

CURRICULUM VITAE

ALESSANDRO CORSINI

Professore Associato di Sistemi per l'Energia e l'Ambiente

SSD ING-IND09

novembre 2018

Curriculum Vitae redatto ai fini della pubblicazione

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Informazioni relative al percorso scientifico e accademico

1992, Laureato in Ingegneria Meccanica presso l'Università di Roma "La Sapienza". Tesi: Progettazione dell'impianto di ventilazione di una galleria autostradale.

1996, Dottore di Ricerca in "Energetica: Ingegneria delle Fonti Energetiche Convenzionali, Nucleari e Rinnovabili", VIII ciclo, Università di Roma "La Sapienza". Tesi: Analisi del flusso tridimensionale turbolento nei canali di una ruota Francis. Previsione delle prestazioni con tecnica agli elementi finiti a matrice di rigidità non assemblata.

1995-1996, collaborazione con l'Istituto di Ricerche Ambiente Italia, Milano.

1996-2000, Associato di ricerca presso il Dipartimento di Meccanica e Aeronautica, Università di Roma "La Sapienza".

1996-1997 Borsa di ricerca FIATAVIO SpA, "Realizzazione del Manuale di Progetto Impianti Turbogas Standard", *Dipartimento di Meccanica e Aeronautica*, Università di Roma "La Sapienza".

1997-1998 Borsa di ricerca ENEA "Applicazione di modelli di turbolenza avanzati a flussi in convezione naturale e forzata".

1998-2000 Borsa di ricerca "Investigation on flow-field fine structure formed in axial flow fans"

Cooperazione scientifica Department of Fluid Mechanics - Technical University of Budapest.

Ricercatore Universitario per il settore disciplinare Macchine a Fluido (ING-IND08) dall'ottobre 2000.

Professore associato (confermato) per il settore disciplinare Sistemi per l'Energia e l'Ambiente (INGIND09)

dal novembre 2011.

Abilitazione al ruolo di **Professore Universitario di Prima Fascia** per il settore concorsuale 09/C1 dal 21 gennaio 2014 (abilitazione confermata nel quinto quadrimestre ASN 2016-2018).

Extraordinary Professor presso il Dept of Mechanical and Mechatronic Engrg, Stellenbosch University, South Africa, dal luglio 2018.

Mansioni accademiche e attività organizzative

Mansioni accademiche

Ante-2010, membro della giunta del Dipartimento di Ingegneria Meccanica e Aerospaziale e membro della Commissione di Programmazione del Personale Docente (COPDO) della Facoltà di Ingegneria.

2011, Membro della commissione *COFINT* della Facoltà di Ingegneria Civile e Industriale, Sapienza Università di Roma.

2011, Membro della *Giunta della Facoltà* di Ingegneria Civile Industriale, Sapienza Università di Roma.

2014-2015, Membro del *Gruppo di lavoro per l'efficientamento energetico e bioclimatico dell'edificio di Botanica e dell'ambiente urbano della nuova Città Universitaria* (decreto rettorale n. 2057/2014).

2012-2015, Direttore del Master in *Cooperazione e Progettazione per lo Sviluppo*, Sapienza Università di Roma.

2012-2016, Presidente della *Commissione Orientamento* Sapienza sede di Latina.

Dal 2015, Membro della Commissione Didattica del Consiglio di Area Didattica in Ingegneria Meccanica.

Dal 2016, Presidente del Consiglio di Area Didattica in Ingegneria Civile e Industriale, sede di Latina.

2003-2011, Membro del Collegio dei Docenti del Dottorato in Sviluppo Sostenibile e Cooperazione Internazionale.

2011-2015, Membro del Collegio dei Docenti del Dottorato in Ingegneria Industriale e Gestionale (già Ingegneria della Produzione Industriale).

Dal 2016, Membro del Collegio dei Docenti del Dottorato in Energia e Ambiente.

Organizzazione di congressi, conferenze e scuole internazionali

Alessandro Corsini ha partecipato, in qualità di relatore, a numerose conferenze internazionali. Egli ha, inoltre, rivestito il ruolo di session organizer e chairman nelle seguenti occasioni.

