Pedro Gonçalves Lind

BIRTH: Lisbon, Portugal, March 23rd 1976
CITIZENSHIP: German and Portuguese
MARITAL STATUS: Married, two sons (2001, 2015)
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FUNCTIONS	
	Director of *NordSTAR* – Center of Research Excellence of OsloMet, Norway.
	Advisory board member of the AI Lab, OsloMet, Norway.
	Committee member of the Nordic Quantum Life Sciences Round Table.
	Editorial board member for *Energies* and *Computation*, Associate Editor for *Intelligent Data Analysis* and guest editor for *Frontiers*.
	Member of *IEEE Computational Intelligence Society* (USA), *Deutsche Physikalische Gesellschaft* (Germany) and Society of Portuguese Authors (Portugal)
	Collaborator of the *Centre for Philosophical and Humanistic Studies*, Portugal.

RESEARCHER ID	**G-5124-2010**	ORCID ID	**0000-0002-8176-666X**

Professional Experience

2024-2025	Adjunct Chief Research Scientist, Simula Research Laboratory, Norway.
2022-2024	Invited teacher, Kristiania University of Applied Sciences, Norway.
2021-2024	Director of *NordSTAR* – Center of Research Excellence of OsloMet, Norway.
SINCE 2019	Professor (*Full Professor*), Oslo Metropolitan University, Norway.
2018-2019	Docent (*Privatdozent*), University of Osnabrück, Germany.
2016-2018	Researcher (*Wissenschaftlicher Mitarbeiter*), University of Osnabrück, Germany.
2013-2016	Researcher (*Wissenschaftlicher Mitarbeiter*), University of Oldenburg, Germany.
2008-2013	Docent (*Doutor Ciência*), University of Lisbon, Portugal.
2007-2008	Principal Investigator (DFG funding, Germany), University of Stuttgart, Germany.
2006-2007	Researcher (*Wissenschaftlischer Mitarbeiter*), University of Stuttgart, Germany.
2004-2005	Researcher (FCT funding, Portugal), University of Stuttgart, Germany.

Education

2018	Habilitation in Theoretical Physics, "Stochastic modelling in physics and interdisciplinary applications", University of Osnabrück, Germany (grade n.a.).
2003	PhD in Mathematical Physics: "Pattern Formation in Diffusive-Advective Networks of Discrete-Time Oscillators" (*Summa cum Laude*), University of Lisbon, Portugal. FCT Doctoral fellow (Portuguese Foundation for Science).
2000	Complementary Graduation in Music (Violin), Music School of the National Conservatorium, Lisbon, Portugal. Final grade: 14 (max. 20; equiv. to B).
1999	Graduation in Physics, University of Lisbon, Portugal. Final grade: 18 (max. 20; equiv. to A), highest final grade of the Faculty of Sciences 1999.

Research Expertise

[numbers indicate entries in my list of publications]

THEORY

- Theory of machine learning and data analysis (18,31,33,59,64).
- Theory of stochastic differential equations (33,35,55,59).
- Theory of complex systems (14,38,40,48,62).
- Evolution equations (45,47) and variational methods (13,22,64).
- Pattern formation (1,3,9,11).

NUMERICS

- Big Data and data mining (44, 50-52).
- Machine learning and data processing (45,46,51,52,62,63,65).
- Nonlinear and stochastic modelling (5,7,12,55,57,62,64).
- Optimization algorithms (24,29,37,53,54,58,64).
- Complex network modelling (19,21,30).
- Analysis of spatially extended systems (2,4,8,60,64).
- Detection of synchronization phenomena (6,10,17).
- Finite-element methods (25,27,28).

APPLICATIONS

- Wind energy systems (41,45-47,62) and environment (39,42,49).
- Physical sciences (26,32,34,65,67) and life sciences (43,60,64,66).
- Finance (36,46,51,52,56,63), organizations (54,58) and society (15,16,20,23,50,61).

Main Research Achievements

Theory of stochastic processes and complex systems

- Resolving the superposition of multivariate stochastic signals with independent sources of measurement noise (31,59). The method derives a set of coupled stochastic differential equations, part of them describing the evolution of the multivariate set of measured properties and the rest describing the evolution of possible underlying measurement noise sources spoiling the data.

- Extension of several of the known mathematical theorems about the embedding problem for stationary stochastic processes to non-stationary processes, enabling the possibility to reproduce the statistical features of the non-stationary process (55).

- Combination of stochastic differential equations and principal component analysis for deriving optimal stochastic variables yielding minimal stochasticity (35). The method can be used for training neural network models in a more efficient way (39) and was successfully applied in geophysics for air quality prediction (42), a work cited around 50 times since 2013 in Google Scholars.

- Model of non-stationary stochastic variables, based in the time-evolution of the parameters defining their value distribution (56). The method was applied to the distribution of the volume-price of 2000 companies in the New York Stock Exchange (63).

- Improved estimate of the number of loops of arbitrary size in complex networks with arbitrary topologies (14), a work cited over 100 in Google Scholars. The derivation uses combinatorial calculus.

NUMERICS AND COMPUTER ROUTINES

- Development of a routine in R for modelling stochastic processes (57). The routine derives nonlinear Langevin stochastic equations directly from data series and is available at `https://cran.r-project.org/web/packages/Langevin/`.

- Implementation of analytical calculations for simulating granular depositions and colloidal suspensions (53). The procedure combines variational methods with Monte Carlo methods and was implemented in graphics processing unit architecture.

APPLICATIONS TO ENGINEERING

- Precise location of the laminar separation bubble on airfoils subjected to turbulent inflow (67), a work recently published in Physical Review X, solving an important problem in aerodynamics. The method combines aerodynamics, percolation models and tools from the theory of critical phenomena applied to data from stereoscopic high-speed particle image velocimetry, which is mapped into binary states that can afterwards be analyzed.

- Framework for uncovering wind speed statistics and the rated speed of the wind turbines from real measurements (41). The framework is based in the power curve of the wind turbine that is derived from a set of stochastic differential equations for the wind speed and wind power.

- Algorithm for reconstructing series of measurements of loads on wind turbines (45,64) using stochastic differential equations that are derived directly from the data series. The method improves estimates of fatigue loads, related to the turbine's life expectancy, better reconstructs the statistical features of load data than standard methods, e.g. neural networks, and can easily be implemented in wind parks with considerably small cost efforts.

APPLICATIONS TO NATURAL SCIENCES

- Reconstruction of the functional network underlying tissues of interconnected cells able to transmit electric signals. The method uses standard time series of calcium ion measurements with fluorescent indicators and can be used for investigating effects of drugs in cells and tissues (43).

- Framework for forecasting the emergence of rogue waves, based in the analysis of sea surface height data (65). The work was recently published in Europhysics Letters and was highlighted as Editor's Choice and by Europhysics News. The method uses stochastic differential equations describing the evolution of height increments from which an entropy of trajectories out of equilibrium can be calculated.

- Derivation of stochastic variables that optimize predictability, a work cited around 30 times. This procedure uses stochastic differential equations combined with variational methods and was applied to the North Atlantic Oscillation index (13,22), deriving an index with higher predictability power than the index standardly used.

- Implementation of a framework that enables to simulate density and anisotropy of granular deposits as a function of size and shape polydispersity of ellipsoidal particles (37).

APPLICATIONS TO SOCIAL SCIENCES

- Unfolding of features of human mobility within small confined perimeters, namely showing that, at small spatial scales, the human movement is close to a random walk (50). The work is based in the processing and analysis of data from Eduroam databases.

- Framework for statistical analysis of data from laboratory experiments with groups of individuals interacting with a prepared virtual situation on a computer, from which decision making can be quantitatively evaluated. The method was applied for examining to what extent practicing leadership as a decentralized and self-organized form of organization leads to higher efficiency (54,58).

- Computational model for reproducing typical topological features of social networks, namely the degree distribution, correlations and community structure (16). The model uses simple rules that aim at mimetizing interactions among individuals.

- Agent model for assessing the stability of financial networks (36). In particular, we investigated the role of local threshold values of capital for triggering global insolvencies. Contrary to expected, the increase of minimum capital levels may in fact promote the occurrence of large crises. The model incorporates the law of demand and supply and reproduce return distributions similar to the ones of standard financial indices (40).

OTHER DOMAINS OF COMPETENCE

LANGUAGE SKILLS

- WRITTEN: Portuguese (+), English (+), German (±), Spanish (±), Bokmål (−), French (−).

- SPOKEN: Portuguese (+), English (+), German (+), Spanish (±), Bokmål (−), French (−).

COMPUTATIONAL SKILLS

- PROGRAMMING AND DATA PROCESSING: *C-C++* (+), *R* (+), *Python* (+), *Matlab* (±), *Fortran* (+).

- MATHEMATICS AND CALCULUS: *Maple* (+), *Mathematica* (±).

- IMAGE PROCESSING: *Gnuplot* (+), *Postscript* (+), *XMGrace* (+), *xfig* (+), *Xbps* (±), *Povray* (±).

- TEXT PROCESSING: *Latex* (+), *Emacs* (+), *MSOffice* (+).

Scientific Projects, Funding & Awards

As Coordinator [#8]:

2023-2026   *Virtual Eye – Learning from human eye scanpaths for optimal autonomous search*;
Funding agency: *Research Council Norway* (FRIPRO), co-coordination with Prof. Anis Yazidi, Norway;
Total Budget: $\sim$ 11.800.000 NOK.
Oslo Metropolitan University, Norway.

2023-2024   *Extreme events in European climate change: towards intelligent climate modelling and forecast across Europe*;
Funding agency: *Iceland Lichtenstein Norway grants* (EEA), co-coordination with Dr. Ana Russo (IDL, Portugal);
Total Budget: $\sim$ 19.000 EUR.
Instituto Dom Luiz - Oslo Metropolitan University, Portugal - Norway.

2021-2024   *NordSTAR – Nordic Center for Trustworthy and Sustainable AI Research*;
Funding agency: *OsloMet - TKD* (Internal Funding), Norway;
Total Budget: $\sim$ 4.000.000 NOK and two HR positions (1 PhD, 1 Postdoc).
Oslo Metropolitan University, Norway.

2019   *Stochastic models of the eye movements during image inspection*;
Funding agency: *OsloMet - TKD* (Internal Funding), Norway;
Total Budget: $\sim$ 78.000 NOK.
Oslo Metropolitan University, Norway.

2016-2017   *From noisy data to physical knowledge: applications to wind energy and nanosystems*;
Funding agency: *Deutsche Forschungsgemeinschaft-FAPERJ*, Germany-Brazil;
Ref. LI-1599/3-1; Total Budget: $\sim$ 30.000 Euro.
University Osnabrück and Univ. Oldenburg, Brazilian Center for Research in Physics.

2009-2010   *Optimal evolution equations of stochastic signals with minimum stochasticity*;
Funding agency: *GRICES-DAAD*, Portugal-Germany;
Ref. DREBM/DAAD/03/2009; Total Budget: $\sim$ 10.000 Euro.
University of Lisbon and University of Oldenburg.

2007-2008   *Analysis and simulations of geometrical models for space-filling packings and bearings; applications to hydrodynamics* (Temporary Position for Principal Investigators);
Funding agency: *Deutsche Forschungsgemeinschaft*, Germany;
Ref: LI 1599/1-1; Total Budget: $\sim$ 120.000 Euro.
University Stuttgart.

2004-2006   *Methods for Phase-Space Reconstruction of Spatio-Temporal Series*;
Funding agency: *Fundação para a Ciência e a Tecnologia*, Portugal;
Ref: SFRH/BPD/12493/2003; Total Budget: $\sim$ 75.000 Euro.
University Stuttgart.

As Manager [#1]:

2014-2016   *IPID4all - Mobile Doctorates in System Integration of Renewable Energy*;
Funding agency: *DAAD*, Germany;
Ref: IPID4all; Total Budget: $\sim$ 500.000 Euro.
Coordinated by Andreas Günther, University of Oldenburg.

As Member or Collaborator [#27]:

2024 *Industriutvikling og effektiv utnyttelse av kraftsystemet*;
Funding agency: *NFR*, Norway;
Total Budget: ∼ 1.500.000 NOK.
Managed by Bå Tronvoll, HINN, Norway.

2024 *The window to the soul in the palm of the hand*;
Funding agency: *OsloMet*, Norway;
Total Budget: ∼ 470.000 NOK.
Managed by Pedro Lencastre (PhD candidate), OsloMet, Norway.

2023-2028 *Data-Driven Approaches in Computational Mechanics for the Aerohydroelastic Analysis of Offshore Wind Turbines*;
Funding agency: *EU*, ERC Consolidation Grant;
Total Budget: ∼ 2.000.000 EUR.
Managed by Prof. Cristian Guillermo Gebhardt (PI), University of Bergen, Norway.

2023-2026 *DHEFEUS - Droughts, heatwaves, and fires: Exploring compound and cascading hazards and their impacts in air quality at the European scale under a climate change perspective*;
Funding agency: *FCT*, Portugal;
Total Budget: ∼ 250.000 EUR.
Managed by Dr. Ana Russo, Instituto D.Luiz, Univ. Lisbon, Portugal.

2022-2024 *AI enriched journalism to investigate illicit financial flows*;
Funding agency: *NFR*, Norway;
Total Budget: ∼ 2.000.000 NOK.
Managed by Prof. Roy Krøvel, OsloMet, Norway.

2022-2024 *Arbeidsrelevant undersøkende datajournalistikk* (ARB-2021/10167);
Funding agency: *HK-dir*, Norway;
Total Budget: ∼ 5.000.000 NOK.
Managed by Anders Graver Knudsen, OsloMet, Norway.

2022-2023 *Futures of Living Technologies (FeLT)*;
Funding agency: *Norwegian Artistic Research Programme (NARP)*, 2020-2023 Norway;
Total Budget: ∼ 1.500.000 NOK.
Managed by Prof. Kristin Bergaust, OsloMet, Norway.

2021-2022 *Center for Education in Profession-Applied and Contextualized Technology (PACT)*;
Funding agency: *OsloMet*, Norway;
Total Budget: ∼ 1.500.000 NOK.
Managed by Prof. Gustavo Mello, OsloMet, Norway.

2021-2023 *Personalized RehabilitatiOn of sTroke patients Evaluated with multimodal Quantitative Tools - PROTEQT*;
Funding agency: *NFR*, Norway;
Total Budget: ∼ 10.000.000 NOK.
Managed by Prof. Axel Sandvig, NTNU, Norway.

2021-2025 *AI Mind: Intelligent digital tools for screening of brain connectivity and dementia risk estimation in people affected by mild cognitive impairment*;
Funding agency: *Horizon 2020*, EU;
Total Budget: ∼ 14.000.000 EUR.
Managed by Prof. Ira Haraldsen, Oslo University Hospital, Norway.

2021-2022 *The technology and knowledge transfer based on Norway-Czech cooperation*;
Funding agency: *Iceland-Lichtenstein-Norway grants*, Norway;
Total Budget: 150.000 EUR.
Managed by Prof. Anis Yazidi, Oslo Metropolitan University, Norway.

2020 *Health Effects of Meat Substitutes*;

Funding agency: *OsloMet - TKD* (Internal Funding), <u>Norway</u>;
Total Budget: 700.000 NOK.
Managed by Prof. Liv Elin Torheim, Oslo Metropolitan University, Norway.

2019-2023   *DeepCA - Hybrid Deep Learning Cellular Automata Reservoir*;
Funding agency: Norwegian Research Council (*RCN*), <u>Norway</u>;
Total Budget: $\sim$ 15.000.000 NOK.
Managed by Prof. Stefano Nichele, Oslo Metropolitan University, Norway.

2019   *Image classification process as information foraging*;
Funding agency: *OsloMet - TKD* (Internal Funding), <u>Norway</u>;
Total Budget: 78.000 NOK.
Coordinated by Prof. Sergiy Denisov, Oslo Metropolitan University, Norway.

2018-2022   *SOCRATES - Self-Organizing Computational Substrates*;
Funding agency: Norwegian Research Council (*RCN*), <u>Norway</u>;
Total Budget: $\sim$ 21.000.000 NOK.
Managed by Prof. Gunnar Tufte, NTNU - University of Trondheim, Norway.

2018-2020   *FELT - Futures of Living Technologies*;
Funding agency: *OsloMet - TKD* (Internal Funding), <u>Norway</u>;
Total Budget: $\sim$ 1.000.000 NOK.
Coordinated by Prof. Kristin Bergaust, Oslo Metropolitan University, Norway.

2016-2019   *Einfluss der Kurzzeitdynamik erneuerbarer Energiequellen auf die Stabilität von Stromnetzen*;
Funding agency: *Deutsche Forschungsgemeinschaft*, <u>Germany</u>;
Ref: MA 1636/9-1; Total Budget: $\sim$ 300.000 Euro.
Coordinated by Prof. Philipp Maaß, University of Osnabrück.

2014   *Testing Complexity Leadership Theory: A computational model of adaptive Leadership*;
Funding agency: *Fundação para a Ciência e a Tecnologia*, <u>Portugal</u>;
Ref: EXPL/MHC-PSO/1400/2013; Total Budget: $\sim$ 150.000 Euro.
Coordinated by Prof. Luís Curral, University of Lisbon.

2013-2016   *OWEA-Loads – Probabilistische Lastbeschreibung, Monitoring und Reduktion der Lasten zukünftiger Offshore- Windenergieanlagen*;
Funding agency: *BMWi*, <u>Germany</u>;
Ref: 41V6451; Total Budget: $\sim$ 2.500.000 Euro.
Coordinated by Prof. Martin Kühn, University of Stuttgart (*WindForS*) and of Oldenburg (*ForWind*), *AREVA Wind GmbH* and *REpower Systems SE*.

2013-2015   *Stochastic modeling of empirical data with applications to wind energy and financial markets*;
Funding agency: *FCT-DAAD*, <u>Portugal-Germany</u>;
Ref: DRI/DAAD/1208/2013; Total Budget: $\sim$ 10.000 Euro.
Coordinated by Dr. Frank Raischel and Prof. Joachim Peinke, University of Lisbon and University of Oldenburg.

2011-2013   *SUM – Sensing and understanding human motion dynamics*;
Funding agency: *FCT*, <u>Portugal</u>;
Ref: PTDC/EIA-EIA/113933/2009; Total Budget: $\sim$ 200.000 Euro.
Coordinated by Prof. Adriano Moreira, University of Minho, University of Coimbra and University of Porto.

2009-2012   *Patterned surfaces and colloids: the effects of texture on fluid adsorption and self-assembly*;
Funding agency: *FCT*, <u>Portugal</u>;
Ref: PTDC/FIS/098254/2008; Total Budget: $\sim$ 200.000 Euro.
Coordinated by Prof. Telo da Gama, University of Lisbon.

2005-2008   *Complex systems: from physics to biology and the social sciences*;
Funding Agency: *FCT/POCTI*, <u>Portugal</u>;

Ref: POCTI/FIS/55592/2004; Total Budget: ∼ 200.000 Euro.
Coordinated by Prof. Telo da Gama, University of Lisbon.

