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LIST OF PUBLICATIONS

Books and book chapters

- B1. J. Zhang, E. Sulollari, A.B. Fărăgău, **F. Pisanò**, P. van der Male, M. Martinelli, A.V. Metrikine, K.N. van Dalen (2020). “Harmonic balance method for the stationary response of finite and semi-infinite nonlinear dissipative continua: three canonical problems”. In: Abramian A.K., Andrianov I.V., Gaiko V.A. (eds) *Nonlinear Dynamics of Discrete and Continuous Systems. Advanced Structured Materials*, vol 139. Springer, Cham. https://doi.org/10.1007/978-3-030-53006-8_16
- B2. M.A. Hicks, **F. Pisanò**, J.P. Peuchen (Eds.) (2018). *Cone Penetration Testing 2018*. London: CRC Press.
- B3. B. Jeremic, Z. Yang, Z. Cheng, G. Jie, N. Tafazzoli, M. Preisig, P. Tasiopoulou, **F. Pisanò**, J. Abell, K. Watanabe, Y. Feng, S. Kumar Sinha, F. Behbehani, H. Yang, and H. Wang. *Nonlinear Finite Elements: Modeling and Simulation of Earthquakes, Soils, Structures and their Interaction*. University of California, Davis, CA, USA, and Lawrence Berkeley National Laboratory, Berkeley, CA, USA, 1989-2019. ISBN: 978-0-692-19875-9

Journal papers

- J1. E. Kementzetzidis, **F. Pisanò**, A.V. Metrikine (2022). “A memory-enhanced p-y model for piles in sand accounting for cyclic ratcheting and gapping effects”, under review
- J2. **F. Pisanò**, D. Betto, G. Della Vecchia, M. Cremonesi (2022). “Analysis of transient pipeline flotation in liquefied sand: a simplified model”, under review
- J3. X. Zheng, **F. Pisanò**, P.J. Vardon, M.A. Hicks (2022). “Formulation and verification of a fully implicit, three-fields material point method for dynamic coupled problems”, under review
- J4. E. Kementzetzidis, **F. Pisanò**, A. Tsouvalas, A.S.K. Elkadi, A.V. Metrikine, (2022). “Gentle Driving of Piles at a sandy site combining axial and torsional vibrations: post-installation cyclic/dynamic lateral loading tests”, under review
- J5. A. Tsetas, A. Tsouvalas, S.S. Gomez, **F. Pisanò**, E. Kementzetzidis, T. Molenkamp, A.S.K. Elkadi, A.V. Metrikine (2022). “Gentle Driving of Piles at a sandy site combining axial and torsional vibrations: installation tests”, under review
- J6. X. Zheng, **F. Pisanò**, P.J. Vardon, M.A. Hicks (2022). “Fully implicit, stabilised MPM simulation of large-deformation problems in two-phase elastoplastic geomaterials”, *Computers and Geotechnics*, accepted for publication
- J7. H.Y. Liu, **F. Pisanò**, H.P. Jostad, N. Sivasithamparam (2022). “Impact of cyclic strain accumulation on the tilting behaviour of monopiles in sand: an assessment of the Miner's rule based on SANISAND-MS 3D FE modelling”, *Ocean Engineering*, accepted for publication
- J8. M. Martinelli, **F. Pisanò** (2022). “Relating cone penetration resistance to sand state through MPM large-deformation modelling”, *Géotechnique Letters*, accepted for publication
- J9. X. Zheng, **F. Pisanò**, P.J. Vardon, M.A. Hicks (2021). “An explicit stabilised material point method for coupled hydromechanical problems in two-phase porous media”, *Computers and Geotechnics*, 135, 104112.
