BERZI DIEGO

Dept. of Civil and Environmental Engineering
Politecnico di Milano
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PERSONAL DETAILS

Nationality: Italian (born in Alzano Lombardo, Bergamo, Italy)

DOB: April 17, 1975

EDUCATION

Politecnico di Milano, Milano, Italy

Ph.D in Hydraulic Engineering, October 11th 2005

Dissertation: "Elementi teorico-sperimentali per lo studio della meccanica delle miscele granulari (Theoretical and experimental elements for the analysis of granular mixture mechanics)", in Italian.

Dissertation Advisor: Enrico Larcan.

Master's degree in Environmental Engineering, December 2000

Master's Thesis: "Indagine sperimentale sull'interazione fra una corrente veloce ed un gradino sul fondo. Studio del campo di moto ed analisi statistica e spettrale delle pressioni (Experimental investigation on the interaction between supercritical flows and bottom steps. Study of the flow field and statistical and spectral pressure analysis)", in Italian.

TEACHING AND RESEARCH INTERESTS

Fluid Mechanics; Hydraulics; Fluid-structure interaction; Debris flows; Granular flows; Granular Rheology; Mathematical modelling; Shallow Waters; Sheet Flows; Sediment Transport.

TEACHING EXPERIENCE

Politecnico di Milano, Milano, Italy

Lecturer, 2004–today

Taught the undergraduate courses "Fluid Mechanics" (12 Academic Years), "Fluid Mechanics II" (6 A.Y.) and "Hydraulics" (4 A.Y.). Taught the PhD course "Granular Matter: from Packing to Flow" (5 A.Y.). Lectured and administered all grades.

Teaching Assistant, 2001–2006

Assisted Prof. Enrico Larcan in his courses "Hydraulics" (2 A.Y.), "Hydraulics A and Technical Hydraulics" (1 A.Y.), "Hydraulics I" (1 A.Y.) and "Hydraulics IIb" (2 A.Y.) and Prof. Monica Riva in her courses "Fluid Mechanics" (1 A.Y.) and "Fluid Mechanics I" (1 A.Y.). Composed all the exams and helped grade.

Advisor and co-advisor, 2002–today
Advised or co-advised 28 Bachelor and Master's theses and 1 Ph.D thesis.

RESEARCH EXPERIENCE

Politecnico di Milano, Milano, Italy
Assistant Professor, 2005-2019
Associate Professor, 2019-today
Conduct research on fluid-structure interactions and the dynamics of dry granular flows and fluid-granular mixtures, with applications to debris flows and sediment transport.

Durham University, Durham, UK
Invited Participant, 18-19 January 2018
International workshop "Debris-flow science and hazards: what do we know, and what do we need to know?".

Max Planck Institute for the Physics of complex Systems, Dresden, Germany
Invited Participant, March 21st 2016-April 3rd 2016
International workshop "Two-Phase Continuum Models for Geophysical Particle-Fluid Flows".

Cornell University, Ithaca, NY, USA
Visiting Scholar, August 2014-February 2015
Conduct research on inertial shear bands, simple shearing of deformable spheres, objects penetrating a granular medium, and aquatic saltation in collaboration with Professor James T. Jenkins.

Kavli Institute for Theoretical Physics, Santa Barbara, CA, USA
Invited Participant, November 18th 2013-December 20th 2013
Research program "Fluid-Mediated Transport in Geophysical Flows".

University of Twente, Enschede, The Netherlands
Visiting Scholar, September 2013
Conduct research on the comparisons between the predictions of kinetic theories of granular gases on incline flows and the numerical DEM simulations in collaboration with Professor Stefan Luding.

Cornell University, Ithaca, NY, USA
Visiting Scholar, September 2006- March 2007
Conduct research on kinetic theories of granular gases and incline flows of fluid-granular mixtures in collaboration with Professor James T. Jenkins.

GRANTS AND FELLOWSHIPS

Visiting Assistant Professorship at the School of Civil and Environmental Engineering, Cornell University for the period August 8, 2014 to February 11, 2015.

