



**Stefano Discetti**

Universidad Carlos III de Madrid,  
Departamento de Bioingeniería e Ingeniería Aeroespacial  
Av. de la Universidad, 30, 28911 Leganés, Spain  
Phone: (+34) 916248235  
Email: [sdiscett@ing.uc3m.es](mailto:sdiscett@ing.uc3m.es)

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**Current position**

2018-present Associate Professor, *Universidad Carlos III de Madrid*  
*Bioengineering and Aerospace Engineering Department*

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**Research expertise**

*Experimental investigation of turbulent flows, development of non-intrusive measurement techniques, low order modelling of turbulent flows, unsteady aerodynamics*

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**Education**

2010-2013 **PhD** in Aerospace and Naval Engineering  
Università degli Studi di Napoli Federico II  
**Thesis:** *Tomographic Particle Image Velocimetry – Developments and applications to turbulent flows*

2007-2009 **MSc** in Aerospace Engineering (*with honors*)  
Università degli Studi di Napoli Federico II  
**Thesis:** *Advanced algorithms for PIV analysis*

2004-2007 **BSc** in Aerospace Engineering (*with honors*)  
Università degli Studi di Napoli Federico II  
**Thesis:** *Temperature measurements with IR thermography in the plasma wind tunnel Scirocco (CIRA)*

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**Former professional experience**

2013-2018 Visiting Professor at Universidad Carlos III de Madrid – Bioengineering and Aerospace Engineering Department

2013 Post-doctoral research fellow at Università degli Studi di Napoli Federico II - Industrial Engineering Department (Aerospace Section)

2010-2013 PhD student at University of Naples “Federico II” - Aerospace Engineering Department

2012 Research Assistant at Arizona State University – School for Engineering of Matter, Transport and Energy

2010 Guest Researcher at Arizona State University – School for Engineering of Matter, Transport and Energy

2007 Internship at CIRA (Italian Centre for Aerospace Research)  
Supervisor: Dr. A. Del Vecchio.  
Investigation topic: 3D Temperature measurements with IR thermography in hypersonic wind tunnel

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**Research projects**

- ◆ *TOOLS. AIRBUS*. P.I. **Stefano Discetti** & Andrea Ianiro. Grant period: 10/2017-06/2018.
- ◆ *LargeView, Very-large-scale motions measurement in pipe flows at high Reynolds numbers*. EuHIT. Grant period: 01/2017. P.I. **Stefano Discetti**

- ◆ *HIDRA, High-Dynamic-Range Measurements in Pipe Flows at High Reynolds Numbers*. EuHIT. Grant period: 03/2017. P.I. Andrea Ianiro
- ◆ *E!-DEGASS-EUR-20150008 -Desarrollo de sistemas embarcados de generacion de gas inerte para aviones de tamaño medio y medio recorrido*. CESA S.A. P.I. Pablo Fajardo
- ◆ *CONTRAST: Transferencia de calor por convección y estructuras coherentes en capas límites turbulentas*. Spanish Ministry of Economy and Competitiveness. Grant period: 12/2016-12/2019. P.I. **Stefano Discetti** & Andrea Ianiro
- ◆ *COTURB: Coherent Structures in Wall-bounded Turbulence*. Funded by European Community. Grant period: 01/02/2016-31/01/2021. P.I. Javier Jimenez
- ◆ *PIV study of a flapping airfoil with an actuated Trailing Edge Flap*. Funded by TU Delft. Grant period: 05/2016-09/2016. P.I. **Stefano Discetti** & Andrea Ianiro
- ◆ *Experiments over a flapping airfoil with an actuated Trailing Edge Flap*. Funded by TU Delft. Grant period: 09/2015-02/2016. P.I. Andrea Ianiro
- ◆ *Video recording during aerial refuelling hose guillotine rig tests*. Funded by Airbus Defense and Space. Grant period: 16/11/2015-31/12/2015. P.I. Pablo Fajardo
- ◆ *Realización de ensayos en arrays de paneles solares en túnel de viento*. Funded by ATOS SPAIN, S.A.U. Grant period: 06/2014-08/2014. P.I. Pablo Fajardo
- ◆ *Sistema de medida simultánea de flujos 3D y de transferencia de calor en pared en un túnel hidrodinámico*, grant UNC313-4E-2231 of the Spanish Ministry of Economy and Competitiveness. Grant period: 01/2013-12/2015. P.I. Javier Rodriguez
- ◆ *Unsteady aerodynamics of flapping wings*, grant TRA2013-41103 of the Spanish Ministry of Economy and Competitiveness. Grant period: 01/2014-12/2016. P.I. Manuel Garcia-Villalba, Oscar Flores
- ◆ *Tomographic PIV for multiplane measurements in Richtmyer-Meshkov flows at the LANL shock tube facility*, funded by DOE/LANL, Contract No. 79419-001-09. P.I: Ronald J. Adrian.
- ◆ *Advanced Flow Diagnostics for Aeronautical Research (AFDAR)*, funded by the European Community's Seventh Framework Programme (FP7/2007-2013) under grant agreement No.265695 ([www.afdar.eu](http://www.afdar.eu)). P.I: Fulvio Scarano

