



ELENCO DELLE PUBBLICAZIONI E DEI TITOLI DEL CANDIDATO

CRISTIAN MARCHIOLI

Nato il 12/07/1973

Pubblicazioni scientifiche

1. 2012 - Articolo in rivista
MOLIN D, MARCHIOLI C, SOLDATI A (2012). *Turbulence modulation and microbubble dynamics in vertical channel flow*. INTERNATIONAL JOURNAL OF MULTIPHASE FLOW, vol. 42, ISSN: 0301-9322, doi: 10.106/j.ijmultiphaseflow.2012.01.010
2. 2012 - Articolo in rivista
ZHAO LH, MARCHIOLI C, ANDERSSON HI (2012). *Stokes number effects on particle slip velocity in wall-bounded turbulence and implications for dispersion models*. PHYSICS OF FLUIDS, vol. 24, p. 1-7, ISSN: 1070-6631, doi: 10.1063/1.369007
3. 2012 - Articolo in rivista
ZONTA F, MARCHIOLI C, SOLDATI A (2012). *Modulation of turbulence in forced convection by temperature-dependent viscosity*. JOURNAL OF FLUID MECHANICS, ISSN: 0022-1120, doi: 10.1017/jfm.2012.67
4. 2012 - Articolo in rivista
BIANCO F, CHIBBARO S, MARCHIOLI C, SALVETTI MV, SOLDATI A (2012). *Intrinsic filtering errors of Lagrangian particle tracking in LES flow fields*. PHYSICS OF FLUIDS, vol. 24, p. 045103-1-045103-22, ISSN: 1070-6631, doi: 10.1063/1.3701378
5. 2012 - Articolo in rivista
PITTON E, MARCHIOLI C, LAVEZZO V, SOLDATI A, TOSCHI F (2012). *Anisotropy in pair dispersion of inertial particles in turbulent channel flow*. PHYSICS OF FLUIDS, vol. 24, p. 073305-1-073305-25, ISSN: 1070-6631, doi: 10.1063/1.4737655
6. 2012 - Articolo in rivista
SOLDATI A, MARCHIOLI C (2012). *Sediment transport in steady turbulent boundary layers: Potentials, limitations, and perspectives for Lagrangian tracking in DNS and LES*. ADVANCES IN WATER RESOURCES, vol. 48, p. 18-30, ISSN: 0309-1708, doi: 10.1016/j.advwatres.2012.05.011
7. 2011 - Articolo in rivista
ZONTA F, MARCHIOLI C, SOLDATI A (2011). *Time behavior of heat fluxes in thermally coupled turbulent dispersed particle flows*. ACTA MECHANICA, vol. 218, p. 367-373, ISSN: 0001-5970, doi: 10.1007/s00707-010-0420-8
8. 2011 - Articolo in rivista
BIANCO F, CHIBBARO S, MARCHIOLI C, SALVETTI MV, SOLDATI A (2011). *Statistical properties of an ideal subgrid-scale correction for Lagrangian particle tracking in turbulent channel flow*. JOURNAL OF PHYSICS. CONFERENCE SERIES, vol. 333, p. 1-16, ISSN: 1742-6596, doi: 10.1088/1742-6596/333/1/012004
9. 2011 - Contributo in Atti di convegno
MARCHIOLI C, SALVETTI MV, SOLDATI A (2011). *Inertial particle segregation and deposition in large-eddy simulation of turbulent wall-bounded flows*. In: *Quality and Reliability of Large-Eddy Simulations II*. ERCOFTAC SERIES, vol. 16, p. 191-200, Dordrecht:Springer Science&Business Media, ISSN: 1382-4309, Univ Pisa, Pisa, Italy, 09-11/09/2009, doi: 10.1007/978-94-007-0231-8_18
10. 2010 - Articolo in rivista

