

Davide LA TORRE

Professeur

Académie : Digitalisation

Centre de recherche : SKEMA Centre for Analytics and Management Science

Campus : Sophia Antipolis

Email : davide.latorre@skema.edu

Intérêts de recherche

Applied Mathematics, Artificial Intelligence, Mathematical Modelling, Optimization and Control

Domaines d'enseignement

Applied Mathematics, Artificial Intelligence, Mathematical Modelling, Optimization and Control

Formation

2023	Qualification à un poste de Professeur des universités ((Professeur Ordinaire), Economie théorique (13 A1), Italie
2023	Qualification à un poste de Professeur des universités (Professeur Associé) , Recherche Opérationnelle (01 A6), Italie
2022	Qualification à un poste de Professeur des universités in Mathématiques appliquées (CNRS 26), France
2022	Qualification à un poste de Professeur des universités, Economie (CNRS 05), France
2022	Qualification à un poste de Professeur des universités, Informatique (CNRS 27), France
2021	HDR in Applied Mathematics, Université Côte d'Azur, France
2020	Qualification à un poste de Professeur des universités (Professeur Associé), Analyse Mathématique (01 A3), Italie
2018	Qualification à un poste de Professeur des universités (Professeur Ordinaire), Economie publique (13 A3), Italie
2018	Qualification à un poste de Professeur des université (Professeur Ordinaire), Économie politique (13 A2), Italie
2012	Qualification à un poste de Professeur des universités (Professeur Ordinaire), Méthodes Mathématiques pour l'économie et la finance (13 D4), Italie
2002	Ph.D. in Computational Mathematics and Operations Research, University of Milan, Italie
1997	Master in Applied and Industrial Mathematics, University of Milan, Italie
1993	Diploma (60/60) in Computer Science, ITIS Computer Science School, Italie

2022	Certificate in Artificial Intelligence in Health Care, Massachusetts Institute of Technology (MIT), Etats-Unis d'Amérique
2021	Certificate in Quantum Computing Fundamentals, Massachusetts Institute of Technology (MIT), Etats-Unis d'Amérique
2021	Certificate in Machine Learning, Modeling, and Simulation: Engineering Problem-Solving in the Age of AI, Massachusetts Institute of Technology (MIT), Etats-Unis d'Amérique
2021	Certificate in Machine Learning, Modeling, and Simulation Principles, Massachusetts Institute of Technology (MIT), Etats-Unis d'Amérique
2021	Certificate in Applying Machine Learning to Engineering and Science, Massachusetts Institute of Technology (MIT), Etats-Unis d'Amérique
2021	Certificate in Quantum Algorithms for Cybersecurity, Chemistry, and Optimization, Massachusetts Institute of Technology (MIT), Etats-Unis d'Amérique
2017	Certificate in Big Data and Social Analytics, Massachusetts Institute of Technology (MIT), Etats-Unis d'Amérique
2017	Certificate in Project Management, University of Adelaide, Australie
2017	Certificate in Supply Chain Analytics, Massachusetts Institute of Technology (MIT), Etats-Unis d'Amérique

Expérience Professionnelle

Positions académiques principales

Depuis 2019	Professeur des Universités (HDR avec qualification CNRS) de Mathématiques Appliquées et Intelligence Artificielle, SKEMA Business School, France
Depuis 2000	Professeure des Universités d'Intelligence Artificielle et de Sciences de la Décision en Santé et Médecine, Università degli Studi di Milano "La Statale", Italie
2018 - 2019	Full Professor, Dubai Business School, Emirats Arabes Unis
2017 - 2018	Full Professor and Department Chair, Nazarbayev University, Kazakhstan
2013 - 2016	Associate Professor and Associate Department Chair (cross-appointed), Department of Applied Mathematics and Sciences, and Department of Industrial and System Engineering, Khalifa University, Emirats Arabes Unis

Autres affiliations académiques

Depuis 2024	Member of the Doctoral School in Systems Medicine, Università degli Studi di Milano "La Statale", Italie
Depuis 2021	Radiomics Board Member, European Institute of Oncology, Italie
Depuis 2020	Visiting Professor and Member of the Scientific Committee of the Artificial Intelligence Institute, Abu Dhabi School of Management, Emirats Arabes Unis
Depuis 2019	Track Coordinator - Finance Specialization - Two Year MSc, SKEMA Business School, France
Depuis 2015	Adjunct Professor, University of Waterloo, Canada
Depuis 2015	Member of the Doctoral School in Decision Sciences, Insubria University, Italie
2022 - 2023	Doyen Associé, SKEMA Business School, France
2020 - 2023	Directeur de l'Institut d'Intelligence Artificielle, SKEMA Business School, France
2007 - 2023	Adjunct Professor, Department of Mathematics and Statistics, University of Guelph, Canada
2019 - 2022	Track Coordinator - L3/M1 PGE in Finance and Quants, SKEMA Business School, France
2020 - 2021	Track Coordinator - L3/M1 PGE in Artificial Intelligence for Managers, SKEMA Business School, France
2019	Visiting Professor, Universidad de Granada, Espagne
2017 - 2018	Department Chair, Nazarbayev University, Kazakhstan
2012	Visiting Professor, Australian National University, Australie

Autres affiliations académiques

2008	Visiting Professor, Laurentian University, Canada
2008	Visiting Professor, University of York, Royaume Uni
2007	Visiting Professor, University of York, Royaume Uni
2007	Visiting Professor, Australian National University, Australie
2003 - 2005	Program Head - Master in International Economics and Finance, University of Milan, Italie
2003 - 2005	Program Head - Master in Data Analysis and Marketing Intelligence, University of Milan, Italie
2001 - 2003	Program Head - Master in Business Intelligence and Data Analysis, University of Milan, Italie

Contrats de recherche, prix et distinctions

Prix et distinctions

2023	Meilleure contribution à l'hybridation dans l'IA, SKEMA Business School, France
2022	Prix de l'érudit le plus productif, SKEMA Business School, France
2021	Outstanding research award, SKEMA Business School, France
2015	Outstanding research award, Khalifa University, Emirats Arabes Unis
2015	Outstanding research award, University of Milan, Italie

Contrats de recherche

2013	Khalifa University KUIRF Level 2 (co-principal investigator), Khalifa University, Emirats Arabes Unis
------	---

Publications

Articles académiques revus

BRUSSET, X., JEBALI, A., LA TORRE, D. et LIUZZI, D. (2025). Production optimization in the time of pandemic: an SIS-based optimal control model with protection effort and cost minimization. *Annals of Operations Research*, 344, pp. 79-102.