### ***PhD Students advising***

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Gioacchino Cafiero

Università degli Studi di Napoli Federico II (co-supervised with Prof. T. Astarita)  
Three-dimensional organization and heat transfer of jets with fractal generated turbulence  
Defended on 30<sup>th</sup> May 2016

Marco Raiola

Universidad Carlos III de Madrid (co-supervised with Dr. A. Ianiro)  
Empirical eigenfunctions: applications in unsteady aerodynamics  
Defended on 20<sup>th</sup> December 2017

Carlos Sanmiguel Vila

Universidad Carlos III de Madrid (co-supervised with Dr. A. Ianiro)  
Turbulent boundary layers with pressure gradients  
Expected graduation in 2018

Alejandro Güemes Jimenez

Universidad Carlos III de Madrid (co-supervised with Dr. A. Ianiro)  
Dynamics of coherent structures in wall-bounded turbulent flows  
Expected graduation in 2020

### ***Teaching experience***

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2014-2016

Member of the academic committee of the degree in Aerospace Engineering at Universidad Carlos III de Madrid

2014-present	Lecturer in the Master in Aeronautical Engineering at Universidad Carlos III de Madrid of the class: Propulsion systems: performance and design (6 ECTS) Experimental Aerodynamics (3 ECTS) – since a.y. 2015/2016
2014-present	Lecturer in the Master in Plasma Physics and Nuclear Fusion (Erasmus Mundus Programme: European Master of Science in Nuclear Fusion and Engineering Physics) of the class: Fluid dynamics (6 ECTS)
2013-present	Lecturer in the degree in Aerospace Engineering at Universidad Carlos III de Madrid of the classes: Aircraft Systems (3 ECTS) Turbomachinery Design (6 ECTS) Mechanics of Flight (6 ECTS) – a.y. 2013/14 to 2014/15 Aerospace propulsion: complement II (6 ECTS) – a.y. 2014/15
2010-present	Co-advisor of more than 25 students on B.S. and M.Sc. graduation thesis.
2010-2013	In charge of the practical lessons and member of the exam commission in the degree in Aerospace Engineering for the classes of: Gasdinamica (Gas Dynamics) - (6 ECTS) Aerodinamica Sperimentale (Experimental Aerodynamics) - (6 ECTS) in the degree in Mechanical Engineering for the classes of: Fluidodinamica (Fluid Dynamics) - (6 ECTS) in the Master in Aerospace Engineering for the classes of: Complementi di Gasdinamica (Advanced Gas Dynamics) - (9 ECTS)

### ***Fellowships, awards and recognitions***

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2016	Spanish national accreditation - Profesor Titular de Universidad.
2012	Awarded by the Committee of the <i>11<sup>th</sup> International Conference on Quantitative InfraRed Thermography</i> (QIRT 2012) with the “Student Award” in recognition of the excellent contributions in the field of IR Thermography measurements
2010	Awarded with a fellowship “CampaniAerospace” (2010) to spend a period of 4 months at Arizona State University, Tempe, USA as a visiting researcher under the supervision of Prof. R. J. Adrian
2010	First classified, and awarded with scholarship, in the admission concourse for XXV PhD course in Aerospace Engineering, Università degli Studi di Napoli Federico II
2009	Awarded with ADISU Fellowship for MSc accomplishment
2008	Awarded with “Premio Mazzoleni”, as best graduated student for the Academic Year 2006/2007 among the engineering students of the Università degli Studi di Napoli Federico II
2007	Awarded with ADISU Fellowship for B.S. Degree
2005	Awarded with “Premio Ingegneria”, during “Galassia Gutenberg” manifestation, promoted by Sezione Editori and Sezione Ingegneria of “Unione Industriali di Napoli”, as best student for the Academic Year 2004/2005 among engineering students of Università degli Studi di Napoli Federico II

### ***Books***

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S. Discetti, A. Ianiro (Editors), (2017) *Experimental Aerodynamics*, Taylor and Francis CRC Press, ISBN 978-1-49-870401-4.

