



SWAT 2015

PULA / SARDINIA / ITALY

Conference Agenda



International Soil & Water Assessment Tool Conference
June 24-26, 2015





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, June 24	Thursday, June 25	Friday, June 26
8:30 – 9:30 a.m.	Registration and check-in		
9:00 – 10:00 a.m.	Inaugural session (9:30 – 11:00 a.m.)	D1 Soil and Watershed Modeling D2 Climate Change Applications D3 Large Scale Applications D4 Bioenergy Applications for the U.S. Corn Belt Region (9:00 – 10:20 a.m.)	H1 Overview of Recent SWAT Development H2 Model Development H3 Landscape Processes and Landscape / River Continuum H4 Hydrology
10:10 - 11:10 a.m.		E1 Model Development E2 Hydrology E3 Sensitivity Calibration and Uncertainty	I1 Environmental Applications I2 Sensitivity Calibration and Uncertainty I3 Model Development I4 Biofuel and Plant Growth
11:10 - 11:30 a.m.	Coffee break and group photo	Coffee break	Coffee break
11:30 - 1:00 p.m.	A1 Large Scale Applications A2 Climate Change Applications A3 Environmental Applications A4 Hydrology	F1 Regional Water Issues and Challenges for the Past, Present, and Future F2 EPIC/APEX Modeling System	J1 Database and GIS Application and Development J2 Climate Change Applications J3 Hydrology J4 EPIC/APEX Modeling System
1:00 - 2:00 p.m.	Lunch	Lunch	Lunch
2:00 - 3:30 p.m.	B1 SWAT Applications Incorporating Rice Production B2 Database and GIS Application and Development B3 BMPs B4 Sediment, Nutrients, and Carbon	G1 Poster session	K1 Environmental Applications K2 Climate Change Applications K3 Large Scale Applications K4 Urban Processes and Management / Hydrology
3:30 - 4:00 p.m.	Coffee break	Coffee break	Coffee break
4:00 - 5:30 p.m.	C1 Environmental Applications C2 Climate Change Applications C3 EPIC/APEX Modeling System (4:00 - 5:40 p.m.) C4 Sensitivity Calibration and Uncertainty	Tour (4:30 – 7:30 p.m.)	Closing discussions
8:30 p.m.		Dinner gala	

Wednesday, June 24

8:30 – 9:30 a.m.	PARTICIPANT CHECK-IN AND REGISTRATION Hall	
9:30 – 11:00 a.m.	INAUGURAL SESSION Room: Nautilus	
9:30 – 10:00 a.m.	Welcome Address	Dott. Luigi Filippini , CRS4, Italy Dott. Roberto Deidda , University of Cagliari, Italy
10:00 – 10:30 a.m.	Model Development	Dr. Jeffrey G. Arnold , USDA-ARS, USA
10:30 – 11:00 a.m.	Closing	Dr. Raghavan Srinivasan , Texas A&M University, USA
11:00 – 11:30 a.m.	COFFEE BREAK AND GROUP PHOTO Hall	
11:30 – 1:00 p.m.	SESSION A1: LARGE SCALE APPLICATIONS Room: Nautilus	Moderator: Mike White <i>USDA-ARS, USA</i>
11:30 – 11:50 a.m.	Amita Mehta	Building Capacity in Utilizing NASA Remote Sensing Observations in SWAT for Water Resources and Agricultural Management Applications
11:50 – 12:10 p.m.	David Campbell	Catchment experiences from the UK – ground based and aerial survey methods
12:10 – 12:30 p.m.	José Monteiro	Comparison of CFSR and WFDEI weather reanalysis precipitation data with data from meteorological stations in Brazil: Application in river discharge modelling of the Tocantins Basin
12:30 – 12:50 p.m.	Mike White	CEAP 2 – A National Scale Model to Support USDA Conservation Policy and Planning.

Wednesday, June 24

11:30 – 1:00 p.m.	SESSION A2: CLIMATE CHANGE APPLICATIONS Room: Cypraea	Moderator: Antonio Lo Porto <i>IRSA-CNR, Italy</i>
11:30 – 11:50 a.m.	Antonio Lo Porto	Hydrological and water resource responses to climate change for a temporary river
11:50 – 12:10 p.m.	David Bosch	Changing Hydrology under a Changing Climate for a Coastal Plain Watershed
12:10 – 12:30 p.m.	Marino Marrocu	Reducing hydrological budget modeling uncertainty related to climate induced change.
12:30 – 12:50 p.m.	Monica Piras	Climate change effects in a medium-sized Mediterranean basin using the tRIBS hydrologic model
11:30 – 1:00 p.m.	SESSION A3: ENVIRONMENTAL APPLICATIONS Room: Astrea	Moderator: José Miguel Sánchez-Pérez <i>CNRS-ECOLAB, France</i>
11:30 – 11:50 a.m.	Eugenio Molina-Navarro	Synergistic effects of climate and land use changes on water flow, nutrient exports and trophic state in a Mediterranean limno-reservoir
11:50 – 12:10 p.m.	Odile Leccia	Modelling lixiviated nitrate by coupling agro-hydrological (SWAT) and hydro-geological (MARTHE) models: an application to the agricultural Boutonne watershed (SW France)
12:10 – 12:30 p.m.	Paul D. Wagner	Reflecting the interdependence of land use and hydrology in SWAT modeling studies
12:30 – 12:50 p.m.	Suria Darma Tarigan	Impact of Oil Palm Expansion on Water Yield and Water Quality in Merangin Tembesi Watershed, Jambi Provinces

