LIST OF PUBLICATIONS

Luciano Demasi

HONORS AND AWARDS

- **Thomson Highly Cited Researcher, section "*Materials Science*"**
  This Highly Cited Research resource captured the people behind the most influential publications in 21 broad subject categories in life sciences, medicine, physical sciences, engineering and social sciences based on citation metrics. Within their category, these individuals represent less than one-half of one percent of all publishing researchers—truly an extraordinary accomplishment [http://highlycited.com].

- Collier Research HyperSizer/AIAA Structures **best paper award** (**2013**)

- Composite Structures award for the **best paper of the year** (**2010**)

- M.S in Aerospace Engineering with final grade of ***110/110*** **Magna cum Laude**
  (**Award for Excellence**)

- First author, in *25 years of history of the journal*, to have a **series of five papers published at once and without any required change** in the peer-reviewed journal *Composite Structures*. The comments that were received from the reviewers were the following:

  "*A **major** and timely treatise on composite plate theories which will be widely welcomed by the composites community. An easy to understand comparison of composite plate analytical methodologies which succinctly explains the subtleties in more complex problems".*
  *"An **exceptional contribution** to knowledge in laminated plate theory which deserves a wide audience.*
  *The most **outstanding contribution** to composite structures this reviewer has had the pleasure of assessing for some time".*
  *"May I add that I greatly enjoyed reading your papers and am sure that they will be widely appreciated. **They break new ground in being the first series of five papers since the Journal began 25 years ago**. Also although occasionally papers are accepted for publication without changes being required, this is unusual. It is very unusual for a series of two papers to be accepted in this way, which makes a series of five "**exponentially unlikely!**"*

- **Italian Habilitation (Full Professorship in Aerospace Engineering)** (**Feb 2014**)

- **Most Influential Faculty** (**May 2012**)

- **Most Influential Faculty** (**May 2013**)

- **Most Outstanding Aerospace Engineering Faculty** (**May 2014**)

- **Most Influential Faculty** (**May 2015**)

LIST OF PUBLICATIONS

Citation Indices (Google Scholar)

(Author ID: Luciano Demasi)

Citations: **1453**(**999 since 2012**)
h-index: **19** (**16 since 2012**)
i10-index: **39** (**33 since 2012**)

Citation Indices (SCOPUS)

(Author ID: 8637399400)

Citations: **1390**
h-index: **18**

Publication Statistics

Single-author publications: **23**

Publications with undergraduate/graduate students: **49**

Publications with collaborators from industry: **8**

Publications with other professors: **62**
Publications with collaborators from the Air Force Institute of Technology (WPAFB): **2**

Publications with collaborators from the Air Force Research Lab (WPAFB): **3**

Journal Papers

1. **L. Demasi**, G. Monegato, R. Cavallaro "*Minimum Induced Drag Theorems for Multiwing Systems*", **AIAA Journal,** accepted (available in the a "article in advance" section), **to appear in 2018**

2. P. Junghanns, G. Monegato, **L. Demasi** "*Properties and numerical solution of an integral equation to minimize airplane drag*", Festschrift for the 80th Birthday of Ian Sloan (Josef Dick, Frances Y Kuo, Henryk Wozniakowski, eds.), Springer-Verlag Heidelberg-Berlin, **to appear in 2018**

3. **L. Demasi**, G. Biagini, F. Vannucci, E. Santarpia, R. Cavallaro, "Equivalent Single Layer, *Zig-Zag and Layerwise Theories for Variable Angle Tow Composite Based on the Generalized Unified Formulation*", **Composite Structures**, Vol. 177, pp. 54-79, **2017,**
DOI: 10.1016/j.compstruct.2017.06.033, **(Impact Factor = 3.874)**

4. N. Teunisse, P. Tiso, **L. Demasi**, R. Cavallaro "*Reduced Basis Methods for Structurally Nonlinear Joined Wings*", **Aerospace Science and Technology**, Vol. 68, pp-486-495, **2017,** DOI: 10.1016/j.ast.2017.05.041, **(Impact Factor = 2.057)**

5. **L. Demasi**, G. Monegato, A. Dipace, R. Cavallaro "*Minimum Induced Drag Theorems for Joined Wings, Closed Systems, and Generic Biwings: Theory*", **Journal of Optimization Theory and Applications**, Vol. 169, 1, pp-200-235, **2016,** DOI: 10.1007/s10957-015-0849-y, **invited**, **(Impact Factor = 1.509)**

6. **L. Demasi**, G. Monegato, E. Rizzo, R. Cavallaro A. Dipace, "*Minimum Induced Drag Theorems for Joined Wings, Closed Systems, and Generic Biwings: Applications*", **Journal of Optimization Theory and Applications**, Vol. 169, 1, pp-236-261, **2016,** DOI: 10.1007/s10957-015-0850-5, **invited** **(Impact Factor = 1.509)**