- J10. H.Y. Liu, E. Kementzetzidis, J.A. Abell, **F. Pisanò** (2021). “From cyclic sand ratcheting to tilt accumulation of offshore monopiles: 3D FE modelling using SANISAND-MS”, *Géotechnique*, 71(9), 812–825
- J11. X. Cheng, A. Diambra, E. Ibraim, H.Y. Liu, **F. Pisanò** (2021). “FE-informed laboratory soil testing for the design of offshore wind turbine monopiles”. *Journal of Marine Science and Engineering*, 9(101), DOI: 10.3390/jmse9010101
- J12. H.Y. Liu, A. Diambra, J.A. Abell, **F. Pisanò** (2020). “Memory-enhanced plasticity modeling of sand behavior under undrained cyclic loading”, *Journal of Geotechnical and Geoenvironmental Engineering*, 146(11), 04020122
- J13. **F. Pisanò**, M. Cremonesi, F. Cecinato, G. Della Vecchia (2020). “CFD-based framework for analysis of soil-pipeline interaction in reconsolidating liquefied sand”, *Journal of Engineering Mechanics*, 146(10), 04020119
- J14. E. Kementzetzidis, A.V. Metrikine, W.G. Versteijlen, **F. Pisanò** (2020). “Frequency effects in the dynamic lateral stiffness of monopiles in sand: insight from field tests and 3D FE modelling”, *Géotechnique*, 71(9), 812-825

- J15. J. A. Remmers, C. Reale, **F. Pisanò**, K. G. Gavin, S. Raymackers (2019). “Geotechnical installation design of suction buckets in non-cohesive soils: a reliability based approach”, *Ocean Engineering*, 188, 106242
- J16. H.Y. Liu, **F. Pisanò** (2019). “Prediction of oedometer terminal densities through a memory-enhanced cyclic model for sand”, *Géotechnique Letters*, 9(2), 1-8
- J17. G. Della Vecchia, M. Cremonesi, **F. Pisanò** (2019). “On the rheological characterisation of liquefied sands through the dam breaking test”, *Int. J. for Numerical and Analytical Methods in Geomechanics*, 43(7), 1410-1425
- J18. E. Kementzetzidis, S. Corciulo, W.G. Versteijlen, **F. Pisanò** (2019). “Geotechnical aspects of offshore wind turbine dynamics from 3D soil-structure non-linear FE simulations”, *Soil Dynamics and Earthquake Engineering*, 120, 181-199
- J19. M. Lazari, L. Sanavia, C. di Prisco, **F. Pisanò** (2019). “Predictive potential of Perzyna viscoplastic modelling for granular geomaterials”, *International Journal for Numerical and Analytical Methods in Geomechanics*, 43(2), 544-567
- J20. H.Y. Liu, J.A. Abell, A. Diambra, **F. Pisanò** (2019). “Modelling the cyclic ratcheting of sands through memory-enhanced bounding surface plasticity”, *Géotechnique*, 69(9), 783-800
- J21. **F. Pisanò**, R. Schipper, G.J. Schreppers (2018). “Input of fully 3D FE soil-structure modelling to the operational analysis of jack-up structures”, *Marine Structures*, 63, 269-288
- J22. F. Marinelli, **F. Pisanò**, C. di Prisco, G. Buscarnera (2017). “Model-based interpretation of undrained creep instability in loose sands”, *Géotechnique*, 68(6), 504-517
- J23. A. Saviano, **F. Pisanò** (2017). “Effects of misalignment on the undrained HV capacity of suction anchors in clay”, *Ocean Engineering*, 133, 89-106
- J24. S. Corciulo, O. Zanolì, **F. Pisanò** (2017). “Transient response of offshore wind turbines on monopiles in sand: role of cyclic hydro-mechanical soil behaviour”, *Computers and Geotechnics*, 83, 221-238
- J25. K. Watanabe, **F. Pisanò**, B. Jeremic (2017). “Discretization effects in the finite element simulation of seismic waves in elastic and elastic-plastic media”, *Engineering with Computers*, 33(3), 519-545
- J26. J. Régnier et al. (54 authors, including **F. Pisanò**) (2016). “International benchmark on numerical simulations for 1D, nonlinear site response (PRENOLIN): verification phase based on canonical cases”, *Bulletin of the Seismological Society of America*, 106(5), 2112-2135
- J27. **F. Pisanò**, L. Flessati, C. di Prisco (2016). “A macroelement framework for shallow foundations including changes in configuration”, *Géotechnique*, 66(11), 910-926
- J28. **F. Pisanò**, C. di Prisco (2016). “A stability criterion for elasto-viscoplastic constitutive relationships”, *International Journal for Numerical and Analytical Methods in Geomechanics*, 40(1), 141-156.