11:30 – 1:00 p.m.	SESSION A4: HYDROLOGY Room: Alvania	Moderator: A.K. Gosain <i>IIT, India</i>
11:30 – 11:50 a.m.	Claudia Canedo	Analysis of Flash floods in the Andean highlands
11:50 – 12:10 p.m.	Jens Hartwich	The impact of woody biomass production on the water balance of the North German Lowlands - A hydrological modelling with SWAT
12:10 – 12:30 p.m.	John Obiero	Determining the Effect of Land Use Change on Streamflow Using Soil Water Assessment Tool (SWAT)
12:30 – 12:50 p.m.	Tatenda Lemann	Assessing the impact of precipitation and temperature on hydrological responses in three small-scale catchments in the Ethiopian Highlands
1:00 – 2:00 p.m.	LUNCH	
2:00 – 3:30 p.m.	SESSION B1: SWAT APPLICATIONS INCORPORATING RICE PRODUCTION Room: Astrea	Moderator: Balaji Narasimhan <i>IIT-Madras, India</i>
2:00 – 2:20 p.m.	Philip Gassman	Simulation of rice paddy systems in SWAT: current methods, improved modified approaches and recommendations for developing a rice paddy simulation module
2:20 – 2:40 p.m.	Jaehak Jeong	Progresses in developing national scale model for agricultural NPS assessment in South Korea: Phase I – rice paddies
2:40 – 3:00 p.m.	Tasuku Kato	SWAT model improvement for discharge process in paddy fields
3:00 – 3:20 p.m.	Balaji Narasimhan	Development of an improved irrigation subroutine in SWAT to simulate the hydrology of rice paddy grown under submerged conditions

Wednesday, June 24

2:00 – 3:30 p.m.	SESSION B2: DATABASE AND GIS APPLICATION AND DEVELOPMENT Room: Nautilus	Moderator: Hendrik Rathjens <i>Purdue University, USA</i>
2:00 – 2:20 p.m.	Ann van Griensven	Inter-comparison and Assimilation of Remote Sensing Evapotranspiration into a Physically Distributed Hydrological model (SWAT), Upper Blue Nile Basin
2:20 – 2:40 p.m.	Daniel Fuka	Brokering as a framework for hydrological model repeatability
2:40 – 3:00 p.m.	Mauro Di Luzio	Development of Soil Model Parameter Repositories for Modeling in CEAP
3:00 – 3:20 p.m.	Michael Strauch	On HRU aggregation and its effect on SWAT model output
2:00 – 3:30 p.m.	SESSION B3: BMPs Room: Cyprea	Moderator: James Almendinger <i>St. Croix Watershed Research Station, USA</i>
2:00 – 2:20 p.m.	James Almendinger	Spatial scaling of phosphorus export coefficients and load reductions due to agricultural best management practices
2:20 – 2:40 p.m.	Nicola Fohrer	Field data-based implementation of land management and terraces on the catchment scale for SWAT in the Three Gorges Region, China
2:40 – 3:00 p.m.	Olga Vigiak	A new R-SWAT Decision Making Framework for the Spatial Identification of BMP Related to Freshwater Management
3:00 – 3:20 p.m.	Raghavan Srinivasan	Evaluating the impact of implemented BMPs in Richard Chambers Watershed of Texas

2:00 – 3:30 p.m.	SESSION B4: SEDIMENT, NUTRIENTS, AND CARBON Room: Alvania	Moderator: Claire Baffaut <i>USDA-ARS, USA</i>
2:00 – 2:20 p.m.	Amal Markhi	Assessment of solid load and siltation potential of dams reservoirs in the High Atlas of Marrakech (Moorcco) using SWAT Model
2:20 – 2:40 p.m.	Amita Mehta	Assessing Water Quality Sensitivity to Decadal Climate Variability in the Missouri River Basin based on SWAT Simulations
2:40 – 3:00 p.m.	Michael Winchell	Application of a coupled SWAT-BATHTUB model to evaluate phosphorus critical source areas and land management alternatives on the water quality of Lake Prespa, Macedonia
3:00 – 3:20 p.m.	Pratiksha Jain	GIS based Distributed Process oriented Soil Erosion Modelling using Modified Morgan-Morgan Finney Model in Indian Region
3:30 – 4:00 p.m.	COFFEE BREAK Hall	
4:00 – 5:30 p.m.	SESSION C1: ENVIRONMENTAL APPLICATIONS Room: Cyprea	Moderator: Jarosław Chormański <i>Warsaw University of Life Sciences, Poland</i>
4:00 – 4:20 p.m.	Jan Gregar	Model swat as an integrated management tool in water catchment Švihov
4:20 – 4:40 p.m.	Jaroslaw Chormanski	Integration and Validation of Remote Sensing derived Interception Storage into distributed Rainfall-Runoff model
4:40 – 5:00 p.m.	Stefan Julich	Application of the new grid-based SWAT landscape model in a small mountainous watershed in Germany
5:00 – 5:20 p.m.	Wang Me	Applying treated municipal wastewater to a forested catchment: Modelling effects on stream discharge, sediment and nutrient loads

