



TECHNICAL SERVICES

COMPUTING SERVICES

SIBERCHICOT Aurélie

INGÉNIEURE DE RECHERCHE

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As a **software engineer**, my core activity is to design, 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 bespoke **training courses** around R and its tools, and I regularly take part in **teaching** programs. More broadly, I'm committed to **reproducible research** and am involved in the **opening up of code and software** as vehicles of transparency, collaboration and sustainability in scientific practices.

> Networks and IDs

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

> Position and responsibilities

- Scientific Research Engineer (*Ingénieure de Recherche*) since 2023
- Scientific Project Engineer (*Ingénieure d'Études*) from 2012 to 2023



☒ **Modelling & Scientific Analysis Tools**

Multivariate, Spatial & Phylogenetic Analysis

> **ade4** (Multivariate data analysis and graphical display):

[CRAN](#) 

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[GitHub](#) 

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[book](#) 

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[shiny.app](#) 

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

[CRAN](#) 

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[GitHub](#) 

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

[CRAN](#) 

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[GitHub](#) 

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[article](#) 

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[talk](#) 

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

[CRAN](#) 

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[GitHub](#) 

> **adespatial** (Multivariate Multiscale Spatial Analysis):

[CRAN](#) 

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[GitHub](#) 

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

[CRAN](#) 

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[article](#) 

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

[CRAN](#) 

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[GitHub](#) 

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[shiny.app](#) 

Non-Linear Statistics & Distributions

- > **aods3** (Analysis of Overdispersed Data using S3 Methods):

[CRAN](#) 

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[GitHub](#) 

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

[CRAN](#) 

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[GitHub](#) 

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[web](#)

- > **nlMicrobio** (Nonlinear Regression in Predictive Microbiology):

[CRAN](#) 

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[GitHub](#) 

- > **nlstools** (Tools for Nonlinear Regression Analysis):

[CRAN](#) 

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[GitHub](#) 

☒ Bioinformatics & Functional Genomics

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

[CRAN](#) 

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[GitHub](#) 

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[web](#)

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[shiny.app.1](#) 

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[IFB cloud appliance.1](#) 

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[shiny.app.2](#) 

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[IFB cloud appliance.2](#) 

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[poster](#) 

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[article1](#) 

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[article2](#) 

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

[Bioconductor](#) 

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[GitHub](#) 

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

[CRAN](#) 

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[article](#) 

> **LifemapR** (Data Visualisation on 'Lifemap' Tree):

[CRAN](#) 

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[GitHub](#) 

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

[CRAN](#) 

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[GitHub](#) 

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[web](#)

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[shiny.app](#) 

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[article](#) 

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

[CRAN](#) 

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[GitHub](#) 

- > **ssd4mosaic** (Web Application for the SSD Module of the MOSAIC Platform):

[CRAN](#) 

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[GitLab](#) 

☒ Applications in Ecology & Biology

- > **CINID** (Curculionidae INstar IDentification):

[CRAN](#) 

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[article](#) 

- > **OnAge** (Test of Between-Group Differences in the Onset of Senescence):

[CRAN](#) 

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[web](#)

- > **WindApp** (Assessment of the risk of wind dispersal of Culicoides):

[shiny.app](#) 

☒ Research Projects (software contribution)

- > 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](#) 
- > *Potenchêne*(GIP-ECOFOR, 2014-2018) –
[article](#) 
- > *CoCoReCo*(JC09-470585, 2009-2012) –
[article](#) 

☒ Online Platforms & Resources

- > [GitLab](#) 
- and
[GitHub](#) 
- organizations of LBBE
- > **shiny serveur:**
<http://lbbe-shiny.univ-lyon1.fr> 
- > **Website of Statistics in Biology:**
<http://pbil.univ-lyon1.fr/R/> 



Professional Networks & Conferences

- > *Rencontres R* (Steering Committee, since 2023)
- > [3e Journées Nationales](#) 
du
[Réseau de la Recherche Reproductible](#) 
(Conference, Organization Committee, Lyon, 2025)
- > [7e Rencontres R](#) 
(Conference, Programm Committee, Rennes, 2018)
- > [R pour le calcul](#) 
(Action Nationale de Formation CNRS, Organization Committee, Aussois, 2015)
- > [2e Rencontres R](#) 
(Conference, Organization Committee, Lyon, 2013) –
[article](#) 

Trainings & Courses

- > *UE IT Bases*, M1
[Biodiversité, Écologie et Évolution](#) 
 , University Lyon 1, since 2022
- > *UE Visualization of Biological Data*, M2
[Bio-informatique](#) 
 , University Lyon 1, since 2019
- > [Reproducible Research in Computational Ecology](#) 
 ,
[FRB-Cesab](#) 
 et
[Gdr Ecostat](#) 
 , since 2022
- > [The basics of the R language](#) 
 , University Savoie Mont Blanc, from 2022 to 2024
- > [Programming with R: from the simplest to the most complex](#) 
 , Groupe Lyon Calcul, 2018
- > [Build your own R package](#) 
 , ANF CNRS *R pour le calcul*, 2015

Competition Jury

- > Concours externe CNRS (2025) - BAP E- IR - Expert.e en calcul scientifique
- > 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

Student 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)