

Curriculum Vitae



Born on October 6, 1977, in Givors (France)
Marital status: Single with two children

Nationality: French

Professional Address

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1. Educational Background

I have a multidisciplinary academic background bridging fundamental physics, medical radiation sciences, and solar energy forecasting. My academic journey began in Narbonne and took me through Paris, Toulouse, and Montpellier, before concluding in Corte, Corsica. Driven initially by a passion for mathematics, I quickly realized that the level of abstraction in academic math did not align with my expectations. This led me to pivot toward fundamental physics, where I rediscovered my enthusiasm through applications in statistical physics, partial differential equations, and the quantification of matter. During my master's studies, I completed a four-month research internship at the Centre d'Électronique de Montpellier, working on radiation dosimetry with access to a linear accelerator. This project, designing a dosimeter to measure both dose and damage from high-energy photons and low-energy atmospheric neutrons, introduced me to the field of **medical physics**, a profession that seamlessly combines theory and clinical application. Concerned by the lack of practical prospects in theoretical research alone, I pursued a more applied path by joining the DEA in Radiations and Medical Imaging in Toulouse. This was followed by professional certification in medical physics (DQPRM) from the National Institute for Nuclear Science and Technology (INSTN – Saclay), and certification in radiation protection. These qualifications allowed me to work clinically in French hospitals using ionizing radiation for therapeutic purposes. For nearly a decade, I practiced full-time in radiation oncology. Yet, I maintained a strong interest

in theory, particularly in modeling and simulation. In 2009, I decided to start a PhD on a completely different topic: **forecasting solar irradiance** using **time series modeling** and **artificial intelligence**. For three years, I balanced hospital work by day with meteorological simulations by night, a demanding but deeply fulfilling routine. After completing my PhD in 2011, I continued clinical work but remained committed to energy systems research. Over the following years, I held various academic roles at the University of Corsica (as invited researcher and PAST) and at the University of La Réunion (as associate researcher), deepening my work in **solar resource forecasting**, **microgrid optimization**, and **AI-driven environmental modeling**. My formal academic degrees include:

- 2019 – Habilitation à Diriger des Recherches (HDR), University of Corsica: *Numerical simulation from solar irradiance forecasting to life sciences*
- 2011 – PhD in Physics, University of Corsica: *Time series modeling and global solar radiation forecasting*
- 2003 – DQPRM (Medical Physics Qualification), INSTN–Saclay
- 2002 – Radiation Protection Certificate (PCR), Institut Gustave Roussy
- 2002 – DEA in Radiations and Medical Imaging, University of Toulouse
- 2001 – Master’s in Fundamental Physics, University of Montpellier II
- 2000 – Bachelor’s in Physics, University of Montpellier II
- 1999 – DEUG in Mathematics and Computer Science, University of Montpellier II
- 1996 – Scientific Baccalaureate (mathematics specialization), Lycée Dr Lacroix, Narbonne

2. Awards, Distinctions & Editorial Involvement

Over the years, I have received multiple recognitions and held active roles within the scientific community, particularly in renewable energy forecasting and solar resource modeling.

Scientific Recognition:

- Since 2020, I have consistently ranked in the Stanford University list of the World’s Top 2% Most-Cited Scientists, across energy and engineering disciplines.
- In 2024, my article *Hybrid VMAT-3DCRT as a Breast Cancer Treatment Improvement Tool* was among the Top 100 most downloaded oncology papers in *Scientific Reports* (Nature Portfolio), with over 3,600 downloads.
- *PVSEC 2009 (Hamburg)* – Awarded for work on photovoltaic systems (selected among 1,583 candidates).
- *City of Nice Prize* – Awarded by the Accademia Corsa (June 2012).

