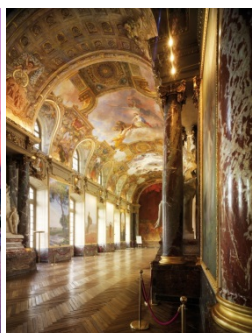




SWAT 2013
Toulouse France



July 17-19, 2013

Paul Sabatier University, Toulouse, France

Conference Agenda



The Soil and Water Assessment Tool (SWAT) is a public domain model jointly developed by USDA Agricultural Research Service (USDA-ARS) and Texas A&M AgriLife Research, part of The Texas A&M University System.

SWAT is a small watershed to river basin-scale model to simulate the quality and quantity of surface and ground water and predict the environmental impact of land use, land management practices, and climate change. SWAT is widely used in assessing soil erosion prevention and control, non-point source pollution control and regional management in watersheds.

Conference Overview

Time	Wednesday, July 17	Thursday, July 18	Friday, July 19
8:00 – 9:20 a.m.	Registration and check-in	E1 BMPs E2 Climate Change Applications E3 Urban Processes and Management E4 Hydrology	H1 Environmental Applications H2 Climate Change Applications H3 Model Development H4 Hydrology
9:20 – 10:40 a.m.	Inaugural session (9:00)	F1 Sensitivity Calibration and Uncertainty F2 Large Scale Applications F3 Model Development F4 Hydrology	I1 Sediments, Nutrients, and Carbon I2 Database and GIS Application and Development I3 Hydrology I4 Repeat poster session
10:40 – 11:00 a.m.	Coffee break	Coffee break	Coffee break
11:00 – 12:20 p.m.	A1 Large Scale Applications A2 Sensitivity Calibration and Uncertainty A3 BMPs A4 Hydrology	G1 Large Scale Applications G2 Environmental Applications G3 Sediments, Nutrients, and Carbon G4 Climate Change Applications	J1 Sensitivity Calibration and Uncertainty J2 Model Development J3 Pesticides, Bacteria, Metals, and Pharmaceuticals
12:20 – 1:20 p.m.	Lunch	Lunch	Lunch
1:20 – 2:40 p.m.	B1 Environmental Applications B2 Model Development B3 Sediment, Nutrients, and Carbon	Young SWAT Professionals Panel Discussion: Challenges and Possibilities for the Future of Modeling	K1 Climate Change Applications K2 Hydrology K3 Large Scale Applications
2:40 – 3:00 p.m.	Coffee break	Social events	Coffee break
3:00 – 4:20 p.m.	C1 Database and GIS Application and Development C2 Large Scale Applications C3 Hydrology C4 Poster session		Closing discussions
4:20 – 5:40 p.m.	D1 Pesticides, Bacteria, Metals, and Pharmaceuticals D2 Climate Change Applications D3 Model Development		
7:00 p.m.	City hall reception		
7:30 p.m.		Dinner gala "à l'espace Vanel"	

Wednesday, July 17, 2013

8:00 – 9:00 a.m. **PARTICIPANT CHECK-IN AND REGISTRATION**
[Hall Building U4](#)

9:00 – 10:40 a.m. **INAUGURAL SESSION**
[Amphitheater Concorde, Room U4.5](#)

9:00 - 9:20 a.m. Welcome Address **Prof. Alexis Valentin**, Vice-President Paul Sabatier University, France

9:20 - 9:40 a.m. Keynote Speaker **Dr. José Miguel Sánchez-Pérez**, CNRS-ECOLAB, France

9:40 - 10:00 a.m. Model Development **Dr. Jeffrey G. Arnold**, USDA – Agricultural Research Service, USA

9:40 – 10:00 a.m. Special Recognitions and Awards

10:20 – 10:40 a.m. Closing **Dr. Raghavan Srinivasan**, Texas A&M University, USA

10:40 – 11:00 a.m. **COFFEE BREAK AND GROUP PHOTO**
[Hall Building U4](#)

11:00 – 12:20 p.m. **SESSION A1: LARGE SCALE APPLICATIONS** **Moderator:** Raghavan Srinivasan
[Amphitheater Concorde, Room U4.5](#) *Texas A&M University, USA*

11:00 - 11:20 a.m. Azizallah Izady Estimation of Actual Evapotranspiration at Regional – Annual scale using SWAT

11:20 - 11:40 a.m. Svajunas Plunge Development of Modeling System Based on the SWAT Model as a Tool for Water Management Institution

11:40 - 12:00 p.m. Vikram Mehta Simulated Impacts Of Three Decadal Climate Variability Phenomena On Water Yields and Urban Water Security In The Missouri River Basin

12:00 - 12:20 p.m. Raghavan Srinivasan Evaluating Crop and Water Yields in the Missouri River Basin using SWAT

11:00 – 12:20 p.m. **SESSION A2: SENSITIVITY CALIBRATION AND UNCERTAINTY** **Moderator:** Indrajeet Chaubey
[Amphitheater Shannon, Room U4.6](#) *Purdue University, USA*