BROEKAERT, J., HAFIZ, F., LA TORRE, D. et JAYARAMAN, R. (2025). Managing resilience and viability of supranational supply chains under epidemic control scenarios. *Omega*, 133, pp. 103234.

BROEKAERT, J., LA TORRE, D., HAFIZ, F. et BRUSSET, X. (2025). The diverging control policy's hand in supranational supply chain reconfiguration. *International Journal of Production Economics*, 284, pp. 109567.

LA TORRE, D., MENDIVIL, F. et ROCCA, M. (2024). Modeling portfolio efficiency using stochastic optimization with incomplete information and partial uncertainty. *Annals of Operations Research*, 334(1-3), pp. 241-263.

LA TORRE, D., LIUZZI, D., REPETTO, M. et ROCCA, M. (2024). Enhancing deep learning algorithm accuracy and stability using multicriteria optimization: an application to distributed learning with MNIST digits. *Annals of Operations Research*, 339, pp. 455-475.

BROEKAERT, J., LA TORRE, D. et HAFIZ, F. (2024). Competing control scenarios in probabilistic SIR epidemics on social-contact networks. *Annals of Operations Research*, 336, pp. 2037-2060.

LA TORRE, D., MARSIGLIO, S., MENDIVIL, F. et PRIVILEGGI, F. (2024). Stochastic disease spreading and containment policies under state-dependent probabilities. *Economic Theory*, 77, pp. 127-168.

LA TORRE, D., MARSIGLIO, S. et PRIVILEGGI, F. (2024). Infectious diseases and social distancing under state-dependent probabilities. *Annals of Operations Research*, 337(3), pp. 993-1008.

CAMACHO, C., DESBORDES, R. et LA TORRE, D. (2024). A time-space integro-differential economic model of epidemic control. *Economic Theory*, 77(1-2), pp. 307-348.

LA TORRE, D., LIUZZI, D. et MARSIGLIO, S. (2024). Epidemic outbreaks and the optimal lockdown area: a spatial normative approach. *Economic Theory*, 77, pp. 349-411.

- HAFIZ, F., BROEKAERT, J., LA TORRE, D. et SWAIN, A. (2024). A multi-criteria approach to evolve sparse neural architectures for stock market forecasting. *Annals of Operations Research*, 167(106680), pp. 1-45.
- BROEKAERT, J., LA TORRE, D. et HAFIZ, F. (2024). The impact of the psychological effect of infectivity on Nash-balanced control strategies for epidemic networks. *Annals of Operations Research*.
- FRASCA, M., LA TORRE, D., PRAVETTONI, G. et CUTICA, I. (2024). Explainable and interpretable artificial intelligence in medicine: a systematic bibliometric review. *Discover Artificial Intelligence*, 4(15), pp. 1-21.
- LA TORRE, D., ZUCCOTTO, M., CASTELLINI, A., MOLA, L. et FARINELLI, A. (2024). Reinforcement learning applications in environmental sustainability: a review. *Artificial Intelligence Review*, 57(88), pp. 1-68.
- MARVASO, G., ISAKSSON, L.J., ZAFFARONI, M., VINCINI, M.G., SUMMERS, P.E., PEPA, M. ... JERECZEK-FOSSA, B.A. (2024). Can we predict pathology without surgery? Weighing the added value of multiparametric MRI and whole prostate radiomics in integrative machine learning models. *European Radiology*.
- BROEKAERT, J., LA TORRE, D., HAFIZ, F. et REPETTO, M. (2024). A comparative cost assessment of coalescing epidemic control strategies in heterogeneous social-contact networks. *Computers & Operations Research*, 167, pp. 106680.
- BERENQUER, M.I., GAMEZ, D., KUNZE, H., LA TORRE, D. et RUIZ GALAN, M. (2024). Solving direct and inverse problems for Fredholm-type integro-differential equations with application to pollution diffusion modeling. *Mathematics and Computers in Simulation*, 223, pp. 394-404.
- FRASCA, M., LA TORRE, D., PRAVETTONI, G. et CUTICA, I. (2024). Combining convolution neural networks with long-short term memory layers to predict Parkinson's disease progression. *International Transactions in Operational Research*, pp. 1-30.
- FRASCA, M. et LA TORRE, D. (2024). An extended Daugman's algorithm for iris with eye pathology recognition. *Expert Systems with Applications*, 252, Part A(124160), pp. 1-12.
- DE FRUTOS, J., LA TORRE, D., LIUZZI, D., MARSIGLIO, S. et MARTÍN-HERRAN, G. (2024). Balancing mitigation policies during pandemics: economic, health, and environmental implications. *Annals of Operations Research*.
- LA TORRE, D., MAGGISTRO, R. et MARSIGLIO, S. (2024). Transboundary pollution control under evolving social norms: a mean-field approach. *Decisions in Economics and Finance*.
- FRASCA, M., LA TORRE, D., REPETTO, M., DE NICOLÒ, V., PRAVETTONI, G. et CUTICA, I. (2024). Artificial intelligence applications to genomic data in cancer research: a review of recent trends and emerging areas. *Discover Analytics*, 2(1), pp. 1-10.
- LA TORRE, D. et MAGGISTRO, R. (2024). Multi-agent dynamic financial portfolio management: a differential game approach. *Annals of Operations Research*, pp. 1-22.
- HAFIZ, F., NAIK, C., LA TORRE, D. et SWAIN, A. (2024). Quantification of Nonstationary Power Quality Events: A New Index Based on L_p Norm of Energy. *IEEE Transactions on Systems, Man and Cybernetics: Systems*, 54(12), pp. 7457 - 7471.
- LA TORRE, D. et ROCCA, M. (2024). Distributionally robust multiobjective optimization with application to risk measure theory. *Annals of Operations Research*, pp. 1-20.
- BRYSON, B., KUNZE, H., LA TORRE, D. et LIUZZI, D. (2023). A Generalized Multiple Criteria Data-Fitting Model With Sparsity and Entropy With Application to Growth Forecasting. *IEEE Transactions on Engineering Management*, 70(5), pp. 1900-1911.
- BEN ABDELAZIZ, F. et LA TORRE, D. (2023). Robust generalized Merton-type financial portfolio models with generalized utility. *Annals of Operations Research*, 330, pp. 55-72.
- LA TORRE, D., COLAPINTO, C., DUROSINI, I. et TRIBERTI, S. (2023). Team Formation for Human-Artificial Intelligence Collaboration in the Workplace: A Goal Programming Model to Foster Organizational Change. *IEEE Transactions on Engineering Management*, 70(5), pp. 1966-1976.
- BRUSSET, X., JEBALI, A. et LA TORRE, D. (2023). Production optimisation in a pandemic context. *International Journal of Production Research*, 61(5), pp. 1642-1663.

