

List of Publications

Researchers in the
“Modeling and Engineering Risk and Complexity” area

Journal papers.....	2
2025.....	2
2024.....	2
2023.....	4
2022.....	5
2021.....	5
Preprints.....	5
Conference proceedings.....	7
2025.....	7
2024.....	7
2023.....	7
2022.....	8
2021.....	8
Books, Chapters.....	9

Journal papers

2025

- B. Di Lorenzo, G.C. Maffettone, M. di Bernardo "[Decentralized Continuification Control of Multi-Agent Systems via Distributed Density Estimation](#)", *IEEE Control Systems Letters*, vol. 9, pp. 1580-1585, 2025.
- B. Di Lorenzo, G.C. Maffettone, M. di Bernardo, "[A Continuification-Based Control Solution for Large-Scale Shepherdin](#)", *European Journal of Control*, p. 101324 (2025), also presented at European Control Conference 2025 (ECC25).
- Lama, A., di Bernardo, M. & Klapp, S.H.L., "[Nonreciprocal field theory for decision-making in multi-agent control systems](#)", *Nature Communications* 16, 8450 (2025).
- D. Giaquinto, G. Di Capua, W. Marzocchi, J. Kurths, "[Spatio-temporal evolution of compound hot and dry extremes synchronizations in Europe](#)". *Climate Dynamics*, 63(3), 1-21, 2025
- Tawalo, A., Falcone, G., Pirone, M., d'Onofrio, A., & Urciuoli, G. (2025). Numerical modelling of displacements induced by rainfall infiltration in a clayey soil slope: The Miscano (Southern Italy) case study. *Computers and Geotechnics*, 184, 107267.
<https://doi.org/10.1016/j.compgeo.2025.107267>
- D. G. Patsatzis, M. di Bernardo, L. Russo, C. Siettos, "[GoRINNs: Godunov-Riemann Informed Neural Networks for Learning Hyperbolic Conservation Laws](#)". *Journal of Computational Physics*, 534, 114002, 2025
- G.C. Maffettone, A. Boldini, M. Porfiri, M. di Bernardo, "[Leader-Follower Density Control of Spatial Dynamics in Large-Scale Multi-Agent Systems](#)", accepted for publication in IEEE Transactions on Automatic Control, 2025.
- G. Fabiani, I. G. Kevrekidis, C. Siettos, A. N. Yannacopoulos, "[RandONets: Shallow-Networks with Random Projections for learning linear and nonlinear operators](#)", *Journal of Computational Physics*, 520, 113433, 2025
- G. Fabiani, "[Random Projection Neural Networks of Best Approximation: Convergence theory and practical applications](#)", *SIAM Journal on Mathematics of Data Science* 7(2), 385-409, 2025
- S. Ferrara, J. Selva, L. Sandri, W. Marzocchi, Elicitation VI Working Group (2025). "[Forecasting the evolution of the current unrest of Campi Flegrei by defining anomalies through experts' elicitation](#)", *Annals of Geophysics*, 68(1), V108-V108.
- A. Della Pia, "[Effects of Weber number and hole location on subcritical curtain flow regimes](#)", *International Journal of Multiphase Flow*, 186, 105163 (2025).
- E. Milanetti, K. K. H. Manjunatha, G. Ruocco, A. Maritan, and M. Fuxreiter, "[Toward universal models for collective interactions in biomolecular condensates](#)," *Biophysics Reviews*, vol. 6, no. 1. AIP Publishing, Mar. 01, 2025. doi: 10.1063/5.0244227.

- S. Vecchiè, A. Della Pia, "[Splitter Plate effect on the global dynamics of two-phase mixing-layer flow](#)", International Journal of Multiphase Flow, 193 (105370) 2025. doi: <https://doi.org/10.1016/j.ijmultiphaseflow.2025.105370>.
- W. Wang, Z. M. Ren, Y. Lin, T. F. Weng, and W. L. Du, "[The triangular structure beyond pairwise interactions affects the robustness of the world trade networks](#)". *Chaos: An Interdisciplinary Journal of Nonlinear Science*, 35(2), (2025).