11:00 - 11:20 a.m.	Haw Yen	Evaluation of Model Calibration and Uncertainty Analysis with Incorporation of Watershed General Information
11:20 - 11:40 a.m.	Ouyang Wei	Parameter calculation of SWAT model using field observed data in the freeze-thaw agricultural area
11:40 - 12:00 p.m.	Anna Malagò	EuroSWAT: Comparing calibrated parameter sets for the Scandinavian Peninsula and for the Iberian Peninsula
12:00 - 12:20 p.m.	Zhenyao Shen	Uncertainty Analysis of Non-point Source Pollution modeling: an important implication for the application of Soil and Water Assessment tool

11:00 – 12:20 p.m. **SESSION A3: BMPs** **Moderator:** Eric Justes
[Amphitheater Baillaud, Room U4.4](#) *INRA, France*

11:00 - 11:20 a.m.	Matjaž Glavan	Influence of different agricultural practices on nitrate–nitrogen (NO ₃ -N) leaching - Experiences in the Drava catchment, Slovenia
11:20 - 11:40 a.m.	Hamidreza Solaymani Osbooei	Exploring Adaptation Options to Climate Change in Semi-Arid Watershed Using Choice of BMPs
11:40 - 12:00 p.m.	Odile LECCIA	Modeling the dynamics of agricultural landuse and practice changes with GENLU2 - a SWAT application
12:00 - 12:20 p.m.	Claire Baffaut	A process-based method to simulate terraces in SWAT

11:00 – 12:20 p.m. **SESSION A4: HYDROLOGY** **Moderator:** Hiroaki Somura
[Amphitheater Turing, Room U4.3](#) *Shimane University, Japan*

11:00 - 11:20 a.m.	Dipangkar Kundu	Can SWAT capture stream flow variability in a semi-arid climate? An application in Muttama catchment, Australia
11:20 - 11:40 a.m.	Hiroaki Somura	Evaluation of small watersheds inflowing Lake Shinji against the water environment
11:40 - 12:00 p.m.	Rafiei Ammar	Procedure of hydrological modeling in a semi-arid river basin with SWAT
12:00 - 12:20 p.m.	Venkatesh Merwade	Re-conceptualizing the Soil Moisture Accounting of CN-based Runoff Estimation Method in SWAT

12:20 – 1:20 p.m.

LUNCH
Hall Building U4

1:20 – 2:40 p.m.

SESSION B1: ENVIRONMENTAL APPLICATIONS
Amphitheater Concorde, Room U4.5

Moderator: Antonio Lo Porto
Water Research Institute (IRSA-CNR), Italy

1:20 - 1:40 p.m.

Susanne Mühlner

Using SWAT for simulating trade-offs and synergies among ecosystem services related to afforestation in a Central German River Basin

1:40 - 2:00 p.m.

Antonio Lo Porto

A hydro-ecological assessment method for temporary rivers. The Candelaro river case study (SE, Italy)

2:00 - 2:20 p.m.

Shine Jude Hamilton
Antony

Usage of biofuel to mitigate the current environmental impact of aviation

2:20 - 2:40 p.m.

Ane Miren Epelde
Beraza

Backward application of SWAT model to assess the impact of agricultural practices changes in water quality

1:20 – 2:40 p.m.

SESSION B2: MODEL DEVELOPMENT
Amphitheater Shannon, Room U4.6

Moderator: Balaji Narasimhan
Indian Institute of Technology - Madras, India

1:20 - 1:40 p.m.

Yi Hong

Extraction and re-implementation of SWAT-Model calculations under the MAELIA platform in order to simulate the socio-environmental impacts of norms

1:40 - 2:00 p.m.

Hagen Koch

Water management modeling in SWIM: new features and applications

2:00 - 2:20 p.m.

Claire Baffaut

SWATing your APEX model: a how-to from the trenches

2:20 - 2:40 p.m.

Kazi Rahman

Streamflow modeling in a highly managed complex watershed

1:20 – 2:40 p.m.

SESSION B3: SEDIMENT, NUTRIENTS, AND CARBON
Amphitheater Turing, Room U4.3

Moderator: Jean-Luc Probst
CNRS-ECOLAB, France

1:20 - 1:40 p.m.

Chunying Wang

Estimation of sediment yield in an agriculture - forest dominated non-conservative watershed with SWAT model

1:40 - 2:00 p.m.

Lubna Al-Mahasneh

Adapting SWAT model for the evaluation of water harvesting systems in an arid environment: a case from Jordan

2:00 - 2:20 p.m.

Bruna Grizzetti

Assessment of nitrogen retention in the Seine river basin by different approaches

2:40 – 3:00 p.m.

COFFEE BREAK
Hall Building U4

3:00 – 4:20 p.m.

SESSION C1: DATABASE AND GIS APPLICATION AND DEVELOPMENT
Amphitheater Shannon, Room U4.6

Moderator: Jaehak Jeong
Texas A&M AgriLife Research, USA

3:00 - 3:20 p.m.

Feras Ziadat

Soil-landscape modeling to predict the spatial distribution of soil attributes for environmental applications

3:20 - 3:40 p.m.

