Victor Planas-Bielsa
CV

Nationality: Spanish
Gender: Male
Date of birth: 12th March 1974
Nice, France

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Data Scientist, Researcher and Educator.
Graduate in Physics and Ph.D. in Mathematics with extensive experience in modeling, statistical analysis, and fundamental research across Finance, Business, and Biology.
Currently serving as the Academic Director for Master Programs. Previously, I worked as a Senior Research Data Scientist, where I extensively utilized Python, R, and SQL to develop and code Machine Learning algorithms and deep neural networks, focusing on complex data.
I have 18+ years of experience teaching quantitative subjects such Machine Learning, Statistics, Programming in Python, or Quantitative Finance at master's levels.

Current Position

2024 - Present
Academic Director
EDHEC Business School

- Programme Director for the Master in Management, (Programme Grande Ecole), Data Science and Artificial Intelligene for Business Track

- Academic Director for all MSc's at EDHEC Online.

- Professor of the course Introduction to Machine Learning.

2022 - present
USIAS Research Fellow
Institute of Advanced Studies, University of Strasbourg

- Fellowship grant to investigate use of Deep Neural Network for Individual recognition of endangered Humboldt Penguins as a lean for long term monitoring with minimal disturbance

2020 - present
Data Science Consultant

- Design, development, and implementation of a custom automatic ETL for a Family office, with ~30 different daily data sources.

Previous Professional Experience

2016 - 2024
Researcher (Chargé de recherche)
Scientifique Center of Monaco, Polar Biology Department -AI Axis)

- Research on applications of Deep Learning to Ecology, animal individual recognition, and non-perturbative data collection methods.
- Data Analysis of a big repository of data (~ 100Tb). Design and implementation of proprietary analytic software in Python3.
- Application of Machine Learning Algorithms and Selection Model Procedures to analyze high dimensional datasets.
- Database design and Implementation (MySQL).
- Field experience in Antarctica, supervising the data acquisition process from field to lab, and co-supervision of PhD and Master students,

2018 - 2023
Professor 'Data Science' and 'Python for Finance'
Edhec Business School (Nice, France)
- Teaching in english applied Pyhton courses in Data science Master level (~100 students/year)

2011 - 2015
Professor Statistics, Data Analysis & Finance
International University in Geneva, Switzerland.
- Teaching Statistics, Data Analysis, Quantitative Decision Methods, and Introduction to Finance at undergraduate and master level.
- Coordination of content and curriculum for finance and quantitative methods courses.
- Definition of teaching and learning outcomes.
- Processes and quality controls for academic standards and hiring of new professors.

2009 - 2014
Producer and Account director
ANV Production (Geneva)
- Founder partner of a visual communication company based in Geneva.
- Responsible for the strategy of the group.
- Account director for institutional and B2B client and large accounts (project manager)

2007 - 2008
Quantitative Analyst
Alpstar Management-Geneva, Switzerland
- Assisting with data analysis to the head economist in preparing global macro scenarios
- Development of risk models for the Equity desk (VBA, Matlab, and R)
- Research of quantitative models for commodity investments.

2005 - 2008
Research Director
Hedge Funds Research Institute, Monaco

The HFRI was a research center associated with the International University of Monaco and sponsored by the Hedge Fund Alpstar Management. I was the director of an interdisciplinary group with expertise in macroeconomics, econometrics, IT, Mathematics, and Finance doing exclusive applied research for our sponsors.

- Improve the back-testing procedure of the quantitative desk,
- Validate the models of the derivatives desk,

- Identify the global trends in hedge fund investing and monitor global capital flows.
- Communicate results to the board (in non-technical terms) and make investment recommendations.

2004 - 2007
Professor of Mathematics and Finance
International University of Monaco (IUM), Monaco.
From 2004 to 2008 I taught in the Master of Financial Engineering. Some relevant topics that I delivered in English were:
- Asset Pricing, and Advanced derivatives,
- Advanced VBA for Finance,
- Probability and Stochastic processes,
- Quantitative Strategies and Modeling,

Published Papers

- N. Durr, [...], Yvon Le Maho & **V. Planas-Bielsa** [2025] A convolutional deep learning approach to the individual photo-identification of animal species. *Sumbitted*

- C. Cornec, N. Mathevon, [...] **V. Planas-Bielsa**, D. Reby, F. Levréro [2024] Human infant cries communicate distress and elicit sex stereotypes: Cross cultural evidence. Evolution and Human Behavior 45 (1), 48-57