2024

- Y. Tian, D. Giaquinto, G. Di Capua, J.N. Claassen, J. Ali, H. Li, C. De Michele, "[Historical changes in the Causal Effect Networks of compound hot and dry extremes in central Europe](#)". *Communications Earth & Environment*, 5(1), 1-14, 2024.
- D. G. Patsatzis, L. Russo, C. Siettos, "[Slow Invariant Manifolds of Fast-Slow Systems of ODEs with Physics-Informed Neural Networks](#)". *SIAM Journal on Applied Dynamical Systems*, 23(4):3077-3122, 2024
- F. De Lellis, M. Coraggio, N. C. Foster, R. Villa, C. Becchio, M. di Bernardo, "[Data-driven architecture to encode information in the kinematics of robots and artificial avatars](#)", IEEE Control System Letters 8:1919–1924, 2024
- F. De Lellis, M. Coraggio, G. Russo, M. Musolesi, M. di Bernardo, "[Guaranteeing control requirements via reward shaping in reinforcement learning](#)", IEEE Transactions on Control System Technology, 32(6):2102-2113, 2024
- A. Lama, M. Di Bernardo, [Shepherding and herdability in complex multiagent systems](#), Physical Review Research 6, L032012 (2024).
- A. Della Pia, D. G. Patsatzis, L. Russo and C. Siettos, "Learning the latent dynamics of fluid flows from high-fidelity numerical simulations using parsimonious diffusion maps", *Physics of Fluids*, 36, 105187 (2024).
- G.C. Maffettone, L. Liguori, E. Palermo, M. di Bernardo, M. Porfiri, "Mixed Reality Environment and High-Dimensional Continuification Control For Swarm Robotics", IEEE Transactions on Control Systems Technology, vol. 32, pp 2484-2491, 2024
- J. A. Dueñas Santana, A. Di Benedetto, O. González Gómez, E. Salzano, "[Towards Sustainable Hydrogen Production: An Integrated Approach for Sustainability, Complexity, and Systems Thinking in the Energy Sector](#)", Journal of Cleaner Production 449-141751, Elsevier, 2024
- G. Fabiani, N. Evangelou, T. Cui, J. M. Bello-Rivas, C. P. Martin-Linares, C. Siettos, I. G. Kevrekidis, "[Task-Oriented Machine Learning Assisted Surrogates for Tipping Points of agent-based models](#)", *Nature Communications* 15, n. 4117, pp. 1-13, 2024
- A. Gnanadesikan, G. Fabiani, J. Liu, R. Gelderloos, G.J. Brett, Y. Kevrekidis, T. Haine, M. Pradal, C. Siettos, J. Sleeman, "[Tipping points in overturning circulation mediated by ocean mixing and the configuration and magnitude of the hydrological cycle: A simple model](#)", *Journal of Physical Oceanography*, 2024
- D. G. Patsatzis, G. Fabiani, L. Russo, and C. Siettos. "[Slow invariant manifolds of singularly perturbed systems via physics-informed machine learning](#)." *SIAM Journal of Scientific Computing* 46 (4), C297-C322, 2024

