

## COMPREHENSIVE CURRICULUM VITAE

Fabio Rizzo  
Researcher  
Department of Engineering and Geology  
G. D'Annunzio University  
Viale Pindaro 42, 65100 Pescara (Italy)  
Residence address:  
Via R. Nasuti 30, 65013  
Città Sant' Angelo (Pe), Italy  
Contacts:  
Tel. 0039 3200384186  
Email: [fabio.rizzo@unich.it](mailto:fabio.rizzo@unich.it)  
(Nationality: Italian)



**Short CV:**

Fabio Rizzo was graduated in Architecture with 110 cum laude (i.e. Section Structural design) in 2005. He received the award for the best degree thesis in the field of engineering and architecture given by the journal *Costruzioni Metalliche*. He received his PhD in 2009 in structural design and specifically in the field of wind engineering. Results of his PhD thesis were added in the CNR 207 DT documentation in 2019. His studies are published in a book edited by Silvana Editoriale, in 2004. He has more than 50 scientific publications in journals and conference proceedings and 32 of them indexed by SCOPUS database. He received a Post-Doc fellowship in the field of Wind Engineering in 2009, a scholarship in the field of computational fluid dynamics in 2014 and a research grant in the field of wind-structure interaction in 2016. Finally, he works as researcher (i.e. RTDA) at the Department of Engineering, University G. D'Annunzio, Chieti-Pescara, Italy. He was a visiting scholar in three of the most important University in the USA (i.e. Northeastern Boston, Louisiana State University, Baton Rouge and Columbia University, New York) and one of the most important Canadian University (West Ontario University, London Ontario). He was member of two National Project of research (i.e. PRIN) in the field of wind engineering and one International Project of research (SERA) in the field of seismic engineering. He teaches from 2014 to today, reinforced concrete and steel structural design at Architecture degree course, University G. D'Annunzio, Chieti-Pescara, Italy.

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## EDUCATION

### PhD

**Chieti-Pescara University**, Wind Engineering, *June 10<sup>th</sup> 2009*

Dissertation: “*Aerodynamic study and Non Linear analyses of medium and large span roof: Optimization design of tension structure with cables nets*”

### MS

**University of Chieti - Pescara**, Architecture (U.E.) (section Structural Engineering), *April 27<sup>th</sup> 2005* Graduated with honors (110/110 Cum Laude)

Dissertation: “*Cables net membrane roof for Adriatic Stadium of Pescara (Italy)*”

## PROFESSIONAL BOARD

- **Architect**

*June 27<sup>th</sup> 2007*, Pescara, Italy.

- Administrator of STA.RI STP ARL Engineering Company

- Member of the Board of Directors of MULTIASET LAB SRL Company.

## HONORS AND AWARDS

2012, ANIV (*National Association of Wind Engineers*) AWARD (**Special mention**) (in second place).

Dissertation: F. Rizzo, P. D’Asdia, M. Lazzari, L. Procino, 2011, “*Wind action evaluation on tension roofs of hyperbolic paraboloid shape*”, *Engineering Structures*, **33** (2), 445-461, ISSN 0141-0296.

2005, **ACAI** (Associazione fra i Costruttori in Acciaio Italiani) AWARD “*The best Architecture and Engineer thesis /2004-2005*”.

Dissertation: “*Cables net membrane roof for Adriatic Stadium of Pescara (Italy)*”. Explanatory statement (in Italian): “l’originale configurazione assegnata al manufatto è il risultato di un puntuale e meticoloso percorso di avvicinamento alla soluzione ottimale che si è avvalso di raffinate modellazioni ad elementi finiti e di prove nella galleria del vento su modelli in scala”. *Costruzioni metalliche* (Journal) (**6**), November-December 2005, 86, ISSN 0010-9673.

**RESEARCH  
SCHOLARSHIPS,  
GRANTS AND  
CONTRACTS**

1. **Scholarship of the Polish National Agency for Academic Exchange (NAWA project, PPN/U LM/2020/1/00085)** through competitive call at Krakow University of Technology, on aeroelastic behavior of tensile structure with hyperbolic paraboloid shape, planned from September 2021 to February 2022, grant 89000 PLN (**6 months**).
2. **Researcher** (*Ricercatore tempo determinate lettera a*), *RTDA*) at Engineering and Geology Department (INGEO, Dipartimento di Ingegneria e Geologia, University G. D'Annunzio, Chieti-Pescara (Italy) (10/01/2019 – 09/30/2021) (**3 years**).
3. **Research grant** at Engineering and Geology Department (INGEO, Dipartimento di Ingegneria e Geologia, ex PRICOS Dipartimento di Progettazione, Riabilitazione e Innovazione di Strutture Convenzionali ed Innovative), University G. D'Annunzio, Chieti-Pescara (Italy), "*Wind Engineering: study of the aeroelastic and aerodynamic behavior of tensile structures (roofs and bridges)*", 03/01/2016-02/28/2017 (**1 year**).
4. **Research scholarship** at Engineering and Geology Department (INGEO, Dipartimento di Ingegneria e Geologia, ex PRICOS Dipartimento di Progettazione, Riabilitazione e Innovazione di Strutture Convenzionali ed Innovative), University G. D'Annunzio, Chieti-Pescara (Italy), for "*Computational Fluid Dynamic simulations for wind engineering*" (Simulazioni di fluido dinamica computazionale per l'ingegneria del vento), 2013 (**1 year**).
5. **Contract for Research** at Engineering and Geology Department (INGEO, Dipartimento di Ingegneria e Geologia, ex PRICOS Dipartimento di Progettazione, Riabilitazione e Innovazione di Strutture Convenzionali ed Innovative), University G. D'Annunzio, Chieti-Pescara (Italy), "*Nonlinear analyses of structures and study of the pre-stressing influence on the dynamic response of corroded beams*" (*Analisi non lineari di strutture studio dell'influenza della precompressione nella risposta dinamica di travi danneggiate per corrosion*), 02/01/2012-12/31/2012 (**1 year**).
6. **Post Doc scholarship** at Engineering and Geology Department (INGEO, Dipartimento di Ingegneria e Geologia, ex PRICOS Dipartimento di Progettazione, Riabilitazione e Innovazione di Strutture Convenzionali ed Innovative), University G. D'Annunzio, Chieti-Pescara (Italy), in "*Aerodynamic behavior of structure sensitive to the wind action*

*estimation by experimental and computational analysis "*, 09/01/2009-08/31/2011 (**2 years**).