- Pagnuzzi-Boncompagni, M., Picco, V., Vial, V., **Planas-Bielsa, V**., Vandenberghe, A., Daubon, T., Derieppe, M.-A., Montemagno, C., Durivault, J., Grépin, R. [2022] Antiangiogenic Compound Axitinib Demonstrates Low Toxicity and Antitumoral Effects against Medulloblastoma. *Cancers,14,1,70,2022*

- Houstin, A., Zitterbart, D. Heerah, K.,; Eisen, O. **Planas-Bielsa, V**, Fabry, B.,Le Bohec, C. [2022] Juvenile emperor penguin range calls for extended conservation measures in the Southern Ocean. *Royal Society Open Science,9,8,211708,2022*

- Patras, F., and **Planas-Bielsa, V**. [2022] Complex systems: from the presocratics to pension funds. *(To appear as Book Chapter)*

- C Cornec, Y Hingrat, **V Planas-Bielsa**, H Abi Gussein, F Rybak. [2022] Individuality in houbara chick calls and its dynamics throughout ontogeny. *Endangered Species Research 47, 61-73*

- L Capasso, P Ganot, **V Planas-Bielsa**, S Tambutté, D Zoccola [2021] Intracellular pH regulation: characterization and functional investigation of H+ transporters in Stylophora pistillata. *BMC molecular and cell biology* 22 (1), 1-19

- Kriessel, H. Aubin, T. **Planas-Bielsa, V.** et al. [2021] How king penguins communicate their sexual maturity. *Animal Ecology.*

- Gémard, C, **Planas-Bielsa,. V**. , Bonadonna, F. , Aubin T. [2021] Males' vocal reaction to conspecifics' calls in non-oscine seabirds: context-dependant changes indicate motivational state. *Behavioral Ecology.*

- Houstin, Zitterbat, Richter, Winterl, **Planas-Bielsa**, Chevalier, Ancel, Fournier, Fabry et Le Bohec [2020] Biologging of emperor penguins - attachment techniques and associated deployment performance. Animal Biotelemetry (Submitted April 2020)

- L. Jeantet, **V. Planas-Bielsa**, ..., Yvon Le Maho & Damien Chevalier [2020] Behavioural inference from signal processing using on-board multi-sensor loggers: a novel solution to improve the knowledge on the ecology of sea turtle. *Proc. R. Soc. B.*

- N Eckbo, C Le Bohec, **V Planas-Bielsa**, NA Warner, Q Schull, D Herzke et al. [2019] Individual variability in contaminants and physiological status in a resident Arctic seabird species. Environmental Pollution 249, 191-199
- DS Sevilgen, AA Venn, MY Hu, E Tambutté, D de Beer, **V Planas-Bielsa** [2019] Full in vivo characterization of carbonate chemistry at the site of calcification in corals. Science advances, 5 (1)
- L Courtial, **V Planas-Bielsa**, F Houlbrèque, C Ferrier-Pagès [2018]. Effects of ultraviolet radiation and nutrient level on the physiological response and organic matter release of the scleractinian coral Pocillopora damicornis following thermal stress. PLOS one 13(10)
- Kriesell H. , **Planas-Bielsa V.** et al. [2018] Sex identification in King Penguins *Aptenodytes patagonicus* through morphological and acoustic cues. IBIS. doi: 10.1111/ibi.12577
- Hilmi N.,Safa A., **Planas-Bielsa, V**. and Cinar, M. [2017] Look at the phenomenon of ocean acidification and what it could mean for MENA: is the environment of the MENA region already ruined?, The Middle East in London, February – March 2017, Volume 13 - Number 2.
- Le Bohec, C. and **Planas-Bielsa, V.** [2017] Objets connectés et embarqués sur les animaux sauvages. Book Chapter in "Le Big Data à Decouvert" sous la direction de Mokrane Bouzeghoub et de Rémy Mosseri, CNRS Editions.
- Ortega, J.-P., **Planas-Bielsa, V.,** and Ratiu, T. S. [2005] Asymptotic and Lyapunov stability of Poisson equilibria. Journal of Differential Equations, 214, pp. 92-127.
- **Planas-Bielsa, V.** [2004] Point reduction in almost symplectic manifolds. *Reports on Mathematical Physics*. Issue 3, pp. 295-308.
- Ortega, J.-P. And **Planas-Bielsa, V.** [2004] Dynamics in Leibniz manifolds. *Journal of Geometry and Physics*. Vol. 52 pp.1-27.

