

Curriculum Vitae of

Prof. Dr. Ing. Giacomo Bruno Azzurro Persico

Born in Cremona, Italy, August 22, 1978

Associate Professor of Fluid-Machines at Politecnico di Milano, Italy

Education :

Laurea (Master of Science equivalent) in Mechanical Engineering at Politecnico di Milano, Italy, December 19, 2002. Score: 100/100 *cum laude*. Winner of the award “Prof. Ottorino Sesini” for the best graduated student in Mechanical Engineering at Politecnico di Milano for the Academic Year 2001-02

Doctorate in Energy at Politecnico di Milano, Italy, May 19, 2006. Evaluation: with honors. Ph.D. Thesis title: “*Unsteady aerodynamic stator-rotor interaction in high pressure turbines*”. Ph.D. Thesis published by the Von Karman Institute for Fluid Dynamics in 2007 (ISBN 978-2-930389-26-5)

International Experience:

Visiting doctoral candidate and then visiting researcher at the Von Karman Institute for Fluid Dynamics in the period between Feb. 2005 and Aug. 2006.

Invited scientist at the Technische Universitat Graz in Jan. 2007.

Visiting professor at the Saint Petersburg Polytechnical University in Jul. 2016, Jan. 2017, Jan. 2018.

Academic Career:

Research fellow at Politecnico di Milano between April 2003 and December 2008.

Assistant Professor of Fluid-Machines at Politecnico di Milano between December 2008 and April 2015 (tenured since December 2011)

Associate Professor of Fluid-Machines at Politecnico di Milano since April 13, 2015

In possession of national scientific qualification to practice as Full Professor for the Competition Sector 09/C1 'Macchine e Sistemi per l'Energia e l'Ambiente', since July 26, 2018.

Publications:

Author of 115 publications (full list is attached), including:

- 50 Journal Papers
- 1 Book published by an International Institution (Von Karman Institute for Fluid Dynamics)
- 6 Book Chapters
- 47 Papers published in Proceedings of International Conferences
- 1 Book published by a National Publishing House (Cittá Studi Edizioni - De Agostini Scuola)

The Scopus database reports 83 publications, 882 citations and an h-index of 18

The Google Scholar database reports 109 publications, 1133 citations and an h-index of 19

Scientific Profile

The research activity of Prof. Persico is mainly focused on the Fluid Dynamics of Turbomachinery. It covers both the development of methodologies, experimental and numerical, and the study of the flow field and performance of turbomachinery, also for non conventional configurations.

The research has been developed within five main lines:

- a) Experimental and numerical investigation of the stator-rotor interaction in axial turbines

Prof. Persico studied the stator-rotor interaction in high-pressure turbines in three different laboratories: at the Politecnico di Milano (Italy), at the Von Karman Institute for Fluid Dynamics (Belgium), and at the Technische Universitat Graz (Austria). In the frame of this research a CFD model for computing the unsteady flow in turbine stages was also developed. The analysis highlighted the unsteady evolution of secondary flows, the influence of the axial gap, the effects of shocks, the relevance of stator-stator clocking, and the character of blade aerodynamic forcing. The achievements of this research line led to the participation to the European Project RECORD in the field of aero-acoustics

- b) Experimental investigation of the unsteady flow in centrifugal compressors

The methodology developed for the research line a) was applied to the study of the unsteady flow in centrifugal compressors, both in a research test-rig of Politecnico di Milano and in industrial test-benches owned by GE Oil & Gas Company. The investigations were focused on the impeller aerodynamics for different operating conditions and on the influence of the vaned-diffuser pressure field on the impeller.