7. **PhD scholarship** at Engineering and Geology Department (INGEO, Dipartimento di Ingegneria e Geologia, ex PRICOS Dipartimento di Progettazione, Rieabilitazione e Innovazione di Strutture Convenzionali ed Innovative), University G. D'Annunzio, Chieti-Pescara (Italy), in Project, analysis and experimentation of structures (Progetto, Analisi (Sperimentazione di Strutture XXI Ciclo). Thesis title: "*aerodynamic behavior of tension structures*", *In italian*. 03/01/2006-06/10/2009 (**3 years**).

**RESEARCH  
AFFILIATIONS**

1. **ANIV** (Associazione Nazionale Ingegneria del vento – National association of wind engineering).
2. Member of the **CRIACIV** (Centro di Ricerca Inter-universitario di Aerodinamica delle Costruzioni e Ingegneria del Vento, Inter-University Research Centre on Building Aerodynamics and Wind Engineering) **Scientific Committee**.
3. **IASS** (International Association For Shell And Spatial Structures)
4. **TENSINET** (<https://www.tensinet.com/index.php/tensinet-publications/general>)
5. **Iawe** (International Associations for Wind Engineering)

**RESEARCH ACTIVITY**    **Collaboration with the CNR-DT 207 scientific commission** for the new edition 2018. Pressure coefficients distribution aps of hyperbolic paraboloid roofs – annex G.

**Reviewer for:**

- *Journal of Wind Engineering and Industrial Aerodynamics*
- *Journal of Engineering Structures*
- *Journal of Applied mathematics*
- *Journal of the International Association for Shell and Spatial Structures*
- *Steel and Composite Structures*
- *Journal of Fluid and Structures*
- *Journal of Wind and Structures*
- *Quality and Reliability Engineering International*
- *Sustainability*
- *Applied science*
- *Journal of bridge engineering*
- *Buildings*
- *Applied Mathematical Modelling*
- *Shock and Vibration*
- *Infrastructures*
- *Research on Engineering Structures and Materials*
- *Frontiers in Built Environment*
- *Computer Modeling in Engineering and Sciences*

**Editorial board member:**

1. *Smart Construction Research*
2. *Frontiers in Built Environment, Editorial Board of Wind Engineering and Science (specialty section of Frontiers in Built Environment).*
3. *Research on Engineering Structures and Materials.*
4. *Infrastructures*
5. *Shock and Vibration*
6. *Engineering Science & Technology(EST)*
7. *Applied Science (MPDI)*

**Adjunct reviewer** of the new edition of the National Technical Code annex: *Circolare esplicativa alle Norme Tecniche 2008 – Edizione 2017: Capitolo 3 (in Italian)*, for the Italian Ministry of Public Works, 2016.



## RESEARCH EXPERIENCE

### A) Research Programs

1. **Research Unit Member of the SERA (SEISMOLOGY AND EARTHQUAKE ENGINEERING RESEARCH INFRASTRUCTURE ALLIANCE FOR EUROPE)** Supervisor: Prof. **Theodoros Rousakis**.
2. **Research Unit Member of the PRIN 2008, Tall Towered Structures for Large Wind Energy Production and Environmental Touristic use of wind places. Strategies, tools and backgrounds for building innovation and acceptability.** 2008. Supervisor: Prof. **Claudio Borri**.
3. **Research Unit Member of the PRIN 2006, Innovation in deck and suspension system arrangement for light pedestrian bridges and long span bridges.** Supervisor: Prof. **Claudio Borri**.

### B) National visiting scholarships

1. **Research activity** in the field of *wind engineering* at Wind Tunnel Laboratory, University of Genova, (Italy), Supervisors: **Prof. Giovanni Solari, Prof. Giuseppe Piccardo**, November, 2019 (1 Month).

### C) International visiting scholarships

2. **Research activity (J-1 program)** in the field of *Structural dynamics identification* at **Columbia University in the City of New York**, Department of Civil Engineering and Engineering Mechanics, New York City, New York (USA), Supervisor: Prof. **Raimondo Betti**, November, 2018 (1 Month).
3. **Research activity (J-1 program)** in the field of *Stochastics of pressure fields* at **Louisiana State University**, Department of Civil and Environmental Engineering, Baton Rouge, Louisiana (USA), Supervisor: Prof. **Michele Barbato**, August, 2016 (1 Month).
4. **Research activity (Visiting program)** in the field of *Aeroelastic and Aerodynamic tests in wind tunnel*, at **West Ontario University**, Davenport Wind Tunnel Laboratory, London, Ontario (Canada), Supervisor: Prof. **Gregory Kopp**, July, 2015 (1 Month).
5. **Research activity (J-1 program)** in the field of *Static and Dynamic wind tunnel test on suspended bridge deck sections model*, at **Northeastern**

**University**, Department of Civil and Environmental Engineering, Boston, Massachusetts (USA), Supervisor: Prof. **Luca Caracoglia**, May, 2014 (**1 Month**).