4:00 – 5:30 p.m.	SESSION C2: CLIMATE CHANGE APPLICATIONS Room: Alvania	Moderator: Vikram Mehta <i>Center for Research on the Changing Earth System, USA</i>
4:00 – 4:20 p.m.	Abelardo Montenegro	Climate change impacts in a Brazilian semiarid catchment: forecasts, and management perspectives using SWAT model
4:20 – 4:40 p.m.	Dennis Trolle	Preparing for the future: simulating agricultural practices, hydrology and nutrient exports under future climates
4:40 – 5:00 p.m.	Eugenio Molina-Navarro	Hydrological impact assessment of the Guadalupe River Basin (Mexico) under climate change scenarios.
5:00 – 5:20 p.m.	Farzad Emami	Evaluating the impacts of climate change on streamflow and water resources management: Aharchai River, Iran, case study
4:00 – 5:40 p.m.	SESSION C3: EPIC/APEX MODELING SYSTEM Room: Astrea	Moderator: Javier Osorio <i>Leyton Texas A&M AgriLife Research, USA</i>
4:00 – 4:20 p.m.	Abebe Chukalla	Effect of fertilizer strategies on the grey water footprint in rain-fed and irrigated agriculture
4:20 – 4:40 p.m.	Claire Baffaut	Success and challenges met during the calibration of APEX on large plots
4:40 – 5:00 p.m.	Luca Doro	Climate Change impact assessment on Mediterranean natural pasture
5:00 – 5:20 p.m.	Norman Manyowa Meki	Drought induced nitrogen and phosphorus credits in corn/soybean rotations in the Upper Mississippi River Basin
5:20 – 5:40 p.m.	Jim Kiniry	Derivation of Crop Parameter Attributes for Cropping Systems Modeling

4:00 – 5:30 p.m.

SESSION C4: SENSITIVITY CALIBRATION AND UNCERTAINTY
Room: Nautilus

Moderator: Ann van Griensven *UNESCO-IHE, Netherlands*

4:00 – 4:20 p.m.

Ann van Griensven

A two-step global sensitivity analysis of a SWAT model, using simple screening methods and advanced quantitative methods

4:20 – 4:40 p.m.

Katrin Bieger

Using expert knowledge of the hydrological system to constrain multi-objective calibration of SWAT models

4:40 – 5:00 p.m.

Latif Kalin

Parameter Transferability against Altered Land Use Dataset on Model Predictions Using SWAT

5:00 – 5:20 p.m.

Ann van Griensven

Inter-comparison of Physically Distributed Hydrological Model (SWAT) and Climate Change Impact Investigation on Kleine Nete River Basin, Belgium

Thursday, June 25

9:00 – 10:00 a.m. **SESSION D1: SOIL AND WATERSHED MODELING** **Moderator:** Feras Ziadat
Room: Astrea *FAO, Italy*

9:00 – 9:20 a.m. Feras Ziadat Soil information to support environmental modelling and sustainable soil management - within the context of the Global Soil Partnership (GSP) and the International Year of Soils

9:20 – 9:40 a.m. Feras Ziadat Launching the Soil–Landscape Estimation and Evaluation Program (SLEEP) to support soil-related environmental modeling

9:40 – 10:00 a.m. Marjolein Vogels Food security and water availability in data-poor regions: Towards optimizing land use and ecosystem services

9:00 – 10:00 a.m. **SESSION D2: CLIMATE CHANGE APPLICATIONS** **Moderator:** Valentina
Room: Cyprea *Krysanova PIK, Germany*

9:00 – 9:20 a.m. Bahareh Kamali Assessing drought vulnerability of agricultural production systems in the context of agro-hydrological modeling-A case study of Karkheh River Basin

9:20 – 9:40 a.m. Valentina Krysanova Intercomparison of regional-scale hydrological models for climate impact assessment in 12 large river basins worldwide

9:40 – 10:00 a.m. Vikram Mehta High-resolution Simulations of Decadal Climate Variability Impacts on Water and Crop Yields in the Missouri River Basin with the Soil and Water Assessment Tool (SWAT)