Philip Selby

Swat Owl: A new tool for quicker visualisation of SWAT outputs and calibration

3:40 - 4:00 p.m.

Jaehak Jeong

Integration of SWAT into a real-time web-based DS tool for sugarcane irrigation management

3:00 – 4:20 p.m.

SESSION C2: LARGE SCALE APPLICATIONS
Amphitheater Concorde, Room U4.5

Moderator: Philip Gassman
Iowa State University, USA

3:00 - 3:20 p.m.

Danielle de Almeida Bressiani

SWAT applications in Brazil: A survey of the past 10 years

3:20 - 3:40 p.m.

Philip Gassman

An Integrated Modeling System for Simulating Export of Nutrient Loads from the U.S. Corn Belt Region to the Gulf of Mexico

3:40 - 4:00 p.m.

Yiannis Panagopoulos

The Effect of Nutrient Reduction Practices on Water Quality of the Large Corn Belt River Basin Systems under Existing and Future Climate

4:00 - 4:20 p.m.

Anthony Lehmann

Climate Change Vulnerability in the Black Sea Catchment

3:00 – 4:20 p.m.

SESSION C3: HYDROLOGY
Amphitheater Turing, Room U4.3

Moderator: Claire Baffaut
USDA, USA

3:00 - 3:20 p.m.

Xiaoling Sun

Effects of elevation bands and snow parameters on the hydrological modeling of the upper part of the Garonne watershed (France)

3:20 - 3:40 p.m.

Yihun Dile

Assessing the implications of water harvesting intensification on upstream-downstream social-ecological resilience: a case study in the Lake Tana basin

3:40 - 4:00 p.m.

Jianzhong Lu

Using SWAT model to assess different land use scenarios impact on streamflow in Fuhe Watershed, China

4:00 - 4:20 p.m.

Javier Osorio

Influence of evapotranspiration estimates on the water balance of sugarcane cropping system in the Hawaiian island of Maui

3:00 – 4:20 p.m.

SESSION C4: POSTERS

Hall Building U4

Anaïs Charbonnel	Using SWAT model to characterize flow influence on the Pyrenean desman (<i>Galemys pyrenaicus</i>)
Ismail Chkara	Estimation of groundwater recharge by using surface-subsurface hydrological model
Il Moon Chung	Ephemeral stream runoff analysis by using SWAT-K
Nicola Fohrer	Effects of Changes in Agricultural Irrigation Systems on Surface Water Resources – A SWAT-based Study in South India
Janne Helin	SWAT application for economic analysis of nutrient and carbon loads
Rui JIANG	Simulation of stream nitrate-nitrogen export using SWAT model in a mesoscale watershed with an external water source in Northern Japan
Chung Gil Jung	Comparison of the Penman Monteith and Regional Calibration of Hargreaves Equation for Actual Evapotranspiration using SWAT Simulated Results in Seolma-Cheon Watershed
Han Na Kim	Application of the SWAT model for water resource management considering Climate change in Chao Phraya River, Thailand
Pipas Kumar	Application of SWAT on upper watershed of river Subarnarekha with special reference to climate and land use changes
Jeongwoo Lee	Reconstruction of natural streamflow by SWAT modelling
Minerva Sánchez Llull	Determination of the erosive potential to Cienfuegos Bay in Cuba, using the SWAT hydrological model
Maria Aurora Mesa Perez	Modeling pollutants inputs in a reservoir using SWAT model in the Mayabeque catchment (Cuba)
Polona Ojstersek Zorcic	Implementation of VFS in the reservoir watershed of NE Slovenia
Yongeeun Park	Future variation of pathogenic bacteria concentrations depending on climate change in the Yeongsan River basin, Korea
Joel Payoux	Modeling the effect of hills lakes on water discharge of the Upper Garonne river basin
Melissa Peraza Castro	Evaluation suspended sediment loads in a watershed using eco-hydrological model SWAT.
Ali Sadeghi	Significance of Uncertainty in Evapotranspiration Estimates on Water Balance Modeling in SWAT
José Miguel Sánchez-Pérez	Simulating river discharge in a mountain river using climatic conditions from today to the last 12000 years using SWAT model
Sabine Sauvage	Modelling of surface water contamination risks by using RNN and SWAT model : the case of the SAVE river (South-West of France)
Esraa Radi Tarawneh	Predicting Sediment Production and Transfer Rates in a Semi-Arid Catchment in Jordan
Robin Taylor	An APEX bibliography since 2004

