SERGIO DE ROSA - Breve CV

Dati Principali

Carriera

- 2014 Professore Ordinario presso Università di Napoli "Federico II"
- 2005 Professore Associato Confermato presso Università di Napoli "Federico II"
- 2001 Professore Associato presso Università di Napoli "Federico II"
- 1995 Ricercatore Confermato presso Università di Napoli "Federico II"
- 1992 Ricercatore presso Università di Napoli "Federico II"
- 1988 Ricercatore al CIRA, (Centro Italiano Ricerche Aerospaziali)
- 1988 Laurea in Ingegneria Aeronautica ottenuta *cum laude* all'Università di Napoli "Federico II"

Insegnamenti attuali presso Università di Napoli "Federico II"

Corso	**Posizione**	**CFU**	
Strutture Aerospaziali	II anno della Laurea	9	dal 2006
Fluid-Structure Interaction	II anno della Laurea Magistrale	6	dal 2016

Principali Progetti e Collaborazioni

Progetti di Ricerca MIUR (Ministero dell'Educazione, Università e Ricerca) / Responsabile Locale

- COFIN2003 (2004-2005), Analysis of Innovative Procedures for the Link between Deterministic and Energy Vibroacoustic Methods (coordinatore: Prof. Aldo Sestieri, Università di Roma La Sapienza).
- COFIN2005 (2006-2007), Dynamic modelling and control of complex mechanical structures characterized by uncertain parameters (coordinatore: Prof. Aldo Sestieri, Università di Roma La Sapienza).
- PRIN2017 (2019-2021), DEvelopment and applications of a VIrtual hybrid platform for multiscale analysis of advanced StructUres of aircraft (coordinatore: Prof. Erasmo Carrera, Politecnico di Torino).

Partecipazione ai Programmi dell'Unione Europea

Acronimo	Anni	Tipo	**Nome**
A.S.A.N.C.A. Rotary Wing Group	90-91	Industrial Project	Advanced Studies for Active Noise Control technologies in Aircraft
RHINO	92-95	Industrial Project	Reduction of Helicopter Interior Noise
A.S.A.N.C.A II	93-96	Industrial Project	Advanced Studies for Active Noise Control technologies in Aircraft
S.E.A.NET.	99-02	Thematic Network	Thematic Network on Statistical Energy Analysis
E.N.A.B.L.E.	00-03	Industrial Project	Environmental Noise Associated with the Boundary Layer Excitation
F.A.C.E.	02-06	Industrial Project	Friendly Aircraft Comfort Environment
S.U.P.E.R.PANELS	10-12	FP7-PEOPLE-2009-IRSES	Strengthening and Upholding the Performances of the new Engineered Research PANELS De Rosa è stato coordinatore scientifico del progetto a cui partecipavano: • ISVR Southampton in UK, • KUL Leuven in Belgium, • McGill Montreal in Canada and • CACM Auckland in New Zealand.
VIPER	16-20	H2020-MSCA-ITN-2015-EJD	VIbro-acoustics of PERiodic media
CASTLE	16-22	H2020-CS2-CPW02-2015-01	CAbin Systems design Toward passenger welLbEing
LIVE-I	20-24	H2020-MSCA-ITN-2019-EID	Lightening and Innovating transmission for improving Vehicle Environmental Impacts

Associatura CNR (Centro Nazionale Ricerche)

- Il Decreto N.543 (dated 15.11.2012) conferiva a S. De Rosa il titolo di *research associate* al CNR-INSEAN per il programma ET.P02.17. (Valido fino al 2014).
- Il Decreto INM_139_2019 conferiva a S. De Rosa il titolo di *research associate* al CNR-INSEAN per il programma Control (Structure Water Interface modiFicaTionfor vibration and noise Control). Valido dal 01.04.2019 al 31.03.2020.

Borse e Periodi di Ricerca

Fulbright

Conseguimento nel maggio 1996 di una borsa FULBRIGHT, a cura della "Commissione Paritetica per gli Scambi Culturali tra l'Italia e gli Stati Uniti d'America". Con questa borsa di studio, è stato trascorso un periodo di 4 mesi presso "The GEORGE W. WOODRUFF School of Mechanical Engineering", Georgia Institute of Technology, Atlanta, USA. La collaborazione è stata con il Prof. K.A. Cunefare.

Brevi Periodi di Ricerca finanziati dall'Univ. di Napoli Federico II (Breve Mobilità per Docenti e Studenti)

- Institute of Sound and Vibration Research (ISVR), University of Southampton (UK), from 8 to 22 October 2005.
- Ecole Centrale de Lyon (F) from 26 February 2014 to 12 March 2014.

