

## Marco Mazzuoli - CV

Research Fellow  
Dept. of Civil, Chemical and Environmental Engineering (DICCA)  
University of Genoa  
Via Montallegro 1, 16145 Genoa, Italy  
Phone number: +39 (010) 335-2379  
marco.mazzuoli@unige.it

Date and place of birth:  
November the 7th 1984 Arezzo, Italy  
Italian

### ACADEMIC EXPERIENCE

---

<i>Research Fellow (tenure track)</i> Department of Civil, Chemical and Environmental Engineering (DICCA) University of Genoa, Genoa, Italy	2018 –
<i>Assistant Researcher</i> Department of Civil, Chemical and Environmental Engineering (DICCA) University of Genoa, Genoa, Italy	2015 – 2017
<i>Assistant Researcher</i> DFG project Institute for Hydromechanics (IfH) Karlsruher Institut für Technologie (KIT), Karlsruhe, Germany	2014 – 2015
<i>Assistant Researcher</i> Department of Civil, Chemical and Environmental Engineering (DICCA) University of Genoa, Genoa, Italy	2013

### EDUCATION

---

<i>Italian Certification for tenured Associate Professorship (ASN)</i>	November 2020 –
<i>PhD in Fluid Dynamics and Processes in Environmental Engineering</i> University of Genoa, Genoa, Italy THESIS: “Transition to turbulence in an oscillatory boundary layer and its effects on the motion of a rigid particle” “European PhD” label	26th March 2013
<i>Master Degree, Environmental Engineering</i> University of Florence, Florence, Italy THESIS: “Bank stability model in river meandering” Grade: 110/110 <i>cum Laude</i>	21st July 2009
<i>Piano Diploma (10 years), F. Morlacchi Music Academy, Perugia, Italy</i> M° Luigi Tanganelli Grade: 9.5/10	7th July 2007
<i>Bachelor of Science, Environmental Engineering</i> University of Florence, Florence, Italy THESIS: “Analysis of the effects of detention basins on the flood discharge of Rimaggio Creek according to Arno River’s Basin Plan and suggestions for the reduction of hydraulic risk” Grade: 110/110	15th December 2006
<i>High School Diploma,</i> Liceo Scientifico F. Redi, Arezzo, Italy Grade: 100/100	July 2003

## SCIENTIFIC INTERESTS

---

Fluid mechanics related to the phenomenon of sediment transport and to the origin of bedforms in oscillatory boundary layers and open-channel flows.  
Particulate flows and rheology of granular suspensions.  
Origin and propagation of debris flows.  
Mechanics of vegetated or artificially reinforced soils and the role of vegetation in the slope stabilization.  
Dispersion of micro- and nano-particles of plastic in cohesive sediment.

## RESEARCH PROJECTS AND GRANTS

---

*J1 Program nr. P-1-01285, University of Florida (UF), Gainesville, FL, USA* Aug 2019 – Dec 2019  
Short-Term Scholarship at the UF Department of Mechanical and Aerospace Engineering (MAE), UF  
Project granted by Prof. S. Balachandar (CCMT, MAE)

*Co.PI in NICOP Project pr.nr. 1000006450, ONR Global* Sep 2017 –  
Cooperation with Naval Research Laboratory (NRL), Stennis Space Center (MS, USA)  
TITLE: “Developing a probabilistic model for sediment transport in oscillatory flow using direct numerical simulations”  
Project responsables: Prof. Paolo Blondeaux, Dr. Marco Mazzuoli and Prof. G. Vittori (DICCA - University of Genoa), Dr. Joseph Calantoni and Dr. Julian Simeonov (NRL - SSC)

*PRIN Project 2010-2011 prot.2010SWTCKC-008* Mar 2015 – Jan 2016  
TITLE: “Mechanical and hydrological modelling of vegetation stabilizing effects aimed at reducing the risk of landslides”  
Project responsible: Prof. Riccardo Berardi (DICCA - University of Genoa)

