XIIIth STICS users seminar

Program

Latresne (33)

13-16 November 2023

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

Monday 13th november 2023

15:30-18:00	Welcome and registration	Aerocampus reception
19:00-20:00	Dinner self-service	

Tuesday 14th november 2023

07:00	Breakfast	Aerocampus
08:30	Welcome and coffee	Amphi
08:45	**Seminar opening and 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	Rafale

	Session 2 - New formalisms, configuration and evaluations of STICS (Leonard J, Raynal H, Dumont B)	Amphi
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 AEROCAMPUS AQUITAINE	Hangar
20:30	Dinner cocktail	Rafale

Wednesday 15h november 2023

07:00	Breakfast	Aerocampus
08:30	Welcome and coffee	Amphi
	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 N2O 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 CO2 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 – Willaume 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	Rafale

	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 16h november 2023

07:00	Breakfast	Aerocampus
08:30	Welcome and coffee	Amphi
	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	Rafale
14:00	**End of the XIIIth STICS users seminar**	

Brainwriting

https://www.whiteboard.team/app/board/ZDO7Q5Az1DANbOMOSprs7FUuK