Madaka Tumbo		SWAT model application in Simulating the Hydrology of Great Ruaha River Sub-basin in Tanzania
Andoni Uhart		Modeling riverine fluxes of dissolved and particulate organic carbon on a large fluvial basin: the Garonne River (South-West of France)
Sung-Kee Yang		Analysis of Water Resource on Major Baseflow Watershed of southern area in Jeju Island, Korea
4:20 – 5:40 p.m.	SESSION D1: PESTICIDES, BACTERIA, METALS, AND PHARMACEUTICALS Amphitheater Concorde, Room U4.5	Moderator: Magali Gerino <i>UPS-ECOLAB, France</i>
4:20 - 4:40 p.m.	Nicola Fohrer	Assessment of the environmental fate of the herbicides Flufenacet and Metazachlor with the SWAT model
4:40 - 5:00 p.m.	Philip Selby	Using SWAT models to inform catchment management approaches to pesticide control – A UK Water Industry Case Study.
5:00 - 5:20 p.m.	Cyril Garneau	Implementation of a new module to simulate trace metals transport in large rivers by coupling SWAT and MOHID models: The case of the Garonne River (France)
5:20 - 5:40 p.m.	Laurie Boithias	New insight into pesticide partition coefficient Kd for modelling pesticide fluvial transport with the SWAT model
4:20 – 5:40 p.m.	SESSION D2: CLIMATE CHANGE APPLICATIONS Amphitheater Baillaud, Room U4.4	Moderator: Valentina Krysanova <i>Potsdam Institute for Climate Impact Research, Germany</i>
4:20 - 4:40 p.m.	Ina Pohle	Assessment of the combined effects of climate and land use change in Lusatia, Central Europe
4:40 - 5:00 p.m.	Valentina Krysanova	Lessons learnt from multiple applications of SWIM for climate impact assessment and its involvement in the model intercomparison project
5:00 - 5:20 p.m.	Fournet Samuel	Experimental drought early warning system in the Niger river basin
5:20 - 5:40 p.m.	Raphael Benning	Climate change: Impact on nitrogen export from different land-use types in a reservoir catchment

4:20 – 5:40 p.m.

SESSION D3: MODEL DEVELOPMENT
[Amphitheater Shannon, Room U4.6](#)

Moderator: Sabine Sauvage
CNRS-ECOLAB, France

4:20 - 4:40 p.m.

H. Rathjens

Integration of the SWAT landscape model into a grid-based setup

4:40 - 5:00 p.m.

Sabine Sauvage

Modelling epilithic biofilm biomass in large rivers to be integrated in SWAT model: comparison between the Garonne River (southwest of France) and the Xiangxi River (China)

5:00 - 5:20 p.m.

Indrajeet Chaubey

SWAT model improvements: evidence based and conceptual validation

5:20 - 5:40 p.m.

Balaji Narasimhan

Integration of a pseudo 3D finite element ground water model with SWAT

7:00 p.m.

CITY HALL RECEPTION

Mairie de Toulouse

1 place du Capitole
31000 TOULOUSE

8:00 – 9:20 a.m.	SESSION E1: BMPs Amphitheater Concorde, Room U4.5	Moderator: Michael Strauch <i>Helmholtz Centre for Environmental Research - UFZ, Germany</i>
8:00 - 8:20 a.m.	Michael Strauch	Sediment load responses to simulated conservation management practices - towards water and soil protection in a Central Brazilian catchment.
8:20 - 8:40 a.m.	Isabelle Morin	Development of Generic Landscape-level Stormwater Retention/Treatment BMP in SWAT
8:40 - 9:00 a.m.	Lei Chen	Assessment of agricultural best management practices using mathematical models: a review
8:00 – 9:20 a.m.	SESSION E2: CLIMATE CHANGE APPLICATIONS Amphitheater Baillaud, Room U4.4	Moderator: Nicola Fohrer <i>Christian-Albrechts-University, Germany</i>
8:00 - 8:20 a.m.	B. D. Kulkarni	Assessing the impact of climate change scenarios on water resource in the Bhima river basin in India
8:20 - 8:40 a.m.	Pabitra Gurung	Application of the SWAT Model to assess climate change impacts on water balances and crop yields in the West Seti River Basin
8:40 - 9:00 a.m.	Youen Grusson	Climate change impacts on the water resources of the Garonne River watershed
9:00 - 9:20 a.m.	Valentin Aich	Intercomparison of climate impacts on four large African river basins using a regional eco-hydrological model driven by five bias-corrected/downscaled Earth System Models
8:00 – 9:20 a.m.	SESSION E3: URBAN PROCESSES AND MANAGEMENT Amphitheater Shannon, Room U4.6	Moderator: Anne Probst <i>ECOLAB, France</i>
8:00 - 8:20 a.m.	Roger Glick	Comparing the Changes in Hydrology due to Different Development Regulations using Sub-Daily SWAT
8:20 - 8:40 a.m.	Hyung Kyung Joh	Application of the SWAT model for extreme urban flash floods of Seoul
8:40 - 9:00 a.m.	Stefan Strohmeier	Using SWAT model to evaluate the impact of community-based soil and water conservation interventions for an Ethiopian watershed
9:00 - 9:20 a.m.	Roger Glick	Simulating the Impacts of Retention Basins on Erosion Potential in Urban Streams using SWAT