- F. Auricchio, M. R. Belardo, F. Calabrò, G. Fabiani & A. F. Pascaner, “[On the accuracy of interpolation based on single-layer artificial neural networks with a focus on defeating the Runge phenomenon](#)”, *Soft Computing*, 2024
- V. Centorrino, F. Bullo, and G. Russo, “[Modeling and Contractivity of Neural-Synaptic Networks with Hebbian Learning](#)”, *Automatica*, 164: 111636, 2024.
- Giuseppe Petrillo, Eugenio Lippiello, Jiansang Zhuang, Including stress relaxation in point-process model for seismic occurrence, *Geophysical Journal International*, Volume 236, Issue 3, March 2024, Pages 1332–1341, <https://doi.org/10.1093/gji/ggad482>.
- Lippiello, E., Petrillo, G. (2024). *b*-more-incomplete and *b*-more-positive: Insights on a robust estimator of magnitude distribution. *Journal of Geophysical Research: Solid Earth*, 129, e2023JB027849. <https://doi.org/10.1029/2023JB027849>.
- Godano, C., Tramelli, A., Petrillo, G., Convertito, V. (2024). Testing the Predictive Power of *b* Value for Italian Seismicity. *Seismica*, 3(1).
- Godano, C., Petrillo, G., & Lippiello, E. (2024). Evaluating the incompleteness magnitude using an unbiased estimate of the *b* value. *Geophysical Journal International*, 236(2), 994-1001.
- A. Della Pia, T. Michelis, M. Chiatto, M. Kotsonis and L. de Luca, “[Global dynamics and topology of two-phase mixing layer flow through simultaneous gas and liquid velocity measurements](#)”, *Journal of Fluid Mechanics*, 981, A13, 2024.
- W. Marzocchi, L. Sandri, S. Ferrara, and J. Selva, “[From the detection of monitoring anomalies to the probabilistic forecast of the evolution of volcanic unrest: an entropy-based approach](#)”, *Bulletin of Volcanology*, 86(1), 5, 2024
- Manjunatha, K. K. H., Baron, G., Benozzo, D., Silvestri, E., Corbetta, M., Chiuso, A., Bertoldo, A., Suweis, S., & Allegra, M. (2024). “[Controlling target brain regions by optimal selection of input nodes](#)”. In H. Cagnan (Ed.), *PLOS Computational Biology* (Vol. 20, Issue 1, p. e1011274). Public Library of Science (PLOS). <https://doi.org/10.1371/journal.pcbi.1011274>
- Z. M. Ren, L. Zhao, W. L. Du, T. F. Weng, C. Liu, Y. X. Kong, and Y. C. Zhang, [Tunable resource allocation dynamics for interpreting economic complexity](#). *Chaos, Solitons & Fractals* 181 (2024).
- H. Vargas Alvarez, G. Fabiani, I. G. Kevrekidis, N. Kazantzis, C. Siettos, “[Nonlinear Discrete-Time Observers with Physics-Informed Neural Networks](#)”, *Chaos Solitons and Fractals* 186, 2024
- J. A. Dueñas Santana, A. Di Benedetto, E. Salzano, “[An Integrated Systems Thinking Approach for Assessing and Comparing the Safety of Hydrogen and Ammonia Storage](#)”, *Chemical Engineering Transactions*, Vol. 111, 2024.
- Z. M. Ren, W. L. Du, Z. Y. Zhao, L. Zhao, and T. F. Weng, [Strategies for selecting trading partners based on economic complexity of international trade networks: A comparison between Chinese and the US markets](#). *Humanities and Social Sciences Communications* 11, 919 (2024).
- W. X. Guo, Z. M. Ren, W. L. Du, and T. F. Weng, [TFT-MPIR: An end-to-end multi-period inventory replenishment strategy based on temporal fusion transformer](#). *Expert Systems with Applications* 125464 (2024).
- Z. M. Ren, W. Wang, T. F. Weng, and W. L. Du, [Effects of simplicial centrality on robustness of higher-order multiplex world trade networks](#). *New Journal of Physics* 26, 113005 (2024).

- N. Esposito, A. Mele, B. Castanier, M. Giorgio, "[Misspecification analysis of a gamma- and inverse Gaussian-based perturbed degradation process](#)". Applied Stochastic Models in Business and Industry, 40(3):640-667, 2024.