*Co.PI in NICOP Project pr.nr. N6290914PR00165, ONR Global* Mar 2014 – Oct 2016  
Cooperation with NRL, Stennis Space Center (MS, USA)  
TITLE: “Numerical investigation on the effect of turbulent vortices on the incipient erosion of a sand-mud seafloor”  
Project responsables: Prof. Paolo Blondeaux and Dr. Marco Mazzuoli (DICCA - University of Genoa), Dr. Joseph Calantoni e Dr. Julian Simeonov (NRL - SSC)

*Research Project nr. UH 242/4-2 funded by Deutsche Forschungsgemeinschaft (DFG)* Feb 2014 – Jan 2016  
IfH, KIT, Karlsruhe, Germany  
TITLE: “Open channel flow over fixed spheres”  
Numerical investigation on turbulence, erosion processes and sediment transport: statistical description of the interaction between turbulent structures and sediments in open-channel flow  
Project responsible: Prof. Markus Uhlmann (KIT)

*CARIGE research grant (D.R. n. 1156 del 5.11.2012)* Feb 2013 – Feb 2014  
TITLE: “Debris flows and dynamics of granular suspensions”  
Scientific responsible: Prof. Riccardo Berardi (DICCA - University of Genoa)

*DAAD research grant for “short research periods” at IfH, KIT, Germany* Jul 2012 – Aug 2012  
Scientific responsible: Prof. Markus Uhlmann  
TITLE: “Numerical investigation of an oscillatory boundary layer over a rough wall”

*ERASMUS agreement, IfH, KIT, Karlsruhe, Germany* Jul 2011 – Mar 2012  
Scientific responsible: Prof. Markus Uhlmann  
Objective: Development and validation of an efficient parallel code to make direct numerical simulations of incompressible Navier-Stokes equations over surface with complex geometry.

*PhD granted by University of Genoa* Jan 2010 – Dec 2012  
Supervisors: Prof. Giovanna Vittori, Prof. Paolo Blondeaux, Prof. Giovanni Seminara (DICAT, University of Genoa)

## TEACHING

---

- DICCA, University of Genoa* 2022 –  
Teaching the course of “Fluid mechanics for transport processes” (Chemical engineering, cod. 91042).
- DICCA, University of Genoa* 2020 –  
Teaching the course of “Hydrodynamics” (Nautical engineering, cod. 67397) at DITEN.
- DICCA, University of Genoa* 2018 – 2020  
Co-Teaching the course of “Hydraulics” (Civil Engineering, cod. 60397) at DICCA.

## SEMINARS

---

- University of Florida, Gainesville (FL), U.S.A.* Nov 2019  
Scientific visit and seminar.  
TITLE: “Sediment transport under sea waves explored by fully-resolved numerical simulations”  
Invited by Prof. S. Balachandar
- IfH, KIT, Karlsruhe, Germany* Dec 2017  
Scientific visit and seminar.  
TITLE: “Turbulent structures in an oscillatory flow over a rough bottom: a numerical investigation”  
Invited by Prof. M. Uhlmann
- Polytechnic of Milan* Nov 2016  
Scientific visit and seminar.  
TITLE: “Numerical Investigation of the Flow-Sediment Interaction Under an Oscillatory Flow”  
Organized by Prof. Claudio Di Prisco
- IfH, KIT, Karlsruhe, Germany* Jul 2015  
Seminar.  
TITLE: “Direct Numerical Simulation of fully-rough open-channel flow”  
Organized by Dr. Christof Gromke
- IfH, KIT, Karlsruhe, Germany* Jan 2015  
Seminar.  
TITLE: “Flow-particle interaction in an oscillatory boundary layer”  
Organized by Dr. Agathe Chouippe
- University of Florida, Gainesville (FL), U.S.A.* Aug 2014  
Scientific visit.  
Invited by Prof. S. Balachandar
- IfH, KIT, Karlsruhe, Germany* Dec 2013  
Scientific visit and seminar.  
TITLE: “Transition to turbulence in an oscillatory boundary layer: a numerical investigation”  
Invited by Prof. M. Uhlmann
- NRL, Stennis Space Center (MS), U.S.A.* Jun 2013  
Scientific visit and seminar.  
TITLE: “Transition to turbulence in an oscillatory boundary layer: a numerical investigation”  
Invited by Dr. Joe Calantoni and Dr. Julian Simeonov