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2009-2012 Membro dello Scientific Advisory Committee de THMT'09 e THMT'12 Conference on Heat and Mass Transfer.

2003-2018 Conference on Modelling Fluid Flow CMFF03, CMFF06, CMFF09, CMFF12, Organizer e co-Chairman del workshop: Numerical Modelling of Turbomachinery Aero- and Thermodynamics.

2004-2018 ASME IGTI (International Gas Turbine Institute) Turbo Expo:

2010-2012 Vanguard Chair IGTI Turbomachinery Committee,
2012-2014 Vanguard chair e Point Contact del IGTI Fans & Blowers Committee,
2014-2018 Chair del Fans & Blowers Committee.
2012-2018 Fan 2012 International Conference on Fan Noise, Technology and Numerical Methods,
Conference Chair for Numerical Methods e Member of the Organising Committee.
2012 Responsabile organizzativo della "Computational Fluid-Mechanics and Fluid-Structure Interaction Short Course", Sapienza Università di Roma, giugno.
2013 Advances in Computational Mechanics (ACM 2013) — A Conference Celebrating the 70th Birthday of Thomas J.R. Hughes, Organizzatore del Simposio "Turbomachinery Problems"
2017 Finite Elements in Flow Problems, Rome, April 2017, Conference Co-Chair.

Associazioni scientifiche

Membro del Centro di Ricerca Aerospaziale della Sapienza CRAS.
Membro dell'Associazione Termotecnica Italiana (ATI). Presidente della sezione regionale ATI-Lazio.
Membro dell'American Society of Mechanical Engineering (ASME) dal 2002.
Membro Turbomachinery Committee, e Fans and Blowers Committee (founder), International Gas Turbine Institute ASME.

Attività di valutazione e ispezione

Reviewer scientifico

Alessandro Corsini è revisore di importanti riviste internazionali. Tra le quali: Computational Mechanics, Computers and Fluids, Int. Journal of Numerical Methods in Fluids, Computer Methods in Applied Mechanics and Engineering., IMechE Journal of Mechanical Engineering Science, IMechE Journal of Power and Energy, IMechE Journal of Aerospace Engineering, Int. Journal of Heat and Fluid Flow, ASME Transaction J. of Fluid Engineering, ASME Transaction J. of Applied Mechanics.

Valutatore

2011, Valutatore progetti ISCRA (Italian SuperComputing Resource Allocation) - CINECA.
Dal 2011, membro del Nucleo Ispettivo del GSE per le verifiche di avvilimento.
Dal 2012, esperto valutatore della Cassa Conguaglio del Settore Elettrico per Ricerca di Sistema (CSEA).
Esaminatore progetti per Università Italo-Francese.
Esaminatore progetti per Swiss National Science Foundation (SNSF), Svizzera.
Esaminatore progetti per National Research Foundation (NRF), Sud Africa.
Esaminatore progetti per Research Grants Council, Hong Kong.

Partecipazione a comitati editoriali di riviste &c

International Journal of Rotating Machinery, Hindawi Publ. Associate Editor, dal 2010 ad oggi.
Periodica Polytechnica Mechanical Engineering Series, ISSN 1587-379X, dal 2012.
Proceedings of the Institution of Mechanical Engineers, Part A- Journal of Power and Energy, Associate Editor, dal 2015.
Editor, Energy Procedia, 70th Conference of the Italian Thermal Machines Engineering Association, ATI2015.
Guest Editor, Computers & Fluids Special Issue on FEF'17.

Didattica

Alessandro Corsini dall'a.a. 1996-1997 ha svolto incarichi di docenza universitaria come docente a contratto prima, e quindi per affidamento dall'a.a. 2000-2001 sempre occupandosi di discipline relative agli ambiti disciplinari delle Macchine a Fluido e dei Sistemi di Conversione dell'Energia. Nel triennio 2011-2014 gli incarichi di docenza sono stati:

- **Docente** per l'insegnamento di **Energetica** – corso di Laurea Triennale in Ingegneria dell'Ambiente del Territorio, Università di Roma "La Sapienza", anno accademico dal 2011/12.