2023

- A. Giusti, M. Coraggio, M. di Bernardo, "[Local convergence of multi-agent systems towards triangular patterns](#)", IEEE Control Systems Letters 7:2869–2874, 2023
- A. Giusti, G. C. Maffettone, D. Fiore, M. Coraggio, M. di Bernardo, "[Distributed control for self-organization of large-scale multiagent systems in geometric patterns](#)", Frontiers in Robotics and Artificial Intelligence, 10, 2023
- D. Giaquinto, W. Marzocchi, J. Kurths, "[Exploring meteorological droughts' spatial patterns across Europe through complex network theory](#)", Nonlin. Processes Geophys., 30, 167–181, 2023
- G.C. Maffettone, M. Porfiri, M. di Bernardo, "[Continuification control of large-scale multiagent systems under limited sensing and structural perturbations](#)", IEEE Control Systems Letters, vol. 7, pp. 2425-2430, 2023
- G. Fabiani, E. Galaris, L. Russo, C. Siettos, "[Parsimonious Random Projection Neural Networks for the Numerical Solution of Initial-Value Problems of ODEs and index-1 DAEs](#)", Chaos 33, 043128, 2023.
- H. Vargas Alvarez, G. Fabiani, N. Kazantzis, C. Siettos, I. G. Kevrekidis, "[Discrete-Time Nonlinear Feedback Linearization via Physics-Informed Machine Learning](#)", Journal of Computational Physics, 492, 112408, 2023
- F. Lo Iudice, R. Cardona-Rivera, A. Grotta, M. Coraggio, M. di Bernardo, "[Consensus-based Distributed Intentional Controlled Islanding of Power Grids](#)", IEEE Transactions on Control of Network Systems, 11(1): 233-243, 2023
- G.C. Maffettone, A. Boldini, M. di Bernardo, M. Porfiri, "[Continuification Control of Large-scale Multiagent Systems in a Ring](#)", IEEE Control Systems Letters, vol. 7, pp 841-846, 2023
- J. Serrano, J. L. Orozco, A. García, J. Dueñas, M. L. León, Z. Herrera, "[Influence of imbibition temperature on the extraction stage of the cane sugar production](#)", Journal of Food Engineering, Volume 345, 2023.
- M. Giorgio, A. Piscopo, G. Pulcini, "[A new Wiener process with bathtub-shaped degradation rate in the presence of random effects](#)", Applied Stochastic Models in Business and Industry, 1-24, 2023.
- M. R. Acquaviva, A. Della Pia, M. Chiatto and L. de Luca, "[Hole-driven dynamics of a three-dimensional gravitational liquid curtain](#)", Journal of Fluid Mechanics, 968, A20 (2023).
- A. Della Pia, M. G. Antoniadis, E. S. Ioannidis, Z. A. Wejko, N. S. Barlow, M. Chiatto, S. J. Weinstein and L. de Luca, "[On the shapes of liquid curtains flowing from a non-vertical slot](#)", Journal of Fluid Mechanics, 974, A18 (2023).
- V. Centorrino, A. Gokhale, A. Davydov, G. Russo, and F. Bullo, "[Euclidean Contractivity of Neural Networks with Symmetric Weights](#)", IEEE Control Systems Letters, 7:1724-1729, 2023.
- I. Samoylenko, D. Aleja, E. Primo, K. Alfaro-Bittner, E. Vasilyeva, K. Kovalenko, D. Musatov, A. M. Raigorodskii, R. Criado, M. Romance, D. Papo, M. Perc, B. Barzel, and S. Boccaletti,

[“Why Are There Six Degrees of Separation in a Social Network?”](#), Phys. Rev. X 13, 021032 – Published 31 May 2023

- S. Mancini and W. Marzocchi, [“SimplETAS: a Benchmark Earthquake Forecasting Model Suitable for Operational Purposes and Seismic Hazard Analysis”](#), Seismological Research Letters, 2023.
- W. Marzocchi, L. Sandri, S. Ferrara, and J. Selva, [“From the detection of monitoring anomalies to the probabilistic forecast of the evolution of volcanic unrest: an entropy-based approach”](#), *Bulletin of Volcanology*, 86(1), 5, 2023.
- N. Esposito, A. Mele, B. Castanier, M. Giorgio, [“A new gamma degradation process with random effect and state-dependent measurement error”](#). Proceedings of the Institution of Mechanical Engineers, Part O: Journal of Risk and Reliability, 237(5), 868-885, 2023.
- N. Esposito, A. Mele, B. Castanier, M. Giorgio, [“A hybrid maintenance policy for a deteriorating unit in the presence of three forms of variability”](#). Reliability Engineering & System Safety, 237, 109320, 2023.
- D. G. Patsatzis, D. A. Goussis, [“Algorithmic criteria for the validity of quasi-steady state and partial equilibrium models: The Michaelis–Menten reaction mechanism”](#). *Journal of Mathematical Biology*, 87(2), 27, 2023