2001-2003	Portuguese-Brazilian cooperation Project; Funding agency: *ICCTI-CAPES* Portugal-Brazil; Ref. 077/2001; Total Budget: ∼ 20.000 Euro. Coordinated by Profs. João Corte-Real and Jason A.C. Gallas, Univ. Lisbon and Fed. Univ. Porto Alegre.
2000-2001	Portuguese-German cooperation Project; Funding agency: *ICCTI-DAAD*, Portugal-Germany; Ref. 133/2001; Total Budget: ∼ 20.000 Euro. Coordinated by Prof. João Corte-Real, Univ. Lisbona and Univ. Potsdam.
1998-1999	*Construction of a database for climatological and meteorological data,* Funding agency: *FCT*, Portugal; Ref. BTI 16516-98; Total Budget: ∼ 25.000 Euro. Coordinated by Prof. João Corte-Real, University of Lisbon.
1997-1998	*Interference of mobile phones on pacemakers*; University of Lisbon, Portugal, Collaboration in research joint activities with the Biophysical and Biomedical Engineering Institute (IBEB) and with physicians of the *Fernando da Fonseca* Hospital.

Awards and Nominations [#4]:

2023	Employee of the month (November 2023), Oslo Metropolitan University, Norway.
2022	Professor of the Year 2022 (nomination), Oslo Metropolitan University, Norway.
2019	*ISCTE-IUL 2019 Scientific Awards*, ISCTE-IUL, Portugal.
2009	*Outstanding Referee Award*, American Physical Society, USA.

Declined approved projects and funding [#1]:

2012-2015	*Young Talents Application*, Science Without Borders Programe, support for a three-year position; Total Budget: ∼ R\$ 2.500.000 (Reais) (plus ∼ R\$ 120.000 for equipment and missions), Brazil.

PUBLICATIONS

REFEREED ARTICLES: #91
CHAPTERS OF BOOKS/ PROCEEDINGS: #32
BOOKS AND SPECIAL ISSUES: #6
SOFTWARE DEVELOPMENT PUBLICATIONS: #1
LONG ABSTRACT, PUBLISHED ABSTRACTS AND OTHER PUBLICATIONS: #26
OUTREACH ARTICLES ABOUT SCIENCE: #22
NON-SCIENTIFIC REFEREED ARTICLES: #1
NON-SCIENTIFIC BOOKS: #1
Total: # 180

WOS: 1470 CITATIONS; H-INDEX=20; I10-INDEX=41
GOOGLE SCHOLARS: 2611 CITATIONS; H-INDEX=26; I10-INDEX=52

[All publications can be provided by the author under request]

SELECTED PEER-REVIEWED PAPERS

- Journal of Statistical Software 105(1) 1-22 (2023), "`JumpDiff`: Non-parametric numerical estimation of jump-diffusion processes", L.R.Gorjão, D.Witthaut, P.G.Lind.

- Energies 16(14) 5383 (2023), "AI approaches and mathematical models to monitoring and predicting power grid behavior driven by renewable energy sources", S.Srinivasan, S.Kumarasamy, Z.E.Andreadakis, P.G.Lind.

- Nature Scientific Data, 9 752 (2022), "*EyeT4Empathy*: database of foraging for visual information, visual writing and empathy assessment", P.Lencastre, S.Bhurtel, G.Mello, A.Yazidi, S.Denysov, P.G.Lind.

- Nature Scientific Reports 12 4085 (2022), "The connectivity network underlying the German's Twittersphere: a testbed for investigating information spreading phenomena", D.T.Schröder, J.Langguth, L.Burchard, K.Pogorelov, P.G.Lind.

- Physical Review X 8, 021015 (2018), "Aerodynamics and percolation: unfolding the laminar separation bubble on airfoils", D.Traphan, T.Wester, Gerd Gülker, J.Peinke, P.G.Lind.

- Europhysics Letters 120, 30008 (2017), **Editor's choice**, "Rogue waves and entropy consuming trajectories", A.Hadjihossein, P.G.Lind and J.Peinke.

- Journal of Open Research Software 4(1) p.e34 (2016), "The Langevin Approach: An *R* Package for Modeling Markov Processes", P.Rinn, P.G.Lind, M.Wächter, J.Peinke; routine available at `https://cran.r-project.org/web/packages/Langevin/`.

- Atmospheric Environment 79 822-830 (2013), "Air quality prediction using optimal neural networks with stochastic variables", A.Russo, F.Raischel, P.G.Lind.

- European Physical Journal B 85 256 (2012), **Editor's choice**, "The dynamics of financial stability in complex networks", J.da Cruz, P.G.Lind.

- Physical Review E 72 056127 (2005), "Cycles and clustering in bipartite networks", P.G.Lind, M.C.Gonzalez, H.J.Herrmann.

PUBLICATIONS IN INTERNATIONAL JOURNALS WITH REFEREE:

[supervised students are underlined; "PhD" indicates parts of PhD; "Hab" indicates parts of Habilitation]

(113) Validation procedure of an agent-based model of malaria transmission,
J.Sequeira, J.Louçã, A.Mendes, **P.G.Lind**,
in preparation, 2024.

(112) Ivermectin combined with primaquine may reduce malaria transmission leading to disease elimination: Predictions from an agent-based model in the presence of heterogeneity,
J.Sequeira, J.Louçã, A.Mendes, **P.G.Lind**,
in preparation, 2024.

(111) Discontinuous trajectories in paleoclimate data,
L.R.Gorjão, K.Riechers, F.Hassanibesheli, K.Lehnertz, M.R.R.Tabar, **P.G.Lind**, N.Boers, D.Witthaut,
in preparation, 2024.

(110) Dynamic Connectivity Graph model for EEG classification,
M.Radwan, **P.G.Lind**, A.Yazidi,
in preparation, 2024.

(109) Towards Interpreting CNN-based Model for Abnormal Class Detection on EEG signals,
R.Khadka, **P.G.Lind**, A.Yazidi,
in preparation, 2024.

(108) User Trust in Generative AI: User Feedback through Quantitative Assessment,
Y.Kasahara, T.Kabudi, A.Yazidi, **P.G.Lind**,
in preparation, 2024

(106) The movements of the eye: beyond saccades and fixations,
P. Lencastre, A. Yazidi, S. Denysov, **P.G. Lind**,
in preparation, 2024.

(105) A Python library to classify stochastic processes,
P. Lencastre, S. Bhandari, A. Yazidi, S. Denysov, **P.G. Lind**,
in preparation, 2024.

(104) Modelling wind speed distributions: a systematic approach,
P. Lencastre, V. Guerrero, E. Ophuis, A. Yazidi, **P.G. Lind**,
in preparation, 2024.

(103) Uncovering Lévy flights and intermittent processes from empirical time series: a theoretical framework to classify eye-gaze trajectories,
P. Lencastre, S. Denysov, A. Yazidi, **P.G. Lind**,
in preparation, 2024.

(102) Behind the mirror of our souls: the dynamical laws of eye movements,
P. Lencastre, S. Denysov, A. Yazidi, **P.G. Lind**,
in preparation, 2024.

(101) Mapping the Evolution of Anti-Muslim Hate Speech in Norwegian Social Media,
Y.Kasahara, D.T.Schroeder, A.Yazidi, **P.G.Lind**,
in preparation, 2024

(100) Uncertainty of AI algorithms and tools in the health sector: A user-perspective survey,
J.Ojha, E.Monteiro, **P.G.Lind**, A.Yazidi, in preparation, 2024.

(99) A Comprehensive Review of Explainable AI in Deep Learning Algorithms for EEG Analysis,
O.Presacan, A.Yazidi, **P.G.Lind**,
in preparation, 2024.

(98) Lévy-flight model of gaze trajectories to improve ADHD diagnoses,
C.Papanikolaou, A.Sharma, **P.G.Lind**, and P.Lencastre,
submitted, 2024.

(97) Harmful Conspiracies in Complex Interaction Networks: Understanding Community Dynamics in Digital Wildfires through Phase Transitions,
K.S.Gåsvær, **P.G.Lind**, J.Langguth, M.Hjorth-Jensen, M.Kreil, D.T.Schroeder,
submitted, 2024.

(96) Identifying autism from five-second records of eye-gaze trajectories,
P.Lencastre, M.Lotfigolian, **P.G.Lind**,
submitted, 2024.

(95) EEG data Classification: Review and Taxonomy,
A.Belhadi, A.Yazidi, **P.G.Lind**, Y.Djenouri,
submitted, 2024.

(94) Evolutionary computing to solve optimal entangle states in quantum circuits,
S.Bandhari, S. Nichele, S. Denysov, **P.G.Lind**,
submitted, 2024.

(93) Stochastic regimes can hide the attractors in data, reconstruction algorithms can reveal them,
B.M.S.Arani, S.R.Carpenter, E.H.van Nes, I.A.van de Leemput, C.Xu, **P.G.Lind**, M.Scheffer,
submitted, 2024.

(92) Change of persistence in European electricity spot prices,
L.R.Gorjão, D.Witthaut, **P.G.Lind**, W. Medjroubi,
submitted, 2024.

(91) Machine Learning and Trustworthiness in the Context of Security and Privacy,
R. Upetri, **P.G. Lind**, A. Elmokashfi, A. Yazidi,
accepted in International Journal of Information Security, 2024.

(90) Intelligent digital tools for screening of brain connectivity and dementia risk estimation in people affected by mild cognitive impairment: The AI-Mind clinical study protocol,
I.H.Haraldsen, C.Hatlestad-Hall, C.Marra, H.Renvall, F.Maestú, S.Alfonsin, V.Andersson, A.Anand, V.Ayllon, A.Babic, C.Birck, R.Bruña, N.Caraglia, C.Carrarini, E.Christensen, A.Cicchetti, S.Daugbjerg, R.Di Bidino, A.Diaz, G.Maria Giuffrè, J.Georges, D.Gove, T.Govers, H.Hallock, M.Hietanen, L.Holmen, J.Hotta, S.Kaski, R.Khadka, A.Kinnunen, A.Koivisto, S.Kulashekhar, D.Larsen, M.Liljeström, **P.G.Lind**, S.Marshall, S.Merz, F.Miraglia, J.Montonen, V.Mäntynen, A.R.Øksengård, T.Paajanen, J.M.Peña, L.Peña, D.Peniche, A.Perez, F.Ramírez-Toraño, T.Saarinen, M.Salas-Carrillo, R.Salmelin, S.C.Sousa, A.Suyuthi, M.Toft, P.Toharia, T.Tveitstøl, M.Tveter, R.Upreti, R.Vermeulen, F.Vecchio, A.Yazidi, P.M.Rossini,
Frontiers in Neurorobotics 17 1289406 (2024).

(89) Artificial Intelligence and Mathematical Models of Power Grids Driven by Renewable Energy Sources: A Survey,
S.Srinivasan, S.Kumarasamy, Z.E.Andreadakis, **P.G.Lind**,
Energies 16(14) 5383 (2023).

(88) Patterns Within Patterns: A deeper look at the dynamical landscape of Reservoir Computing with Cellular Automata,

T.E.Glover, **P.G.Lind**, A.Yazidi, E.Osipov, S.Nichele,
to appear in Complex Systems, 2023.

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pages 13-19 in *Mateus DOC III, Sustentabilidade/ Sustainability*, Casa de Mateus, Portugal, 2013.

(7) Heavy-tails in economic data: fundamental assumptions, modelling and analysis,
J.P.da Cruz and **P.G.Lind**,
in *Heavy-tailed distributions*, Open Academic Press, 2012.

(6) Da percepção do Risco à sua quantificação e controlo,
P.G.Lind,
pages 27-35 in *Mateus DOC II, Risco/ Risk*, Casa de Mateus, Portugal, 2012.

(5) Risk: A scientific perspective bridging physical theories and social realities,
P.G.Lind,
pages 39-42 in *Mateus DOC II, Risco/ Risk*, Casa de Mateus, Portugal, 2012.

(4) The network approach: basic concepts and algorithms,
P.G.Lind,
to appear in *Lectures on Socio- and Econophysics*, J.Schneider and C.Hirtreiter, Springer, 2009.

(3) Approaches from statistical physics to model and study social networks,
P.G.Lind and H.J.Herrmann,
in *Statistical Mechanics Research*, Byung-Soo Kim (Ed.), pp.299-316, Nova Publishers, 2008.

(2) Coherence in complex networks,
P.G.Lind, J.A.C.Gallas and H.J.Herrmann,
in *The Logistic Map and the Route to Chaos: From the Beginning to Modern Applications*, eds.M.Ausloos
and M.Dirickx,
pp.77-98, Springer-Verlag, 2005.

(1) *Space Time Chaos: Characterization, Control and Synchronization*,
World Scientific, Singapore, 2001,
S.Boccaletti, J. Burguete, W. Gonzalez-Viñas, H.L. Mancini and D.L. Valladares (eds).
Contribution: "Wave patterns in coupled map lattices" (chap.6),
P.G.Lind, J.Corte-Real and J.A.C.Gallas.

Books and special issues:

(6) *From sand to shrimps: "Brazilian" topics and applications in nonlinear dynamics in honor of Professor Jason A.C. Gallas,*
Marcus W. Beims, Imre M. Jánosi, Thorsten Pöschel, **Pedro G. Lind** (Editors),
Special Issue of *Chaos: An Interdisciplinary Journal of Nonlinear Science*, AIP Publishing, 2024.

(5) *Nordic Artificial Intelligence Research and Development,*
Evi Zouganeli, Anis Yazidi, Gustavo Mello, **Pedro Lind** (Editors),
Communications in Computer and Information Science 1056,
Springer Nature, Switzerland, 2022.

(4) *Caos e Complexidade - Novos Conceitos para a Gestão das Organizações* (in portuguese),
Luís Curral, Catarina Gomes, Pedro Marques-Quinteiro e **Pedro G. Lind**,
RH Editora, Lisboa, 2016.

(3) Cadernos Mateus DOC VIII - Infinity,
Teresa Albuquerque, **Pedro G. Lind** (Editors), IICM, 2015.

(2) Cadernos Mateus DOC II - Risk,
Teresa Albuquerque, **Pedro G. Lind** (Editors), IICM, 2012.

(1) *Proceedings of the Nonlinear Dynamics in Electronic Systems – 2004,*
University of Évora, May 2004,
Jason A.C.Gallas, Mourad Bezzeghoud, **Pedro G. Lind** and João Corte-Real (Editors).

Software development and packages publications:

(1) Package "Langevin",
D.Bastine, **P.G.Lind**, P.Rinn,
Reference manual in R; CRAN repository, available at
`https://cran.r-project.org/web/packages/Langevin/`.

Long abstracts, thesis, dissertations and other publications:

(26) Understanding the Evolution of Reddit in Temporal Networks induced by User Activity,
N.Marcoux, **P.G.Lind**, J.Langguth, A.Huber and D.T.Schroeder,
to appear in *Complex Networks - Extended abstracts for the conference* (2022).

(25) Small scale structures of turbulence in terms of entropy and fluctuation theorems,
J.Peinke, A.Fuchs, **P.G.Lind**, A.Girard, F.Bouchet
Bulletin of the American Physical Society P13.00006 (2020).

(24) A Framework for Interaction-based Propagation Analysis in Online Social Networks,
D.T.Schroeder, **P.G.Lind**, K.Pogorelov and J.Langguth,
Complex Networks 2020, The 9th International Conference on Complex Networks and their Applications - Book of Abstracts, pp.362-364, 2020.

(23) Rogue waves and entropy consumption,
A.Hadjihoseini, **P.G.Lind**, N.Mori, N.P.Hoffmann, C.Behnken, J.Peinke,
Geophysical Research Abstracts, **20**, 7772 (2018).

(22) Stochastic modelling in physics and interdisciplinary applications,
Habilitationsschrift in Theoretical Physics,
P.G.Lind,
University of Osnabrück, Germany, February 2018.

(21) Migrações: Fluxos Laminares (in portuguese),
P.G.Lind,
in *Cadernos Mateus DOC IX* (Casa de Mateus, Portugal, 2016).

(20) Signals reconstruction. An alternative approach for wind turbine monitoring,
L.Vera-Tudela, **P.G.Lind**, M. Wächter, J.Peinke, M.Kühn,
RAVE - Offshore Wind R& D 2015, Book of Abstracts, 42-43.

(19) Determination of stationary and dynamical power curves in inhomogeneous wind flow using a
nacelle-based lidar system,
I.Würth, A.Rettenmeier, P.W.Cheng, M.Wächter, **P.G.Lind**, J.Peinke,
Book of Abstracts DEWEK 2015.

(18) Stochastic model for indirect estimation of instantaneous and cumulative loads in wind turbines: a
systematic approach for off-shore wind farms,
P.G.Lind, J.Peinke, M.Wächter,
Book of Abstracts DEWEK 2015.

(17) A systematic approach for estimating loads in offshore wind farms,
P.G.Lind, I.Herráez, M. Wächter, J.Peinke,
RAVE - Offshore Wind R& D 2015, Book of Abstracts, 25-26.

(16) Bridging data and knowledge through a simple stochastic method,
P.G.Lind,
SMTDA – Book of Abstracts,
3rd Stochastic Modeling Techniques and Data Analysis International Conference (2014), C.H.Skiadas
(Ed.).

(15) Modeling and analysis of cyclic inhomogenouos Markov processes: a wind turbine case study,
T.Scholz, F.Raischel, **P.G.Lind**, V.V.Lopes,
SMTDA – Book of Abstracts,
3rd Stochastic Modeling Techniques and Data Analysis International Conference (2014), C.H.Skiadas
(Ed.).

(14) Stochastic Evolution of New York Stock Market Distributions,
P.Rocha, J.da Cruz, F.Raischel and **P.G.Lind**,
SMTDA – Book of Abstracts,
3rd Stochastic Modeling Techniques and Data Analysis International Conference (2014), C.H.Skiadas
(Ed.).

(13) How Trustful are Rating Agencies?,
P.Lencastre, F.Raischel and **P.G.Lind**,
SMTDA – Book of Abstracts,
3rd Stochastic Modeling Techniques and Data Analysis International Conference (2014), C.H.Skiadas
(Ed.).

(12) Reconstruction and Predictability of Stochastic Processes, J.Carvalho, M.Haase, D.Kleinhans, **P.Lind**,
J.Peinke, F.Raischel, V.Vasconcelos, M.Wächter, *Dynamic Days South America 2010*, INPE – Na-
tional Institute for Space Research, São José dos Campos – SP – Brazil – July 26-30 (2010).

(11) Sequential polydisperse packings: theory and applications,
P.G.Lind,
ESMC2009 Mini-Symposia - Abstract book, MS-07-0117 (2009).

(10) Modelling and studying social networks,
P.G.Lind,
in *CCP2007 - Abstract book*, M.Mareschal (Ed.), Univ. Libre de Bruxelles, 2007.

(9) Linking the world,
P.G.Lind,
in *Abstract book for the Summer School on Socio-Econophysics*, J.Schneider and C.Hirtreiter, ISBN 978-3-00-022948-0.

(8) A variational problem to reduce stochasticity in the North Atlantic Oscillation index,
P.G.Lind, A.Mora, J.A.C.Gallas, M.Haase,
in *EMS Annual Meeting Abstracts* **2**, EMS05-A-00251 (2005).

(7) Coupled Langevin Equations for the North Atlantic Oscillation,
P.G.Lind, A.Mora, J.A.C.Gallas, M.Haase,
in *XXV Dynamics Days Europe 2005 - Book of Abstracts*, Europhysics Conference Series **29E**, pp. 155 (C6.5).

(6) Pattern Formation in Diffusive-Advective Networks of Discrete-Time Oscillators,
PhD Thesis on Physics (Mathematical-Physics),
P.G.Lind,
Faculty of Sciences of the University of Lisbon, December 2003.

