Bernardo PAGNONCELLI

Professeur

Académie : Digitalisation

Centre de recherche : SKEMA Centre for Analytics and Operations

Campus : Lille

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Intérêts de recherche

Recherche opérationnel, Optimisation, Mesures de risque, Programation dynamique, Optimisation stocastique, Simulation

Formation

2009	Ph.D. in Mathematics, Pontifical Catholic University of Rio de Janeiro, Brésil
2004	MSc in Applied Mathematics, Pontifical Catholic University of Rio de Janeiro, Brésil
2002	Bachelor of Science, Sciences, Mathématiques, Pontifical Catholic University of Rio de Janeiro, Brésil

Expérience Professionnelle

Positions académiques principales

Depuis 2024	Professeur, SKEMA Business School, France
2021 - 2023	Associate Professor, SKEMA Business School, France
2015 - 2020	Associate Professor, Universidad Adolfo Ibanez, Chili
2009 - 2014	Professeur assistant, Universidad Adolfo Ibanez, Chili

Contrats de recherche, prix et distinctions

Prix et distinctions

2022	Most Productive Scholar Award, SKEMA Business School, France
2021	Meilleur Professeur MBA International Program 2021, Universidad Adolfo Ibanez, Chili
2019	Best Researcher Award, Universidad Adolfo Ibanez
2018	Patrick and Amy McCarter Fellow in Residence at IEMS, Northwestern University, Northwestern University, Etats-Unis d'Amérique
2018	Best Professor Award in the MBA International Program, Universidad Adolfo Ibanez
2015	Meilleur Professeur - MBA International Program,, Universidad Adolfo Ibanez, Chili
2015	Reimagine Education Awards - category Presence Learning, GameLab, Chili
2015	Meilleur chercheur, Universidad Adolfo Ibanez, Chili
2007	Fellowship from a Brazilian Governmental Agency (CAPES) to spend 1 year as an exchange Ph.D. student at the ISYE Department at Georgia Tech,, CAPES - Brazilian Federal

Agency for Support and Evaluation of Graduate Education, Brésil

2005 Fellowship at the Ph.D. program at the Department of Mathematics of PUC-Rio provided by FUNENSEG (private actuarial institution)„ Pontifical Catholic University of Rio de Janeiro, Brésil

Contrats de recherche

2025 Models and Methods for Stochastic Revelation in Sequential Decision-Making, PGMO, France

2025 Probing-enhanced stochastic programming approaches for industrial production planning under uncertain demand, PGMO, France

2023 PGMO: Strategic Bidding in Price Coupling Regions: risk and uncertainty, France

2023 PGMO: Modeling risk aversion in multi-stage stochastic lot-sizing problems, France

2021 Combining Prediction And Stochastic Optimization: New Methods In Prescriptive Analytics, ANID, Chili

2018 Production maximization of oil in off-shore platforms that use gas-lift, Petrobras, Brésil

2017 Optimization, Games and Renewable Energy, EDF, France

2017 Large scale optimization and uncertainty: Challenges in Strategic Mine Planning. An interdisciplinary approach (, ANID, France

2014 Centralized versus Decentralized Energy Management in a Stochastic Setting, EDF, France

2013 Multistage stochastic optimization applied to finance and mining, ANID, Chili

2013 PGMO - Latin America Stochastic Optimization Network, EDF, France

2012 PGMO - Latin America Stochastic Optimization Network, EDF, France

2012 Models and Strategies for Multi-Stage Stochastic Programs with Risk Control, ANID, Chili

2011 Mathematical Modeling for Industrial and Management Sci- ence Applications: An Interdisciplinary Approach., ANID, Chili

Publications

Articles académiques revus

PAGNONCELLI, B., MORTON, D. et DOWSON, O. (2026). MDP modeling for multi-stage stochastic programs. *Mathematical Programming*, 217, pp. 43–78.

DOWSON, O., MORTON, D. et PAGNONCELLI, B. (2025). Incorporating convex risk measures into multistage stochastic programming algorithms. *Annals of Operations Research*, 348, pp. 807–831.

PARAB, P., NTAIMO, L. et PAGNONCELLI, B. (2025). Stochastic Decomposition for Risk-Averse Two-Stage Stochastic Linear Programs. *Journal of Global Optimization*, 91, pp. 59-93.

KESLIN, G., NELSON, B., PAGNONCELLI, B., PLUMLEE, M. et RAHIMIAN, H. (2025). Ranking and Contextual Selection. *Operations Research*, 73(5), pp. 2695-2707.

LAMAS, P., GOYCOOLEA, M., PAGNONCELLI, B. et NEWMAN, A. (2024). A target-time-windows technique for project scheduling under uncertainty. *European Journal of Operational Research*, 314(2), pp. 792-806.