Best young researcher (Dept. of Environmental, Hydraulic, Infrastructures and Surveying Engineering, Politecnico di Milano 2010), € 6400.

Best young researcher (Dept. of Environmental, Hydraulic, Infrastructures and Surveying Engineering, Politecnico di Milano 2009), € 5480.

Funded project Giovani Ricercatori del Politecnico di Milano 2000 “Studio sperimentale delle leggi di resistenza al moto di fluidi iperconcentrati”.

Funded projects in competitive calls: HORIZON EIC PATHFINDER OPEN 2021 with the project “Scaling-up SuperLubricity into Persistence (SSLiP)” (3,905,000 EUR, PI of research unit); Euromech Grant 2017 for “Coupling Mechanisms and Multi-Scaling in Granular Fluid Flows” (co-chairperson); NSF 2013 grant number 1318593 for “Generalized Transport Models in Earth Surface Dynamics: Novel Experiments for Demonstrating and Quantifying Non-local Transport” (collaborator).

Nonfunded projects in competitive calls: PRIN 2020 (PI); Galileo project 2018 (PI); SIR 2014 (member of research unit); PRIN 2012 (member of research unit); FIRB 2010 (head of research unit); Galileo project 2009 (member of research unit); PRIN 2009 (PI); FIRB 2009 (head of research unit); Galileo project 2008 (member of research unit); PRIN 2008 (member of research unit).

REVIEWING ACTIVITY

ISI Journals: *Journal of Hydraulic Engineering*-ASCE; *Advances in Water Resources*; *Journal of Geophysical Research*; *Journal of Fluid Mechanics*; *Earth Surface Processes and Landforms*; *Granular Matter; Physics of Fluids; Environmental Fluid Mechanics; European Journal of Mechanics B/Fluids; Physical Review Letters; Proceedings A; Physical Review E; Geophysical Research Letters; International Journal of Multiphase Flows; Energy Science and Engineering; Acta Mechanica; Rivista Italiana di Geotecnica; Proceedings of the National Academy of Sciences; Journal of Elasticity.*

National Funding Programs: *Chilean FONDECYT Program* (Chile, 2011); *the Netherlands Foundation for Fundamental Research on Matter, FOM* (the Netherlands, 2015); *Qatar National Research Fund* (Qatar, 2021).

Outstanding Reviewer for *Advances in Water Resources*, April 2014.

EDITORIAL ACTIVITY, ORGANIZATION OF SCIENTIFIC MEETINGS, CHAIRMANSHIPS AND KEYNOTES

Organizer of the International Conference entitled *Discrete and Continuum Modeling of Natural Systems*, (29 May-3 June 2022, Masseria Salamina, Fasano, Italy).

Organizer of the mini-symposium FS-08 Granular materials and flows during the XXV ICTAM Conference (23-28 August 2021, Milano, Italy).

Guest editor of the Granular Matter Topical Collection entitled *Flow regimes and phase transitions in granular matter: multiscale modeling from micromechanics to continuum*.

Organizer of the mini-symposium MS-18 Constitutive Relations and phase transitions in granular matter during the DEM8 Conference (21-26 July 2018, Enschede, The Netherlands).

Keynote speaker at the *micro-to Macro mathematical modelling in Soil Mechanics* conference (2018, Reggio Calabria, Italy).

Co-organizer with Laurent Lacaze of the EUROMECH Colloquium 588 entitled Coupling mechanisms and multi-scaling in granular-fluid flows, 2-5 October 2017, Toulouse, France.

Chairman of the Invited Session entitled Micro-macro: From Discrete Particles to Continuum Models of Granular Mechanics IV during *Particle 2017* (Hannover, Germany).

Chairman of the Session entitled Continuum Modeling during *Powders & Grains 2017* (Montpellier, France).

PUBLICATIONS AND CONFERENCES

International Journals

Rebai D., Berzi D., Ballio F. & Matoušek V. 2022. Experimental comparison of inclined flows with and without intense sediment transport: flow resistance and surface elevation, *J. Hydraul. Eng.*-ASCE, 148(12), 04022026, DOI: 10.1061/(ASCE)HY.1943-7900.0002024.

