SWAT 2015

INTERNATIONAL SOIL & WATER ASSESSMENT TOOL CONFERENCE

October 14-16 | Purdue University | West Lafayette, IN, USA

PURDUE UNIVERSITY

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.

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Conference Overview

Time	Wednesday, October 14	Thursday, October 15	Friday, October 16
8:00 - 9:10 a.m.	Registration and check-in (8:00 -9:00 a.m.)	D1 Western Lake Erie Basin (Part 1) D2 BMPs D3 Environmental Applications	H1 Climate Change Applications H2 Sediment, Nutrients, and Carbon H3 BMPs
9:20 - 10:30 a.m.	Opening Session (9:00 - 10:30 a.m.)	E1 Western Lake Erie Basin (Part 2) E2 Climate Change Applications E3 Sensitivity Calibration and Uncertainty / Irrigation Management Invited Presentation	I1 EPIC/APEX Modeling System I2 Landscape Processes and Landscape / River Continuum I3 Large Scale Applications
10:30 - 11:00 a.m.	Coffee break / group photo	Coffee break	Coffee break
11:00 - 12:30 p.m.	A1 SWAT+: Introduction to the new SWAT code (Part 1) A2 Climate Change Applications A3 Hydrology	F1 Bioenergy Cropping System Applications for the U.S. Corn Belt Region F2 Hydrology F3 Model Development	J1 Hydrology J2 Large Scale Applications J3 Database and GIS Application and Development
12:30 - 1:30 p.m.	Lunch	Lunch	Lunch
1:30 - 3:00 p.m.	B1 SWAT+: Introduction to the new SWAT code (Part 2) B2 Biofuel and Plant Growth B3 Large Scale Applications	G1 Poster session	K1 Climate Change Applications K2 Model Development K3 Sensitivity Calibration and Uncertainty
3:00 - 3:30 p.m.	Coffee break	Coffee break	Coffee break
3:30 - 5:00 p.m.	C1 Hydrology C2 WEPP Invited Presentation / Database and GIS Application and Development C3 Model Development	Tours (3:30 - 5:30 p.m.)	Closing discussions
5:30 p.m.	Reception		
6:30 p.m.		Dinner gala	

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Wednesday, October 14

8:00 – 9:00 a.m.	**PARTICIPANT CHECK-IN AND REGISTRATION**	
9:00 – 10:30 a.m.	**INAUGURAL SESSION** Room: Stewart 218	**Moderator:** Bernie Engel *Purdue University*
9:00 – 9:10 a.m.	Welcome Address	**Karen Plaut**, Senior Associate Dean for Research & Faculty Affairs, College of Agriculture, Purdue University
9:10 – 9:40 a.m.	Soil & Water Quality: Growing Indiana Agriculture	**Ted McKinney**, Director, Indiana State Department of Agriculture
9:40 – 10:00 a.m.	USDA Conservation Effects Assessment Program	**Lee Norfleet**, Model Team Leader, USDA-NRCS
10:00 – 10:20 a.m.	SWAT+ Benefits of Object Structured Code	**Jeffrey G. Arnold**, Agricultural Engineer, USDA-ARS
10:20 – 10:30 a.m.	25 Years of SWAT Development	**Raghavan Srinivasan**, Professor, Texas A&M University
10:30 – 11:00 a.m.	**COFFEE BREAK AND GROUP PHOTO** Room: Stewart 218	
11:00 – 12:30 p.m.	**SESSION A1: SWAT+: INTRODUCTION TO THE NEW SWAT CODE (PART 1)** Room: Stewart 310	**Moderator:** Jeffrey G. Arnold *USDA-ARS*
Jeffrey G. Arnold Katrin Bieger Hendrik Rathjens	This session is intended to give interested SWAT users an overview of the new modular SWAT+ code and input file structure, the increased flexibility in terms of spatial interactions within the watershed, the datasets used to test and debug the new codes and input files, the integration of landscape units in the model and the developers' interface that is currently used to set up and edit SWAT+ models.	

