

TECHNICAL SERVICES

COMPUTING SERVICES

SIBERCHICOT Aurélie

INGÉNIEURE D'ÉTUDE

UCBL

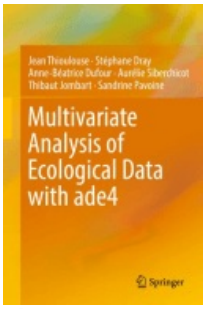
43 bd du 11 novembre 1918
69622 VILLEURBANNE cedex (http://maps.google.com/maps?q=43%20bd%20du%2011%20novembre%201918+69622+%20VILLEURBANNE%20cedex)

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As a **software engineer**, my work consists in designing, developing, deploying and maintaining biological data analysis tools. As an expert of the **R** language and software, I am in charge of many R**packages** which are available on CRAN, Bioconductor, GitHub and GitLab and of web applications developed with the **shiny** package. I am regularly associated with **training** and teaching modules, and I share, at these occasions, my knowledge and experience regarding the **reproducibility of research** and **good development practices**.

- GitHub:

  aursiber
- ORCID:

  0000-0002-7638-8318
- HAL: aurelie-siberchicot
- Google Scholar

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Software engineering with R

Evolutionary Ecology

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

  CRAN

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  GitHub

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  book

- **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

  –

  talk

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

  CRAN

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  article

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

  CRAN

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  article

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

  CRAN

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  web

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- 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* (ANR JC09-470585, 2009-2012) —
  article
- *DL Vitis* (ANR-08-GENM-0002, 2008-2011) —
  article
  —
  CRAN

Ecotoxicology

- **GUTS-predict** (General Unified Threshold Model of Survival):
  shiny app
- **rbioacc** (Inference and Prediction of ToxicoKinetic (TK) Models):
  CRAN
  —
  GitHub
  —
  article

Bioinformatics

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

  CRAN

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  GitHub

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  shiny app

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  web

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  article

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  IFB cloud appliance

- **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

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

  CRAN

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  GitHub

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  web

  –

  shiny app

  –

  article

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

  CRAN

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  GitHub

Statistics and data analysis

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- **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

- **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

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

  CRAN

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  GitHub

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

  CRAN

  –

  GitHub

IT services

- **shiny server**:

  http://lbbe-shiny.univ-lyon1.fr

- website of Statistics in Biology:

  http://pbil.univ-lyon1.fr/R/

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Scientific animation

Organization and Program Committee

- *Preditox*, Training school,
  2020
  ,
  2021
  &
  2023
  , Lyon (scientific committee)
- *7èmes Rencontres R*
  , Conference, juillet 2018, Rennes (programm commitee)
- *R pour le calcul,*
  CNRS National Training Action, octobre 2015, Aussois (co-organizer)
- *2èmes Rencontres R*
  , Conference, juin 2013, Lyon (organization committee) —
  article

Trainings and Courses

- *UE Visualization of Biological Data*, M2
  Bio-informatique
  , Lyon
- *Programming with R: from the simplest to the most complex*, Groupe Lyon Calcul
- *Build your own package in R*, ANF CNRS

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

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- 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)