(5) On the concept of pattern in discrete systems,
P.G.Lind, J.Corte-Real and J.A.C.Gallas,
Geophysical Research Abstracts, **5**, 11115 (2003).

(4) Spreading of convection as parameterized in ocean models studied with conceptual models,
S.Titz, **P.G.Lind**, T.Kuhlbrodt, J.A.C.Gallas, J.Corte-Real and U.Feudel,
Geophysical Research Abstracts, **4**, 4177 (2002).

(3) Studying ocean convection modeling with coupled bistable maps,
P.G.Lind, S.Titz, T.Kuhlbrodt, J.Corte-Real, J.Kurths, J.A.C.Gallas and U.Feudel,
Geophysical Research Abstracts, **4**, 1350 (2002).

(2) Gradient flows in rings of coupled maps,
P.G.Lind, J.Corte-Real and J.A.C.Gallas,
Geophysical Research Abstracts, **3**, 7817 (2001).

(1) *Aplicação de um modelo experimental na análise de interferência de telemóveis nos pacemakers. Resultados preliminares* (in portuguese),
C.S.Morais, A.Trindade, P.Rodrigues, **P.Lind**, L.Prazeres, C.Matos, C.Santos, R.Ferreira, E.Ducla-Soares,
Revista Portuguesa de Cardiologia, **17**(Supl. I), CO041 (1998).

OUTREACH ARTICLES ABOUT SCIENCE:

(22) O que são sistemas complexos? (in Portuguese),
P.G.Lind,
in *Jornal i*, January 2015, p.48.

(21) Einstein no mercado financeiro (in Portuguese),
P.G.Lind,
in *Horizon*, May 2013, p. 26-28. Available at: `www.horizon.com`.

(20) Crianças online: aferir a realidade da internet em Portugal
P.G.Lind and M.R.Gomes,
in *Semanário Sol*, January 7th 2011.

(19) Quanto pode valer uma BioImagem?
M.R.Gomes and **P.G.Lind**,
in *Semanário Sol*, January 21st 2011.

(18) A verdade nos ossos,
P.G.Lind and M.R.Gomes,
in *Semanário Sol*, February 4th 2011.

(17) Investigação em turismo: um vector estratégico para o desenvolvimento de Portugal,
M.R.Gomes and **P.G.Lind**,
in *Semanário Sol*, February 18th 2011.

(16) Um cientista em ilhas de Babel: das línguas crioulas aos genes da humanidade,
P.G.Lind and M.R.Gomes,
in *Semanário Sol*, March 4th 2011.

(15) Do Núcleo ao Universo: 100 Anos de conquistas com a Física Nuclear,
M.R.Gomes and **P.G.Lind**,
in *Semanário Sol*, March 18th 2011.

(14) O surgimento da Escola Virtual e a Aprendizagem Online,
P.G.Lind and M.R.Gomes,
in *Semanário Sol*, April 1st 2011.

(13) *Portugal na Investigação Mundial*,
P.G.Lind and M.R.Gomes,
in *Diário de Notícias*, May 22nd 2010.

(12) *Em busca da biodiversidade perdida*,
M.R.Gomes and **P.G.Lind**,
in *Semanário Sol*, August 6th 2010.

(11) *Uma cientista de olhos num dilúvio planetário*,
P.G.Lind and M.R.Gomes,
in *Semanário Sol*, August 20th 2010.

(10) *Comer bem, consumindo melhor: Qualidade e sustentabilidade alimentar sob o olhar da Sociologia*,
M.R.Gomes and **P.G.Lind**,
in *Semanário Sol*, Septembre 3rd 2010.

 (9) *A ciência por detrás da arte da tradução*,
P.G.Lind and M.R.Gomes,
in *Semanário Sol*, Setembre 17th 2010.

 (8) Os novos contornos da memória,
P.G.Lind and M.R.Gomes,
in *Semanário Sol*, October 1st 2010.

(7) Fármacos personalizados na cura do cancro do fígado,
M.R.Gomes and **P.G.Lind**,
in *Semanário Sol*, October 15th 2010.

(6) Um pequeno peixe na cura da doença de Parkinson,
P.G.Lind and M.R.Gomes,
in *Semanário Sol*, October 29th 2010.

(5) O gene do vinho,
M.R.Gomes and **P.G.Lind**,
in *Semanário Sol*, November 5th 2010.

(4) Tornando uma energia limpa mais barata,
P.G.Lind and M.R.Gomes,
in *Semanário Sol*, November 26th 2010.

(3) Como medir e fixar o efémero: dos arquivos e bibliotecas ao ciberespaço,
M.R.Gomes and **P.G.Lind**,
in *Semanário Sol*, December 10th 2010.

(2) Combatendo o impacto na saúde pública de uma doença esquecida
P.G.Lind and M.R.Gomes,
in *Semanário Sol*, December 24th 2010.

(1) *A sociedade dentro de um balão* (in portuguese),
P.G.Lind,
in *Revista NU* **28**, June 2006 (publication of the Dep. of Arquitecture of Univ. Coimbra, Portugal).

Non-scientific refereed articles:

(1) *Sem Além: Breve Apontamento Sobre a Finitude da Vida e da Existência*,
P.G.Lind,
Theologia 2nd Series, **48**(1) 41-48 (2013).

Non-scientific books:

(1) *Dois Dedos de Conversa Sobre o Dentro das Coisas*,
Bruno Nobre and **Pedro G.Lind**,
Frente e Verso, Lisboa, 2013.

Supervision Activities

Postdocs [#8]:

Dr. Alex Szorkovsz
Eye-tracking data analysis and autonomous search engines
Project **funded by Research Council of Norway**, Simula Research Laboratory, Norway, 2024-2027

Dr. Tumaini Kabudi
AI Trustworthy and Sustainability Assessment
Project **funded by OsloMet**, Oslo Metropolitan University, Norway, 2023-2027

Dr. Asma Belhadi
Deep Learning Techniques for Dementia Risk Assessment
Project **funded by OsloMet**, Oslo Metropolitan University, Norway, 2023-2027

Dr. Leonardo Gorjão
Stochastic dynamical system governing equations for deep learning latent variables
Project **funded by AI-Mind**, Europe, Norway, 2022 (May-October)
Presently Assoc. Professor at NMBU, Oslo (Norway)

Dr. Mohamed Belaid
Deep Learning algorithms in EEG data
Project **funded by AI-Mind**, Europe, Norway, 2022 (May-October)

Dr. Leonardo Gorjão
Eye-tracker data analysis
Project **funded by OsloMet**, Oslo Metropolitan University, Norway (2021 (July-September)

Dr. Frank Raischel
Predictability in stochastic signals
Output: (33,35,39,41-44,46,48,49,51,52,55,56,59)
Project **funded by FCT**, University of Lisbon, Portugal (2010-2015)
Presently working as consultant (BNP Paribas, Portugal)

Dr. Reza M. Baram
Sequential algorithms for polydisperse packings and applications
Output: (24,32,37)
Project **funded by FCT**, University of Lisbon, Portugal (2009-2012)
Presently working for a company of quality control (The Netherlands)

PhD fellows [#16]:

Shailendra Bhandari
From eye-gaze trajectory models to optimal searching algorithms
Co-supervision with Anis Yazidi and Sergiy Denysov, Oslo Metropolitan University, Norway (2023-2027)

Helge Spieker
Learning-based autonomous self-driving cars
Co-supervision with Dr. Helge Spieker, SimulaMet, Simula Research Laboratory, Norway (2023-2026)

Christos Chatzis
Time-aware methods for detecting and analyzing patterns in time-evolving data
Co-supervision with Res. Prof. Evrim Acar Ataman SimulaMet, Simula Research Laboratory, Norway (2022-2025)

MOHAMED RADWAN
Deep learning algorithms to analyze EEG data
Co-supervision with Profs. Anis Yazidi, Stefano Nichele and Hårek Haugerud, Oslo Metropolitan University, Norway (2022-2026)

HEINE AABØ
Quantum algorithms for cancer therapy research
Co-supervision with Profs. Sergiy Denisov and Hårek Haugerud and Dr. Álvaro Kohn-Lüque, Oslo Metropolitan University, Norway (2022-2026)

RABINDRA KHADKA
Deep learning approaches to EEG to predict dementia
Co-supervision with Profs. Anis Yazidi and Stefano Nichele, Oslo Metropolitan University, Norway (2022-2026)

KRISTIAN WOLD
Quantum computing in the context of AI
Co-supervision with Profs. Sergiy Denisov and Sølve Selstø, Oslo Metropolitan University, Norway (2021-2024)

PEDRO LENCASTRE
From modelling the dynamics of gaze-trajectories to developing diagnosis tests in dementia
Co-supervision with Profs. Sergiy Denisov and Anis Yazidi, Oslo Metropolitan University, Norway (2021-2025)
Output: 1 proceeding (26) and 1 paper (83)
Awards: HIDA-NORA 2023

TOM GLOVER
DeepCA - Computation in cellular automata reservoir and hybrid substrates
Co-supervision with Profs. Stefano Nichele, Evgeny Osipov and Anis Yazidi, Oslo Metropolitan University, Norway (2020-2023)
Output: 1 proceeding (20) and 1 paper submitted

JOÃO SEQUEIRA
Malaria: a stochastic approach
Co-supervision with Prof. Jorge Louça, ISCTE-UL, Portugal (2016-2022)

Output: 3 papers (71,76,80)
Working as medical doctor (Hospital Santa Cruz, Portugal)

MATTHIAS WOLFF
Non-gaussian processes in electric power grids
Output: 3 papers (68,70,72)
Co-supervision with Prof. Philipp Maaß, Univ. Osnabrück, Germany (2016-2020)

YVONNE RICHTER
Minimal Modell der Elektrophysiologie des Vorhofs: Anwendung des Modells unter dem Aspekt von remodelliertem Gewebe für Vorhofflimmern
Output: *Magnum cum Laude* (60,66); one conference proceeding.
Co-supervision with Prof. Philipp Maaß, Univ. Osnabrück, Germany (2016-2018)

TERESA SCHOLZ
Stochastic methods for the characterization and simulation of wind energy production
Funded by FCT; output: *Summa cum Laude* (41,46,59)
Co-supervision with Dr. Vitor Lopes, Univ. Lisbon, Portugal (2013-2016)
Presently working as consultant (BNP Paribas, Portugal)

JOÃO P. DA CRUZ
The Emergence of critical multiplicative processes and applications to economy
Output: *cum Laude* (36,38,40,48)
University of Lisbon, Portugal (2010-2014)

Presently working as consultant (Closer, England)

ANDRES PEÑA *Micromechanical Investigation of the Critical State in Soil Mechanics*
Output: *cum Laude* (25,27,28,30)
Co-supervision with Prof. Hans Herrmann, Univ. Stuttgart, Germany (2006-2008)
Presently professor at Tech. Univ. München (Germany)

MARTA GONZÁLEZ *Contact Networks of Mobile Agents and Spreading Dynamics*
Output: *Magnum cum Laude* (14-16,19)
Co-supervision with Prof. Hans Herrmann, Univ. Stuttgart, Germany (2004-2006)
Presently associate professor (Berkeley, USA)

MASTER STUDENTS [#47]:

LEILA AL-JABERI *Energy availability assessment with AI-based approaches*
Output: Ongoing.
Co-supervision with Arvind Keprate and Anis Yazidi,
Oslo Metropolitan University, ACIT master, Norway (2023-2025)

KRISTIAN JØRGENSEN *Classification approaches to historical data of extreme climate events*
Output: Ongoing.
Co-supervision with Ana Russo (Univ. Lisbon, Portugal),
Oslo Metropolitan University, ACIT master, Norway (2023-2025)

CLEMENT ATI *Automation and security protocolos for Ahus datawarehouse*
Output: Ongoing.
Co-supervision with Hårek Haugerud and Anis Yazidi,
Oslo Metropolitan University, ACIT master, Norway (2023-2024)

DEVOKTA ANANTA *Detecting Autism and Depression from Eye-Tracking Data*
Output: Ongoing.
Co-supervision with Pedro Lencastre,
Oslo Metropolitan University, ACIT master, Norway (2023-2024)

DUY TRAN *Systemic Interaction Modelling of Wind Turbines*
Output: Ongoing.
Co-supervision with Arvind Keprate,
Oslo Metropolitan University, ACIT master, Norway (2023-2024)

SOMPONG SAESEU *Deep learning-based anomaly detection in wind turbines*
Output: Ongoing.
Co-supervision with Arvind Keprate,
Oslo Metropolitan University, ACIT master, Norway (2023-2024)

HENRIK N. HJELLUP *AI methods in reading tasks to detect dyslexia and ADHD in children*
Output: Ongoing.
Co-supervision with Pedro Lencastre,

Oslo Metropolitan University, ACIT master, Norway (2023-2024)

MD MAHBUBUR RAHMAN
Frequency band based EEG generation
Output: Ongoing.
Co-supervision with Anis Yazidi, Ramesh Upreti,
Oslo Metropolitan University, ACIT master, Norway (2023-2024)

EBENEZER TAKYI
Statistical dependencies between droughts and heatwaves in climate systems
Output: Ongoing.
Co-supervision with Ana Russo (Univ. Lisbon, Portugal),
Oslo Metropolitan University, ACIT master, Norway (2022-2024)

JAYA OJHA
AI tools to model ECG data
Output: Ongoing.
Co-supervision with Profs. Anis Yazidi and Hårek Haugerud,
Oslo Metropolitan University, ACIT master, Norway (2022-2024)

KRISHNA S. RAJASEKARAN
Action-reward coupling in reinforcement learning
Output: Ongoing.
Co-supervision with Prof. Anis Yazidi,
Oslo Metropolitan University, ACIT master, Norway (2022-2024)

MARTE MARIE BREKKE
Key moments and timescale analysis of dry and hot conditions involving reinforcement and triggering of fires
Output: Ongoing.
Co-supervision with Ana Russo (Univ. Lisbon, Portugal),
Oslo Metropolitan University, ACIT master, Norway (2022-2024)

MATHEMA RUJEENA
Is there unconscious visual information?
Output: Ongoing.
Co-supervision with Pedro Lencastre,
Oslo Metropolitan University, ACIT master, Norway (2022-2024)

ARNAU NAVAL
AI for time-series forecasting - Is it any good?
Co-supervision with Pedro Lencastre,
Oslo Metropolitan University, ACIT master, Norway (2022-2023)

CHRISTOS PAPANIKOLAAU
Predicting ADHD in children by eye tracking
Co-supervision with Pedro Lencastre,
Oslo Metropolitan University, ACIT master, Norway (2022-2023)

MARYAM LOTFIGOLIAN
Eye-tracking methods in autism classification
Co-supervision with Pedro Lencastre,
Oslo Metropolitan University, ACIT master, Norway (2022-2023)

MARYAM MARASULI
Exploring pattern signatures of extreme events in wind data
Oslo Metropolitan University, ACIT master, Norway (2022-2023)

OMID PARSA MEHR   *Redesigning the power-grid frequency database project*
Co-supervision with Profs. Norun Sanderson and Leonardo Gorjão (NMBU),
Oslo Metropolitan University, ACIT master, Norway (2022-2023)

WALID DEMLOJ   *The strange world of electricity prices in Europe*
Co-supervision with Prof. Leonardo Gorjão (NMBU),
Oslo Metropolitan University, ACIT master, Norway (2022-2023)

HEDDA MARIE WESTLI   *Statistical Consolidation of a Data Center*
Co-supervision with Profs. Hårek Haugerud and Anis Yazidi,
Oslo Metropolitan University, ACIT master, Norway (2021-2023)

FERNANDO E.G. FLORES   *Modelling the stochastic evolution of wind profiles with neural networks,*
Co-supervision with Dr. Pedro Lencastre and Prof. Anis Yazidi,
Oslo Metropolitan University, ACIT master, Norway (2021-2023)

SHAILENDRA BANDHARI   *Entangling qubits with AI tools,*
Co-supervision with Profs. Sergiy Denisov and Stefano Nichele,
Oslo Metropolitan University, ACIT master, Norway (2021-2023)

DENIS LARSEN   *Optimization approaches to finance data: from classical to quantum*
Co-supervision with Prof. Sergiy Denisov,
Oslo Metropolitan University, ACIT master, Norway (2021-2022)

MARIT ØYE GJERSDAL   *Neural network modelling of time series: applications to eye-tracker data*
Co-supervision with Dr. Pedro Lencastre and Prof. Anis Yazidi,
Oslo Metropolitan University, ACIT master, Norway (2021-2022)

JOSEF JAN KRIVAN   *Picture viewing as a random walk: modelling the result of an eye-tracking experiment*
Co-supervision with Dr. Pedro Lencastre and Prof. Sergiy Denysov,
Oslo Metropolitan University, ACIT master, Norway (2021-2022)

ASSEM MARATOVA   *Pairwise connectivity and beyond: uncovering different functional brain networks in EEGs*
Co-supervision with Dr. Pedro Lencastre and Prof. Anis Yazidi,
Oslo Metropolitan University, ACIT master, Norway (2021-2022)

MARTA DUBAS   *Assessing empathy and impatience from eye movements*
Co-supervision with Dr. Pedro Lencastre,
Oslo Metropolitan University, ACIT master, Norway (2021-2022)

FELIX FRITZ   *Optimal placement of temperature sensors in a small data center*
Co-supervision with Profs. Hårek Haugerud and Anis Yazidi,
Oslo Metropolitan University, ACIT master, Norway (2021-2022)

IOANNIS ADAMOPOULOS   *Methods for digitatization of ECGs*
Co-supervision with Profs. Anis Yazidi and Gustavo de Mello,

Oslo Metropolitan University, ACIT master, Norway (2021-2022)

NORA MARCOUX   *Cartography of the Reddit landscape using graph-based methods*
Co-supervision with Dr. Daniel Schröder and Prof. Johannes Langguth,
Oslo Metropolitan University, ACIT master, Norway (2021-2022)

USMAN ULLAH   *Data analysis of an experiment to analyze the effect of meat substitutes*
Co-supervision with Profs. Vibeke Telle-Hansen and Mari Myhrstad,
Oslo Metropolitan University, ACIT master, Norway (2021-2022)

GLARE DUMO   *Interactive Evolution of Artificial Life Art*
Co-supervision with Prof. Stefano Nichele,
Oslo Metropolitan University, ACIT master, Norway (2021-2022)

AAFREEN AAFREEN   *Mathematical models for infectious diseases*
Co-supervision with Prof. Leiv Øyehaug,
Oslo Metropolitan University, ACIT master, Norway (2020-2021)

NAYAN ADHIKARI   *Evaluation of eye-tracking based solutions as an instrument of social inclusion and equality*
Output: Conference paper + poster.
Co-supervision with Dr. Gustavo Mello,
Oslo Metropolitan University, ACIT master, Norway (2020-2021)

SAMIP BHURTEL   *Using eye-tracking for promoting social inclusion*
Output: Conference paper + poster.
Co-supervision with Dr. Gustavo Mello,
Oslo Metropolitan University, ACIT master, Norway (2020-2021)

SERGIO ROMERO   *Uncovering the functional connectivity network of brain activity from fNIRS data*
Co-supervision Prof. Peyman Mirtaheri,
Oslo Metropolitan University, ACIT master, Norway (2020-2021)

SUJAN DEVKOTA   *Database implementation for exploring future scenarios of increase share of renewables in European power grids*
Output: Conference paper + poster.
Co-supervision Prof. Norum Handersen,
Oslo Metropolitan University, ACIT master, Norway (2020-2021)