11:00 – 12:30 p.m.	**SESSION A2: CLIMATE CHANGE APPLICATIONS** Room: Stewart 279		**Moderator:** Cibin Raj *Purdue University*
11:00 – 11:20 a.m.	William Burke	Assessing projected climate impacts on streamflow in small coastal basins of the Western United States	
11:20 – 11:40 a.m.	Vinod Chilkoti	Climate change impact assessment on long term water budget for Maitland catchment in southern Ontario	
11:40 – 12:00 p.m.	Furkan Dosdogru	Climate and Land Use/Cover Change Impacts on the Ecologically Relevant Flow Metrics in the Cahaba River	
12:00 – 12:20 p.m.	Jesus Uresti-Gil	Development of a SWAT-based methodology to evaluate, at municipal scale, the vulnerability of the agricultural sector to climate change	

11:00 – 12:30 p.m.	**SESSION A3: HYDROLOGY** Room: Stewart 278		**Moderator:** Latif Kalin *Auburn University*
11:00 – 11:20 a.m.	So Ra Ahn	Analysis of Watershed Soundness by Water Balance and Water Quality Variation Using SWAT Model for Han River Basin, South Korea	
11:20 – 11:40 a.m.	Juan Carlos Jaimes-Correa	Streamflow Generation Responses to Extreme Hydrometeorological and Climate Events in an Intensively Agricultural Watershed	
11:40 – 12:00 p.m.	Latif Kalin	Daily streamflow prediction in ungauged watersheds with a hybrid model: SWAT-ANN	
12:00 – 12:20 p.m.	Manashi Paul	Spatial and temporal evaluation of hydrological response to climate and land use change in South Dakota watersheds	

12:30 – 1:30 p.m.	**LUNCH** Room: Stewart 302/306	

1:30 – 3:00 p.m.	**SESSION B1: SWAT+: INTRODUCTION TO THE NEW SWAT CODE (PART 2)** Room: Stewart 310	**Moderator:** Jeffrey G. Arnold *USDA-ARS*
	This session is a continuation of session A1.	

1:30 – 3:00 p.m.	**SESSION B2: BIOFUEL AND PLANT GROWTH** Room: Stewart 279	**Moderator:** Srinivasulu Ale *Texas A&M AgriLife Research*
1:30 – 1:50 p.m.	Srinivasulu Ale	Assessing the influence of climate variability on land use change from cotton to perennial bioenergy grasses: implications on watershed hydrology and water quality
1:50 – 2:10 p.m.	Jingyu Song	Water Quality and Cost Considerations in the Supply of Feedstocks for Cellulosic Biofuels
2:10 – 2:30 p.m.	Gangsheng Wang	Forecasting changes in water quality in the Tennessee River Basin with growing biofuels
2:30 – 2:50 p.m.	Jesus Uresti-Gil	Development of a SWAT-based information system to identify areas for sustainable intensive agricultural production in the peninsula of Yucatan, Mexico.

1:30 – 3:00 p.m.	**SESSION B3: LARGE SCALE APPLICATIONS** Room: Stewart 278	**Moderator:** Santhi Chinnasamy, *Texas A&M AgriLife Research*
1:30 – 1:50 p.m.	Philip Gassman	The Soil and Water Assessment Tool (SWAT) Ecohydrological Model Circa 2015: Global Application Trends, Insights and Issues
1:50 – 2:10 p.m.	Santhi Chinnasamy	Modeling Sediment and Nutrient Loads Input to the Texas Gulf and Effects of Conservation Practices on Water Quality
2:10 – 2:30 p.m.	Zhonglong Zhang	Assessing spatial and temporal distribution of sediment, nitrogen and phosphorous loading in the Missouri River basin
2:30 – 2:50 p.m.	Xiaoyan Zheng	An analysis on the effect of settlements distribution changes to the NPS in the Xiaojiang River Basin after the construction of the Three Gorges Reservoir using SWAT
3:00 – 3:30 p.m.	**COFFEE BREAK** Room: Stewart 218	

