



**TECHNICAL SERVICES**

**COMPUTING SERVICES**

**SIBERCHICOT Aurélie**

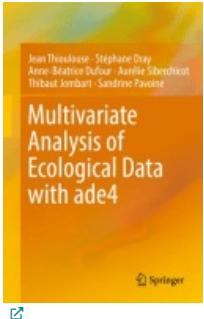
**INGÉNIEURE DE RECHERCHE**

UCBL

📍 43 bd du 11 novembre 1918  
69622 VILLEURBANNE cedex (<http://maps.google.com/maps?q=43%20bd%20du%2011%20novembre%201918+69622+%20VILLEURBANNE%20cedex>)  
☎ 33 04 72 44 85 98

@ [Email](#)

University Claude Bernard Lyon 1 - Building Grégor Mendel - 1st floor - Office 51(11.051)



As a **software engineer**, my core activity is to develop and maintain data analysis software to **enhance and sustain** research results. As an expert in the **R** language and its ecosystem, I am responsible for numerous **R packages** and **shiny** apps. To share my R-related skills, I design original **training courses** and take part in **teaching** programs. More broadly, I'm interested in tools for**reproducible research** and **open science**.

➤ Position and responsibilities

- Scientific Research Engineer (*Ingénierie de Recherche*) since 2023
- Scientific Project Engineer (*Ingénierie d'Études*) from 2012 to 2023
- Representative of the LBBE IT Department, since 2018
- ITA / BIATSS representative on the UMR council, since 2017

➤ Networks and IDs

- GitHub :  
[auriber](#)
- ORCID :  
[0000-0002-7638-8318](#)
- HAL : aurelie-siberchicot
- [Google Scholar](#)



## Evolutionary Ecology

- › **ade4** (Multivariate data analysis and graphical display) :

[CRAN ↗](#)

—

[GitHub ↗](#)

—

[book ↗](#)

—

[shiny app ↗](#)

- › **ade4TkGUI** (A Tcl/Tk GUI for some basic functions in the ade4 package) :

[CRAN ↗](#)

—

[GitHub ↗](#)

- › **adegraphics** (Graphical functionalities for the representation of multivariate data) :

[CRAN ↗](#)

—

[GitHub ↗](#)

—

[article ↗](#)

—

[talk ↗](#)

- › **adephylo** (Exploratory Analyses for the Phylogenetic Comparative Method) :

[CRAN ↗](#)

—

[GitHub ↗](#)

- › **adespatial** (Multivariate Multiscale Spatial Analysis) :

[CRAN ↗](#)

—

[GitHub ↗](#)

- › **CINID** (Package on the Curculionidae INstar IDentification) :

[CRAN ↗](#)

—

[article ↗](#)

- › **Interatrix**(Compute Chi-Square Measures with Corrections) :

[CRAN ↗](#)

—

[article ↗](#)

- › **OnAge**(Implements a likelihood ratio test of differential senescence onset between two groups) :

[CRAN ↗](#)

—

[web \(https://lbbe.univ-lyon1.fr/fr/onage\)](https://lbbe.univ-lyon1.fr/fr/onage)

- › Analysis of data from the *International Tiger Studbook* and from the *International and North American Regional Studbooks for Ruffed Lemurs* –

[article ↗](#)

—

[article ↗](#)

- › *AGEX*(ANR-15-CE32-0002-01, 2015-2019) –

[article ↗](#)

- › *Potenchène*(GIP-ECOFOR, 2014-2018) –

[article ↗](#)

- › *CoCoReCo*(ANR JC09-470585, 2009-2012) –

[article ↗](#)

- › *DL Vitis*(ANR-08-GENM-0002, 2008-2011) –

[article ↗](#)

—

[CRAN ↗](#)

## Bioinformatics

> **DRomics** (Dose Response for Omics) :

[CRAN ↗](#)

—

[GitHub ↗](#)

—

[shiny app 1 ↗](#)

—

[shiny app 2 ↗](#)

—

[web \(<https://lbbe.univ-lyon1.fr/fr/dromics>\)](#)

—

[article ↗](#)