- c) Development of fast-response measurement techniques

To support the aforementioned experimental activities time-resolved measurement techniques were developed. Several Fast Response Aerodynamic Pressure Probes (FRAPP) were designed, manufactured and tested for 2D or 3D unsteady flow measurements in turbomachinery, with a frequency response of 80 kHz. The FRAPP technique was also engineered for routine application in industrial test benches (GE Oil & Gas) and foreign research institutions (Technische Universitat Graz). More recently fast micro-thermocouple probes ($12 \div 25 \mu\text{m}$ junction) were designed, dynamically tested and applied in the frame of the FP7 RECORD project, showing a dynamic response of 0.5 kHz.

- d) Development of computational techniques for turbomachinery design

More recently a research line was launched on the development of design tools for turbomachinery. The methodology consists in a hierarchy of in-house developed codes of progressively growing complexity: a mean-line preliminary design code (zTurbo), a novel CFD-based throughflow code (TzFlow), and a CFD-based package (FORMA) for the shape-optimization and the uncertainty quantification analysis of turbomachinery cascades and stages. The codes feature a Look-up Table approach to simulate the flow of fluids characterized by arbitrary equations of state.

- e) Non-conventional turbomachinery for clean power generation

In the frame of National and EU-FP7 Research Grants three vertical axis wind turbines were studied experimentally at Politecnico di Milano, to determine their performance, to quantify the wind tunnel blockage and to investigate the unsteady evolution of the wake. In the frame of multiple contracts funded by the companies a novel air-pressure driven micro-turbine (target power 10-100 W) was designed and tested. Recently Organic Rankine Cycle (ORC) technology has been studied with particular focus on the aerodynamics of non-conventional centrifugal turbines and the automatic design of supersonic turbine cascades.

Funded Research Responsibility

Responsibility of Contracts with Companies:

- Italian Institute of Technology, 2014
- Asimptote (The Netherlands), 2014-2019
- Ferrari, 2015-2017
- AST, 2016-2018
- Advanced Micro-Turbines, 2016-2018
- Enertime, 2016-2018
- Ansaldo Energia, 2017-2019
- Triveni Turbines, 2018-2019

Participation to funded Research Grants:

- PRIN 2007 (National level, 2 years): “Sviluppo e sperimentazione di tecniche di misura per flussi transonici in presenza di effetti di gas reale”
- PRIN 2009 (National level, 2 years): “Rilievo sperimentale del campo di moto tempovariante in prossimità di un aerogeneratore ad asse verticale”
- Regione Lombardia 2010 (Regional level, 2 years): “Ottimizzazione di tecnologie a fluido organico per lo sfruttamento di sorgenti energetiche a bassa/media temperatura”
- EU Project (FP7) 2013: “RECORD (Research on Core Noise Reduction)” (European level, 3 years).

Participation to Contracts with Companies, with responsibility on specific tasks:

- Franco Tosi Meccanica, 2005-2008.
- EDF, 2008-2009.
- Avio, 2008-2009.
- GE Oil & Gas, 2008-2009, 2010, 2012-13, 2014.
- CBI, 2009-2010.
- Techbau, 2012.
- Saipem, 2014.
- Ansaldo Sviluppo Energia, 2014-2015.
- Fincantieri, 2014-2015.

Institutional Roles in University

- Component of the 'Giunta' (Board) of the Energy Department as representative of Assistant Professors between May 2013 and April 2015.
- Component of an Energy Department Commission in charge for the definition of performance parameters for long service bonus of teaching staff (2014)