3:30 – 5:00 p.m.	**SESSION C1: HYDROLOGY** Room: Stewart 279		**Moderator:** Jane Frankenberger, *Purdue University*
3:30 – 3:50 p.m.	Jane Frankenberger	Simulation of Tile Drainage in Two Midwestern Watersheds Using SWAT2012	
3:50 – 4:10 p.m.	Nina Omani	Hydrological Modeling of Highly Glacierized River Basins	
4:10 – 4:30 p.m.	Afshin Shabani	Modeling Water Quantity and Nutrients in Devils Lake Watershed Using SWAT	
4:30 – 4:50 p.m.	Karthik Kumarasamy	Implications of limited data on sediment yield predictions in a tile drain dominated landscape	

3:30 – 5:00 p.m.	**SESSION C2: DATABASE AND GIS APPLICATION AND DEVELOPMENT** Room: Stewart 310		**Moderator:** Mike White *USDA-ARS*

Note: This session begins with an invited presentation about the Water Erosion Prediction Project (WEPP).

3:30 – 3:50 p.m.	Dennis Flanagan	WEPP Model Background, Status, and Current Projects
3:50 – 4:10 p.m.	Narendra Kumar Tiwary	Web-Based Expected Inundation Mapping Using Swat and HEC-RAS Models
4:10 – 4:30 p.m.	Getnet Betrie	A Tool to Preprocess the National Soil Database of Canada for SWAT2012
4:30 – 4:50 p.m.	Mike White	Development of Climate and Management Data to Support SWAT Modeling Efforts in the US

3:30 – 5:00 p.m.	**SESSION C3: MODEL DEVELOPMENT** Room: Stewart 278	**Moderator:** Claire Baffaut *USDA-ARS*
3:30 – 3:50 p.m.	Claire Baffaut	Scheduling field operations as a function of temperature, soil moisture, and available resources
3:50 – 4:10 p.m.	Adam Freihoefer	Defining and Integrating Spatiotemporal Agricultural Land Management into the Soil and Water Assessment Tool
4:10 – 4:30 p.m.	Colleen Moloney	Using a Single HRU SWAT Model to Examine and Improve Representation of Field-Scale Processes
4:30 – 4:50 p.m.	Soni Pradhanang	Hillslope hydrology modifications for better representation of variable source areas: SWAT-Hillslope

5:30 p.m.	**RECEPTION** Purdue Memorial Union East & West Faculty Lounges

8:00 – 9:10 a.m.	**SESSION D1: WESTERN LAKE ERIE BASIN (PART 1)** Room: Stewart 310	**Moderator:** Margaret Kalcic *University of Michigan*
8:00 – 8:20 a.m.	Margaret Kalcic	Shaping Lake Erie Agriculture Nutrient Management through a Multi-Model Approach
8:20 – 8:40 a.m.	Margaret Kalcic	Bringing SWAT to stakeholders to explore conservation scenario development in the Western Lake Erie Basin
8:40 – 9:00 a.m.	Rebecca Logsdon Muenich	Visualizing alternative pathways for reducing phosphorus loads into Lake Erie

8:00 – 9:10 a.m.	**SESSION D2: BMPs** Room: Stewart 279	**Moderator:** Soni Pradhanang *University of Rhode Island*
8:00 – 8:20 a.m.	Miae Ha	Investigating impacts of BMPs and land use on water quality for sustainable bioenergy production
8:20 – 8:40 a.m.	M.G. Mostofa Amin	Best management practices for reducing nutrient loads in a sub-watershed of Chesapeake Bay
8:40 – 9:00 a.m.	Timothy Erickson	Using GIS Technology to Inform Watershed Modeling and Conservation Practice Implementation at the Local Level

8:00 – 9:10 a.m.	**SESSION D3: ENVIRONMENTAL APPLICATIONS** Room: Stewart 278		**Moderator:** Andreas Klik *University of Natural Resources and Life Sciences Vienna*
8:00 – 8:20 a.m.	Latif Kalin	Challenges defining functional evaluation of an ungauged headwater wetland in coastal AL	
8:20 – 8:40 a.m.	Conor Keitzer	Using the Soil and Water Assessment Tool to provide critical spatial information about the magnitude of water quality stressors and their effect on stream biodiversity	
8:40 – 9:00 a.m.	Yonggui Wang	Development of a Distributed TMDL Allocation in Liangzi Lake Basin Using SWAT Model and Water Quality Model	

