

Alex Giménez Romero

Researcher at the Center for Advanced Studies in Blanes, CEAB-CSIC (Spain)

✉ alex.gimenez@csic.es

🐦 [@AlexGimenezRom1](https://twitter.com/AlexGimenezRom1)

🆔 0000-0003-2796-6801

🌐 [agimenezromero](https://agimenezromero.github.io)

🌐 agimenezromero.github.io

🅒 KurxXPAAAAAJ

☎ +34 676176429

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Summary

I am a researcher in theoretical and computational ecology, currently based at the Center for Advanced Studies of Blanes (CEAB-CSIC) as a Juan de la Cierva fellow, with a background in Physics and a strong interdisciplinary trajectory at the interface of complex systems science and ecology. My research combines mathematical modeling, stochastic and spatially explicit approaches, deep learning, and climate and satellite data analysis to address key ecological questions related to the stability and resilience of ecological communities, disease dynamics and the spatial organization of marine and terrestrial ecosystems. Following my PhD in Physics of Complex Systems at IFISC, a research stay at the Department of Biology of the University of Oxford, and my current Juan de la Cierva fellowship at CEAB-CSIC, I have consolidated an interdisciplinary profile that bridges theory-driven and data-intensive ecology.

I have published 15 SCI papers in journals such as *Ecology Letters*, *Communications Biology*, *Global Ecology and Biogeography*, *Proceedings of the Royal Society B*, *Ecological Indicators* or *Scientific Reports* (11 first author, 3 second author and 1 last author. 8-D1, 6-Q1) in addition to a technical report (UK) and several recent preprints. My research is built upon extensive international collaborations with leading institutions, including the Institute for Cross-disciplinary Physics and Complex Systems, the University of Oxford, Utah State University, University of Exeter and the King Abdullah University of Science and Technology (KAUST). These collaborations have enabled me to work alongside renowned researchers, such as Prof. Carlos M. Duarte and Prof. Rob Salguero-Gómez, fostering interdisciplinary approaches to address complex ecological challenges. I have presented my research at numerous national and international conferences, including invitations to speak at symposia in Lisbon and Seoul. Additionally, I delivered the following invited presentations: an applied math seminar at the Utah State University, a lab-wide seminar at the University of Oxford and a talk at a workshop at KAUST, sharing my work with diverse academic audiences. My research has garnered significant attention, including highlights by CSIC and coverage in Science ("In Other Journals"), as well as broader recognition in the media through multiple press features. I am also dedicated to public outreach, having authored 4 articles for The Conversation, contributed to a short documentary for IB3-TV, and participating in several dissemination events, ensuring that my work resonates beyond the academic community.

I have completed 4 months of stays in international institutions hosted by researchers of international reputation, such as Prof. D. Bebber (Exeter) and Prof. R. Salguero-Gómez (Oxford). Additionally, I have completed a 1 month stay at the Institute of Physics of Cantabria under the supervision of Prof. J. M. Gutiérrez. I have taught undergraduate and master's subjects at the University of the Balearic Islands (UIB) and the University of Girona (UdG). I have co-directed 3 master's theses and I am currently co-supervising 1 PhD student. I have reviewed manuscripts for 12 international journals and a scientific conference.

Experience

- 2026 – 2027  **Research stay**, ISEM–University of Montpellier
Under the supervision of Emanuel Fronhofer.
- 2025 – 2027  **Juan de la Cierva Fellow**, Center for Advanced Studies of Blanes
Under the supervision of Daniel Oro.
- 2025 – 10 mo  **Postdoctoral researcher**, Center for Advanced Studies of Blanes
Under the supervision of Meritxell Genovart.

Experience (continued)

- 2025 – 6 mo  **Adjunct lecturer**, University of Girona – Physics Department
Fundamentals of Materials Science for engineering degrees
- 2024 – 3 mo  **Research Stay**, Oxford University
Under the supervision of Roberto Salguero-Gómez.
- 2023 – 1 mo  **Remote Research Stay**, University of Exeter
Under the supervision of Daniel P. Bebber.
-  **Research Stay**, Institute of Physics of Cantabria
Under the supervision of Jose M. Gutiérrez.
- 2020 – 2024  **Research Assistant**, Institute for Cross-disciplinary Physics and Complex Systems
Under the supervision of Manuel A. Matías.
- 2019 – 3 mo  **Research Internship**, Institute of Material Science of Barcelona