7. R. Cavallaro, **L. Demasi** "*Challenges, Ideas, and Innovations of Joined-Wing Configurations: A Concept from the Past, an Opportunity for the Future*", **Progress in Aerospace Sciences**, Vol. 87, pp. 1-93, **invited, 2016,** DOI: 10.1016/j.paerosci.2016.07.002 **(Impact Factor = 4.102)**

8. **L. Demasi,** E. Santarpia, A. Dipace, R. Cavallaro, R. E. Gordnier, "*Aerodynamic and Structural Studies of a Flapping Wing in Forward Flight*", **AIAA Journal,** Vol. 54, 9, pp-2768-81, **2016,** DOI: 10.2514/1.J054496, **(Impact Factor = 1.326)**

9. R. Cavallaro, R. Bombardieri, **L. Demasi**, A. Iannelli "*PrandtlPlane Joined Wing: Body Freedom Flutter, Limit Cycle Oscillation and Freeplay Studies*", **Journal of Fluids and Structures**, Vol. 59, No. 11, pp. 57-84, **2015,** DOI: 10.1016/j.jfluidstructs.2015.08.016, **(Impact Factor = 2.058)**

10. **L. Demasi**, Y. Ashenafi, R. Cavallaro, E. Santarpia "*Generalized Unified Formulation Shell Element for Variable-Stiffness Composite Laminates and Aeroelastic Applications*", **Composite Structures**, Vol. 131, pp. 501-515, **2015,** DOI: 10.1016/j.compstruct.2015.05.022, **(Impact Factor = 3.874)**

11. R. Cavallaro, A. Iannelli, **L. Demasi**, A. M. Razón "*Phenomenology of Nonlinear Aeroelastic Responses of Highly Deformable Joined Wings*", **Advances in Aircraft and Spacecraft Science**, Vol. 2, No. 2, pp. 125-168, **2015** **(Impact Factor = Not Available)**

12. **L. Demasi**, R. Cavallaro, F. Bertuccelli "*Post-Critical Analysis of Joined Wings: the Concept of Snap-Divergence as a Characterization of the Instability*", **Journal of Fluids and Structures**, Vol. 54, pp. 701-718, **2015,** DOI: 10.1016/j.jfluidstructs.2015.01.009, **(Impact Factor = 2.058)**

13. R. Cavallaro, **L. Demasi**, F. Bertuccelli, D. Benson "*Risks of Linear Design of Joined Wings: a Nonlinear Dynamic Perspective in the Presence of Follower Forces*", **CEAS Aeronautical Journal**, Vol. 6, No. 2, pp. 161-180, **2015,** DOI 10.1007/s13272-014-0136-x, **(Impact Factor = Not Available)**

14. **L. Demasi**, A. Dipace, G. Monegato, and R. Cavallaro, "*Invariant Formulation for the Minimum Induced Drag Conditions of Non-planar Wing systems*", **AIAA Journal**, Vol. 52, No. 10, pp. 2223-2240, **2014,** DOI: 10.2514/1.J052837, **(Impact Factor = 1.326)**

15. R. Cavallaro, **L. Demasi**, A. Passariello "*Nonlinear Analysis of PrandtlPlane Joined Wings: Effects of Anisotropy*", **AIAA Journal**, Vol. 52, No. 5, pp. 964-980, **2014,** DOI: 10.2514/1.J052242, **(Impact Factor = 1.326)**

16. **L. Demasi**, R. Cavallaro, and A. M. Razón, "*Post-Critical Analysis of PrandtlPlane Joined-Wing Configurations*", **AIAA Journal**, DOI: 10.2514/1.J051700, Vol. 51, No. 1: pp 161-177, **2013.** **(Impact Factor = 1.326)**

17. E. Carrera, A. Varello, **L. Demasi**, "*A Refined Structural Model for Static Aeroelastic Response and Divergence of Metallic and Composite Wings*", **CEAS Aeronautical Journal**, Vol. 4, No. 2, pp 175-189, **2013. (Impact Factor = Not Available)**

18. **L. Demasi**, "*Partially Layer Wise Advanced Zig Zag and HSDT Models Based on the Generalized Unified Formulation*", **Engineering Structures**, Vol. 53, pp 63-91, **2013. (Impact Factor = 2.275)**

19. **L. Demasi**, W. Yu "*Assess the Accuracy of the Variational Asymptotic Plate and Shell Analysis Using the Generalized Unified Formulation*", **Mechanics of Advanced Materials and Structures**, Vol. 20, No. 3, pp 227-241, **2013. (Impact Factor = 0.862)**

20. **L. Demasi**, A. N. Palazotto, A. Hollenbeck, R. Cavallaro "*Exploratory Structural Investigation of a Hawkmoth-Inspired MAV's Thorax*", **International Journal of Micro Air Vehicles**, Vol. 4, No. 4, **2012. (Impact Factor = 0.343)**

