



Rémi Vezy

RESEARCHER

UMR AMAP, Bâtiment PS2, Boulevard de la Lironde, 34398 Montpellier, France

+33 467 614 455 | ✉ remi.vezy@cirad.fr | 🏠 remi-vezy.netlify.com/ | 📷 VEZY | 📺 remivezy | 🐦 VezyRemi

Professional Summary

I am a researcher working for CIRAD at the UMR AMAP lab in Montpellier, France. I am specialized on Functional-Structural Plant Modelling (FSPM), and my research interests include ecophysiology, environmental physics, tree architecture, computer models and agronomy.

Experience

CIRAD

RESEARCHER

- Functional-structural plant modelling for agronomy, agroforestry and forestry

Montpellier, France

01/10/2018 - Present

INRA

POST-DOCTORATE

- Modelling intercrops with the STICS soil-crop model: model adaptation for simulating intercrop management scenarios within the framework of the H2020 European project ReMIX

Montpellier, France

03/2018 - 30/09/2018

UMR ISPA - INRA

PHD IN ENVIRONMENTAL PHYSICS

- Simulation of alternative management practices for the adaptation of perennial plantations to global changes

Bordeaux, France

01/10/2014 - 31/12/2017

Education

INRA Centre de Recherche de Bordeaux-Aquitaine

PHD IN ENVIRONMENTAL PHYSICS: SIMULATION OF ALTERNATIVE MANAGEMENT PRACTICES FOR THE ADAPTATION OF PERENNIAL PLANTATIONS TO GLOBAL CHANGES

Bordeaux

2014 - 2017

AgroParisTech

MASTER: TROPICAL ECOSYSTEM MANAGEMENT, MATHEMATICS AND MODELLING

Kourou

2012 - 2013

Université Paul Sabatier

FIRST YEAR MASTER'S DEGREE: ECOLOGY

Toulouse

2011 - 2012

Université Paul Sabatier

LICENCE: ORGANISMS, POPULATIONS AND ECOSYSTEMS BIOLOGY

Toulouse

2007 - 2011

Publications

SCIENTIFIC ARTICLES (A-RANK)

Rémi Vezy, Gueric le Maire, Mathias Christina, Selena Georgiou, Pablo Imbach...

Environmental Modelling & Software

DYNACof: A PROCESS-BASED MODEL TO STUDY GROWTH, YIELD AND ECOSYSTEM SERVICES OF COFFEE AGROFORESTRY SYSTEMS

2020

- Cites: 0

M. Christina, G. le Maire, Y. Nouvellon, R. Vezy, B. Bordon, P. Battie-Laclau...

Forest Ecology and Management

SIMULATING THE EFFECTS OF DIFFERENT POTASSIUM AND WATER SUPPLY REGIMES ON SOIL WATER CONTENT AND WATER TABLE DEPTH OVER A ROTATION OF A TROPICAL EUCALYPTUS GRANDIS PLANTATION

2018

- Cites: 11

Rémi Vezy, Mathias Christina, Olivier Roupsard, Yann Nouvellon, Remko Duursma...

Agricultural and Forest Meteorology

MEASURING AND MODELLING ENERGY PARTITIONING IN CANOPIES OF VARYING COMPLEXITY USING MAESPA MODEL

2018

- Cites: 9

• Cites: 8

IN PREPARATION

In preparation, submitted or under review

F. Charbonnier, O. Roupsard, E. Dreyer, R. Vezy, M. Christina, J. M. Bonnefon...

MODELING THE INTRA-PLOT VARIABILITY OF LIGHT AND WATER USE EFFICIENCIES IN A 2-LAYERED HETEROGENEOUS COFFEE (COFFEA ARABICA L.) AGROFORESTRY SYSTEM

*in prep.***Maxime; Soma, Rémi; Vezy, Lydie; Guilioni, Gueric; le Maire, Elias; de Melo ...**

ON THE POTENTIAL OF AGROFORESTRY TO BUFFER CROP CANOPY TEMPERATURE: A SIMPLE EMPIRICAL MODEL TESTED ON COFFEE

*in prep.***R. Vezy, O. Roupsard, S. Georgiou, P. Imbach, B. Rapidel, F. Charbonnier, C. ...**MODELLING COFFEA ARABICA ADAPTATION TO FUTURE CLIMATE CHANGE: NEITHER CO₂ NOR SHADE REMEDIATE PROJECTED YIELD LOSSES AT LOW ELEVATIONS*in prep.***CONFERENCES****Rémi Vezy, Sebastian Munz, Noémie Gaudio, Marie Launay, Kirsten Paff, Patrice...**

IMPROVING THE INTERCROPPING VERSION OF THE STICS MODEL FOR SIMULATING INTER-SPECIFIC COMPETITION

STICS Model Workshop

2020

Rémi Vezy, Sebastian Munz, Noémie Gaudio, Marie Launay, Kirsten Paff, Patrice...

IMPLEMENTATION OF NEW FORMALISMS IN STICS FOR INTERCROPPING MODELING

ICROP

2020

Kirsten Paff, Sebastian Munz, Rémi Vezy, Noémie Gaudio, Laurent Bedoussac, Er...

CALIBRATION AND EVALUATION OF THE STICS INTERCROP MODEL FOR TWO CEREAL-LEGUME MIXTURES

STICS Model Workshop

2020

Olivier Roupsard, Cathy Clermont-Dauphin, Alain Audebert, Jacob Sanou, J. Koa...

FAIDHERBIA-FLUX: ADAPTING CROPS TO CLIMATE CHANGES IN A SEMI-ARID AGRO-SYLVO-PASTORAL OPEN OBSERVATORY (SENEGAL)

World Congress on Agroforestry

2019

Olivier Roupsard, Laurent Cournac, Christophe Jourdan, Laure Tall, Maxime Dut...