8:00 – 9:20 a.m.	SESSION E4: HYDROLOGY Amphitheater Turing, Room U4.3	Moderator: David Bosch <i>USDA-Agricultural Research Service, USA</i>
8:00 - 8:20 a.m.	Michel Wortmann	The influence of glacial lake outburst floods on water discharge in the headwater of the Aksu catchment: an assessment using the hydrological model SWIM
8:20 - 8:40 a.m.	Jong-Yoon Park	Improvement and Application of SWAT Model for Irrigation Water Supply in Agricultural Reservoir of South Korea
8:40 - 9:00 a.m.	David Bosch	SWAT Application in Low-Gradient Coastal Plain Landscapes
9:00 - 9:20 a.m.	Ann van Griensven	Evaluating the simulation of groundwater-surface water interactions in SWAT: comparison with other simulation tools and field observations
9:20 – 10:40 a.m.	SESSION F1: SENSITIVITY CALIBRATION AND UNCERTAINTY Amphitheater Baillaud, Room U4.4	Moderator: Natalia Uribe <i>International Center for Tropical Agriculture (CIAT), Colombia</i>
9:20 - 9:40 a.m.	Natalia Uribe	Estimated calibration parameters in SWAT model for Andean watersheds
9:40 - 10:00 a.m.	Sri Malahayati Yusuf	Uncertainty Issues in SWAT Model Calibration at Cirasea Watershed, Indonesia
10:00 - 10:20 a.m.	Boini Narsimlu	Model calibration and uncertainty analysis for discharge in the Kunwari River Basin, India using sequential uncertainty fitting
10:20 - 10:40 a.m.	Felix Witing	Which parameter complexity is required for a sound simulation of agricultural river basins? Investigating SWAT model sensitivity to agricultural land cover and crop rotation parameterizations
9:20 – 10:40 a.m.	SESSION F2: LARGE SCALE APPLICATIONS Amphitheater Concorde, Room U4.5	Moderator: Karim Abbaspour <i>EAWAG, Switzerland</i>
9:20 - 9:40 a.m.	Hua Xie	Developing drought assessment tool for India under intensive groundwater irrigation: a SWAT-based approach
9:40 - 10:00 a.m.	Karim Abbaspour	Building a high-resolution hydrological model of Europe
10:00 - 10:20 a.m.	Mike White	Nutrient Delivery from the Mississippi River to the Gulf of Mexico and Effects of Cropland Conservation

9:20 – 10:40 a.m.	SESSION F3: MODEL DEVELOPMENT Amphitheater Shannon, Room U4.6	Moderator: Louis Joseph Thibodeaux <i>Louisiana State University, USA</i>
9:20 - 9:40 a.m.	Louis Joseph Thibodeaux	Emerging Contaminant Soil Fate Model Subroutine Development for SWAT
9:40 - 10:00 a.m.	Robin Taylor	The future evolution of SWAT and APEX.
10:00 - 10:20 a.m.	Michael Strauch	SWAT plant growth modification for improved modeling of vegetation dynamics (perennials) in the tropics.
10:20 - 10:40 a.m.	Tyler Wible	Spatial Integration of SWAT, MODFLOW, and RT3D for Simulation of Hydrologic and Water Quality Processes in Irrigated Agricultural Watershed
9:20 – 10:40 a.m.	SESSION F4: HYDROLOGY Amphitheater Turing, Room U4.3	Moderator: Nguyen Kim Loi <i>Nong Lam University, Vietnam</i>
9:20 - 9:40 a.m.	Xiaohua DONG	Moulding SWAT model for Chinese Qingjiang river for rainfall-runoff simulations
9:40 - 10:00 a.m.	Tadesse Alemayehu Abitew	Spatial representation of evapotranspiration in the Mara basin: results derived from the SWAT model and remote sensing products
10:00 - 10:20 a.m.	Nguyen Kim Loi	Online Supporting System Flood Warning for Vu Gia Watershed, Quang Nam Province, Vietnam
10:40 – 11:00 a.m.	COFFEE BREAK Hall Building U4	

11:00 – 12:20 p.m. **SESSION G1: LARGE SCALE APPLICATIONS** **Moderator:** José Miguel Sánchez-Pérez, *CNRS-ECOLAB, France*
[Amphitheater Concorde, Room U4.5](#)

11:00 - 11:20 a.m.	Florian Schierhorn	Modeling wheat yield gaps in Russia using the SWAT model
11:20 - 11:40 a.m.	Friedrich Koch	A large-scale SWAT application for investigating crop production potentials in Russia, Kazakhstan and the Ukraine
11:40 - 12:00 p.m.	José Miguel Sánchez-Pérez	Modelling water fluxes and suspended sediments in the Garonne catchment (France)
12:00 - 12:20 p.m.	Judith Stagl	Modelling of climate change impacts on river flow regime and discharge of Danube River considering water management effects

11:00 – 12:20 p.m. **SESSION G2: ENVIRONMENTAL APPLICATIONS** **Moderator:** Martin Volk
[Amphitheater Shannon, Room U4.6](#) *Helmholtz Centre for Environmental Research - UFZ, Germany*