### ***Seminars and invited/keynote presentations:***

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1. Discetti S (2017) Estimation of turbulent flow fields from non-time resolved data with Extended POD. *International Workshop on Complex Turbulent Flows*, November 27-28, Tangier (Morocco)
2. Discetti S (2017) Brief survey of existing 3D PIV techniques. *3D PIV course, 12th International Symposium on Particle Image Velocimetry*, June 18-22, Busan (Korea)

3. Discetti S (2017) Working principles of Tomographic PIV. *3D PIV course, 12th International Symposium on Particle Image Velocimetry*, June 18-22, Busan (Korea)
4. Discetti S, Sanmiguel Vila C, Ianiro A, Vinuesa R, Schlatter P, Örlü R (2017) Adverse-pressure-gradient turbulent boundary layers: flow organization and high-resolution statistics. *12th International Symposium on Particle Image Velocimetry June 18-22, Busan (Korea)*
5. Discetti S, Ianiro A (2016) An intensive and practise-oriented short-course on Particle Image Velocimetry. *PhD course. KTH Royal Institute of Technology. February 1<sup>st</sup>-5<sup>th</sup>, Stockholm (Sweden)*
6. Discetti S (2015) Tomographic PIV short course. *10th Pacific Symposium of Flow Visualization and image processing*, June 19th 2015, Naples (Italy) [http://www.psfvip10.unina.it/pdf/TOMOPIV\\_SC.pdf](http://www.psfvip10.unina.it/pdf/TOMOPIV_SC.pdf)
7. Discetti S, Astarita T (2014) PIV Challenge: main results of test cases C and D. *4<sup>th</sup> International PIV Challenge*, July 5<sup>th</sup> 2014, Lisbon (Portugal) <http://www.pivchallenge.org/pivchallenge4.html>
8. Discetti S (2014) Tomographic Particle Image Velocimetry: recent developments and applications to turbulent flow measurements. *Aeronautic Turbulence Seminars*, January 30<sup>th</sup> 2014, Imperial College London (UK), website: <http://www3.imperial.ac.uk/tmfc/seminars>