Education

- 2021 – 2024  **PhD in Physics of Complex Systems**, University of the Balearic Islands
Thesis title: *Theoretical and data-driven models in Ecology*
Distinction “cum laude”
- 2021 – 2022  **M.Sc. Quantitative Finances**, UNED
Excellent in all modules.
Thesis title: *A robust analysis of mean-variance and higher moment portfolio optimization models.*
- 2019 – 2020  **M.Sc. Physics of Complex Systems**, University of the Balearic Islands
Excellent in 9/13 subjects.
Thesis title: *Modelling the Mass Mortality Event of Pinna nobilis.*
- 2015 – 2019  **B.Sc. Physics**, Autonomous University of Barcelona
Honors in numerical methods I and II
Thesis title: *Nanoscale Heat Transport Study by Monte Carlo Simulations.*

Research Publications

Preprints

- 8  **À. Giménez-Romero**, B. A. Afful, P. E. Greenwood, M. A. Matías, and L. F. Gordillo, “Intermittent precipitation and spatial allee effects drive irregular vegetation patterns in semiarid ecosystems,” *bioRxiv*, 2026.  DOI: [10.64898/2026.02.05.703943](https://doi.org/10.64898/2026.02.05.703943)
- 7  **À. Giménez-Romero**, E. del Campo, and M. A. Matías, “Inferring seagrass meadow resilience from self-organized spatial patterns,” *bioRxiv*, 2026.  DOI: <https://doi.org/10.64898/2026.03.24.713893>
- 6  **À. Giménez-Romero**, D. Oro, J. Bascompte, and M. Genovart, “Ecological networks balance connectivity with flexibility to perturbations,” *bioRxiv*, 2026.  DOI: [10.64898/2026.06.12.731932](https://doi.org/10.64898/2026.06.12.731932)
- 5  **À. Giménez-Romero**, D. Oro, D. F. Doak, M. B. García, and M. Genovart, “A demographic framework for assessing population vulnerability to contrasting perturbation regimes,” *bioRxiv*, 2026.  DOI: [10.64898/2026.05.22.727074](https://doi.org/10.64898/2026.05.22.727074)
- 4  E. Llabrés, **À. Giménez-Romero**, T. Sintes, and C. M. Duarte, “Hydrodynamics shapes annularity in coral reefs via scale-free growth processes,” *arXiv*, 2026.  URL: <https://arxiv.org/abs/2603.16933>
- 3  E. Mayol et al., “Effects of moderate meadow fragmentation and hydrodynamics on the water column oxygenation by the seagrass *Posidonia oceanica*,” *Under review*, 2026.

- 2 M. Qi, R. Salguero-Gomez, À. G. Romero, J. Chen, Q. Sun, and T. Sun, "Density dependence buffers natural populations against multiple stressors," 2026.
- 1 J. C. Rodríguez-Cabanillas, M. A. Matías, and À. **Giménez-Romero**, "A mechanistic framework linking within-host pathogen progression to vector-mediated transmission under climate forcing," *bioRxiv*, 2026.  DOI: [10.64898/2026.07.01.735761](https://doi.org/10.64898/2026.07.01.735761)

