



Stefano Discetti

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Current position

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

Research expertise

Machine-learning for fluid mechanics, flow control, experimental investigation of turbulent flows, development of non-intrusive measurement techniques, low-order modelling and data-driven discovery of turbulent flows

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)*

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

Research projects

- ◆ *TOOLS. AIRBUS*. P.I. **Stefano Discetti** & Andrea Ianiro. Grant period: 10/2017-12/2019.
- ◆ *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). P.I: Fulvio Scarano

PhD Students advising

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 30th May 2016

Marco Raiola

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

Carlos Sanmiguel Vila

Universidad Carlos III de Madrid (co-supervised with Prof. A. Ianiro)
Turbulent boundary layers with adverse pressure gradients
Defended on 29th April 2019

Alejandro Güemes Jimenez

Universidad Carlos III de Madrid (co-supervised with Prof. A. Ianiro)
Dynamics of coherent structures in wall-bounded turbulent flows
Expected graduation in 2021

Rodrigo Castellanos García de Blas
 Universidad Carlos III de Madrid (co-supervised with Prof. A. Ianiro)
 Convective heat transfer control in turbulent boundary layers
 Expected graduation in 2022

Firoozeh Foroozan
 Universidad Carlos III de Madrid (co-supervised with Prof. A. Ianiro)
 Detecting coherent structures in wall-bounded turbulent flows
 Expected graduation in 2022

Teaching experience

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
2014-2017	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) – a.y. 2013/14 to 2018/19 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 30 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

2016	Spanish national accreditation - Profesor Titular de Universidad.
2012	Awarded by the Committee of the <i>11th International Conference on Quantitative InfraRed Thermography (QIRT 2012)</i> 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

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

Conference service

Member of the scientific committee of the International Symposia on Particle Image Velocimetry PIV since 2017

Member of the scientific committee of the International Workshop on Complex Turbulent Flows (Tangier, Morocco)

Membership in Editorial boards

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

Commissions of trust

Evaluator of national projects for Ministry of Science, Innovation and University (Spain)

Evaluator of the call PRIN 2017, Ministry of Education, University and Research (Italy)

Member of the Steering Committee of the ERCOFTAC Special Interest Group SIG32 on Particle Image Velocimetry

Test case provider and referee in the 4th International PIV Challenge (<http://www.pivchallenge.org/pivchallenge4.html>)

Seminars and invited/keynote presentations:

1. Discetti S (2020) *Mathematical Tools, Part II: Time-Frequency Analysis. Invited lecture.* von Karman Institute Lecture Series on "Machine Learning for Fluid Mechanics: Analysis, Modeling, Control and Closures", February 25, Bruxelles (Belgium)
2. Discetti S (2020) *Estimating large-scale-motions from remote sensors. Invited lecture.* Flow Annual Meeting 2020, 9-10 January, Stockholm (Sweden)
3. Discetti S (2019) *Enhancing PIV via data-driven methods. Plenary keynote lecture. 13th International Symposium on Particle Image Velocimetry*, July 22-24, Munich (Germany).
4. Discetti (2018) *Adverse-Pressure-Gradient effects on Turbulent Boundary Layers. Seminar.* October 29, Universidad de Malaga (Spain)
5. Discetti S (2018) *Data-driven analysis of turbulent flows. Seminar.* May 15, Università di Bologna (Italy).
6. Discetti S (2018) *The path to 3D velocimetry data: overview and techniques for data-driven analysis. PhD course*, March 27-29, Università di Napoli Federico II (Italy).
7. Discetti S (2017) *Estimation of turbulent flow fields from non-time resolved data with Extended POD. Keynote lecture. International Workshop on Complex Turbulent Flows*, November 27-28, Tangier (Morocco)
8. 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)
9. Discetti S (2017) *Working principles of Tomographic PIV. 3D PIV course, 12th International Symposium on Particle Image Velocimetry*, June 18-22, Busan (Korea)
10. 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. Keynote lecture. 12th International Symposium on Particle Image Velocimetry*, June 18-22, Busan (Korea)
11. Discetti S, Ianiro A (2016) *An intensive and practise-oriented short-course on Particle Image Velocimetry. PhD course. KTH Royal Institute of Technology. February 1st-5th, Stockholm (Sweden)*
12. Discetti S (2015) *Tomographic PIV short course. 10th Pacific Symposium of Flow Visualization and image processing*, June 19 2015, Naples (Italy) http://www.psfvip10.unina.it/pdf/TOMOPIV_SC.pdf
13. Discetti S, Astarita T (2014) *PIV Challenge: main results of test cases C and D. 4th International PIV Challenge*, July 5th 2014, Lisbon (Portugal) <http://www.pivchallenge.org/pivchallenge4.html>