- BRUSSET, X., DAVARI, M., KINRA, A. et LA TORRE, D. (2023). Modelling ripple effect propagation and global supply chain workforce productivity impacts in pandemic disruptions. *International Journal of Production Research*, 61(8), pp. 2493-2512.
- TRIBERTI, S., LA TORRE, D. et RIVA, G. (2023). The Artificial Face (ART-F) Project: Addressing the Problem of Interpretability, Interface, and Trust in Artificial Intelligence. *Cyberpsychology, Behavior, and Social Networking*, 26(4), pp. 318-320.
- BUCCI, A., LA TORRE, D., LIUZZI, D. et MARSIGLIO, S. (2023). A network-based economic growth model with endogenous migration and poverty traps. *Metroeconomica*, 74(4), pp. 833-857.
- HAFIZ, F., BROEKAERT, J., LA TORRE, D. et SWAIN, A. (2023). Co-evolution of Neural Architectures and Features for Stock Market Forecasting: A Multi-objective Decision Perspective. *Decision Support Systems*, 174, pp. 114015.
- BRUSSET, X., IVANOV, D., JEBALI, A., LA TORRE, D. et REPETTO, M. (2023). A dynamic approach to supply chain reconfiguration and ripple effect analysis in an epidemic. *International Journal of Production Economics*, 263, pp. 108935.
- BERENQUER, M.I., GAMEZ, D., GARRALDA-GUILLEM, A.I., KUNZE, H., LA TORRE, D. et RUIZ GALAN, M. (2023). Solving inverse problems for mixed-variational equations on perforated domains. *Computational and Applied Mathematics*, 42(297).
- VINCINI, M.G., MARVASO, G., ISAKSSON, L.J., ZAFFARONI, M., PEPA, M., CORRAO, G. ... JERECZEK-FOSSA, B.A. (2023). PO-2101 Added Value Of MRI Radiomics To Predict Pathological Status Of Prostate Cancer Patients. *Radiotherapy and Oncology*, 182(1), pp. S1884-S1886.
- VOLPE, S., ZAFFARONI, M., PIPERNO, G., VINCINI, M.G., ZERELLA, M.A., MASTROLEO, F. ... JERECZEK-FOSSA, B.A. (2023). Multi-omics integrative modelling for stereotactic body radiotherapy in early-stage non-small cell lung cancer: clinical trial protocol of the MONDRIAN study. *BMC Cancer*, 23(1), pp. 1236.
- ISAKSSON, L.J., REPETTO, M., SUMMERS, P.E., PEPA, M., ZAFFARONI, M., VINCINI, M.G. ... JERECZEK-FOSSA, B.A. (2023). High-performance prediction models for prostate cancer radiomics. *Informatics in Medicine Unlocked*, 37, pp. 101161.
- VINCINI, M.G., MARVASO, G., ISAKSSON, L.J., ZAFFARONI, M., PEPA, M., CORRAO, G. ... JERECZEK-FOSSA, B.A. (2023). Added value of MRI radiomics to predict pathological status of prostate cancer patients. *European Urology*, 83, pp. S1799-S1800.
- KUNZE, H. et LA TORRE, D. (2022). Solving inverse problems for steady-state equations using a multiple criteria model with collage distance, entropy, and sparsity. *Annals of Operations Research*, 311, pp. 1051-1065.
- LA TORRE, D. et MENDIVIL, F. (2022). Stochastic efficiency and inefficiency in portfolio optimization with incomplete information: a set-valued probability approach. *Annals of Operations Research*, 311, pp. 1085-1098.
- KUNZE, H., LA TORRE, D. et MARSIGLIO, S. (2022). Sustainability and spatial spillovers in a multicriteria macroeconomics model. *Annals of Operations Research*, 311, pp. 1067-1084.
- LA TORRE, D., LIUZZI, D., MAGGISTRO, R. et MARSIGLIO, S. (2022). Mobility Choices and Strategic Interactions in a Two-Group Macroeconomic-Epidemiological Model. *Dynamic Games and Applications*, 12, pp. 110-132.
- LA TORRE, D., LIUZZI, D. et MARSIGLIO, S. (2022). Geographical heterogeneities and externalities in an epidemiological-macroeconomic framework. *Journal of Public Economic Theory*, 24(5), pp. 1154-1181.
- BRUSSET, X., JEBALI, A., LA TORRE, D. et MAZAHIR, S. (2022). Optimal Pollution Control in a Dynamic Multi-echelon Supply Chain. *Environmental Modeling and Assessment*, 27, pp. 585-598.
- LA TORRE, D., BEN ABDELAZIZ, F. et ALAYA, H. (2021). Dynamic Programming and Optimal Control for Vector-Valued Functions: A State-of-the-art Review. *RAIRO - Operations Research*, 55, pp. 351-364.
- LA TORRE, D., LIUZZI, D. et MARSIGLIO, S. (2021). Epidemics and macroeconomic outcomes: Social distancing intensity and duration. *Journal of Mathematical Economics*, 93, pp. 102473.
- OTERO, D., LA TORRE, D., MICHAILOVICH, O. et VRSCAY, E. (2021). Optimization of structural similarity in mathematical imaging. *Optimization and Engineering*, 22, pp. 2367-2401.