- MARCHIOLI C, FANTONI M, SOLDATI A (2010). Orientation, distribution and deposition of elongated, inertial fibers in turbulent channel flow. *PHYSICS OF FLUIDS*, vol. 22, p. 033301-1-14, ISSN: 1070-6631, doi: 10.1063/1.3328874
11. 2010 - Contributo in Atti di convegno
SOLDATI A, ZONTA F, MARCHIOLI C (2010). Heat Transfer Modulation by Microparticles in Turbulent Channel Flow. In: *PROGRESS IN TURBULENCE III. SPRINGER PROCEEDINGS IN PHYSICS*, vol. 131, p. 159-162, BERLIN HEIDELBERG:Springer-Verlag, ISSN: 0930-8989, Bertinoro, ITALY, 12-15/10/2010
 12. 2009 - Articolo in rivista
SOLDATI A, MARCHIOLI C (2009). Physics and modelling of turbulent particle deposition and entrainment: Review of a systematic study. *INTERNATIONAL JOURNAL OF MULTIPHASE FLOW*, vol. 35, p. 827-839, ISSN: 0301-9322, doi: 10.1016/j.ijmultiphaseflow.2009.02.016
 13. 2008 - Articolo in rivista
MARCHIOLI C, SALVETTI MV, SOLDATI A (2008). Some issues concerning Large-Eddy Simulation of inertial particle dispersion in turbulent bounded flows. *PHYSICS OF FLUIDS*, vol. 20, p. 040603-1-040603-11, ISSN: 1070-6631, doi: 10.1063/1.2911018
 14. 2008 - Articolo in rivista
ZONTA F, MARCHIOLI C, SOLDATI A (2008). DIRECT NUMERICAL SIMULATION OF TURBULENT HEAT TRANSFER MODULATION IN MICRO-DISPERSED CHANNEL FLOW. *ACTA MECHANICA*, vol. 195, p. 305-326, ISSN: 0001-5970, doi: 10.1007/s00707-007-0552-7
 15. 2008 - Articolo in rivista
MARCHIOLI C, SALVETTI M.V, SOLDATI A (2008). Appraisal of energy recovering sub-grid scale models for large-eddy simulation of turbulent dispersed flows. *ACTA MECHANICA*, vol. 201, p. 277-296, ISSN: 0001-5970, doi: 10.1007/s00707-008-0066-y
 16. 2008 - Articolo in rivista
MARCHIOLI C, SOLDATI A, KUERTEN JGM, ARCEN B, TANIÈRE A, GOLDENSOPH G, SQUIRES KD, CARGNELUTTI MF, PORTELA LM (2008). Statistics of particle dispersion in direct numerical simulations of wall-bounded turbulence: results of an international collaborative benchmark test. *INTERNATIONAL JOURNAL OF MULTIPHASE FLOW*, vol. 34, p. 879-893, ISSN: 0301-9322, doi: 10.1016/j.ijmultiphaseflow.2008.01.009
 17. 2007 - Articolo in rivista
MARCHIOLI C, PICCIOTTO M, SOLDATI A (2007). INFLUENCE OF GRAVITY AND LIFT ON PARTICLE VELOCITY STATISTICS AND TRANSFER RATES IN TURBULENT VERTICAL CHANNEL FLOW. *INTERNATIONAL JOURNAL OF MULTIPHASE FLOW*, vol. 33, p. 227-251, ISSN: 0301-9322, doi: 10.1016/j.ijmultiphaseflow.2006.09.005
 18. 2007 - Articolo in rivista
MARCHIOLI C, FANTONI M, SOLDATI A (2007). Influence of added mass on anomalous high rise velocity of light particles in cellular flow field. A note on the paper of Maxey (1987). *PHYSICS OF FLUIDS*, vol. 19, p. 098101_1-4, ISSN: 1070-6631, doi: 10.1063/1.2759528
 19. 2007 - Articolo in rivista
MARCHIOLI C, ARMENIO V, SOLDATI A (2007). Simple and accurate scheme for fluid velocity interpolation for Eulerian-Lagrangian computation of dispersed flows in 3D curvilinear grids. *COMPUTERS & FLUIDS*, vol. 36, p. 1187-1198, ISSN: 0045-7930, doi: 10.1016/j.compfluid.2006.11.004
 20. 2007 - Contributo in Atti di convegno
MARCHIOLI C, SOLDATI A (2007). Reynolds number scaling of particle preferential concentration in turbulent channel flow. In: *ADVANCES IN TURBULENCE XI. SPRINGER PROCEEDINGS IN PHYSICS*, vol. 117, p. 298-300, Berlin, Heidelberg:Springer-Verlag Berlin Heidelberg, ISSN: 0930-8989, Porto (Portugal), June 25
 21. 2006 - Articolo in rivista
MARCHIOLI C, ARMENIO A, SALVETTI MV, SOLDATI A (2006). Mechanisms for deposition and resuspension of heavy particles in turbulent flow over wavy interfaces. *PHYSICS OF FLUIDS*, vol. 18, p. 025102_1-16, ISSN: 1070-6631, doi: 10.1063/1.2166453
 22. 2006 - Articolo in rivista
MARCHIOLI C, PICCIOTTO M, SOLDATI, A (2006). Particle dispersion and wall-dependent fluid scales in turbulent bounded flow: implications for local equilibrium models. *JOURNAL OF TURBULENCE*, vol. 7(60), p. 1-12, ISSN: 1468-5248, doi: 10.1080/14685240600925171
 23. 2005 - Articolo in rivista