SHOKOOH KHEZRI   *Trade-off between optode pressure and quality of fNIRS signals*
Co-supervision with Prof. Anis Yazidi, Oslo Metropolitan University, UD master, Norway (2019-2020)

KRISTOFFER SCHNIEDERS   *Stochastic description of short-time off-shore wind profiles*
Output: 1 paper in preparation.
Univ. Osnabrück, Germany (2017-2018)

CHRISTOPH SCHIEL *Influence of intermittency of wind power on outages in power grids*
Output: 1 paper (62)
Co-supervision with Prof. Philipp Maaß, Univ. Osnabrück, Germany (2016-2017)

MATTHIAS WOLFF *Impact of power fluctuations on stability measures of electric power grids*
Co-supervision with Prof. Philipp Maaß, Univ. Osnabrück, Germany (2016)
Presently doing PhD (Univ. Osnabrück, Germany)

JOANA ESTEVENS *Stochastic modelling of non-stationary financial assets*
Funded by FCT; output: 20 (max=20); 1 paper (63)
Co-supervision with Prof. João Boto, Univ. Lisbon Portugal (2016)

Presently working as consultant (Portugal)

CHRISTIAN BENKHEN *Stochastische Charakterisierung des Offshore Windprofils auf kurzen Zeitskalen*
Co-supervision with Prof. Joachim Peinke and Dr. Matthias Wächter, Univ. Oldenburg, Germany (2013-2014)
Presently doing PhD (Univ. Oldenburg, Germany)

PEDRO LENCASTRE *Uncovering stochastic financial processes from sets of rating matrices*
Output: 19 (max=20); 2 papers (51,55)
Co-supervision with Prof. Isabel Simão, Univ. Lisbon, Portugal (2013-2014)
GARP International Award (USA) for best Master Thesis Project in Mathematical Finance

PAULO ROCHA *Stochastic differential equations for describing the evolution of trade volumes in the New York Stocket Market*
Output: 20 (max=20); 3 papers (52,56,63)
Co-supervision with Prof. João Boto, University of Lisbon, Portugal (2013-2014)
Presently doing research activities at Univ. Lisbon (Portugal)

JOÃO P. DA CRUZ *Criticalidade e Processos Estocásticos em Finanças* [in portuguese]
Output: 18 (max=20); 1 paper (38)
University of Lisbon, Portugal (2010)
Presently working as consultant (Closer, England)

RESEARCH ASSISTANTS, UNDERGRADUATED STUDENTS & INTERNSHIPS [#31]:

ORIANA PRESACAN *AI Uncertainty measures in the context of medical data*
Output: Ongoing.
Research Project, AI-Mind Erasmus, together with Prof. Anis Yazidi Norway (2023)

JAYA OJHA *Trustworthy AI in the health care context*
Output: Ongoing.
Research Project, AI-Mind Erasmus, together with Prof. Anis Yazidi Norway (2023)

DENIS LARSEN   *Deep learning approaches to medical data*
                               Research Project, AI-Mind Erasmus, together with Prof. Anis Yazidi
                               Norway (2023)

STEFAN LEIPRECHT   *Machine Learning approaches to predict electricity prices in Europe*
FABIAN BEHRENS   Erasmus +, together with Dr. Leonardo Gorjão and Prof. Anis Yazidi
                               Norway (2022)

PARISSA AMIN   *Quantum annealing in optimization of cancer therapies*
                               Research Project, OsloMet Research Center for AI, together with Dr. Alvaro
                               Kuhn Loque (UiO) and Prof. Sergyi Denisov
                               Norway (2021-2022)

RAMESH UPRETI   *Trustworthiness in security systems*
                               Research Project, *NordSTAR*, together with Dr. Ahmed Elmokashfi and
                               Prof. Anis Yazidi
                               July-Dezember, Norway (2021)

SEBASTIAN OVERSKOTT   *Approaching quantum computing with evolutionary algorithms*
IOANNIS ADAMOPOULOS   **Output:** 1 paper.
SHAILENDRA BHANDARI   Research Project, *NordSTAR*, together with Profs. Sergiy Denysov and Stefano Nichele,
                               October-Dezember, Norway (2021)

HEINE AABØ   *Survey on quantum networks open questions*
                               Research Project, OsloMet Research Center for AI,
                               August-September, Norway (2021)

ANDREAS HUBER   *Survey on AI tools for investigative journalism*
                               Research Project, OsloMet Research Center for AI,
                               August-September, Norway (2021)

SUSHIL ACHARYA   *Tool for ECG scans digitization*
                               Research Project, OsloMet Research Center for AI,
                               July-December, Norway (2021)

SAMIP BHURTEL   *Data collection and analysis of eye-gaze trajectories*
                               Research Project, OsloMet Research Center for AI,
                               July-December, Norway (2021)

USMAN Z. ULLAH   *Analysis of dietary data*
                               Co-supervison with Vibeke Telle-Hansen and Mari Myhrstad,
                               Research Project, Oslo Metropolitan University,
                               April-October, Norway (2021)

THOMAS H. DALEN,   *An online experiment to explore how teams achieve consensus*
KRISTIAN JØRGENSEN   Co-supervison with Anis Yazidi,
ADRIAN S. AABECH   Bachelor Project, Oslo Metropolitan University,

FILIP STENSØE	July-Dezember, Norway (2021)
JULIE SOLVIN JACOBSEN,	*Hunting for visual information: Stochastic modelling and analysis of eye gaze behaviour*
ESKIL GAARE HØSTAD	Main supervisor: Sergiy Denisov, Bachelor Project, Oslo Metropolitan University, Norway (2020)
HECTOR CHOMETTE	*Implementing a Web-Service for Exploring how People Achieve Consensus*
ROBIN KLINGELHÖFER	Co-supervision with Anis Yazidi,
PIERRE WILS	European Project semester, Oslo Metropolitan University, Norway (2019)
VICTOR G. LOPERA,	*Predicting wind power from wind speed data*
LUKAS M. SPANNENBERGER,	
ELLEN OPHUIS,	Co-supervision with Anis Yazidi,
PATRICK KUIPER	European Project semester, Oslo Metropolitan University,
MAXIME TRINQUARD	Norway (2019)
JEBRIL A. MOHAMED	*Construction of an inexpensive eye-tracking system* Co-supervision with Gustavo Mello, Bachelorarbeit, Oslo Metropolitan University, Norway (2019)
OTTHAR A.N. KROHN	*Implementation of an eye-tracking software for collecting eye movements* Co-supervision with Gustavo Mello, Bachelorarbeit, Oslo Metropolitan University, Norway (2019)
MARVIN BRUNE	*Stochastic Approaches to Wind Data* Bachelorarbeit, Univ. Osnabrück, Germany (2018)
SO-KUMNETH SIM	*Modelling Time Series with ARIMA models* **Output:** 1 paper (69). Bachelorarbeit, Univ. Osnabrück, Germany (2017)
DAVID LOCHER	*Reproducing biological signals* Co-supervision with Prof. Philipp Maaß, Univ. Osnabrück, Germany (2017)
CONSTANTINO GARCIA	*Extreme variability in time series* **Output:** 1 conference paper (17). internship from Spain (Univ. Santiago Compostela), University of Oldenburg, Germany (2015)
PAULO ROCHA	*Stochastic Methods in Wind Energy* **Funded by DAAD**, internship from Portugal (Univ. Lisbon), University of Oldenburg, Germany (2015)
MARCELO PIRES	*Complex networks in cellular tissues* **Funded by CNPq, Brazil; Output:** 1 paper (43)

	Internship from Brazil (Univ. Amapá), University of Lisbon, Portugal (2012-2013)
PAULO ROCHA	*Nonlinear evolution of nonstationary distributions and applications to financial transactions* **Funded by FCT**, University of Lisbon, undergraduate fellowship, Portugal (2012)
ANA FIALHO	*Medidas de Risco: Do Clima da Terra aos Mercados Financeiros* [in portuguese] University of Lisbon, undergraduate project in the Physics Department, Portugal (2011-2012)
MARIA CAROLINA	*Reproduzindo avalanches em laboratório* [in portuguese] University of Lisbon, undergraduate project in the Physics Department, Portugal (2011-2012)
JOÃO CARVALHO	*Noise extraction in stochastic data with strong measurement noise* **Output:** 1 paper (33) University of Lisbon, undergraduate project in the Physics Department **funded by FCT**, Portugal (2009-2010)
VÍTOR VASCONCELOS	*Optimization of variational methods to analyze multivariate stochastic time-series* **Output:** 1 paper (35) University of Lisbon, undergraduate project in the Physics Department **funded by FCT**, Portugal (2009-2010)

HIGH SCHOOL STUDENTS [#1]:

MALTE BUSMANN	*Estimate the value of π* *Gymnasium "In der Wüste"*, Osnabrück, Germany (2017)

Teaching Activities

Lectures & Courses [#24]:

2023-2024 *Statistical Learning*,
Master in Information Technologies, Oslo Metropolitan University,
in english (August-December), Norway.

2023-2024 *Unsupervised and Semi-supervised learning*,
Bachelor in Information Technology, Kristiania University of Sciences,
in english (August-December), Norway.

2022-2023 *Statistical Learning*,
Master in Information Technologies, Oslo Metropolitan University,
in english (August-December), Norway.

2022-2023 *Introduction to AI*,
Bachelor in Information Technology, Kristiania University of Sciences,
in english (August-December), Norway.

2020-2021 *Statistical Learning*,
Master in Information Technologies, Oslo Metropolitan University,
in english (August-December), Norway.

2020-2021 *Research Methods and Ethics*,
Master in Information Technologies, Oslo Metropolitan University,
in english (August-December), Norway.

2019-2020 *Research Methods and Data Analysis*,
Master in Network and System Administration, University of Oslo & Oslo Metropolitan University,
in english (August-December), Norway.

2019-2020 *Research Methods and Ethics*,
Master in Information Technologies, Oslo Metropolitan University,
in english (August-December), Norway.

2018-2019 *Numerische Analysis*,
Graduation in Physics, University of Osnabrück,
in german (October-March), Germany.

2018 *Stochastic Dynamical Systems: Theory and Applications*,
Masters in Physics, University of Osnabrück,
in german (April-September), Germany.

2018 *Networks, Complexity, and Energy Systems*,
Masters in Physics, University of Osnabrück,
in english (April-September), Germany.

2017-2018 *Numerische Analysis*,
Graduation in Physics, University of Osnabrück,
in german (October-March), Germany.

2017 *Stochastische Dynamische Systeme*,
Masters in Physics, University of Osnabrück,
in german (April-September), Germany.

2016 *Networks, Complexity, and Energy System*,
Masters in Physics, University of Osnabrück,
in german (April-September), Germany.

2015-2016 *Network Approach to Energy Sytems*,

	Post-graduation in Physics, University of Oldenburg, with Dr. David Kleinhans, in german (October-March), Germany.
2015-2016	*Stochastic Processes in Experiments*, Post-graduation in Physics, University of Oldenburg, with Dr. Matthias Wächter, in english (October-March), Germany.
2015	*Struktur und Dynamik von Netzwerken: Anwendungen zu Umwelt und Erneuerbaren Energien*, Post-graduation in Environmental Sciences, University of Oldenburg, with Prof. Ulrike Feudel, in german (April-September), Germany.
2015	*Stochastic Processes in Experiments*, Post-graduation in Physics, University of Oldenburg, with Dr. Matthias Wächter, in english (April-September), Germany.
2014-2015	*Stochastic Processes in Experiments*, Post-graduation in Physics, University of Oldenburg, with Dr. Matthias Wächter, in english (October-March), Germany.
2014	*Struktur und Dynamik von Netzwerken: Anwendungen zu Umwelt und Erneuerbaren Energien*, Post-graduation in Environmental Sciences, University of Oldenburg, with Prof. Ulrike Feudel, in german (April-September), Germany.
2014	*Stochastic Processes in Experiments*, Post-graduation in Physics, University of Oldenburg, with Dr. Matthias Wächter, in english (April-September), Germany.
2012-2013	*Criticalidade e Sistemas Complexos*, Masters in Physics, University of Lisbon, in portuguese (October-March), Portugal.
2011-2012	*Criticalidade e Sistemas Complexos*, Masters in Physics, University of Lisbon, in portuguese (October-March), Portugal.
2009-2010	*Criticalidade e Sistemas Complexos*, Masters in Physics, University of Lisbon, in portuguese (October-March), Portugal.

TUTORIALS [#13]:

2019	Computer Programming (as examiner), Bachelor in Economy and Management, Oslo Metropolitan University, in english (February-April), Norway.
2019	Website Project (*Webprosjekt*, as examiner), Bachelor in Information Technologies, Oslo Metropolitan University, in english (March), Norway.
2019	Pratical Project Courses (IT and Data Anaylsis), Master in Information Technologies, Oslo Metropolitan University, in english (August-December), Norway.
2018	*Theoretische Physik 1 - Mechanics*, Graduation in Physics, University of Osnabrück, in german (April-September), Germany.
2016-2017	*Theoretische Physik 2 - Quantenmechanik und Thermodynamik*, Graduation in Physics, University of Osnabrück, in german (October-March), Germany.
2016	*Mathematische Methoden der Physik II*,

Graduation in Physics, University of Osnabrück,
in german (April-September), Germany.

2012-2013   *General Physics*,
Graduation in Physics, *Instituto Superior de Engenharia de Lisboa* (ISEL), Lisbon,
in portuguese (October-March), Portugal.

2009   *Métodos Matemáticos da Física*,
Graduation in Physics, University of Lisbon,
in portuguese (April-September), Portugal.

2007-2008   *Theoretische Physik 5.: Kontinuumsmechanik*,
Graduation in Physics, University of Stuttgart,
in german (October-March), Germany.

2006-2007   *Theoretische Physik 5.: Kontinuumsmechanik*,
Graduation in Physics, University of Stuttgart,
in german (October-March), Germany.

2006   *Theoretische Physik 3.: Elektrodynamik*,
Graduation in Physics, University of Stuttgart,
in german (April-September), Germany.

2006   *Electrodynamics*,
Master in Sciences, University of Stuttgart,
in english (April-September), Germany.

2001   *General Physics*,
Graduation in Physics, University of Lisbon,
in portuguese (October-March), Portugal.

SHORT COURSES [#9]:

2025   *Modelling complex processes with stochastic equations*,
Bad-Honnef School "Modelling and understanding complex phenomena with Chaos Theory",
Physikzentrum January, Bad Honnef,
in english (3 hours), Germany.

2022   *Modelling complex processes with stochastic equations*,
Bad-Honnef School "Modelling and understanding complex phenomena with Chaos Theory",
Physikzentrum 7-12 August, Bad Honnef,
in english (3 hours), Germany.

2020   *Stochastic modelling in complexity sciences*,
Online, Programa Doutoral em Ciências da Complexidade, ISCTE-IUL, Lisbon,
in english (4 hours, 21.04 and 28.04), Portugal.

2018   *Stochastic modelling in complexity sciences*,
Online, Programa Doutoral em Ciências da Complexidade, ISCTE-IUL, Lisbon,
in english (4 hours, 14.03 and 04.04), Portugal.

2015   *Applications of statistical physics to finance*,
Master in Financial Mathematics, University of Lisbon,
in portuguese (3 hours, October 23rd), Portugal.

2013   *Stochastic Processes in Experiments*,
Graduation and Masters in Physics, University of Oldenburg,
in english (6 hours, November), Germany.

2012   *Os modelos da física nas ciências da complexidade*,
Masters in Complexity Sciences, ISCTE-IUL,

in portuguese (10 hours, April-June), Portugal.

2012   *The Network approach: Basic concepts and algorithms*,
         Post-graduation school *Physics Lectures 2012: Complexity from quantum systems to emergent behavior* at the Institute for Nuclear Research (ATOMKI) of the Hungarian Academy of Sciences, Debrecen,
         in english (3 hours, December 13th),
         Hungary.

2009   *Critical Phenomena and Local Dynamics on Complex Networks*,
         Summer Post-graduated course, Tampere University of Technology,
         in english (6 hours, July 6-8), Finland.

Communications, Committees & Meetings

Invited and keynote talks in conferences and workshops: #18
Oral talks at international conferences: #30
Posters at international conferences: #14
Presentations at conferences by co-author: #98
Participation in academic committees: #45
Seminars at research institutes and universities: #64
Research meetings with the industry and business partners: #14
Outreach seminars for non-scientific audiences and the general public: #23
Total: # 306

Invited and keynote talks in conferences and workshops

(18) From Physics to Health through AI: eye-tracking data analysis,
XXIV Encontro Nacional de Física Estatística (ENFE), Universidade Federal do Paraná, Curitiba, Brazil, 3-7 November (2024).

(17) Innovation in Academia: Matchmaking,
(With Ondŕej Krejcar) HED, University of Hradec Kralove, Czech Republic, April 10-12, (2024).

(16) Aerodynamics and Percolation,
XVI Latin American Workshop on Nonlinear Phenomena (LAWNP), La Paz, Bolivia, 22-26 October (2019).

(15) Aerodynamics and Percolation,
Conference on Nonlinear Systems and Dynamics (CNSD), JNU New Delhi India, 11-14 October (2018).

(14) From conventional to renewable power: Insights on the role of grid heterogeneities and long-range connectivity,
Dynamics Days Europe, 5-9 June, Szeged, Hungary (2017).

(13) Taming stochasticity: 20 years of answers (and questions) blowin' in the wind,
Conference on the 60th Anniversary of Joachim Peinke, 26th January, University of Oldenburg (2017).

(12) *Um pouco mais além do infinito para ficar aquém* (in portuguese),
Mateus DOC VIII, Infinito, Casa de Mateus, Portugal, November 28-30 (2014).

(11) Connecting Sciences: An interdisciplinary trip through complex webs from statistical physics to life and society,
School on Biological Complex Networks: From the cell to the brain and beyond, International Institute of Physics, Federal University of Rio Grande do Norte, 8-19 July, Brazil (2013).

(10) *Adaptação, Risco e Sustentabilidade: Três Ingredientes Fundamentais para uma Receita Perfeita de um Futuro Garantido. Ilusão ou Realidade?* (in portuguese),
Mateus DOC III, Sustentabilidade, Casa de Mateus, Portugal, October 5-7 (2012).

(9) *Arriscar com menos Risco: É possível maximizar a predictabilidade?* (in portuguese)
Mateus DOC II, Risco/ Risk, Casa de Mateus, Portugal, October 14-16 (2011).

(8) Linking Sciences: An interdisciplinary tour of complex networks from statistical physics to social sciences,
Anthropology and Complexity, Arrábida, Portugal, July 11th-13th (2011).

(7) Granular Materials: the world of grains,
From Soft Matter to Stochastic Processes, Summer School, University of Lisbon, July 18-22 (2011).

(6) Stochastic data analysis: uncovering predictability,
From Soft Matter to Stochastic Processes, Summer School, University of Lisbon, July 18-22 (2011).

(5) Uncovering predictability in stochastic systems,
Data Analysis and Modelling in Earth Sciences - DAMES 2010, September 20-24, Lisbon, Portugal (2010).

(4) Sequential polydisperse packings: theory and applications,
ESMC2009, 7-11 September, IST, Lisbon, Portugal (2009).

(3) Modelling and studying social networks,
Conference on Computational Physics CCP2007, 5-8 September, Brussels, Belgium (2007).

(2) Simple network structures,
Summer School on Socio and Econophysics, 12-15 September, Windberg, Germany (2007).