Editorial and Scientific Committee Roles:

- Editorial Board Member, *Turkish Journal of Forecasting* (since 2017)
- Editorial Board Member, *Journal of Radiology and Oncology* (since 2016)
- Scientific Committee Member, *International Wireless Communications & Mobile Computing Conference (IWCMC 2019 – Tangier, Morocco)*
- Scientific Committee, *Ege Energy Symposium & Exhibition* (2016 – Turkey)
- Scientific Committee, *ENVIROSENS 2015 – Rome* (Remote Sensing, Pollution & Radiation)
- Scientific Committee, *ICNCRE 2013 – Jijel, Algeria* (Renewable Energy Section)
- Founding Member, *International Web Conference on Forecasting (IWCF 2017)*
- Member, *International Solar Energy Society (ISES)* since 2013

Peer Review Contributions: As a reviewer, I have evaluated manuscripts for more than **30 international journals**, including high-impact publications such as:

- *Solar Energy, Renewable Energy, Applied Energy, Energy, IEEE Transactions on Industrial Electronics, Renewable & Sustainable Energy Reviews, Journal of Cleaner Production, and Journal of the Franklin Institute*

This long-standing involvement demonstrates both my commitment to scientific rigor and my deep engagement with the international research community in **solar forecasting, energy systems, and environmental modeling**.

3. Participation in Research Projects

Throughout my academic and applied research career, I have contributed to over ten major national and international research projects, most of them focused on **solar resource forecasting, renewable energy integration, and intelligent energy systems**:

Ongoing Projects (only validated projects, 3 actually in -progress):

- 2024–2027 – *Solar forecasting and energy management algorithms for microgrids*
Collaboration between Mines Paris-PSL, University of Corsica, and CNRS (UMR 6134 SPE)
- 2021–2024 – *SAPHIR (Sensor-Augmented Weather Prediction at High Resolution)*
ANR-funded, in partnership with LAERO (Toulouse) and INRIA (Paris)
- 2021–2025 – *COST INTELPOLY: Intelligent Diagnosis, Control and Cyber-Security of Polygenerative and Hybrid-storage Installations* (European cooperation)
- 2021–2024 – *HyLES (Hydrogen Integration into Weakly Interconnected Grids)*
Multi-institutional ANR project involving FEMTO-ST, University of Réunion, University of French Polynesia, and University of Corsica

Past Flagship Projects:

- MYRTE Platform (~€21M): Developed short-term and ultra-short-term solar production forecasts to optimize hydrogen storage in a renewable energy-based microgrid
- Horizon 2020 – TILOS (2014–2017): Technology Innovation for Local Scale, Optimum Integration of Battery Energy Storage – Renewable hybrid systems on the island of Tilos (EU project)
- RESINTER (PEPS CNRS): Model Predictive Control (MPC) for optimizing a renewable-based electrical grid – Application to the Paglia-Orba platform in Corsica
- ISERBATURB (AUF / Romanian Institute for Atomic Physics): Integration of Renewable Energy Systems in Urban Buildings
- Franco-Polish Cooperation (H2020 Preparation): Focused on intermittent renewable integration into microgrids, particularly for islanded or remote systems
- ERASMUS Technical University of Sofia: Set up a summer school on renewable energy for MSc students

This project participation reflects a strong focus on **world challenges** related to **forecast uncertainty**, **storage optimization**, and **smart grid operations**, particularly in **insular or decentralized energy systems**.

4. Supervision & Mentorship

Over the course of my academic career, I have supervised or co-supervised **numerous PhD students, postdoctoral researchers, and master's interns**, mostly in the fields of **solar irradiance forecasting**, **energy resource optimization**, and **machine learning** applied to renewable energy.