Journal Articles

- 16 À. **Giménez-Romero**, T. Sintes, C. M. Duarte, and M. A. Matías, "Thermal stress is associated with fragmentation of mediterranean posidonia oceanica meadows," *Global Change Biology Communications*, vol. 1, e70031, 2026, e70031 6798120.  DOI: <https://doi.org/10.1002/gcb4.70031>
- 15 D. Oro, D. F. Doak, À. **Giménez-Romero**, and M. Genovart, "Rare events and their role in ecological dynamics," *Trends in Ecology & Evolution*, 2026.  DOI: <https://doi.org/10.1016/j.tree.2026.07.012>
- 14 À. **Giménez-Romero**, D. Ferchichi, P. Moreno-Spiegelberg, T. Sintes, and M. A. Matías, "A generalizable deep learning framework for large-scale mapping of seagrass habitats," *Ecological Indicators*, vol. 180, p. 114 349, 2025.  DOI: <https://doi.org/10.1016/j.ecolind.2025.114349>
- 13 À. **Giménez-Romero**, C. Hernández, M. Genovart, and R. Salguero Gómez, "Population structure plays a key role in community stability," *Ecology Letters*, vol. 28, e70272, 2025, e70272 ELE-00749-2025.R2.  DOI: <https://doi.org/10.1111/ele.70272>
- 12 À. **Giménez-Romero**, E. Moralejo, and M. A. Matías, "High-resolution climate data reveals increased risk of pierce's disease for grapevines worldwide," *Scientific Reports*, vol. 15, p. 31 282, 2025.  DOI: [10.1038/s41598-025-13994-1](https://doi.org/10.1038/s41598-025-13994-1)
- 11 E. Moralejo, J. A. García-Muñoz, S. Denman, and À. **Giménez-Romero**, "Leaf susceptibility of macaronesian laurel forest species to phytophthora ramorum," *European Journal of Forest Research*, 2025.  DOI: [10.1007/s10342-025-01764-7](https://doi.org/10.1007/s10342-025-01764-7)
- 10 À. **Giménez-Romero**, M. Iturbide, E. Moralejo, J. M. Gutiérrez, and M. A. Matías, "Global warming significantly increases the risk of pierce's disease epidemics in european vineyards," *Scientific Reports*, vol. 14, p. 9648, 2024.  DOI: [10.1038/s41598-024-59947-y](https://doi.org/10.1038/s41598-024-59947-y)
- 9 À. **Giménez-Romero**, M. A. Matías, and C. M. Duarte, "Unravelling the universal spatial properties of coral reefs," *Global Ecology and Biogeography*, e13939, 2024.  DOI: <https://doi.org/10.1111/geb.13939>
- 8 E. Moralejo, À. **Giménez-Romero**, and M. A. Matías, "Linking intercontinental biogeographic events to decipher how european vineyards escaped pierce's disease," *Proceedings of the Royal Society B: Biological Sciences*, vol. 291, p. 20 241 130, 2024.  DOI: [10.1098/rspb.2024.1130](https://doi.org/10.1098/rspb.2024.1130)
- 7 À. **Giménez-Romero**, E. Moralejo, and M. A. Matías, "A compartmental model for xylella fastidiosa diseases with explicit vector seasonal dynamics," *Phytopathology*®, vol. 113, pp. 1686–1696, 2023.  DOI: [10.1094/PHYTO-11-22-0428-V](https://doi.org/10.1094/PHYTO-11-22-0428-V)
- 6 C. Lago, À. **Giménez-Romero**, M. Morente, M. A. Matías, A. Moreno, and A. Fereres, "Degree-day-based model to predict egg hatching of Philaenus spumarius (Hemiptera: Aphrophoridae), the main vector of Xylella fastidiosa in Europe," *Environmental Entomology*, vol. 52, pp. 350–359, 2023.  DOI: [10.1093/ee/nvad013](https://doi.org/10.1093/ee/nvad013)
- 5 S. Flecha et al., "Ph trends and seasonal cycle in the coastal balearic sea reconstructed through machine learning," *Scientific Reports*, vol. 12, p. 12 956, 2022.  DOI: [10.1038/s41598-022-17253-5](https://doi.org/10.1038/s41598-022-17253-5)
- 4 À. **Giménez-Romero**, R. Flaquer-Galmés, and M. A. Matías, "Vector-borne diseases with nonstationary vector populations: The case of growing and decaying populations," *Phys. Rev. E*, vol. 106, p. 054 402, 5 2022.  DOI: [10.1103/PhysRevE.106.054402](https://doi.org/10.1103/PhysRevE.106.054402)

- 3 **À. Giménez-Romero**, F. Vazquez, C. López, and M. A. Matías, “Spatial effects in parasite-induced marine diseases of immobile hosts,” *Royal Society Open Science*, vol. 9, p. 212 023, 2022.  DOI: [10.1098/rsos.212023](https://doi.org/10.1098/rsos.212023)
- 2 **A. Giménez-Romero** et al., “Global predictions for the risk of establishment of pierce’s disease of grapevines,” *Communications Biology*, vol. 5, p. 1389, 2022.  DOI: [10.1038/s42003-022-04358-w](https://doi.org/10.1038/s42003-022-04358-w)
- 1 **À. Giménez-Romero**, A. Grau, I. E. Hendriks, and M. A. Matias, “Modelling parasite-produced marine diseases: The case of the mass mortality event of pinna nobilis,” *Ecological Modelling*, vol. 459, p. 109 705, 2021.  DOI: <https://doi.org/10.1016/j.ecolmodel.2021.109705>