(1) Clustering in bipartite networks and network models to social systems,
International School of Complexity Physics and Socio-Economics Phenomena,
Erice, Sicily, Italy, September 17-23 (2006).

ORAL TALKS AT INTERNATIONAL CONFERENCES:

(30) Innovation within *NordSTAR* initiative,
Summer School on Technology and Knowledge Transfer,
University of Hradec Kralove, Czech Republic, June 8 (2022).

(29) 2022, Norway,
"Quantum computing and AI: why should we care?", NORA Webinar, January 7th.

(28) 2021, Norway,
"AI in Health: Two examples of ongoing research initiatives in Oslo", Talk a t AI Global Festival 2021, Oslo, 24th November.

(27) 2021, Norway,
"NordSTAR: a new center for AI research", NORA Webinar, February 19th.

(26) A model of percolation applied to an engineering problem in aerodynamics,
D.Traphan, T.T. B.Wester, G.Gülker, J.Peinke, P.G.Lind,
"Statistical Physics of Complex Systems", Stokholm, Sweden, 7-11 May (2019).

(25) Rogue waves as entropy consuming trajectories through scale processes,
A.Hadjihossein, P.G.Lind, N.Hoffmann, N.Mori and J.Peinke "Extremes 2018", Herrenhausen Palace in Hanover, Germany, 5 March (2018).

(24) Stochastic modeling of wind speed data from an offshore platform,
Pedro G. Lind, Kristoffer Schnieders, So-Kumneth Sim, Matthias Wolff, Philipp Maass,
Dynamic Days Europe, Univ. Loughborough, 3-7 September (2018).

(23) From conventional to renewable power: the role of grid heterogeneities,
Pedro Lind, Philipp Maass, Christoph Schiel and Matthias Wolff,
DPG Tagung, Dresden, March 22nd (2017).

(22) The role of heterogeneities for the stability of the German power grid,
Pedro Lind, Philipp Maass, Christoph Schiel and Matthias Wolff,
it SciGrid, Next Energy, Oldenburg, 30-31 March (2017).

(21) Stochastic model for indirect estimation of instantaneous and cumulative loads in wind turbines: a systematic approach for off-shore wind farms,
P.G. Lind, J. Peinke, M. Wächter,
DEWEK 2015, Bremen, 19-20 May (2015).

(20) *Free markets and the emergence of leverage thresholds*,
J.P. da Cruz, F. Raischel and P.G. Lind,
DPG-Tagung, Tech. Univ. Dresden, 30 March - April 4th, Dresden, Germany (2014).

(19) *Uncovering wind turbine properties through two-dimensional stochastic modeling of wind dynamics*,
F. Raischel, T. Scholz, V.V. Lopes, and P.G. Lind,
DPG-Tagung, Tech. Univ. Dresden, 30 March - April 4th, Dresden, Germany (2014).

(18) *Bridging data and knowledge through a simple stochastic method*,
P.G. Lind,
3rd Stochastic Modeling Techniques and Data Analysis International Conference, Lisbon, Portugal, 11-14 June (2014).

(17) *Dynamics and intermittency of load fluctuations in WEC*,
Pedro G. Lind, Matthias Waechter and Joachim Peinke,
The Science of Making Torque from Wind,
Technical University of Denmark, Copenhagen, Denmark, 18-20 June (2014).

(16) Minimal agent model for economic critical behavior: application to financial stability,
João P. da Cruz and Pedro G. Lind,
12th Experimental Chaos and Complexity Conference, University of Michigan, USA, May 16-19 (2012).

(15) The emergence of critical behavior in evolving economies,
J.P. da Cruz and P.G. Lind,
DPG-Tagung, Tech. Univ. Dresden, 14-18 March, Dresden, Germany (2011).

(14) Recent trends in Markov Analysis,
P.G. Lind
Encontro Nacional de Física da Matéria Condensada, 18-19 February, *Instituto Superior Técnico*, Lisbon (2010).

(13) On recent trends to model and study social networks,
P.G. Lind and H.J. Herrmann,
72. Jahrestagung der DPG, Technische Universität Berlin,
25-29 February, Berlin, Germany (2008).

(12) Modelling social networks,
M.C. González, P.G. Lind, H.J. Herrmann,
Journées de Physique Statistique, *École Supérieure de Physique et de Chimie Industrielles* (ESPCI),
France, Paris, January 25-26 (2007).

(11) Cycles and clustering in bipartite networks,
P.G. Lind, Marta C. González, H.J. Herrmann,
Dynamics on Complex Networks and Applications (DYONET06), Max-Planck Institute für Komplexe Systeme, Dresden, Germany (2006).

(10) Coupled Langevin Equations for the North Atlantic Oscillation,
P.G. Lind, A. Mora, J.A.C. Gallas, M. Haase,
XXV Dynamics Days Europe 2005, Berlin, Germany (2005).

(9) A variational problem to reduce stochasticity in the North Atlantic Oscillation index,
P.G. Lind, A. Mora, J.A.C. Gallas, M. Haase,
5th Annual Meeting of the European Meteorological Society, 7th European Conference on Applications of Meteorology, Utrecht, Netherlands (2005).

(8) How noisy is the North Atlantic Oscillation?, P.G. Lind, A. Mora, J.A.C. Gallas, M. Haase,
13th International IEEE Workshop on Nonlinear Dynamics of Electronic Systems, Potsdam, Germany (2005).

(7) Synchronization in complex networks of discrete maps with delayed coupling,
P.G. Lind, A. Nunes and J.A.C. Gallas,
IX Latin American Workshop on Nonlinear Phenomena (LAWNP05), San Carlos de Bariloche, Argentina (2005).

(6) Transition to coherence in scale-free networks of coupled maps,
P.G. Lind, J.A.C. Gallas and H. Herrmann,
Verhulst 200, Brussels, Belgium (2004).

(5) Redes de Mapas Acoplados: Estudos Numéricos e Aplicações,
P.G. Lind, J.A. Corte-Real, J.A.C. Gallas,
Escola Brasileira de Mecânica Estatística, Institute of Physics of São Carlos, University of São Paulo, São Carlos, Brazil (2002).

(4) Studying ocean convection modeling with coupled bistable maps,
Pedro G. Lind, Sven Titz, Till Kuhlbrodt, João Corte-Real, Jürgen Kurths, Jason A.C. Gallas and Ulrike Feudel,
XXVII General Assembly of the European Geophysical Society, Nice, France (2002).

(3) Gradient Flows in Rings of Coupled Maps,
P.G. Lind, J.A. Corte-Real, J.A.C. Gallas,
XXVI General Assembly of the European Geophysical Society, Nice, France (2001).

(2) Tuning the Velocity of Traveling Waves in Rings of Coupled Maps,
P.G. Lind, J.A. Corte-Real, J.A.C. Gallas,
VII Latin American Workshop on Nonlinear Physics, Cocoyoc, Morelos, Mexico (2001).

(1) Wave Propagation Phenomena of Coupled Maps and Meteorological Applications,
P.G. Lind, J.A. Corte-Real, J.A.C. Gallas,
IUPAP - International Conference on New Trends in the Fractal Aspects of Complex Systems (FACS 2000), Federal University of Alagoas, Maceió, Brazil (2000).

POSTERS AT INTERNATIONAL CONFERENCES:

(14) Estimating instantaneous and cumulative loads in wind turbines through a simple stochastic method,
P.G.Lind, I.Herráez, J.Peinke, M.Anvari, M.Wächter,
Wind Farms 2015,
KU Leuven, Belgium, 8-10 July (2015).

(13) *Stochastic Evolution of New York Stock Market Distributions*,
P. Rocha, J. da Cruz, F. Raischel and P.G. Lind,
DPG-Tagung, Tech. Univ. Dresden, 30 March - April 4th, Dresden, Germany (2014).

(12) Measurement noise in stochastic time-series: applications to climate indices,
P.G.Lind, M.Haase, F.Boettcher, J.Peinke, D.Kleinhans, R.Friedrich
Stochastic Approaches to Complexity,
8-12 January, Bad Honnef, Germany (2009).

(11) Avalanches in anisotropic media of polygonal particles under shearing,
A.A. Peña, S. McNamara, P.G. Lind, H.J. Herrmann
Powders and Grains 2009, July 13-17, Colorado School of Mines, Golden, CO, USA (2009).

(10) Sequential random packings of spheres and ellipsoids,
R.M. Baram, H. Herrmann, P.G. Lind,
Powders and Grains 2009, July 13-17, Colorado School of Mines, Golden, CO, USA (2009).

(9) Sequential random packings of spheres and ellipsoids,
P.G. Lind, R.M. Baram and H.J. Herrmann,
72. Jahrestagung der DPG, Technische Universität Berlin,
25-29 February, Berlin, Germany (2008).

(8) Sequential random packings,
P.G. Lind,
APS March Meeting 2008, 10-14 March, New Orleans, LA, USA (2008).

(7) Statistical properties of random polydisperse packings and bearings,
P.G. Lind,
Statphys 23 (IUPAP), 9-13 July, Genova, Italy (2007).

(6) On the Concept of Pattern in Discrete Systems,
P.G. Lind, J.A. Corte-Real, J.A.C. Gallas,
EGS-AGU-EUG Joint Assembly, Nice, France (2003).

(5) Geometry effects in synchronization between coupled elements,
André S. Ribeiro and Pedro G. Lind,
APHYS03 – First International Meeting on Applied Physics, Badajoz, Spain (2003).

(4) Synchronization induced by advection in lattices of coupled oscillators,
Pedro G. Lind, João M. Corte-Real and Jason A.C. Gallas,
APHYS03 – First International Meeting on Applied Physics, Badajoz, Spain (2003).

(3) Simulating convection in 2D discrete lattices with advection,
P.G. Lind, J.A. Corte-Real, J.A.C. Gallas,
Control, Communication and Synchronization in Chaotic Dynamical Systems, Max-Planck-Institut
für Physik Komplexer Systeme, Dresden, Germany (2001).

(2) Traveling Waves Induced by Parameter Fluctuations in Networks of Oscillators,
P.G. Lind, J.A. Corte-Real, J.A.C. Gallas,
Space Time Chaos: Characterization, Control and Synchronization, Catholic University of Navarra,
Pamplona, Spain (2000).

(1) Wave Propagation Phenomena in Lattices of Chaotic Maps,
P.G. Lind, J.A. Corte-Real, J.A.C. Gallas,
Space Time Chaos: Characterization, Control and Synchronization, Catholic University of Navarra, Pamplona, Spain (2000).

PRESENTATIONS AT CONFERENCES BY CO-AUTHOR:

(98) A Markov-chain model for assessing heatwaves and droughts in Iberian Peninsula,
E. Takyi, P.G. Lind, A. Russo,
International Conference on Energy and Economics, University of Minho, Guimarães, Portugal, 6-7 June 2024.

(97) Exploring human cognition from eye-movement: Is there unconscious visual information?
J. Ojha, H. Haugerud, A. Yazidi, P.G. Lind,
ICDAR ???, Tailand, June 2024

(96) Explainable AI in ECG analysis,
R. Mathema, P.G. Lind, P. Lencastre,
ICDAR ???, Tailand, June 2024

(95) An interpretable graph based model for classification of EEG using directional functional connectivity,
M. Radwan, P.G. Lind, A. Yazidi,
International Symposium on Biomedical Imaging, ???, 2024

(94) A time-aware tensor decomposition for concept evolution,
C.Chatzis, C.Schenker, M.Pfeffer, P.G.Lind, E.Akar,
International Association of Applied Mathematics and Mechanics 18-22 March, Magdeburg, 2024.

(93) Cellular Automata to Random Boolean networks as computational substrates,
T.Glover, R.Jahren, P.G.Lind, F.Martinuzzi, Stefano Nichele,
Geilo Winter Schools in eScience, Geilo, Norway, 19-24 January, 2024.

(92) A time-aware tensor decomposition for concept evolution,
C.Chatzis, M.Pfeffer, P.G.Lind, E.Acar,
Geilo Winter Schools in eScience, Geilo, Norway, 19-24 January, 2024.

(91) Decoding Digital Wildfires: Understanding Network Dynamics of the 5G-COVID-19 Conspiracy Theory in Complex Interaction Networks,
K.S.Gåsvær, J.Langguth, P.G.Lind, D.T.Schroeder,
Complex Networks 2023: 12th Internationcal Conference on Complex Networks and Their Applications, Palermo, Italy, November, 2023.

(90) Multivariate time series classification of EEG data,
M.Radwan, P.G.Lind, A.Yazidi, Alzheimer Europe 2023, Aalto University, 16-18 October, Helsinki, Norway (2023).

(89) Learning visual concepts to enhance the interpretability of EEG signals as markers of Alzheimer's disease,
R.Khadka, P.G.Lind, A.Yazidi, Alzheimer Europe 2023, Aalto University, 16-18 October, Helsinki, Norway (2023).

(88) tPARAFAC2: A Time-aware tensor decomposition for concept tracking,
C.Chatzis, M.Pfeffer, P.G.Lind and E.Acar,
IEEE International Workshop of Machine Learning Signal Processing, September (2023).

(87) Foraging strategies and visual scan-paths,
P.Lencastre, S.Denysov, A.Yazidi, P.G.Lind, International Conference on "Nonlinear Data Analysis and Modeling: Advances, Applications, Perspectives", organised on the occasion of Prof. Jürgen Kurths' 70th birthday, in March 15-17, Potsdam, Germany (2023).

(86) Hate Speech against Muslims in Norwegian social media: mapping its evolution and networks,
Yuri Kasahara, Pedro Lind, Anis Yazidi, Daniel Schroeder, Anne Birgitta Nielsen, 20th Scandinavian Workshop on E-Government (SWEG), 1-2 February, Örebro University, Sweden, 2023.

(85) Comparative analysis of functional connectivity metrics in EEG datasets,
A. Maratova, P. Lencastre, A. Yazidi and P. G. Lind,
The 2022 IEEE Signal Processing in Medicine and Biology Symposium, Online Participation, 2022.

(84) Understanding the Evolution of Reddit in Temporal Networks induced by User Activity,
Nora Marcoux, Pedro G. Lind, Johannes Langguth, Andreas Huber, and Daniel Thilo Schroeder
Complex Networks 2022: 11th Internationcal Conference on Complex Networks and Their Applications, Palermo, Italy, 8-10 November, 2022.
Best presentation award.

(83) Evolving quantum circuits to implement stochastic and deterministic cellular automata rules,
S.Bhandari, S.Overskott, I.Adamopoulos, P.G.Lind, S.Denysov, S.Nichele,
ACRI 2022, Geneve 7-11 September 2022.

(82) Noisy intermediate scale quantum computers as open quantum systems,
K.Wold, S.Selstø, P.G. Lind, S.Denysov,
Modeling and understanding complex phenomena with Chaos Theory, Bad Honnef Physics School, Germany, 7-12 August, 2022.

(81) An HCI Experiment to Explore Interactive Artificial Life Art,
G.Dumo, P.G.Lind, S.Nichele
HCI International, June 2022.

(80) Data-driven Reconstruction of Last Glacials' Climate Dynamics Suggests Monostable Greenland Temperatures and a Bistable Northern Hemisphere Atmosphere,
L.Rydin, K.Riechers, F.Hassanibesheli, D.Witthaut, P.G.Lind, N.Boers
EGU General Assembly, April 2022.

(79) Conspiracy Theory Dynamics in Social Networks,
D.Schröder, Johannes Langguth, P.G. Lind,
SKUP Conference, *Norsk Journalistlag*, April 1.-3. 2022.

(78) A Smarter Approach to AI-Based Quantum Compiling,
K.Wold, S.Denysov, S.Selstø, P.G. Lind,
Openness as a resource: Accessing new quantum states with dissipation, Dresden, 31.January-4.February 2022.

(77) Interactive Evolution of Artificial Life Art,
G.E. Dumo, P.G. Lind, S. Nichele,
1st FeLT Seminar Workshop, OsloMet, 11 February 2022.

(76) Stochastic models of the eye movements during image inspection,
P.R. Lencastre, S. Denysov, A. Yazidi, P.G. Lind,
Dynamics Days Europe 2021, 23-27 August 2021.

(75) The Dynamical Landscape of Reservoir Computing with Elementary Cellular Automata,
T.E. Glover, P.G. Lind, A. Yazidi, E. Osipov and S. Nichele,
ALIFE 2021, The 2021 Conference on Artificial Life, Virtual (formerly Prague), 19-23 July, 2021.

(74) Evaluation of eye-tracking-based solutions as an instrument for communication,
N. Adhikari, P.G. Lind, G. Mello,
HCI International 2021, 23rd International Conference on Human-Computer Interaction, 24-29 July 2021.

(73) A user-centered web interface for power grid database,
S. Devkota, P.G. Lind, N. Sanderson,
HCI International 2021, 23rd International Conference on Human-Computer Interaction, 24-29 July 2021.

(72) Strategies to promote social inclusion of user of augmented commmunication technologies,
S. Bhurtel, P.G. Lind, G. Mello,
HCI International 2021, 23rd International Conference on Human-Computer Interaction, 24-29 July 2021.

(71) A Framework for Interaction-based Propagation Analysis in Online Social Networks,
D.T.Schroeder, P.G.Lind, K.Pogorelov and J.Langguth,
Complex Networks 2020: Ninth International Conference on Complex Networks & their Applications, Online Conference, Nov.30th-Dec.3rd (2020).

(70) Small scale structures of turbulence in terms of entropy and fluctuation theorems,
J.Peinke, A.Fuchs, M.Wächter, S.M.Queirós, P.G.Lind, A.Girard, F.Bouchet,
APS 73rd Annual Meeting, Virtual, 22-24 November (2020).

(69) From topology to functionality: Does global perturbation in in-vitro neural networks drive hub adaptation towards computational efficiency?,
J.S.Weir, S.Nichele, P.Lind, G.Tufte, A.Sandvig, I.Sandvig,
FENS 2020, Glasgow, UK.

(68) Using eye-tracking in teaching and social inclusion,
O. Krohn, V. Varankian, P.G. Lind, G.B.M. Mello,
HCI2020 - 22nd International Conference on Human-Computer Interaction, Copenhagen, Denmark, 19-24 July (2020).

(67) EvoDynamic: a framework for the evolution of generally represented dynamical systems and its application to criticality,
S. Pontes-Filho, P.G. Lind, A. Yazidi, J. Zhang, H. Hammer, G.B.M. Mello, I. Sandvig, G. Tufte, S. Nichele,
Evostar - The Leading European Event on Bio-Inspired Computation, Seville, Spain, 15-17 April (2020).

(66) Small scale structures of turbulence in terms of entropy and fluctuation theorems,
A. Fuchs, J. Peinke, M. Wächter, S.M.D. Queirós, A. Gerard, P.G. Lind,
DPG Spring Meeting, Dresden, Germany, 15-20 March (2020).

(65) Short-term power grid stability under stochastic feed-in of renewable energy sources,
P. Maass, P.G. Lind, M.F. Wolff,
Dynamic Days, Univ. Rostock, Germany, 2-6 September (2019).

(64) On the existence and characterization of extreme events in wind data,
C.A.G. Martínez, P.G. Lind, M. Wächter, J. Peinke,
VII European conference on Renewable Energy Systems, Madrid, Spain, 10-12 June (2019).

(63) Wind speed modeling by nested ARIMA processes,
S. Sim, P.G. Lind, P. Maass,
DPG Tagung, Regensburg, March (2019).