Teaching Activity

- Professor of the course “Macchine” (Fluid Machines), 9 CFU, Bachelor of Science degree in Mechanical Engineering, Politecnico di Milano, for the A.Y. 2014/2015 - present
- Professor of the course “Modeling techniques for fluid-machines”, 6 CFU, Master of Science degree in Mechanical Engineering, Politecnico di Milano, for the A.Y. 2016/2017
- Professor of the Ph.D. course “Advanced Measurement Methods” (course director Prof. Cozzi), 1 (out of a total of 5) CFU, Doctorate in Energy and Nuclear Science and Technology, Politecnico di Milano, for the A.Ys. 2016/2017 - present
- Professor of the course “Tecniche di modellazione delle macchine a fluido” (Modeling techniques for the simulation of thermal machines systems), 6 CFU, Master of Science degree in Mechanical Engineering, Politecnico di Milano, for the A.Y. 2013/2014
- Professor of the course “Fluid-Machines”, 9 CFU offered in English language, Bachelor of Science degree in Mechanical Engineering, Politecnico di Milano, for the A.Ys. 2009/2010 - 2013/2014.
- Professor of the course “Sistemi Enegetici” (Energetics systems), 5 CFU, Bachelor of Science degree in Management and Production Engineering, Politecnico di Milano, for the A.Ys. 2011/2012 - 2013/2014.
- Teaching assistant (lectures, laboratories and examinations) in the frame the Ph.D. courses “Advanced Measurement Methods” (course director Prof. Coghe), “Experimental Thermo Fluid Dynamics” (course directors Prof. Inzoli & Prof. Ballio), and “Research Management” (course director Prof. Tolio), Politecnico di Milano, in the period 2010-2016
- Teaching assistant (lectures and laboratories) for the courses “Tecniche di modellazione delle macchine a fluido” and then “Modeling techniques for fluid-machines” (course responsible Prof. Montenegro), 6 CFU, Master of Science degree in Mechanical Engineering, Politecnico di Milano, for the A.Ys. 2011/2012, 2012/2013, 2014/2015, 2015/2016, 2017/2018, 2018/2019

Responsibility on Master and Doctoral Theses:

- Supervisor of about 50 Master Theses in Mechanical or Energy Engineering in the period 2010-2019
- Supervisor of the doctoral candidate Alessandro Romei, Doctorate in Energy and Nuclear Science and Technology, Politecnico di Milano, 2017-2020
- Advisor (unofficial) of the doctoral candidate Matteo Pini, Ph.D. Thesis title “Turbomachinery Design Optimization using Adjoint Method and Accurate Equations of State”, Supervisor Prof. Dossena, Doctorate in Energy and Nuclear Science and Technology, Politecnico di Milano, 2014
- International Referee for the Ph.D. Thesis of Elio Bufi, “Robust Optimization of ORC turbine expanders”, Paris Tech, supervisor Prof. Cinnella, 2016
- International Referee for the Ph.D. Thesis of Laura Villafane, “Experimental Aerothermal Performance of Turbofan Bypass Flow Heat Exchangers”, Universitat Politècnica de València, supervisors Prof. Desantes and Prof. Paniagua, 2013

Milan, April 22, 2019

Giacomo Bruno Azzurro Persico

List of Publications of Prof. Dr. Ing. Giacomo Bruno Azzurro Persico

(as of April 2019)

Journal Publications:

1. G. Persico, P. Rodriguez-Fernandez, A. Romei, “High-Fidelity Shape Optimization of Non-Conventional Turbomachinery by Surrogate Evolutionary Strategies”, 2019, ASME Journal of Turbomachinery (ISSN 0889-504X), Vol. 141, Issue 8, paper 081010.
2. A. Romei, P.M. Congedo, G. Persico, “Assessment of Deterministic Shape Optimizations within a Stochastic Framework for Supersonic Organic Rankine Cycle Nozzle Cascades ”, 2019, ASME Journal of Engineering for Gas Turbines and Power (ISSN 1528-8919), Vol 141, Issue 7, paper 071019.
3. N. Franchina, G. Persico, M. Savini, “2D-3D Computations of a Vertical Axis Wind Turbine Flow Field: Modeling Issues and Physical Interpretations”, 2019, Renewable Energy (ISSN 0960-1481), Vol. 136, pp. 1170-1189.
4. P. Gaetani, G. Persico, “Transport of entropy waves within a HP turbine stage”, 2019, ASME Journal of Turbomachinery (ISSN 0889-504X), Vol 141, Issue 3, paper 031006.
5. N. Razaaly, G. Persico, P.M. Congedo, “Impact of geometric, operational, and model uncertainties on the non-ideal flow through a supersonic ORC turbine cascade”, 2019, Energy (ISSN 0360-5442), Vol. 169, pp. 213-227.
6. A. Bianchini, F. Balduzzi, G. Ferrara, G. Persico, V. Dossena, L. Ferrari, “A critical analysis on low-order simulation models for darrieus vawts: How much do they pertain to the real flow? ”, 2019, ASME Journal of Engineering for Gas Turbines and Power (ISSN 1528-8919), Vol 141, Issue 1, paper 011018.
7. G. Persico, A. Romei, V. Dossena, P. Gaetani, “Impact of shape-optimization on the unsteady aerodynamics and performance of a centrifugal turbine for ORC applications”, 2018, Energy (ISSN 0360-5442), Vol. 165, pp. 2-11
8. J. Saverin, G. Persico, D. Marten, D. Holst, G. Pechlivanoglou, C.O. Paschereit, V. Dossena, “Comparison of Experimental and Numerically Predicted Three-Dimensional Wake Behaviour of a Vertical Axis Wind Turbine”, 2018, ASME Journal of Engineering for Gas Turbines and Power (ISSN 1528-8919), Vol. 140, paper 122601
9. L. Battisti, G. Persico, V. Dossena, B. Paradiso, M. Raciti Castelli, A. Brighenti, E. Benini, “Experimental benchmark data for H-shaped and troposkien VAWT architectures”, 2018, Renewable Energy (ISSN 0960-1481), Vol. 125, pp. 425-444
10. A. Bianchini, F. Balduzzi, G. Ferrara, L. Ferrari, G. Persico, V. Dossena, L. Battisti, “Detailed analysis of the wake structure of a straight-blade H-Darrieus wind turbine by means of wind tunnel experiments and CFD simulations”, 2018, ASME Journal of Engineering for Gas Turbines and Power (ISSN 1528-8919), Vol 140, Issue 3, paper 032604 (9 pages)
11. A. Meroni, J.G. Andreasen, G. Persico, F. Haglind, “Optimization of organic Rankine cycle power systems considering multistage axial turbine design”, 2018, Applied Energy (ISSN 0306-2619), Vol. 209, pp. 339-354