9:00 – 10:00 a.m.	SESSION D3: LARGE SCALE APPLICATIONS Room: Alvania	Moderator: Sabine Sauvage <i>CNRS-ECOLAB, France</i>
9:00 – 9:20 a.m.	Gabriele Lamparter	Application of the land use update function in the Soil and Water Assessment Tool (SWAT) for two macro-catchments at the Amazonian agricultural frontier in Brazil
9:20 – 9:40 a.m.	Olga Vigiak	Impact of current conservation practices on sediment load reduction in the Danube River Basin
9:40 – 10:00 a.m.	Santhi Chinnasamy	Modeling Sediment and Nutrient Loads Input to the Great Lakes and Effects of Conservation Practices on Water Quality
9:00 – 10:20 a.m.	SESSION D4: BIOENERGY APPLICATIONS FOR THE U.S. CORN BELT REGION Room: Nautilus	Moderator: Philip Gassman <i>Iowa State University, USA</i>
9:00 – 9:20 a.m.	Cibin Raj	SWAT model improvements to simulate bioenergy crops production
9:20 – 9:40 a.m.	Indrajeet Chaubey	Application of improved SWAT model for bioenergy production scenarios in Indiana Watersheds
9:40 – 10:00 a.m.	Philip Gassman	Assessment of Scenarios for the Boone River Watershed in North Central Iowa
10:00 – 10:20 a.m.	Yiannis Panagopoulos	Assessment of Large-Scale Scenarios for the Upper Mississippi and Ohio-Tennessee River Basins

10:10 – 11:10 a.m.	SESSION E1: MODEL DEVELOPMENT Room: Nautilus	Moderator: David Bosch <i>USDA-ARS, USA</i>
10:10 – 10:30 a.m.	Haw Yen & Javier Osorio Leyton	C-SWAT: A Modified Revision of SWAT Using Consolidated Input Files
10:30 – 10:50 a.m.	Shenglan Lu	A macrophyte growth module for the SWAT model - impact of climate change and management on stream ecology
10:50 – 11:10 a.m.	Younggu Her	Comparison of hydrologic simulation outputs between SWAT2012 and the new modular SWAT code
10:10 – 11:10 a.m.	SESSION E2: HYDROLOGY Room: Cyprea	Moderator: José María Bodoque Del Pozo <i>UCLM, Spain</i>
10:10 – 10:30 a.m.	Anna Malago'	Karst SWAT hydrological modeling at large and regional scale: the case study of the island of Crete
10:30 – 10:50 a.m.	Nana Mulyana	Application SWAT Model for Hydrological Study of Artificial Recharge - Through Infiltration Pond in The Water Replenishment, at Jubel Spring Mojokerto Indonesia
10:50 – 11:10 a.m.	Vinicius Louzada	Impacts of Land Use Change on Southeast Amazonia Basin Streamflow

10:10 – 11:10 a.m.	SESSION E3: SENSITIVITY CALIBRATION AND UNCERTAINTY Room: Astrea	Moderator: Karim Abbaspour <i>EAWAG, Switzerland</i>
10:10 – 10:30 a.m.	David Radcliffe	PRISM Climate Data Effect on Flow Calibration and Uncertainty of a SWAT Model Including Septic Systems
10:30 – 10:50 a.m.	Laurie Boithias	Does the use of fine climate stations grid and sub-basins delineation improve the modelling of river discharge and sediments fluxes at hourly time-step? Application of the SWAT model to Mediterranean flash floods
10:50 – 11:10 a.m.	Vincent Roth	Assessment of uncertainty in SWAT using variable spatial data resolution and sensitivity calibration in a meso-scale watershed in the Blue Nile Basin, Ethiopia
11:10 – 11:30 a.m.	COFFEE BREAK Hall	
11:30 – 1:00 p.m.	SESSION F1: REGIONAL WATER ISSUES AND CHALLENGES FOR THE PAST, PRESENT, AND FUTURE Room: Nautilus	Moderator: Pierluigi Cau <i>CRS4, Italy</i>
11:30 – 11:50 a.m.	Antonio Lo Porto	How SWAT and hydrological modeling can help in dealing with water resources and land management in Italy and in the EU
11:50 – 12:10 p.m.	Pierluigi Cau	Assessment of the water resources of the Sardinian Island using SWAT
12:10 – 12:30 p.m.	Karim Abbaspour	Using SWAT in two mega-scale watershed projects: Challenges and Results
12:30 – 12:50 p.m.	Raghavan Srinivasan	Trans-boundary Water Conflicts: Tigris River basin case study