- LA TORRE, D., MARSIGLIO, S., MENDIVIL, F. et PRIVILEGGI, F. (2021). Public Debt Dynamics under Ambiguity by Means of Iterated Function Systems on Density Functions. *Discrete and Continuous Dynamical Systems Series B*, 26(11), pp. 5873-5903.
- LI, D., LA TORRE, D. et VRSCAY, E. (2021). The intensity-based measure approach to "Weberize" L2-based methods of signal and image approximation. *Optimization and Engineering*, 22, pp. 2321-2347.
- URBANIAK, I.A., KUNZE, A., LI, D., LA TORRE, D. et VRSCAY, E. (2021). The use of intensity-dependent weight functions to "Weberize" L2-based methods of signal and image approximation. *Optimization and Engineering*, 22, pp. 2349-2365.
- LA TORRE, D., LIUZZI, D. et MARSIGLIO, S. (2021). Transboundary pollution externalities: Think globally, act locally? *Journal of Mathematical Economics*, 96, pp. 102511.
- KHAN, F. et LA TORRE, D. (2021). Quantum information technology and innovation: a brief history; current state and future perspectives for business and management. *Technology Analysis and Strategic Management*, 33(11), pp. 1281-1289.
- KUNZE, H., LA TORRE, D. et GALÁN, M.R. (2021). Optimization methods in inverse problems and applications to science and engineering. *Optimization and Engineering*, 22(4), pp. 2151-2158.
- COLAPINTO, C., JAYARAMAN, R. et LA TORRE, D. (2020). A goal programming model to study the impact of R&D expenditures on sustainability-related criteria: the case of Kazakhstan. *Management Decision*, 58(11), pp. 2497-2512.
- LA TORRE, D. et MARSIGLIO, S. (2020). A note on optimal debt reduction policies. *Macroeconomic Dynamics*, 24(7), pp. 1850-1860.
- BEN ABDELAZIZ, F., COLAPINTO, C., LA TORRE, D. et LIUZZI, D. (2020). A Stochastic Dynamic Multiobjective Model for Sustainable Decision Making. *Annals of Operations Research*, 293, pp. 539-556.
- LA TORRE, D., MARCOUX, J., MENDIVIL, F. et VRSCAY, E. (2020). Denoising of diffusion magnetic resonance images using a modified and differentiable Monge-Kantorovich distance for measure-valued images. *Communications in Nonlinear Science and Numerical Simulation*, 91, pp. 105456.
- COLAPINTO, C., JAYARAMAN, R., BEN ABDELAZIZ, F. et LA TORRE, D. (2020). Environmental Sustainability and Multifaceted Development: Multi-Criteria Decision Models with Applications. *Annals of Operations Research*, 293, pp. 405-432.
- LA TORRE, D., BOUBAKER, S., PÉREZ GLADISH, B. et ZOPOUNIDIS, C. (2020). Multidimensional Finance, Insurance and Investment. *International Transactions in Operational Research*, 27(5), pp. 2689-2690.
- LA TORRE, D., MALIK, T. et MARSIGLIO, S. (2020). Optimal control of prevention and treatment in a basic macroeconomic-epidemiological model. *Mathematical Social Sciences*, 108, pp. 100-108.
- GARRALDA-GUILLEM, A.I., KUNZE, H., LA TORRE, D. et GALAN, M.R. (2020). Using the Generalized Collage Theorem for Estimating Unknown Parameters in Perturbed Mixed Variational Equations. *Communications in Nonlinear Science and Numerical Simulation*, 91, pp. 105433.
- SHAROMI, O., LA TORRE, D. et MALIK, T. (2019). A multiple criteria economic growth model with environmental quality and logistic population behaviour with variable carrying capacity. *INFOR*, 57(3), pp. 379-393.
- LA TORRE, D., MENDIVIL, F., MARSIGLIO, S. et PRIVILEGGI, F. (2019). A stochastic economic growth model with health capital and state-dependent probabilities. *Chaos, Solitons, and Fractals*, 129, pp. 81-93.
- BUCCI, A., LA TORRE, D., LIUZZI, D. et MARSIGLIO, S. (2019). Financial contagion and economic development: An epidemiological approach. *Journal of Economic Behavior and Organization*, 162, pp. 211-228.
- COLAPINTO, C., LA TORRE, D. et AOUNI, B. (2019). Goal programming for financial portfolio management: a state-of-the-art review. *Operational Research: An International Journal*, 19, pp. 717-736.
- LA TORRE, D., LIUZZI, D. et MARSIGLIO, S. (2019). Population and geography do matter for sustainable development. *Environment and Development Economics*, 24(2), pp. 201-223.
- VIE, A., COLAPINTO, C., LA TORRE, D. et LIUZZI, D. (2019). The long-run sustainability of the European Union countries: Assessing the Europe 2020 strategy through a fuzzy goal programming model. *Management Decision*, 57(2), pp. 523-542.