11:00 - 11:20 a.m.	Martin Volk	Using SWAT and an optimization algorithm for quantifying ecosystem services and trade-offs in large river basins – Challenges and potential solutions
11:20 - 11:40 a.m.	Rim Ha	Assessment of Climate Change Impact on Future Turbidity Current Regimes in Soyang Lake with CE-QUAL-W2 Considering SWAT Inflows
11:40 - 12:00 p.m.	Mazdak Arabi	On targeted implementation of nonpoint source pollution control plans: enhancing the optimal design using a mixed discrete-continuous multiobjective genetic algorithm
12:00 - 12:20 p.m.	Mikolaj Piniewski	Climate change and agricultural development: Adapting Polish agriculture to reduce future nutrient loads in a coastal watershed

11:00 – 12:20 p.m. **SESSION G3: SEDIMENT, NUTRIENTS, AND CARBON** **Moderator:** Gilles Billen
[Amphitheater Turing, Room U4.3](#) *CNRS-UPMC, France*

11:00 - 11:20 a.m.	Shenglan Lu	Modelling bank erosion and sediment transport and validating with field measurements
11:20 - 11:40 a.m.	Gilles Billen	A generic algorithm for modelling benthic nutrient fluxes
11:40 - 12:00 p.m.	Michael Winchell	An Approach for Sub-Field Level Identification of Phosphorus Critical Source Areas in a Region Dominated by Saturation Excess Runoff
12:00 - 12:20 p.m.	Ricardo Sorando Izquierdo	Modeling diffuse nitrate pollution transfer during flood events in an intensive agricultural catchment: the case of the Flumen River (NE Spain)

11:00 – 12:20 p.m.

SESSION G4: CLIMATE CHANGE APPLICATIONS
[Amphitheater Baillaud, Room U4.4](#)

Moderator: Anthony Lehmann
University of Geneva, Switzerland

11:00 - 11:20 a.m.

Budi Supatmanto

Study of Hydrology based on Climate Changes Simulation Using SWAT Model at Jatiluhur Reservoir Catchment Area

11:20 - 11:40 a.m.

Maria Concepción Ramos

Using SWAT to predict the Climate change effects on soil runoff and loss in a rainfed small catchment with Mediterranean climate of the NE Spain

11:40 - 12:00 p.m.

So-Ra Ahn

Evaluation of Turbidity Water and Eutrophication in Chungju Lake by Future Climate Change Using CE-QUAL-W2 and SWAT

12:20 - 1:20 p.m.

LUNCH

Hall Building U4

1:20 - 2:40 p.m.

YOUNG SWAT PROFESSIONALS PANEL DISCUSSION

Challenges and Possibilities for the Future of Modeling

Amphitheater Concorde, Room U4.5

Moderator: Cyril Garneau

UMR ECOLAB (CNRS-UPS-ENSAT),

France

Distinguished developers and SWAT users are brought together to offer knowledge to young professionals. Topics discussed will include the general philosophy of SWAT development, actual and future challenges of SWAT development and use and career prospects in watershed modeling. The discussion will also provide the opportunity for new users to provide feedback to the guests.

Invited panelists: Peter Allen, Jeff Arnolds, Nicola Fohrer, Philip Gassman, Asain Gosain, Ann van Griensven, Antonio Lo Porto, Raghavan Srinivasan

3:00 - 7:00 p.m.

SOCIAL EVENTS

Airbus industry tour

3:00 p.m. Depart from the university at the metro station "Université Paul Sabatier"

6:30 p.m. Tour concludes at Allée Jean-Jaurès in the city center near the Dinner Gala (Mediathèque)

Boat tour on the Garonne rive and Canal du Midi

3:45 p.m. Meet at metro station "Capitole" with a local committee member to walk to Quai de la Daurade

4:30 p.m. Depart from Quai de la Daurade (Garonne Bank)

7:00 p.m. Tour concludes at the same place, Quai de la Daurade (Garonne Bank)

Toulouse city center tour

4:00 p.m. Depart from le musée des Augustins, 21 Rue de Metz

6:00 p.m. Tour concludes at Allée Jean-Jaurès in the city center near the Dinner Gala (Mediathèque)

7:30 p.m.

DINNER GALA "à l'espace Vanel"

Arche Marengo Médiathèque de Toulouse

1 Allée Jacques Chaban Delmas

31500 TOULOUSE

8:00 – 9:20 a.m.	SESSION H1: ENVIRONMENTAL APPLICATIONS Amphitheater Concorde, Room U4.5	Moderator: Nadia Bonuma <i>Federal University of Santa Catarina, Brazil</i>
8:00 - 8:20 a.m.	Julio Issao Kuwajima	Application of SWAT in a Brazilian watershed with inconsistent hydrological data
8:20 - 8:40 a.m.	Maria Concepción Ramos	Soil loss prediction using SWAT in a small ungaged catchment with Mediterranean climate and vines as the main land use, and SWAT application to simulate the impact of soil conservation measurements on soil and nutrient losses in a small basin with mechanised vineyards
8:40 - 9:00 a.m.	Nadia Bonuma	Predicting the impacts of agricultural management practices on water, sediments and phosphorus loads
8:00 – 9:20 a.m.	SESSION H2: CLIMATE CHANGE APPLICATIONS Amphitheater Baillaud, Room U4.4	Moderator: Josette Garnier <i>CNRS-UPMC, France</i>
8:00 - 8:20 a.m.	Slim Kouki	Testing SWAT under contrasted climate conditions (Province of Québec, Canada)
8:20 - 8:40 a.m.	Björn Guse	Evaluation of SWAT in the context of climate change in a German lowland catchment
8:40 - 9:00 a.m.	Joao Pedro Nunes	Assessing the impacts of climate change on drought in a transitional wet-to-dry Mediterranean region using SWAT: the lower Tagus river basin, Portugal
9:00 - 9:20 a.m.	Anastassi Stefanova	Climate change impact assessment considering water discharge and nutrients in a mesoscale coastal watershed