21. **L. Demasi,** "*Partially Zig-Zag Advanced Shear Deformation Theories Based on the Generalized Unified Formulation*", **Composite Structures**, Vol. 94 (2), pg. 363-375, **2012.** **(Impact Factor = 3.874)**

22. E. Carrera, F. A. Fazzolari, and **L. Demasi,** "*Vibration Analysis of Anisotropic Simply Supported Plates by using Variable Kinematic and Rayleigh-Ritz Method*", **Journal of Vibration and Acoustics**, Vol. 133, pp. 1-18, **2011. (Impact Factor = 1.430)**

23. A. Varello, E. Carrera, **L. Demasi**, "*Vortex Lattice Method Coupled with Advanced One-Dimensional Structural Models*", **ASD Journal**, Vol. 2, pp. 53-78, **2011.** **(Impact Factor = Not Available)**

24. A. V. Styuart, E. Livne, **L. Demasi**, M. Mor, "*Flutter Failure Risk Assessment for Damage-Tolerant Composite Aircraft Structures*", **AIAA Journal**, vol. 49, 655-669, **2011,** DOI: 10.2514/1.J050862, **(Impact Factor = 1.326)**

25. **L. Demasi**, "*Invariant Finite Element Model for Composite Structures: the Generalized Unified Formulation*", **AIAA Journal**, Vol. 48, No. 8, **2010,** DOI: 10.2514/1.45416, **(Impact Factor = 1.326)**

26. **L. Demasi**, "*Three-dimensional closed form solutions and ∞^3 theories for orthotropic plates*", **Mechanics of Advanced Materials and Structures**, Vol. 17, 20-39, **2010.** **(Impact Factor = 0.862)**

27. S. Brischetto, E. Carrera, **L. Demasi**, "*Improved Bending Analysis of sandwich plates using Zig-Zag function*", **Composite structures**, Vol. 89, 408-415, **2009. (Impact Factor = 3.874)**

28. S. Brischetto, E. Carrera, **L. Demasi**, "*Improved response of unsymmetrically laminated Sandwich Plates by using Zig-Zag functions*", **Journal of Sandwich Structures and Materials**, Vol. 11, 257-267, **2009 (Impact Factor = 2.852).**

29. S. Brischetto, E. Carrera, **L. Demasi**, "*Free vibration of sandwich plates and shells by using Zig-Zag function*", **Shock and Vibration**, 16, 495-503, **2009. (Impact Factor = 0.880)**

30. **L. Demasi**, E. Livne, "*Aeroelastic coupling of Geometrically Nonlinear Structures and Linear Unsteady Aerodynamics – Two Formulations*", **Journal of Fluids and Structures**, Vol. 25, 918-935, **2009,** DOI: 10.1016/j.jfluidstructs.2009.03.001 **(Impact Factor = 2.058)**

31. **L. Demasi**, E. Livne, "*Dynamic Aeroelasticity of Structurally Nonlinear Configurations Using Linear Modally Reduced Aerodynamic Generalized Forces*", **AIAA Journal**, Vol. 47, No. 1, **2009,** DOI: 10.2514/1.34797, **(Impact Factor = 1.326)**

32. **L. Demasi**, "∞^6*mixed plate theories based on the Generalized Unified Formulation. Part I: Governing Equations*", **Composite Structures**, Vol. 87, 1-11, **2009,** DOI: 10.1016/j.compstruct.2008.07.013, **(Impact Factor = 3.874)**

33. **L. Demasi**, "∞^6*mixed plate theories based on the Generalized Unified Formulation. Part II: Layerwise theories*", **Composite Structures**, Vol. 87, 12-22, **2009,** DOI: 10.1016/j.compstruct.2008.07.012, **(Impact Factor = 3.874)**

34. **L. Demasi**, "∞^6*mixed plate theories based on the Generalized Unified Formulation. Part III: Advanced Mixed High Order Shear Deformation Theories*", **Composite Structures**, Vol. 87, 83-194, **2009,** DOI: 10.1016/j.comstruct.2008.07.011, **(Impact Factor = 3.874)**

35. **L. Demasi**, "∞^6*mixed plate theories based on the Generalized Unified Formulation. Part IV: Zig-Zag Theories*", **Composite Structures**, Vol. 87, 195-205, **2009,** DOI: 10.1016/j.compstruct.2008.07.010, **(Impact Factor = 3.874)**

36. **L. Demasi**, "∞^6*mixed plate theories based on the Generalized Unified Formulation. Par V:Results*", **Composite Structures**, Vol. 88, 1-16, **2009,** DOI: 10.106/j.compstruct.2008.07.009, **(Impact Factor = 3.874)**