2022

- L. Chiaraluce, M. Michele, F. Waldhauser, Y. J. Tan, M. Herrmann, D. Spallarossa, S. Mancini et al., [“A Comprehensive Suite of Earthquake Catalogs for the 2016-2017 Central Italy Seismic Sequence”](#), Scientific Data, 9, 2022.
- M. Coraggio, S. Jafarpour, F. Bullo, M. di Bernardo, [“Minimax Flow Over Acyclic Networks: Distributed Algorithms and Microgrid Application”](#), IEEE Transactions on Control of Network Systems, 10(2):937–946, 2022
- J. A. Dueñas Santana, Y. Cuba Arana, O. González, D. Furka, S. Furka, J. L. Orozco, A. Di Benedetto, D. Russo, M. Portarapillo, J. Serrano, [“Fire and Explosion Economic Losses \(FEEL\) Index: A new approach for quantifying economic damages due to accidents in hydrocarbon storage sites”](#) Process Safety and Environmental Protection, 165, 2022.
- E. Galaris, G. Fabiani, I. Gallos, I.G. Kevrekidis, C. Siettos, [“Numerical bifurcation analysis of pdes from lattice Boltzmann model simulations: a parsimonious machine learning approach”](#). *Journal of Scientific Computing*, 92(2), 34, 2022
- L. Malagnini, T. Parsons, I. Munafò, S. Mancini, M. Segou, and E. L. Geist, [“Crustal Permeability Changes Inferred From Seismic Attenuation: Impacts on Multi-Mainshock Sequences”](#), Frontiers in Earth Science, 10, 2022.
- S. Mancini, M. Segou, M. J. Werner, T. Parsons, G. Beroza, and L. Chiaraluce, [“On the Use of High-Resolution and Deep-Learning Seismic Catalogs for Short-term Earthquake Forecasts: Potential Benefits and Current Limitations”](#), Journal of Geophysical Research: Solid Earth, 127, e2022JB025202, 2022.
- J. Serrano, J. L. Orozco, J. Dueñas, H. Ramírez, [“Obtaining Mathematical Models to Predict the Behaviour of the Extraction Stage of the Raw Sugar Production Process”](#) Sugar Technology, 2022.

2021

- F. Calabrò, G. Fabiani, C. Siettos, [“Extreme learning machine collocation for the numerical solution of elliptic PDEs with sharp gradients”](#). *Computer Methods in Applied Mechanics and Engineering*, 387, 114188, 2021.
- G. Fabiani, F. Calabrò, L. Russo, C. Siettos, [“Numerical solution and bifurcation analysis of nonlinear partial differential equations with extreme learning machines”](#), *Journal of Scientific Computing*, 89, 1-35. 2021.