(62) Perturbation characteristics of power grid models under stochastic power input,
M. Wolff, P.G. Lind, P. Maass,
DPG Tagung, Regensburg, March (2019).

(61) The importance of power grid heterogeneities for grid stability,
Matthias Wolff, Pedro G. Lind, Philipp Maass,
WE-Heraeus-Seminar *Nonlinear Dynamics, Optimization and Control of Distributed Energy Systems*, Bad Honnef, Germany, 28-31 January (2018).

(60) Modelling wind speed data from an offshore platform,
K.Schnieders, S.-K.Sim, P.Mass and P.G.Lind,
WE-Heraeus-Seminar *Nonlinear Dynamics, Optimization and Control of Distributed Energy Systems*, Bad Honnef, Germany, 28-31 January (2018).

(59) Modelling non-Stationary Continuous Markov processes,
P.Lencastre, F.Raischel, T.Rogers and P.G.Lind,
"Extremes 2018", Herrenhausen Palace in Hanover, Germany, 5 March (2018).

(58) Stochastic modelling of non-stationary financial assets,
J.Estevens, P.Rocha, J.P.Boto and P.Lind,
"Extremes 2018", Herrenhausen Palace in Hanover, Germany, 5 March (2018).

(57) Rogue waves and entropy consumption,
A.Hadjihossein, C.Behnken, P.G.Lind, N.Hoffmann, N.Mori and J.Peinke,
EGU General Assembly 2018, Vienna, 8-13 April (2018).

(56) Impact of transmission line heterogeneities and transient reactances on grid response to fluctuating power input,
Philipp Maass, Pedro G. Lind, Matthias Wolff,
Dynamic Days Europe, Univ. Loughborough, 3-7 September (2018).

(55) Times to maximal node asynchrony after local perturbations in power grids,
Matthias Wolff, Pedro G. Lind and Philipp Maass,
Dynamic Days Europe, Univ. Loughborough, 3-7 September (2018).

(54) Uncovering Aerodynamics by means of Percolation: Transition and Flow Separation on Airfoils,
D.Traphan, B.Espenhahn, T.T.B.Wester, P.G.Lind, J.Peinke, G.Gülker,
ITI conference, 2018.

(53) Estimating outage probabilities of electricity grids under wind power injection,
Christoph Schiel, Pedro Lind, Philipp Maass,
DPG Tagung, Dresden, March 22nd (2017).

(52) Impact of heterogeneities in power generation and transmission line admittances on power grid stability,
Matthias Wolff, Pedro Lind, Philipp Maass,
DPG Tagung, Dresden, March 22nd (2017).

(51) Rogue waves in terms of multi-point statistics and nonequilibrium thermodynamics,
Ali Hadjihosseini, Pedro Lind, Joachim Peinke. EGU General Assembly 2017, Vienna, 23-28 April (2017).

(50) Optimized adjustment of a reaction-diffusion model to case-specific atrial physiology: towards clinical implementation,
Pedro G. Lind, Yvonne Richter, Gunnar Seemann, Claudia Lenk, Philipp Maass,
CinC - Computing in Cardiology 2017, 24-27 October, Rennes, France (2017).

(49) Influence of intermittency of wind power on the statistics of transmission line outages in power grids,
Christoph Schiel, Pedro Lind, Philipp Maass,
STATPHYS26, Lyon 18-22 July (2016).

(48) Modelling and analysis of non-stationary observables: the example of wind power production,
Jan-Magnus Kurzhals, Pedro Lind and Philipp Maass,
STATPHYS26, Lyon 18-22 July (2016).

(47) Impact of power fluctuations on stability measures of electric power grids,
Matthias Wolff, Pedro Lind, Philipp Maass,
STATPHYS26, Lyon 18-22 July (2016).

(46) Rogue waves,
Joachim Peinke, Ali Hadjihosseini, Matthias Wächter, Pedro Lind, Norbert P. Hoffmann,
Statussymposium "Extremes", Volkswagenstiftung (2016).

(45) *Short-Time Stochastic Characterization of the Offshore Wind Profile*,
C. Behnken, P.G. Lind, M. Wächter and J. Peinke,
79. DPG-Jahrestagung und DPG-Frühjahrstagung, Berlin (TU), 15-20 March (2015).

(44) *One single turbine to estimate fatigue within a wind farm*,
P.G. Lind, M. Wächter and J. Peinke,
79. DPG-Jahrestagung und DPG-Frühjahrstagung, Berlin (TU), 15-20 March (2015).

(43) Determination of stationary and dynamical power curves in inhomogeneous wind flow using a nacelle-based lidar system,
I. Würth, A. Rettenmeier, P.W. Cheng, M. Wächter, P.G. Lind, J. Peinke,
DEWEK 2015, Bremen, 19-20 May (2015).

(42) *Measuring Complexity Leadership*,
17th Congress of the European Association of Work C. Gomes, M. Mendes, P. Marques-Quinteiro, P. Lind, L. Curral,
17th Congress of the European Association of Work and Organizational Psychology (EAWOP), Oslo, Norway, May (2015).

(41) A direct method for the analysis of multidimensional Langevin-type stochastic processes subject to strong measurement noise,
Teresa Scholz, Frank Raischel, Pedro Lind, Matthias Wächter, Bernd Lehle and Vitor Lopes
Frontiers in Computational Physics: Energy Sciences,
ETH Zurich, Switzerland, 3-5 June (2015).

(40) A direct method for the Langevin-analysis of multidimensional stochastic processes with strong correlated measurement noise,
Teresa Scholz, Frank Raischel, Pedro Lind, Matthias Wächter, Bernd Lehle and Vitor Lopes
2015 International Work-Conference on Time Series (ITISE 2015),
Granada, Spain, 1-3 July (2015).

(39) A systematic approach for estimating loads in offshore wind farms,
P.G. Lind, I. Herráez, M. Wächter, J. Peinke,
RAVE Conference, Bremerhaven, Germany, 13-15 October (2015).

(38) Signals reconstruction. An alternative approach for wind turbine monitoring,
L. Vera-Tudela, P.G. Lind, M. Wächter, J. Peinke, M. Kühn,
RAVE Conference, Bremerhaven, Germany, 13-15 October (2015).

(37) Efficient load and power monitoring by stochastic methods,
M. Wächter, P.G. Lind, P. Rinn, P. Milan, B. Stoevesandt, J. Peinke,
EWEA 2015, Paris, November 17-20 (2015).

(36) *Urban pollution modeling using synoptic and local scale meteorological data*,
A. Russo, R.M. Trigo, P. Lind, F. Raischel, M. Mendes,
Conference on European Climate Change Adaptation,
Lisbon, 10-12 March, Portugal (2014).

(35) *Modeling and analysis of cyclic inhomogenouos Markov processes: a wind turbine case study*,
T. Scholz, F. Raischel, P.G. Lind, V.V. Lopes,
3rd Stochastic Modeling Techniques and Data Analysis International Conference, Lisbon, Portugal,
11-14 June (2014).

(34) *Stochastic Evolution of New York Stock Market Distributions*,
P. Rocha, J. da Cruz, F. Raischel and P.G. Lind,
3rd Stochastic Modeling Techniques and Data Analysis International Conference, Lisbon, Portugal,
11-14 June (2014).

(33) *How Trustful are Rating Agencies?*,
P. Lencastre, F. Raischel and P.G. Lind,
3rd Stochastic Modeling Techniques and Data Analysis International Conference, Lisbon, Portugal,
11-14 June (2014).

(32) *Principal wind turbines for measuring risk in the power production of wind parks*,
Frank Raischel, Teresa Scholz, Vitor V. Lopes and Pedro G. Lind,
The Science of Making Torque from Wind,
Technical University of Denmark, Copenhagen, Denmark, 18-20 June (2014).

(31) *2. Characterizing the non-stationary evolution of volume-prices evolution in the New York Stock Market*,
P. Rocha, J. da Cruz, F. Raischel and P.G. Lind,
International Conference on Mathematical Modeling in Physical Sciences, Madrid, Spain, 28-31 August (2014).

(30) *The effect of the number of states on the validity of credit ratings*,
P. Lencastre, F. Raischel and P.G. Lind,
International Conference on Mathematical Modeling in Physical Sciences, Madrid, Spain, 28-31 August (2014).

(29) *Complex leadership theory: A new way to look at organizations*,
M. Mendes, C. Gomes, P. Marques-Quinteiro, P. Lind, L. Curral,
Meeting for scientific interchange with the Department of Psychology of the Palacky University Olomouc, Czec Republic at the Faculty of Psychology, University of Lisbon, Lisbon, Portugal, December (2014).

(28) *Scientia@pt*: a smart project for Portugal,
Ricardo F. Branco e Pedro G. Lind,
Mateus Meeting 2012, Challenges of Adaptation III, Universities & Smart Strategies for Regions,
IICM - Casa de Mateus, Portugal, May 18-20 (2012).

(27) Decoupling stochastic sources in multivariate data: an application to NO2 stations,
Frank Raischel, P.G.Lind, A. Russo, D. Kleinhans, M. Haase,
Understanding and Managing Randomness in Physics, Chemistry and Biology, Barcelona, Spain, June 4-8 (2012).

(26) Stochastic Data Analysis: application to air quality and wind turbines,
Frank Raischel, P.G.Lind, T. Scholz, V. Lopez, A. Russo, D. Kleinhans, M. Haase,
Dynamics Days Europe, Gothenburg, Sweden, August 5th (2012).

(25) Two-dimensional stochastic modelling of wind turbines,
T. Scholz,F. Raischel, V.V. Lopes, P.G. Lind,
DAMES 2012: Data analysis and modeling in Earth sciences, 8-10 October, Potsdam, Germany.

(24) The influence of minimum capital levels in financial risk,
J.P. da Cruz and P.G. Lind,
Risk & Extreme Values in Insurance and Finance, FCUL, University of Lisbon, Portugal, June 6-7 (2011).

(23) Modeling crisis and Basel III directives in evolving financial networks,
J.P. da Cruz and P.G. Lind,
Coping with Crises in Complex Socio-Economic Systems, ETH Zurich, Switzerland, June 20-25 (2011).

(22) Diffusion Eigensystems of Stochastic Processes,
Frank Raischel, David Kleinhans, Joachim Peinke, Matthias Wächter, Maria Haase and Pedro G. Lind,
International Conference on Statistical Physics, Ayia Napa, Cyprus, July 11th-15th (2011).

(21) Deposition of ellipsoidal particles,
R. Baram and P.G. Lind,
Gordon Research Conference on Soft Matter Far from Equilibrium New Hampshire, USA, August 14-19 (2011).

(20) Principal axes for stochastic dynamics,
Vítor V. de Vasconcelos, Frank Raischel, David Kleinhans, Joachim Peinke, Matthias Wächter, Maria Haase and Pedro G. Lind,
XXXI Dynamic Days Europe, Oldenburg, Germany, September 12-16 (2011).

(19) Superdiffusion of massive particles induced by multi-scale flows,
R.M. Baram, P.G. Lind, J.S. Andrade Jr., H.J. Herrmann,
Encontro Nacional de Física da Matéria Condensada, 18-19 Fevereiro, *Instituto Superior Técnico*, Lisbon (2010).

(18) Reconstruction and Predictability of Stochastic Processes,
J. Carvalho, M. Haase, D. Kleinhans, P.G. Lind, J. Peinke, E. Pinto, F. Raischel, V.V. de Vasconcelos, M. Wächter,
Dynamic Days South America 2010, Julho 26-30, INPE, São José dos Campos, S.Paulo, Brazil, (2010).

(17) Random sequential packings of arbitrary ellipsoids,
R.M. Baram and P.G. Lind
XXX Dynamic Days Europe, 6-10 Setembro, Bristol, UK (2010).

(16) Stochastic eigendirections,
V.V. de Vasconcelos, M. Wächter, M. Haase, D. Kleinhans, P.G. Lind, J. Peinke, F. Raischel,
Data Analysis and Modelling in Earth Sciences - DAMES 2010, September 20-24, Lisbon, Portugal (2010).

(15) Evaluating strong measurement noise in data series with simulated annealing procedures,
J. Carvalho, F. Raischel, M. Haase and P.G. Lind,
Data Analysis and Modelling in Earth Sciences - DAMES 2010, September 20-24, Lisbon, Portugal (2010).

(14) Frictional instabilities in packings of polygonal particles under slow shearing,
A.A. Peña, S. McNamara, P.G. Lind, H.J. Herrmann
From Shear Bands to Rapid Flow, Monte Verità, Switzerland, February 22. - 27. (2009).

(13) Superdiffusion of massive particles induced by multi-scale flow,
R.M. Baram, P.G. Lind, J.S. Andrade and H.J. Herrmann
Flowers and Jammers: from liquid crystals to grains, 17-19 June, Universidade de Lisboa, Portugal (2009).

(12) Superdiffusion of massive particles induced by multi-scale flows,
R.M. Baram, P.G. Lind, J.S. Andrade Jr., H.J. Herrmann,
XI Latin American Workshop on Nonlinear Phenomena, 5-9 October, Rio de Janeiro, Búzios, Brazil (2009).

(11) A system of mobile agents to model social networks,
Marta C. González, P.G. Lind, H.J. Herrmann
Dynamics Days 2006, presented by M.C. González,
University of Maryland, Maryland, USA (2006).

(10) Model of mobile agents for sexual interactions networks,
M.C. González, P.G. Lind, H.J. Herrmann,
School and Workshop on Structure and Function of Complex Networks, Trieste, Italy (2005).

 (9) The dynamics of complex-amplitude norm-preserving lattices of coupled oscillators,
M. van Vessen, J.A.O. Freire, M.W. Beims, M.G.E. da Luz, P.G. Lind, and J.A.C. Gallas,
presented by M.G.E. da Luz,
The 10th international conference in modern group analysis: Mogran X, Larnaca, Ciprus (2004).

 (8) Preserving the norm of complex amplitudes in lattices of coupled maps,
M.W. Beims, M. van Vessen, J.A.O. Freire, M.G.E. da Luz, Pedro G. Lind, and Jason A.C. Gallas,
presented by M.E. Beims,
VIII Latin American Workshop on Nonlinear Phenomena - LAWNP03, Salvador, Bahia, Brazil (2003).

 (7) Spreading of convection as parameterized in ocean models studied with conceptual models,
Sven Titz, Pedro G. Lind, Till Kuhlbrodt, Jason A.C. Gallas, João Corte-Real and Ulrike Feudel,
XXVII General Assembly of the European Geophysical Society, Nice, France (2002).

 (6) Studying ocean convection modeling with asymmetric quartic maps,
P.G. Lind, J.A. Corte-Real, J.A.C. Gallas,
presented by J.A.C. Gallas,
Dinámica no lineal en la naturaleza y en la técnica, Campus Universitario de Cuenca, Universidad de Catilla-La Mancha, Spain (2002).

 (5) Inducing coherence in lattices of bistable maps by varying the range of interaction,
P.G. Lind, J. Corte-Real, J.A.C. Gallas,
School on Fundamentals and Perspectives of Non-Linear Dynamics,
Brasília, Brazil (2002).

 (4) The effect of basin asymmetries in ocean convection modeling studied with coupled bistable maps,
P.G. Lind, J. Corte-Real, J.A.C. Gallas,
presented by J.A.C. Gallas,
XIII Reunión de Mecánica Estadística Noequilibrio y Física Nolineal, Colonia del Sacramento, Uruguay (2002).

(3) Coupled map lattices with advection: Controlling the velocity of gradient flows,
P.G. Lind, J.A. Corte-Real, J.A.C. Gallas,
Control, Communication and Synchronization in Chaotic Dynamical Systems, Max-Planck-Institut für Physik Komplexer Systeme, Dresden, Germany (2001).

(2) Application to a Experimental Model in the Analysis of Interferences of Mobiles on Pacemakers: Preliminary Results,
C.S. Morais, A. Trindade, P. Rodrigues, P. Lind, L. Prazeres, C. Matos, C. Santos, R. Ferreira and E. Ducla-Soares,
presented by C.S. Morais,
XIX Portuguese Congress on Cardiology, Vilamoura, Portugal (1998).

(1) An Experimental Model in the Analysis of Pacing Interference Provoked by Cellular Phones,
C.S. Morais, A. Trindade, P. Rodrigues, P. Lind, L. Prazeres, C. Matos, C. Santos, R. Ferreira and E. Ducla-Soares, presented by C.S. Morais,
Cardiostim 98, France (1998).

PARTICIPATION IN ACADEMIC COMMITTEES:

(45) 2024, **PhD defense**, Norway,
Participation in the evaluation of the PhD Thesis of Andrea Storås at *Oslo Metropolitan University*, 05.04.2024. Title: "Beyond the Black Box: Transparent Machine Learning Systems for Medical Applications".

(44) 2024, **PhD defense**, Brazil,
Participation in the evaluation of the PhD Thesis of Fábio Luiz at *Instituto Militar do Exército (Programa de Pós-graduaçao em Engenharia de Defesa)*, 01.03.2024. Title: "Cooperação entre plataformas robóticas terrestres e aéreas para aquisição, rastreamento e perseguição de alvos, utilizando visão computacional e inteligência artificial".

(43) 2024, **Master Defense**, Norway,
Participation in the evaluation of the Master Thesis of Sigurd Grøtan at *NMBU*, 14.02.2024. Title: "Predicting electricity demand using machine learning: Case study of Oslo Airport Gardermoen".

(42) 2023, PhD midterm presentation, Norway,
Participation in the evaluation of the midterm report of Michael Tarlton, *Oslo Metropolitan University*, 05.12.2023. Title: "Deep Reinforcement Learning for Next Generation Spiking Neural Networks".

(41) 2023, **Position call** for Associate Professor in AI Journalism, Oslo Metropolitan University, Norway,
Participation in the interview committee, *Oslo Metropolitan University*, November.

(40) 2023, **PhD defense**, Norway,
Participation in the evaluation of the PhD Thesis of Marie Roald at Oslo Metropolitan University, 04.09.2023. Title: "Understanding the Dynamics of Complex Systems Through Time-Evolving Data Mining".

(39) 2023, **PhD defense**, Germany,
Participation in the evaluation of the PhD Thesis of Pyei Phyo Lin at University of Oldenburg, 06.04.2023. Title: "Characterization of Jump-Diffusion Stochastic Dynamics: Analysis and Applications on Real World Data".

(38) 2023, PhD midterm presentation, Norway,
Participation in the evaluation of the midterm report of Hanna Borgli, *Simula Met*, 13.03.2023.
Title: "Unsupervised preprocessing to improve generalisation for medical image classification".

(37) 2023, **Position call** for Associate Professor in Reinforcement Learning, Oslo Metropolitan University, Norway,
Participation in the interview committee, *Oslo Metropolitan University*, February-March.

(36) 2022, PhD midterm presentation, Norway,
Participation in the evaluation of the midterm report of Akriti Sharma, *Oslo Metropolitan University*, 8.12.2022. Title: "Application of Artificial Intelligence in Assisted Reproductive Technology".

(35) 2022, MSc Project Defense (Phase II), Norway,
Participation in the evaluation of 4 Master Projects of the ACIT program, *Oslo Metropolitan University*, 12.2022.

(34) 2022, **PhD Defense**, Germany,
Participation in the evaluation of the PhD Thesis of Anton Plietzsch at Technical University of Berlin, 15.09.2022. Title: "The Impact of Renewable Power Generation and Extreme Weather Events on the Stability and Resilience of AC Power Grids".