12. L. Battisti, A. Brighenti, M. Raciti Castelli, G. Persico, V. Dossena, "Performance and midspan wake measurements on a H-Darrieus in controlled conditions", 2018, *Journal of Physics: Conference Series* (ISSN: 1742-6588), Vol. 1037, paper 022041
13. G. Persico, P. Gaetani, A. Spinelli, "Assessment of synthetic entropy waves for indirect combustion noise experiments in gas turbines", 2017, *Experimental Thermal and Fluid Science* (ISSN 0894-1777), Vol. 88, p. 376-388
14. K. Knobloch, L. Neuhaus, F. Bake, P. Gaetani, G. Persico, "Experimental Assessment of Noise Generation and Transmission in a High-Pressure Transonic Turbine Stage", 2017, *ASME Journal of Turbomachinery* (ISSN 0889-504X), Vol. 139, Issue 10, paper 101006 (12 pages)
15. P. Gaetani, G. Persico, A. Spinelli, "Coupled Effect of Expansion Ratio and Blade Loading on the Aerodynamics of a High-Pressure Gas Turbine", 2017, *Applied Sciences* (ISSN 2076-3417), Vol.7, Issue 3, paper 259 (21 pages)
16. G. Persico, V. Dossena, B. Paradiso, L. Battisti, A. Brighenti, E. Benini, "Time-resolved Experimental Characterization of Wakes Shed by H-Shaped and Troposkien Vertical Axis Wind Turbines", 2017, *ASME Journal of Energy Resources Technology* (ISSN 0195-0738), Vol. 139, Issue 3 (May), paper 031203 (11 pages)
17. P. Gaetani, G. Persico, "Hot Streak Evolution in an Axial HP Turbine Stage", 2017, *International Journal of Turbomachinery, Propulsion and Power* (ISSN 2504-186X), Vol. 2, paper 6 (18 pages)
18. G. Persico, "Evolutionary Optimization of Centrifugal Nozzles for Organic Vapours", 2017, *Journal of Physics: Conference Series* (ISSN: 1742-6588), Vol. 821, paper 012015 (10 pages). Presented at NICFD 2016 Seminar, 20-21 October, 2016, Varenna, Italy.
19. G. Gori, P. Molesini, G. Persico, A. Guardone, "Non-Ideal Compressible-Fluid Dynamics of Fast-Response Pressure Probes for Unsteady Flow Measurements in Turbomachinery", 2017, *Journal of Physics: Conference Series* (ISSN: 1742-6588), Vol. 821, paper 012005 (10 pages). Presented at NICFD 2016 Seminar, 20-21 October, 2016, Varenna, Italy
20. G. Persico, V. Dossena, P. Gaetani, "Optimal Aerodynamic Design of a Transonic Centrifugal Turbine Stage for Organic Rankine Cycle Applications", 2017, *Energy Procedia* (ISSN: 1876-6102), Vol. 129, pp. 1093-1100. Presented at the IV International Seminar on Organic Rankine Cycle Power Systems, September 13-15, 2017, Milano, Italy
21. N. Razaaly, G. Persico, P.M. Congedo, "Uncertainty Quantification of Inviscid Flows Through a Supersonic ORC Turbine Cascade", 2017, *Energy Procedia* (ISSN: 1876-6102), Vol. 129, pp. 1149-1155. Presented at the IV International Seminar on Organic Rankine Cycle Power Systems, September 13-15, 2017, Milano, Italy
22. M. Mondejar, J.G. Andreasen, M. Regidor, S. Riva, G. Kontogeorgis, G. Persico, F. Haglind, "Prospects of use of nanofluids as working fluids for Organic Rankine Cycle power systems", 2017, *Energy Procedia* (ISSN: 1876-6102), Vol. 129, pp. 160-167. Presented at the IV International Seminar on Organic Rankine Cycle Power Systems, September 13-15, 2017, Milano, Italy
23. A. Cinciripini, P. Bader, G. Persico, W. Sanz, "An Investigation of Innovative Experimental and Numerical Techniques to Detect Boundary Layer Transition", 2017, *Journal of Mechanics Engineering and Automation* (ISSN 2159-5275), Vol. 7, pp. 221-234
24. A. La Seta, A. Meroni, J.G. Andreasen, L. Pierobon, G. Persico, F. Haglind, "Combined Turbine and Cycle Optimization for Organic Rankine Cycle Power Systems?Part B: Application on a Case Study", 2016, *Energies* (ISSN 1996-1073), Vol. 9, Issue 6, 393 (17 pages)
25. A. Meroni, A. La Seta, J.G. Andreasen, L. Pierobon, G. Persico, F. Haglind, "Combined Turbine and Cycle Optimization for Organic Rankine Cycle Power Systems?Part A: Turbine Model", 2016, *Energies* (ISSN 1996-1073), Vol. 9, Issue 5, 313 (15 pages)