Visite su Invito

- 2012: Seminar at LMT-Cachan, ENS Cachan, France, 27-30 November.
- 2013: Politecnico di Torino, Seminario nell'ambito del Dottorato.
- 2014: Department of Mechanical Engineering, University of Santiago, Chile, 9-17 September. Visita finanziata dal *Chilean National Fund for Scientific and Technological Development* (Fondecyt) - grant No.11110046.
- 2016: Seminar at the KTH, Stockholm, Sweden, 13-16 December.
- 2017: Seminar at the TU-Munich, Germany, 04 December.

Attività Editoriali

Book Series

Editor per la serie Springer in Aerospace Technologies, https://www.springer.com/series/8613

Journals

- Deputy Editor in Proceedings of the Institution of Mechanical Engineering, Part C, Journal of Mechanical Engineering Science (SAGE) for **Materials, Stress & Structures** Section.
- Associate Editor:
  - Mechanical Systems and Signal Processing (Elsevier).
  - Aerotecnica Missili & Spazio, The Journal of Aerospace Science, Technology and Systems (AIDAA).
  - Advances in Aircraft and Spacecraft Science, *An International Journal* (TechnoPress).
- Reviewer for more than 20 journals. The most relevant are AIAA Journal, Applied Acoustics (Elsevier), ASME Journal of Vibration *and Acoustics, Computer and Structures (Elsevier), Journal of Acoustical Society of America (ASA), Journal of Fluids and Structures (Elsevier), Journal of Intelligent Material System and Structures (SAGE), Journal of Sound and Vibration (Elsevier), Journal of Vibration and Control (SAGE).*

Comitati Scientifici di Conferenze

- Advisory Board of DEMEASS Group: Design, Modelling and Experiments of Advanced Structures and Systems.
- Scientific Committee of International Conference on Mechanics of Nano, Micro and Macro Composite Structures.
- Scientific Committee MEDYNA Euro-Mediterranean Conference on Structural Dynamics and Vibroacoustics:
  - *MEDYNA 2013, 23-25 Apr 2013 Marrakech (Morocco).*
  - *MEDYNA 2017, 23-25 Apr 2017 Sevilla (Spain).*
- NOVEM2018 Organizing Committee, https://novem2018.sciencesconf.org
- MEDYNA2020 Chair: https://medyna2020.sciencesconf.org

Revisione di PhD

Membro esterno in numerosi comitati di *final defence* del dottorato di ricerca per candidati europei (Italia, Spagna, Belgio, Francia, Svezia) e per quelli in co-tutela con la Francia.

Principali Impegni Istituzionali

- Membro della *Commissione Paritetica Docenti* Studenti: GIU 2014; Presidente, GIU 2016-DIC 2018.
- Delegato all' *Internazionalizzazione* del Dipartimento dal GEN Jan 2019.

Chair di Conferenze

- Organising Committee: NOVEM2012, "Noise and Vibration: Emerging Methods", Sorrento 01-04 Apr.
- Co-chair / AIDAA XXII conference, Congress of the Italian Association of Aeronautics and Astronautics.
- FLINOVIA symposia: www.flinovia.org.
- Organising Committee: MEDYNA2020, Napoli, 17-19 Feb, https://medyna2020.sciencesconf.org .

Lavori Principali

Libri (in Italiano)

S. De Rosa, F. Franco, F. Ricci: Introduzione alla Tecnica Statistico-Energetica (S.E.A.) per la Dinamica Strutturale e l'Acustica Interna, ISBN: 88-207-2864-8, Liguori Editore, Napoli.

Editor di Libri e Special Issues

- E. Ciappi, S. De Rosa, F. Franco, J.-L. Guyader, S. A. Hambric (Eds.): flinovia - FLOW INDUCED NOISE AND VIBRATION ISSUES AND ASPECTS: A FOCUS ON MEASUREMENT, MODELING, SIMULATION AND REPRODUCTION OF THE FLOW EXCITATION AND FLOW INDUCED RESPONSE, ISBN 978-3-319-09712-1, SPRINGER, 2014.
- E. Ciappi, S. De Rosa, F. Franco, J.-L. Guyader, S. A. Hambric, A. Hanford (Eds.): flinovia - FLOW INDUCED NOISE AND VIBRATION ISSUES AND ASPECTS: A FOCUS ON MEASUREMENT, MODELING, SIMULATION AND REPRODUCTION OF THE FLOW EXCITATION AND FLOW INDUCED RESPONSE - II, ISBN 978-3-319-76779-6, SPRINGER, 2018.
- Guest Editor: Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, Special Issue: NOVEM 2015. April 2016; Vol. 230, No. 6.
- Guest Editor: Advances in Aircraft and Spacecraft Science, Special Issue: NOVEM 2015. Volume 3, Number 3, July 2016.

Articoli su Rivista

Si presentano i venti articoli più significativi:

[JP-1] K. A. Cunefare, S. De Rosa. An improved state-space method for coupled fluid-structure interaction analysis. Journal of Acoustical Society of America, Vol 105(1), Jan 1999, pp.206-210.