PAGNONCELLI, B., HOMEM-DE-MELLO, T., CASTAÑEDA, P., LAGOS, G. et GARCÍA, J. (2024). Solving constrained consumption-investment problems by decomposition algorithms. *European Journal of Operational Research*, 319(1), pp. 292-302.

KHATAMI, M., SILVA, T., PAGNONCELLI, B. et NTAIMO, L. (2024). Risk-Averse Multistage Stochastic Programs with Expected Conditional Risk Measures. *Computers & Operations Research*, 172(106802).

PAGNONCELLI, B., RAMÍREZ, D., RAHIMIAN, H. et CIFUENTES, A. (2023). A Synthetic Data-Plus-Features Driven Approach for Portfolio Optimization. *Computational Economics*, 62, pp. 187-204.

RAHIMIAN, H. et PAGNONCELLI, B. (2023). Data-Driven Approximation of Contextual Chance-Constrained Stochastic Programs. *SIAM Journal on Optimization*, 33(3), pp. 2248 - 2274.

PAGNONCELLI, B., REDROBAN, S. et CIFUENTES, A. (2023). A Useful (But Painful) Risk-Management Lesson from the Chilean Pension System. *The Journal of Retirement*, 11(1), pp. 74 - 83.

PIAZZA, A., PAGNONCELLI, B. et NTAIMO, L. (2022). What is the optimal cutoff surface for ore bodies with more than one mineral? *Operations Research Letters*, 50(2), pp. 137-144.

PAGNONCELLI, B., PATRICIO, L., MARCOS, A. et PIAZZA, A. (2021). Lane's Algorithm Revisited. *Management Science*, 67(5), pp. 2657-3320.

ANDRÉ, R., GAMBOA, C., VALLADAO, D. et PAGNONCELLI, B. (2021). A Robust Short-Term Oil Production under a Bow-Tie Uncertainty Set for the Gas Lift Performance Curve. *SPE Journal*, pp. 1-13.

PAGNONCELLI, B., DEL CANTO, F. et CIFUENTES, A. (2021). The effect of regularization in portfolio selection problems. *TOP-An Official Journal of the Spanish Society of Statistics and Operations Research*, 29, pp. 156-176.

PAGNONCELLI, B., CANESSA, G. et MORENO, E. (2021). The risk-averse ultimate pit problem. *Optimization and Engineering*, 22, pp. 2655-2678.

PAGNONCELLI, B., DUQUE, D. et MORTON, D. (2021). How good are default investment policies in defined contribution pension plans? *Journal of Pension Economics and Finance*, 20(2), pp. 252-272.

NESBITT, P., BLAKE, L.R., LAMAS, P., GOYCOOLEA, M., PAGNONCELLI, B., NEWMAN, A. et BRICKEY, A. (2021). Underground mine scheduling under uncertainty. *European Journal of Operational Research*, 294(1), pp. 340-352.

ARPON, S., HOMEM-DE-MELLO, T. et PAGNONCELLI, B. (2020). An ADMM algorithm for two-stage stochastic programming problems. *Annals of Operations Research*, 286, pp. 559-582.

DOWSON, O., MORTON, D. et PAGNONCELLI, B. (2020). Partially observable multistage stochastic optimization. *Operations Research Letters*, 48(4), pp. 505-512.

PAGNONCELLI, B., GAMBOA, C., SILVA, T. et VALLADAO, D. (2020). A stochastic optimization model for short-term production of offshore oil platforms with satellite wells using gas lift. *TOP- An Official Journal of the Spanish Society of Statistics and Operations Research*, 28, pp. 549-574.

PAGNONCELLI, B. et CIFUENTES, A. (2020). Molecular biology and economics: a few funerals are needed. *Journal of Portfolio Management*, 46(7), pp. 5-7.

DELGADO, F., TRINCADO, R. et PAGNONCELLI, B. (2019). A multistage stochastic programming model for the network air cargo allocation under capacity uncertainty. *Transportation Research - Part E: Logistics and Transportation Review*, 131, pp. 292-307.

CANESSA, G., GALLEGO, J., NTAIMO, L. et PAGNONCELLI, B. (2019). An algorithm for binary linear chance-constrained problems using IIS. *Computational Optimization and Applications*, 72(3), pp. 589-608.

REUS, L., PAGNONCELLI, B. et ARMSTRONG, M. (2019). Better management of production incidents in mining using multistage stochastic optimization. *Resources Policy*, 63, pp. 101404.

GUTIERREZ, T., PAGNONCELLI, B., VALLADAO, D. et CIFUENTES, A. (2019). Can asset allocation limits determine portfolio risk–return profiles in DC pension schemes? *Insurance: Mathematics and Economics*, 86, pp. 134-144.

LE CADRE, H., PAGNONCELLI, B., HOMEM-DE-MELLO, T. et BEAUDE, O. (2019). Designing coalition-based fair and stable pricing mechanisms under private information on consumers' reservation prices. *European Journal of Operational Research*, 272(1), pp. 270-291.