Technical Reports

- 1 D. P. Bebbier, S. J. Gurr, A. Karley, L. Lozada-Ellison, T. Beale, and À. Giménez-Romero, “Interdisciplinary analysis of plant health threats to scotland: Project final report,” Scotland’s Centre of Expertise for Plant Health (PHC), Tech. Rep., 2024.  DOI: [10.5281/zenodo.11613888](https://doi.org/10.5281/zenodo.11613888)

Presentations

10 oral presentations in international conferences (2 invited), 4 oral presentations in national conferences and 12 poster presentations. In the following, I only list the contributions presented by myself

Invited talks

- 2026  **Colloquium.** Universidad Carlos III, *Understanding ecological systems across scales: from mechanistic models to data-driven approaches.*
- 2025  **Colloquium.** Mathematics and Statistics department, Utah State University, *Theoretical and data-driven modeling in Ecology.*
- 2024  **Minisymposium.** Korean Society for Mathematical Biology (KSMB), *Modeling the risk of vector-borne plant diseases in a changing climate.*
-  **Minisymposium.** Dynamical Systems Applied to Biology and Natural Sciences (DSABNS), *Modelling Xylella fastidiosa diseases: transmission dynamics, global spatiotemporal risk predictions and design of control strategies.*

Contributed talks

- 2026  **5th European Conference on Xylella fastidiosa: science for sustainable management.** European Food Safe Authority, *Climate-driven risk assessment of Xylella fastidiosa diseases: mechanistic modelling across scales.*
-  **Biodiversity in Equations.** University of Montpellier, *Population structure plays a key role in community stability.*
- 2025  **EvoDemoS.** University of Oxford, *Population structure plays a key role in community stability* (lightning talk).
-  **FisES.** Universidad de Santiago de Compostela, *Population structure plays a key role in community stability.*
-  **SIBECOL & AEET Meeting.** Pontevedra, *Population structure plays a key role in community stability.*
- 2024  **Annual Meeting of the British Ecological Society.** ACC Liverpool, *Population structure is key to community stability.*
-  **FisEs Joven.** Online, *Population structure plays a key role in ecosystem stability.*
-  **Conference on Complex Systems.** University of Exeter, *Universal spatial properties of coral reefs.*

Presentations (continued)

- 2023  **Climate-Inclusive Ecosystem Modelling: Understanding the Dynamics of Ecosystems in a Changing World (ECM satellite).** Centre de Recerca Matemàtica (CRM), *A climate-driven epidemiological model for Xylella fastidiosa diseases.*
- 2023  **Conferencia Internacional sobre Xylella fastidiosa.** Consejo Superior de Investigaciones Científicas (CSIC), *Modeling Xf diseases: transmission dynamics, global spatiotemporal risk predictions and design of control strategies.*
-  **FisEs Joven.** Online, *Vector-borne diseases with non-stationary vector populations.*
- 2022  **Congreso de la Sociedad Española de Fitopatología.** Universidad Politécnica de Valencia (UPV), *Global Risk Predictions for Pierce's Disease of Grapevines.*
-  **Conference on Complex Systems.** Institute for Cross-disciplinary Physics and Complex Systems (IFISC), *Global Risk Predictions for Pierce's Disease of Grapevines.*
-  **International Symposium of Plant Virus Epidemiology.** Instituto de Ciencias Agrarias (ICA), *Global Risk Predictions for Pierce's Disease of Grapevines.*
- 2021  **3rd European conference on Xylella fastidiosa.** European Food Safe Authority (EFSA) *Risk of establishment of Pierce's disease in main wine-producer regions worldwide.*

Workshops

- 2025  **Community stability working group.** Oxford University, *Population structure plays a key role in community stability.*
- 2023  **Workshop on coral growth.** Instituto de Física Interdisciplinar y Sistemas Complejos, *World-wide multiscale analysis of coral reefs.*
- 2021  **Workshop on clonal growth rates and marine landscapes: From Seagrasses to Coral Reefs.** Red Sea Research Center, King Abdullah University of Science and Technology, *Extracting Coral Reefs Features from Data.*

Seminars

- 2026  **CEAB seminar.** CEAB-CSIC, *Mechanistic and data-driven models in Ecology.*
- 2024  **SalGo team seminar.** Oxford University, *Population structure plays a key role in community stability.*
- 2023  **Las Mañanas IFCA.** Instituto de Física de Cantabria (IFCA), *A climate-driven epidemiological model for Pierce's disease of grapevines.*
- 2022  **Applied Math Seminar.** Utah State University (USU), *Modelling Parasite-Produced Marine Diseases: spatial vs non-spatial models.*