FAIDHERBIA-FLUX, AN OPEN OBSERVATORY FOR GHG BALANCE AND C STOCKS IN A SEMI-ARID AGRO-SYLVO-PASTORAL SYSTEM (SENEGAL)

World Congress on Agroforestry

2019

Rémi Vezy, Gueric le Maire, Fabien Charbonnier, Mathias Christina, Selena Ge...

DYNACOF, A MODEL FOR GROWTH, YIELD, CARBON, WATER, ENERGY BALANCES AND ECOSYSTEM SERVICES OF COFFEA IN AGROFORESTRY

World Congress on Agroforestry

2019

Mathias Christina, Gueric Le Maire, Yann Nouvellon, Rémi Vezy, Bruno Bordron...

EUCALYPTUS PLANTATIONS AND DEEP GROUNDWATER: THE EFFECTS OF DIFFERENT POTASSIUM AND WATER SUPPLY REGIMES ON SOIL WATER UPTAKE AND WATER TABLE DEPTH

Eucalyptus 2018

2018

Olivier Roupsard, Karel Van Den Meersche, Clémentine Allinne, Philippe Vaast,...

EIGHT YEARS STUDYING ECOSYSTEM SERVICES IN A COFFEE AGROFORESTRY OBSERVATORY. PRACTICAL APPLICATIONS FOR THE STAKEHOLDERS

World Coffee Summit

2017

R. Vezy, M Christina, O. Roupsard, Y Nouvellon, F. Charbonnier, J. P. Laclau,...

MODELLING PLANT TO PLOT ENERGY BALANCE AFTER IMPROVING THE MAESPA MODEL IN SIMPLE TO COMPLEX FORESTS AND AGROFORESTS

Functional Ecology Conference

2017

R. Vezy, D. Picart, M Christina, M. Soma, S. Georgiou, F. Charbonnier, D Lous...

EFFECT OF SHADE ON TEMPERATURE MITIGATION AND CANOPY ASSIMILATION OF COFFEE AGROFORESTRY SYSTEMS: A MODELLING APPROACH

European Agroforestry Conference

2016

COUPLING A 3D LIGHT INTERCEPTION WITH A GROWTH AND YIELD MODEL TO ADJUST SHADE LEVEL IN COFFEE AGROFORESTRY SYSTEMS SIMULATED UNDER CLIMATE CHANGE

2016

MANUSCRIPTS

R. Vezy

SIMULATION DE PRATIQUES DE GESTION ALTERNATIVES POUR L'ADAPTATION DES PLANTATIONS PÉRENNES AUX CHANGEMENTS GLOBAUX

2017

R. Vezy

UNDERSTAND AND PROTECT ENDEMISM: APPLICATION TO THE CASE OF THE (SEMI-) EVERGREEN FORESTS OF THE WESTERN GHATS.

2013

Books

Rémi Vezy

LE COMPAGNON DE L'UTILISATEUR R

in progress

Olivier Roupsard, Clémentine Allinne, Karel Van Den Meersche, Philippe Vaast,...

SUIVI DES SERVICES ECOSYSTEMIQUES DANS UN OBSERVATOIRE DE CAFEIERS AGROFORESTIERS. APPLICATIONS POUR LA FILIERE DU CAFE

2019

Projects

PALMSTUDIO

J. DAUZAT (CIRAD)

- Modelling performances of oil palm plantation by identification of architectural and fonctionnal traits

[Link](#)

2017-

ARB RATATOUILLE II

AGROOF

- Improvement of agroforestry technical itineraries in vegetable production

[Link](#)

2014-

ReMIX

E. JUSTES (INRA)

- Redesigning European cropping systems based on species MIXtures

[Link](#)

2017-2021

EUCFLUX

G. LE MAIRE (CIRAD), Y. NOUVELLON (CIRAD), A. ROBIN (CIRAD), J-P. LA CLAU (CIRAD), J. GUILLEMOT (CIRAD)

- Quantification of the Carbon, Water and Nutrient Balances at Ecosystem Scale, for a Rotation of the Eucalyptus using Flux tower

[Link](#)

2008-2017

ANR MACCAC

O. ROUPSARD (CIRAD)

- Modélisation pour l'accompagnement des ACteurs, vers l'Adaptation des Couverts pérennes ou agroforestiers aux Changements globaux

[Link](#)

2014-2017

COFFEEFLUX

O. ROUPSARD (CIRAD)

- Measuring and modelling carbon, nutrients, water and sediment Ecosystem Services in an agroforestry coffee watershed (Costa Rica)

[Link](#)

2009-2018

Software development

DynACof

R LANGUAGE

- The Dynamic Agroforestry Coffee Crop Model

[Link](#)

2016 - today

MAESPA

FORTRAN

- Maespa is a model of forest canopy radiation absorption, photosynthesis and water balance

[Link](#)

2014 - today

sticRs

R LANGUAGE

- The R package for the STICS model

[Link](#)

2018

STICS-intercrop

FORTRAN

- Simulateur multIdisciplinaire pour les Cultures Standard.

sticsRpacks

R LANGUAGE

- Suite of R packages for STICS

VPALM-IDE

R LANGUAGE

- A shiny application bundled in an Electron application to compute virtual palm scenes from architectural data

VPALMr

R LANGUAGE

- R package to build palm tree mockups from field data

archimedR

R LANGUAGE

- A Package To Manage ARCHIMED Simulations

[Link](#)

2018-today

[Link](#)

2018-today

[Link](#)

2018-today

[Link](#)

2018-today

[Link](#)

2018-today

Languages

FRENCH

native

ENGLISH

good

PORTUGUESE

basic conversation

SPANISH

very basic