26. L. Battisti, E. Benini, A. Brighenti, M. Raciti Castelli, S. dell'Anna, V. Dossena, G. Persico, U. Schmidt Paulsen, T.F. Pedersen, "Wind tunnel testing of the DeepWind demonstrator in design and tilted operating conditions", 2016, *Energy* (ISSN 0360-5442), Vol. 111, pp. 484-497
27. L. Battisti, E. Benini, A. Brighenti, M. Raciti Castelli, S. dell'Anna, V. Dossena, G. Persico, U. Schmidt Paulsen, T.F. Pedersen, "Normalized performance and load data for the DeepWind demonstrator in controlled conditions", 2016, *Data in Brief* (ISSN 2352-3409), Vol. 8, pp. 1120-1126
28. M. Raciti Castelli, M. Masi, L. Battisti, E. Benini, A. Brighenti, V. Dossena, G. Persico, "Reliability of numerical wind tunnels for VAWT simulation", 2016, *Journal of Physics: Conference Series* (ISSN: 1742-6588), Vol. 753, paper 082025 (14 pages). Presented at TORQUE 2016 Conference, 5-7 October 2016, Munich, Germany
29. G. Persico, M. Pini, V. Dossena, P. Gaetani, "Aerodynamics of Centrifugal Turbine Cascades", 2015, *ASME Journal of Engineering for Gas Turbines and Power* (ISSN 1528-8919), Vol. 137, Issue 11 (November), 112602 (11 pages)
30. V. Dossena, G. Persico, B. Paradiso, L. Battisti, S. dell'Anna, A. Brighenti, E. Benini, "An Experimental Study of the Aerodynamics and Performance of a Vertical Axis Wind Turbine in a Confined and Unconfined Environment", 2015, *ASME Journal of Energy Resources Technology* (ISSN 0195-0738), Vol. 137, Issue 5 (September), 051207 (12 pages)
31. M. Pini, G. Persico, D. Pasquale, S. Rebay, "Adjoint Method for Shape Optimization in Real-Gas Flow Applications", 2015, *ASME Journal of Engineering for Gas Turbines and Power* (ISSN 1528-8919), Vol. 137, Issue 3 (March), 032604 (13 pages)
32. M. Pini, A. Spinelli, G. Persico, S. Rebay, "Consistent Look-up Table interpolation method for real-gas flow simulations", 2015, *Computers & Fluids*, (ISSN 0045-7930), Vol. 107, pp. 178-188
33. E. Casati, S. Vitale, M. Pini, G. Persico, P. Colonna, "Centrifugal Turbines for Mini-Organic Rankine Cycle Power Systems", 2014, *ASME Journal of Engineering for Gas Turbines and Power* (ISSN 1528-8919), Vol. 136, Issue 12 (December), 122607 (11 pages)
34. D. Pasquale, G. Persico, S. Rebay, "Optimization of Turbomachinery Flow Surfaces Applying a CFD-based Throughflow Method", 2014, *ASME Journal of Turbomachinery* (ISSN 0889-504X), Vol. 136, Issue 3 (March), 031013 (11 pages)
35. M. Pini, G. Persico, E. Casati, V. Dossena, "Preliminary Design of a Centrifugal Turbine for Organic Rankine Cycle applications", 2013, *ASME Journal of Engineering for Gas Turbines and Power* (ISSN 1528-8919), Vol. 135, Issue 4 (April), 042312 (9 pages)
36. G. Persico, A. Mora, P. Gaetani, M. Savini, "Unsteady Aerodynamics of a Low Aspect Ratio Turbine Stage: Modeling Issues and Flow Physics", 2012, *ASME Journal of Turbomachinery* (ISSN 0889-504X), Vol. 134, Issue 6 (November), 061030 (10 pages)
37. P. Gaetani, G. Persico, A. Mora, V. Dossena, C. Osnaghi, "Impeller Vaned Diffuser Interaction in a Centrifugal Compressor at Off-Design Conditions", 2012, *ASME Journal of Turbomachinery* (ISSN 0889-504X), Vol. 134, Issue 6 (November), 061034 (9 pages)
38. G. Persico, S. Rebay, "A penalty formulation for the throughflow modeling of turbomachinery", 2012, *Computers & Fluids* (ISSN 0045-7930), Vol. 60, pp. 86-98
39. L. Battisti, L. Zanne, S. dell'Anna, V. Dossena, G. Persico, B. Paradiso, "Aerodynamic Measurements on a Vertical Axis Wind Turbine in a Large Scale Wind Tunnel", 2011, *ASME Journal of Energy Resources Technology* (ISSN 0195-0738), Vol. 133, Issue 3 (September), 031201 (9 pages)
40. P. Gaetani, G. Persico, C. Osnaghi, "Effects of Axial Gap on the Vane-Rotor Interaction in a Low Aspect Ratio Turbine Stage", 2010, *AIAA Journal of Propulsion and Power* (ISSN 0748-4658), Vol. 26, Issue 2 (March-April), pp. 325-334