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- **Docente** per l'insegnamento di **Sistemi Energetici da Fonti Convenzionali e Rinnovabili** – corso di Laurea Magistrale in Ingegneria dell'Ambiente per lo Sviluppo Sostenibile, Università di Roma "La Sapienza", dall'anno accademico 2008/09 a 2014/2015.

- **Docente** per l'insegnamento di **Macchine** – corso di Laurea Magistrale in Ingegneria Meccanica, dall'anno accademico 2012/2013 ad oggi.

- **Docente** per l'insegnamento di **Complementi di Macchine** – corso di Laurea Magistrale in Ingegneria Meccanica, dall'anno accademico 2013/2014 a 2017/2018.

- **Responsabile** del **Laboratorio di Modellazione dei Sistemi Energetici**, corso di Laurea Magistrale in Ingegneria Meccanica e corso di Laurea Magistrale in Ingegneria dell'Ambiente per lo Sviluppo Sostenibile, dall'anno accademico 2013-2014 ad oggi.

- **Docente** per l'insegnamento di **Sistemi Energetici** – Laurea in Ingegneria Meccanica, dall'anno accademico 2015/2016.

Tesi di Dottorato, Laurea Triennale e Magistrale

1997/2012, correlatore di n. 8 tesi di dottorato e relatore di n. 3 tesi di dottorato (settore della *fluidodinamica numerica delle turbomacchine*) e n. 8 tesi di dottorato (settore dei *Sistemi per l'Energia e l'Ambiente*) nell'ambito dei corsi di dottorati in *Energetica, Sviluppo Sostenibile e Cooperazione Internazionale, Ingegneria della Produzione Industriale*, Università di Roma "La Sapienza".

2004-2018, relatore di oltre 40 tesi di laurea magistrale o VO in Ingegneria Meccanica. Lavori di tesi premiati con borsa di studio per tesi all'estero e realizzati presso laboratori industriali (Flakt Woods Ltd, Colchester, Flakt AB, ENEL Endesa, Ingegneria&Ricerca, GE Oil&Gas, Baker Hughes GE), ed universitari (University of Leicester, VKI, Budapest University of Technology and Economics, Imperial College London, Technical University Berlin) con argomento indagini numerico-sperimentali delle prestazioni aerodinamiche ed aeroacustiche di turbomacchine industriali e sistemi energetici.

2000-2018, **relatore** di oltre 100 tesi di laurea di primo livello in Ingegneria dell'Ambiente e del Territorio (settore dei sistemi per l'energia e per l'ambiente) ed in Ingegneria Meccanica. In tale ambito i lavori sono stati realizzati in collaborazione con enti di ricerca (German Aerospace Center DLR, ENEA Trisaia, Ecobilancio Italia), istituzioni governative (Ministero dell'Ambiente e della Difesa del Territorio – Direzione IAR) ed aziende operanti nel settore delle tecnologie energetiche rinnovabili e dell'efficienza energetica (EUROSOLARE, ENI Power) ed Energy Service Company (Azero CO2), ovvero sui temi della cogenerazione industriale (progetto Fabbrica dell'Energia, Camera di Commercio di Latina, Selecta Italia Spa) e della generazione di potenza da sistemi micro-idroelettrici. Alcuni dei lavori sono stati, inoltre, condotti presso i Laboratori del Dipartimento di Meccanica e Aeronautica dell'Università di Roma "La Sapienza" conducendo attività sperimentali su motori a combustione interna.

2003-2018, **relatore** di oltre 20 tesi di laurea di secondo livello in Ingegneria dell'Ambiente per lo Sviluppo Sostenibile (settore dei sistemi per l'energia e per l'ambiente), dedicate ai temi dell'integrazione di sistemi fotovoltaici nell'edilizia industriale ed alla simulazione time-dependent di sistemi solari di potenza.

Relazioni ad invito e seminari

Corsini A., On the role of CFD in the aerodynamic development of industrial fans or from equations to colors (and back again), **Plenary lecture**, Fan 2012 International Conference on Fan Noise, Technology and Numerical Methods, Senlis (FR), April 2012.

Corsini A., Prediction of limiting phenomena in turbomachinery using stabilized finite element techniques, **Keynote lecture**, Advances in Computational Mechanics (ACM 2013) — A Conference Celebrating the 70th Birthday of Thomas J.R. Hughes.

