



PÔLES TECHNIQUES

PÔLE INFORMATIQUE

MIELE Vincent

INGÉNIEUR DE RECHERCHE

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📍 43 bd du 11 novembre 1918
69622 VILLEURBANNE cedex (<http://maps.google.com/maps?q=43%20bd%20du%2011%20novembre%201918+69622+%20VILLEURBANNE%20cedex>)

📞 330472448544

@ Courriel

I am working in

[CNRS](#) ↗

@

[Biometry and Evolutionary Biology Lab \(https://lbbe.univ-lyon1.fr\)](https://lbbe.univ-lyon1.fr)

. With a background in mathematics and computer science, I am involved in projects in ecology, on two main axes :

ecological networks : analysing original datasets, proposing new methodological developments and helping non specialists (see

this ["quick tips" paper](#) ↗

);

image, ecology & deep learning : as a leader of the **imaginecology initiative** (see

[imaginecology website](#) ↗


), developing computer vision pipelines and sharing knowledge with other ecologists.

SELECTED WORK




For a complete list, I am almost 100% degooglized, but you can still have a look at [my scholar profile](#) ↗

- › Vincent Miele, Stéphane Dray et Olivier Gimenez, *Images, écologie et deep learning*,
[Regards sur la biodiversité, Société Française d'Écologie et d'Évolution](#) ↗
(2021)
- › Vincent Miele, Gaspard Dussert, Bruno Spataro, Simon Chamaillé-Jammes, Dominique Allainé & Christophe Bonenfant,
Revisiting giraffe photo-identification using deep learning and network analysis.
[Methods in Ecology and Evolution](#) ↗
(2021)
[Preprint bioRxiv](#) ↗
/ Media coverage :
[France 3](#) ↗
,
[RFI](#) ↗
- › Vincent Miele, Catherine Matias, Marc Ohlmann, Giovanni Poggiato, Stéphane Dray, Wilfried Thuiller. Quantifying the overall effect of biotic interactions on species communities along environmental gradients.
[Preprint HAL](#) ↗
(2021)
- › Vincent Miele, Catherine Matias, Stéphane Robin & Stéphane Dray, *Nine Quick Tips for Analyzing Network Data*.
[PLoS Comp. Biology](#) ↗
(2019)
- › Catherine Matias & Vincent Miele, *Statistical clustering of temporal networks through dynamic a stochastic block model*.
[Journal of the Royal Statistical Society : Series B](#) ↗
(2016)
[Arxiv](#) ↗

Project member :

- > [ANR EcoNet 2019-2024](#) 
- > ANR FuturePred 2019-2022
- > ANR Horizon 2018-2022
- > ANR Colib'read 2012-2016
- > ANR Ancestrome 2011-2016
- > ANR NeMo 2007-2011

Board member

- > [GdR EcoStat](#) 
2019-
- > [IXXI](#) 
2021-
- > [Groupe Calcul](#) 
2009-2017
- > [LyonCalcul](#) 
(co-founder) 2012-2016
- > [CCIS/COCIN \(CNRS\)](#) 
2012-2015
- > [SMAI MAIRCI](#) 
2013-2015








Reviewer :





- > [Journal of Statistical Software](#) 
- > [Annals of statistics](#) 
- > [Journal of The Royal Society Interface](#) 
- > [Journal of the American Statistical Association](#) 
- > [PLoS Biology](#) 
- > [PCI Ecology](#) 
- > [The American Naturalist](#) 
- > [Biology Letters](#) 
- > [Scientific Reports](#) 
- > [Science Advances](#) 
- > [IEEE Transactions on Signal and Information Processing over Networks](#) 
- > [Frontiers in Ecology and Evolution](#) 
- > [Biological reviews](#) 
- > [Mammalian Biology](#) 
- > [PLoS ONE](#) 
- > [Bioinformatics](#) 
- > [TCBB](#) 

► **Jury member :**

- > HCERES MISTEA, 2020
- > INRA IRE01, 2018 (président)
- > UGA IGE, 2017
- > CNRS IR43, 2017
- > INRA CEI, 2017
- > CNRS IE 13INSMI03, 2013
- > INRA IRE12, 2012
- > INRA IRE05, 2011
- > INRA IRE01, 2009
- > CNRS IE 155, 2008

Organizing committee :

- > [imaginecology workshop](#) 
, Novembre 2020
- > ANF
[R pour le calcul](#) 
, Octobre 2015
- > Ecole Rhône-Alpes ARC6
[Découverte du calcul](#) 
, Septembre 2013
- > [Mini-Symposium SMAI 2013](#) 
MAT4NET Mathématiques pour l'analyse de grands réseaux, Juin 2013
- > ANF
[Programmation hybride](#) 
, Octobre 2012
- > [CEMRACS](#) 
, Méthodes numériques et algorithmes pour architectures hautes performances, Summer 2012 (le reportage de France3 [ici](#) )
- > Journées du groupe Calcul , November 2010.
- > Le coté Calcul de Jobim , June 2009.
- > Mathematics for Biological Networks , December 2007
- > European Conference on Computational Biology, September 2003

- › Noa Rigouady, ENS Lyon, Deep learning for camera traps, 2021
- › Julien Bonnier, M2 BEE, reconnaissance des pollens, 2021
- › Giuseppe Capizzi, M2 Data Science, Machine learning for botanics, 2020-21
- › Christophe Botella, Post Doc, Graph embeddings, 2020-21
- › Thibault Genissel, ENS Lyon, Réseaux de contact entre ongulés, 2020
- › Gaspard Dussert, ENSTA, imaginecology, 2019
- › Claire Gayral, M2 Maths en action, Algorithme EM classifiant dans dynSBM, 2018
- › Gonché Danesh, M2 Bioinformatique, Simulation de HTT, 2017
- › Florent Tessier, M2 Bioinformatique, Génomique comparative du manchot, 2015
- › Mamadou Dione, M2 Mathématiques, Etude de la température corporelle des marmottes en lien avec les conditions climatiques, 2014
- › Camille Marchet, Software Engineer
[INRIA Bamboo](#) 
, 2013-2014
- › Thomas Bigot, Software Engineer
[ANR Ancestrome](#) 
, 2013-2015
- › Mathilde Boutigny, M1 Ingénieur, Développement du
[package kisssplice2reftranscriptome](#) 
, 2014
- › Alice Julien, Software Engineer
[INRIA Bamboo](#) 
, 2012-2013
- › Patrick Tran Van, L3 UCBL, Intégration de programmes de calcul dédiés aux NGS dans le système GALAXY, 2012
- › Vincent Lanore, M1 ENS Info, Hybrid parallel computing applied to DNA processing, 2011
- › Aurélie Siberchicot, CDD ANR, 2010-11(C++ development manager)
- › Marie Jorandon, M1 INAPG, Etude statistique de données NGS sur l'espace des nucléosomes, 2009
- › Laurent Modolo, L3 UCBL Bio, Packaging d'une application de recherche de motifs, 2008

> [econetwork](#) 

A collection of advanced tools, methods and models for the analysis of ecological networks,
Collaboration with EcoNet group

> [queyras](#) 

A minimal deep learning image classifier, implemented in the french Alps with R and Keras

> [dynsbm](#)

Dynamic stochastic block models,
Collaboration with C.Matias

> [HiFiX](#)

+

[SiLiX](#)

Ultra-fast + High Fidelity Clustering of sequences
efficient parallel algorithms + network science.
Collaboration with L.Duret, D.Kahn, V.Daubin & S.Penel

Ingénieur Mathematics and Modelling - Polytech Clermont-Ferrand
Master Applied Mathematics - University of Clermont Auvergne