### **Peer-reviewed publications:**

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1. Discetti S, Coletti F (2018). Volumetric velocimetry for fluid flows. *Measurement Science and Technology*, in press, doi: <https://doi.org/10.1088/1361-6501/aaa571>
2. Discetti S, Raiola M, Ianiro A (2018) Estimation of time-resolved turbulent fields through correlation of non-time-resolved field measurements and time-resolved point measurements, *Experimental Thermal and Fluid Science*, in press, doi: <https://doi.org/10.1016/j.expthermflusci.2017.12.011>
3. Mallor F, Sanmiguel Vila C, Ianiro A, Discetti S (2018). Wall-mounted perforated cubes in a boundary layer: Local heat transfer enhancement and control. *International Journal of Heat and Mass Transfer*, 117, 498-507. doi: <https://doi.org/10.1016/j.ijheatmasstransfer.2017.10.027>
4. Raiola, M., Discetti, S., Ianiro, A., Samara, F., Avallone, F., & Ragni, D. (2017). Smart Rotors: Dynamic-Stall Load Control by Means of an Actuated Flap. *AIAA Journal*, 1-14, doi: <https://doi.org/10.2514/1.J056342>
5. Sanmiguel Vila C, Örlü R, Vinuesa R, Schlatter P, Ianiro A, Discetti S (2017) Adverse-pressure-gradient effects on turbulent boundary layers: statistics and flow-field organization, *Flow, turbulence and combustion*, 99, 589-612, doi: <https://doi.org/10.1007/s10494-017-9869-z>
6. Vinuesa R, Örlü R, Sanmiguel Vila C, Ianiro A, Discetti S, Schlatter P (2017) Revisiting history effects in adverse-pressure-gradient turbulent boundary layers, *Flow, turbulence and combustion*, 99, 565-587, doi: <https://doi.org/10.1007/s10494-017-9845-7>
7. Sanmiguel Vila C, Vinuesa R, Discetti S, Ianiro A, Schlatter P, Örlü R (2017) On the identification of well-behaved turbulent boundary layers. *Journal of Fluid Mechanics*, 822, 109-138. doi: <https://doi.org/10.1017/jfm.2017.258>
8. Raiola M, Greco CS, Contino M, Discetti S, Ianiro A (2017) Towards enabling time-resolved measurements of turbulent convective heat transfer maps with IR thermography and a heated thin foil. *International Journal of Heat and Mass Transfer*, 108 (A), 199-209. doi: [doi:10.1016/j.ijheatmasstransfer.2016.12.002](https://doi.org/10.1016/j.ijheatmasstransfer.2016.12.002)
9. Mendez MA, Raiola M, Masullo A, Discetti S, Ianiro A, Theunissen R, Buchlin JM (2017). POD-based background removal for particle image velocimetry. *Experimental Thermal and Fluid Science*, 80, 181-192. doi: [doi:10.1016/j.expthermflusci.2016.08.021](https://doi.org/10.1016/j.expthermflusci.2016.08.021)
10. Agüera N, Cafiero G, Astarita T, Discetti S (2016). Ensemble 3D PTV for high resolution turbulent statistics. *Measurement Science and Technology*, 27(12), 124011. doi: [doi:10.1088/0957-0233/27/12/124011](https://doi.org/10.1088/0957-0233/27/12/124011)
11. Castrillo, G., Cafiero, G., Discetti, S., & Astarita, T. (2016). Blob-enhanced reconstruction technique. *Measurement Science and Technology*, 27(9), 094011. doi: [doi:10.1088/0957-0233/27/9/094011](https://doi.org/10.1088/0957-0233/27/9/094011)
12. Vila CS, Discetti S, Carlomagno GM, Astarita T, Ianiro A (2016). On the onset of horizontal convection. *International Journal of Thermal Sciences*, 110, 96-108. doi: [doi:10.1016/j.ijthermalsci.2016.06.019](https://doi.org/10.1016/j.ijthermalsci.2016.06.019)
13. Cafiero G, Greco CS, Astarita T, Discetti S (2016). Flow field features of fractal impinging jets at short nozzle to plate distances. *Experimental Thermal and Fluid Science*, 78, 334-344. doi: [doi:10.1016/j.expthermflusci.2016.06.009](https://doi.org/10.1016/j.expthermflusci.2016.06.009)