41. O. Schennach, J. Woisetschlaeger, B. Paradiso, G. Persico, P. Gaetani, “Three dimensional clocking effects in a one and a half stage transonic turbine”, 2010, ASME Journal of Turbomachinery (ISSN 0889-504X), Vol. 132, Issue 1 (January), 011019 (10 pages)
42. G. Persico, P. Gaetani, V. Dossena, G. D’Ippolito, C. Osnaghi , “On the definition of the secondary flow in three-dimensional cascades”, 2009, I MECH E Journal of Power and Energy (ISSN 0957-6509), Vol. 223, Issue 6, pp. 667-676
43. G. Persico, P. Gaetani, C. Osnaghi, “A Parametric Study of the Blade Row Interaction in a High Pressure Turbine Stage”, 2009, ASME Journal of Turbomachinery (ISSN 0889-504X), Vol. 131, Issue 3 (July), 031006 (13 pages)
44. C. Antonini, G. Persico, A.L. Rowe, “Prediction of the dynamic response of complex transmission line systems for unsteady pressure measurements”, 2008, Measurement Science and Technology (ISSN 0957-0233), Vol. 19, Number 12 (December), 125401 (11pp)
45. P. Gaetani, A. Guardone, G. Persico, “Shock tube flows past partially opened diaphragms”, Journal of Fluid Mechanics (ISSN 0022-1120), Vol. 602, 2008, pp. 267-286.
46. P. Gaetani, G. Persico, V. Dossena, C. Osnaghi, “Investigation of the Flow Field in a High-Pressure Turbine Stage for Two Stator-Rotor Axial Gaps-Part II: Unsteady Flow Field”, 2007, ASME Journal of Turbomachinery (ISSN 0889-504X), Vol. 129, Issue 3 (July), pp. 580-590.
47. P. Gaetani, G. Persico, V. Dossena, C. Osnaghi, “Investigation of the Flow Field in a High-Pressure Turbine Stage for Two Stator-Rotor Axial Gaps-Part I: Three-Dimensional Time-Averaged Flow Field”, 2007, ASME Journal of Turbomachinery (ISSN 0889-504X), Vol. 129, Issue 3 (July), pp. 572-579.
48. G. Paniagua, G. Persico, N. Billiard, R. Dénos, “Modulation of the Rotor-Stator Interactions Due to Clocking”, 2007, International Review of Mechanical Engineering (ISSN 1970-8734), Vol. 1, N. 3 (May), pp. 293-303.
49. G. Persico, P. Gaetani, A. Guardone, “Dynamic calibration of fast-response probes in low-pressure shock tubes”, 2005, Measurement Science and Technology (ISSN 0957-0233), Vol. 16, Number 9 (September), pp. 1751-1759.
50. G. Persico, P. Gaetani, A. Guardone, “Design and analysis of new concept fast-response pressure probes”, 2005, Measurement Science and Technology (ISSN 0957-0233), Vol. 16, Number 9 (September), pp. 1741-1750.

Book Chapters:

1. P.F. Melani, P. Schito, G. Persico, “Experimental assessment of an actuator-line simulation tool for VAWTs”, *to be published in* Green Energy and Technology
2. G. Persico, V. Dossena, A. Zasso, “Wake measurements of small-scale vertical axis wind turbines at Politecnico di Milano: a critical review”, 2018, *in* Green Energy and Technology, Vol. PartF10, pp. 123-137.
3. L. Battisti, E. Benini, A. Brighenti, S. Dell’anna, M. Raciti Castelli, V. Dossena, G. Persico, B. Paradiso, “A review based on evaluation experiences with ten-years activity in VAWT experimental wind tunnel testing”, 2018, *in* Green Energy and Technology, Vol. PartF10, pp. 139-154.
4. G. Persico, M. Pini, “Fluid dynamic design of Organic Rankine Cycle Turbines”, 2016, *in* “Organic Rankine Cycle (ORC) Power Systems: Technologies and Applications”, Woodhead Publishing, ISBN 978-0-08-100510-1, pp. 253-297.