Preprints

- I. Napolitano, S. Covone, A. Lama, F. De Lellis, M. di Bernardo, "[Hierarchical Learning-Based Control for Multi-Agent Shepherding of Stochastic Autonomous Agents](#)", arXiv:2504.02479, 2025
- R. Muolo, H. Nakao, M. Coraggio, "[When higher-order interactions enhance synchronization: the case of the Kuramoto model](#)", arXiv:2508.10992, 2025
- A. Spallone, M. Coraggio, F. De Lellis, M. di Bernardo, "[ROPE: A novel method for real-time phase estimation of complex biological rhythms](#)", arXiv:2509.04962, 2025
- A. Di Porzio, M. Coraggio, "[A personalized data-driven generative model of human motion](#)", arXiv:2503.15225, 2025
- V. Centorrino, F. Rossi, F. Bullo, G. Russo, "[Proximal Gradient Dynamics and Feedback Control for Equality-Constrained Composite Optimization](#)", submitted to IEEE Control Systems Letters and 64th IEEE Conference of Decision and Control, 2025.
- B. Di Lorenzo, G.C. Maffettone, M. di Bernardo, "[Decentralized Continuification Control of Multi-Agent Systems via Distributed Density Estimation](#)", submitted to IEEE Control Systems Letters and 64th IEEE Conference of Decision and Control, 2025.
- V. Centorrino, F. Bullo, and G. Russo, "[Modelling and Contractivity of Neural-Synaptic Networks with Hebbian Learning](#)", submitted to Automatica.
- K. K. H. Manjunatha, M. Bruzzone, G. Nicoletti, S. Suweis, and M. dal Maschio, "[A method for extracting an approximated connectome from libraries of single anatomically co-registered cell reconstructions.](#)" *BioRxiv*. Cold Spring Harbor Laboratory, May 22, 2023. doi: 10.1101/2023.05.21.541471.
- W. Marzocchi, L. Sandri, S. Ferrara, J. Selva, "[From the detection of monitoring anomalies to the probabilistic forecast of the evolution of volcanic unrest: an entropy-based approach](#)", 25 July 2023, PREPRINT (Version 1) available at Research Square [<https://doi.org/10.21203/rs.3.rs-3156207/v1>].
- A. Davydov, V. Centorrino, A. Gokhale, G. Russo, and F. Bullo, "[Contracting Dynamics for Time-Varying Convex Optimization](#)", submitted to *IEEE Transactions on Automatic Control*, June 2023.
- A. Bayani, F. Nazarimehr, S. Jafari, K. Kovalenko, G. Contreras-Aso, K. Alfaro-Bittner, Ruben J. Sánchez-García, S. Boccaletti, "[The transition to synchronization of networked systems](#)", arXiv:2303.08668
- G. Fabiani, E. Bollt, C. Siettos, A. N. Yannacopoulos, "[Stability Analysis of Physics-Informed Neural Networks for Stiff Linear Differential Equations](#)", arXiv preprint arXiv:2408.15393, 2024
- A. Tawalo, G. Urciuoli, "Probabilistic approach for assessing multi-site landslide displacements induced by groundwater fluctuation", submitted for Environmental Earth Sciences.
- D. M. Manias, D.G. Patsatzis, D. A. Goussis, "[Time scale dynamics of COVID-19 pandemic waves: The case of Greece](#)". *arXiv preprint arXiv:2312.07260*, 2023

Conference proceedings

2025

- A. Piscopo, B. Castanier, M. Fouladirad, and M. Giorgio, "An Inverse Gaussian based Degradation Process with Covariate Dependent Random Effects," in Proceedings of the 35th European Safety and Reliability & the 33rd Society for Risk Analysis Europe Conference, E. B. Abrahamsen, T. Aven, F. Boudier, R. Flage, and M. Ylönen, Eds., Stavanger: Research Publishing (Singapore), 2025, pp. 163–170. doi: %2010.3850/978-981-94-3281-3_ESREL-SRA-E2025-P8151-cd.
- N. Esposito, A. Piscopo, B. Castanier, and M. Giorgio, "An inverse Gaussian process with bathtub-shaped degradation rate function in the presence of random effect and measurement error," in Proceedings of the 35th European Safety and Reliability & the 33rd Society for Risk Analysis Europe Conference, E. B. Abrahamsen, T. Aven, F. Boudier, R. Flage, and M. Ylönen, Eds., Stavanger: Research Publishing (Singapore), 2025, pp. 3463–3467. doi: 10.3850/978-981-94-3281-3_ESREL-SRA-E2025-P9054-cd.
- S. Covone, I. Napolitano, F. De Lellis, M. di Bernardo, "[Hierarchical Policy-Gradient Reinforcement Learning for Multi-Agent Shepherding Control of Non-Cohesive Targets](#)", accepted for publication in the proceedings of and presentation at the 64th IEEE Conference of Decision and Control, 2025.
- B. Di Lorenzo, G.C. Maffettone, M. di Bernardo, "[A Continuification-Based Control Solution for Large-Scale Shepherding](#)", accepted for publication in the proceedings of and presentation at the 2025 European Control Conference (Thessaloniki, June 2025).
- I. Napolitano, A. Lama, F. De Lellis, M. di Bernardo, "[Emergent Cooperative Strategies for Multi-Agent Shepherding via Reinforcement Learning](#)", 23rd European Control Conference, pp. 1809-1014. 2025.
- A. Tawalo, G. Urciuoli, [SENSITIVITY ANALYSIS OF KEY PARAMETERS AFFECTING LANDSLIDE DISPLACEMENTS TRIGGERED BY RAINFALL INFILTRATION: THE CASE OF THE MISCANO LANDSLIDE](#), 16th Conference on Dynamical Systems Applied to Biology and Natural Sciences (DSABNS), pp. 239, Naples, Italy, 2025.
- A. Tawalo, G. Tsinidis, [Fragility Functions of Buried Steel Natural Gas Pipelines Exposed to Landslide Displacements](#), 10th World Congress on Civil, Structural, and Environmental Engineering (CSEE 2025), Barcelona, Spain, 2025.
- A. Grotta, F. De Lellis, "[Online Phase Estimation of Human Oscillatory Motions using Deep Learning](#)", International Conference on System, Men and Cybernetics (SMC 2025), Austria, Vienna.
-