- LA TORRE, D., LIUZZI, D. et MARSIGLIO, S. (2019). The optimal population size under pollution and migration externalities: a spatial control approach. *Mathematical Modelling of Natural Phenomena*, 14(1), pp. 1-15.
- LA TORRE, D. et MARSIGLIO, S. (2018). Economic Growth and Abatement Activities in a Stochastic Environment: a Multi-Objective Approach. *Annals of Operations Research*, 267, pp. 321-334.
- LA TORRE, D., MARSIGLIO, S., MENDIVIL, F. et PRIVILEGGI, F. (2018). Fractal attractors and singular invariant measures in two-sector growth models with random factor shares. *Communications in Nonlinear Science and Numerical Simulation*, 58, pp. 185-201.
- LA TORRE, D., MARSIGLIO, S. et PRIVILEGGI, F. (2018). Fractal attractors in economic growth models with random pollution externalities. *Chaos: An Interdisciplinary Journal of Nonlinear Science*, 28(5).
- LA TORRE, D. et MENDIVIL, F. (2018). Portfolio optimization under partial uncertainty and incomplete information: a probability multimeasure-based approach. *Annals of Operations Research*, 267, pp. 267-279.
- LA TORRE, D. et MENDIVIL, F. (2018). Stochastic linear optimization under partial uncertainty and incomplete information using the notion of probability multimeasure. *Journal of the Operational Research Society*, 69(10), pp. 1549-1556.
- JAYARAMAN, R., COLAPINTO, C., LA TORRE, D. et MALIK, T. (2017). A Weighted Goal Programming model for planning sustainable development applied to Gulf Cooperation Council Countries. *Applied Energy*, 185(Part 2), pp. 1931-1939.
- LA TORRE, D. (2017). Preface: Multiple criteria optimization and goal programming in science, engineering, and social sciences. *Annals of Operations Research*, 251, pp. 1-5.
- OTERO, D., LA TORRE, D., MICHAILOVICH, O. et VRSCAY, E. (2017). On the theory of function-valued mappings and its application to the processing of hyperspectral images. *Signal Processing*, 134, pp. 185-196.
- ANITA, S., CAPASSO, V., KUNZE, H. et LA TORRE, D. (2017). Optimizing Environmental Taxation on Physical Capital for a Spatially Structured Economic Growth Model Including Pollution Diffusion. *Vietnam Journal of Mathematics*, 45, pp. 199-206.
- JAYARAMAN, R., COLAPINTO, C., LIUZZI, D. et LA TORRE, D. (2017). Planning sustainable development through a scenario-based stochastic goal programming model. *Operational Research: An International Journal*, 17, pp. 789-805.
- LA TORRE, D., LIUZZI, D. et MARSIGLIO, S. (2017). Pollution Control under Uncertainty and Sustainability Concern. *Environmental and Resource Economics*, 67, pp. 885-903.
- BERENQUER, M.I., KUNZE, H., LA TORRE, D. et RUIZ GALAN, M. (2016). Galerkin method for constrained variational equations and a collage-based approach to related inverse problems. *Journal of Computational and Applied Mathematics*, 292, pp. 67-75.
- LA TORRE, D., MENDIVIL, F. et VRSCAY, E. (2016). Iterated Function Systems On Functions Of Bounded Variation. *Fractals*, 24(2), pp. 1650019.
- LEVERE, K.M., KUNZE, H. et LA TORRE, D. (2015). A collage-based approach to solving inverse problems for second-order nonlinear hyperbolic PDEs. *Communications in Nonlinear Science and Numerical Simulation*, 29(1-3), pp. 283-299.
- ANITA, S., CAPASSO, V., KUNZE, H. et LA TORRE, D. (2015). Dynamics and control of an integro-differential system of geographical economics. *Annals of the Academy of Romanian Scientists: Series on Mathematics and its Applications*, 7(1), pp. 8-26.
- ANITA, S., CAPASSO, V., KUNZE, H. et LA TORRE, D. (2015). Dynamics and optimal control in a spatially structured economic growth model with pollution diffusion and environmental taxation. *Applied Mathematics Letters*, 42, pp. 36-40.
- JAYARAMAN, R., COLAPINTO, C., LA TORRE, D. et MALIK, T. (2015). Multi-criteria model for sustainable development using goal programming applied to the United Arab Emirates. *Energy Policy*, 87, pp. 447-454.
- JAYARAMAN, R., LA TORRE, D., MALIK, T. et PEARSON, Y. (2015). Optimal Work Force Allocation for Energy, Economic and Environmental Sustainability in the United Arab Emirates: A Goal Programming Approach. *Energy Procedia*, 75, pp. 2999-3006.

- LA TORRE, D., LIUZZI, D. et MARSIGLIO, S. (2015). Pollution Diffusion and Abatement Activities across Space and over Time. *Mathematical Social Sciences*, 78, pp. 48-63.
- LA TORRE, D., MENDIVIL, F., MARSIGLIO, S. et PRIVILEGGI, F. (2015). Self-similar measures in multi-sector endogenous growth models. *Chaos, Solitons, and Fractals*, 79, pp. 40-56.
- LA TORRE, D. et MENDIVIL, F. (2015). The Monge–Kantorovich Metric on Multimeasures and Self-Similar Multimeasures. *Set-Valued and Variational Analysis*, 23, pp. 319-331.
- AOUNI, B., COLAPINTO, C. et LA TORRE, D. (2014). Financial Portfolio Management through Goal Programming: State-of-the-art. *European Journal of Operational Research*, 234(2), pp. 536-545.
- PERTILE, P., FOSTER, M. et LA TORRE, D. (2014). Optimal bayesian sequential sampling rules for the economic evaluation of health technologies. *Journal of the Royal Statistical Society, Series A*, 177(2), pp. 419-438.
- FORSTER, M., LA TORRE, D. et LAMBERT, P. (2014). Optimal control of inequality under uncertainty. *Mathematical Social Sciences*, 68, pp. 53-59.
- AOUNI, B., COLAPINTO, C. et LA TORRE, D. (2013). A cardinality constrained goal programming model with satisfaction function for venture capital investment decision making. *Annals of Operations Research*, 205, pp. 77-88.
- LA TORRE, D. et MENDIVIL, F. (2013). A Chaos game algorithm for generalized iterated function systems. *Applied Mathematics & Computations*, 224, pp. 238-249.
- ANITA, S., CAPASSO, V., KUNZE, H. et LA TORRE, D. (2013). Optimal control and long-run dynamics for a spatial economic growth model with physical capital accumulation and pollution diffusion. *Applied Mathematics Letters*, 26(8), pp. 908-912.
- MARSIGLIO, S. et LA TORRE, D. (2012). A note on demographic shocks in a multi-sector growth model. *Economics Bulletin*, 32(2), pp. 2293-2299.
- BUCCI, A., FLORIO, M. et LA TORRE, D. (2012). Government spending and growth in second-best economies. *Economic Modelling*, 29(3), pp. 654-663.
- MARSIGLIO, S. et LA TORRE, D. (2012). Population growth and utilitarian criteria in the Lucas-Uzawa model. *Economic Modelling*, 29(4), pp. 1197-1204.
- AOUNI, B., BEN ABDELAZIZ, F. et LA TORRE, D. (2012). The Stochastic Goal Programming Model: Theory and Applications. *Journal of Multi-Criteria Decision Analysis*, 19(5-6), pp. 185-200.
- LA TORRE, D., POPOVICI, N. et ROCCA, M. (2011). A note on explicitly quasiconvex set-valued maps. *Journal of Nonlinear and Convex Analysis*, 12(1), pp. 113-118.
- BUCCI, A., COLAPINTO, C., FORSTER, M. et LA TORRE, D. (2011). Stochastic technology shocks in an extended Uzawa–Lucas model: closed-form solution and long-run dynamics. *Journal of Economics*, 103, pp. 83-99.
- LA TORRE, D. et POPOVICI, N. (2010). Arcwise cone-quasiconvex multicriteria optimization. *Operations Research Letters*, 38(2), pp. 143-146.
- LA TORRE, D. et MARSIGLIO, S. (2010). Endogenous technological progress in a multi-sector growth model. *Economic Modelling*, 27(5), pp. 1017-1028.
- CAPASSO, V., ENGBERS, R. et LA TORRE, D. (2010). On a spatial Solow model with technological diffusion and nonconcave production function. *Nonlinear Analysis: Real World Applications*, 11(5), pp. 3858-3876.
- LA TORRE, D., POPOVICI, N. et ROCCA, M. (2010). Scalar characterizations of weakly cone-convex and weakly cone-quasiconvex functions. *Nonlinear Analysis*, 72(3-4), pp. 1909-1915.
- LA TORRE, D., VRSCAY, E., IBRAHIMI, E. et BARNESLEY, M. (2009). Measure-Valued Images, Associated Fractal Transforms, and the Affine Self-Similarity of Images. *SIAM Journal on Imaging Science*, 2(2), pp. 470-507.
- LA TORRE, D. et MENDIVIL, F. (2008). Iterated function systems on multifunctions and inverse problems. *Journal of Mathematical Analysis and Applications*, 340(2), pp. 1469-1479.
- LA TORRE, D., KUNZE, H. et VRSCAY, E. (2007). Contractive multifunctions, fixed point inclusions and iterated multifunction systems. *Journal of Mathematical Analysis and Applications*, 330(1), pp. 159-173.