11:30 – 1:00 p.m.	SESSION F2: EPIC/APEX MODELING SYSTEM Room: Cyprea	Moderator: Roberto Izaurrealde <i>Texas A&M AgriLife Research, USA</i>
11:30 – 11:50 a.m.	Robin Taylor	Effect of Physical Catchment Characteristics on River Flow: The Case of Ribb and Gumara Rivers in Upper Blue Nile, Ethiopia
11:50 – 12:10 p.m.	Candiss Williams	Modeling Dynamic Soil Properties in APEX for U.S. Soil Survey
12:10 – 12:30 p.m.	Evelyn Steglich	APEX and the CEAP Assessment of Conservation Benefits on Grazing Lands
12:30 – 12:50 p.m.	Robin Taylor	Changes in the fate of pesticides used in cotton production systems under potential climate change
1:00 – 2:00 p.m.	LUNCH	
2:00 – 3:30 p.m.	SESSION G1: POSTERS Hall	
Salam Abbas	Stream Flow Modelling of Flat Watershed under Conditions of Limited Data in Semi-arid Region: Case Study of Euphrates River in Kufa Basin, Iraq	
Talal Alharbi	Quantification of the partitioning of precipitation over the Almadinah watershed, Saudi Arabia using SWAT model	
Hans Estrup Andersen	A SWAT model for Denmark	
Sangsoo Baek	Application of the SWAT model for estimating Discharge and Water Quality from rice paddy site in the Yeongsan watershed, Korea	
Andreas Bauwe	Hydrologic evaluation of the curve number and Green and Ampt methods in a tile-drained catchment using SWAT	
Laurie Boithias	Modelling river discharge at sub-daily time-step: comparison of the performances of the conceptual SWAT model and the process-oriented MARINE model	
Laurie Boithias	Modelling river discharge and sediments fluxes at sub-daily time-step: Insight into the CRUE-SIM project devoted to Mediterranean coastal flash floods	

Laurie Boithias	Hydrological modelling of the Bafing River (Senegal River basin): towards better management of the Manantali multipurpose dam
Laurie Boithias	Simulating potassium load from a dairy farming watershed with the modified SWAT Model
Sbaa Boubeker	hydrological modeling in a semi-arid area with SWAT, Case of Wadi Wahrane (Algeria)
Paweł Burandt	Application of the MIKE 11 Ecolab Modeling System in Assessment of Spatial and Temporal Changes of Conductivity - A Case Study Drweca River Northern Poland
Alberto Carletti	The SWAT model to assess hydrological processes in arid environment (SE Tunisia), in the frame of WADIS-MAR project
Emil Dimitrov	Simulation of Soil Water Regime in Sofia Region Using SWAT and Newhall Models
Marta Dobrovodska	Water retention assessment in traditional agricultural landscape (case study Liptovská Teplička, Slovakia)
Jorge Enoch Furquim Werneck Lima	Preliminary results of the SWAT model application in an experimental rural catchment of the Brazilian savanna
Jorge Enoch Furquim Werneck Lima	Appraisal of possible climate change impacts on the sediment yield in a rural catchment of the Brazilian savanna
Juan Manuel Garcia Diaz	Hydrological modelling: River runoff modelling of large River basins in Estonia.
Isabel Grijalvo Diego	Modelling Pesticide Contamination Under Baseline Conditions in Two Small Agricultural Catchments
Youen Grusson	Hydrological modelling in highly anthropized basins: example from the Garonne basin using the SWAT model
Joanna Gudowicz	Effects of GIS data quality on SWAT model stream flow and sediment simulations in a lowland watershed (NW Poland)
Yumei Huang	Impacts of water resources management on food security in China
Muhammad Shahid Iqbal	Evaluating floods in the Kabul River basin of Pakistan with the SWAT model
Hagen Koch	Potential impacts of climate change on hydropower generation in the Tagus River Basin using an ensemble of climate scenarios
Odile Leccia	Assessing the effectiveness of Best Management Practices with the SWAT-GENLU modeling framework.
Ronalton Machado	Identification of Environmentally Sensitive Areas and subsidies to a Management Plan for Watershed through techniques of modeling and GIS

Antenor Oliveira Aguiar Netto	Hydrological Modeling River Tributaries San Francisco, The Brazilian Semiarid
Antenor Oliveira Aguiar Netto	Effects of Variability Scenarios of Land Use on the Dynamics of Flow and Sediment in Jacaré River, Brazil
Melissa Peraza Castro	Assessment of heavy metal fluxes in a forest watershed in Basque Country (Northern Spain) using SWAT model
Christiane Pinto	Comparative analysis of physical parameters sensitivity in two different geomorphologically watershed, Rio de Janeiro, Brazil
Monica Piras	Assessment of climate change effects in a Mediterranean basin with different hydrologic models
Celso Bandeira de Melo Ribeiro	Effects of Global and Measured Weather Datasets on Amazon Basin Streamflow SWAT simulation
David Rivas	Preliminary Hydrological Water Resources Assessment of CEGA-ERESMA-ADAJA watershed using SWAT model
José Miguel Sánchez Pérez	Glyphosate concentration in the Basin of Monday River: Modeling of river transport with SWAT model
Jose Miguel Sanchez-Perez	Long term environmental research in the ITAIPU Catchment: SWAT Simulation of Flow and Water Quality in the Carapa River Basin-Paraguay.
José Miguel Sánchez-Pérez	Sediment yield modeling using SWAT model in the Cañete basin (Peru).
José Miguel Sánchez-Pérez	Land use change impact on hydrology over Southern Peruvian Amazonas.
Sabine Sauvage	Evaluation of Climate Forecast System Reanalysis weather data driving hydrological model for the Yangtze River basin in China
Sabine Sauvage	How hydrological descriptors from SWAT model may help to understand recent shifts in the distribution of the semi-aquatic mammal species <i>Galemys pyrenaicus</i>
Sabine Sauvage	Modeling sediment dynamic in the Amazon-Andean basin of the Ucayali River, using the SWAT model
Sabine Sauvage	A tool to evaluate the impact of nutrient inputs to the eutrophication of the Itaipu Reservoir (Paraguay shore) : A multi catchment approach by modelling using SWAT model.
Sabine Sauvage	Long term environmental research in the ITAIPU Catchment: SWAT Simulation of Flow and Water Quality in the Carapa River Basin-Paraguay.
Sabine Sauvage	Combining interpolation of daily gauge and satellite rainfall data to evaluate an hydrological model (SWAT)

