
Telephone(s) +39 010 353 2198 Telephone(s) +39 010 353 2198
Fax(es) + 39 010 311870
E-mail marco.fossa@unige.it
Nationality Italian
Date of birth 21/3/1964
Gender male

Occupational field **Research and Teaching (University Level)**

Work experience

Dates January 1992-may 1992
Occupation or position held Scientific Associate
Main activities and responsibilities
Name and address of employer Cern, European Organization for Nuclear Research
Type of business or sector Research
Dates 1993-2007
Occupation or position held Research Professor
Main activities and responsibilities Research and Teaching
Name and address of employer University of Genova, Italy
Type of business or sector University
Dates 2007-present
Occupation or position held Associate Professor
Main activities and responsibilities Research and Teaching
Name and address of employer University of Genova, Italy
Type of business or sector University

Education and training

Dates 1990-1993 Doctorate (3 yrs course)
Title of qualification awarded PhD in Thermal Engineering
Principal subjects/occupational skills covered Thermal Engineering and Heat Transfer
Name and type of organisation providing education and training University of Genova, Italy
Dates 1984-1989 Mechanical Engineering (5 yrs degree course)
Title of qualification awarded Mechanical Engineer
Principal subjects/occupational skills covered Mechanical Engineering
Name and type of organisation providing education and training University of Genova, Italy

Personal skills and competences

Teaching, Modelling, Organising and carrying out Research activities in the field of Thermal Sciences and Thermal Engineering

Mother tongue(s)

Italian

Other language(s)

English, French

Self-assessment

European level ()*

Language

Language

	Understanding		Speaking		Writing
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	C1	C1	C1
French	B2	B2	B2	B2	A2

Additional information

Author of about 100 scientific papers in the field of Thermal Engineering

Professor at the University of Genova, Italy, Faculty of Engineering, of:
Applied Thermodynamics, Renewable Energies, Renewable Energy: Solar and Geothermal

International collaborations: University of Lyon and Insa Lyon, EdF Le Renardieres, Cern, Polytech Savoie, University of the New South Wales (Sydney), KTH Stockholm, Polytech Montreal

Visiting Appointments:

The University of the New South Wales, Sydney (as Visiting Professor): 2006, 2008, 2010

Cern, Geneva: 1991, 1992, 1997-2005 (CMS particle detector project)

University of Nottingham, SChEME, 2001

Member of international PhD juries: Unsw Sydney (2011), Lyon 1 (2011), Tetouan (2010), Lyon 1 (2007)