Conference Papers/presentations

- «Individual Identification of Humboldt Penguins using Neural Networks» Presentation at the XI International Penguin Congress. September 2023. V. Planas-Bielsa, M. Rodriguez Olmo, Ni. Durr, Y LeMaho.
- « Optimal Response Indices : discovering complex relationship in ecology beyond the GLM. » Presentation at the National French Committee for Arctic and Antarctic Research. April 2018. Victor Planas-Bielsa, Norith Eckbo,Celine Le Bohec
- « Evaluating the socioeconomic impacts of climate change and ocean acidification related disasters in the MENA region », Conférence internationale MEEA à Doha (Mars 2016). Nathalie Hilmi, Victor Planas-Bielsa, Alain Safa, Mine Cinar.
- « l'évaluation des impacts socio-économiques des catastrophes liées au changement climatique et à l'acidification des océans dans la région MENA » Conférence ATM (Lille, juin 2016) Nathalie Hilmi, Victor Planas-Bielsa, Alain Safa, Mine Cinar.
- « Is the Environment of the MENA Region already ruined? » Conférence SOAS (London, octobre 2016, Nathalie Hilmi, Alain Safa, Victor Planas-Bielsa, Mine Cinar.
- "Ruin Probability Models and the Environment of the MENA and MED Region", ASSA-MEEA Ankara (mai 2017) Nathalie Hilmi, Alain Safa, Victor Planas-Bielsa, Mine Cinar.

Editorial and Audit activity

- Reviews for multidisciplinary papers (animal behavior, mathematics) in Nature. Reviews for dynamical systems papers in Journal Geometric Mechanics,
- External expert reviewer for IPCC Special Report on Climate Change, Oceans, and Cryosphere.
- External reviewer for The Netherlands e-Science Center (NLeSC) and The Dutch Research Council (NWO for research proposals

Working Papers and Research Reports

- Planas-Bielsa, V. Patras, F. . [2007] The impact of DB Pension schemes management on corporate financing costs. *HFRI Working papers*.
- Planas-Bielsa, V. [2007] Dynamics of High Yield Bonds. A model for yield curve arbitrage *HFRI Working paper/*
- Planas-Bielsa, V. [2005] A new family of numerical schemes for stochastic differential equations. . *HFRI Working papers*.
- Planas-Bielsa, V. [2005] The relationship between stochastic differential equations and noncommutative geometry. . *HFRI Working papers*.
- Planas-Bielsa, V. [2004] The term structure of hazard rates. *HFRI Working papers*.

Conferenced Organized

- Bridging Mathematics, Natural Sciences, Social Sciences, and Finance. Monaco 9-11 April 2008.
- Bridging Physics, Finance, and Sociology, Monaco 5-7 April 2007.
- Young European Researchers in Mechanics meeting. Lisbon, 13-17 January 2004.

Education

2001 - 2004
PhD Mathematics
Institut Non Linéaire de Nice, France
Title. *Leibniz manifolds and Lyapunov stability of Poisson equilibria*.
Mention *Trés Honorable*

1996 - 2000
B. Sc. + M. Sc. Physics
(5 honors and 7 excellent)
2000-2001 Universita degli studi Federico II. Naples, Italy. (Erasmus Grant)
1996-2000. Universidad de Zaragoza. Spain.

Visiting Positions

Dept of Mathematics & Statistics. University of Surrey. (UK)
Marie Curie training Fellowship - 6 months - 2002

Technical Skills

- Very strong mathematical background. Specialized in statistics and data analysis.
- Deep knowledge of Machine Learning (Keras, pytorch) and several scientific programming languages (Python, R, Matlab)
- Good understanding of B2B communication processes.

Soft Skills

- Very fast learner, like to explore lateral fields to improve my understanding of the main task.
- Very good communication skills. Able to quickly identify the audience and adapt the message to it.
- 15+ years experience in directing interdisciplinary groups and reporting results to non technical stakeholders.
- Creative and problem solving skills.

Language skills

Spanish:	Native
English:	Fluent
French:	Fluent
Italian:	Advanced
Catalan:	Basic notions