37. **L. Demasi**, "*2D, Quasi 3D and 3D Exact Solutions for Bending of Thick and Thin Sandwich Plates*", **Journal of Sandwich Structures & Materials**, Vol.10, No. 4, 271-310, DOI: 10.1177/1099636208089311, **2008. (Impact Factor = 2.852)**

38. **L. Demasi**, "∞^3 *plate theories for thick and thin plates: the generalized unified formulation*", **Composite Structures**, Vol. 84, 256-270, **2008. (Impact Factor = 3.874)**

39. **L. Demasi**, "*Three-Dimensional Closed Form Solutions and Exact Thin Plate Theories for Isotropic Plates*", **Composite Structures**, 80, pp. 183-195, **2007. (Impact Factor = 3.874)**

40. **L. Demasi**, "*Investigation on the Conditions of Minimum Induced Drag of Closed Wing Systems and C-Wings*", **Journal of Aircraft**, Vol. 44, No. 1, 81-99, **2007,** DOI: 10.2514/1.21884, **(Impact Factor = 0.701)**

41. **L. Demasi**, "*Treatment of Stress Variables in Advanced Multilayered Plate Elements Based Upon Reissner's Mixed Variational Theorem* ", **Computers & Structures**, 84, pp. 1215-1221, **2006.** **(Impact Factor = 2.745)**

42. **L. Demasi**, "*Quasi-3D Analysis of Free Vibration of Anisotropic Plates*", **Composite Structures**, 74, pp. 449-457, **2006.** **(Impact Factor = 3.874)**

43. **L. Demasi**, "*Induced Drag Minimization: a Variational Approach Using the Acceleration Potential*", **Journal of Aircraft**, Vol.43, No. 3, pp. 669-680, **2006,** DOI: 10.2514/1.15982, **(Impact Factor = 0.701)**

44. **L. Demasi**, E. Livne, "*Structural Ritz-Based Simple-Polynomial Nonlinear Equivalent Approach – An Assessment*", **Journal of Aircraft**, Vol. 43, No. 6, pp. 1685-1697, **2006,** DOI: 10.2514/1.17466, **(Impact Factor = 0.701)**

45. **L. Demasi**, "*Refined Multilayered Plate Elements Based on Murakami Zig-Zag Functions*", **Composite Structures**, 70, pp. 308-316, **2005.** **(Impact Factor = 3.874)**

46. E. Carrera, **L. Demasi**, "*Two benchmarks to assess two-dimensional theories of Sandwich Composite Plates*", **AIAA Journal**, Vol. 41, No. 7, pp. 1356-1362, **2003.** **(Impact Factor = 1.326)**

47. E. Carrera, **L. Demasi**, M. Manganello, "*Assessment of Plate Elements on Bending and Vibrations of Composite Structures*", **Mechanics of Composite Material and Structures**, 9:333-357, **2002.** **(Impact Factor = 0.862)**

48. E. Carrera, **L. Demasi**, "*Classical and advanced Multilayered plate element based upon PVD and RMVT. Part I: Derivation of finite element matrices*", **International Journal for Numerical method in Engineering**, 55: 191-231, **2002.** **(Impact Factor = 2.1)**

49. E. Carrera, **L. Demasi**, "*Classical and advanced Multilayered plate element based upon PVD and RMVT. Part II: Numerical implementations*", **International Journal for Numerical method in Engineering**, 55: 253-291, **2002.** **(Impact Factor = 2.1)**

Books

1. E. Carrera, **L. Demasi** "Appunti di Costruzioni Aeronautiche A" (English translation of the title: "*Notes of Aeronautical Constructions A*"), **Levrotto & Bella**, Torino, **2002.**

Articles in Book

1. **L. Demasi**, G. Monegato, R. Cavallaro "*Minimum Induced Drag Theorems for Nonplanar Systems and Closed Wings*", in A. Frediani (Ed.), **Variational Analysis and Aerospace Engineering III: Mathematical Challenges for the Aerospace of the Future, Springer U.S.**, **2017**

2. R. Cavallaro, R. Bombardieri, S. Silvani, **L. Demasi**, G. Bernardini, "*Aeroelasticity of the PrandtlPlane: Body Freedom Flutter, Freeplay and Limit Cycle Oscillation*", in A. Frediani (Ed.), **Variational Analysis and Aerospace Engineering III: Mathematical Challenges for the Aerospace of the Future, Springer U.S.**, **2017**

Conference Papers (Peer Reviewed)

1. **L. Demasi**, G. Biagini, F. Vannucci, E. Santarpia, R. Cavallaro, "Equivalent Single Layer, *Zig-Zag and Layerwise Theories for Variable Angle Tow Composite Based on the Generalized Unified Formulation*" AIAA Science and Technology Forum and Exposition: 58th **AIAA/ASME/ASCE/AHS/SC Structures, Structural Dynamics, and Materials Conference**, January **2017**