Valance A. & Berzi D., 2022. Particle saltation over rigid bumpy beds in viscous shearing flows. *J. Fluid Mech.*, 947, A28, DOI: 10.1017/jfm.2022.616.

Berzi D., Vescovi D., Ji S., Li X. & Luding S. 2022. Flow regimes and phase transitions in granular matter: multiscale modeling from micromechanics to continuum-editorial. *Granul. Matt.*, 24, 3, DOI: 0.1007/s10035-021-01146-x.

Berzi D., Buettner K.E. & Curtis J.S. 2022. Dense shearing flows of soft, frictional cylinders, *Soft Matter*, 18, 80-88, DOI: 10.1039/D1SM01395E.

Berzi D. & Vescovi D. 2021. Cooling after shearing: three possible fates for dense granular materials. *Granul. Matt.*, 23, 47, DOI: 10.1007/s10035-021-01102-9.

Jenkins J.T., Alam M. & Berzi D. 2020. Singular behavior of the stresses in the limit of random close packing in collisional, simple shearing flows of frictionless spheres. *Phis. Rev. Fluids*, 5, 072301(R), DOI: 10.1103/PhysRevFluids.5.072301.

Berzi D. & Buzzaccaro S. 2020. A heavy intruder in a locally-shaken granular solid. *Soft Matter*, 16, 3921-3928, DOI: 10.1039/c9sm02498k.

Berzi D., Jenkins, J.T. & Richard P. 2020. Extended kinetic theory for granular flow over and within an inclined erodible bed. *J. Fluid Mech.*, 885, A27, DOI: 10.1017/jfm.2019.1017.

Berzi D., Jenkins J.T. & Richard P. 2019. Erodible, granular beds are fragile. *Soft Matter*, 15, 7173-7178, DOI 10.1039/c9sm01372e.

Vescovi, D., Berzi, D. & di Prisco, C. 2018. Fluid–solid transition in unsteady, homogeneous, granular shear flows. *Granul. Matt.*, 20, 27, DOI: 10.1007/s10035-018-0797-y.

Berzi, D. & Jenkins, J.T. 2018. Fluidity, anisotropy, and velocity correlations in frictionless, collisional grain flows. *Phys. Rev. Fluids*, 3, 094303, DOI: 10.1103/PhysRevFluids.3.094303.

Berzi D. & Vescovi D. 2017. Shearing flows of frictionless spheres over bumpy planes: slip velocity. *Comp. Part. Mech.*, 4(4), 373-377, DOI: 10.1007/s40571-016-0115-6.

Berzi D, Valance A. & Jenkins J.T. 2017. The threshold for continuing saltation on Earth and other solar system bodies. *J. Geophys. Res.: Earth Surf.*, 122(7), 1374-1388, DOI: 10.1002/2016JF003982.

Gollin, D., Berzi, D. & Bowman, E.T. 2017. Extended kinetic theory applied to inclined granular flows: role of boundaries. *Granul. Matter*, 19(3), 56, DOI: 10.1007/s10035-017-0738-1.

Berzi, D., Thai-Quang, N., Guo, Y. & Curtis, J. 2017. Collisional dissipation rate in shearing flows of granular liquid crystals. *Phys. Rev. E*, 95, 050901(R), DOI: 10.1103/PhysRevE.95.050901.

Berzi, D. & Jenkins, J.T. 2016. Erosion and deposition in depth-averaged models of dense, dry, inclined, granular flows. *Phys. Rev. E*, 94(5), 052904, DOI: 10.1103/PhysRevE.94.052904.

Berzi, D., Thai-Quang, N., Guo, Y. & Curtis, J. 2016. Stresses and orientational order in shearing flows of granular liquid crystals. *Phys. Rev. E*, 93, 040901(R), DOI: 10.1103/PhysRevE.93.040901.

Berzi D. & Fraccarollo L. 2016. Intense sediment transport: Collisional to turbulent suspension. *Phys. Fluids*, 28, 023302, DOI: 10.1063/1.4941770.