Slawomir Sitek	Estimating groundwater recharge in post-mining and urban area using SWAT and FEFLOW models, case study from Poland.
Sitarrine Thongpussawal	Erosion and Runoff Evaluation using the SWAT-Terrace Model
Salvatore Gonario Pasquale Viridis	Assessment of the impact of land use and land cover change on runoff characteristics of Lake Chini Catchment (Malaysia) using SWAT: a preliminary study
Carolyn Wanessa Lins de Andrade	Estimation of Input Parameters of SWAT Model Through Geoprocessing
Nina Zarrineh	Searching for synergies in crop rotation management – A simulation-optimization approach using SWAT
Amin Zettam	Modeling of the hydrology and nitrogen fluxes in a regulated semi-arid catchment using SWAT model: TheTafna River (North-West Algeria)

3:30 – 4:00 p.m.

COFFEE BREAK
[Hall](#)

4:30 – 7:30 p.m.

TOUR
[Depart from Hotel Flamingo to Nora Archaeological Site](#)

This cultural visit to the ruins of the archaeological site of Nora, an extraordinary example of a city of Punic and Roman times overlooking the homonymous beach, is an ideal excursion for those seeking real insight into the history of this ancient land, named Sardinia.

The tour will give participants the opportunity to take a step back in time and immerse themselves in the atmosphere of the ancient Punic/Roman town, where they will discover the old neighborhoods, the luxurious villas decorated with mosaics, temples, place of worship, thermal bath, aqueduct, forum, ancient cobbled streets and the splendid theater.

8:30 p.m.

DINNER GALA
[Hotel Flamingo Resort](#)

9:00 – 10:00 a.m.	SESSION H1: OVERVIEW OF RECENT SWAT DEVELOPMENT Room: Nautilus	Moderator: Jeff Arnold <i>USDA-ARS, USA</i>
Jeff Arnold Katrín Bieger Hendrik Rathjens Javier Osorio	The SWAT code has undergone major modifications over the past few years. This session is intended to give interested SWAT users an overview of the new modular SWAT code and input file structure, the datasets used to test and debug the new codes and input files, the integration of landscape units in the model to better account for routing processes across the landscape, the increased flexibility in terms of spatial interactions within the watershed and the tools that are currently available to set up and edit SWAT models using the new modular code.	
9:00 – 10:00 a.m.	SESSION H2: MODEL DEVELOPMENT Room: Cyprea	Moderator: Indrajeet Chaubey <i>Purdue University, USA</i>
9:00 – 9:20 a.m.	Josicleda Galvncio	Impacts of Spatial and Temporal Rainfall Variability in Water Balance in Watershed of the Paraiba State-Brasil
9:20 – 9:40 a.m.	Josiclêda Galvncio	Impacts of Spatial Variation of Soil in Water Balance of Watershed of Paraiba State-Brasil
9:40 – 10:00 a.m.	Zachary Easton	Improving the spatial representation of soil properties and hydrology using topographically derived initialization processes by invoking a data brokering system
9:00 – 10:00 a.m.	SESSION H3: LANDSCAPE PROCESSES AND LANDSCAPE / RIVER CONTINUUM Room: Alvania	Moderator: Nicola Fohrer <i>Christian-Albrechts-University, Germany</i>
9:00 – 9:20 a.m.	Andrew Sommerlot	Coupling the Short-Term Global Forecast System Weather Data With Disturbed Watershed Models: Implication for Landscape Management
9:20 – 9:40 a.m.	Grzegorz Durlo	Impacts of deforestation on water balance components of a watershed on the Silesian Beskid
9:40 – 10:00 a.m.	Kazi Rahman	Comparing SWAT and InVEST models for water yield estimation in two mountain regions