IACUS, S.M. et LA TORRE, D. (2005). A comparative simulation study on the IFS distribution function estimator. *Nonlinear Analysis: Real World Applications*, 6(5), pp. 858-873.

LA TORRE, D. et ROCCA, M. (2004). Mean value theorem for continuous vector functions by smooth approximations. *Applied Mathematics Letters*, 17(7), pp. 791-794.

CRESPI, G., LA TORRE, D. et ROCCA, M. (2003). Mollified derivatives and second-order optimality conditions. *Journal of Nonlinear and Convex Analysis*, (3), pp. 437-454.

LA TORRE, D. et ROCCA, M. (2001). A characterization of $C^{\{k;1\}}$ functions. *Real Analysis Exchange*, 27(2), pp. 515-534.

LA TORRE, D. et ROCCA, M. (2000). Higher Order Uniform Smoothness and Differentiability of Real Functions. *Real Analysis Exchange*, 26(2), pp. 657-667.

LA TORRE, D. et ROCCA, M. (1999). $C^{\{k,1\}}$ Functions and Riemann Derivatives. *Real Analysis Exchange*, 25(2), pp. 743-752.

Ouvrages et édition d'ouvrages

BEN-DAVID, S., CURIGLIANO, G., KOFF, D., JERECZEK-FOSSA, B.A., LA TORRE, D. et PRAVETTONI, G. [Eds] (2024). *Artificial Intelligence for Medicine: An Applied Reference for Methods and Applications*. Elsevier, 300 pages.

CORAZZA, M., GARCIA, R., SHAH KHAN, F., LA TORRE, D. et MASRI, H. [Eds] (2024). *Artificial Intelligence and Beyond for Finance*. World Scientific Publishing, 450 pages.

APPIO, F., LA TORRE, D., LAZZERI, F., MASRI, H. et SCHIAVONE, F. [Eds] (2023). *Impact of Artificial Intelligence in Business and Society: Opportunities and Challenges*. Routledge, 294 pages.

KUNZE, H., LA TORRE, D., RICCOBONI, A. et RUIZ GALAN, M. [Eds] (2023). *Engineering Mathematics and Artificial Intelligence Foundations, Methods, and Applications*. Taylor & Francis, 529 pages.

SYDSAETER, K., STROM, A., HAMMOND, P., LA TORRE, D. et CARVAJAL, A. (2021). *Metodi matematici per l'economia*. 5 ed. Pearson, 516 pages.

KUNZE, H., LA TORRE, D., MENDIVIL, F. et VRSCAY, E.R. (2011). *Fractal-Based Methods in Analysis*. New-York: Springer, 408 pages.

Chapitres d'ouvrage

DE NICOLÒ, V. et LA TORRE, D. (2024). Global Research Trends of Artificial Intelligence and Machine Learning Applied in Medicine: A Bibliometric Analysis (2012-2022). Dans: *Artificial Intelligence for Medicine*. 1 ed. Elsevier, pp. 151-177.

SALA, G., LA TORRE, D., REPETTO, M. et CURIGLIANO, G. (2024). AI/ML and drug repurposing in lung cancer: State of the art and potential roles for retinoids. Dans: *Artificial Intelligence for Medicine*. 1 ed. Elsevier, pp. 47-61.

GARRALDA-GUILLEM, A.I., KUNZE, H., LA TORRE, D. et RUIZ GALAN, M. (2022). A Computational Study for Solving Inverse Problems for Mixed Variational Equations on Perforated Domains. Dans: Kilgour, D.M., Kunze, H., Makarov, R., Melnik, R., Wang, X. eds. *Recent Developments in Mathematical, Statistical and Computational Sciences*. 1st ed. Cham: Springer, pp. 277-287.

KUNZE, H., LA TORRE, D. et MARSIGLIO, S. (2022). On a Generalized Integro-Differential Spatial Model of Economic Growth. Dans: Kilgour, D.M., Kunze, H., Makarov, R., Melnik, R., Wang, X. eds. *Recent Developments in Mathematical, Statistical and Computational Sciences*. 1st ed. Cham: Springer, pp. 681-692.

BRUSSET, X., LA TORRE, D. et BROEKAERT, J. (2022). Algorithms, Analytics and Artificial Intelligence - Harnessing Data to Make Supply Chain Decisions. Dans: Bart MacCarthy, Dmitry Ivanov eds. *The Digital Supply Chain*. 1st ed. Amsterdam: Elsevier, pp. 93-110.

TRIBERTI, S., DUROSINI, I., LA TORRE, D., SEBRI, V., SAVIONI, L. et PRAVETTONI, G. (2022). Artificial Intelligence in Healthcare Practice: How to Tackle the "Human" Challenge. Dans: Lim, CP., Chen, YW., Vaidya, A., Mahorkar, C., Jain, L.C. eds. *Handbook of Artificial Intelligence in Healthcare. Intelligent Systems Reference Library*. 1st ed. Cham: Springer.