Corsini A., **Plenary lecture**, 9th South African Conference on Computational and Applied Mechanics (SACAM2014), Somerset West, South Africa, 14 – 16 January 2014.

Corsini A., Enabling Numerical Technologies for Turbomachinery CFD (**Tutorial Session**), Invited by Turbomachinery Committee, Turbo Expo 2014, Dusseldorf June 2014.

Corsini A., FEF 2015 - The 18th International Conference on Finite Elements in Flow Problems, Taipei, Taiwan, March 2015.

Corsini A., Modeling (Understanding and Controlling) Turbulent Flows: the Heritage of Leonardo da Vinci in Modern Computational Fluid Dynamics, Invited by CMMF'18 Conference, Budapest September 2018. Curriculum Vitae redatto ai fini della pubblicazione

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Riconoscimenti e premi

Winner of the 2013 Institution of Mechanical Engineering (IMechE) Donald Julius Groen Prize for best paper given at an IMechE event or published in an IMechE journal relating to the subject of Fluid Machinery during 2012.

Most cited Author, Proceedings of the Institution of Mechanical Engineers, Part A - Journal of Power and Energy (2015-2016).

ASME IGTI Fans and Blowers Technical Committee, *Outstanding Service Award*, 2016.

ASME IGTI Fans and Blowers Technical Committee, *Best Paper Award*, 2017.

Progetti di ricerca internazionali e nazionali

2011-2013 Progetti di ricerca MATTM, Ministero dell'Ambiente e della Tutela del Territorio e del Mare, Progetto POSEIDONE Impianto U-OWC e Turbina ad Aria per la produzione di energia elettrica da onde di mare. Responsabile Scientifico.

2009-2011, Responsabile scientifico della convenzione di ricerca: Development of new end-plate concepts for improved aeroacoustic signature in industrial fans part - II, Flakt Woods Ltd. Responsabile Scientifico.

2010 - 2013, FP7 European Union- EUROPAID progetto: ICARE- Sostegno alla Costituzione di un Centro di Eccellenza all'Università HU BEI di Pechino Responsabile Unità didattica.

2012-2014, Aerodynamic and systemic development of a new family of large industrial fans, Flakt Woods AB. Responsabile Scientifico.

2012 "Analisi e verifica fluidodinamico-progettuale di un ventilatore a stadio singolo per produzione neve", Fieni Srl. Responsabile Scientifico.

2012 POR FESR Lazio: bando Spin off di ricerca Progetto AUDIRE, Responsabile Scientifico.

2013 "Sviluppo aerodinamico e aeroacustico di una nuova famiglia di ventilatori a stadio singolo per il trasporto di particolato fine", Fieni Srl. Responsabile Scientifico.
2013, Progetto BORA Macchine motrici ed operatrici sommergibili ad alta efficienza energetica, Faggiolati Pumps Spa. Responsabile Tecnico.
2013, Accordo di Collaborazione con CNR Istituto di Inquinamento Atmosferico, Responsabile Scientifico.
2014, Ottimizzazione idrodinamica di pompe verticali multi-stadio, Ebara Pumps Europe Spa. Responsabile Tecnico.
2014, Development of numerical models for the simulation of the fan-ducting coupling in Gas Turbine auxiliary systems, GE Oil&Gas Nuovo Pignone Spa. Responsabile Scientifico.
2014, Accordo di Collaborazione ENEL Ingegneria e Ricerca, Responsabile Scientifico.
2016-2018 Progetto H2020, Minwater CSP, Responsabile Scientifico.
2016, Convert Italia SpA, Studio aerodinamico di pannelli fotovoltaici con tracker solare, Responsabile Scientifico.
2016, Progetti Medi Sapienza Università di Roma, Big Data in Industrial Turbomachinery. Responsabile Scientifico.
2016, Acqua Latina Spa, Ottimizzazione delle tecnologie, dei sistemi energetici, degli aspetti idraulicomarittimi ambientali e tecnici a supporto della redazione del progetto definitivo del dissalatore dell'Isola di Ponza, Responsabile Scientifico.
2017, Elettra Investimenti Spa, Modello di analisi ed interpretazione dei parametri di processo per il riconoscimento di guasti e la manutenzione predittiva di impianti per la produzione di energia, Responsabile Scientifico.
2018, Ebara Pumps Europe, New impeller design for horizontal 3 cubic meter multi-stage pumps, Responsabile Scientifico.
2018, Baker Hughes GE, Gas leak modeling in Gas Turbine enclosures, Responsabile Scientifico.