(33) 2022, **Master Defense**, Norway,
Participation in the evaluation of the Master Thesis of Kaspara Skovli Gåsvær at *UiO* – University of Oslo, 30.06.2022. Title: "A community detection and evolution of communities in twitter network".

(32) 2021, MSc Project Defense (Phase I), Norway,
Participation in the evaluation of 16 Master Projects of the ACIT program, *Oslo Metropolitan University*, 16-17.06.2021.

(31) 2021, **Master Defense**, Norway,
Participation in the evaluation of the Master Thesis of Andreas Huber at *UiO* – University of Oslo, 27.08.2021. Title: "A stream-based approach for large scale Network Analysis on Reddit".

(30) 2021, **Master Defense**, Norway,
Participation in the evaluation of the Master Thesis of Sondre Valentin Jordbræk at *NTNU*, 5.7.2021. Title: "Self-organized Criticality in engineered in vitro networks; A balance of excitation and inhibition".

(29) 2021, **PhD Defense**, Brazil,
Participation in the evaluation of the PhD Thesis of Marcelo Pires at the *Centro Brasileiro de Pesquisa em Física*, 16.3.2021. Title: "Phenomenological Characterization of Biological Complex Systems".

(28) 2020, MSc Project Defense (Phase II), Norway,
Participation in the evaluation of 14 Master Projects of the ACIT program, *Oslo Metropolitan University*, 2-3.12.2020.

(27) 2020, PhD midterm presentation, Norway,
Participation in the evaluation of the midterm report of Marco Antonio Pinto-Orellana, *Oslo Metropolitan University*, 25.10.2020. Title: "Algorithms for connectivity analysis in multivariate biomedical signals"

(26) 2020, MSc Project Defense (Phase I), Norway,
Participation in the evaluation of 14 Master Projects of the ACIT program, *Oslo Metropolitan University*, 28-29.06.2020.

(25) 2019, **PhD Defense**, Germany,
Participation in the evaluation of the PhD Thesis of Hauke Hähne at the *Univ. Oldenburg*, 15.8.2019.
Title: "Atmospheric turbulence in power grid frequency measurements".

(24) 2019, MSc Project Defense (Phase I), Norway,
Participation in the evaluation of the 31 Master Projects of the Universal Design Master Program,
Oslo Metropolitan University, 4-5.06.2019 and 20.08.2019.

(23) 2019, **BSc Defense**, Germany,
Participation in the evaluation of the Bachelor Thesis of Sebastian Spaunhorst at the *Univ. Osnabrück*, 11.3.2019. Title: "Zusammenhang der Vorhofflimmerrate bei Patienten mit Vorhofflimmern und exponentiellen Ausläufern im 24h EKG der selben Patienten".

(22) 2019, **PhD Defense**, Spain,
Participation in the evaluation of the PhD Thesis of Constantino Antonio García Martínez at the *Univ. Santiago de Compostela*, 16.1.2019. Title: "A Bayesian Approach to Simultaneously Characterize the Stochastic and Deterministic Components of a System".

(21) 2018, **BSc Defense**, Germany,
Participation in the evaluation of the Bachelor Thesis of David Locher at the *Univ. Osnabrück*, 1.9.2018.

(20) 2018, **PhD Defense**, Germany,
Participation in the PhD comission of the PhD defense by Yvonne Richter at the *Univ. Osnabrück*, 27.10.2018, Title: "Evaluation und Anwendung eines an die Elektrophysiologie des Vorhofes angepassten, vereinfachten Reaktions-Diffusions-Modells für die Ausbreitung von Aktionspotentialen".

(19) 2018, **MSc Defense**, Germany,
Participation in the evaluation of the Master Thesis in Physics by Christopher Schiel at the *Univ. Osnabrück*, 1.2.2018.

(18) 2017, **BSc Defense**, Germany,
Participation in the evaluation of the Bachelor Thesis of So-Kumneth Sim at the *Univ. Osnabrück*, 1.10.2017.

(17) 2016, **PhD Defense**, Portugal,
Participation in PhD defense of Teresa Scholz (Univ. Lisbon) 5.12.2016.

(16) 2016, **MSc Defense**, Germany,
Participation in the evaluation of the Master Thesis in Physics by Matthias Wolff at the *Univ. Osnabrück*, 30.09.2016.

(15) 2016, **MSc Defense**, Germany,
Participation in the evaluation of the Master Thesis in Physiks by Dominik Lips at the *Univ. Osnabrück*, 30.09.2016.

(14) 2016, Portugal,
Participation in the jury of Teresa Scholz at the *Faculdade de Ciências da Universidade de Lisboa* for the 3rd year examination of PhD thesis.

(13) 2015, **BSc Defense**, Germany,
Participation in the evaluation of the Diplom defense by Christoph Schiel at the *Univ. Osnabrück*, "Instanton-Zugang zur Charakterisierung des Einflusses von Windenergie auf die Stabilität von Stromnetzen", 15.09.2015.

(12) 2015, **PhD Defense**, Portugal,
Participation in the jury of the PhD defense by António Jorge Filipe Fonseca in the *ISCTE – Instituto da Universidade de Lisboa*, "Mecanismos de Popularidade e Difusão de Informação em Redes Sociais", Abril 6th.

(11) 2014, **MSc Defense**, Portugal,
Participation in the jury for the Master degree of Paulo Rocha at the Mathematics Department of *Faculdade de Ciências da Universidade de Lisboa*, "Nonlinear evolution of nonstationary distributions and applications to financial transactions" November 26th.

(10) 2014, **MSc Defense**, Portugal,
Participation in the jury for the Master degree of Pedro Lencastre at the Mathematics Department of *Faculdade de Ciências da Universidade de Lisboa*, "Uncovering stochastic financial processes from sets of rating matrices" November 25th.

(9) 2014, **PhD Defense**, Portugal,
Participation in the jury of the PhD defense by João Cruz at the *Faculdade de Ciências da Universidade de Lisboa*, "The Emergence of critical multiplicative processes and applications to economy", November 21st.

(8) 2014, Portugal,
Participation in the jury of Teresa Scholz at the *Faculdade de Ciências da Universidade de Lisboa* for the 1st year examination of PhD thesis.

(7) 2013, **MSc Defense**, Portugal,
Participation in the jury of Karim Jahromi at the Departament of Information Systems (Univ. Minho, Portugal) for the Thesis Proposal "Human Mobility Characterization, Modeling and Implication", April 2nd.

(6) 2013, Portugal,
Participation in the jury of João Cruz at the *Faculdade de Ciências da Universidade de Lisboa* for the 3rd year examination of PhD thesis.

(5) 2012, **MSc Defense**, Portugal,
Participation in the jury of Natália Navin at the *Instituto Superior de Economia e Gestão* for the master thesis defense "Percolação em Sistemas Financeiros Simulados", November 22nd.

(4) 2012, Portugal,
Participation in the jury of João Cruz at the *Faculdade de Ciências da Universidade de Lisboa* for the 2nd year examination of PhD thesis.

(3) 2012, **MSc Defense**, Portugal,
Participation in the jury of Susana de Matos Neves at the *Instituto Superior de Economia e Gestão* for the master thesis defense "Fractional Brownian Motion in Finance", November 22nd.

(2) 2011, Portugal,
Participation in the jury of João Cruz at the *Faculdade de Ciências da Universidade de Lisboa* for the 1st year examination of PhD thesis.

(1) 2010, **MSc Defense**, Portugal,
Participation in the jury of João Cruz at the *Faculdade de Ciências da Universidade de Lisboa* for the master thesis defense "Criticalidade e Processos Estocásticos em Finanças".

Seminars at research institutes and universities:

(64) 2024, Norway,
"The Virtual-Eye Project: From Physics to Health through AI", Intelligent Health Conference, OsloMet, September 12th.

(63) 2024, Norway,
"The Virtual-Eye Project", SIMULA, Department of Scientific Computing and Data Science, March 14th.

(62) 2024, Norway,
"Human Trust in Generative Artificial Intelligence", NMBU, Department of Physics, March 18th.

(61) 2024, Germany,
"Human Trust in Generative Artificial Intelligence", (together with T.Kabudi and Y.Kasahara), BMW, Munique, March 4th.

(60) 2023, Norway,
"Stochastic modelling of complex systems in our AI lab: from theory to applications and back", AI lab seminar, OsloMet, February 25th.

(59) 2022, Norway,
"From Eintein (1905) to FRIPTO (2022): A race between AI and mathematical modelling... in more or less 30 minutes", Community Building Seminar, Dep. Computer Science, OsloMet, October 21st.

(58) 2021, Norway,
"NordSTAR: a new center for AI", Talk at OsloMet's Research day, OsloMet, November 29th.

(57) 2021, Norway,
"The beauty of mathematics versus the mathematics of beauty", Seminar for FELT project-team, OsloMet, April 9th.

(56) 2020, Norway,
"Modelling stochastic processes", Workshop Simula-TKD, OsloMet, October 9th.

(55) 2020, Norway,
"Stable power grids with renewable energy sources", Smart Cities Kick-off, AI Lab, OsloMet, September 16th.

(54) 2020, Norway,
"How to quantize a cellular automaton?", Living Technologies Seminar, AI Lab, OsloMet, May 27th.

(53) 2019, Norway,
"An eye-tracker as a tool to trigger interdisciplinary research and teaching", Community Building Seminar at the Oslo Metropolitan University, November 29th.

(52) 2019, Norway,
"Mathematical modelling in data science", Seminar for course of computer vision (Gustavo Mello) at the Oslo Metropolitan University, November 4th.

(51) 2019, Norway,
"Data modelling in engineering and living systems", Artificial Intelligence Seminar at the Oslo Metropolitan University, March 8th.

(50) 2019, Norway,
"A short tour through mathematical models applied to engineering, finance and society", Community Building Seminar at the Oslo Metropolitan University, March 1st.

(49) 2019, Germany,
"Modelling of wind data and wind profiles: Where are we? Where to go?", Seminar Statistical Physics, Univ. Osnabrück, January 23rd.

(48) 2019, Germany,
"Stochastic modeling of wind speed data from an offshore platform", ForWind Seminar at Univ. Oldenburg, January 24th.

(47) 2018, Germany,
"Physics of Flocking", at the *Physikalisches Kolloquium* at the University of Osnabrück, November 8th.

(46) 2018, Portugal,
"Data analysis and data modelling", Foster Collaboration Workshop, ISTAR-ISCTE, Lisbon Portugal, 25 June (2018).

(45) 2017, Portugal,
"Living in a stochastic nature: a tour through interdisciplinary applications of stochastic modelling", at ISCTE University of Lisbon, March 7th.

(44) 2017, Germany,
"Stochastic modelling in physics and some interdisciplinary applications", at the *Physikalisches Kolloquium* at the University of Osnabrück, February 9th.

(43) 2016, Germany,
"Turbulence, PIV data and models of directed percolation", Seminar Statistical Physics, Univ. Osnabrück, May 25th.

(42) 2015, Germany,
"Surfing and diving into large fluctuations in stochastic processes", at University of Bremen, November 18th.

(41) 2015, Germany,
"Insights from statistical physics into geophysical, biological, energy and financial data", at University Osnabrück, 20th May.

(40) 2014, Portugal,
"Finance and Complexity: good news, bad news and some stories", at the Universidade Católica (Lisbon), February 3rd.

(39) 2014, Switzerland,
"Gossiping: What are friends for?" Institute for Building Materials, Computational Physics for Engineering Materials, ETH-Zurich, January 9th.

(38) 2013, Portugal,
"From Data to Knowledge", at *Laboratório Nacional da Energia e Geologia*, December 5th.

(37) 2013, Germany,
"Complexity: a short tour of simple approaches from statistical physics to finance and the brain", October 31st, Univ. Oldenburg.

(36) 2013, Germany,
"From Data to Knowledge", June 10th, Univ. Oldenburg.

(35) 2013, Portugal,
"Some basic assumptions for modelling economic data and their unexpected results", at the *Centro de Física do Porto*, University of Oporto, February 22nd.

(34) 2012, Portugal,
"Recent trends in Stochastic Modeling for Data Analysis", at *Laboratório Nacional da Energia e Geologia*, September 26th.

(33) 2012, Portugal,
"Complexity in medical data", at *Instituto de Biofísica e Engenharia Biomédica*, University of Lisbon, September 18th; Together with Frank Raischel.

(32) 2012, Portugal,
"Connecting Sciences: An interdisciplinary trip through complex webs from statistical physics to life and society", at the Faculty of Psychology, University of Lisbon, July 4th (2012).

(31) 2012, Spain,
"Deposition of general ellipsoidal particles" at the *Departamento de Física y Matemática Aplicada*, University of Navarra, June 27th (2012).

(30) 2012, Portugal,
"Complexity in medical data", at the Instituto de Medicina Molecular, University of Lisbon, May 21st (2012); Together with Frank Raischel.

(29) 2012, Portugal,
"Complexity: from statistical physics to social systems", at the *Centro de Filosofia das Ciências da Universidade de Lisboa*, University of Lisbon, February 7th 2012.

(28) 2011, Portugal,
"As redes complexas e a sociedade" (portuguese), at the *Departamento de Engenharia Civil*, Univ. Minho, October 12th 2011.

(27) 2011, Portugal,
"Financial networks: physical approaches", at the Department of Physics, Univ. Aveiro, September 29th 2011.

(26) 2011, Portugal,
"Advantages and limits of statistical physical approaches to financial data", at the Center for Theoretical Physics, Univ. Oporto, February 11th 2011.

(25) 2010, Portugal,
"Advantages and limits of physical approaches to financial data and crisis", at the Research Unit on Complexity and Economics at *Instituto Superior de Economia e Gestão*, November 9th.

(24) 2010, Portugal,
"Destapando a predictabilidade de um sistema estocástico", at the *Departamento de Física*, University of Lisbon, June 23rd.

(23) 2010, Portugal,
"Segredos e confissões das redes complexas" (portuguese), at the *Departamento de Engenharia Civil*, University of Coimbra, April 14th.

(22) 2010, Portugal,
"Empacotamentos: Um Prelúdio com Esferas e uma Fuga com Elipsóides" (portuguese), at the *Instituto Superior de Engenharia de Lisboa*, January 25th.

(21) 2009, Portugal,
"Grão a grão: A física dos castelos de areia, das dunas e das avalanches" (portuguese), for the subject *De Kepler aos Fractais* within the physics course of the Faculty of Sciences at the University of Lisbon, November 23rd.

(20) 2009, Portugal,
"Noise and Predictability on Stochastic Data", at *Departamento de Engenharia Geográfica, Geofísica e Energia*, University of Lisbon, June 1st.

(19) 2009, The Netherlands,
"Packing algorithms with spheres and ellipsoids", at *Multi Scale Mechanics*, Universiteit Twente (UT), January 28th.

(18) 2008, Portugal,
"Measurement noise in stochastic time series and optimal functions of multivariate stochastic data", at *Centro de Física Teórica e Computacional*, University of Lisbon, November 19th.

(17) 2008, Portugal,
"Noise and predictability in stochastic time-series", at the *Centro de Física do Porto*, University of OPorto, October 17th.

(16) 2008, Germany,
"Extracting strong measurement noise in stochastic time series", at the Institute of Computer Physics, University of Stuttgart, July 14th (*Oberseminar*).

(15) 2007, Germany,
"Prelude with spheres and fugue with ellipsoids", at the Institute of Computer Physics, University of Stuttgart, June 11th (*Oberseminar*).

(14) 2007, Switzerland,
"New approaches to model and study social networks", at the *Ifb, ETH*, Zürich, January 11th.

(13) 2006, Germany,
"Clustering in bipartite networks: an application to social systems", at the *Institut für Festkörperphysik*, Technical University of Darmstadt, August 17th.

(12) 2006, Portugal,
"Clustering and cycles in bipartite networks: an application to social systems", at the Interdisciplinary Center II of the Faculty of Science of University of Lisbon (June 21st, 2006).

(11) 2006, Germany,
"Circulating in Complex Networks", at the Institute of Computer Physics, University of Stuttgart, May 8th (*Oberseminar*).

(10) 2005, Germany,
"Some questions and approaches in turbulence research", at the Institute of Computer Physics, University of Stuttgart, November 21st (*Oberseminar*).

(9) 2005, Germany,
"Coupled Langevin equations for the North Atlantic Oscillation" at the Institute of Computer Physics, University of Stuttgart, April 18th (*Oberseminar*).

(8) 2004, Germany,
"Coherence in random and deterministic scale-free networks of chaotic maps", at the Group of Nonlinear Dynamics of the University of Potsdam, 23 August.

(7) 2004, Germany,
"Full synchronization in scale-free networks of chaotic maps", at the Group of Complex Systems, University of Oldenburg, July 8th.

(6) 2004, Portugal,
"Synchronizing coupled bistable maps by varying the interaction range", at the Center of Theoretical and Computational Physics, University of Lisbon, February 18th.

(5) 2004, Germany,
"Synchronization in lattices of coupled bistable maps: interaction range effects", at the Institute for Computer Applications, University of Stuttgart, February 2nd (*Oberseminar*).

(4) 2003, Portugal,
"Dinâmica de Soluções Periódicas em Sistemas Discretos" (Dynamics of periodic solutions in discrete systems), at the University of Évora, during the 1st Posgraduation Congress in Earth, Clima and Space Sciences of the University of Évora, October, 4th 2003.

(3) 2002, Portugal,
"O Modelo Difusivo-Advectivo de Rede de Mapas Acoplados" (The Diffusive-Advective Model of Coupled Map Lattices) at the *CGE* - Center of Geophysics of Évora, University of Évora (May 8, 2002).

(2) 2001, Portugal,
"Rede de Mapas Acoplados: uma Abordagem Numérica" (Coupled Map Lattices: a Numerical Approach) at the Interdisciplinary Center II of the Faculty of Science of University of Lisbon (May 2, 2001).

(1) 2000, Brazil,
"Geração de Ondas em Aneis de Mapas Heterogéneos, Acoplados" (Inducing Waves in Rings of Heterogeneous Coupled Maps) at the Institute of Physics of the Federal University of Rio Grande do Sul, Brazil (November 1, 2000).

RESEARCH MEETINGS WITH INDUSTRY AND BUSINESS PARTNERS:

(14) 2021, Norway,
"NordSTAR: a new center for AI research", Seminar for Bearing Point, Oslo, June 22nd.

(13) 2020, Norway,
Workshop *Smart-Cities*, "Towards renewable power-grids" (OsloMet, Oslo, February 11th).

(12) 2019, Norway,
Workshop *Smart-Cities*, "Some research topics about energy and sustainability in data science" (OsloMet, Oslo, December 10th).

(11) 2019, Portugal,
Seminar at *BNP Paribas-Cetelem*, "Recent challenges in engineering and finance" (Lisbon, July 26th).

(10) 2018, Germany,
Closing meeting of *open eGo*, "Ein offenes netzebenenübergreifendes Planungsinstruments zur Bestimmung des optimalen Netz- und Speicherausbaus in Deutschland" (Berlin, October 30th).

(9) 2018, Germany,
Meeting with engineers at the Technical University of Clausthal, (Goslar, Germany, October 13th).

(8) 2017, Germany,
Meeting with academics, engineers and industry partners at the Potsdam Institute for Climatology (PIK) University of Potsdam, (Potsdam, Germany, June 12-14) concerning *ConDyNet* Consortium.

(7) 2015, *Senvion* and *Adwen*, Germany,
Project meeting with *Senvion* and *Adwen* under the joint project OWEA-Loads (Bremen, Germany, April 27th).