2. **L. Demasi**, G. Monegato, R. Cavallaro "*Minimum Induced Drag Theorems for Multi-Wing Systems*", AIAA Science and Technology Forum and Exposition: 57th **AIAA/ASME/ASCE/AHS/SC Structures, Structural Dynamics, and Materials Conference**, January **2016.**

3. R. Bombardieri, R. Cavallaro, **L. Demasi** "*A Historical Perspective on the Aeroelasticity of Box Wings and PrandtlPlane with New Findings*", AIAA Science and Technology Forum and Exposition: 57th **AIAA/ASME/ASCE/AHS/SC Structures, Structural Dynamics, and Materials Conference**, January **2016.**

4. **L. Demasi**, Y. Ashenafi, R. Cavallaro, E. Santarpia "*Generalized Unified Formulation Shell Element for Variable-Stiffness Composite Laminates and Aeroelastic Applications*", AIAA Science and Technology Forum and Exposition: 56th **AIAA/ASME/ASCE/AHS/SC Structures, Structural Dynamics, and Materials Conference**, January **2015.**

5. **L. Demasi**, G. Monegato, A. Dipace, R. Cavallaro "*Minimum Induced Drag Theorems for Joined Wings, Closed Systems, and Generic Biwings: Theory*", AIAA Science and Technology Forum and Exposition: 56th **AIAA/ASME/ASCE/AHS/SC Structures, Structural Dynamics, and Materials Conference**, January **2015.**

6. **L. Demasi**, G. Monegato, E. Rizzo, R. Cavallaro A. Dipace, "*Minimum Induced Drag Theorems for Joined Wings, Closed Systems, and Generic Biwings: Results*", AIAA Science and Technology Forum and Exposition: 56th **AIAA/ASME/ASCE/AHS/SC Structures, Structural Dynamics, and Materials Conference**, January **2015.**

7. N. Teunisse, P. Tiso, **L. Demasi**, R. Cavallaro "*Computational Reduced Order Methods for Structurally Nonlinear Joined Wings*", AIAA Science and Technology Forum and Exposition: 56th **AIAA/ASME/ASCE/AHS/SC Structures, Structural Dynamics, and Materials Conference**, January **2015.**

8. R. Cavallaro, M. Nardini, **L. Demasi** "*Amphibious PrandtlPlane: Preliminary Design Aspects Including Propellers Integration and Ground Effect*", AIAA Science and Technology Forum and Exposition: 56th **AIAA/ASME/ASCE/AHS/SC Structures, Structural Dynamics, and Materials Conference**, January **2015.**

9. R. Cavallaro, **L. Demasi**, R. Bombardieri, A. Iannelli "*PrandtlPlane Joined Wing: Body Freedom Flutter, Limit Cycle Oscillation and Freeplay Studies*", AIAA Science and Technology Forum and Exposition: 56th **AIAA/ASME/ASCE/AHS/SC Structures, Structural Dynamics, and Materials Conference**, January **2015.**

10. G. Phlipot, X. Q. Wang, M. Mignolet, **L. Demasi**, R. Cavallaro "*Reduced Order Modeling for the nonlinear Geometric Response of Joined Wings*", AIAA Science and Technology Forum and Exposition: 55th **AIAA/ASME/ASCE/AHS/SC Structures, Structural Dynamics, and Materials Conference**, January **2014.**

11. N. Teunisse, **L. Demasi**, P. Tiso, R. Cavallaro "*A Computational Method for Structurally Nonlinear Joined Wings Based on Modal Derivatives*", AIAA Science and Technology Forum and Exposition: 55th **AIAA/ASME/ASCE/AHS/SC Structures, Structural Dynamics**, and Materials Conference, January **2014.**

12. R. Cavallaro, A. Iannelli, **L. Demasi,** A. M. Razón "*Phenomenology of Nonlinear Aeroelastic Responses of Highly Deformable Joined-wings Configurations*", AIAA Science and Technology Forum and Exposition: 55th **AIAA/ASME/ASCE/AHS/SC Structures, Structural Dynamics**, and Materials Conference, January **2014.**

13. **L. Demasi**, A. Dipace, G. Monegato, and R. Cavallaro, "*An Invariant Formulation for the Minimum Induced Drag Conditions of Non-planar Wing systems*", AIAA Science and Technology Forum and Exposition: 55th **AIAA/ASME/ASCE/AHS/SC Structures, Structural Dynamics, and Materials Conference**, January **2014.**

14. R. Gordnier and **L. Demasi** "*Implicit LES Simulations of Flapping Wing in Forward Flight*", presented at the **ASME 2013 Fluids Engineering Summer Conference**, Incline Village, Nevada, July 7-11, **2013.**

15. R. Cavallaro, **L. Demasi**, F. Bertuccelli "*Risks of Linear Design of Joined Wings: a Nonlinear Dynamic Perspective in the Presence of Follower Forces*", 54th **AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics & Materials Conference**, Boston, Massachusetts, April **2013.**