Journal Club

-  Center for Advanced Studies (CEAB-CSIC), *Diversity of information pathways drives sparsity in real-world networks.*

Research projects

- 2025 – 2028  **CHANGE-ME (Complex Ecological Systems and their Resilience to Global Change: Marine Coastal Ecosystems and Plant Epidemics).** Institute for Cross-disciplinary Physics and Complex Systems (IFISC). **PI:** Manuel A. Matías and Damià Gomila.
- 2023 – 2026  **María de Maeztu Unit of Excellence.** Institute for Cross-disciplinary Physics and Complex Systems (IFISC). **PI:** Claudio Mirasso and Ingo Fischer.
- 2022 – 2025  **CYCLE (Complex DYnamics of CoastAL Ecosystems: Resilience to Climate Change).** Institute for Cross-disciplinary Physics and Complex Systems (IFISC). **PI:** Tomàs Sintes, Damià Gomila. **Project Coordinator:** Iris Hendriks (IMEDEA)

Research projects (continued)

- 2022 – 2024  **SEDIMENT** (*SEagrass DIversity in the MEditerranean basin in a global change scenario: a machine learNing approach from saTellite images*). Institute for Cross-disciplinary Physics and Complex Systems (IFISC). **PI:** Tomàs Sintes and Manuel Matías.
- 2019 – 2022  **SuMaEco** (*Sustainability of marine coastal ecosystems in the context of global change in the Mediterranean Sea*). Institute for Cross-disciplinary Physics and Complex Systems (IFISC). **PI:** Damià Gomila, Tomàs Sintes. **Project Coordinador:** Núria Marbà (IMEDEA).
- 2018 – 2022  **María de Maeztu Unit of Excellence**. Institute for Cross-disciplinary Physics and Complex Systems (IFISC). **PI:** Claudio Mirasso and Ingo Fischer.

Funding

- 2025  **Research stay** – FullBright CSIC. 14.100€ – *Interviewed*
Final outcome: 5th position in reserve list.
-  **Postdoctoral Fellowship** – Juan de la Cierva. 76.600€
Grant to perform a 2 year postdoc at CEAB-CSIC under the supervision of Daniel Oro.
- 2024  **Research stay** – IMOVE CSIC. 4.500€
Grant to perform a 3 month stay at Oxford University under the supervision of Rob Salguero-Gómez.
-  **Research stay** – Ayudas CEP-EDUIB-Santander. 4.000€
Grant to perform a 3 month stay at Oxford University under the supervision of Rob Salguero-Gómez. (*Declined*)

Media coverage

Reports & documentaries

- 2026  *El desafío de mapear un mundo oculto: IA y científicos se alían para salvar la posidonia* – elDiario
- 2025  *Un latido oculto en el arrecife: dos modelos revelan cómo crecen y resisten los corales ante la crisis climática* – elDiario
- 2024  *Capítol 555* – IB3 Mèteo.

Interviews

- 2026  *Entrevista Españoles en la mar* – RNE Audio
-  *Entrevista Codi Beta* – IB3 Ràdio
- 2025  *Entrevista Arran de Mar* – Tarragona Ràdio
- 2023  *Una nueva herramienta permite predecir la eclosión de las ninfas del insecto que transmite la Xylella* – SER Ibiza, IB3 Ràdio.

News

- 2026  *El Mediterráneo arde: el mar Balear acumula niveles de calor récord desde abril* – El País
-  *El estrés térmico acumulado está fragmentando las praderas de Posidonia oceanica en todo el Mediterráneo* – El Periodico, EuropaPress, 20minutos, Infobae, Diari de Mallorca
- 2025  *Un estudio sugiere que el cambio climático abre la puerta a una enfermedad de la vid que Europa esquivó hace 150 años* – CSIC, Phytoma
- 2024  *Un estudio revela patrones espaciales universales en corales de todo el mundo* – La Vanguardia, yahoo!noticias
-  *The absence of an epidemic in grapes* – In Other Journals (Science)
-  *El cambio climático potencia la bacteria que devora olivos en el Mediterráneo* – CSIC, ABC, RTVE, El Periódico, La Sexta, 20 minutos, EuropaPress, Última Hora, Diario de Mallorca...