PhD & Postdoctoral Supervision:

- 2024–2028 – *Candice Banes* (PhD co-supervisor, Mines Paris – PSL) Supervised learning and physics-informed models for solar forecasting using satellite imagery
- 2024–2027 – *Alan Julien* (PhD co-supervisor, Mines Paris – PSL) Production forecasting and operational optimization of large-scale PV plants
- 2023–2026 – *Mohamed Asloune* (PhD co-supervisor, University of Corsica) Predictive modeling of solar resource with confidence intervals for energy management
- 2021–2022 – *Luis Antonio Garcia Gutierrez* (Postdoc co-supervisor, University of Corsica) Data partitioning and solar radiation forecasting using AI techniques
- 2016–2017 – *Jean-Laurent Duchaud* (Postdoc, University of Corsica) Solar forecasting and smart energy system management – TILOS project

- 2015–2016 – *Fabrice Motte* (Postdoc, University of Corsica) Solar forecasting and energy control strategies – TILOS project
- 2015–2019 – *Alexis Fouilloy* (PhD co-supervisor, University of Corsica) Machine learning models for global solar radiation prediction
- 2012–2015 – *Kahina Dahmani* (PhD co-supervisor, University of Corsica & USTHB Algeria) – Artificial Neural Networks for solar potential estimation in Algeria
- 2012–2015 – *Wani Tamas* (PhD co-supervisor, University of Corsica) Statistical forecasting of air quality and pollution episodes in Corsica
- 2017 – *PhD Examiner: Adrian Grantham* *Mathematical tools for maximizing solar energy utilization in electricity supply* – University of South Australia

Master's & Engineering Internships (>6 months):

I have supervised more than 15 graduate students on applied research topics in solar energy, AI, and hybrid forecasting models. Highlights include:

- 2025 – *Yoan Jheelan (M1, Paris-Saclay)* Multi-source energy forecasting using MIMO-MH and Extreme Learning Machines
- 2020–2021 – *Louis Froidure & Alexandre Jovanovic (PaoliTech, University of Corsica)* Extreme learning methods for solar resource forecasting
- 2010 – *Prisca Randimbivololona (Mines ParisTech)* Day-ahead forecasting of global horizontal irradiance
- 2013 – *Wan Zhao (ENSAM ParisTech)* AI-based wind energy forecasting

These mentorship roles reflect my long-term commitment to training young scientists in **solar energy modeling**, **data science**, and **smart grid optimization**, often in **collaborative European projects**.

5. Professional Experience

Academic and Research Positions : I began teaching at the university level in 2002, initially delivering lectures and tutorials in nuclear physics. Over the years, I progressively transitioned toward applied research and academic positions focused on **renewable energy forecasting** and **intelligent energy systems**.

- 2024–Present – *Research Director (DR2)*, Mines Paris – PSL, O.I.E. Laboratory (Observation, Impacts, Energy), Sophia Antipolis. Focus: solar resource modeling, forecasting algorithms, and microgrid control.
- Since 2019 – *PAST Lecturer-Researcher*, University of Corsica (UMR CNRS 6134 – SPE Laboratory). Courses and research in solar energy forecasting, AI, and time series modeling.
- 2018–2019 – *Associate Researcher*, University of La Réunion (PIMENT Laboratory) Work on predictive control and energy system optimization in island contexts.

- 2015–2018 – *PAST Lecturer-Researcher*, University of Corsica (UMR CNRS 6134 – SPE)
- 2013–2015 – *Invited Researcher*, University of Corsica (UMR CNRS 6134 – SPE)
- Since 2008 – *Expert Member*, French Society of Medical Physics (SFPM) [Primarily technical, but included AI tools for treatment modeling.]

Throughout these positions, I contributed to multiple national and European projects in energy forecasting, supervised doctoral research, and developed AI-driven modeling tools for solar and wind resources. I also designed and taught graduate-level courses on **clear-sky modeling, forecasting techniques, and energy system simulation**.