14. Raiola M, Ianiro A, Discetti S (2016). Wake of tandem cylinders near a wall. *Experimental Thermal and Fluid Science*, 78, 354-369. [doi:10.1016/j.expthermflusci.2016.06.003](https://doi.org/10.1016/j.expthermflusci.2016.06.003)
15. Kähler CJ, Astarita T, Vlachos PP, Sakakibara J, Hain R, Discetti S, La Foy R, Cierpka C (2016). Main results of the 4th International PIV Challenge. *Experiments in Fluids*, 57(6), 1-71. [doi: 10.1007/s00348-016-2173-1](https://doi.org/10.1007/s00348-016-2173-1)
16. Cafiero G, Discetti S, Astarita T (2015). Flow field topology of submerged jets with fractal generated turbulence. *Physics of Fluids (1994-present)*, 27(11), 115103. [doi:10.1063/1.4935185](https://doi.org/10.1063/1.4935185)
17. Raiola M, Discetti S, Ianiro A (2015) On PIV random error minimization with optimal POD-based low order reconstruction. *Experiments in Fluids* 56:75 [doi:10.1007/s00348-015-1940-8](https://doi.org/10.1007/s00348-015-1940-8), ISSN 0723-4864.
18. Avallone F, Discetti S, Astarita T, Cardone G (2015) Convergence enhancement of single-pixel PIV with symmetric double correlation. *Experiments in Fluids* 56:71 [doi: 10.1007/s00348-015-1938-2](https://doi.org/10.1007/s00348-015-1938-2) , ISSN 0723-4864.
19. Cafiero G, Discetti S, Astarita T (2014) Heat transfer enhancement of impinging jets with fractal-generated turbulence. *International Journal of Heat and Mass Transfer* 75:173-183 [doi:10.1016/j.ijheatmasstransfer.2014.03.049](https://doi.org/10.1016/j.ijheatmasstransfer.2014.03.049), ISSN 0017-9310.
20. Discetti S, Astarita T (2014) On the detrimental effect of increasing the number of cameras on self-calibration for Tomographic PIV. *Measurement Science and Technology*. 25:084001 [doi:10.1088/0957-0233/25/8/084001](https://doi.org/10.1088/0957-0233/25/8/084001), ISSN 0957-0233.
21. Cafiero G, Ceglia G, Discetti S, Ianiro A, Astarita T, Cardone G (2014) On the three-dimensional precessing jet flow past a sudden expansion. *Experiments in Fluids* 55:1677 [doi:10.1007/s00348-014-1677-9](https://doi.org/10.1007/s00348-014-1677-9), ISSN 0723-4864.
22. Ceglia G, Discetti S, Ianiro A, Michaelis D, Astarita T, Cardone G (2014) Three-dimensional organization of the flow structure in a non-reactive model aero engine lean burn injection system. *Experimental Thermal and Fluid Science* 52:164-173 [doi:10.1016/j.expthermflusci.2013.09.007](https://doi.org/10.1016/j.expthermflusci.2013.09.007), ISSN 0894-1777.
23. Discetti S, Ziskin IB, Astarita T, Adrian RJ, Prestridge K (2013) PIV measurements of anisotropy and inhomogeneity in decaying fractal generated turbulence. *Fluid Dynamics Research* 45:061401 [doi:10.1088/0169-5983/45/6/061401](https://doi.org/10.1088/0169-5983/45/6/061401), ISSN 1873-7005.
24. Discetti S, Ianiro A, Astarita T, Cardone G (2013) On a novel low-cost high accuracy experimental setup for tomographic particle image velocimetry. *Measurement Science and Technology* 24:075302 [doi:10.1088/0957-0233/24/7/075302](https://doi.org/10.1088/0957-0233/24/7/075302), ISSN 0957-0233.
25. Discetti S, Natale A, Astarita T (2013) Spatial Filtering Improved Tomographic PIV. *Experiments in Fluids* 54(4):1505-1517, [doi:10.1007/s00348-013-1505-7](https://doi.org/10.1007/s00348-013-1505-7), ISSN 0723-4864.
26. Discetti S, Adrian RJ (2012) High accuracy measurement of magnification for monocular PIV. *Measurement Science and Technology* 23:117001 [doi:10.1088/0957-0233/23/11/117001](https://doi.org/10.1088/0957-0233/23/11/117001), ISSN 0957-0233.
27. Discetti S, Astarita T (2012) Fast 3D PIV with direct sparse cross-correlations. *Experiments in Fluids* 53(5):1437-1451, [doi:10.1007/s00348-012-1370-9](https://doi.org/10.1007/s00348-012-1370-9), ISSN 0723-4864.
28. Discetti S, Astarita T (2012) A fast multi-resolution approach to tomographic PIV. *Experiments in Fluids* 52(3):765-777, [doi:10.1007/s00348-011-1119-x](https://doi.org/10.1007/s00348-011-1119-x), ISSN 0723-4864.
29. Carlomagno GM, Discetti S, Astarita T (2011) Experimental assessment of a new heat flux sensor for measuring convective heat transfer coefficients. *QIRT Journal*, vol 8:37-49, [doi:10.3166/qirt.8.37-49](https://doi.org/10.3166/qirt.8.37-49), ISSN 1768-6733.

### **Contributions in conferences:**

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1. Discetti S, Raiola M, Ianiro A (2017) Estimation of time-resolved flow fields using simultaneous non-time resolved field measurements and time-resolved point measurements. 2nd Workshop on Data Assimilation and CFD Processing Techniques for PIV and LPT, December 13-14, Delft (The Netherlands)
2. Raiola M, Discetti S, Ianiro A (2017) A data-driven decomposition approach to model aerodynamic forces on flapping airfoils. 70th Annual Meeting of the APS Division of Fluid Dynamics, November 19-21, Denver (USA)
3. Discetti S, Sanmiguel Vila C, Raiola M, Serpieri J, Örlü R, Mascotelli L, Fiorini T, Bellani G, Talamelli A, Ianiro A (2017) Very-Large-Scale motion measurements in pipe flows at high Reynolds numbers. 16<sup>th</sup> European Turbulence Conference. August 21-24, Stockholm (Sweden).