- J29. F. Tradigo, **F. Pisanò**, C. di Prisco (2015). “On the use of embedded pile elements for the numerical analysis of disconnected piled rafts”, *Computers and Geotechnics*, 72, 89-99
- J30. F. Tradigo, **F. Pisanò**, C. di Prisco (2015). “Numerical analysis of soil-structure interaction in disconnected piled raft foundations”, *Computers and Geotechnics*, 63, 121-134
- J31. C. di Prisco, L. Mancinelli, L. Zanelotti, **F. Pisanò** (2015), “Numerical stability analysis of submerged slopes subject to rapid sedimentation processes”, *Continuum Mechanics and Thermodynamics*, 27(1-2), 157
- J32. **F. Pisanò**, B. Jeremic (2014). “Simulating stiffness degradation and damping in soils via a simple visco-elastic-plastic model”, *Soil Dynamics and Earthquake Engineering*, 63, 98-109
- J33. **F. Pisanò**, C. di Prisco, R. Lancellotta (2013). “Soil-foundation modelling in laterally loaded historical towers”, *Géotechnique*, 64(1), 1-15
- J34. C. di Prisco, **F. Pisanò**. (2014). “Numerical modeling and mechanical analysis of an innovative soil anchoring system”, *Acta Geotechnica*, 9(6), 1013-1028
- J35. C. di Prisco, **F. Pisanò** (2011), “Seismic response of rigid shallow footings”, *European Journal of Environmental and Civil Engineering*, 15, 185-221
- J36. **F. Pisanò**, M. Pastor (2011), “1D wave propagation in saturated viscous geomaterials: improvement and validation of a fractional step Taylor-Galerkin finite element algorithm”, *Computer Methods in Applied Mechanics and Engineering*, 200(47-48), 3341-3357
- J37. C. di Prisco, **F. Pisanò** (2011). “An exercise on slope stability and perfect elasto-plasticity”, *Géotechnique*, 61(11), 923-934
- J38. C. di Prisco, M. Pastor, **F. Pisanò** (2011). “Shear wave propagation along infinite slopes: a theoretically based numerical study”, *International Journal for Numerical and Analytical Methods in Geomechanics*, 36(5), 619-642
- J39. C. di Prisco, F. Besseghini, **F. Pisanò** (2010). “Modelling of the mechanical interaction between anchored wire meshes and granular soils”, *Geomechanics and Geoengineering*, 5(3), 137-152

Conference papers

- C1. **F. Pisanò**, A. Askarinejad, H. Wang, S. Maghsoodi, K. Gavin, M. Segeren, A. Elkadi, D. de Lange M. Konstadinou (2022) “MIDAS: Monopile Improved Design through Advanced cyclic Soil modelling”. *Proceedings of the 20th International Conference on Soil Mechanics and Geotechnical Engineering (ICSMGE2022)*, May 1-5, 2022, Sydney (Australia) – accepted for publication
- C2. H. Wang, D. van Zanten, D. de Lange, **F. Pisanò**, K. Gavin, A. Askarinejad (2022). “Centrifuge study on the CPT based p-y models for the monopiles”. *Proceedings of 5th International Symposium on Cone Penetration Testing (CPT’22)*. June 8-10, 2022, Bologna (Italy) – accepted for publication.
- C3. A. Tsetas, S.S. Gómez, A. Tsouvalas, K. van Beek, F.S. Tehrani, E. Kementzetzidis, **F. Pisanò**, A.S.K. Elkadi, M.L.A. Segeren, T. Molenkamp, A.V. Metrikine (2020). “Experimental identification of the dynamic behaviour of pile-soil systems installed by means of three different pile-driving techniques”, *Proceedings of XI International Conference on Structural Dynamics (EURODYN2020)*, November 23-26, 2020, Athens (Greece)
- C4. A.V. Metrikine, A. Tsouvalas, M.L.A. Segeren, A.S.K. Elkadi, F.S. Tehrani, S.S. Gómez, R. Atkinson, **F. Pisanò**, E. Kementzetzidis, A. Tsetas, T. Molenkamp, K. van Beek, P. de Vries (2020). “GDP: A new technology for Gentle Driving of (mono)Piles”, *Proceedings of the 4th International Symposium on Frontiers in Offshore Geotechnics (ISFOG2021)*, November 8-11, 2021, Austin (USA)
- C5. S.C. van Hoogstraten, S.J. Hermans, W.G. Versteijlen, A.M. Page, G. Grimstad, **F. Pisanò**, A.V. Metrikine (2020). “The macro-element method for offshore wind turbines exposed to extreme loads in the Asia-Pacific region”, *Proceedings of the 4th International Symposium on Frontiers in Offshore Geotechnics (ISFOG2021)*, November 8-11, 2021, Austin (USA)