## REVIEWER

---

Reviewer for prestigious international journals: among others *Journal of Fluid Mechanics*, *International Journal of Multiphase Flow*, *Journal of Geophysical Research*, *Advances in Water Resources*, *European Journal of Mechanics B/Fluids*, *Geomorphology*, *Chemical Engineering Science*, *Journal of Hydraulic Research*.

## ORGANIZATION OF SCIENTIFIC EVENTS

---

EUROMECH COLLOQUIUM no. 609

TITLE: “*Granular patterns in oscillatory flows*”, Genoa, Italy

8-10 Sep 2021

Advanced Course at International Centre for Mechanical Sciences (CISM), Udine, Italy

TITLE: “*Physics of granular suspensions: micro-mechanics of geophysical flows*”

14-18 Jun 2021

## GUEST SPEAKER INVITATIONS AND OTHER HONOURS

---

Invited to give a talk at the *ERCOFTAC Autumn Festival 2021*

7-8 Oct 2021

Invited to give a “Spotlight lecture” at workshop *THESIS 2019, Newark, Delaware, USA*

17-19 Sep 2019

Nominated and Finalist of the “Andrea Prosperetti Award” (formerly Junior Award) of the 10th International Conference of Multiphase Flow, ICMF 2019, Rio de Janeiro, Brazil

19-24 May 2019

Fulbright research scholarship, Project “Dynamics of non-Brownian spheres in colloidal flow” nominated as “deputy”, University of Florida, Gainesville, USA

17 Apr 2019

## PROJECTS ON HPC FACILITIES

---

ISCRA D-Project “*MOSTARCH*” - HP10DL0A9  
160 TB of space for archive (CINECA, Italy).

24-Jun-2021/23-Jun-2024

Project responsible: Marco Mazzuoli

ISCRA B-Project “*STIRSBED*”

5-May-2021/3-May-2022

4 M core hours on Galileo 100 (CINECA, Italy).

TITLE: “Sediment transport in rippled Seabed”

Project responsible: Marco Mazzuoli

ISCRA C-Project “*TURBOSEA*”

20-Mar-2021/19-Mar-2022

64 k core hours on MARCONI 100 (CINECA, Italy).

TITLE: “Turbulence at seabed: analysis of MOSTSEA project DNS data”

Project responsables: Marco Mazzuoli

PRACE Project, 16th call “*MOST SEA*”

1-Apr-2018/31-Mar-2020

60 M core hours on MARCONI KNL (CINECA, Italy).

TITLE: “The Mechanics Of Sediment Transport Under Sea Waves”

Project responsables: Giovanna Vittori, Marco Mazzuoli

ISCRA B-Project “*MOST SEAP*”

1-Apr-2018/31-Mar-2019

2 M core hours on MARCONI KNL (CINECA, Italy).

TITLE: “The Mechanics Of Sediment Transport Under Sea Waves - Preliminary Phase”

Project responsables: Marco Mazzuoli, Giovanna Vittori

Project “*DNSWALL*”

1-Apr-2018/31-Mar-2019

5 M core hours on ForHLR II, Steinbuch Centre for Computing (SCC, KIT)

TITLE: “Direct Numerical Simulation of of Open-Channel Flow Over A Rough Wall”

Project responsables: Markus Uhlmann, Marco Mazzuoli

Resources of the DoD HPCMP Open Research Systems

2014 – 2019

~ 10 M core hours on COPPER (Cray XE6, DoD ORS, SCC, MS, USA)

DNS of oscillatory boundary layer over a rough wall, flat or wavy  
Project responsables: Marco Mazzuoli, Paolo Blondeux, Joe Calantoni, Julian Simeonov