14. Discetti S (2014) Tomographic Particle Image Velocimetry: recent developments and applications to turbulent flow measurements. *Aeronautic Turbulence Seminars*, January 30th 2014, Imperial College London (UK), website: <http://www3.imperial.ac.uk/tmfc/seminars>

Peer-reviewed publications:

1. Güemes A, Discetti S, Ianiro A (2020) Sensing the turbulent large-scale motions with their wall signature. *Physics of Fluids*, 31, 125112. Doi: <https://doi.org/10.1063/1.5128053>
2. Sanmiguel Vila C, Vinuesa R, Discetti S, Ianiro A, Schlatter P, Örlü R (2020) Experimental realisation of near-equilibrium adverse-pressure-gradient turbulent boundary layers. *Experimental Thermal and Fluid Science*, 112, 109975. doi: <https://doi.org/10.1016/j.expthermflusci.2019.109975>
3. Güemes A, Sanmiguel Vila C, Örlü R, Vinuesa R, Schlatter P, Ianiro A, Discetti S (2019). Flow organization in the wake of a rib in a turbulent boundary layer with pressure gradient. *Experimental Thermal and Fluid Science*, 108, 115-124. doi: <https://doi.org/10.1016/j.expthermflusci.2019.05.022>
4. Moriche M, Raiola M, Discetti S, Ianiro A, Flores O, García-Villalba M (2019). Assessing aerodynamic force estimation with experiments and simulations of flapping-airfoil flows on the verge of three-dimensionality. *Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering*, 0954410019867570. doi: <https://doi.org/10.1177/0954410019867570>
5. Mallor F, Raiola M, Sanmiguel Vila C, Örlü R, Discetti S, Ianiro A (2019) Modal decomposition of flow fields and convective heat transfer maps: An application to wall-proximity square ribs. *Experimental Thermal and Fluid Science*, 102, 517-527, doi: <https://doi.org/10.1016/j.expthermflusci.2018.12.023>
6. Discetti S, Bellani G, Örlü R, Serpieri J, Sanmiguel Vila C, Raiola M, Zheng X, Mascotelli L, Talamelli A, Ianiro A (2019). Characterization of very-large-scale motions in high-Re pipe flows. *Experimental Thermal and Fluid Science*, 104, 1-8, doi: <https://doi.org/10.1016/j.expthermflusci.2019.02.001>
7. Torre AFM, Ianiro A, Discetti S, Carlomagno GM (2018). Evaluation of anisotropic tangential conduction in printed-circuit-board heated-thin-foil heat flux sensors. *International Journal of Heat and Mass Transfer*, 127, 1138-1146, doi: <https://doi.org/10.1016/j.ijheatmasstransfer.2018.06.106>
8. Discetti S, Coletti F (2018). Volumetric velocimetry for fluid flows. *Measurement Science and Technology*, 29, 042001, doi: <https://doi.org/10.1088/1361-6501/aaa571>
9. 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*, 93, 119-130, doi: <https://doi.org/10.1016/j.expthermflusci.2017.12.011>
10. 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>
11. 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*, 56, 1388-1401, doi: <https://doi.org/10.2514/1.J056342>
12. 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>
13. 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>
14. 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>
15. 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)
16. 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)