Research grants received In the past five years: about 130k€

Annexes

Scientific publications in the last 5 years

Annex

Marco Fossa: Publications, years 2007-2011

- 1) C. Ménézo, M. FOSSA and E. Leonardi, an Experimental Investigation of Free Cooling by Natural Convection of Vertical Surfaces for Building Integrated Photovoltaic (Bipv) Applications, Thermal Issues in Emerging Technologies, ThETA Conference, Cairo, Egypt, Jan 3-6th 2007
- 2) M.FOSSA, D.Dalla Pietà, A.Priarone, Measurement of flow parameters in solid liquid slugging fluidised beds, *Flow Measurement and Instrumentation*, vol. 18, issue 1, pp. 12-17, 2007
- 3) M. FOSSA, C. Ménézo, and E. Leonardi, An Investigation of the Optimal Configurations of PV Integration in Building Façades : Analysis of Natural Convective flows in a Differentially Heated Vertical Channel, Climamed Conference 2007, pp. 83-94, Genova, September 2007.
- 4) D. Dalla Pietà, M.FOSSA, A Tool for Borehole Heat Exchanger Design for Ground-Source Heat Pump Applications, Climamed Conference 2007, pp. 527-543, Genova, September 2007.
- 5) M. FOSSA, C. Ménézo, and E. Leonardi, Experimental Natural Convection On Vertical Surfaces For Building Integrated Photovoltaic (Bipv) Applications, *Experimental Thermal and Fluid Science*, vol. 32, pp.980-990, 2008
- 6) J. Vareilles, S. Giroux-Julien, C.Ménézo, M. FOSSA, E. Leonardi, Numerical And Experimental Investigation Of Natural Convection In Double Facades, CHT-08, Int. Conf. Advances in Computational Heat Transfer, Marrakech, May 2008
- 7) M. FOSSA, G.Tanda, Pool Fire Model Comparison for Radiation Evaluation in Case of Fire in Tank Farms, CHT-08, Int. Conf. Advances in Computational Heat Transfer, Marrakech, May 2008
- 8) M.FOSSA, F.Devia, a Model for Radiation Evaluation and Cooling System Design in Case of Fire in Tank Farms, *Fire Safety Journal*, vol. 43, pp. 42-49, 2008
- 9) A. Marchitto, F. Devia, M. FOSSA, G. Guglielmini, C. Schenone, Experiments on Two-Phase Flow Distribution inside Parallel Channels of Compact Heat Exchangers, *Int. J. Multiphase Flow*, vol. 34, pp. 128-144, 2008
- 10) M.FOSSA, G.Tanda, Qualitative Observations and Measurements of Free Convection Frost Formation in Vertical Channels, 19th Int. Symp. on Transport Phenomena, 17-21 August, 2008, Reykjavik, ICELAND
- 11) A. Marchitto, M. FOSSA, G. Guglielmini, the Effect of Header Geometry on Air Water Two-Phase Flow Distribution in Parallel Vertical Channels, Int. Conf. Multiphase Flow in Industrial Plants, September 7-10, 2008, Palermo, Italy
- 12) M. FOSSA, A. Marchitto, A simplified approach for predicting the intermittent behaviour of gas-liquid mixtures in pipes, *Asme Journal of Flow Engineering*, vol. 131, 2009
- 13) G.Tanda, M. FOSSA, E.Leonardi, C.Menezo, Natural Convection Heat Transfer from Staggered Discrete Thermal Sources: State-of-the-Art, Int. Symp. on Convective Heat and Mass Transfer in Sustainable Energy, April 2009, Tunisia.
- 14) A.Marchitto, M.FOSSA, G.Guglielmini, Distribution of Air-Water Mixtures in Parallel Vertical Channels as an Effect of the Header Geometry, *Experimental Thermal and Fluid Science*, Vol. 33, 5, pp. 895-902, 2009
- 15) S.Giroux-Julien, C.Ménézo, J.Vareilles, H.Pabiou, M.FOSSA, and E.Leonardi, Natural Convection in Nonuniformly Heated Channel: application To Photovoltaic Facades, *Computational Thermal Sciences*, vol. 1, pp. 231-258, 2009
- 16) M.FOSSA, O.Cauret, M.Bernier, Comparing the Thermal Performance of Ground Heat Exchangers of Various Lengths, Effstock Int. Conference, Stockholm, June 2009.
- 17) C.Menezo ,M.FOSSA, H.Pabiou, S.Giroux-Julien C, M.Amara, V.Timchenko, G.Tanda, Optimisation des Echanges Convectifs pour l'integration de Composants Photovoltaiques au sein du cadre Bati et la Conception de Nouveaux Capteurs Solaires Hybrides Photovoltaïque-Thermiques, 1^{er} Colloque International Francophone d'Energétique et Mécanique, CIFEM 2010, pp. 196-203, Saly, (Sénégal), 17-19 may 2010.
- 18) M.FOSSA, G.Tanda, Frost Formation in Vertical Channels Under Natural Convection, *Int. J. Multiphase Flow*, vol. 36, pp. 210-220, 2010
- 19) A.Marchitto, M.FOSSA, G.Guglielmini, the Effect of the Flow Direction Inside the Header On Two-phase Flow Distribution in Parallel Vertical Channels, ASME-ATI-UIT Conference, Thermal and Environmental Issues in Energy Systems, Sorrento, Italy, 16-19 may, 2010.
- 20) M.FOSSA, the Temperature Penalty Approach to the Design of Borehole Heat Exchangers for Heat Pump Applications, *Energy and Buildings*, vol. 43; p. 1473-1479, 2011.
- 21) M.FOSSA, D. Dalla Pietà, Numerical Evaluation of Bhe Thermal Resistance for Ground Coupled Heat Pump Applications, Alternative Sources/Sinks for Heat Pump and Air-Conditioning Conference, Padova, 5-7 Aprile 2011.
- 22) M.FOSSA, F.Minchio, Comparison of Borehole Heat Exchangers Response Based On Different Hourly Load Models, Alternative Sources/Sinks for Heat Pump and Air-Conditioning Conference, Padova, 5-7 Aprile 2011
- 23) M.FOSSA, A Fast Method for Evaluating the Performance of Complex Arrangements of Borehole Heat Exchangers , *Ashrae Hvac & Res. J.* vol. 17:6, p. 948-958, 2011
- 24) S.Lazzari, A.Priarone, M.FOSSA, Territorial mapping for the exploitation of low-enthalpy geothermal resources, UIT Conference 2011, p.485-490.
- 25) M.FOSSA, G.Guglielmini, A.Marchitto, Effects of The Presence of Protrusions on The Air-Water Distribution in Parallel Vertical Channels, Int. Conf. Multiphase Flow in Industrial Plants 2011.
- 26) A.Marchitto, M.FOSSA, G.Guglielmini, the Effect of the Flow Direction Inside the Header On Two-phase Flow Distribution in Parallel Vertical Channels, *Applied Thermal Eng. J.*, Accepted for publication, 2011