- PICCIOTTO M, MARCHIOLI C, SOLDATI A (2005). *Characterization of near-wall accumulation regions for inertial particles in turbulent boundary layers*. *PHYSICS OF FLUIDS*, vol. 17, p. 098101_1-4, ISSN: 1070-6631, doi: 10.1063/1.2033573
24. 2005 - Articolo in rivista
PICCIOTTO M, MARCHIOLI C, REEKS MW, SOLDATI A (2005). *Statistics of velocity and preferential accumulation of micro-particles in boundary layer turbulence*. *NUCLEAR ENGINEERING AND DESIGN*, vol. 235, p. 1239-1249, ISSN: 0029-5493, doi: 10.1016/j.nucengdes.2005.01.013
25. 2003 - Articolo in rivista
MARCHIOLI C, GIUSTI A, SALVETTI MV, SOLDATI A (2003). *Direct numerical simulation of particle wall transfer and deposition in upward turbulent pipe flow*. *INTERNATIONAL JOURNAL OF MULTIPHASE FLOW*, vol. 29, p. 1017-1038, ISSN: 0301-9322, doi: 10.1016/S0301-9322(03)00036-3
26. 2003 - Contributo in volume (Capitolo o Saggio)
MARCHIOLI C, PICCIOTTO M, SOLDATI A (2003). *Interaction between turbulence structures and inertial particles in boundary layer: Mechanisms for particle transfer and preferential distribution*. In: *MODELLING AND EXPERIMENTATION IN TWO-PHASE FLOW*. CISM INTERNATIONAL CENTRE FOR MECHANICAL SCIENCES, vol. 450, p. 383-429, VIEN:SPRINGER-VERLAG WIEN, SACHSENPLATZ 4-6, A-1201 VIENNA, AUSTRIA, ISBN: 3-211-20757-0, ISSN: 0254-1971
27. 2002 - Articolo in rivista
MARCHIOLI C, SOLDATI A (2002). *Mechanisms for particle transfer and segregation in turbulent boundary layer*. *JOURNAL OF FLUID MECHANICS*, vol. 468, p. 283-315, ISSN: 0022-1120, doi: 10.1017/S0022112002001738

Titoli

conseguimento di premi e riconoscimenti per l'attività scientifica

2008: Riconoscimento per meriti scientifici rivolto a giovani ricercatori non strutturati dell'Università degli Studi di Udine per l'articolo: C. Marchioli, M.V. Salvetti, and A. Soldati (2008) ``Some issues concerning Large-Eddy Simulation of inertial particle dispersion in turbulent bounded flows, " *Phys. Fluids*, vol. 20, 040603.

2003: Premio UIT (Unione Italiana di Termofluidodinamica) per la miglior tesi di dottorato in termofluidodinamica (titolo tesi: *Mechanisms for transfer and segregation of inertial particles in turbulent boundary layers*).

altri titoli

2012: Invited lecture on "Turbulence modulation and microbubble dynamics in vertical channel flow" at 50th European Two-Phase Flow Group Meeting, Udine (Ita), May 16-18.

2011: Keynote lecture on "Benchmark test on particle-laden channel flow with point-particles" at XX AIMETA Conference, Bologna (Ita), September 12-15.

2009: Invited lecture on "Turbulent dispersion of inertial particles in swirled flow" at 5th European-Japanese Two-Phase Flow Group Meeting, Spoleto (Ita), September 20-25.