17. 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:10.1088/0957-0233/27/12/124011](https://doi.org/10.1088/0957-0233/27/12/124011)
18. Castrillo, G., Cafiero, G., Discetti, S., & Astarita, T. (2016). Blob-enhanced reconstruction technique. *Measurement Science and Technology*, 27(9), 094011. [doi:10.1088/0957-0233/27/9/094011](https://doi.org/10.1088/0957-0233/27/9/094011)
19. Sanmiguel Vila C, Discetti S, Carlomagno GM, Astarita T, Ianiro A (2016). On the onset of horizontal convection. *International Journal of Thermal Sciences*, 110, 96-108. [doi:10.1016/j.ijthermalsci.2016.06.019](https://doi.org/10.1016/j.ijthermalsci.2016.06.019)
20. 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:10.1016/j.expthermflusci.2016.06.009](https://doi.org/10.1016/j.expthermflusci.2016.06.009)
21. 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)
22. 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)
23. 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)
24. 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.
25. 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.
26. 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.
27. 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.
28. 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.
29. 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.
30. 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.
31. 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.
32. 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.
33. 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.
34. 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.
35. 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.
36. 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:

1. Güemes A, Ianiro A, Discetti S (2019) Experimental assessment of large-scale motions in turbulent boundary layers. 13th International Symposium on Particle Image Velocimetry, July 22-24, Munich, Germany.
2. Discetti S (2019) Enhancing PIV with statistical methods. FLUCOME 2019, May 27-30, Naples (Italy)
3. Sanmiguel Vila C, Güemes A, Örlü R, Vinuesa R, Schlatter P, Ianiro A, Discetti S (2019) Pressure-gradient effects on turbulent boundary layers with square ribs. FLUCOME 2019, May 27-30, Naples (Italy)
4. Discetti S, Sanmiguel Vila C, Raiola M, Serpieri J, Örlü R, Zheng X, Mascotelli L, Bellani G, Talamelli A, Ianiro A (2018) Very-large-scale-motion measurements in pipe flow with extended POD. 55th Annual Technical Meeting of the Society of Engineering Science (SES2018) October 10 - 12, 2018, Leganés, Madrid, Spain
5. Güemes A, Vaquero A, Flores O, Discetti S, Ianiro A (2018) Wall signature of large-scale motions in turbulent channel. iTi Conference on Turbulence VIII, September 04 - 07, Bertinoro, Italy
6. Discetti S, Sanmiguel Vila C, Raiola M, Serpieri J, Örlü R, Zheng X, Mascotelli L, Bellani G, Talamelli A, Ianiro A (2018) Dynamic estimation of Very Large Scale Motions in pipe flows. iTi Conference on Turbulence VIII, September 04 - 07, Bertinoro, Italy
7. Zheng X, Bellani G, Sanmiguel Vila C, Raiola M, Discetti S, Ianiro A, Serpieri J, Örlü R, Mascotelli L, Talamelli A (2018) Two-point correlations from simultaneous hot-wire measurements in pipe flow at high-Reynolds number. iTi Conference on Turbulence VIII, September 04 - 07, Bertinoro, Italy
8. Discetti S, Bellani G, Örlü R, Serpieri J, Sanmiguel Vila C, Raiola M, Zheng X, Mascotelli L, Talamelli A, Ianiro A (2018) Extended-POD-based dynamic estimation of very large scale motions in high-Reynolds-number pipe flow. 19th International Symposium on Applications of Laser and Imaging Techniques to Fluid Mechanics. 16 - 19 July 2018, Lisbon (Portugal)
9. 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)
10. 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)
11. 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. 16th European Turbulence Conference. August 21-24, Stockholm (Sweden).
12. 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. 16th European Turbulence Conference. August 21-24, Stockholm (Sweden).
13. 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).
14. 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. 12th International Symposium on Particle Image Velocimetry, June 18-22, Busan (Korea).
15. Castrillo G, Ianiro A, Astarita T, Discetti S (2017) High resolution full Reynolds stress tensor with ensemble stereoscopic PTV. 12th International Symposium on Particle Image Velocimetry, June 18-22, Busan (Korea).
16. 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. 9th World Conference on Experimental Heat Transfer, Fluid Mechanics and Thermodynamics, June 11- 15, Foz do Iguazu (Brasil).
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