2024

- A. Grotta*, M. Coraggio* (*co-first), A. Spallone, F. De Lellis, M. di Bernardo, "[Learning-based cognitive architecture for enhancing coordination in human groups](#)", 5th IFAC Workshop on Cyber-Physical Human Systems (CPHS), pp. 27–42, Antalya, Türkiye, 2024
- G.C. Maffettone, M. di Bernardo, M. Porfiri, "High-dimensional continuification control of large-scale multi-agent systems under limited sensing and perturbations", Proceedings of the 63rd Conference on Decision and Control (CDC), Milan, 2024, [arxiv](#).

- M. Coraggio, M di Bernardo "[Data-driven design of complex network structures to promote synchronization](#)", American Control Conference 2024 (ACC) (invited paper), pp. 4396–4401, Toronto, Canada, 2024
- J. A. Dueñas Santana, E. Salzano, A. Di Benedetto, "[Systems Thinking for Explosion Safety Management](#)", presented in the 15th International Symposium on Hazards, Prevention, and Mitigation of Industrial Explosions, [ISHPMIE 2024](#).
- T. Rino, F. Giannino, D. Fiore, "[Feedback control of plant-soil autotoxicity via pulse-width modulation](#)", *2024 European Control Conference (ECC)*, IEEE, 2024.
- A. Tawalo, G. Urciuoli, "[Probabilistic approach for assessing multi-site slope land displacements induced by groundwater fluctuations](#)", 3rd International Conference on Natural Hazards and Risks in a Changing World-Addressing Compound and Multi-Hazard Risk, (12-13 June, Amsterdam, Netherland).
- A. Tawalo, G. Falcone, A. D'onofrio, M. Pirone, G. Urciuoli, "[MODELLAZIONE NUMERICA IDRO-MECCANICA DEL VERSANTE DI MISCANO](#)", Incontro Annuale dei Ricercatori di Geotecnica -IARG2024, (Gaeta 4-6 Settembre, Italia).
- A. Tawalo, G. Urciuoli, G. Tsinidis, "[Simplified approach for assessing the risk of buried pipelines threatened by displacements induced by groundwater fluctuations](#)", 2024 International Workshop on Computational Dynamic Soil-Structure Interaction – CompDSSI, (Assisi 11-13 September, Italy).
- A. Della Pia, M. Chiatto, L. de Luca, "Thinning-induced breakup of a gravitational liquid jet driven by varicose perturbations", *Proceedings of the ECCOMAS Congress* (Lisbon, Portugal, June 2024).