Medical Physics Career (Brief Overview):

From 2003 to 2024, I held positions as a qualified medical physicist (DQPRM) in several hospitals in France, focusing on radiotherapy and imaging safety. Most notably:

- 2020–2024 – Head of the Medical Physics & Radiation Protection Unit, CHD Castelluccio, Ajaccio
- 2006–2020 – Senior Medical Physicist, CHD Castelluccio (Ajaccio)
- 2003–2006 – Medical Physicist, Polyclinique Saint-Roch (Montpellier)

While this experience is outside the editorial scope of *Solar Energy*, it shaped my approach to modeling, data reliability, and safety-critical systems. The transition to **renewable energy and solar resource forecasting** began in parallel to this career, with the launch of my PhD in 2009.

6. Skills & Tools

Scientific & Technical Expertise:

- Solar irradiance forecasting (short-term and ultra-short-term)
- Time series modeling (ARMA, SARIMA, MLP, ELM, LSTM, hybrid models)
- Clear-sky model calibration and evaluation
- Stochastic and statistical modeling for environmental variables
- Energy management in smart grids (forecast-based optimization, control strategies)
- Hybrid renewable systems (PV + battery + hydrogen)
- Artificial Intelligence & Data Science
- Machine learning: regression trees, neural networks, ensemble methods
- Deep learning: feed-forward and recurrent neural networks
- Clustering: K-means, hierarchical clustering, SOMs
- Transfer learning, model selection, forecasting uncertainty quantification

Programming & Software:

- Python (NumPy, pandas, scikit-learn, TensorFlow, Keras, PyTorch, matplotlib)
- MATLAB/Simulink (modeling, control systems, optimization)
- R (forecasting packages, time series)
- Radiation modeling tools: RadPro, Gate (background in medical physics)

Scientific Writing & Editorial:

- Fluent in scientific English and French
- Experienced reviewer for 30+ journals (see detailed list above)
- Excellent command of LaTeX, Zotero, and reference management tools
- Strong track record in publishing, editing, and evaluating forecasting methodologies

Scientific Output

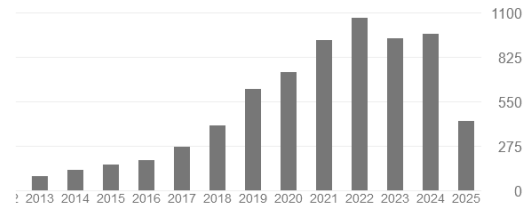
Below is the number of publications submitted to international journals (in over 90% of cases) or national journals, either within the scope of section 62 (Renewable Energy, RE) or other fields, as well as conference proceedings (with or without peer-reviewed papers).

Year	Journals (including RE)	National Publications Nationales	Book Chapters	Conference Proceedings
2000-	3(1)	2	0	3
2010-	38(32)	10	2	27
2020	5(5)	0	0	1
2021	4(4)	0	0	2
2022	6(6)	0	0	3
2023	1(0)	0	0	0
2024	1(1)	0	1	3
2025	3(2)	0	0	1
TOTAL	61 (51)	12	3	40

Below are the citation metrics, including h-index and i10-index, based on Google Scholar data, available at the following URL:

https://scholar.google.com/citations?view_op=search_authors&hl=fr&mauthors=cyril+voyant&btnG=

	Toutes	Depuis 2020
Citations	7068	5085
indice h	34	28
indice i10	56	50



The metrics presented here were calculated based on the detailed list of publications provided below.

Articles in Peer-Reviewed Journals – Renewable Energy Domain (10 submitted in 2025)

Below is a selection of peer-reviewed journal articles in the field of renewable energy, with a strong focus on solar irradiance forecasting, AI-based modeling, and hybrid energy systems:

1. Stochastic Coefficient of Variation: Assessing the Variability and Forecastability of Solar Irradiance.

Cyril Voyant, Alan Julien, Milan Despotovic, Gilles Notton, Luis Antonio Garcia-Gutierrez, Claudio Francesco Nicolosi, Philippe Blanc, Jamie Bright.
Renewable Energy, Accepted, in-Press.