Media coverage (continued)

- *El 'ébola del olivo' podría llevar casi una década en Mallorca* – Última Hora.
- *La intel·ligència artificial, una eina al servei de la posidònia* – IB3 Notícies.
- 2022 ■ *Un equipo del CSIC identifica la tendencia de acidificación del Mar Balear a través de inteligencia artificial* – CSIC, La Vanguardia, 20 minutos, COPE, EuropaPress, Última Hora, Diario de Mallorca, Ara Balears.
- *El IFISC desarrolla un modelo para entender las epidemias marinas* – Última Hora.

Teaching

Specialized courses & materials

- 2025 ■ **Geospatial data analysis with Python: A very short introduction.** Utah State University.
- 2022 – 2024 ■ **Econophysics Hands-On Notebooks.** University of the Balearic Islands.
- B.Sc. & M.Sc.**
- 2024 – 2025 ■ **Fundamentals of Material Science** – University of Girona
B.Sc. in Engineering (several).
- 2023 – 2024 ■ **Complex Systems Modelling in Economics** – University of the Balearic Islands
M.Sc. in Physics of Complex Systems. *Lecturer: Dr. Pere Colet & Dr. Rosa López*
- **Econophysics** – University of the Balearic Islands
4th year of B.Sc. in Physics. *Lecturer: Dr. Pere Colet & Dr. Rosa López*
- 2022 – 2023 ■ **Econophysics** – University of the Balearic Islands
4th year of B.Sc. in Physics. *Lecturer: Dr. Rosa López*

Thesis Supervision

- 2025 – ■ **PhD Thesis** – University of the Balearic Islands – Juan Carlos Rodríguez Cabanillas
The influence of climate on the dynamics of vector-borne epidemics: the case of *Xylella fastidiosa*. *co-supervised with Dr. Manuel A. Matías*
- 2023 – 2025 ■ **M.Sc. Thesis** – University of the Balearic Islands – Elena del Campo
Monitoring the resilience of seagrass meadows from satellite imagery using machine learning. *co-supervised with Dr. Manuel A. Matías (9.5/10)*
- 2022 – 2023 ■ **M.Sc. Thesis** – University of the Balearic Islands – Mustapha Bousakla
Age of infection disease modeling: from Kermack and McKendrick to multi-compartment models. *co-supervised with Dr. Manuel A. Matías (9/10)*
- 2020 – 2021 ■ **M.Sc. Thesis** – University of the Balearic Islands – Rosa Flaquer
A compartmental model for vector transmitted diseases: an application to *Xylella fastidiosa*. *co-supervised with Dr. Manuel A. Matías (9.0/10)*

Mentoring

- 2024 ■ **Cientific@s en prácticas** – IFISC.
Talk: Descifrando el fondo marino desde el espacio.
- 2023 ■ **SURF fellowship** – IFISC – Gala Tomás.
Compartmental models and their application to study phytopathologies. *co-supervised with Dr. Manuel A. Matías*

Mentoring (continued)

- 2022  **SURF fellowship** – IFISC – Pablo Cabrales.
Analysis of biodiversity in Posidonia meadows with satellite images through machine learning.
co-supervised with Dr. Manuel A. Matías

Knowledge Transfer and Science Communication

Outreach articles

- 2026  **The Conversation** (Ciencia + Tecnología). *Los arrecifes de coral parecen distintos alrededor del mundo pero siguen las mismas reglas matemáticas*
-  **The Conversation** (Medioambiente). *El calentamiento del mar acorrala a la posidonia, pulmón del Mediterráneo*
- 2025  **The Conversation** (Medioambiente). *Unos pocos grados de diferencia pueden marcar la frontera entre la vida y la muerte de la vid*
- 2024  **The Conversation** (Medioambiente + Energía). *Cómo los viñedos europeos escaparon de una devastadora enfermedad... por ahora*
-  **The Conversation** (Medioambiente + Energía). *“Xylella fastidiosa” y el cambio climático amenazan la viticultura europea: hemos calculado cuánto*
- 2023  **The Conversation** (Ciencia + Tecnología). *Descifrando el fondo marino desde el espacio con los ojos de la inteligencia artificial*
-  **Science & Wine** (Blog). *Pierce’s disease of grapevines caused by Xylella fastidiosa: what are the risks?*