### **C) Wind tunnel experiments**

1. Aeroelastic tests in wind tunnel on high-rise building model at Genova University, Wind Tunnel laboratory, Genova (Italy), Supervisor: Prof. **Giovanni Solari**, November, 2019 (**30 days**).
2. Aerodynamic tests in wind tunnel on suspended bridge deck sections models at Ancona University, Wind Tunnel laboratory, Ancona (Italy), Supervisor: Prof. **Sergio Montelpare**, November, 2015 (**10 days**).
3. Aeroelastic tests in wind tunnel on hyperbolic paraboloid roofs models West Ontario University, Davenport Wind Tunnel Laboratory, London, Ontario (Canada), Supervisor: Prof. **Gregory Kopp**, July, 2015 (**1 Month**).
4. Static and Dynamic wind tunnel tests on suspended bridge deck sections models at Northeastern University, Department of Civil and Environmental Engineering, Boston, Massachusetts (USA), Supervisor: Prof. **Luca Caracoglia**, May, 2014 (**1 Month**).
5. Wind tunnel tests on suspended bridge deck sections models (pressure coefficients acquisitions) at CRIACIV (Center of Research on Structural Aerodynamics and Wind Engineering), Florence University, Prato (Italy), Supervisor: Prof. **Gianni Bartoli**, March 2014 (**7 days**).
6. Wind tunnel tests on suspended bridge deck sections models (pressure coefficients acquisitions) at CRIACIV (Center of Research on Structural Aerodynamics and Wind Engineering), Florence University, Prato (Italy), Supervisor: Prof. **Gianni Bartoli**, June 2012 (**7 days**).
7. Wind tunnel tests on hyperbolic paraboloid roofs models with elliptical shape (pressure coefficients acquisitions) at CRIACIV (Center of Research on Structural Aerodynamics and Wind Engineering), Florence University, Prato (Italy), Supervisor: Prof. **Gianni Bartoli**, June 2012 (**7 days**).

8. Wind tunnel tests on hyperbolic paraboloid roofs models (pressure coefficients acquisitions), at CRIACIV (Center of Research on Structural Aerodynamics and Wind Engineering), Florence University, Prato (Italy), Supervisor: Prof. **Gianni Bartoli**, June 2008 (**1 Month**).
9. Aerodynamic tests on a canopy roof model at CRIACIV (Center of Research on Structural Aerodynamics and Wind Engineering), Florence University, Prato (Italy), Supervisor: Prof. **Gianni Bartoli**, October 2004 (**1 Month**).

#### **D) Laboratory experiments**

1. Dynamic identification of a skyscraper scaled model on shocking table at Laboratory of the Structural Engineering Department, University Federico II, Naples (Italy), Supervisor: Prof. **Giuseppe Maddaloni**, October 2017 (**6 days**).

#### **TEACHING EXPERIENCE**

1. 2020 **Teaching fellow for lectures** with the students of Cracow University of Technology for PhD candidates on the course of Theory of experiments and for master students on the course of Environmental effects on buildings. Cracow University of Tecnology, Wind Engineering Laboratory, Faculty of Engineering. Aerodynamic and Aeroelastic experiments on roofs, bridges and high-rise buildings. May 28<sup>th</sup>, Cracow
2. 2020 **Teaching fellow for lectures** at Institute of Earthquake Engineering and Engineering Seismology (Ukim Iziis), Multi-Hazard effects on buildings: experimental investigation the case of a high-rise building. May 24<sup>th</sup>, Skopje.
3. 2020 Lecturer PhD Course, **Earth Systems and Built Environments (ciclo XXXV)**, February 24<sup>th</sup> and 25<sup>th</sup>, Gabriele D'Annunzio University, Pescara, Italy.
4. *Chieti-Pescara University*, Pescara September 2018 – today.  
**Lecturer** in building/construction techniques (Corso di tecnica delle Costruzioni – Tecnica 1) (8CFU).
5. *Chieti-Pescara University*, Pescara September 2017 – April 2019;  
**Adjunct Lecturer** in building/construction techniques (Corso di tecnica

delle Costruzioni – Tecnica 1) (8CFU) (**1 year and 6 months**).

6. *Chieti-Pescara University*, Pescara September 2016 – April 2017; **Adjunct Lecturer** in Concrete structures design (Corso integrato – corso di costruzioni in cemento armato) (4CFU) (**1 year and 6 months**).
7. *Chieti-Pescara University*, Pescara September 2016 – April 2017; **Adjunct Lecturer** in Steel structures design (Corso integrato – corso di costruzioni in acciaio) (4CFU) (**1 year and 6 months**).
8. *Chieti-Pescara University*, Pescara September 2014 – April 2016; **Adjunct Lecturer** in Concrete structures design (Corso integrato – corso di costruzioni in cemento armato) (4CFU) (**1 year and 6 months**).
9. *Chieti-Pescara University*, Pescara September 2014 – April 2016; **Adjunct Lecturer** in Steel structures design (Corso integrato – corso di costruzioni in acciaio) (4CFU) (**1 year and 6 months**).
10. 2006-to date, **teaching assistant and exam committee member** in Concrete structures design, steel structures design, construction technology, *Chieti-Pescara University*, Pescara
11. 2006-to date, **Co-tutor MS and BS thesis**, *Chieti-Pescara University*, Pescara
12. 2014 **Co-tutor PhD thesis**, *Chieti-Pescara University*, Pescara