2. On the Importance of Clearsky Model in Short-Term Solar Radiation Forecasting

Cyril Voyant, Milan Despotovic, Gilles Notton, Yves-Marie Saint-Drenan, Mohammed Asloune, Luis Garcia-Gutierrez.
Solar Energy, 294, 113490, 2025

3. Solar irradiance time series forecasting using auto-regressive and extreme learning methods: Influence of transfer learning and clustering

Milan Despotovic, Cyril Voyant, Luis Garcia-Gutierrez, Javier Almorox, Gilles Notton
Applied Energy, 365, 123215, 2024

4. Profitability and performance improvement of smart photovoltaic/energy storage microgrid by integration of solar production forecasting tool

G Notton, S Ouédraogo, GA Faggianelli, C Voyant, JL Duchaud
Intelligent Learning Approaches for Renewable and Sustainable Energy, 73-102

5. Evaluation and Comparison of Spatial Clustering for Solar Irradiance Time Series

L Garcia-Gutierrez, C Voyant, G Notton, J Almorox
Applied Sciences 12 (17), 8529, 2022

6. Impact of electricity tariffs and energy management strategies on PV/Battery microgrid performances

S Ouédraogo, GA Faggianelli, G Notton, JL Duchaud, C Voyant
Renewable Energy 199, 816-825, 2022

7. Complex-Valued Time Series Based Solar Irradiance Forecast

C Voyant, P Lauret, G Notton, and JL Duchaud
Journal of Renewable and Sustainable Energy, 2022

8. Benchmarks for Solar Radiation Time Series Forecasting

C Voyant, G Notton, JL Duchaud, LAG Gutiérrez, JM Bright, D Yang
Renewable Energy, 2022

9. Effect of the meta parameters on a model predictive algorithm for renewable micro-grid optimal control

JL Duchaud, GA Faggianelli, C Voyant, G Notton
Sustainable Energy Technologies and Assessments 54, 102886, 2022

10. Contribution of ordinal variables to short-term global solar irradiation forecasting for sites with low variabilities

K Gairaa, C Voyant, G Notton, S Benkacali, M Guermoui
Renewable Energy, 2022

11. Total solar irradiance's effect on the performance of empirical models for estimating global solar radiation: An empirical-based review

J Almorox, C Voyant, N Bailek, A Kuriqi, JA Arnaldo, 2021
Energy 236, 121486, 2021

12. Value of deterministic day-ahead forecasts of PV generation in PV+ Storage operation for the Australian electricity market

M David, J Boland, L Cirocco, P Lauret, C Voyant
Solar Energy 224, 672-684, 2021

13. A Monte Carlo based solar radiation forecastability estimation

C Voyant, P Lauret, G Notton, JL Duchaud, A Fouilloy, M David, ...
Journal of Renewable and Sustainable Energy 13 (2), 026501, 2021

14. Solar irradiation prediction intervals based on Box–Cox transformation and univariate representation of periodic autoregressive model

C Voyant, G Notton, JL Duchaud, J Almorox, ZM Yaseen
Renewable Energy Focus 33, 43-53, 2021

15. Verification of deterministic solar forecasts

D Yang, S Alessandrini, J Antonanzas, F Antonanzas-Torres, V Badescu, HG Beyer, R Blaga, J Boland, JM Bright, CFM Coimbra, M David, A Frimane, CA Gueymard, T Hong, MJ Kay, S Killinger, J Kleissl, P Lauret, E Lorenz, D van der Meer, M Paulescu, R Perez, O Perpiñán-Lamigueiro, IM Peters, G Reikard, D Renné, YM Saint-Drenan, Y Shuai, R Urraca, H Verbois, F Vignola, C Voyant, J Zhang
Solar Energy, 2020

16. A Newly Developed Integrative Bio-Inspired Artificial Intelligence Model for Wind Speed Prediction

H Tao, SQ Salih, MK Saggi, E Dodangeh, C Voyant, N Al-Ansari, ZM Yaseen, S Shahid
IEEE Access 8, 83347-83358, 2020