- C6. **F. Pisanò** (2019). “Input of advanced geotechnical modelling to the design of offshore wind turbine foundations” (invited paper associated with *Bright Spark Lecture Award*), *Proceedings of the 17th European Conference on Soil Mechanics and Geotechnical Engineering (ECSMGE2019)*, September 1-6, 2019, Reykjavik (Iceland) [link](#)
- C7. **F. Pisanò**, M. Cremonesi, F. Bortolotto, G. Della Vecchia (2019). “A CFD approach for the flotation analysis of pipelines in liquefied sand”, *Proceedings of the 17th European Conference on Soil Mechanics and Geotechnical Engineering (ECSMGE2019)*, September 1-6, 2019, Reykjavik (Iceland)
- C8. A. Diambra, R. Corti, H.Y Liu, **F. Pisanò**, J.A. Abell (2019). “Comparison of new memory surface hardening models for prediction of high cyclic loading”, *Proceedings of the 17th European Conference on Soil Mechanics and Geotechnical Engineering (ECSMGE2019)*, September 1-6, 2019, Reykjavik (Iceland)
- C9. V Vacareanu, E. Kementzetzidis, **F. Pisanò** (2019). “3D FE seismic analysis of a monopile-supported offshore wind turbine in a non-liquefiable soil deposit”, *Proceedings of the 2nd International Conference on Natural Hazards & Infrastructure (ICONHIC2019)*, June 23-26, 2019, Chania (Greece)
- C10. H.Y Liu, A. Diambra, J.A. Abell, **F. Pisanò** (2019). “Capturing cyclic mobility and preloading effects in sand using a memory-surface hardening model”. *Proceedings of the 7th International Conference on Earthquake Geotechnical Engineering (7ICEGE)*, June 17-20, 2019, Rome (Italy)
- C11. J.L. González Acosta, X. Zheng, P.J. Vardon, M.A. Hicks, **F. Pisanò** (2019). “On stress oscillation in MPM simulations involving one or two phases”. *Proceedings of the 2nd International Conference on the Material Point Method for Modelling Soil-Water-Structure Interaction*, January 8-10, 2019, Cambridge (UK)
- C12. H.Y Liu, F. Zygounas, A. Diambra, **F. Pisanò** (2018). “Enhanced plasticity modelling of high-cyclic ratcheting and pore pressure accumulation in sands”, *Proceedings of the 9th European Conference on Numerical Methods in Geotechnical Engineering (NUMGE2018)*, June 25-27, 2018, Porto (Portugal)
- C13. E. Kementzetzidis, W.G. Versteijlen, A. Nernheim, **F. Pisanò** (2018). “3D FE dynamic modelling of offshore wind turbines in sand: natural frequency evolution in the pre- to after-storm transition”, *Proceedings of the 9th European Conference on Numerical Methods in Geotechnical Engineering (NUMGE2018)*, June 25-27, 2018, Porto (Portugal)
- C14. **F. Pisanò**, K.G. Gavin (2017). “General report for TC209 – Offshore Geotechnics”, *Proceedings of the 19th International Conference on Soil Mechanics and Geotechnical Engineering (ICSMGE 2017)*, September 17-22, 2017, Seoul (South Korea)
- C15. **F. Pisanò**, S. Corciulo, O. Zanoli, (2017). “Role of advanced soil modelling in the dynamic analysis of offshore wind turbines”, *Proceedings of the 19th International Conference on Soil Mechanics and Geotechnical Engineering (ICSMGE 2017)*, September 17-22, 2017, Seoul (South Korea), accepted for publication
- C16. F. Tradigo, A. Mussi, F. Petrella, **F. Pisanò**, (2017). “Settlement prediction and monitoring of a piled raft foundation on coarse-grained soil: the case of the Allianz Tower in Milan”, *Proceedings of the 19th International Conference on Soil Mechanics and Geotechnical Engineering (ICSMGE 2017)*, September 17-22, 2017, Seoul (South Korea)
- C17. S. Panagoulas, B.F.J. van Dijk, T. Drummen, A. Askarinejad, **F. Pisanò** (2017). “Critical suction pressure during installation of suction caissons in sand”, *Proceedings of the 8th International OSIG Conference on Smarter Solutions for Future Offshore Developments*, September 12-14, 2017, London (UK)