9:00 – 10:00 a.m.	SESSION H4: HYDROLOGY Room: Astrea	Moderator: Jaehak Jeong <i>Texas A&M AgriLife Research, USA</i>
9:00 – 9:20 a.m.	Befekadu Tadesse Woldegiorgis	Improved Solution Methods for Instream Water Quality Simulations in SWAT
9:20 – 9:40 a.m.	Minjeong Kim	Imputation for Missing Baseflows using the SWAT and Machine Learning Models in Taehwa River, Korea
9:40 – 10:00 a.m.	Shenglan Lu	Simulating pesticide transport to tile drains via macropores using the SWAT model
10:10 – 11:10 a.m.	SESSION I1: ENVIRONMENTAL APPLICATIONS Room: Alvania	Moderator: Philip Gassman <i>Iowa State University, USA</i>
10:10 – 10:30 a.m.	Li-Chi Chiang	Evaluation of the impact of organic farming and climate change on water quality in a tea planting reservoir watershed of Taiwan
10:30 – 10:50 a.m.	Lingfeng Zhou	A Heavy Metal Module Coupled in SWAT Model and Its Application in Liuyang River Upstream Basin in China
10:50 – 11:10 a.m.	Sebastian Arnhold	Land use and land cover change in mountainous watersheds: Consequences for ecosystem services of water yield and water quality
10:10 – 11:10 a.m.	SESSION I2: SENSITIVITY CALIBRATION AND UNCERTAINTY Room: Astrea	Moderator: Santhi Chinnasamy <i>Texas A&M AgriLife Research, USA</i>
10:10 – 10:30 a.m.	Nora Herdiana Pandjaitan	Utilization of Soil and Water Assessment Tools in Indonesia
10:30 – 10:50 a.m.	Nicola Fohrer	Diagnostic tools to understand hydrological processes in the SWAT model

10:10 – 11:10 a.m.	SESSION I3: MODEL DEVELOPMENT Room: Nautilus	Moderator: Katrin Bieger <i>Texas A&M AgriLife Research, USA</i>
10:10 – 10:30 a.m.	Billy Johnson	Advances in the modeling of Watershed and Riverine Fate and Transport of Contaminants
10:30 – 10:50 a.m.	Gregory Espitalier Noel	An automated procedure for SWAT-LUD to be applied at Catchment scale.
10:50 – 11:10 a.m.	Ryan Bailey	Comprehensive simulation of surface-subsurface hydrologic and water quality processes in watershed systems using linked SWAT-MODFLOW-RT3D model
10:10 – 11:10 a.m.	SESSION I4: BIOFUEL AND PLANT GROWTH Room: Cyprea	Moderator: Susan Wang <i>Texas A&M AgriLife Research, USA</i>
10:10 – 10:30 a.m.	Allan Jones	Simulation of Terrestrial Biomes and Ecoregions with SWAT
10:30 – 10:50 a.m.	Lorenzo Di Lucia	Biofuel impacts on ecosystem services, biodiversity and human well-being – the contribution of SWAT modelling to integrated land use governance
10:50 – 11:10 a.m.	Thayse Aparecida Dourado Hernandes	The effects of the short-term Brazilian sugarcane expansion in stream flow: Monte Mor basin case study
11:10 – 11:30 a.m.	COFFEE BREAK Hall	

11:30 – 1:00 p.m.	SESSION J1: DATABASE AND GIS APPLICATION AND DEVELOPMENT Room: Cyprea	Moderator: Dharmendra Saraswat <i>University of Arkansas, USA</i>
11:30 – 11:50 a.m.	Dharmendra Saraswat	Cloud Computing for Dynamically Creating Land Use Update file for SWAT
11:50 – 12:10 p.m.	Filipa Tavares Wahren	Combining digital soil mapping and hydrological modeling in a data scarce watershed in north-central Portugal.
12:10 – 12:30 p.m.	Meledje N'diaye Hermann	Dynamics of Water Erosion of Bia Transboundary Watershed (Ghana-Cote D'ivoire)
12:30 – 12:50 p.m.	Pier Andrea Marras	SIDRO: a Web-GIS interface for SWAT model
11:30 – 1:00 p.m.	SESSION J2: CLIMATE CHANGE APPLICATIONS Room: Astrea	Moderator: Fred Hattermann <i>PIK, Germany</i>
11:30 – 11:50 a.m.	Etienne Brulebois	Sensitivity of water quality of three contrasted north-eastern French watersheds to climate change (2006-2100) using SWAT model
11:50 – 12:10 p.m.	Fred Fokko Hattermann	After the flood is before the flood: impacts of climate change on flood hazard and risk in Germany
12:10 – 12:30 p.m.	Juan Jesús Gomiz Pascual	Future river projections for a steep, rapid responding, catchment on the west coast of the UK