—

[IFB cloud appliance 1 ↗](#)

—

[IFB cloud appliance 2 ↗](#)

> **kissDE** (Retrieves Condition-Specific Variants in RNA-Seq Data) :

[Bioconductor ↗](#)

—

[GitHub ↗](#)

> **LDcorSV** (Linkage Disequilibrium Corrected by the Structure and the Relatedness) :

[CRAN ↗](#)

—

[article ↗](#)

> **MareyMap** (Estimation of Meiotic Recombination Rates Using Marey Maps) :

[CRAN ↗](#)

—

[GitHub ↗](#)

—

[web \(<https://lbbe.univ-lyon1.fr/fr/mareymap>\)](#)

—

[shiny app ↗](#)

—

[article ↗](#)

> **phylter** (Detect and Remove Outliers in Phylogenomics Datasets) :

[CRAN ↗](#)

—

[GitHub ↗](#)

## Statistics and data analysis

- › **fitdistrplus** (Help to Fit of a Parametric Distribution to Non-Censored or Censored Data) :

[CRAN ↗](#)

—

[GitHub ↗](#)

—

[web \(<https://lbbe.univ-lyon1.fr/fr/fitdistrplus>\)](#)

- › **Mondrian** (A Simple Graphical Representation of the Relative Occurrence and Co-Occurrence of Events) :

[CRAN ↗](#)

—

[GitHub ↗](#)

—

[shiny app ↗](#)

- › **nlsMicrobio** (Nonlinear Regression in Predictive Microbiology) :

[CRAN ↗](#)

—

[GitHub ↗](#)

- › **nlsTools** (Tools for Nonlinear Regression Analysis) :

[CRAN ↗](#)

—

[GitHub ↗](#)

## IT services

- › **shiny server**:

[http://lbbe-shiny.univ-lyon1.fr ↗](http://lbbe-shiny.univ-lyon1.fr)

- › website of Statistics in Biology:

[http://pbil.univ-lyon1.fr/R/ ↗](http://pbil.univ-lyon1.fr/R/)

## Scientific animation



## Professional networks and conferences

- › *3e Journées Nationales du Réseau de la Recherche Reproductible* ↗  
, Lyon (organization committee)
- › *Rencontres R*(steering committee)
- › *2e Rencontres R* ↗  
, Conference, Rennes (programm commitee)
- › *R pour le calcul* ↗  
Action Nationale de Formation CNRS, Aussois (organization committee)
- › *2e Rencontres R* ↗  
, Conference, Lyon (organization committee) –  
[article](#) ↗

## Trainings and Courses

- › *UE IT bases*, M1  
[Biodiversité, Écologie et Évolution](#) ↗  
, University Lyon 1
- › *UE Visualization of Biological Data*, M2  
[Bio-informatique](#) ↗  
, University Lyon 1
- › [Reproducible Research in Computational Ecology](#) ↗  
,
- [FRB-Cesab](#) ↗  
et
- [Gdr Ecostat](#) ↗
- › [The basics of the R language](#) ↗  
, University Savoie Mont Blanc
- › [Programming with R: from the simplest to the most complex](#) ↗  
, Groupe Lyon Calcul
- › [Build your own package in R](#) ↗  
, ANF CNRS *R pour le calcul*

## Competition Jury

- › Concours externe ENS (2021) - BAP A- IE - Ingénieur·e biologiste en traitement des données
- › Concours externe INRA (2019) - Experte - BAP E - AI - Assistant·e statisticien·ne
- › Concours externe INRA (2019) - BAP E - IE - Administrateur·trice des systèmes d'information
- › Concours externe CNRS (2017) - Experte - BAP E - IE - Ingénieur·e en ingénierie logicielle - 2 postes

## Supervision

- › Cassandra Bompard, stage M2, Développement d'un package R de visualisation (2023)
- › Eliane Schermer, stage M2 et thèse, Modélisation en écologie (2015-2019)
- › Luka Matsuda, stage L3, Bioinformatique, Statistique et Modélisation (2018)
- › Adrien Bessy, stage M2, Bioinformatique (2015)