Berzi D, Jenkins J.T. & Valance A. 2016. Periodic saltation over hydrodynamically rough beds: aeolian to aquatic. *J. Fluid Mech.*, 786, 190-209, DOI: 10.1017/jfm.2015.601.

Berzi D. & Fraccarollo L. 2015. Turbulence locality and granular-like fluid shear viscosity in collisional suspensions. *Phys. Rev. Lett.*, 115, 194501, DOI: 10.1103/PhysRevLett.115.194501.

Berzi D. & Jenkins J.T. 2015. Steady shearing flows of deformable, inelastic spheres. *Soft Matter*, 11(24), 4799-4808, DOI: 10.1039/C5SM00337G.

Berzi D. & Jenkins J.T. 2015. Correction: Steady shearing flows of deformable, inelastic spheres. *Soft Matter*, 11(29), 5970-5970, DOI: 10.1039/C5SM90114F.

Berzi D. & Jenkins J.T. 2015. Inertial shear bands in granular materials. *Phys. Fluids*, 27(3), 033303, DOI: 10.1063/1.4914920.

Berzi D. & Vescovi D. 2015. Different singularities in the functions of extended kinetic theory at the origin of the yield stress in granular flows. *Phys. Fluids*, 27(1), 013302, DOI: 10.1063/1.4905461.

Vescovi D., Berzi D., Richard P. and Brodu N. 2014. Plane shear flows of frictionless spheres: Kinetic theory and 3D soft-sphere discrete element method simulations. *Phys. Fluids*, 26(5), 053305, DOI: 10.1063/1.4879267.

Berzi, D. 2014. Extended kinetic theory applied to dense, granular, simple shear flows. *Acta Mech.*, 225(8), 2191-2198, DOI: 10.1007/s00707-014-1125-1.

Berzi, D. & Fraccarollo, L. 2013. Inclined, collisional sediment transport. *Phys. Fluids*, 25(10), 106601, DOI: 10.1063/1.4823857.

Vescovi D., Di Prisco C.G. & Berzi D. 2013. From solid to granular gases: the steady state for granular materials. *Int. J. Numer. Anal. Met.*, 37, 2937–2951, DOI: 10.1002/nag.2169.

Berzi, D. 2013. Simple shear flow of collisional granular-fluid mixtures. *J. Hydraul. Eng.*-ASCE, 139(5), 547–549, DOI: 10.1061/(ASCE)HY.1943-7900.0000701.

Berzi, D. 2013. Transport formula for collisional sheet flows with turbulent suspension. *J. Hydraul. Eng.*-ASCE, 139(4), 359–363, DOI: 10.1061/(ASCE)HY.1943-7900.0000686.

Berzi, D. & Larcan, E. 2013. Flow resistance of inertial debris flows. *J. Hydraul. Eng.*-ASCE, 139(2), 187–194, DOI: 10.1061/(ASCE)HY.1943-7900.0000664.

Berzi, D., Bossi, F.C. & Larcan, E. 2012. Collapse of granular-liquid mixtures over rigid, inclined beds. *Phys. Rev.* E, 85 (5), 051308, DOI: 10.1103/PhysRevE.85.051308.

Jenkins, J.T. & Berzi, D. 2012. Kinetic Theory applied to Inclined Flows. *Granul. Matter*, 14(2), 79–84, DOI: 10.1007/s10035-011-0308-x.

Berzi, D., Di Prisco, C.G. & Vescovi, D. 2011. Constitutive relations for steady, dense granular flows. *Phys. Rev.* E, 84 (3), 031301, DOI: 10.1103/PhysRevE.84.031301.

Berzi, D. 2011. Analytical solution of collisional sheet flows. *J. Hydraul. Eng.*-ASCE, 137(10), 1200–1207, DOI: 10.1061/(ASCE)HY.1943-7900.0000420.

Berzi, D. & Jenkins, J.T. 2011. Surface Flows of Inelastic Spheres. *Phys. Fluids*, 23(1), 013303, DOI: 10.1063/1.3532838.