9:20 – 10:30 a.m.	**SESSION E1: WESTERN LAKE ERIE BASIN (PART 2)** Room: Stewart 310		**Moderator:** Rebecca Logsdon Muenich, *Graham Sustainability Institute*
9:20 – 9:40 a.m.	Haw Yen	Large-scale, NHDPlus Resolution Watershed Modeling in the Western Lake Erie Basin Using SWAT	
9:40 – 10:00 a.m.	Noel Aloysius	Analyzing the Variability of Water, Sediment and Nutrient Fluxes within an Agricultural Watershed to Identify Nutrient “Hotspots”	
10:00 – 10:20 a.m.	Chelsie Boles	Use of a calibrated SWAT model to support best management practice (BMP) evaluations in the Maumee River watershed	

9:20 – 10:30 a.m.	**SESSION E2: CLIMATE CHANGE APPLICATIONS** Room: Stewart 278	**Moderator:** Darren Ficklin *Indiana University*
9:20 – 9:40 a.m.	Darren Ficklin	The implications of SWAT parameter equifinality on climate change projections
9:40 – 10:00 a.m.	Sushant Mehan	Projecting climate change impacts on surface hydrology of a small agriculture-dominated watershed
10:00 – 10:20 a.m.	Raghavan Srinivasan	Modeling the potential impacts of climate change on streamflow in a headwater basin of the Grande River Basin, Southeastern Brazil

9:20 – 10:30 a.m.	**SESSION E3: SENSITIVITY CALIBRATION AND UNCERTAINTY** Room: Stewart 279	**Moderator:** Ryan Bailey *Colorado State University*

Note: This session ends with an invited presentation on irrigation management.

9:20 – 9:40 a.m.	Cibin Raj	Impacts of model parametric uncertainty on landuse planning decision making
9:40 – 10:00 a.m.	Linh Hoang	Reducing equifinality in semi-distributed models by using spatial wetness information and reducing complexity in the SWAT-Hillslope model
10:00 – 10:20 a.m.	Ryan Bailey	Modeling Irrigation Systems in Semi-Arid Regions: Current Status and Emerging Needs for SWAT

10:30 – 11:00 a.m.	**COFFEE BREAK** Room: Stewart 218

11:00 – 12:30 p.m.	**SESSION F1: BIOENERGY CROPPING SYSTEM APPLICATIONS FOR THE U.S. CORN BELT REGION** Room: Stewart 310	**Moderator:** Yiannis Panagopoulos, *Iowa State University*
11:00 – 11:20 a.m.	Cibin Raj	Simulating establishment period of perennial bioenergy grasses in the SWAT model
11:20 – 11:40 a.m.	Indrajeet Chaubey	How do climate change and bioenergy crop production affect watershed sustainability
11:40 – 12:00 p.m.	Philip Gassman	Assessment of Bioenergy Cropping Scenarios for the Boone River Watershed in North Central Iowa, United States
12:00 – 12:20 p.m.	Yiannis Panagopoulos	Assessment of Large-Scale Bioenergy Cropping Scenarios for the Upper Mississippi and Ohio-Tennessee River Basins

11:00 – 12:30 p.m.	**SESSION F2: HYDROLOGY** Room: Stewart 279	**Moderator:** Adam Freihoefer *Wisconsin Department of Natural Resources*
11:00 – 11:20 a.m.	Padma Kant Sharan	Enhancing Prediction Accuracy in the Bagmati River Flood Forecasting Model on MIKE11 Platform in India
11:20 – 11:40 a.m.	Narendra Kumar Tiwary	Using SWAT Module in the Design of Submerged Weir on Narrow Rivers Having High Flood Discharge
11:40 – 12:00 p.m.	Andrew Sommerlot	A Web Based Interface for Distributed Short-Term Pollution Potential Forecast: Coupling SWAT with the Global Forecast System Model
12:00 – 12:20 p.m.	Gebiaw Teshome Ayele	Stream flow Responses to distributed inputs of soil and land use under a changing climate: SWAT model reconceptualization.