17. Etude de performance des modèles large bande pour des conditions de ciel clair: cas de sud de l'Algérie

S Benkacali, G Notton, C Voyant, K Gairaa
Journal of Renewable Energies 23, 236-258, 2020

18. Global solar radiation prediction over North Dakota using air temperature: Development of novel hybrid intelligence model

Hai Tao, Ahmed A Ewees, Ali Omran Al-Sulttani, Ufuk Beyaztas, Mohammed Majeed Hameed, Sinan Q Salih, Asaad M Armanuos, Nadhir Al-Ansari, Cyril Voyant, Shamsuddin Shahid, Zaher Mundher Yaseen
Energy Reports 7, 136-157, 2020

19. Trade-Off between Precision and Resolution of a Solar Power Forecasting Algorithm for Micro-Grid Optimal Control

JL Duchaud, C Voyant, A Fouilloy, G Notton, ML Nivet

Energies 13 (14), 3565, 2020

20. Hybrid renewable power plant sizing – Graphical decision tool, sensitivity analysis and applications in Ajaccio and Tilos

JL Duchaud, G Notton, A Fouilloy, C Voyant
Applied Energy 254, 113601, 2019

21. The electrical energy situation of French islands and focus on the Corsican situation

G Notton, JL Duchaud, ML Nivet, C Voyant, K Chalvatzis, A Fouilloy
Renewable Energy 135, 1157-1165, 2019

22. Designing a New Data Intelligence Model for Global Solar Radiation Prediction: Application of Multivariate Modeling Scheme

H Tao, I. Ebtehaj, H Bonakdari, S Heddam, C Voyant, N Al-Ansari, R Deo, ZM Yaseen
Energies 7, 1365, 2019

23. Solar Radiation Forecasting using Artificial Neural Network and Random Forest Methods: Application to Normal Beam, Horizontal Diffuse and Global Components

L Benali, G Notton, A Fouilloy, C Voyant, R Dizene
Renewable Energy 132, 871-884, 2019

24. Some Applications of ANN to Solar Radiation Estimation and Forecasting for Energy Applications

G Notton, C Voyant, A Fouilloy, JL Duchaud
Applied Sciences 9 (209), 2019

25. Multi-Objective Particle Swarm Optimal Sizing of a Renewable Hybrid Power Plant with Storage

JL Duchaud, G Notton, C Darras, C Voyant
Renewable Energy 131, 1156-1167, 2019

26. Periodic Autoregressive Forecasting of Global Solar Irradiation Without Knowledge-based Model Implementation

C Voyant, J De Gooijer, G Notton
Solar Energy 174, 121-129, 2018

27. Prediction intervals for global solar irradiation forecasting using regression trees methods

C Voyant, F Motte, G Notton, A Fouilloy, ML Nivet, JL Duchaud
Renewable Energy 126, 332-340, 2018

28. Prediction bands for solar energy: New short-term time series forecasting techniques

M Fliess, C Join, C Voyant
Solar Energy 166, 519-528, 2018

29. Intermittent and stochastic character of renewable energy sources: consequences, cost of intermittence and benefit of forecasting

G Notton, ML Nivet, C Voyant, C Darras, F Motte, C Paoli
Renewable & Sustainable Energy Reviews 87, 96-105, 2018

30. Solar irradiation nowcasting by stochastic persistence: a new parsimonious, simple and efficient forecasting tool

C Voyant, G Notton

31. Power ramp-rate control algorithm with optimal State of Charge reference via Dynamic Programming

JL Duchaud, G Notton, C Darras, C Voyant
Energy 149, 709-717, 2018

32. Solar irradiation forecasting with machine learning and computational methods for 3 weather variabilities

A Fouilloy, C Voyant, F Motte, G Notton, C Paoli, ML Nivet, E Guillot, ...
renewable energy, 2018