16. **L. Demasi**, R. Cavallaro, F. Bertuccelli "*Post-Critical Analysis of Joined Wings: the Concept of Snap-Divergence as a Characterization of the Instability*", 54th **AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics & Materials Conference**, Boston, Massachusetts, April **2013.**

17. **L. Demasi**, R. E. Gordnier, E. Santarpia, A. Dipace "*High-fidelity Simulations of a Flexible Flapping Wing in Forward flight*", 54th **AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics & Materials Conference**, Boston, Massachusetts, April **2013.**

18. **L. Demasi**, A. N. Palazotto, A. Hollenbeck, R. Cavallaro "*Exploratory Structural Investigation of a Hawkmoth-Inspired MAV's Thorax*", 53rd **AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics & Materials Conference**, Honolulu, Hawaii, April **2012.**

19. **L. Demasi**, "*Partially Layerwise Advanced Zig-Zag and HSDT Models Based on the Generalized Unified Formulation*", 53rd **AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics & Materials Conference**, Honolulu, Hawaii, April **2012.**

20. S. Bhasin, P. C. Chen, Z., Wang, **L. Demasi** "*Dynamic Nonlinear Aeroelastic Analysis of The Joined Wing Configurationon*", 53rd **AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics & Materials Conference**, Honolulu, Hawaii, April **2012.**

21. R. Cavallaro, **L. Demasi**, A. Passariello "*Nonlinear Analysis of PrandtlPlane Joined Wings-Part II: Effects of Anisotropy*", 53rd **AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics & Materials Conference**, Honolulu, Hawaii, April **2012.**

22. **L. Demasi,** "*Partially Zig-Zag Advanced Shear Deformation Theories Based on the Generalized Unified Formulation*", 16th **International Conference on Composite Structures** (ICCS16), Porto, Portugal, 28-30 June **2011.**

23. M. Petrolo, E. Carrera, **L. Demasi**, "*An Advanced Unified Aeroelastic Formulation Based on 1D Higher-Order Finite Elements*", **International Forum of Aeroelasticity and Structural Dynamics**, Paris, France, 26-30 June **2011.**

24. **L. Demasi**, K. Hasslinger, and D. Samardzic, "*Multi-Theory FEM Architecture for the Generation of Advanced Mixed Shear Deformation Theories Based on the Generalized Unified Formulation for Composite Structures*", 25th **Annual Technical Conference (American Society for Composites)**, Dayton, OH, 20-22 September **2010.**

25. **L. Demasi**, A. Palacios, "*A Reduced Order Nonlinear Aeroelastic Analysis of Joined Wings Based on the Proper Orthogonal Decomposition*", 51st **AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics & Materials Conference**, Orlando, Florida, 12-15 April **2010.**

26. A. Varello, **L. Demasi**, E. Carrera, G. Giunta, "*An Improved Beam Formulation for Aeroelastic Applications*", 51st **AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics & Materials Conference**, Orlando, Florida, 12-15 April **2010.**

27. **L. Demasi**, "*An Invariant Model for any Composite Plate Theory and FEM Applications: the Generalized Unified Formulation*", 50th **AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics & Materials Conference**, Palm Springs, California, 4-7 May **2009.**

28. **L. Demasi**, W. Yu "*Assess the Accuracy of the Variational Asymptotic Plate and Shell Analysis (VAPAS) Using the Generalized Unified Formulation (GUF)*", 50th **AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics & Materials Conference**, Palm Springs, California, 4-7 May **2009.**

29. **L. Demasi**, E. Livne "*Contributions to Joined-Wing Aeroelasticity*", **International Forum on Aeroelasticity and Structural Dynamics**, Seattle, Washington, 21-25 June **2009.**

30. **L. Demasi**, E. Livne, "*Aeroelastic Coupling of Geometrically Nonlinear Structures and Linear Unsteady Aerodynamics: Two Formulations*", 49th **AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics & Materials Conference**, Schaumburg, Illinois, 7-10 April **2008.**

31. **L. Demasi**, E. Livne, "*Dynamic Aeroelasticity of Coupling Full Order Geometrically Nonlinear Structurs and Full Order Linear Unsteady Aerodynamic – The Joined Wing Case* ", 49th **AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics & Materials Conference**, Schaumburg, Illinois, 7-10 April **2008.**

32. A. Styuart, **L. Demasi**, E. Livne and K. Lin, "*Probabilistic Modeling of the Aeroelastic Life Cycle for Risk Evaluation of Composite Structures*", 49th **AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics & Materials Conference**, Schaumburg, Illinois, 7-10 April **2008**

33. **L. Demasi**, E. Livne, "*Dynamic Aeroelasticity of Structurally Nonlinear Configurations Using Linear Modally Reduced Aerodynamic Generalized Forces*", 48th **AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics & Materials Conference**, Honolulu, Hawaii, 23-26 April **2007.**