Friday, June 26

11:30 – 1:00 p.m.	SESSION J3: HYDROLOGY Room: Alvania	Moderator: Antonio Lo Porto <i>IRSA-CNR, Italy</i>
11:30 – 11:50 a.m.	Arunbabu Elangovan	Evaluation and focusing of Soil and Water Conservation measures using SWAT model in Krishnagiri Reservoir Catchment area, South India
11:50 – 12:10 p.m.	Raghavan Srinivasan	SWAT Hourly Calibration using SWAT-CUP for a Large Watershed in Southeast Brazil and Flooding Applications
12:10 – 12:30 p.m.	Dorsaf Ben Othman	Study of the hydrological functioning of the Bèjà river watershed, in the northwest of Tunisia, using the SWAT model
12:30 – 12:50 p.m.	Youen Grusson	An experiment on the temporal transposability of the SWAT model on a large contrasted watershed.
11:30 – 1:00 p.m.	SESSION J4: EPIC/APEX MODELING SYSTEM Room: Nautilus	Moderator: Robin Taylor <i>Texas A&M AgriLife Research, USA</i>
11:30 – 11:50 a.m.	Jaehak Jeong	Recovery of salt contaminated soils using halophytic plants for sustainable agriculture and water resources
11:50 – 12:10 p.m.	Javier Osorio Leyton	Integrated Decision Support System: A framework that facilitates the integration of biophysical and economic models.
12:10 – 12:30 p.m.	Roberto Izaurralde	Biogeochemical Modeling with APEX
12:30 – 12:50 p.m.	Susan Wang	Impact of climate change and agroecosystem model configuration on simulated uncertainty of cotton production and water quality

1:00 – 2:00 p.m. **LUNCH**

2:00 – 3:30 p.m.	SESSION K1: ENVIRONMENTAL APPLICATIONS Room: Alvania	Moderator: Laurie Boithias <i>ECOLAB, France</i>
2:00 – 2:20 p.m.	José Monteiro	Modelling the effect of riparian vegetation restoration on sediment transport in a human-impacted Brazilian catchment
2:20 – 2:40 p.m.	Ganga Ram Maharjan	Impact of best management practices to improve water quality from mountainous catchment: Haeen catchment in South Korea
2:40 – 3:00 p.m.	Rafal Ulanczyk	SWAT model as a part of the integrated monitoring and modeling system for the Goczalkowice Reservoir basin
3:00 – 3:20 p.m.	Xiaoling Sun	Assessment of surface water - groundwater exchanges and shallow aquifer denitrification in alluvial floodplain at catchment scale using SWAT model
2:00 – 3:30 p.m.	SESSION K2: CLIMATE CHANGE APPLICATIONS Room: Astrea	Moderator: Zachary Easton <i>Virginia Tech, USA</i>
2:00 – 2:20 p.m.	Joseph White	Permafrost thaw affects mass soil erosion with potential for eutrophication of the Arctic Ocean under continued climate change
2:20 – 2:40 p.m.	Majid Taie Semiromi	Modeling the Impacts of Climate Change on Groundwater Recharge in the Gharehsoo Watershed, Iran, from an Ensemble of Global Climate Model Projections
2:40 – 3:00 p.m.	Marina Bolado Penagos	A Methodology to Assess the Role of the River Discharges to the Gulf of Cadiz on the Nutrient Supply to the Alboran Sea
3:00 – 3:20 p.m.	Mayzonee Ligaray	Assessment on Hydrologic Response by Climate Change in the Chao Phraya River basin, Thailand

2:00 – 3:30 p.m.	SESSION K3: LARGE SCALE APPLICATIONS Room: Cyprea	Moderator: Mikołaj Piniewski Warsaw University of Life Sciences, Poland
2:00 – 2:20 p.m.	Hagen Koch	Climate and land-use change impacts in the São Francisco Basin, Brazil
2:20 – 2:40 p.m.	Mikołaj Piniewski	A large-scale and fine resolution SWAT model for an assessment of isolated climate change impact on unaltered flow regimes in Central Eastern Europe
2:40 – 3:00 p.m.	Nina Zarrineh	Large scale water quality modeling in Lithuania: parameterization, calibration and validation using PAIC-SWAT tool
3:00 – 3:20 p.m.	Raghavan Srinivasan	A global SWAT model
2:00 – 3:30 p.m.	SESSION K4: URBAN PROCESSES AND MANAGEMENT / HYDROLOGY Room: Nautilus	Moderator: C. Allan Jones Texas A&M AgriLife Research, USA
2:00 – 2:20 p.m.	Roger Glick	Advancements In SWAT Urban Simulation Capabilities To Evaluate Green Stormwater Infrastructure In An Urban Catchment
2:20 – 2:40 p.m.	Younggu Her	Effectiveness of decentralized green infrastructure for urban stormwater management
2:40 – 3:00 p.m.	János Tamás	Evaluation of surface runoff conditions by high resolution terrestrial laser scanner in an intensive apple orchard
3:00 – 3:20 p.m.	Mateusz Szcześniak	The role of daily precipitation interpolation for the SWAT model performance across different spatial and temporal scales
3:30 – 4:00 p.m.	COFFEE BREAK Hall	
4:00 – 5:30 p.m.	CLOSING DISCUSSIONS Room: Nautilus	

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