Project “DNSBESTSEA” 1-Apr-2015/31-Mar-2016  
5 M core hours on ForHLR I, Steinbuch Centre for Computing (SCC, KIT)  
TITLE: “Direct Numerical Simulation of Bedform Evolution and Sediment Transport at SEAfloor”  
Project responsables: Markus Uhlmann, Marco Mazzuoli, Aman Kidanemariam

Project “pr87yo” 16-Sep-2014/1-Nov-2017  
24 M core hours on SuperMUC, Leibniz Supercomputing Centre (LRZ, Monaco)  
TITLE: “Direct numerical simulation of open channel flow over a fully rough surface”  
Project responsables: Markus Uhlmann, Marco Mazzuoli  
Reports in [High Performance Computing in Science and Engineering, Garching/Munich 2016](#), pp.164-165  
and [High Performance Computing in Science and Engineering, Garching/Munich 2018](#), pp.144-147

ISCRA C-Progetto 2014  
500 k core hours on PICO (CINECA, Italy)  
TITLE: “Turbulence Events and Sediment Transport at SEAbed: Post Processing”  
Project responsables: Giovanna Vittori, Marco Mazzuoli

Progetto PRACE 7th call “TEST SEA”, nr. “IsC09\_TOBL” 3-Sep-2013/2-Sep-2014  
35 M core hours on FERMI (CINECA, Italy).  
TITLE: “Turbulence Events and Sediment Transport at SEAbed”  
Project responsables: Giovanna Vittori, Marco Mazzuoli, Markus Uhlmann  
[Cineca HPC Report 2015](#), pp.57-58

ISCRA C-Project 2012  
2 M core hours on FERMI (BG/Q machine, CINECA, Italy) TITLE: “Turbulent structures in the oscillatory boundary layer close to a rough wall”  
Project responsables: Giovanna Vittori, Marco Mazzuoli.

## LANGUAGES

---

Italian: *Mother language*  
English: *Advanced*  
German: *Basic*

## PUBLICATIONS

---

### Articles in journals

1. Mazzuoli, M., Vittori, G., Blondeaux, P. “The dynamics of sliding, rolling and saltating sediments in oscillatory flows”, *European Journal of Mechanics - B/Fluids*, **94**, 246-262, 2022
2. Vittori, G., Blondeaux, P., Mazzuoli, M. “Direct Numerical Simulations of the Pulsating Flow over a Plane Wall”, *Journal of Marine Science and Engineering*, **8(11)**, 893, 2020
3. Vittori, G., Blondeaux, P., Mazzuoli, M., Simeonov, J. and Calantoni, J. “Sediment transport under oscillatory flows”, *International Journal of Multiphase Flow*, **133**, 103454, 2020 ([arXiv:2009.01541](#))
4. Mazzuoli, M., Blondeaux, P., Vittori, G., Uhlmann, M., Simeonov, J., Calantoni, J. “Interface-resolved direct numerical simulations of sediment transport in a turbulent oscillatory boundary layer”, *Journal of Fluid Mechanics*, **885**, A28, 2020 ([arXiv:1912.00048](#))