#### **PUBLICATIONS INDEX** *Books and Book essays*

1. F. Rizzo, 2014, “*Aerodynamics of tensile structures*”, in English and Italian, with the partnership of Redaelli s.p.a. edited by Silvana Editoriale, Cinisello Balsamo, Milano, Italy, p.166, ISBN-10: 8836628400.
2. F. Rizzo, 2011, “*Power plants from renewable sources such as new attractors landscape - typological, structural and technological aspects of matter*“, essay in F. Angelucci, “The construction of the energy landscape”, Franco Angeli s.r.l. Milano, Italy, 97-103, ISBN 978-88-568-3275-4, in Italian.
3. F. Rizzo, 2010, “*Appendix to chapter 2: Geometrically nonlinear finite*

*elements analysis*”, in “*Aeroelastic phenomena and other dynamic interactions for non-conventional bridge: Aeroelastic Phenomena and Pedestrian-Structure Dynamic Interaction on Non-Conventional Bridges and Footbridges*”, national research program by MIUR (Ministry of Education, University and Research), by Claudio Borri and Claudio Mannini, Firenze University Press 2010, 61-63, ISBN: 978-88-6453-200-4, 61-63.

#### **Data in brief**

1. Caracoglia, Luca, Rizzo, Fabio, 2020. “*Repeated Wind Tunnel Section Model Tests of a Closed-Box Bridge Deck – Scanlan Derivatives.*” DesignSafe-CI. <https://doi.org/10.17603/ds2-6xp3-xj95>.

#### **Workshop paper**

1. F. Rizzo, L. Caracoglia, 2021. “*Artificial Neural Network models to study wind-induced response of large-span roofs and suspension bridges*”. 6th American Association for Wind Engineering Workshop (online), Clemson University, Clemson, SC, USA, May 12-14, 2021.

#### **Journal papers**

1. F. Rizzo, 2021. “*Investigation of the time dependence of wind-induced aeroelastic response on a scale model of a high-rise building*”. **Applied Sciences** (Switzerland), 2021, 11(8), 3315. (\*)
2. F. Rizzo, 2021. “*Sensitivity Investigation on the Pressure Coefficients Non-Dimensionalization*”. **Infrastructures** 2021, 6(4), 53. (\*)
3. F. Rizzo, M. Huang, 2021. “*Peak value estimation for wind-induced lateral accelerations in a high-rise building*”. **Structure and Infrastructure Engineering**, 2021. (\*)
4. F. Rizzo, A. Franco, A. Bonati, G. Maddaloni, N. Caterino, A. Occhiuzzi, 2021. “*Predictive analyses for aerodynamic investigation of curtain walls*”. **Structures**, 29, 1059-1077. (\*)
5. F. Rizzo, A. G. Kopp, G. Giaccu, 2021. “*Investigation of wind-induced dynamics of a cable net roof with aeroelastic wind tunnel tests*”. **Engineering Structures**, 229, 111569. (\*)
6. F. Rizzo, C. Demartino, 2021. “*Pressure modes for hyperbolic paraboloid roofs*”. **Curved and Layer Structure**, 7, 1–21. (\*)
7. T. Rousakis, A. Ilki, A. Kwecien, A.

- Viskovic, M. Gams, P. Triller, B. Ghiassi, A. Benedetti, Z. Rakicevic, C. Colla, O. F. Halici, B. Zając, Ł. Hojdys, P. Krajewski, F. Rizzo, V. Vanian, A. Sapalidis, E. Papadouli, A. Bogdanovic, 2020. “Deformable Polyurethane Joints and Fibre Grids for Resilient Seismic Performance of Reinforced Concrete Frames with Orthoblock Brick Infills”. **Polymers**, 12, 2869. (\*)
8. F. Rizzo, 2020. “*Wind tunnel random processes statistics of pressures on a large span canopy roof*”. **Iranian Journal of Science and Technology, Transactions of Civil Engineering**. 10.1007/s40996-020-00458-x. (\*)
  9. F. Rizzo, P. Zazzini, S. Montelpare, A. Ricciutelli, 2020. “*Investigation of wind induced vibration and acoustic performance interactions for a flexible roof through multiphysics approach*”. **Journal of Building Performance Simulation**, 13(5), 2020. (\*)
  10. F. Rizzo, P. Zazzini, A. Pasculli, A. De Crescenzo, 2020. “Statistical approach to compute a Surrogate input for building physics CFD simulations through experimental measurements”. **Journal of Computational Methods in Sciences and Engineering**, 20(3), 1-29. (\*)
  11. A. Pasculli, F. Rizzo, M. Mangifesta, A. Viskovic, A. De Sanctis, G. Iezzi, G., V. Perrotti, A. Piattelli, G. Aprile, 2020. “Modeling of screw-dental structure interaction: First step toward finite element analysis”. **Nonlinear Phenomena in Complex Systems**, 23 (2), 125-129. (\*)
  12. F. Rizzo, 2020. “*Aeroelastic Response of Suspended Pedestrian Bridges Made of Laminated Wood and Hemp*”. **Infrastructures**, 5, 60; doi:10.3390/infrastructures5070060. (\*)
  13. F. Rizzo, L. Caracoglia, 2020. “*Artificial Neural Network model to predict the flutter velocity of suspension bridges*”. **Computers and Structures**, 233 (2020) 106236. (\*)
  14. F. Rizzo, V. D’Alessandro, S. Montelpare, L. Giammichele, 2020. “*Computational study of a bluff body aerodynamics: impact of the laminar-to-turbulent transition modelling*”. **International Journal of Mechanical Sciences**, 178, 15, 105620. (\*)
  15. F. Rizzo, V. Sepe, F. Ricciardelli, A. M. Avossa, 2020. “*Wind pressures on a large span canopy roof*”. **Wind and Structures**, 30(2): 000-000 DOI: <https://doi.org/10.12989/was.2020.30.2.000>. (\*)
  16. F. Rizzo, F. Ricciardelli, G. Maddaloni, Bonati A., A. Occhiuzzi, 2020. “*Experimental error analysis of dynamic properties for a reduced-scale high-rise building model and implications on full-scale behavior*”. **Journal of Building Engineering**, 28. (\*)
  17. F. Rizzo, G. Di Lorenzo, A. Formisano, R. Landolfo, 2018. “*A time-*