[JP-2] K. A. Cunefare, S. De Rosa. The sensitivity of structural acoustic response to attachment feature scale representation, Journal of Acoustical Society of America, Vol 106(6), Dec 1999, pp.3384-3393.

[JP-3] K.A. Cunefare, S. De Rosa, N. Sadegh, G. Larson. State switched absorber/damper for semi-active structural control. Journal of Intelligent Material Systems and Structures, Vol 11, Apr 2000, pp.300-310.

[JP-4] De Rosa, S., Franco, F. (2008): Exact and numerical responses of a plate under a turbulent boundary layer excitation. Journal of Fluids and Structures, Vol 24(2), 212-230.

[JP-5] Barbieri E., Cammarano A., De Rosa S., Franco F. Waveguides of a composite plate by using the spectral finite element approach. Journal of Vibration and Control. ISSN: 1077-5463, doi: 10.1177/1077546307087455.

[JP-6] Vitiello P., De Rosa S., Franco F. (2008). Convected field analysis of flat panels response to turbulent boundary layer induced excitation. Aerospace science and technology. Vol 12/1, pp. 91-104 ISSN: 1270-9638., doi:10.1016/j.ast.2007.10.003

[JP-7] De Rosa S., Franco F. (2008). A scaling procedure for the response of an isolated system with high modal overlap factor. Mechanical Systems and Signal Processing, doi:10.1016/j.ymssp.2008.01.007

[JP-8] Ciappi, E., Magionesi, F., De Rosa, S., Franco, F., (2009); Hydrodynamic and hydroelastic analyses of a plate excited by the turbulent boundary layer. Journal of Fluids and Structures (2008), Vol. 25(2) 321-342.

[JP-9] De Rosa S., Franco F., (2010); On the use of the asymptotic scaled modal analysis for time-harmonic structural analysis and for the prediction of coupling loss factors for similar systems, Mechanical Systems and Signal Processing, Vol.24 pp.455-480.

[JP-10] Ciappi, E., Magionesi, F., De Rosa, S., Franco, F.; Analysis of the scaling laws for the turbulence driven panel responses, Journal of Fluids and Structures 32 (2012) 90–103.

[JP-11] S. De Rosa, M. Capobianco, G. Nappo, G. Pagnozzi. Models and comparisons for the evaluation of the sound transmission loss of panels. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science 2014, 228(18) 3343–3355.

[JP-12] S. De Rosa, F. Franco, E. Ciappi, A simplified method for the analysis of the stochastic response in discrete coordinates, Journal of Sound and Vibration, 339 (2015) 359–375.

[JP-13] S. De Rosa, F. Franco. Analytical similitudes applied to thin cylindrical shells. Advances in Aircraft and Spacecraft Sciences, Vol.2 (4), 403-425, Technopress, 10.12989/aas.2015.2.4.403.

[JP-14] E. Ciappi, S. De Rosa, F. Franco, P. Vitiello, M. Miozzi. On the dynamic behavior of composite panels under turbulent boundary layer excitations, Journal of Sound and Vibration, 364 (2016) 77–109.

[JP-15] P. Pasolini, E. H. Dowell, S. De Rosa, F. Franco, R. Savino, Non-linear aero-elastic response of a multi-layer TPS, Advances in Aircraft and Spacecraft Science, Vol. 4, No. 4 (2017) 449-465

[JP-16] F. Errico, S. De Rosa, M. Ichchou, F. Franco, O. Bareille, Dispersion curves of infinite laminate panels through a modal analysis of finite cylinders, Wave Motion Vol. 83, 80-93, 2018

[JP-17] A. Casaburo, G. Petrone, F. Franco, S. De Rosa, A Review of Similitude Methods for Structural Engineering, Applied Mechanics Review,v ol. 71, p. 1-32, ISSN: 0003-6900, doi: 10.1115/1.4043787, 2019

[JP-18] F. Franco, O. Robin, E. Ciappi, S. De Rosa, A. Berry, G. Petrone (2019). Similitude laws for the structural response of flat plates under a turbulent boundary layer excitation. Mechanical Systems and Signal Processing, vol. 129, p. 590-613, ISSN: 0888-3270, doi: 10.1016/j.ymssp.2019.04.04

[JP-19] F Errico, F Franco, S De Rosa, G Petrone, M Ichchou, Aeroelastic effects on wave propagation and sound transmission of plates and shells, AIAA Journal 58 (5), 2269-2275

[JP-20] M. Maeder, R. D'Auria, E. Grasso, G. Petrone, S. De Rosa, M. Klaerner, S. Marburg, Numerical analysis of sound radiation from rotating discs, Journal of Sound and Vibration 468, 115085