5. Mazzuoli, M., Vittori, G., “Turbulent spots in an oscillatory flow over a rough wall”, *European Journal of Mechanics B/Fluids* **72**, 161-168, 2019 ([pre-print](#))
6. Mazzuoli, M., Kidanemariam, A. G., Uhlmann, M. “Direct numerical simulations of ripples in an oscillatory flow”, *Journal of Fluid Mechanics*, **863**, 572-600, 2019 ([arXiv:1810.09862](#))
7. Mazzuoli, M., Blondeaux, P., Simeonov, J. and Calantoni, J. “Direct numerical simulation of oscillatory flow over a wavy, rough and permeable bottom”, *Journal of Geophysical Research - Oceans*, **123**, 1596-1611, 2018
8. Bovolenta, R., Mazzuoli, M., Berardi, R., “Soil bio-engineering techniques to protect slopes and prevent shallow landslides”, *Rivista Italiana di Geotecnica*, **3**, 44-65, 2018
9. Mazzuoli, M., Uhlmann, M. “Direct numerical simulation of open-channel flow over a fully-rough wall at moderate relative submergence”, *Journal of Fluid Mechanics*. **824**, 722-765, 2017 ([arXiv:1706.01880](#))
10. Mazzuoli, M., Blondeaux, P., Simeonov, J. and Calantoni, J. “Direct numerical simulation of the oscillatory flow around a sphere resting on a rough bottom”, *Journal of Fluid Mechanics*. **822**, 235-266, 2017 ([arXiv:1706.3566](#))
11. Blondeaux, P., Vittori, G., Mazzuoli, M. “Pattern formation in a thin layer of sediment”, *Journal of Marine Geology*, **376**, 39-50, 2016
12. Mazzuoli, M., Bovolenta, R., Berardi, R. “Experimental Investigation on the Mechanical Contribution of Roots to the Shear Strength of a Sandy Soil”, *Procedia Engineering*. **158**, 45-50, 2016
13. Mazzuoli, M., Vittori, G. “Transition to turbulence in an oscillatory flow over a rough wall”, *Journal of Fluid Mechanics* **792**, 67-97, 2016
14. Mazzuoli, M., Kidanemariam, A. G., Blondeaux, P., Vittori, G. and Uhlmann, M. “On the formation of sediment chains in an oscillatory boundary layer”, *Journal of Fluid Mechanics*, **789**, 461-480, 2016
15. Mazzuoli, M., Seminara, G., Vittori, G. “Settling of heavy particles in a turbulent Stokes layer: Numerical simulations”, *Advances in Water Resources* **72**, 2-14, 2014
16. Mazzuoli, M., Vittori G., Blondeaux P. “Turbulent spots in a Stokes boundary layer”, *Journal of Physics: Conference Series*, **318**, 13th European Turbulence Conference (ETC13), 2011
17. Mazzuoli, M., Vittori G., Blondeaux P., “Turbulent spots in oscillatory boundary layers”, *Journal of Fluid Mechanics*. **685**, 365-376, 2011

#### Peer-reviewed proceedings

17. Mazzuoli, M., Berardi, R. “Numerical simulation of a debris flow propagation: A case of study in Cinque Terre, Liguria”, *Landslides and Engineered Slopes. Experience, Theory and Practice*. Jun 2016. 1393-1399
18. Mazzuoli, M., Blondeaux, P., Simeonov, J. and Calantoni, J. (2016). “Oscillatory flow around a sphere resting on a rough bottom: Direct Numerical Simulations”, *Proc. 26th International Ocean and Polar Engineering Conference, 26th June-1st July 2016, Rhodes, Greece*.
19. Mazzuoli, M., Vittori G., Blondeaux P. “Spot turbolenti in uno strato limite oscillante”, *Proc. XX Congresso dell’Associazione Italiana di Meccanica Teorica e Applicata (AIMETA), 12-15 Sep 2011, Bologna*

## Published reports

20. Uhlmann M., Mazzuoli, M., “Direct Numerical Simulation of Open-Channel Flow at Fully-Rough Regime”, *High Performance Computing in Science and Engineering, Garching/Munich 2018*, pp.144-147
21. Mazzuoli, M., Uhlmann M., “Direct Numerical Simulation of Open-Channel Flow at Fully-Rough Regime”, *High Performance Computing in Science and Engineering, Garching/Munich 2016* pp.164-165
22. Vittori, G., Mazzuoli, M. “Direct Numerical Simulation of oscillatory flow over a rough bottom composed of fixed and movable particles”, *CINECA HPC Annual Report 2015* PRACE section, pp.57-58
23. Blondeaux, P., Mazzuoli, M., Calantoni, J., Simeonov, J. “Numerical Investigation of the Effect of Turbulent Vortices on the Incipient Erosion of a Sand-mud Seafloor Produced by Oscillatory Flow”, *ONRG annual report, 2016*
24. Blondeaux, P., Mazzuoli, M., Calantoni, J., Simeonov, J. “Numerical Investigation on the Formation of Sediment Patterns Under an Oscillatory Flow”, *ONRG annual report, 2015*  
(or alternatively <https://www.onr.navy.mil/reports/FY15/loblond.pdf>)
25. Blondeaux, P., Mazzuoli, M., Calantoni, J., Simeonov, J. “Numerical Investigation of the Effect of Turbulent Vortices on the Incipient Erosion of a Sand-mud Seafloor Produced by Oscillatory Flow”, *ONRG annual report, 2014*