Berzi, D., Jenkins, J.T. & Larcher, M. 2010. Debris Flows: Recent Advances in Experiments and Modeling. *Adv. Geophys.*, 52 (C), 103–138, DOI: 10.1016/S0065-2687(10)52002-8.

Jenkins, J.T. & Berzi, D. 2010. Dense Inclined Flows of Inelastic Spheres: Tests of an Extension of Kinetic Theory. *Granul. Matter*, 12 (2), 151–158, DOI: 10.1007/s10035-010-0169-8.

Berzi, D. & Jenkins, J.T. 2009. Steady inclined flows of granular-fluid mixtures. *J. Fluid Mech.*, 641, 359–387, DOI: 10.1017/S0022112009991510.

Berzi, D. & Jenkins, J.T. 2008. Approximate analytical solutions in a model for highly concentrated granular-fluid flows. *Phys. Rev.* E, 78 (1), 011304, DOI: 10.1103/PhysRevE.78.011304.

Berzi, D. & Jenkins, J.T. 2008. A theoretical analysis of free-surface flows of saturated granular-liquid mixtures. *J. Fluid Mech.*, 608, 393–410, DOI: 10.1017/S0022112008002401.

Book chapters

Berzi D. & Jenkins J.T. (2020), "Dense, inhomogeneous granular shearing", pp. 21-38, In: Giovine P., Mariano P.M., Mortara G. (eds) *Views on Microstructures in Granular Materials. Advances in Mechanics and Mathematics*, vol 44. Birkhäuser, Cham. DOI: 10.1007/978-3-030-49267-0_2.

International Conferences

Berzi D. & Valance A. 2022. Periodic saltation over rigid, bumpy beds in viscous shearing flows. *Two-pHase modElling for Sediment dynamicS THESIS 2022*, 5-12 June 2022, Les Houches, France (oral presentation).

Berzi D. Jenkins J.T. & Richard P. 2021. Extended Kinetic Theory for collisional shearing over and within an inclined, erodible bed. *XXV ICTAM*, 23-28 August, Milano, Italy (oral presentation).

Jenkins J.T. & Berzi D. 2021. Analytical solutions for dense, inclined, granular flow over a rigid, bumpy base. *EPJ Web of Conferences* 249, 03039 (oral presentation by J.T. Jenkins at *Powders and Grains 2021*, July-August 2021, Buenos Aires, Argentina).

Berzi D. Jenkins J.T. & Richard P. 2018. Extended Kinetic Theory for collisional shearing over and within an inclined, erodible bed. *DEM8,* 21-26 July, Enschede, The Netherlands (oral presentation).

Berzi D. Jenkins J.T. & Richard P. 2018. Extended Kinetic Theory for collisional shearing over and within an inclined, erodible bed. *3rd IMA Dense Granular Flows,* 1-4 July, Cambridge, UK (oral presentation).

Berzi D. Jenkins J.T. & Richard P. 2018. Extended Kinetic Theory for collisional shearing over and within an inclined, erodible bed. *XLVIII International Summer School Conference Advanced Problems in Mechanics*, 21-27 June, Saint-Petersburg, Russia (oral presentation).

Berzi D. & Jenkins J.T. 2018. Dense, inhomogeneous granular shearing. *micro-to-Macro mathematical modelling in soil mechanics*, May 29-June 1, Reggio Calabria, Italy (keynote).

Berzi D., Larcan. E., Jenkins J.T. & Fraccarollo L. 2018. Inertial debris flows. *Workshop on Debris-flow science and hazards: what do we know, and what do we need to know?*, 18-19 January 2018, Durham, UK (oral presentation).

Berzi D. & Fraccarollo L. 2017. Turbulence locality and granular-like fluid shear viscosity in collisional suspensions. *EUROMECH Colloquium 588*, 2-5 October 2017, Toulouse, France (oral presentation).

Berzi, D., Thai-Quang, N., Guo, Y. & Curtis, J. 2017. Stresses and orientational order in shearing flows of granular liquid crystals. *Particles 2017*, 26-28 September 2017, Hannover, Germany (oral presentation).