- dependent corrosion wastage model for Wrought iron Structures*". **ASCE's Journal of Materials in Civil Engineering**, 2019, 31(8): 04019165. (\*)
18. F. Rizzo, M. Barbato, V. Sepe, 2018. "Peak factor statistics of wind effects for hyperbolic paraboloid roofs", **Engineering Structures**, 173, 313-330. (\*)
  19. F. Rizzo, L. Caracoglia, S. Montelpare, 2018. "Predicting the flutter speed of a pedestrian suspension bridge through examination of laboratory experimental errors", **Engineering Structures**, 172, 589-613. (\*)
  20. F. Rizzo, L. Caracoglia, 2018, "Examining wind tunnel errors in Scanlan derivatives and flutter speed of a closed-box". **Journal of Wind and Structures**, 26(4), 231-251. (\*)
  21. A. Maria Avossa, D. Di Giacinto, P. Malangone and F. Rizzo, 2018. Seismic Retrofit Of A Multi-Span Prestressed Concrete Girder Bridge With Friction Pendulum Devices, **Shock and Vibration**, 2018, Article ID 5679480, 22 pages. (\*)
  22. F. Rizzo, P. Zazzini, 2017, "Shape dependence of acoustic performances in buildings with a Hyperbolic Paraboloid cable net membrane roof". **Journal of Acoustics Australia**, 45 (2), (01-01-2017) 421–443, ISSN: 08146039, DOI: 10.1007/s40857-017-0092-9. (\*)
  23. F. Rizzo, F. Ricciardelli, 2017, "Design pressure coefficients for circular and elliptical plan structures with hyperbolic paraboloid roof", **Engineering Structures**, 139, 153-169, (05-15-2017) ISSN: 01410296, DOI: 10.1016/j.engstruct.2017.02.035. (\*)
  24. F. Rizzo, 2016, "Tensile Structures of Cables Net, Guidelines to Design and Applications", **Open Journal of Civil Engineering**, 6 (2) (05-01-2016) ISSN Print: 255-285 ISSN Online: 2164-3172, DOI: 10.4236/ojce.2016.62023.
  25. F. Rizzo, P. Zazzini, 2016, "Improving the acoustical properties of an elliptical plan space with a cable net membrane roof", **Journal of Acoustics Australia**, 44, 449-456, (11-16-2016) ISSN: 08146039, DOI: 10.1007/s40857-016-0072-5. (\*)
  26. F. Rizzo, V. Sepe, 2015, "Static loads to simulate dynamic effects of wind on hyperbolic paraboloid roofs with square plan", **Journal of Wind Engineering & Industrial Aerodynamics**, 137, 46-57 (02-01-2015), ISSN: 01676105, DOI: 10.1016/j.jweia.2014.11.012. (\*)
  27. F. Rizzo, P. D'Asdia, F. Speziale, 2015, "Tourist Living on Off-Shore Wind Turbine: Floating Anchorage Design and Wind/Wave – Structure Interaction Study", **American Journal of Civil Engineering and Architecture**, 3 (3), 101-108, (07-27-2015) ISSN (Print): 2328-398X, ISSN (Online): 2328-3998DOI: 10.12691/ajcea-3-3-6.

28. F. Rizzo, 2012, “Wind tunnel tests on hyperbolic paraboloid roofs with elliptical plane shapes”, **Engineering Structures**, 45, 536–558 (12-01-2012), ISSN: 01410296, DOI: 10.1016/j.engstruct.2012.06.049. (\*)
29. F. Rizzo, P. D’Asdia, F. Ricciardelli, G. Bartoli, 2012, “Characterization of pressure coefficients on hyperbolic paraboloid roofs”, **Journal of Wind Engineering & Industrial Aerodynamics**, 102, 61–71 (03-01-2012), ISSN: 01676105, DOI: 10.1016/j.jweia.2012.01.003. (\*)
30. F. Rizzo, P. D’Asdia, M. Lazzari, L. Procino, 2011, “Wind action evaluation on tension roofs of hyperbolic paraboloid shape”, **Engineering Structures**, 33 (2), 445-461, (02-01-2011), ISSN 0141-0296, DOI: 10.1016/j.engstruct.2010.11.001. (\*)
31. F. Rizzo, 2010, “Hyperbolic paraboloid roofs”, published in **Il Giornale dell’ Ingegnere** (The Engineer's journal), 17(58), 28, in Italian.
32. F. Rizzo, 2010, “Hyperbolic paraboloid large span roofs: parametric study of structural response”, published online in **Costruzioni.net**, in Italian.

(\*) journals with Thomson Reuters impact factor (IF).