## CONFERENCES

---

- Kidanemariam, A.G., Mazzuoli, M., I. Marusic, J. Monty, “On the suspended microplastic dispersion in shallow flows under progressive gravity waves”, *APS DFD 2022 - 75th Annual Meeting, Indianapolis, November 20-22 2022* ([abstract](#))
- Mazzuoli, M., Blondeaux, P., Vittori, “Sea-wave sediment transport: when turbulent vortices encounter sediment particles”, *XXXVIII Convegno Nazionale di Idraulica e Costruzioni Idrauliche (IDRA 2022), Reggio Calabria, September 2022* ([abstract](#))
- Mazzuoli, M., “Direct numerical simulations reveal the effect of bedload on turbulence dynamics in an oscillatory flow”, *Two-pHase modElling for Sediment dynamIcS (THESIS) 2022, Les Houches, France, June 6-10 2022* ([abstract](#))
- Mazzuoli, M., Blondeaux, P., Vittori, “Sediment transport and sediment dynamics in a turbulent oscillatory boundary layer: results of interface-resolved simulations”, *25th International Congress of Theoretical and Applied Mechanics (25th ICTAM), August 22-27 2021, virtual* ([abstract](#))
- Mazzuoli, M., Blondeaux, P., Vittori, G., Simeonov, J., Calantoni, J., “Interaction between wave-induced nearbed vortex structures and cohesionless sediments: numerical results”, *virtual B’Waves 21, A Virtual Workshop on (Breaking) Waves, June 16-18 2021, virtual* ([abstract](#))
- Mazzuoli, M., “A discrete approach to evaluate sediment transport in an oscillatory boundary layer”, *4th symposium on two-phase modeling for sediment dynamics in geophysical flows, THESIS 2019, September 17-19 2019, Newark, Delaware (USA)* ([abstract](#))
- Simeonov, J., Mazzuoli, M., Calantoni, J., “Rheology of dense granular suspensions in oscillatory bottom boundary layer flow”, *4th symposium on two-phase modeling for sediment dynamics in geophysical*

flows, THESIS 2019, September 17-19 2019, Newark, Delaware (USA)