Jenkins J.T. & Berzi D. 2017. Dense, collisional, shearing flows of compliant spheres. *EPJ Web of Conferences* 140, 01004 (oral presentation by J.T. Jenkins at *Powders and Grains 2017*, 3-7 July 2017, Montpellier, France).

Berzi D. & Jenkins J.T. 2017. Dense, inhomogeneous shearing flows of spheres. *EPJ Web of Conferences* 140, 11006 (oral presentation at *Powders and Grains 2017*, 3-7 July 2017, Montpellier, France).

Vescovi D., Berzi D. & di Prisco C. 2017. Fluid-solid transition in unsteady shearing flows. *EPJ Web of Conferences* 140, 03058 (poster session at *Powders and Grains 2017*, 3-7 July 2017, Montpellier, France).

Berzi D. & Fraccarollo L. 2017. Turbulence locality and granular-like fluid shear viscosity in collisional suspensions. *EGU General Assembly*, 23-28 April 2017, Vienna, Austria (oral presentation).

Berzi D. & Fraccarollo L. 2016. Turbulence locality and granular-like fluid shear viscosity in collisional suspensions. *Two-pHase modElling for Sediment dynamicS THESIS 2016*, 12-14 September 2016, Tokyo, Japan (oral presentation).

Berzi D. & Vescovi D. 2015. Different singularities in the functions of extended kinetic theory at the origin of the yield stress in granular flows. *IV International Conference on Particle-Based Methods. Fundamentals and Applications PARTICLES 2015*, 28-30 September 2015, Barcelona, Spain (oral presentation).

Berzi D., Jenkins J.T. & Valance A. 2015. Periodic saltation over hydrodynamically rough, erodible beds: Aeolian to aquatic. *EGU General Assembly*, 12-17 April 2015, Vienna, Austria (oral presentation).

Modeling granular media across scales 2014, 9-11 July 2014, Montpellier, France.

Particle-Laden Flows in Nature, 16-19 December 2013, Kavli Institute for Theoretical Physics, Santa Barbara, CA, USA.

Jenkins J.T. & Berzi D. 2013. Inclined Granular Flows on Collisional Shear Layers. In (Yu, A., Dong, K., Yang, R. and Luding, S., Eds.), *AIP Conference Proceedings*, 1542, 626–629, American Institute of Physics (oral presentation by J. Jenkins at the Powders and Grains 2013, 8-11 July 2013, Sidney, Australia).

Berzi D. & Jenkins J.T. 2013. Inclined, collisional granular flows. *2nd IMA Conference on Dense Granular Flows*, 1-4 July 2013, Cambridge, UK (oral presentation).

Berzi D. 2013. Collisional sheet flows. *Two-pHase modElling for Sediment dynamicS THESIS 2013*, 10-12 June 2013, Chatou, France (oral presentation).

Berzi, D. 2012. Simple shear of granular matter. Invited presentation at the *8th European Solid Mechanics Conference*, 9-13 July 2012, Graz, Austria.

Berzi D. & Jenkins, J.T. 2011. Steady debris flows. Invited presentation at the AGU Fall Meeting 2011, 5-9 December 2011, San Francisco, California, USA.

Berzi, D. & Larcan, E. 2011. Analytical solution of collisional sheet flows. *Proc. of the 34th IAHR World Congress*, 26 June-1 July 2011, Brisbane, Australia: 989–993 (poster session).

Berzi, D., Jenkins, J.T. & Larcan, E. 2011. Steady debris flows over erodible beds. *Proc. of the 5th Int. Conf. on Debris-flow Hazards Mitigation, Prediction and Assessment*, 14-17 June 2011, Padua, Italy: 193–197 (oral presentation).

Two-pHase modElling for Sediment dynamicS THESIS 2011, 26-28 April 2011, Chatou, France.

Berzi, D., Jenkins, J.T. & Larcan, E. 2010. Uniform motion of debris flows over erodible beds. *Proc. of the 1st IAHR European Congress*, 4-6 May 2010, Edinburgh, UK: 1–6 (oral presentation).