33. Machine learning methods for solar radiation forecasting: A review

C Voyant, G Notton, S Kalogirou, ML Nivet, C Paoli, F Motte, A Fouilloy
Renewable Energy 105, 569-582, 2017

34. Uncertainties in global radiation time series forecasting using machine learning: The multilayer perceptron case

C Voyant, G Notton, C Paoli, A Fouilloy, F Motte, C Darras
Energy 125, 248-257, 2017

35. Forecasting method for global radiation time series without training phase: comparison with other well-known prediction methodologies

C Voyant, F Motte, A Fouilloy, G Notton, C Paoli, ML Nivet
Energy 120, 199-208, 2017

36. Multi-layer Perceptron and Pruning

C Voyant, C Paoli, G Notton, ML Nivet, A Fouilloy, F Motte
Turkish Journal of Forecasting 1 (1), 1-6, 2017

37. Multilayer Perceptron approach for estimating 5-min and hourly horizontal global irradiation from exogenous meteorological data in locations without solar measure...

K Dahmani, G Notton, C Voyant, R Dizene, ML Nivet, C Paoli, W Tamas
renewable energy 90, 267-282, 2016

38. Statistical parameters as a means to a priori assess the accuracy of solar forecasting models

C Voyant, T Soubdhan, P Lauret, M David, M Muselli
Energy 90, 671-679, 2015

39. A benchmarking of machine learning techniques for solar radiation forecasting in an insular context

P Lauret, C Voyant, T Soubdhan, M David, P Poggi
Solar Energy, 2015

40. Twenty four hours ahead global irradiation forecasting using multi - layer perceptron

C Voyant, P Randimbivololona, ML Nivet, C Paoli, M Muselli
Meteorological Applications 21 (3), 644-655, 2014

41. Estimation of 5-min time-step data of tilted solar global irradiation using ANN (Artificial Neural Network) model

K Dahmani, R Dizene, G Notton, C Paoli, C Voyant, ML Nivet
Energy 70, 374-381, 2014

42. Time series modeling and large scale global solar radiation forecasting from geostationary satellites data

C Voyant, P Haurant, M Muselli, C Paoli, ML Nivet
Solar Energy 102, 131-142, 2014

43. Heterogeneous transfer functions MultiLayer Perceptron (MLP) for meteorological time series forecasting

C Voyant, ML Nivet, C Paoli, M Muselli, G Notton
International Journal of Modeling, Simulation, and Scientific Computing, 2014

44. Numerical weather prediction or stochastic modeling: an objective criterion of choice for the global radiation forecasting

C Voyant, G Notton, C Paoli, ML Nivet, M Muselli, K Dahmani
International Journal of Energy Technology and Policy, 2014

45. Bayesian rules and stochastic models for high accuracy prediction of solar radiation

C Voyant, C Darras, M Muselli, C Paoli, ML Nivet, P Poggi
Applied Energy, 2014

46. Multi-horizon solar radiation forecasting for Mediterranean locations using time series models

C Voyant, C Paoli, M Muselli, ML Nivet
Renewable and Sustainable Energy Reviews 28, 44-52, 2013

47. Hybrid methodology for hourly global radiation forecasting in Mediterranean area

C Voyant, M Muselli, C Paoli, ML Nivet
Renewable Energy 53, 1-11, 2013

48. PV output power fluctuations smoothing: The MYRTE platform experience

C Darras, M Muselli, P Poggi, C Voyant, JC Hogue, F Montignac
International Journal of hydrogen energy 37 (19), 14015-14025, 2012

