

XIIIth STICS users seminar

WELCOME



13-16 November 2023 Latresne (33)

Scientific committee

Stics coordinators

Durand Jean-Louis - INRAE/P3F

Buis Samuel - INRAE/EMMAH

Constantin Julie - INRAE/AGIR

Ferchaud Fabien - INRAE/Eco&Sols

Garcia de Cortazar Atauri Inaki - INRAE/AgroClim

Le Mouëllic Isabelle - INRAE/Agroclim

EPS Stics team

Organization committee

Braconnier Patricia - INRAE/ISPA

Combes Didier - INRAE/P3F

Garcia de Cortazar Iñaki - INRAE/Agroclim

Le Mouëllic Isabelle - INRAE/Agroclim

Louarn Gaétan - INRAE/P3F

Mollier Alain - INRAE/ISPA

Saint-Cast Clément - INRAE/EGFV

Seghouani Mounir - INRAE/ISPA

Vivin Philippe - INRAE/EGFV



Program

Tuesday 14th november 2023

08:30	Welcome and coffee
08:45	Seminar opening
	Session 1 (Durand JL & Mollier A)
09:00	Head of the AgroEcoSystem scientific division – Nesme T (visio) Deputy Director of Persyst Department of CIRAD – Justes E President of the Inrae Nouvelle-Aquitaine-Bordeaux center – Lavialle O President of the Inrae Nouvelle-Aquitaine-Poitier center – Escobar Gutiérrez A Bordeaux Sciences Agro – Ellies M-P/Henaff M Aérocampus director – Guitard C
10:00	News on the work and governance of the STICS Project Team
11:00	Coffee break
11h30	Keynote : «"Is there Scope for Dynamic Crop Simulation Models in an AI World? – A View From DSSAT"» - Gerrit Hoogenboom
	Photo
12:30	Buffet



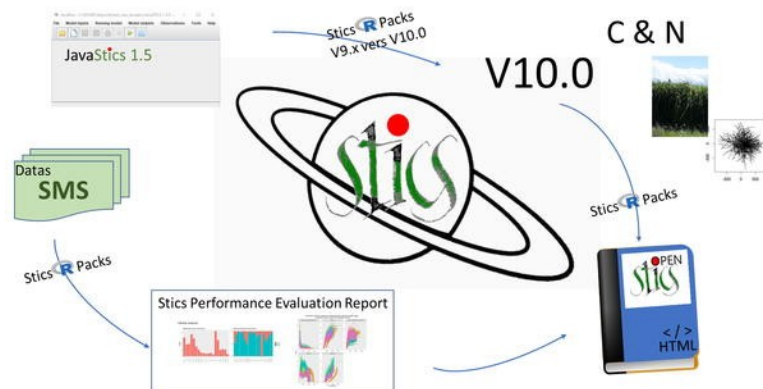
Gerrit HOOGENBOOM

Professor & Preeminent Scholar Agricultural and
Biological Engineering Université of Florida

Session 2 - New formalisms, configuration and evaluations of STICS

(Leonard J, Raynal H, Dumont B)

14:00	SticsRpacks: R packages for STICS, where are we? - Buis S - Lecharpentier P
14:20	Development, deployment and execution of simulation workflows to study the impact of climate change on dairy farms - Chabrier P
14:40	STICS ability to simulate long-term soil organic matter dynamics in crop-grassland rotations - Graux AI
15:00	Modelling albedo and the energy budget using the STICS soil-crop model - Application to two Sub-Saharan sites - Diop S
15:20	Using STICS under agrivoltaic shading conditions: How to consider the impact of panels on canopy and organs temperature? - Vernier J
15:40	Flash presentation of posters (9 x 2')
16:00	Coffee break
16:30	Improvement of grapevine yield simulation in Champagne with the STICS model - Strullu L
16:50	ISOP V10. Mise à jour du dispositif d'Information et de Suivi Objectif des Prairies (ISOP ; INRAE - Météo-France - MASA) - Durand JL
17:10	AgMIP calibration: where are we and what are the results with the STICS model? - Buis S
17:30	Discussion
18:00	Poster session
18:30	Guided tour
20:30	Dinner cocktail




Wednesday 15^h november 2023

08:30	Welcome and coffee
	Session 3 - Modeling of cropping systems and biogeochemical cycles to support the agroecological transition (Louarn G)
08:45	Simulation of long-term water, nitrogen and carbon dynamics for contrasted arable cropping systems with the STICS model - Ferchaud F
09:05	Using a long-term experiment with a wide range of management practices to challenge N ₂ O emission modelling with the STICS model - Belleville P
09:25	Predicting the short- and long- term effects of recycling organic wastes in cropping systems with the PROLEG tool - Levavasseur F
09:45	Estimating CO ₂ fluxes (GPP, RECO, NEE) of diversified crop rotations from STICS outputs - Delandmeter M
10:05	Coffee break
10:30	Conceptualization, formalisms and first evaluations of a phosphorus module for the STICS soil-crop model - Seghouani M
10:50	Impact of cover crops on N mineral fertilization and consequences for agro-environmental performances of maize monocrop in climate change context - Willlaume M
11:10	Life cycle assessment of Quebec pig and poultry feedstuffs for the production of eco-friendly diets using the STICS model - Levraud M
11:30	Discussion
12:00	Poster session
12:30	Buffet

	Session 4 - Cropping systems and climate change (Garcia de Cortazar Atauri I, Combe D)	Amphi
14:00	Adapting STICS-MILA crop model to Yellow Rust of Winter Wheat : from calibration to simulation of climate change impacts - Vidal T	
14:20	Study of CO2 and temperature effects on wheat plant growth with the STICS crop model - Gawinowski M	
14:40	Evolution under climate change of the resilience of the services provided by the cultivated areas of the Pays de Fougères - Graux AI	
15:00	Spring barley yield and potential northward expansion under climate change in Canada - Jego G	
15:20	Modeling agroecological intensification in the tropics with the Stics model - lessons learned and way forward - Couedel A	
15:40	Coffee break	
16:10	Potential production of energy cover crop in France: consequences on food crop production and environmental impacts based on scenarios simulation at high resolution - Launay C/Raynal H	
16:30	Increasing soybean production in Europe: impact on cropping systems and environment - Constantin J	
16:50	Discussion	
17:30	Dominique Ripoche-Wachter	
18:30	Wine Casino	Hangar
20:00	Gala dinner	Castle



Tuesday 16^h november 2023

08:30	Welcome and coffee
	Session 5 - Intercropping (Saint-Cast C, Vivin P, Launay M)
08:45	Modeling key interactions in bi-specific intercropping systems: enhancing the STICS soil-crop model for sustainable agriculture – Justes E & Lecharpentier P
09:20	Intercropping cereals and legumes to stabilise yield in the tropics: evaluation of the STICS soil-crop model to simulate bi-specific intercrops – de Freitas M
09:40	The first calibration and evaluation of the STICS soil-crop model on chickpea-based intercropping system under Mediterranean conditions – Seghouani M
10:00	Discussion
10:15	Coffee break – Poster Session
10:45	General assembly and conclusion 
12:30	Buffet
14:00	End of the XIIIth STICS users seminar



Brainwriting

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Move screen

Add stickers

XIII STICS Seminar Bordeaux

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Organisation et fonctionnement du réseau

Outils logiciels (JavaSTICS, SticsRPacks, ...)

Formation

Calibration et évaluation

Formalismes du modèle

Autres



We wish you an excellent seminar