#### **Proceedings of Conference Papers**

1. Fabio Rizzo, Laura Ierimonti, Stefano Sacconi, Ilaria Venanzi, 2021. “Fragility assessment of wind-excited video screen rooms in high-rise buildings”. COMPDYN 2021, 8<sup>th</sup> ECCOMAS Thematic Conference on Computational Methods in Structural Dynamics and Earthquake Engineering, M. Papadrakakis, M. Fragiadakis (eds.), Streamed from Athens, Greece, 27–30 June 2021. (\*\*)
2. F. Rizzo, C. Demartino, 2020. Pressure modes for hyperbolic paraboloid roofs. IWSS2020 1<sup>st</sup> Italian Workshop on Shell and Spatial Structures, 25<sup>th</sup> – 26<sup>th</sup> June 2020, Torino, Italy.
3. T. Rousakis, E. Papadouli, A. Sapalidis, V. Vanian, A. Ilki, O.F. Halici, A. Kwiecień, B. Zając, Ł. Hojdys, P. Krajewski, M. Tekieli, T. Akyildiz, A. Viskovic, F. Rizzo, M. Gams, P. Triller, B. Ghiassi, A. Benedetti, C. Colla, Z. Rakicevic, A. Bogdanovic, F. Manojlovski, A. Soklarovski, 2020. “Flexible joints between RC frames and masonry infill for improved seismic performance – shake table tests”. Brick and Block Masonry - From Historical to Sustainable Masonry. Proceedings of the 17th International Brick/Block Masonry Conference (17<sup>th</sup>IB2MaC 2020), July 5-8, 2020, Kraków, Poland.
4. F. Rizzo, G. Maddaloni, A. Occhiuzzi, A. Prota, A. Pagliaroli, 2020. “Earthquake induced floor accelerations on a High-rise building: in scale tests on shaking table”. **IABSE 2020**, Resilient Technologies for Sustainable Infrastructures, Christchurch, New Zealand, 2nd - 4th September 2020. (\*\*)



5. F. Rizzo, F. Tamburrano, P. Fusero, G. Brando, 2020. "*Sustainable infrastructures: a case of Pedestrian suspension bridge made of wood and hemp cables*". **IABSE 2020**, Resilient Technologies for Sustainable Infrastructures, Christchurch, New Zealand, 2nd - 4th September 2020. (\*\*)
6. F. Rizzo, G. Maddaloni, A. Occhiuzzi, A. Prota, 2020. "*Prediction of non-structural elements collapse under multi-hazard actions in a High-rise building*". 17th World Conference on Earthquake Engineering, **17WCEE**, Sendai, Japan - September 13<sup>th</sup> to 18<sup>th</sup> 2020. (\*\*)
7. F. Rizzo, V. Sepe, 2020. "*Uncertainties in wind-induced loads on hyperbolic paraboloid roofs: wind-tunnel tests and analytical models*". **EURODYN 2020**, XI International Conference on Structural Dynamics, 22-24 June 2020, Athens, Greece. (\*\*)
8. F. Rizzo, G. Maddaloni, A. Occhiuzzi, A. Prota, 2019. "*High-rise building dynamics identification through shaking table measurements on scale model for multi-hazard experiments*". **ANIDIS 2019**, 15-19 September 2019, Ascoli Piceno (Italy). (\*\*)
9. A. Pasculli, F. Rizzo, P. Zazzini, 2019. "*Probabilistic estimate of indoor radon distribution in Abruzzo (central Italy)*". 8<sup>th</sup> International Conference on Mathematical Modeling in Physical Sciences 2019, **m<sup>2</sup>**, 26-29 August 2019, Bratislava, Slovakia. (\*\*)
10. F. Rizzo, V. Sepe, 2019. "*Pressure field correlation and aerodynamic admittance for buildings with hyperbolic paraboloid roofs: results of wind-tunnel tests*". **AIMETA 2019**, 15-19 September 2019, Rome, Italy. (\*\*)
11. G. Di Lorenzo, F. Rizzo, A. Formisano, R. Landolfo, A. Guastaferrò 2019. "*Corrosion wastage models for steel structures: literature review and a new interpretative formulation*". **SMT-33** International Conference on Surface Modification Technologies, 26-27-28 June 2019, Naples, Italy. (\*\*)
12. F. Rizzo, A. Viskovic 2019. "*Modeling non-linearity on cable stayed masts of tensile fabric structures*". **COMPDYN 2019** 7<sup>th</sup> International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering 24<sup>th</sup>-26<sup>th</sup> June 2019, Crete, Greece. (\*\*)
13. V. Sepe, F. Rizzo, F. Ricciardelli, A. M. Avossa, 2018, "*Characterization of mean wind profiles and surface roughness assessment from wind LIDAR measurements*", Conference of the Italian Association for Wind Engineering, (**IN-VENTO XV**), September 9<sup>th</sup> - 12<sup>th</sup> 2018, Naples, (Italy), in press. (\*\*)
14. F. Rizzo, V. Sepe, V. Vasta, 2017, "*Correlation structure of wind-tunnel pressure fields for a hyperbolic paraboloid roof*", Conference - The Italian Association of Theoretical and Applied Mechanics (**AIMETA 2017**), September 4<sup>th</sup> - 7<sup>th</sup> 2017, Salerno, (Italy) Gechi edizioni, ISBN 978-889-42484-7-0. (\*\*)