BRUSSET, X., DAVARI, M., KINRA, A. et LA TORRE, D. (2021). Modelling COVID-19 Ripple Effect and Global Supply Chain Productivity Impacts Using a Reaction-Diffusion Time-Space SIS Model. Dans: Alexandre Dolgui, Alain Bernard, David Lemoine, Gregor von Cieminski, David Romero eds. *Advances in Production Management Systems. Artificial Intelligence for Sustainable and Resilient Production Systems*. 1st ed. Nantes: Springer, pp. 3-12.

KUNZE, H., LA TORRE, D., MENDIVIL, F. et VRSCAY, E. (2021). Differential Equations Using Generalized Derivatives on Fractals. Dans: *Recent Developments in Mathematical, Statistical and Computational Sciences*. 1st ed. Springer, pp. 81-91.

KUNZE, H. et LA TORRE, D. (2021). Solving Parameter Identification Problems using the Collage Distance and Entropy. Dans: *Recent Developments in Mathematical, Statistical and Computational Sciences*. 1st ed. Springer, pp. 167-175.

BHASKAR, H., LA TORRE, D. et AL-MUALLA, M. (2017). Exaggeration Quantified: An Intensity-Based Analysis of Posed Facial Expressions. Dans: Harish Bhaskar, Davide La Torre, Mohammed Al-Mualla eds. *Advances in Face Detection and Facial Image Analysis*. 1st ed. London: Springer, pp. 101-128.

KUNZE, H. et LA TORRE, D. (2017). Computational Aspects of Solving Inverse Problems for Elliptic PDEs on Perforated Domains Using the Collage Method. Dans: H. Kunze, D. La Torre eds. *Mathematical and Computational Approaches in Advancing Modern Science and Engineering*. 1st ed. London: Springer, pp. 113-120.

Editeur invité d'un numéro spécial

LA TORRE, D., BOUBAKER, S., PÉREZ GLADISH, B. et ZOPOUNIDIS, C. (2023). Preface to the Special Issue on Multidimensional Finance, Insurance, and Investment. *International Transactions in Operational Research*, 30(5), pp. 2137-2138.

BEN ABDELAZIZ, F., LA TORRE, D., KUNZE, H. et SINCLAIR-DESGAGNE, B. (2022). Guest editorial: Artificial intelligence and machine learning in business and management. *Journal of Modelling in Management*, 17(3), pp. 849-852.

Editoriaux d'une revue

LA TORRE, D. (2022). Multiple criteria decision making in health and medicine. *Journal of Multi-Criteria Decision Analysis*, 29(1-2), pp. 3-4.

KACEM, I., LA TORRE, D. et MASRI, H. (2021). Preface: Recent advances in multiple objective optimization and goal programming. *Annals of Operations Research*, 296, pp. 1-5.

TRIBERTI, S., DUROSINI, I., LIN, J., LA TORRE, D. et RUIZ GALÁN, M. (2021). Editorial: On the "Human" in Human-Artificial Intelligence Interaction. *Frontiers in Psychology*, 12, pp. 808995.

Actes d'une conférence

FRASCA, M., LA TORRE, D., PRAVETTONI, G. et CUTICA, I. (2024). Automatic Lymphocyte Detection on Breast Cancer Histological Images Using Deep Learning. *IEEEExplore*, 2024 ASU International Conference in Emerging Technologies for Sustainability and Intelligent Systems (ICETIS), pp. 644-648.

DE NICOLÒ, V. et LA TORRE, D. (2024). Italian Physicians' Trust Towards Artificial Intelligence: a Multicentric Cross-Sectional Study. *IEEEExplore*, 2024 ASU International Conference in Emerging Technologies for Sustainability and Intelligent Systems (ICETIS), pp. 1621-1625.

FRASCA, M. et LA TORRE, D. (2024). A Synthetic Dataset for Deep Learning Recognition of Pathological Iris Affected by Coloboma. *IEEEExplore*, 2024 ASU International Conference in Emerging Technologies for Sustainability and Intelligent Systems (ICETIS), pp. 639-643.

REPETTO, M. et LA TORRE, D. (2022). Federated Multicriteria Learning: A Goal Programming Perspective (DASA2022, IEEEExplore). pp. 790-794.

LA TORRE, D. et REPETTO, M. (2022). Making It Simple? Training Deep Learning Models Toward Simplicity (DASA2022, IEEEExplore). pp. 784-789.

REPETTO, M., LA TORRE, D. et TARIQ, M. (2022). Goal Programming in Federated Learning: an Application to Time Series Forecasting (DASA2022, IEEEExplore). pp. 1672-1677.