PAGNONCELLI, B., ARPON, S. et HOMEM-DE-MELLO, T. (2018). Scenario reduction for stochastic programs with Conditional Value-at-Risk. *Mathematical Programming*, 170, pp. 327-356.

WADA, M., DELGADO, F. et PAGNONCELLI, B. (2017). A risk averse approach to the capacity allocation problem in the airline cargo industry. *Journal of the Operational Research Society*, 68(6), pp. 643-651.

PAGNONCELLI, B., CIFUENTES, A. et DENIS, G. (2017). A two-step hybrid investment strategy for pension funds. *North American Journal of Economics and Finance*, 42, pp. 574-583.

PAGNONCELLI, B. et PIAZZA, A. (2017). The optimal harvesting problem under price uncertainty: the risk averse case. *Annals of Operations Research*, 258, pp. 479-502.

PAGNONCELLI, B., HAWAS, F. et CIFUENTES, A. (2016). Credit-Risk behavior of homogeneous portfolios: A Theoretical Result with Surprising Practical Implications. *Journal of Structured Finance*, 22(2), pp. 7-15.

HOMEM-DE-MELLO, T. et PAGNONCELLI, B. (2016). Risk aversion in multistage stochastic programming: a modeling and algorithmic perspective. *European Journal of Operational Research*, 249(1), pp. 188-199.

BARRERA, J., HOMEM-DE-MELLO, T., MORENO, E., PAGNONCELLI, B. et CANESSA, G. (2016). Chance-constrained problems and rare events: an importance sampling approach. *Mathematical Programming*, 157(1), pp. 153-189.

PIAZZA, A. et PAGNONCELLI, B. (2015). The stochastic Mitra–Wan forestry model: risk neutral and risk averse cases. *Journal of Economics*, 115(2), pp. 175-194.

PIAZZA, A. et PAGNONCELLI, B. (2014). The optimal harvesting problem under price uncertainty. *Annals of Operations Research*, 217(1), pp. 425-445.

PAGNONCELLI, B. et CIFUENTES, A. (2014). Credit risk assessment of fixed income portfolios using explicit expressions. *Finance Research Letters*, 11(3), pp. 224-230.

CIFUENTES, A. et PAGNONCELLI, B. (2014). Demystifying Credit Risk Derivatives and Securitization: *Journal of Derivatives*, 22(2), pp. 110-118.

PAGNONCELLI, B. (2012). A provisioning problem with stochastic payments. *European Journal of Operational Research*, 221(2), pp. 445-453.

PAGNONCELLI, B. (2012). Risk-Return Trade-off with the Scenario Approach in Practice: A Case Study in Portfolio Selection. *Journal of Optimization Theory and Applications*, 155(2), pp. 707-722.

PAGNONCELLI, B. (2009). Sample Average Approximation Method for Chance Constrained Programming: Theory and Applications. *Journal of Optimization Theory and Applications*, 142(2), pp. 399-416.

PAGNONCELLI, B., SCHNOOR, M.A.K., PALMEIRA, C.F.B. et CAYRES, R. (2008). Cournot equilibrium: modern techniques applied to an old problem. *Journal of Interdisciplinary Mathematics*, 11(5), pp. 601-616.

PAGNONCELLI, B., TOMEI, C. et DE AZEVEDO, A. (2008). Custos de transação em investimentos coletivos. *Revista Brasileira de Economia*, 63(4).

PAGNONCELLI, B., PALMEIRA, C.F.B. et LOPES, H. (2008). Coeficientes aleatórios de equações diferenciais ordinárias lineares. *Revista Matemática Universitária*, (45).

Articles professionnels

PAGNONCELLI, B., GUTIÉRREZ, T. et VALLADAO, D. (2024). PolieDRO: a novel classification and regression framework with non-parametric data-driven regularization. *Machine Learning*, pp. 5807–5846.

Autres activités de recherche

Editeur associé d'une revue

Depuis 2023	INFOR

Supervision de thèses / HDR

Depuis 2022	M. WAGA, Pontifical Catholic University of Rio de Janeiro, Doctorat, Co-directeur de thèse
Depuis 2022	D. JIMENEZ, SKEMA Business School, Doctorat, Directeur de thèse
2024	T. GUTIÉRREZ, Pontifical Catholic University of Rio de Janeiro, Doctorat, Co-directeur de thèse
2022	C. VESSAIRE, Doctorat, Rapporteur
2021	P. LAMAS, Universidad Adolfo Ibanez, Doctorat, Directeur de thèse
2019	G. CANESSA, Universidad Adolfo Ibanez, Doctorat, Directeur de thèse
2018	S. ARPON, Universidad Adolfo Ibanez, Doctorat, Directeur de thèse