8:00 – 9:20 a.m.	SESSION H3: MODEL DEVELOPMENT Amphitheater Shannon, Room U4.6	Moderator: Mike White <i>USDA-Agricultural Research Service, USA</i>
8:00 - 8:20 a.m.	Jeffrey Ditty	Deployment of SWAT-DEG as a Web Infrastructure Utilizing Cloud Computing for Stream Restoration
8:20 - 8:40 a.m.	Friedrich Koch	Integration of dynamic land use change into SWAT using the LUP.dat file and an advanced setup tool
8:40 - 9:00 a.m.	N.P. Nikolaidis	Development of the SWAT-Integrated Critical Zone Model
8:00 – 9:20 a.m.	SESSION H4: HYDROLOGY Amphitheater Turing, Room U4.3	Moderator: José Maria Bodoque <i>University of Castilla La Mancha, Spain</i>
8:00 - 8:20 a.m.	Balaji Narasimhan	Some modifications to the simulation of irrigation practices in Paddy using SWAT
8:20 - 8:40 a.m.	Yihun Dile	Evaluation of SWAT's surface runoff estimation using field observed data in the Upper Blue Nile Basin – Ethiopia
8:40 - 9:00 a.m.	José Maria Bodoque	Agricultural drought analysis in the Arrecifes basin (Pampas region, Argentina) using the SWAT model
9:00 - 9:20 a.m.	José Maria Bodoque	Assessment of the water availability and water footprint in Argentina for agricultural uses. The AWAA Project.
9:20 – 10:40 a.m.	SESSION I1: SEDIMENT, NUTRIENTS, AND CARBON Amphitheater Baillaud, Room U4.4	Moderator: Ann van Griensven <i>UNESCO-IHE, the Netherlands</i>
9:20 - 9:40 a.m.	Jayshri Patel	Assessment of point and non-point source pollution in Hindon River Basin using SWAT
9:40 - 10:00 a.m.	Ann van Griensven	Modelling the efficiency of nitrate removal by denitrification in the SWAT model

9:20 – 10:40 a.m. **SESSION I2: DATABASE AND GIS APPLICATION AND DEVELOPMENT** **Moderator:** Chris George
[Amphitheater Shannon, Room U4.6](#) *WaterBase*

9:20 - 9:40 a.m. Venkatesh Merwade SWATShare – A portal for sharing, publishing and running SWAT model using XSEDE resources

9:40 - 10:00 a.m. Hongguang Cheng Combing improved hydrological models with SWAT to predict non-point source pollution in an un-gauged basin

10:00 - 10:20 a.m. Fernanda Viana Paiva Arguello Building a meteorological data set as input for the SWAT model in order to simulate the extreme flood event which occurred in the municipality of São Luiz do Paraitinga, São Paulo, Brasil, between 31/12/2009-01/01/2010

10:20 - 10:40 a.m. Jorge Enoch Furquim Werneck Lima Development of a soil database for applying SWAT model in a catchment of the Brazilian Savanna

9:20 – 10:40 a.m. **SESSION I3: HYDROLOGY** **Moderator:** Michael Winchell
[Amphitheater Turing, Room U4.3](#) *Stone Environmental, USA*

9:20 - 9:40 a.m. Julio Issao Kuwajima Comparison of Green-Ampt and Curve Number Infiltration Methods in a single-gauged Brazilian watershed

9:40 - 10:00 a.m. Rafee Majid From rubber to oil palm: simulating the consequence of large-scale agricultural conversion on leaf area index and eventual river flows

10:00 - 10:20 a.m. Lauren Padilla Modeling flow and pesticide transport through surface water diversions in the California Central Valley

9:20 – 10:40 a.m. **SESSION I4: POSTERS**
[Hall Building U4](#)

See session C4 on Wednesday for poster listing.