- C18. J.S. Hoving, R. Marquart, **F. Pisanò** (2017). “Modelling the dynamics of iceberg-soil interaction during seabed gouging”, *Proceedings of the 24th International Conference on Port and Ocean Engineering under Arctic Conditions POAC'17*, June 11-16, 2017, Busan (Korea)
- C19. S. Corciulo, O. Zanoli, **F. Pisanò** (2017). “Supporting the engineering analysis of offshore wind turbines through advanced soil-structure 3D modelling”, *Proceedings of the 36th International Conference on Ocean, Offshore and Arctic Engineering OMAE 2017*, June 25-30, 2017, Trondheim (Norway)
- C20. B. van de Riet, N.B. Yenigul, R. Burgers, **F. Pisanò** (2017). “Evaluation of the Intrinsic Conservatism in the Design Codes for Subsea Mudmats”, *Proceedings of the Offshore Technology Conference OTC2017*, May 1-4, 2017, Houston (USA)
- C21. A. Galli, C. di Prisco, F. Pergalani, M. Compagnoni, **F. Pisanò** (2016). "Analysis of the interaction between buried pipelines and earthquake-induced landslides", *Proceedings of the 1st International Conference on Natural Hazards & Infrastructure*, Chania (Greece), 20-30 June, Gazetas G. (Ed.), on CD
- C22. D. Coronelli, F. di Prisco, F. Pisanò, S. Imposimato, S. Ghezzi, M. Pesconi (2014), The Tiburio of the cathedral of Milan: structural analysis of the construction & 20th century foundation settlements, *Proceedings of the 15th International Conference on Structural Faults & Repair*, London (UK), July 9-10, Forde M.C. (Ed.)
- C23. F. Tradigo F., **F. Pisanò**, C. di Prisco, A. Mussi, R. Persio (2014), Finite element analysis of soil-structure interaction in disconnected piled raft foundations, *Proceedings of the 8th European Conference on Numerical Methods in Geotechnical Engineering (NUMGE2014)*, Delft (Netherlands), June 18-20, Hicks A.M., Brinkgreve R.B.J., Rohe A. (Eds.)
- C24. C. di Prisco, **F. Pisanò** (2013). FEM-aided design of a novel device for soil anchoring, *Proceedings of the 18th International Conference on Soil Mechanics and Geotechnical Engineering (ICSMGE2013)*, Paris (France), September 2–6, Delage P., Desrues J., Frank R., Puech A., Schollosser F. (Eds.)
- C25. N. Tafazzoli, **F. Pisanò**, J.A. Abel, B. Kamrani, C.G. Jeong, B. Aldridge, R. Roche, A. Kammerer, B. Jeremic (2013). “The NRC ESSI simulator program: current status”, *Proceedings of the International Conference on Structural Mechanics in Reactor Technology (Smirt22)*, San Francisco (USA), August 18–23, Ostadan F. (Ed.)
- C26. **F. Pisanò**, B. Jeremic (2013). “A comparison of two elastic-plastic approaches to cyclic soil modelling”, *Proceedings of the 4th International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering (COMPDYN2013)*, Kos (Greece), June 12–14, Papadrakakis M. (Ed.)
- C27. C. di Prisco, **F. Pisanò** (2013). “FEM-aided design of a novel device for soil anchoring”, *Proceedings of the 18th International Conference on Soil Mechanics and Foundation Engineering ICSMGE 2013*, September 2-6, 2013, Paris (France)
- C28. **F. Pisanò**, C. di Prisco and M. Pastor (2011). “A simplified approach for the analysis of dynamic slope stability”, *Proceedings of the II International Symposium on Computational Geomechanics (ComGeo II)*, Dubrovnick (Croatia), April 27–29 2011, Pande G. and Pietruszczak S. (Eds.)
- C29. C. di Prisco, **F. Pisanò** (2010). “1D dynamic non-linear numerical analysis of earth slopes: the role of soil ductility and time-sensitiveness”, *Proceedings V International Conference on Recent Advances in Geotechnical Earthquake Engineering and Soil Dynamics*, San Diego (USA) May 24–29, S. Prakash (Ed.), on CD
- C30. C. di Prisco, **F. Pisanò**, S. Imposimato and C. Zambelli (2008). “Dynamic Mechanical Response of Inclined Dry Granular Sand Strata”, *Proceedings Seismic Engineering Conference MERCEA08*, Reggio Calabria (Italy), July 8–11, A. Santini and N. Moraci (Eds.), 1179–1186