- REPETTO, M. et LA TORRE, D. (2022). Breast Cancer Detection and Prediction using Federated Multicriteria Machine Learning. *IEEEExplore*, pp. 1-4.
- REPETTO, M. et LA TORRE, D. (2022). Federated Learning through Goal Programming: a Computational Study in Cancer Detection. *IEEEExplore*, pp. 341-346.
- ABONAMAH, A., LA TORRE, D., POULIN, M. et REPETTO, M. (2022). Explainable Artificial Intelligence in Human Resources: a Computational Study. *IEEEExplore*, pp. 1-6.
- COLAPINTO, C., LA TORRE, D., LAGANA, I.R. et LIUZZI, D. (2021). Modeling Shock Propagation on Supply Chain Networks: A Stochastic Logistic-Type Approach. pp. 23-31.
- BROEKAERT, D. et LA TORRE, D. (2021). A vector logistic dynamical approach to epidemic evolution on interacting social-contact and production-capacity graphs. pp. 13-22.
- BRUSSET, X., DAVARI, M., KINRA, A. et LA TORRE, D. (2021). Modelling COVID-19 Ripple Effect and Global Supply Chain Productivity Impacts Using a Reaction-Diffusion Time-Space SIS Model. pp. 3-12.
- BROEKAERT, J. et LA TORRE, D. (2021). A Vector Logistic Dynamical Approach to Epidemic Evolution on Interacting Social-Contact and Production-Capacity Graphs. *Springer*, 633.
- REPETTO, M., LA TORRE, D. et LIUZZI, D. (2020). A Robust Goal Programming Model For Transfer Pricing Risk Hedging: Preliminary Results. pp. 19082326.
- LA TORRE, D., LI, D. et VRSCAY, E. (2019). Existence, Uniqueness and Asymptotic Behaviour of Intensity-Based Measures Which Conform to a Generalized Weber's Model of Perception., 11662, pp. 297-308.
- GHISLETTI, M., LA TORRE, D. et COLAPINTO, C. (2019). Measuring the Internationalization of Italian Universities using a Network Approach based on Co-Authorship: A Preliminary Analysis. pp. 19082322.
- LA TORRE, D., LIUZZI, D. et MARSIGLIO, S. (2019). A Note on Stochastic Logistic Shocks and Economic Growth. pp. 19082276.
- OTERO, D., LA TORRE, D., MICHAILOVICH, O. et VRSCAY, E. (2018). Alternate Direction Method of Multipliers for Unconstrained Structural Similarity-Based Optimization., 10882, pp. 20-29.
- LA TORRE, D., LI, D. et VRSCAY, E. (2018). The Use of Intensity-Based Measures to Produce Image Function Metrics Which Accommodate Weber's Models of Perception., 10882, pp. 326-335.
- LA TORRE, D., MAKI, E., MENDIVIL, F. et VRSCAY, E. (2018). Inverse Problems Using Iterated Function Systems with Place-Dependent Probabilities., 259, pp. 115-125.
- LA TORRE, D., LIUZZI, D. et MARSIGLIO, S. (2018). Population and Pollution Interactions in a Spatial Economic Model., 259, pp. 543-552.
- KUNZE, H. et LA TORRE, D. (2018). Inverse Problems and Total Variation Minimization for Iterated Function Systems on Maps., 259, pp. 93-103.
- KUNZE, H., LA TORRE, D. et RUIZ GALAN, M. (2018). Using the Collage Method to Solve Inverse Problems for Vector-Valued Variational Problems on a Perforated Domain in Reflexive Banach Spaces., 259, pp. 105-114.
- KUNZE, H., MENDIVIL, F., LA TORRE, D. et VRSCAY, E. (2018). Collage theorem-based approaches for solving inverse problems for differential equations: A review of recent developments., 1047, pp. 12004.
- KUNZE, H. et LA TORRE, D. (2018). An inverse problem for a system of steady-state reaction-diffusion equations on a porous domain using a collage-based approach.
- KUNZE, H. et LA TORRE, D. (2017). An inverse problem for a 2-D system of steady-state reaction-diffusion equations on a perforated domain., 1798, pp. 20089.
- ELSOKKARY, N., SHAH KHAN, F., LA TORRE, D., HUMBLE, T. et GOTTLIEB, J. (2017). Financial Portfolio Management using D-Wave Quantum Optimizer: The Case of Abu Dhabi Securities Exchange.
- LA TORRE, D., MENDIVIL, F. et VRSCAY, E. (2017). Total variation denoising of probability measures using iterated function systems with probabilities., 1798, pp. 20091.

KUNZE, H., LA TORRE, D. et LIN, J. (2017). IFSM fractal image compression with entropy and sparsity constraints: A sequential quadratic programming approach., 1798, pp. 20090.

LA TORRE, D., MENDIVIL, F., MICHAILOVICH, O. et VRSCAY, E. (2017). Total Variation Minimization for Measure-Valued Images with Diffusion Spectrum Imaging as Motivation., 9730, pp. 131-137.

OTERO, D., LA TORRE, D. et VRSCAY, E. (2016). Image Denoising Using Euler-Lagrange Equations for Function-Valued Mappings., 9730, pp. 110-119.

OTERO, D., LA TORRE, D. et VRSCAY, E. (2015). Structural Similarity-Based Optimization Problems with L1 - Regularization: Smoothing Using Mollifiers., 9164, pp. 33-42.

JARAYAMAN, R., LA TORRE, D., MALIK, T. et PEARSON, Y. (2015). A polynomial goal programming model with application to energy consumption and emissions in United Arab Emirates. pp. 15077528.

BHASKAR, H., LA TORRE, D. et AL-MUALLA, M. (2015). Posed Facial Expression Detection Using Reflection Symmetry and Structural Similarity., 9164, pp. 218-228.

Autres activités de recherche

Direction d'une revue

2012 - 2020 International Journal of Applied Nonlinear Science

Editeur associé d'une revue

Depuis 2024 Annals of Operations Research

Depuis 2022 Engineering Management Journal

Membre d'un comité éditorial

Depuis 2024 PLOS ONE

Depuis 2024 Scientific Reports

Depuis 2022 Discover Artificial Intelligence

Depuis 2022 Journal of Modelling in Management

Depuis 2022 Mathematics

Depuis 2022 International Transactions in Operational Research

Depuis 2021 Data Science in Finance and Economics

2013 - 2020 Mathematical Problems in Engineering

2012 - 2020 International Journal of Computing Science and Mathematics

2009 - 2019 International Journal of Mathematics and Statistics

2012 - 2018 Data Envelopment Analysis and Decision Science

2011 - 2014 International Journal of Portfolio Analysis and Management

Relecteur pour :

Annals of Operations Research, Chaos, Solitons, and Fractals, Computational Economics, Journal of the Operational Research Society

Supervision de thèses / HDR

2023 S. VOLPE, Università degli Studi di Milano "La Statale", Doctorat, Rapporteur

2023 M. FITZSIMMONS, University of Waterloo, Doctorat, Rapporteur

2023 Y. MAKHLOUF, Université de Lorraine, Doctorat, Rapporteur

2023 M. ABOU MJAHER, NEOMA Business School, Doctorat, Rapporteur

2022 I. R. LAGANA, Università degli Studi Mediterranea di Reggio Calabria, Doctorat, Co-directeur de thèse

2019 K. WANG, Dalhousie University , Doctorat, Rapporteur

2018 N. BAGHERI, The University of Dubai, Doctorat, Rapporteur

2015 D. LIUZZI, Università degli Studi di Milano "La Statale", Doctorat, Directeur de thèse

2012 K. LEVERE, University of Guelph, Doctorat, Co-directeur de thèse

2012 M. DEMERS, Doctorat, Co-directeur de thèse

2012 E. C. RICCI, Doctorat, Co-directeur de thèse

2011 S. MARSIGLIO, Università degli Studi di Milano "La Statale", Doctorat, Directeur de thèse

2008 L. ORSI, Università degli Studi di Milano "La Statale", Doctorat, Directeur de thèse