Risultati conseguiti nel trasferimento tecnologico

Brevetti internazionali

1. Corsini, A., Rispoli, F., Romani, G., Piccinini, S., Miscelatore sommerso in particolare miscelatore sommerso per vasche di trattamento delle acque reflue, Faggiolati Pumps Spa., International patent application No. MC2007 A 000152, 2007.
2. Corsini A., Rispoli F. and Sheard A.G., A Meridional Fan, Flakt Woods Ltd, Patent Application No. GB 0800582.9, 2008.
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3. Corsini A., Bianchi S. and Sheard A.G., Detecting stall in devices, British Pat. Appl. No. GB2468571, 2010.
4. Corsini A., Ruggeri M., Impianto generatore di energia elettrica, Pat. Appl. No. MC2013A000058, 2013.
5. Corsini A., Delibra G. and Sheard A.G., A Fan for Air Movement, Solyvent Flakt AB, Patent Application No. GB 2507493, 2014.
6. Corsini, A. et al., 2014, Joint for modular wind blade and modular wind blade comprising said joint, WO 2016006008 A1, PCT/IT2015/000160, 2014.
7. Corsini et al., Impeller for a pump, 2017, US Patent D776,166.
8. Corsini et al., Impeller for pumps, 2017, US Patent D791,841.
9. Corsini et al., Impeller assembly for centrifugal pumps, 2017, US Patent 20,170,260,992.
Software depositato
10. Corsini, A., Ullucci, G., *SDP2 (SDP Squared)*, SIAE Sezione OLAF, maggio 2014.

Spin-off universitario

2012 "SED Soluzioni per l'Energia e la Diagnostica Srl" Spin-off di Sapienza Università di Roma, in qualità di fondatore.

Valutazione della ricerca

Scopus Author's Report (on November 30th 2018)

Documents: 139

H-index: 21

Citations: 1234 (by 556 documents)

Scholar (on November 30th 2018)

H-index: 23

Citations: 1772

I10-index: 50

Risultati VQR 2004-2010

Risultati VQR 2011-2014

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Elenco delle pubblicazioni e prodotti di ricerca