15. F. Rizzo, M. Barbato, V. Sepe, 2017, “*Peak factors dependence on wind angles of attack for a hyperbolic paraboloid roof*”, IN-VENTO 2016, XIV Conference of the Italian Association for Wind Engineering, (IN-VENTO XIV), September 25<sup>th</sup> -28<sup>th</sup> 2016, Terni, (Italy).
16. F. Rizzo, P. D'Asdia, F. Speziale, 2016, “*Parameterization of the structural performances of suspension bridges main cables using an analytical procedure*”, 6<sup>th</sup> Asia-Pacific Symposium on Structural Reliability and Its Applications, Shanghai, (APSSRA 2016), May 28<sup>th</sup> - 30<sup>th</sup> 2016, Tongji University, Shanghai, (China).
17. F. Rizzo, P. D'Asdia, F. Speziale, 2016, “*Design for the crossing over the River Mersey (UK): suspension bridge*”. IABSE Bridges and Structures: Sustainability (IABSE 2016), May 8<sup>th</sup>-11<sup>th</sup>, Guangzhou, (China), ISBN: 978-385748142-0. (\*\*)
18. F. Rizzo, P. D'Asdia, F. Speziale, 2014, “*Design of hyperbolic paraboloid roofs with circular and elliptical plan shape*”, 13<sup>th</sup> National Conference of Wind Engineering (IN-VENTO), June 22<sup>th</sup> - 30<sup>th</sup>, Genova (Italy).
19. F. Rizzo, F. Speziale, S. Gayer, 2014, “*Aerodynamics of tensile structures*”, IASS-SLTE 2014 Symposium “Shells, Membranes and Spatial Structures: Footprints (IASS-SLTE 2014)”, September 15<sup>th</sup>-19<sup>th</sup>, Brasilia, (Brazil).
20. F. Rizzo, P. D'Asdia, F. Speziale, 2012, “*Aerodynamic behaviour of hyperbolic paraboloid roofs: comparison between PIV tests and CFD simulations*”, The 2012 Int'l Conference on Advances in Wind and Structures (AWAS 2012), August 26<sup>th</sup>-30<sup>th</sup>, Seoul, (Korea).
21. F. Rizzo, P. D'Asdia, F. Speziale, 2012, “*FEM analysis of tension structures with experimental wind action*”, The 2012 Int'l Conference on Advances in Wind and Structures (AWAS 2012), August 26<sup>th</sup>-30<sup>th</sup>, Seoul, (Korea).
22. F. Rizzo, 2012, “*Hyperbolic paraboloid shape roofs with elliptical plan*”, 18<sup>th</sup> IABSE Innovative Infrastructures – Toward Human Urbanism (18<sup>th</sup> IABSE 2012), September 19<sup>th</sup>-21<sup>th</sup>, Seoul (Korea).
23. F. Rizzo, V. Sepe, 2012, “*Correlation of wind-tunnel pressure fields on hyperbolic paraboloid roofs*”, 12<sup>th</sup> National Conference of Wind Engineering (IN-VENTO 2012), October 7<sup>th</sup>-10<sup>th</sup>, Venezia (Italy), Morlacchi Ed., Venezia (Italy), in Italian.
24. F. Rizzo, D'Asdia, F. Speziale, 2012, “*Hyperbolic paraboloid roof with a circular plan*”, 12<sup>th</sup> National Conference of Wind Engineering, (IN-VENTO 2012), October 7<sup>th</sup>-10<sup>th</sup>, Venezia (Italy), in Italian.
25. F. Rizzo, A. Viskovic, 2011, “*Nervi structures, comparison between two ages*”, ANIDIS conference: the seismic engineering in Italy, (ANIDIS

2011), September 18<sup>th</sup>-22<sup>th</sup>, Bari (Italy), in Italian.

26. F. Rizzo, P. D'Asdia 2010, "*Wind action on of hyperbolic paraboloid shaped*", IABSE-fib Codes in Structural Engineering (**IABSE 2010**), May 3<sup>th</sup>-5<sup>th</sup>, Cavtat, Dubrovnik-Neretva County,(Croatia) **2**, ISBN 978-953-762-05-6.
27. F. Rizzo, P. D'Asdia, F. Ricciardelli, G. Bartoli, 2012, "*Characterization of pressure coefficients on hyperbolic paraboloid roofs*", 11<sup>th</sup> National Conference of Wind Engineering (**IN-VENTO 2010**), June 30<sup>th</sup>-July 3<sup>th</sup>, Spoleto (Italy), Morlacchi Ed.), ISBN: 978-88-6074-330-5.
28. F. Rizzo, P. D'Asdia, L. Procino, M. Lazzari, G. Olivato, 2009, "*Aerodynamic behaviour of hyperbolic parabolic shaped roofs: wind tunnel test, POD and CFD analysis*", The 12<sup>th</sup> International Conference on Civil, Structural and Environmental Engineering Computing (**CC 2009**), September 1<sup>th</sup>-4<sup>th</sup>, Madeira, (Portugal), ISBN 978-1-90-5088-31-7. (\*\*)
29. F. Rizzo, P. D'Asdia, M. Lazzari, G. Olivato 2009, "*Aerodynamic behaviour of hyperbolic paraboloid shaped roofs: POD and CFD analysis*", 5<sup>th</sup> European & African Conference on Wind Engineering (**EACWE 5 2009**), July 19<sup>th</sup>-23<sup>th</sup>, Florence (Italy) 407-410, ISBN 978-88-6453-038-3. (\*\*)
30. F. Rizzo, P. D'Asdia, M. Lazzari, 2009, "*Aerodynamic behaviour of hyperbolic paraboloid shaped roofs: wind tunnel tests*", 5<sup>th</sup> European & African Conference on Wind Engineering (**EACWE 5 2009**), July 19<sup>th</sup>-23<sup>th</sup>, Florence (Italy) 407-410, ISBN 978-88-6453-038-3. (\*\*)
31. F. Rizzo, P. D'Asdia, M. Lazzari, 2009, "*Static and Dynamic Non linear analyses of tension structures with cable nets and hyperbolic paraboloid shape*", XXII Conference Steel specialist (congresso tecnici dell'acciaio) (**XXII CTA 2009**), September 28<sup>th</sup>-30<sup>th</sup> Padova (Italy), in Italian.
32. F. Rizzo, P. D'Asdia, 2008, "*Wind action evaluation on tension roofs of hyperbolic paraboloid shape*", BBAA VI International Colloquium on: Bluff Bodies Aerodynamics & Applications (**BBA 2008**), July 20<sup>th</sup>-24<sup>th</sup>, Milan (Italy), 20-24 2008. ISBN: 88-9019-16-3-5.
33. F. Rizzo, P. D'Asdia, S. Noè, M. Lazzari, F. Fattor, 2008, "*Aerodynamic study and Non Linear analysis of tension structures with cables net - Part 1: design aspects*", 10<sup>th</sup> National Conference of Wind Engineering (**IN-VENTO 2008**), June 8<sup>th</sup>-10<sup>th</sup>, Cefalù (Italy), in Italian, Università degli Studi di Palermo, Palermo (2010), ISBN: 978-88-9050-500-3 ISBN-A.
34. F. Rizzo, P. D'Asdia, M. Lazzari, L. Procino, F. Fattor, 2008, "*Aerodynamic study and Non Linear analysis of tension structures with cables net - Part 2: wind tunnel tests*", 10<sup>th</sup> National Conference of Wind Engineering (**IN-VENTO 2008**), June 8<sup>th</sup>-10<sup>th</sup>, Cefalù (Italy), in Italian,