49. Numerical weather prediction (NWP) and hybrid ARMA/ANN model to predict global radiation

C Voyant, M Muselli, C Paoli, ML Nivet
Energy 39 (1), 341-355, 2012

50. Optimization of an artificial neural network dedicated to the multivariate forecasting of daily global radiation

C Voyant, M Muselli, C Paoli, ML Nivet
Energy 36 (1), 348-359, 2011

51. Forecasting of preprocessed daily solar radiation time series using neural networks

C Paoli, C Voyant, M Muselli, ML Nivet
Solar Energy 84 (12), 2146-2160, 2010

Articles Published in Journals Outside the Renewable Energy Field (5 submitted in 2025)

The following publications are in peer-reviewed journals from related scientific fields, including medical physics, oncology, and environmental modeling. While not centered on renewable energy, they demonstrate expertise in statistical modeling, biomedical applications, and complex system analysis:

1. Improving Clinical Decision-Making in Radiotherapy: A Comparative Analysis and Dose Models.

Cyril Voyant, Daniel Julian, Stéphane Muraro, Véronique Bodez, Morgane Pinpin, Delphine Leschi, Rashid Oozeer, Guidi Wided, Marie-Aimée Acquaviva, Severine Prapant, Omar Gahbiche, Nouredine Bouaouina. Clinical Oncology ; 2025

2. Hybrid VMAT-3DCRT as Breast Cancer Treatment Improvement Tool

C Voyant, M Pinpin, D Leschi, S Prapant, F Savigny, MA Acquaviva
Scientific Report 13, 2023

3. A Short Synthesis Concerning Biological Effects and Equivalent Doses in radiotherapy

C Voyant, D Julian
Journal of Radiology and Oncology, 39-45, 2017

4. Hybridization of Air Quality Forecasting Models Using Machine Learning and Clustering: An Original Approach to Detect Pollutant Peaks

W Tamas, G Notton, C Paoli, ML Nivet, C Voyant
Aerosol and Air Quality Research, 2015

5. Urban ozone concentration forecasting with artificial neural network in Corsica

W Tamas, G Notton, C Paoli, C Voyant, ML Nivet, A Balu
Mathematical Modelling in Civil Engineering 1, 33-42, 2014

6. Biological effects and equivalent doses in radiotherapy: a software solution

C Voyant, D Julian, R Roustit, K Biffi, CL Marcovici
Reports of Practical Oncology & Radiotherapy, 2013

7. Dosimetric uncertainties related to the elasticity of bladder and rectal walls: Adenocarcinoma of the prostate

C Voyant, K Biffi, D Leschi, J Briancon, C Lantieri
Cancer/Radiothérapie 15 (4), 270-278, 2011

8. Therapeutic potential of atmospheric neutrons

C Voyant, R Roustit, J Tatje, K Biffi, D Leschi, J Briançon, CL Marcovici
Reports of Practical Oncology & Radiotherapy 16 (1), 21-31, 2011

9. Mise en oeuvre du contrôle de qualité d'une caméra TEMP-TDM

C Voyant
Médecine Nucléaire, 01.002, 2010

10. Comparaison dosimétrique de trois balistiques prostatiques: radiothérapie conformationnelle tridimensionnelle, arcthérapie coplanaire et arcthérapie non-coplanaire

C Voyant, A Baadj, K Biffi, D Leschi, C Lantieri
Cancer/Radiothérapie 12 (5), 343-351, 2010

Book Chapters

Below is a list of book chapters I have authored or co-authored, primarily in the fields of solar forecasting, smart energy systems, and artificial intelligence applications in renewable energy:

1. Profitability and performance improvement of smart photovoltaic/energy storage microgrid by integration of solar production forecasting tool

Gilles Notton, Sarah Ouédraogo, Ghjuvan Antone Faggianelli, Cyril Voyant, Jean Laurent Duchaud
Intelligent Learning Approaches for Renewable and Sustainable Energy, 2024

2. Forecasting of Intermittent Solar Energy Resource

G Notton, C Voyant
Advances in Renewable Energies and Power Technologies 1, 77-114, 2018

3. Application of ANN Methods for Solar Radiation Estimation

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