Articoli su riviste internazionali con referee

1. Corsini A. and Rispoli F., "Numerical simulation of three-dimensional viscous flow in an isolated axial rotor". The Archive of Mechanical Engineering (Archiwum budowy maszyn), Polska Akademia Nauk, XLVI-4, 369-392, 1999.
2. Corsini A., Rispoli F., Vad J. and Bencze F., "Non free vortex flow effects in an axial flow rotor". Periodica Polytechnica, Mechanical Engineering Series (a contribution to international technical sciences, published by the Budapest University of Technology and Economics), 45-2, 201-216, 2001.
3. Borello D., Corsini A. and Rispoli F., "A finite element overlapping scheme for turbomachinery flows on parallel platforms", Computers and Fluids, 32/7, 1017-1047, 2003.
4. Corsini, A., Rispoli, F., "Using sweep to extend stall-free operational range in axial fan rotors", IMechE J. of Power and Energy, 218, 129-139, 2004.
5. Corsini, A., Rispoli, F., Santoriello A., "A quadratic Petrov-Galerkin formulation for advection-diffusion-reaction problems in turbulence modeling", J. of Computational and Applied Mechanics, 5/2, 237-249, 2004.
6. Corsini A., Rispoli F., "Flow analyses in a high-pressure axial ventilation fan with a non-linear eddyviscosity closure", Int. J. of Heat and Fluid Flow, 26/3, 349-361, 2005.
7. Corsini, A., Rispoli, F., Santoriello A., "A variational multi-scale high-order finite element formulation for turbomachinery flow computations", Comp. Meth. in Appl. Mech. and Engrg, 194/45-47, 4797-4823, 2005.
8. Corsini, A., Rispoli, F., Santoriello A., "Quadratic Petrov-Galerkin Finite Elements for advective reactive features in turbomachinery CFD", Int. J. of Numerical Methods for Heat and Fluid Flows, 15/8, 894-925, 2005.
9. Corsini, A., Rispoli, F., Santoriello, A., Tezduyar T. E., "Improved Discontinuity Capturing finite element devices for reaction effects in turbulence computations", Computational Mechanics, 38, 356-364, 2005.
10. Corsini, A., Rispoli F., Gamberale M., "Assessment of renewable energy solutions in an Italian small island energy system using a transient simulation model", ASME J. of Solar Energy Engineering, 128, 237-244, 2006.
11. Rispoli, F., Saavedra, R., Corsini, A., Tezduyar T. E., "Computation of inviscid compressible flows with the V-SGS stabilization and YZ β shock-capturing", Int. J. of Num. Methods in Fluids, 54/6-8, 695-706, 2007.
12. Rispoli, F., Corsini, A., Tezduyar T. E., "Finite element computation of turbulent flows with the Discontinuity-Capturing Directional Dissipation (DCDD)", Computer & Fluids, 36, 121-126, 2007.
13. Corsini, A., Sheard, A., G., "Tip end-plate concept based on leakage vortex rotation number control", J. of Computational and Applied Mechanics, 8/1, 21-37, 2007.
14. Corsini, A., Rispoli, F., Sheard, A., G., "Development of improved tip concept for low-noise operation in industrial fans", IMechE J. of Power and Energy, 221, 669-681, 2007.
15. Corsini, A., Rispoli, F., Gamberale, M., Tortora, E., "Assessment of H₂ and H₂O based renewable energy-buffering systems in minor islands", Renewable Energy, 34, 279-288, 2009.
16. Corsini, A., Rispoli, F., Sheard, A. G., "Aerodynamic performance of blade-tip end-plates designed for low-noise operation in axial-flow fans", Journal of Fluids Engineering, vol. 131, issue 8, 1-13, 2009.
17. Bianchi, S., Sheard, A. G., Kinghorn, I. R., Corsini, A., Rispoli, F. "Experimental development of a measurement technique to resolve the radial distribution of fan aero-acoustic emissions", Noise Control Engineering Journal, vol. 57, (4), 360-369, 2009.

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18. Bianchi, S., Corsini, A., Rispoli, F., Sheard, A., G., "Detection of aerodynamic noise sources in low speed axial fan with tip end-plates", IMechE J. of Mechanical Engineering Science, Vol. 223, number 6, 1379-1392, 2009.
19. Corsini, A., Menichini, F., Rispoli, F., Santoriello, A., Tezduyar, T., E., "A multiscale finite element formulation with discontinuity capturing for turbulence models with dominant reaction-like terms", J. of Applied Mechanics, Vol. 76, paper 021211 (8 pages), 2009.
20. Bianchi, S., Sheard, A. G., Corsini, A., Rispoli, F. "Far-field radiation of aerodynamic sound sources in axial fans fitted with passive noise-control features", J. of Vibration & Acoustics, Vol. 131, paper 061007 (10 pages), 2009.
21. Corsini, A., Rispoli, F., Sheard, A. G., "Shaping of tip end-plate to control leakage vortex swirl in axial flow fans", Transactions of ASME, Journal of Turbomachinery, vol. 132, 3, paper 031005 (9 pages), 2010.