4. Sanmiguel Vila C, Discetti S, Vinuesa R, Ianiro A, Schlatter P, Örlü R (2017) Single Pixel PIV Study Of Adverse-Pressure-Gradient Turbulent Boundary Layers. 16<sup>th</sup> European Turbulence Conference. August 21-24, Stockholm (Sweden).
5. Örlü R, Vinuesa R, Sanmiguel Vila C, Bobke A, Discetti S, Ianiro A, Schlatter P (2017) Towards Canonical Adverse Pressure Gradient Turbulent Boundary Layers – Experiments And Simulations. Tenth International Symposium on Turbulence and Shear Flow Phenomena, July 6-9, Chicago (IL, USA).
6. Discetti S, Raiola M, Ianiro A (2017) An algebraic approach for the integration of non-time resolved field measurements and time-resolved point measurements for dynamic estimation of flow fields. 12<sup>th</sup> International Symposium on Particle Image Velocimetry, June 18-22, Busan (Korea).
7. Castrillo G, Ianiro A, Astarita T, Discetti S (2017) High resolution full Reynolds stress tensor with ensemble stereoscopic PTV. 12<sup>th</sup> International Symposium on Particle Image Velocimetry, June 18-22, Busan (Korea).
8. Örlü R, Vinuesa R, Schlatter P, Sanmiguel Vila C, Discetti S, Ianiro A (2017) Re-assessment of canonical and non-canonical adverse-pressure-gradient turbulent boundary layers. 9<sup>th</sup> World Conference on Experimental Heat Transfer, Fluid Mechanics and Thermodynamics, June 11- 15, Foz do Iguazu (Brasil).
9. Discetti S, Raiola M, Ianiro A (2017) Dynamic estimation of flow fields through correlation of non-time resolved field measurements and time-resolved point measurements. 9<sup>th</sup> World Conference on Experimental Heat Transfer, Fluid Mechanics and Thermodynamics, June 11- 15, Foz do Iguazu (Brasil).
10. Mallor F, Sanmiguel Vila C, Ianiro A, Discetti S (2017) Wall-mounted perforated obstacles: heat transfer enhancement and control opportunities. 9<sup>th</sup> World Conference on Experimental Heat Transfer, Fluid Mechanics and Thermodynamics, June 11- 15, Foz do Iguazu (Brasil).
11. Raiola M, Discetti S, Ianiro A (2016) Modelling forces and flow features in flapping wings: a POD based approach. 69<sup>th</sup> Annual Meeting of the APS Division of Fluid Dynamics. November 20-22, Portland (USA).
12. Raiola M, Ianiro A, Discetti S, Moriche M, Flores O, García-Villalba M (2016). Flow over flapping airfoils: qualitative and quantitative comparison between experiments and simulations. 11<sup>th</sup> European Fluid Mechanics Conference, September 13-16, Sevilla (Spain).
13. Sanmiguel Vila C, Örlü R, Vinuesa R, Ianiro A, Discetti S, Schlatter P (2016) Wind tunnel studies of history effects in turbulent boundary layers. 11<sup>th</sup> European Fluid Mechanics Conference, September 13-16, Sevilla (Spain).
14. Raiola M, Moral P, Discetti S, Ianiro A (2016) Modal decomposition of flow features in flapping wings and modes contribution to forces. 11<sup>th</sup> European Fluid Mechanics Conference, September 13-16, Sevilla (Spain).
15. Raiola M, Discetti S, Ianiro A, Gillebaart T, Ragni D, Navalkar S, van Kuik G, van Wingerden JW (2016) Smart rotor: control of dynamic loads on a rotor blade. 11<sup>th</sup> European Fluid Mechanics Conference, September 13-16, Sevilla (Spain).
16. Örlü R, Sanmiguel Vila C, Vinuesa R, Bobke A, Discetti S, Ianiro A, Schlatter P (2016) On the canonical development of adverse-pressure-gradient turbulent boundary layers. iTi Conference on Turbulence VII. September 7- 9, 2016, Bertinoro (Italy).
17. Sanmiguel Vila C, Vinuesa R, Discetti S, Ianiro A, Schlatter P, Örlü P (2016) Identifying well-behaved turbulent boundary layers. . iTi Conference on Turbulence VII. September 7- 9, 2016, Bertinoro (Italy).
18. Örlü R, Vinuesa R, Sanmiguel Vila C, Bobke A, Discetti S, Ianiro A, Schlatter P (2016) History effects in adverse pressure gradient turbulent boundary layers. International Symposium on Near-Wall Flows: Transition and Turbulence RIMS, June 20-22, Kyoto (Japan).
19. Örlü R, Sanmiguel Vila C, Vinuesa R, Discetti S, Ianiro A, Schlatter P (2016) Revisiting tripping effects in low-Reynolds number turbulent boundary layers. 11<sup>th</sup> International ERCOFTAC Symposium on Engineering Turbulence Modelling and Measurements. September 21-23, Palermo (Italy).
20. Raiola M, Moral P, Discetti S, Ianiro A (2016). Low order modeling of forces and flow features in flapping wings. In 34<sup>th</sup> AIAA Applied Aerodynamics Conference (p. 3555). <http://arc.aiaa.org/doi/abs/10.2514/6.2016-4242>
21. Raiola M, Ianiro A, Discetti S, Gillebaart T, Ragni D, van Kuik G, van Wingerden J W (2016). Smart rotor: controlling dynamic stall by means of an actuated flap. In 8<sup>th</sup> AIAA Flow Control Conference (p. 4242). <http://arc.aiaa.org/doi/abs/10.2514/6.2016-3555>