2023

- F. Lo Iudice, E. Dudkina, M. Coraggio, M. di Bernardo, E. Crisostomi, "[A Distributed Strategy for Parallel Power System Restoration](#)", IEEE Powertech, Belgrade, Serbia, 2023
- F. De Lellis, M. Coraggio, G. Russo, M. Musolesi, M. di Bernardo, "[CT-DQN: Control-Tutored Deep Reinforcement Learning](#)", 5th Annual Learning for Dynamics and Control Conference, Philadelphia, PA, USA, 2023
- A. Della Pia, M. Chiatto and L. de Luca, "[Synchronized oscillations in spatially developing liquid jets](#)", Dynamics Days Europe 2023, Napoli (Italy), 3-8 September 2023.
- A. Della Pia, T. Michelis, M. Chiatto, M. Kotsonis and L. de Luca, "[Experimental characterization of the two-phase wake-mixing layer flow past a splitter plate](#)", AIAA Aviation Forum, San Diego, California (USA), 12-16 June 2023.
- M. R. Acquaviva, A. Della Pia, A. Colanera, M. Chiatto and L. de Luca, "[Numerical investigation of hole propagation in a three-dimensional liquid curtain](#)", AIAA Aviation Forum, San Diego, California (USA), 12-16 June 2023.
- A. Colanera, A. Della Pia, M. Chiatto and L. de Luca, "[Computation of liquid jets BiGlobal spectrum via randomly perturbed numerical data](#)", AIAA Aviation Forum, San Diego, California (USA), 12-16 June 2023.
- S.K. Joshi, "Synchronization of Coupled Neural Oscillators", Dynamics Days Europe 2023, Napoli (Italy), 3-8 September 2023.

- A. Piscopo, N. Esposito, B. Castanier, M. Giorgio, “Remaining useful life estimation of gamma degrading units characterized by a bathtub shaped degradation rate in the presence of random effect and measurement error”, Proceedings of the 33rd European Conference on Safety and Reliability (ESREL), Southampton, United Kingdom, 2023.
- W. Marzocchi and S. Mancini, “[SimpleTAS: a reference earthquake forecasting model](#)”, XXVIII General Assembly of the International Union of Geodesy and Geophysics (IUGG), Berlin, Germany, 2023.

2022

- F. De Lellis, M. Coraggio, G. Russo, M. Musolesi, M. di Bernardo, “[Control-Tutored Reinforcement Learning: Towards the Integration of Data-Driven and Model-Based Control](#)”, Proceedings of The 4th Annual Learning for Dynamics and Control Conference, PMLR, 168:1048–1059, Stanford, CA, USA, 2022
- J. A. Dueñas Santana, O. González Gómez, J. L. Orozco, “[Probabilistic Risk Assessment for domino effect due to Vapor Cloud Explosions using an integrated Petri-Bayesian network approach](#)”, Proceeding of the 14th International Symposium on Hazards, Prevention, and Mitigation of Industrial Explosions (ISHPMIE2022) Braunschweig, GERMANY – July 11-15, 2022.
- T. Ali, and O. Rami, “[Study on the seismic behaviour of shallow box tunnels in dry sandy soil](#)”, Proceedings of the 3rd EUROPEAN CONFERENCE ON EARTHQUAKE ENGINEERING & SEISMOLOGY, Bucharest, Romania 2022.
- V. Centorrino, F. Bullo, and G. Russo, “[Contraction Analysis of Hopfield Neural Networks with Hebbian Learning](#)”, IEEE 61st Conference on Decision and Control (CDC), Cancun, Mexico, December 2022.

2021

- M. Coraggio, S. Xie, F. De Lellis, G. Russo, M. di Bernardo, “[Intermittent non-pharmaceutical strategies to mitigate the COVID-19 epidemic in a network model of Italy via constrained optimization](#)”, 60th IEEE Conference on Decision and Control, 2021

Books, Chapters

- M. Coraggio, D. Salzano, M. di Bernardo, "[Controlling complex systems](#)", Encyclopedia chapter in Encyclopedia of Systems and Control Engineering, Elsevier, Volume 1, pp. 483–497, 2026