Jenkins, J.T. & Berzi, D. 2010. Steady, Inclined Flow of a Mixture of Grains and Fluid over a Rigid Base. In (Goddard, J.D., Jenkins, J.T. and Giovine, P., Eds.), *AIP Conference Proceedings*, 1227, 31–40, American Institute of Physics (invited presentation at the IUTAMM-ISIMM Symposium on Mathematical Modeling and Physical Instances of Granular Flows, 14-18 September 2009, Reggio Calabria, Italy).

IMA Conference on Dense Granular Flows, 5-9 January 2009, Cambridge, UK (poster session).

Berzi, D. & Jenkins, J.T. 2008. Extended kinetic theory for dense inclined flows. *XVth International Congress on Rheology*, 3-8 August 2008, Monterey, CA, USA (oral presentation).

Berzi, D. & Larcan, E. 2007. Laboratory investigation of dam-break flow of a mixture of water and granular matter. *Proc. of the 4th Int. Conf. on Debris-flow Hazards Mitigation, Prediction and Assessment*, 10-13 September 2007, Chengdu, China: 223–228.

Berzi, D. & Larcan, E. 2006. Frictional surface flow of a dry granular medium. *Proc. of the 3rd Int. Conf. on Fluvial Hydraulics River Flow 2006*, 6-8 September 2006, Lisboa, Portugal, vol. 2: 1407–1411 (oral presentation).

Berzi, D., La Rosa, L., Malavasi, S. & Radice, A. 2006. Fluctuations in surface granular flow via a PIV-edge detection technique. *Proc. of the 3rd Int. Conf. on Fluvial Hydraulics River Flow 2006*, 6-8 September 2006, Lisboa, Portugal, vol. 2: 1393–1399 (poster session).

Berzi, D. & Larcan, E. 2005. Stilling Basins: Role of non-dimensional parameters in the spectral analysis of pressures over sills. *Proc. of the Int. Conf. On Environmental Fluid Mechanics (ICEFM'05)*, 3-5 March 2005, Guwahati, India: 104–111.

Berzi, D. & Larcan, E. 2004. Transient hyper-concentrated flows: limits of some hypotheses in mathematical modeling. *Proc. of the 2nd Int. Conf. on Fluvial Hydraulics River Flow 2004*, 23-25 June 2004, Neaples, Italy: 1103–1110 (poster session).

Berzi, D., Larcan, E., Mambretti, S. & Orsi, E. 2004. Scale effect on pressure fluctuations over sills in stilling basins. *Proc. of the Int. Conf. on Hydraulics of Dams & River Structures*, April 2004, Teheran, Iran: 147–155.

Berzi, D. & Mambretti, S. 2003. Mathematical modeling and experimental tests of unsteady flow of non-Newtonian fluids. *Proc. of the 3rd Int. Conf. on Debris-flow Hazards Mitigation, Prediction and Assessment*, 10-12 September 2003, Davos, Switzerland: 447–456 (oral presentation).

International Conference on Fluvial Hydraulics River Flow 2002, 4-6 September 2002, Louvain-la-Neuve, Belgium.

National Conferences

Berzi D. & Larcan E. (2010), "Laboratory investigation on granular-fluid waves over rigid beds", *Proc. of the XXXII Convegno di Idraulica e Costruzioni Idrauliche*, 14–17 September 2010, Palermo: 1–5 (poster session).

Berzi D. & Larcan E. (2008), "Reologia lineare per il moto stazionario di un materiale granulare secco ad alta concentrazione", *Proc. of the XXXI Convegno di Idraulica e Costruzioni Idrauliche*, 9-12 Settembre 2008, Perugia: 1–10 (oral presentation).

Berzi D., La Rosa L. & Larcan E. (2006), "Analisi sperimentale delle fluttuazioni del moto uniforme di una miscela granulare secca", *Proc. of the XXX Convegno di Idraulica e Costruzioni Idrauliche*, 10–14 Settembre 2006, Roma: 1–10 (oral presentation).