22. Raiola M, Discetti S, Ianiro A (2016). Low order modeling of forces and flow features in flapping wings. 17<sup>th</sup> International Symposium on Flow Visualization, Gatlinburg June 19-22 2016.
23. Discetti S, Agüera N, Cafiero G, Astarita T (2015) Ensemble PTV for high resolution turbulent statistics. 11<sup>th</sup> International Symposium on Particle Image Velocimetry PIV 15, September 14<sup>th</sup>-16<sup>th</sup>, Santa Barbara (USA)
24. Castrillo G, Discetti S, Astarita T (2015) Blob-enhanced Tomographic PIV. 11<sup>th</sup> International Symposium on Particle Image Velocimetry PIV 15, September 14<sup>th</sup>-16<sup>th</sup>, Santa Barbara (USA)
25. Cafiero G, Discetti S, Astarita T (2015) Flow field characterization of round jets with fractal grid inserts. 11<sup>th</sup> International Symposium on Particle Image Velocimetry PIV 15, September 14<sup>th</sup>-16<sup>th</sup>, Santa Barbara (USA)
26. Discetti S, Cafiero G, Astarita T (2015) Impinging jets with fractal grids: heat transfer and flow topology. 10<sup>th</sup> Pacific Symposium of Flow Visualization and image processing, June 15<sup>th</sup>-19<sup>th</sup>, Naples (Italy) [http://www.psfvip10.unina.it/Ebook/web/papers/152\\_PSFVIP10.pdf](http://www.psfvip10.unina.it/Ebook/web/papers/152_PSFVIP10.pdf)
27. Raiola M, Ianiro A, Discetti S (2015) PIV measurements in the wake of two circular cylinders in tandem configuration with ground effect. 10<sup>th</sup> Pacific Symposium of Flow Visualization and image processing, June 15<sup>th</sup>-19<sup>th</sup>, Naples (Italy) [http://www.psfvip10.unina.it/Ebook/web/papers/103\\_PSFVIP10.pdf](http://www.psfvip10.unina.it/Ebook/web/papers/103_PSFVIP10.pdf)
28. Cafiero G, Discetti S, Astarita T (2015) Large coherent structures in fractal jets. 10<sup>th</sup> Pacific Symposium of Flow Visualization and image processing, June 15<sup>th</sup>-19<sup>th</sup>, Naples (Italy) [http://www.psfvip10.unina.it/Ebook/web/papers/005\\_PSFVIP10.pdf](http://www.psfvip10.unina.it/Ebook/web/papers/005_PSFVIP10.pdf)
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### ***Reviewer of international journals***

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Applied Mathematical Modelling  
Applied Mathematics and Computation  
Experiments in Fluids  
Experimental Thermal and Fluid Science  
International Journal of Heat and Mass Transfer  
International Journal of Thermal Sciences  
International Journal of Rotating Machinery  
Journal of Fluid Mechanics  
Journal of Visualization  
Measurement Science and Technology  
Physics of Fluids  
Thermal Science

### ***Conference service***

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Member of the scientific committee of the 12th International Symposium on Particle Image Velocimetry PIV 2017 (Busan, Korea)  
Member of the scientific committee of the International Workshop on Complex Turbulent Flows (Tangier, Morocco)

### ***Membership in Editorial boards***

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Member of the Editorial Board of the journal Measurement Science and Technology since January 2018