10:40 – 11:00 a.m. **COFFEE BREAK**
[Hall Building U4](#)

11:00 – 12:20 p.m. **SESSION J1: SENSITIVITY CALIBRATION AND UNCERTAINTY** **Moderator:** Mazdak Arabi
[Amphitheater Baillaud, Room U4.4](#) *Colorado State University, USA*

11:00 - 11:20 a.m.	Katrin Bieger	Detailed spatial analysis of the plausibility of surface runoff and sediment yields at HRU level in a mountainous watershed in China
11:20 - 11:40 a.m.	Mazdak Arabi	On the auto-calibration of watershed models: multisite many-objective measures of information
11:40 - 12:00 p.m.	Dan Yu	A comparison study of multi-gage and single-gage calibration of the SWAT model for runoff simulation in Qingjiang river basin
12:00 - 12:20 p.m.	Karim Abbaspour	Coupling SWAT and MODSIM for Basin-Scale Water Resources Management: Example Karkheh River Basin in Iran

11:00 – 12:20 p.m. **SESSION J2: MODEL DEVELOPMENT** **Moderator:** Olivier Therond
[Amphitheater Shannon, Room U4.6](#) *INRA, France*

11:00 - 11:20 a.m.	Björn Guse	Temporal analysis of parameter sensitivity and model performance to improve the representation of hydrological processes in SWAT for a German lowland catchment
11:20 - 11:40 a.m.	Matthias Pfannerstill	Groundwater as the dominant control process to model recession and baseflow phases in lowland catchments
11:40 - 12:00 p.m.	Ting Tang	Adapting SWAT for the Modeling of Pesticide Transport for a Tile-drained River Basin
12:00 - 12:20 p.m.	Oliver Therond	An integrated modelling of interactions between human decision-making and hydrological processes: The MAELIA multi-agent platform

11:00 – 12:20 p.m. **SESSION J3: PESTICIDES, BACTERIA, METALS, AND PHARMACEUTICALS** **Moderator:** Ali Sadeghi
[Amphitheater Concorde, Room U4.5](#) *USDA-Agricultural Research Service, USA*

11:00 - 11:20 a.m.	Julien Boulange	Application of the PCPF-1@SWAT model in the Sakura River basin in Japan and Colusa Drain basin in California, USA
11:20 - 11:40 a.m.	Dalila Serpa	Application of a SWAT model to assess the impacts of diffuse pollution from vineyards in north-central Portugal
11:40 - 12:00 p.m.	Stefan Julich	Modeling of pesticide fate in a Luxembourgish catchment with the Soil and Water Assessment Tool (SWAT) - combining modeling and monitoring
12:00 - 12:20 p.m.	Kyung Hwa Cho	Developing new bacteria subroutines in the SWAT model

12:20 – 1:20 p.m.

LUNCH
Hall Building U4

1:20 – 2:40 p.m.

SESSION K1: CLIMATE CHANGE APPLICATIONS
Amphitheater Baillaud, Room U4.4

Moderator: Pedro Chambel Leitão
IST-MARETEC, Portugal

1:20 - 1:40 p.m.

Mazdak Arabi

Assessment of climate change impacts on diffuse nutrient and pesticide fluxes at the watershed scale

1:40 - 2:00 p.m.

Dong Jin Jeon

Best Management Practices in Agricultural area using a Multi-objective Decision Support System to Reduce Total Phosphorus Loading

2:00 - 2:20 p.m.

Pedro Chambel Leitão

Coupling SWAT and MOHID WATER coastal numerical model

2:20 - 2:40 p.m.

Gehendra Kharel

Modeling the Impacts of Climate Change on the hydrology of the Devils Lake Basin of North Dakota

1:20 – 2:40 p.m.

SESSION K2: HYDROLOGY
Amphitheater Turing, Room U4.3

Moderator: Roger Glick
City of Austin - Watershed Protection, USA

1:20 - 1:40 p.m.

Danielle de Almeida Bressiani

Effects of different spatial and temporal weather data resolutions on streamflow modeling of a semi-arid basin, Northeast Brazil

1:40 - 2:00 p.m.

Juliana Marisa Ferreira Santos

Using SWAT to understand the eco-hydrological response to droughts of a dry Mediterranean agro-forested catchment, southern Portugal

2:00 - 2:20 p.m.

Maite Meaurio

Assessing hydrological processes performance of SWAT on a small forested watershed

1:20 – 2:40 p.m.	SESSION K3: LARGE SCALE APPLICATIONS Amphitheater Concorde, Room U4.5	Moderator: A.K.Gosain <i>Indian Institute of Technology, India</i>
1:20 - 1:40 p.m.	Stefan Liersch	Obstacles and Pitfalls in Simulating the Water Balance of Lake Victoria Catchment
1:40 - 2:00 p.m.	Valentina Krysanova	Modeling river discharges of the heavily managed Limpopo river using SWIM and the open-source datasets
2:00 - 2:20 p.m.	Narendra Tiwary	Hydrological Modelling of Bagmati River Basin using SWAT model
2:20 - 2:40 p.m.	Elham Rouholahnejad	Water resources quantity and quality in Black Sea Basin
2:40 – 3:00 p.m.	COFFEE BREAK Hall Building U4	
3:00 – 4:20 p.m.	CLOSING DISCUSSIONS Amphitheater Concorde, Room U4.5	
4:20 p.m.	CLOSING SPEAKER Prof. Bertrand Monthubert , President, Paul Sabatier University, France	

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