Briefs for management

- 2026  **Prismàtic**. *L’escalfament crònic fragmenta les praderies mediterrànies de Posidonia oceanica*
-  **Prismàtic**. *Intel·ligència artificial per cartografiar praderies de posidònia a gran escala*
-  **Prismàtic**. *Una nova eina prediu el millor moment per actuar contra la Xylella a les vinyes*
-  **Prismàtic**. *Malaltia de Pierce a la vinya: mapes de risc per anticipar una amenaça emergent*

Outreach events

- 2024  **Pint of Science** (IFISC, UIB). *Descifrando el fondo marino desde el espacio*
- 2023  **IV Scientific Dissemination Contest** (UIB). *Desxifrant el fons marí des de l’espai amb els ulls de la intel·ligència artificial*
-  **Ciència a tot Tren** (CSIC). *Desxifrant el fons marí des de l’espai amb els ulls de la intel·ligència artificial*

Academic service

Peer-review

-  **Total reviewed articles:** 20 (1.25 review per published article)
-  **Journals:** *Ecology Letters* (1), *PLoS Computational Biology* (2), *Conservation Biology* (1), *Scientific Reports* (3), *Journal of Animal Ecology* (1), *Ecology and Evolution* (1), *Journal of the Royal Society Interface* (1), *Ecological Modelling* (1), *BMC Ecology and Evolution* (1), *Frontiers in Remote Sensing* (1), *Journal of Complex Networks* (1), *Discover Animals* (1), *Frontiers in Marine Science* (1), *Journal of Forestry Research* (1), *Pest Management Science* (1), *Remote Sensing* (2)
-  **Conferences:** *Julia Conference* (1).

R&D organization

- 2026  Member of the Scientific Commission of CEAB.

Academic service (continued)

- 2022  Organizer of the monthly department meetings at CEAB.
 - 2022  Collaborator in the Conference of Complex Systems organization in Palma de Mallorca.
- Other**
- 2023 – 2026  i1F initiative collaborator. Webpage: <https://i1defebrero.org/>

Honors & awards

- 2025  **Finalist of the ECR poster competition at EvoDemoS conference.**
- 2024  **Finalist of the IV Scientific Dissemination Contest of the UIB.**
- 2023  **Winner of the Circular Innovation Hackathon (Sampol).**
- 2022  **Winner of the Circular Innovation Hackathon (Senda Ecoway).**
-  **Top 5 poster competition EFSA.**

Skills

- | | |
|------------------------|---|
| Coding |  Python, Julia, R, C++, bash, $\LaTeX$, ... |
| AI |  Deep Learning (e.g., RNN, LSTM, CNN), scikit-learn, ... |
| Databases |  MySQL, PostgreSQL, SQLite. |
| Web Dev |  Dash, jekyll, HTML, Markdown. |
| V. Control |  GIT |
| Geo data |  GEOjson, shapefile, geotiff |
| Climate data |  netCDF, GRIB |
| Tabular and other data |  CSV, Excel, JSON |
| Languages |  English, Spanish, Catalan. |

Miscellaneous Experience

Developed webpages

-  **CAMELE dashboard** – <https://camele.ifisc.uib-csic.es/>
-  **Philaenus spumarius egg hatching prediction** – <https://pseggs.ifisc.uib-csic.es/>
-  **Pierce's disease risk dashboard** – <https://pdrisk.ifisc.uib-csic.es/>
-  **Personal webpage** – <https://agimenezromero.github.io>

Certifications

- 2024  **C1 English** – Escola Oficial d'Idiomes (EOI).
- 2023  **Ecology: Ecosystem Dynamics and Conservation** – American Museum of Natural History.
- 2021  **Natural Language Processing Specialisation** – DeepLearning.AI.
4 courses: *Introduction to TensorFlow for Artificial Intelligence, Machine Learning, and Deep Learning; Convolutional Neural Networks in TensorFlow; Natural Language Processing in TensorFlow; Sequences, Time Series and Prediction*
-  **Tensorflow Developer** – DeepLearning.AI.
4 courses: *Natural Language Processing with Classification and Vector Spaces; Natural Language Processing with Probabilistic Models; Natural Language Processing with Sequence Models; Natural Language Processing with Attention Models*
- 2020  **Scalable Machine Learning on Big Data using Apache Spark** – IBM.

Miscellaneous Experience (continued)

- Machine Learning with Python – IBM.
- The Data Science Course 2020: Complete Data Science Bootcamp – Udemy.
- 2019 Fundamentals of Data Visualisation in Tableau – Udemy.