(6) 2015, *Nordex*, Germany,
Meeting with *Nordex* for setting co-supervision of master thesis between University Oldenburg and *Nordex*, (Hamburg, Germany, April 22nd).

(5) 2015, *Nordex*, Germany,
Meeting with *Nordex* for planning joint research activities, (Hamburg, Germany, February 21st).

(4) 2014, *Senvion* and *Areva*, Germany,
Project meeting with *Senvion* and *Areva* under the joint project OWEA-Loads (Oldenburg, Germany, November 10th).

(3) 2014, *Senvion* and *Areva*, Germany,
Project meeting with *Senvion* and *Areva* under the joint project OWEA-Loads (Bremen, Germany, April 4th).

(2) 2013, *RePower* and *Areva*, Germany,
Project meeting with *RePower* and *Areva* under the joint project OWEA-Loads (Stuttgart, Germany, October 24th).

(1) 2012, *Deloitte*, Portugal,
Collaboration activities with *Deloitte* (Lisbon, Portugal, June-September): data analysis.

OUTREACH SEMINARS FOR NON-SCIENTIFIC AUDIENCES AND THE GENERAL PUBLIC:

(23) 2023, Portugal,
Colégio Pedro Arrupe (in portuguese), "Ver os outros como irmãos?", Colégio Pedro Arrupe, February 24th.

(22) 2021, Norway,
Lions Club Guimarães (in portuguese), "Inteligência Artificial, a Ética e a Técnica", Online, March 6th.

(21) 2021, Norway,
NORA Webinar, "NordSTAR a new center for sustainable and trustworthy AI in Norway", Online, February 19th.

(20) 2019, Norway,
Participation in the *Ungforsk 2019*, "From Data to Knowledge: the Dreams and Nightmares in Data Science towards a Sustainable Future", *Oslo Metropolitan University*, Oslo, Norway, September 24th and 25th.

(19) 2016, Portugal,
Participation in a debate about science and religion "Religião, Ciência e Cultura", together with Prof. João Paiva at the *Escola Secundária de Paredes*, Paredes, Portugal, May 6th.

(18) 2015, Germany,
Kick-off event for launching the "IPID4all – Mobile Doctorates in System Integration of Renewable Energy" at the University of Oldenburg, April 21st.

(17) 2015, Germany,
Hannover Messe, stand of ForWind, April 17th.

(16) 2014, Portugal,
Participation at the round table entitled "Talks about the inside of things – the belief, the unbelief and science" together with Prof. Álvaro Balsas at the University of Oporto, May 2nd.

(15) 2014, Portugal,
"De Einstein aos Mercados Financeiros – 100 anos de Física (infelizmente) moderna" (in portuguese) for the students of the Highschool *Escola Secundária Professor José Augusto Lucas*, Oeiras, Portugal, March 20th.

(14) 2013, Portugal,
Participation in the Theology meeting *A Vida Eterna* at the Catholic University in Braga, Portugal, 21st February in round table about "Variações sobre a vida e a morte" (in portuguese).

(13) 2013, Portugal,
Participation at *Scientific Communication Congress - SciCom Portugal 2013*, invited for the round table on *How can scientists engage?*, May 27th, Pavilhão de Ciência, Lisbon, Portugal.

(12) 2013, Portugal,
Participation at *World Café – A Matemática do Planeta Terra*, April 20th, "A forma - A formação da Terra". National Museum of Natural History and Science. With Rui Agostinho and José Afonso (Astronomical Observatorium of Lisbon).

(11) 2012, Portugal,
Participation in the contest *INOVA - Jovens Criativos* coordenated by lecturers and students of the *Colégio Dom Diogo de Sousa* about social networks. Title: *A Teia* (in portuguese) and was award honors by the jury of the contest.

(10) 2011, Portugal,
Participation in the European Research Evening, Lisbon Pavilhão do Conhecimento (Ciência Viva), September 23rd.

(9) 2011, Portugal,
Participation in a Round Table for the Masters of Economy and Management at *Instituto Superior de Economia e Gestão* (Lisbon). Topic: "Communication and Divulgement of Science, Technology and Inovation", May 11th.

(8) 2011, Portugal,
Participation at the *Café Cientínfico na FNAC*, April 10th, "The 2012 Cataclysm and other Pseudoscientific Believes" Interviewed by David Marçal.

(7) 2010, Portugal,
Organizer of the *Workshop Networking Sciences* at the University of Lisbon, 22-24 November.

(6) 2010, Portugal,
Participation at the *Café Científico* for the Research Evening in Lisbon, September 24th.

(5) 2010-2011, Portugal,
Host of the *Ciência em Português* seminars for the general public, at the Univeristy of Lisbon.

(4) 2010-2011, Portugal,
Kick-off event of the *Ciência na UL* activities.

(3) 2003, Portugal,
"CAOS: A visão de uma nova ciência" (Chaos: the viewpoint of a new science), at the *Escola Secundária Amélia Rey Colaço*, Algés, Portugal (March 19th).

(2) 1999, Portugal,
"As leis do Movimento...assim na Terra como nos Céus" (The laws of motion... in earth as in heaven), at the *Escola Secundária de Belém Algés*, Lisbon (March 18th).

(1) 1998, Portugal,

"O Papel da Ciência nos Nossos Dias" (The role of science in present times), at the *Escola Secundária de Belém Algés*, Lisbon (February 19th).

Coordination Activities, Organizational Services & Other

Coordination activities and other qualifications

Since 2024	Steering committee member of the Nordic Quantum Life Sciences Round Table (Norwegian representative).
Since 2023	Steering committee member of the Nordic Quantum Life Sciences Round Table (Norwegian representative).
Since 2022	Steering committee member of the Nordic Quantum Life Sciences Round Table (Norwegian representative).
Since 2022	Member of the *QHub*, OsloMet, Norway.
Since 2020	Deputy for the Artificial Intelligence Group, IT Department of OsloMet, Norway.
2019-2021	Master Project Coordinator for the Master in Applied Computer and Information Technology (ACIT), OsloMet, Norway.
Since 2019	*StochLab* Coordinator, laboratory for stochastic modelling in OsloMet, Norway.
Since 2019	*EyeTLab* Coordinator, laboratory for eye-tracking experiments at OsloMet, Norway.
2019-2020	Higher Education Teaching Qualification (in Norway, Oslo Metropolitan University & University of Oslo).

Organization of conferences, workshops and meetings:

2024	Chair & organizer of the 4th Nordic Quantum Life Sciences Round Table, OsloMet-SimulaMet, 14-15.11, Oslo, Norway.
2023	Organizer of the Workshop in AI Journalism, Oslo Metropolitan University, 18-19.12, Oslo, Norway.
2023	Member of the Program Committee for the *Norsk Informatikkonferanse* (NIK), USN, Oslo, Norway.
2023	Organizer of the 3rd Nordic Quantum Life Sciences Round Table, Aalto University, 14-15.11, Aalto, Finland.
2022	Organizer of the 2nd Nordic Quantum Life Sciences Round Table, Novo Nordisk Foundation, 14-15.11, Copenhagen, Denmark.
2022	Organizer of the NordSTAR workshop *@Trustworthiness@Sustainability: What is AI about?*, OsloMet, 03.06, Oslo, Norway.
2022	Member of the Program Committee for the *Symposium of the Norwegian AI Society* (NAIS), OsloMet, 31.05-01.06, Oslo, Norway.
2020	Member of the Program Committee for the *Norsk Informatikkonferanse* (NIK), USN, Oslo, Norway.
2020	Member of the Program Committee for the international conference *ConferConf*, OsloMet, Oslo, Norway.
2018	Member of the Program Committee for the international conference of philosophy of sciences *The Insides of Nature*, 10-12 Setember, Braga, Portugal.
2016-2019	Organizer of the seminars for the graduated students of the Statistical Physics Group at the University of Osnabrück, Germany.

2014	<u>Member of the Organizing Committee</u> of the meeting "Brainstorming Stochastics and Turbulence: Experiments, Simulations and Theory", 17-19 March, University of Oldenburg.
2013-2016	<u>Organizer</u> of the seminars at institute *ForWind*, at University of Oldenburg, Germany.
2011-2013	<u>Member of the Organizing Committee</u> of interdisciplinary seminars at the *Instituto para a Investigação Interdisciplinar*, University of Lisbon.
2011	<u>Member of the Organizing Committee</u> of the symposia "Stochastic Process in Experiments" at *Dynamics Days Europe Conference*, Univ. Oldenburg, Germany, September 12-16.
2010	<u>Member of the Organizing Committee</u> of the Workshop *Networking Sciences*, University of Lisbon, Portugal, 24-25 November.
2009-2012	<u>Organizer</u> of the weekly seminars at the *Centro de Física Teórica e Computacional*, Univ. Lisbon, Portugal.
2009	<u>Member of the Local Committee</u> of the Workshop "Flowers and Jammers: From liquid crystals to grains", University of Lisbon, Portugal, June 17-19.
2004	<u>Member of the Local Committee</u> of the international conference "NDES2004 - 12th International IEEE Workshop on Nonlinear Dynamics of Electronic Systems", University of Évora, Portugal, May 9-13.

Memberships:

Since 2021	<u>Member</u> of *IEEE* and *IEEE Computational Intelligence Society*, USA.
2019-2020	<u>Member</u> of the European Physical Society.
Since 2018	<u>Collaborator</u> of the *Centre for Philosophical and Humanistic Studies*, Portugal.
2017-2020	<u>Member</u> of the *Information Sciences, Technologies and Architecture Research Center*, ISTAR-ISCTE Portugal.
2012-2015	<u>Member</u> of the *Institute for Complexity Sciences*, Portugal.
Since 2007	<u>Member</u> of the *Deutsche Physikalische Gesellschaft*.
2004-2008	<u>Member</u> of the *Institute for Computational Physics* (ICP), University of Stuttgart, Germany.
2004-2006	<u>Member</u> of the Center of Theoretical and Computational Physics, University of Lisbon, Portugal.
2002-2003	<u>Member</u> of the Center of Geophysics of Évora (CGE), University of Évora, Portugal.
Since 1994	<u>Member</u> of the Society of Portuguese Authors (SPA), Portugal.
1991-1998	<u>Member</u> of the *Planetary Society*, USA.

Other awards:

| 1994 | <u>Bronze Medalist Award</u> at the final of the National Olympics in Mathematics, Vila Real, Portugal. |
| 1994 | <u>First Prize Award</u> in the annual mathematics highschool contests. |

1993	First Prize Award in the annual physics highschool contests.
1992	First Prize Award in the annual mathematics highschool contest.
1991	First Prize Award in the national selection for *The H. Dudley Wright International Student Contest*, project *Together to Mars*. Remark: work concerning the solutions of human adaptability in space, during long-period space journeys.

Services as editor, consultant, reviewer and other:

2024	Guest Editor for *Chaos*.
Since 2023	Associate Editor for *Intelligent Data Analysis*.
Since 2023	Editorial board member for *Computation*.
2023	Sensor for *Electrodynamics* course of the BSc program at NMBU.
Since 2022	Reviewer for *Swiss National Science Foundation*.
Since 2019	Guest editor for *Frontiers* (Stochastic Data Modelling).
Since 2019	Editorial board member for *Energies*.
Since 2019	Referee of several especialized journals in Geophysics: *Atmospheric Pollution Research* and other.
Since 2017	Referee of several especialized journals in Computer Sciences: *Communications in Computational Physics, Simulation, Communications in Nonlinear Science and Numerical Simulation*, and other.
Since 2016	Referee of several especialized journals in all topics of science: *Scientific Reports, Applied Sciences, Songklanakarin Journal of Science and Technology*, and other.
Since 2016	Referee of several especialized journals in Economics: *International Journal of Production Economics*.
Since 2015	Editorial Board Member for *Int. J. Biostatistics & Computational Biology*.
Since 2013	Referee of several especialized journals in Energy Engineering: *Journal of Wind Engineering & Industrial Applications, Energy, Sustainability and Society), Energy, Energies*.
Since 2013	Review Editor for *Frontiers*.
2012	Consultant in statistical data analytics for Deloitte Portugal (three months).
2010-2013	Collaborator in statistical data analytics with partners at Closer Portugal.
Since 2008	Referee of several especialized journals in Mathematics: *Advance in Mathematical Physics, Chaos, Chaos, Solitons and Fractals, Philosophical Transactions Royal Society A, Complexity*, and other.
Since 2001	Referee of several especialized journals in Physics: *Physical Review X, Physical Review Letters, Physical Review E, Europhysics Letters, Physics Letters, New Journal of Physics, Journal of Statistical Mechanics*, and other.

REFERENCES

NORWAY
- Professor <u>Anis Yasidi</u> (Oslo Metropolitan University)
- Professor <u>Morten Hjorth-Jensen</u> (University of Oslo)
- Professor <u>Stefano Nichele</u> (Østfold University College)
- Professor <u>Leonardo Gorj ao</u> (Norwegian University of Life Sciences)
- Professor <u>Sergiy Denisov</u> (Oslo Metropolitan University)
- Professor <u>Gustavo e Mello</u> (Oslo Metropolitan University)
- Professor <u>Roy Krøvel</u> (Oslo Metropolitan University)
- Professor <u>Johannes Langguth</u> (Simula Research Laboratory)

GERMANY
- Professor Joachim Peinke, Ulrike Feudel, Martin Kühn (University of Oldenburg)
- Professors <u>Jürgen Kurths</u> (Humboldt-Universität zu Berlin)
- Professors <u>Klaus Lehnertz</u> (University of Bonn)
- Professors <u>Dirk Witthau</u> (University of Cologne)
- Professor <u>Ivan Herráez</u> (Hochschule Emden-Leer)
- Professor <u>Jens Harting</u> (Helmholtz Institute for Renewable Energy)
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UK
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SPAIN
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- Dr. <u>Alexandre Campos</u> (Santa Maria Hospital)
- Doctors <u>Frank Raischel, Teresa Scholz</u> (BNP Paribas)

HUNGARY
- Professors Imre Jánosi, Janos Kertesz (University of Budapest)
- Professor <u>Ferenc Kun</u> (Debrecen University)

INDIA
- Professor <u>Bibhu Biswal</u> (University New Delhi)

BRAZIL
- Professor Doctor <u>Marcus Beims</u> (Federal University of Paraná)
- Professor Doctor <u>Silvio Queiroz</u> (CBPF, Rio de Janeiro) Grande do Sul)

Hobbies and Leisure

Humanities:

2013 Publication of the <u>book</u> *Dois Dedos de Conversa Sobre o Dentro das Coisas - um crente, um ateu e a verdade como provocação* (in portuguese), with Bruno Nobre, (Frente e Verso, Lisboa).

2013 Publication of one <u>article</u> (in portuguese) "Sem Além: Breve Apontamento Sobre a Finitude da Vida e da Existência" in the journal *Theologia* 2nd Series 48(1) 41-48 (2013).

2011 Publication of <u>seven open letters</u> *Diálogos da Fé* (in portuguese) together with Bruno Nobre SJ at `http://www.essejota.pt`.

1996 One <u>poem</u> in the Antology of Poetry of the Faculty for Humanities, University of Lisbon.

1991 Literature <u>award</u> at the highschool.

1990 Literature <u>award</u> at the highschool.

Music and Composition:

2013 *Two fantasies for organ <u>(Op. 5)</u>.*

2013 Presentation of the integral version of *Missa Brevis <u>(Op. 4)</u>* at the Church S. Tomás de Aquino in Lisbon, March 3rd.

2013 Presentation of the integral version of *Missa Brevis <u>(Op. 4)</u>* at the German Church in Lisbon (DEKL), February 17th.

2012 Premiere of parts of *Missa Brevis <u>(Op. 4)</u>* (*Kyrie* and *Gloria*) at the German Church in Lisbon (DEKL), March 10th.

2011 *Missa Brevis <u>(Op. 4)</u>* for chor and organ. Remark: dedicated to the 250th birthday of the *Deutschen Evangelischen Kirchengemeinde Lissabon.*

2001 Recording of the *Musical Poem <u>(Op. 3)</u>*. Remark: registered in the Portuguese Society of Authors with the reference D/472/97; edition from *CORMUSICAL* (2001).

2000 *Musical Poem <u>(Op. 3)</u>*, a set of chamber music pieces.

1997 *Five pieces for piano solo <u>(Op. 2)</u>.*

1995 Participation in the recording of the CD *Viva a Paródia* as a member of the *Estudantina UL*.

1994 *Musical score for the portuguese drama "As Guerras do Alecrim e da Manjerona" <u>(Op. 1)</u>* from António José da Silva. Remarks: registered in the Portuguese Society of Authors with the reference 04B/GM/DC.

1988 <u>Honors</u> in the Portuguese Musical Youth Contest, (12 years levels).

Media:

2011 Opinion article *O voto branco: uma ovelha negra, cada vez mais branca na eleições em Portugal* (in portuguese) in the weekly magazine *Sol*, 1-6-2011. Co-authored with Ricardo F. Branco.

2011 Opinion article *Continuar a ser pai, sempre!* (in portuguese) in the weekly magazine *Sol*, 23-5-2011. Co-authored with Ricardo F. Branco.

2008 Opinion article *Pai é pai* (in portuguese) in the weekly magazine *Sol*, 30-08-2008. Co-authored with Ricardo F. Branco.

2008 Opinion article *Os desafios da paternidade* (in portuguese) in the weekly magazine *Expresso*,05-07-2008. Co-authored with Ricardo F. Branco.

Drama:

1992-1993 Participation in the play *As Guerras do Alecrim e da Manjerona*, in the *Intervalo - Grupo de Teatro*, staged by Manuel Paz.

1992-1993 Participation in the play *A Boda*, in the *Intervalo - Grupo de Teatro*, staged by Armando Caldas.

1992 Participation in the 9^a *Festa de Teatro de Almada*.

1992 Participation in the *V Festival de Teatro de Vila-Real de Santo António* (Portugal).

1991-1992 Participation in the play *Cabaret do Prazer e da Memória* in the *Intervalo - Grupo de Teatro*, staged by Armando Caldas. Performances in Potugal, Spain and Cape Verde.

Sports

- Running
  - 5 km in 2018, Osnabrück, Germany (24:33).
  - 5 km in 2017, Germany (23:33).
  - 10 km in 2018, 57:21
  - 10 km in 2017, Osnabrück, Germany (54:50).
  - 10 km in 2016, Lisbon, Portugal (53:56).
  - 10 km in 2015, Lisbon, Germany (51:57).
  - 10 km in 2014, Karlsruhe, Germany (50:30).
  - Half-marathon in 2017, Hamburg, Germany (2:04:55).
  - Half-marathon in 2016, Moorhaus, Germany (2:08:45).
  - Half-marathon in 2015, Lisbon, Portugal (1:52:54).
  - Half-marathon in 2014, Lisbon, Portugal (2:06:39).
  - Half-marathon in 2012, Lisbon, Portugal (2:03:56).
  - Marathon in 2015, Lisbon, Portugal (4:33:37).
  - Marathon in 2014, Bremen, Germany (4:48:16).

- Rowing:
  Clube Naval de Lisboa (Portugal). Selection as element for the regional team (Lisbon) of 4-Shell.

Society and other

2019-2021 Parents representant of the Kindergarten Group ("Grünne Gruppe"). Kindergarten of German-Norwegian School of Oslo (*Deutsche Schule Oslo*).

2009-2011 Parents representant of the Primary School at the German School of Lisbon (*Deutsche Schule Lissabon*).