34. **L. Demasi**, E. Livne, "*The Structural Order Reduction Challenge in the Case of Geometrically Nonlinear Joined-Wing Configurations*", 48th **AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics & Materials Conference**, Honolulu, Hawaii, 23-26 April **2007.**

35. **L. Demasi**, E. Livne, "*Aeroelasticity of Structurally Nonlinear Lifting Surfaces Using Linear Modally Reduced Aerodynamic Generalized Forces*", 47th **AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics & Materials Conference**, Newport, Rhode Island, 1-4 May **2006.**

36. **L. Demasi**, E. Livne, "*Exploratory Studies of Joined Wing Aeroelasticity*", 46th **AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics & Materials Conference**, Austin, Texas, 18-21 April **2005.**

37. **L. Demasi**, E. Livne, "*Structural Ritz-Based Simple-Polynomial Nonlinear Equivalent Approach – An Assessment*", 46th **AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics & Materials Conference**, Austin, Texas, 18-21, April **2005.**

38. **L. Demasi**, E. Livne, "*A Plate Structural Capability for the Nonlinear Aeroelastic Analysis of Joined-Wing Configurations* ", **Italian Conference AIDAA** Roma (Italy), 15-19th September **2003.**

39. **L. Demasi**, "*Ala Anulare Ellittica: Distribuzione di Circolazione di Minima Resistenza Indotta*". (English translation of the title: "*Elliptical Annular Wing: Circulation of Minimum Induced Drag"*) **Italian Conference AIDAA** Roma (Italy), 15-19th September **2003.**

40. **L. Demasi**, "*Effetto delle condizioni al contorno sulla modellizzazione di piastre multistrato*" (English translation of the title: "*Effects of the Boundary Conditions for 2D Models of Multilayered Plates*"), **Italian Conference AIDAA** Palermo (Italy), 24-28th September **2001.**

41. A. Robaldo, **L. Demasi**, E. Carrera, "*Influence of Temperature Profile on the Accuracy of Classical and Refined Multilayered Plate*", **Italian Conference GIMC** Genova (Italy), 21-23th June **2004.**

42. E. Carrera, **L. Demasi**, *"On Two-Dimensional FEM Simulation of Layered Plates"*, **GIMC Conference**, Giulianova 24-26 June 2002 24-26 June, **2002.**

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44. E. Carrera, **L. Demasi**, "*An Assessment of Multilayered Finite Plate Elements in View of the C^0_z Requirements*", **Italian Conference GIMC** 2000 Brescia (Italy), 13-15th November **2000.**

45. E. Carrera, G. Chiocchia, **L. Demasi**, A. Robaldo, "*On the developments of a Joined Wing Prandtlplane"*, Fifth **World Congress on Computational Mechanics**, Vienna July 7-12 **2002.**

46. **L. Demasi**, G. Chiocchia, E. Carrera, "*Aerodinamica dei Sistemi Portanti Chiusi: Ala Anulare Ellittica*" (English translation of the title: "*Aerodynamics of the closed Wing Systems: Elliptical Annular Wing*"), **Italian Conference AIDAA** Roma (Italy), 15-19th, Sept. **2003.**

47. G. Chiocchia, E. Carrera, **L. Demasi**, "*Studio Aerodinamico di un'Ala Anulare Ellittica*". (English translation of the title: "*Aerodynamic Studies of an Elliptical Annular Wing*"), **Italian Conference AIDAA** Palermo (Italy), 24-28th September **2001.**

Other Publications (Alenia Spazio Internal Reports)

1. **L. Demasi** et alii, "*RADARSAT-2 Stress Summary Report, Issue 1, Date 25/11/***2001***"*. **ALENIA SPAZIO Internal report**

2. **L. Demasi** et alii, "RADARSAT-*2 Static Analysis Report, Issue 4, Date 22/11/***2001**". **ALENIA SPAZIO Internal report**

INVITED PRESENTATIONS

1. *Nonlinear Aeroelastic Responses of Highly Deformable Joined-Wing Configurations* (**University of California Irvine**, Irvine, CA, United States, February 17th , **2017**)

2. *Aeroelastic Responses of Joined-Wing Configurations* (**University of Liverpool**, Liverpool, United Kingdom, December, **2016**)

3. *Nonlinear Aeroelastic Responses of Highly Deformable Joined-Wing Configurations* (**International Conference on Applications in Nonlinear Dynamics**, Denver, Colorado, September 1st, **2016**)

4. *Minimum Induced Drag Theorems for Innovative Wing Systems* (**Computational Science Research Center**, SDSU, San Diego, April 29th, **2016**)

5. Generalized Unified Formulation Shell Element for Functionally Graded Variable-Stiffness Composite Laminates and Aeroelastic Applications (**Aerospace Flutter & Dynamics Council Spring**, ATA Offices, San Diego, November 5th and 6th , **2015**)