Università degli Studi di Palermo, Palermo (2010), ISBN: 978-88-9050-500-3 ISBN-A.

35. P. D'Asdia, F. Rizzo, S. Noe, F. Fattor, 2007, *Non linear analysis and wind-structure interaction*", XXI Conference Steel specialist (congresso tecnici dell'acciaio) (**XXI CTA 2007**), October 1<sup>th</sup>-3<sup>th</sup>, Catania (Italy), Dario Flaccovio ISBN: 978-88-7758-787-9), in Italian.
36. P. D'Asdia, F. Rizzo, V. Sepe, 2006, "*Study of a tension structure shape - wind loads interaction: Pescara stadium roof*", 9<sup>th</sup> National Conference of Wind Engineering (**IN-VENTO 2006**), Pescara (Italy) June 19<sup>th</sup>-21<sup>th</sup>, in Italian.
37. F. Rizzo, S. Giangreco, P. D'Asdia, V. Sepe, 2005, *Design of tensile structure to cover Adriatico Stadium in Pescara (Italy)*", XX Conference Steel specialist (congresso tecnici dell'acciaio) (**XX CTA 2005**), September 26<sup>th</sup>-28<sup>th</sup>, Ischia (Italy), in Italian.

(\*\*) *Conference proceedings powered by Scopus.*

#### **PROFESSIONAL AFFILIATIONS**

Registration in the professional architect association of Pescara (Italy). 2007,  
Licensed in Architect, by University G. D'Annunzio, Chieti-Pescara (Italy), 2005.

#### **SELECTION OF PROFESSIONAL ACTIVITIES**

**Assignment:** Seismic assessment and retrofit project of the elementary School Institute in Ari (Chieti), Italy.

**Role:** Designer.

**Period:** 2018

**Assignment:** Static testing for the enlargement of cemetery in Brittoli (Chieti), Italy.

**Role:** Structural tester.

**Period:** 2018

**Customer:** Superintendent Fine Art and Landscape (Soprintendenza Belle Arti e Paesaggio) (BEAP)

**Assignment:** Restoration project of the Church of San Michele Arcangelo, Città Sant'Angelo (Pescara), Italy.

**Role:** Designer.

**Period:** 2014

**Customer:** G. D'Annunzio University, Chieti-Pescara, Italy.

**Assignment:** Project assistant of the mechanical and electrical central building of the Pescara Campus, Pescara, Italy.

**Role:** Project assistant.

**Period:** 2014

**Customer:** Municipality of Montesilvano (Pescara), Italy

**Assignment:** Seismic and Wind assessment and retrofit project of the Trisi

sport center structures in Montesilvano (Pescara), Italy.

**Role:** Designer.

**Period:** 2013

**Customer:** Municipality of Città Sant'Angelo (Pescara), Italy

**Assignment:** Seismic assessment and retrofit project of the Municipality historical building in Città Sant'Angelo (Pescara), Italy.

**Role:** Designer.

**Period:** 2013

**Customer:** G. D'Annunzio University, Chieti-Pescara, Italy

**Assignment:** Investigation (n° 1289/2012 R.G.A.C.) on the glass structures collapse under snow action of a building in Pescara Campus, Pescara, Italy.

**Role:** Expert report (Expert court witness – CTP)

**Period:** 2012

**Customer:** Geko Legno s.n.c. (Wood Construction company)

**Assignment:** Wood and steel structures design.

**Role:** Designer.

**Period:** 2012 – to date.

**Customer:** Municipality of Ortona (Chieti), Italy; Municipality of Lanciano (Chieti), Italy; Municipality of Vasto (Chieti), Italy and Municipality of Chieti (Chieti), Italy.

**Assignment:** Seismic and Wind assessment and retrofit project of the sport arenas for Euro-basket 2007.

**Role:** Assistant designer.

**Period:** 2007.

**Customer:** CONTEST s.r.l. (Company), Rome (Rome), Italy.

**Assignment:** Monitoring and experimental tests on structures.

**Role:** part-time employees.

**Period:** 2006-2008 (3 years).

## LANGUAGES

**Italian:** Native Language

### **English:**

Advanced Listener,

Advanced Speaker,

Advanced Reading,

Intermediate Writing.

## COMPUTER SKILLS

**Programming:** Fortran, Matlab.

**Applications:** Office, Sap2000, Midas, MasterSap, Ansys Fluent, Mathematica, Autocad, Rhinoceros, Artlantis.

Pescara,  
11/15/2020

Signature

A handwritten signature in black ink, appearing to be 'Fabio Rizzo', written over a horizontal line.