22. Corsini A., Iossa C, Rispoli F, Tezduyar T.E, A DRD finite element formulation for computing turbulent reacting flows in gas turbine combustors. *Computational Mechanics*, vol. 46; p. 159-167, 2010.
 23. Bianchi, S., Corsini, A. & Sheard, A.G. 2010, 'Sound Generation Mechanism in Low Speed Axial Fans'; *Journal of the Acoustical Society of America*, vol. 127, issue 3, pp 1837-1857.
 24. Corsini A., Rispoli F, Tezduyar T.E (2011). Stabilized finite element computation of NOx emission in aero-engine combustors. *International Journal for Numerical Methods in Fluids*, vol. 65, 1-3, pp. 254-270.
 25. Sheard, A. G., Corsini, A., Bianchi, S. (2011). Stall Warning in a Low-Speed Axial Fan by Visualisation of Sound Signals. *Journal of Engineering for Gas Turbines and Power*, vol. 133, 4, paper 041601 (10 pages).
 26. Bianchi, S., Corsini, A., Rispoli, F., Sheard, A. G., (2011). Far-field radiation of aerodynamic sound sources in axial fans fitted with passive noise-control features. *Journal of Vibration and Acoustics*, vol. 113, paper 05100 (11 pages).
 27. Bianchi, S., Corsini, A., Mazzucco, L., Monteleone, L. & Sheard, A.G. (2012), 'Stall Inception, Evolution and Control in a Low Speed Axial Fan with Variable Pitch in Motion'. *Transactions of the ASME, Journal of Engineering for Gas Turbines & Power*, vol. 134, Paper No. 042602 (10 pages).
 28. Corsini A, Marchegiani A, Rispoli F, Venturini P, Sheard A.G (2012). Predicting Blade Leading Edge Erosion in an Axial Induced Draft Fan. *J. Eng. Gas Turbines Power - April 2012 - Volume 134, Issue 4*, 042601 (9 pages).
 29. Corsini A., Rispoli F, Tezduyar T.E (2012). Computer modeling of wave-energy air turbines with the SUPG/PSPG formulation and discontinuity-capturing technique. *Journal of Applied Mechanics*, vol. 79-1, paper 010910 (8 pages).
 30. D. Borello, A. Corsini, G. Delibra, S. Evangelisti, A. Micangeli, Experimental and computational investigation of a new solar integrated collector storage system, *Applied Energy*, 2012, ISSN 0306-2619, 10.1016/j.apenergy.2012.01.026.
 31. Sheard, A.G. & Corsini, A. (2012), 'The Mechanical Impact of Aerodynamic Stall on Tunnel Ventilation Fans'. *International Journal of Rotating Machinery*, vol. 2012, Paper No. 402763, pp 1–12.
 32. Bianchi, S., Corsini, A. & Sheard, A.G. (2012), 'Experimental Characterisation of the Far-field Noise in Axial Fans Fitted with Shaped Tip End-Plates'. *International Scholarly Research Network, Mechanical Engineering*, vol. 2012, Paper No. 212358, pp 1-9.
 33. Bianchi, S., Corsini, A. & Sheard, A.G. (2012), 'Installed Aeroacoustic Performance of Cooling Axial Fans Fitted with End-Plates'. *Noise Control Engineering Journal*, vol. 60, pp 519-27.
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34. Corsini, A., Rispoli, F., Sheard, A.G. & Tezduyar T.E. (2012), 'Computational Analysis of Noise Reduction Devices in Axial Fans With Stabilized Finite Element Formulations'. *Computational Mechanics*, vol. 50, pp. 695-705.
 35. Bianchi, S., Corsini, A., Sheard, A.G. (2013), 'A Critical Review of Passive Noise Control Techniques in Industrial Fans'. *Proceedings of the 58th American Society of Mechanical Engineers Gas Turbine and Aeroengine Congress*. San Antonio, USA, 3–7 June, Paper No. GT2013-94803. Accepted for publication in the transactions of the ASME, *Journal of Engineering for Gas Turbines & Power*.
 36. Borello, D., Corsini A., Rispoli, F. & Tortora E. (2013), 'A Co-Powered Biomass and Concentrated Solar Power Rankine Cycle Concept for Small Size Combined Heat and Power Generation'. *Energies*, 6, pp. 1478-1496.
 37. Bianchi, S., Corsini, A. & Sheard, A.G. (2013), 'Experimental Study of the Self-Noise of a Turbulent Round Jet Investing a Cambered Aerofoil'. *Periodica Polytechnica, Mechanical Engineering*, vol. 57(1), pp 45-62.
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Si rappresenta che tutte le dichiarazioni rese, sono rese ai sensi e per gli effetti del D.P.R. n. 445/2000 e

s.m.i.

Inoltre, si dichiara che il presente curriculum è stato redatto ai fini della sua pubblicazione.

In fede

Prof ing Alessandro Corsini