- Mazzuoli, M., Simeonov, J., Calantoni, J., “Direct numerical simulation of sediment transport in a turbulent oscillatory boundary layer”, 12th Workshop Direct and Large-Eddy Simulation (DLES12), June 5th-7th 2019, Madrid (Spain) ([abstract](#))
- Mazzuoli, M., Calantoni, J., Uhlmann, M., “Direct numerical simulation of sediment transport in an oscillatory boundary layer”, 10th International Conference on Multiphase Flow, ICMF 2019, May 19th-24th 2019, Rio de Janeiro (Brazil) ([abstract](#))
- Mazzuoli, M., “Simulazione diretta del trasporto solido di fondo generato dal moto ondoso”, XXXVI Convegno Nazionale di Idraulica e Costruzioni Idrauliche, 12-14 September 2018, Ancona (Italy)
- Mazzuoli, M., Kidanemariam, G.A., Uhlmann, M., “Direct numerical simulation of small-scale bedforms in an oscillatory flow”. 12th European Fluid Mechanics Conference, 9-13 September 2018, Vienna (Austria)
- Mazzuoli, M., “The role of turbulence in the onset of sediment buoyancy under sea waves”, joint workshop between GDRI GeoMech and Politecnico di Milano: “Accounting for phase transition in granular media: from micromechanics to macroscopic unified modeling”, 6-7 September 2018, Milan (Italy)
- Mazzuoli, M., Kidanemariam, G.A., Uhlmann, M. “Direct numerical simulation of the formation of rolling-grain ripples in an oscillatory boundary layer”. EUROMECH Colloquium #588, Coupling Mechanisms and Multi-Scaling in Granular-Fluid Flows, 2-5 Ottobre 2017, IMFT, Toulouse (France)
- Mazzuoli, M., Uhlmann, M. “Direct numerical simulation of open-channel flow at fully-rough regime”. XXIII Congresso dell’Associazione Italiana di Meccanica Teorica e Applicata (AIMETA), 4-7 Settembre 2017, Salerno (Italy)
- Mazzuoli, M., Bovolenta, R., Berardi, R., “Experimental investigation on the mechanical contribution of roots to the shear strength of a sandy soil”. Convegno Nazionale dei Ricercatori di Ingegneria Geotecnica (CNRIG 2016), 22-23 Sep 2016, Bologna (Italy)
- Mazzuoli, M., Blondeaux, P., Simeonov, J. and Calantoni, J. “Oscillatory flow around a sphere resting on a rough bottom: Direct Numerical Simulations”. International Ocean and Polar Engineering Conference, 26th June-1st July 2016, Rhodes (Greece)
- Mazzuoli, M., Berardi, R., “Numerical simulation of a debris flow propagation: a case of study in Cinque Terre, Liguria”. 12th International Symposium on Landslides (ISL 2016), 12-19 Jun 2016, Naples (Italy)
- Mazzuoli, M., Kidanemariam, G.A., Blondeaux, P., Vittori, G., Uhlmann, M. “DNS of the formation of sediment patterns under the action of an oscillating flow”. 9th International Conference on Multiphase Flow (ICMF 2016) 22-27 May 2016, Florence (Italy)
- Mazzuoli, M., Vittori, G. “Oscillatory flow close to a regular roughness”. XXII Congresso dell’Associazione Italiana di Meccanica Teorica e Applicata (AIMETA), 14-17 Sep 2015, Genova (Italy)
- Mazzuoli, M., Kidanemariam, G.A., Blondeaux, P., Vittori, G., Uhlmann, M. “Direct numerical simulation of the first stages of formation of small scale bedforms under sea waves”. XXII Congresso dell’Associazione Italiana di Meccanica Teorica e Applicata (AIMETA), 14-17 Sep 2015, Genova (Italy)



- Mazzuoli, M., Uhlmann, M. “Direct Numerical Simulation of Open-Channel Flow in the Fully Rough Regime”, 15th European Turbulence Conference (ETC15), 25-28 Aug 2015, Delft (The Netherlands)
- Mazzuoli, M., Uhlmann, M. “Direct Simulation of Open-Channel Flow in the Fully Rough Regime: Focus on Fluid-Roughness Interaction”, EGU General Assembly 2015, vol. 17, EGU2015-11966, 12-17 Apr 2015, Vienna (Austria)
- Mazzuoli M., Vittori G., Blondeaux P. “Turbulent spots in an oscillating boundary layer over a flat smooth wall”, 9th European Fluid Mechanics Conference, 9-13 Sep 2012, Rome (Italy)
- Mazzuoli M., Seminara G., Vittori G. “The settling of small particle in a turbulent oscillatory boundary-layer”, 9th European Fluid Mechanics Conference, 9-13 Sep 2012, Rome (Italy)
- Mazzuoli M., Vittori G., Blondeaux P. “Turbulent spots in a Stokes boundary layer”, 13th European Turbulence Conference (ETC13), 12-15 Sep 2011, Warsaw (Poland)
- Mazzuoli M., Vittori G., Blondeaux P. “Spot turbolenti in uno strato limite oscillante”. XX Congresso dell’Associazione Italiana di Meccanica Teorica e Applicata (AIMETA), 12-15 Sep 2011, Bologna (Italy)
- Mazzuoli M., Seminara G., Vittori G. “Modeling the motion of a solid heavy particle in turbulent shear flows”, SHF THESIS 2011, 26-28 Apr 2011, Chatou, Paris (France)