5. G. Paniagua, G. Persico, N. Billiard, "Rotor-Stator Interactions in a One and a Half Transonic Turbine Stage", 2006, *in* Turbomachines: Aeroelasticity, Aeroacoustics, Unsteady Aerodynamics, Torus Press, ISBN 5-94588-041-8, pp. 215-226
6. P. Gaetani, G. Persico, "Influence of Rotor Loading on the Vortex-Blade Interaction in a High-Pressure Turbine", 2006, *in* Turbomachines: Aeroelasticity, Aeroacoustics, Unsteady Aerodynamics, Torus Press, ISBN 5-94588-041-8, pp. 180-200

Books:

1. V. Dossena, G. Ferrari, P. Gaetani, G. Montenegro, A. Onorati, G. Persico, "Macchine a Fluido", 2015, ISBN 978-88-251-7397-0, Città Studi Edizioni - De Agostini Scuola.
2. G. Persico, "Unsteady Aerodynamic Stator-Rotor Interaction in High Pressure Turbines", 2007, Von Karman Institute for Fluid Dynamics, ISBN 978-2-930389-26-5, Rhode-Saint-Gense, Belgium.

Publications in Proceedings of International Conferences:

1. N. Franchina, O. Kouaissah, G. Persico, M. Savini "Three-dimensional CFD simulation and experimental assessment of the performance of a H-shape vertical axis wind turbine at design and off-design conditions", 2019, Proceedings of the 13th European Conference on Turbomachinery Fluid Dynamics and Thermodynamics, April 8-12, 2019, Lausanne, Switzerland
2. P. Gaetani, G. Persico, "Technology development of Fast-Response Aerodynamic Pressure Probes", 2019, Proceedings of the 13th European Conference on Turbomachinery Fluid Dynamics and Thermodynamics, April 8-12, 2019, Lausanne, Switzerland
3. A. Romei, G. Persico, "Novel Shape Parametrization Technique Applied to the Optimization of a Supersonic ORC Turbine Cascade", 2018, Proceedings of the ASME Turbo Expo 2018, June 11-15, 2018, Oslo, Norway.
4. P. Gaetani, G. Persico, "Transport of entropy waves within a HP turbine stage", 2018, Proceedings of the ASME Turbo Expo 2018, June 11-15, 2018, Oslo, Norway.
5. A. Bianchini, F. Balduzzi, G. Ferrara, G. Persico, V. Dossena, L. Ferrari, "A critical analysis on low-order simulation models for darrieus vawts: How much do they pertain to the real flow? ", 2018, Proceedings of the ASME Turbo Expo 2018, June 11-15, 2018, Oslo, Norway.
6. J. Saverin, D. Marten, G. Pechlivanoglou, C.O. Paschereit, G. Persico, V. Dossena, "Advanced Medium-order Modelling for the Prediction of the Three-Dimensional Wake Shed by a Vertical Axis Wind Turbine", 2018, Proceedings of the ASME Turbo Expo 2018, June 11-15, 2018, Oslo, Norway.
7. J. Saverin, G. Persico, D. Marten, D. Holst, G. Pechlivanoglou, C.O. Paschereit, V. Dossena, "Comparison of Experimental and Numerically Predicted Three-Dimensional Wake Behaviour of a Vertical Axis Wind Turbine", Proceedings of the ASME Turbo Expo 2017, June 26-30, 2017, Charlotte, NC USA
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