6. *Minimum Induced Drag Theorems for Joined Wings, Closed Systems, and Generic Biwings* (**Variational Analysis and Applications**, Erice, August 28-September 5, **2015**)

7. *Minimum Induced Drag Theorems for Joined Wings, Closed Systems, and Generic Biwings* (**Aerospace Flutter & Dynamics Council Spring**, NASA AMES, April, **2015**)

8. *Nonlinear Aeroelasticity*, *Generalized Unified Formulation for Composite Structures and Aerodynamic Models for the Preliminary Design of Wings* (**Politecnico Di Torino**, December, **2014**)

9. *Phenomenology of Nonlinear Aeroelastic Responses of Highly Deformable Joined-wing Configurations* (**Aerospace Flutter & Dynamics Council Spring**, St. Louis, 29-30 May, **2014**)

10. *An Invariant Formulation for the Minimum Induced Drag Conditions of Non-planar Wing Systems* (**Aerospace Flutter & Dynamics Council Spring**, St. Louis, 29-30 May, **2014**)

11. *A Multi-Theory and Multi-Fidelity Computational Architecture for Composite Structures: the Generalized Unified Formulation* (**University of Michigan**, 26 November, **2013**)

12. *A Multi-Theory and Multi-Fidelity Computational Architecture for Composite Structures: the Generalized Unified Formulation* (**TU Delft**, 5 February, **2014**)

13. *The Concept of Snap Divergence for Joined Wings* (**ASME 2013 Fluids Engineering Summer Conference**, Incline Village, Nevada, July 7-11, **2013)**

14. *On the Importance of Taking Into Account Structural Nonlinear Effects in the Preliminary Design of Joined Wings* (**Aerospace Flutter & Dynamics Council Spring**, Houston, Texas, 7 May, **2013**)

15. *On the Importance of Taking Into Account Structural Nonlinear Effects in the Preliminary Design of Joined Wings*
(**Meeting of the AIAA Structures Technical Committee**, Boston, Massachusetts, 7 April, **2013**)

16. *Compliant Mechanism for Flapping Unmanned Aerial Systems* (**Air Force Research Lab**, WPAFB, Dayton, **2012**)

17. *Compliant Mechanism for Flapping Unmanned Aerial Systems* (**Army Research Lab**, Aberdeen Proving Ground, **2012**)

18. *Compliant Mechanism for Flapping Unmanned Aerial Systems* (**Aerospace Engineering Department**, San Diego State University , **2012**)

19. *Post Buckling Investigations and Theoretical Implications for the Design of Joined Wings* (**Aerospace Flutter & Dynamics Council**, Santa Ana, **2012**)

20. *A Multi-Theory and Multi-Fidelity Computational Achitecture for Composites and Sandwich Structures: the Generalized Unified Formulation* (**Structural Engineering Department, University of California San Diego**, **2012**)

21. *A Reduced Order Nonlinear aeroelastic Analysis of Joined Wings Based on the Proper Orthogonal Decomposition* (**Université Paris Ouest, Nanterre La Défense (UFR SITEC)**, Paris, France, **2011**)

22. *A Reduced Order Nonlinear aeroelastic Analysis of Joined Wings Based on the Proper Orthogonal Decomposition* (**ATA**, San Diego, **2010**)

23. *A Reduced Order Nonlinear aeroelastic Analysis of Joined Wings Based on the Proper Orthogonal Decomposition* (**General Atomics**, San Diego, **2010**)

24. *A Reduced Order Nonlinear aeroelastic Analysis of Joined Wings Based on the Proper Orthogonal Decomposition* (**Aerospace Flutter & Dynamics Council**, San Diego, **2010**)

25. *Explore SDSU Day* (**Aerospace Engineering Department, San Diego State University**, **2010**)

26. *Dynamic Aeroelasticity of Structurally Nonlinear Airplane Configurations Using Modally Reduced Linear Aerodynamic Models* (**Risø National Laboratory for Sustainable Energy**, Technical University of Denmark – DTU, **2009**)

27. *Generalized Unified Formulation for Analysis of Composite Plates* (**Aerospace Engineering Department, San Diego State University**, **2009**)

28. *Dynamic Aeroelasticity of Structurally Nonlinear Airplane Configurations Using Modally Reduced Linear Aerodynamic Models* (**Structural Engineering Department, University of California San Diego**, **2009**)

29. *Dynamic Aeroelasticity of Structurally Nonlinear Airplane Configurations Using Modally Reduced Linear Aerodynamic Models* (**Computational Science Research Center, San Diego State University**, **2008**)

30. *Aeroelasticity of Lifting Surfaces in the Presence of Geometric Nonlinearity Using the Generalized Aerodynamic Force Matrix* (**Department of Aerospace Engineering, Politecnico di Torino**, Italy, **2006**)