11:00 – 12:30 p.m.	**SESSION F3: MODEL DEVELOPMENT** Room: Stewart 278	**Moderator:** Zachary Easton *Virginia Tech*
11:00 – 11:20 a.m.	Haw Yen	C-SWAT: An Easy Way to Save SWAT Computational Time by Consolidating Input Files
11:20 – 11:40 a.m.	Moges Berbero	SWAT-GHG: a Mechanistic Greenhouse Gas Sub-model for SWAT
11:40 – 12:00 p.m.	Zachary Easton	TopoSWAT: An ArcPy Toolbox to Improve the Spatial Representation of Soil Properties and Hydrology Using Topographically Derived Initialization Processes
12:00 – 12:20 p.m.	Daniel Fuka	TauRkSWAT: An Operating System Independent SWAT Model Watershed Initialization Interface

12:30 – 1:30 p.m.	**LUNCH** Room: Stewart 302/306

1:30 – 3:00 p.m.	**SESSION G1: POSTERS** Room: Stewart 206

James Almendinger	Twentieth century agricultural drainage creates more erosive rivers
Rohith Gali	Modeling Corn Crop Yields in High Water Table Conditions using SWAT Model
Jiyeong Hong	Evaluating Water Quality Impact of Grassland Establishment
Sun Sook Jang	SWAT Evaluation for Best Management Practices in Highland Agricultural Catchment of South Korea
Manoj Jha	Modeling fate and transport of nutrients from onsite wastewater treatment system
Chung Gil Jung	Estimation of Regional Calibration of Hargreaves Equation for Actual Evapotranspiration using SWAT Simulated Results in the Mixed Forest Watershed
Andreas Klik	Simulation of surface runoff and soil erosion in small watersheds in Northern Ethiopia - application and verification of the SWAT model

Ji Wan Lee	Assessment of Forest Type and Future Climate Change Impacts on Streamflow in Small Catchment
Yong Gwan Lee	Comparison of Spatial Evapotranspiration between SEBAL and SWAT by Calibrating with the Eddy Flux measured ET
Ping Li	Impact of Drought on freshwater provisioning ecosystem services in the Upper Mississippi River Basin
Zhu Liu	Large scale flood inundation modeling by using SWAT and LISFLOOD-FP
Esther Mosase	Quantification of blue, green and grey water in the Limpopo River Basin in Southern Africa using Earth Observation data and SWAT model
Rebecca Muenich	To bias correct or not to bias correct? Is that really the question?
Femeena Pandara Valappil	Developing an in-stream water quality model for improved simulation of nutrient dynamics in SWAT
Garett Pignotti	Evaluation of SWAT Soil Water Content Model Output and Sensitivity
Junyu Qi	Adopting an Energy Balance Snowmelt Model in Soil and Water Assessment Tool model (SWAT) for Application in Atlantic Canada
Junyu Qi	Modifying the Soil Temperature Module in SWAT for Application in Atlantic Canada: Module Development, Validation and Impacts on Watershed Modelling
Cibin Raj	Bioenergy grass production on marginal lands and hydrologic and water quality impacts in the Upper Mississippi River Basin (UMRB)
Nikhil Sangwan	SWAT model for policy analysis in drought hit California
Herbert Ssegane	Designing Multifunctional Landscapes for Sustainable Bioenergy Feedstock in a Tile-Drained Agricultural Watershed
Ruoyu Wang	Improve simulation of annual crop sensitivity to climate variability in the Eastern Corn Belt

Thursday, October 15

3:00 – 3:30 p.m. **COFFEE BREAK**
Room: Stewart 218

3:30 – 5:30 p.m. **TOURS**

Three tours will be offered. Please sign up at the check-in desk.

1. **Guided walking tour of Discovery Park** – Locations will include the Burton D. Morgan Center for Entrepreneurship, the Bindley Bioscience Center, and Birck Nanotechnology Center.

2. **Tour of Purdue** - In this tour, you will get to see the beautiful campus of Purdue University.

3. **Tour of Water Quality Field Station and ACRE** – A unique in-field laboratory for integrated studies of agricultural productivity and environmental impacts. The tour will visit some of the sites that have been intensively instrumented.

6:30 p.m. **DINNER GALA**
Purdue Memorial Union South Ballroom

8:00 – 9:10 a.m.	**SESSION H1: CLIMATE CHANGE APPLICATIONS** Room: Burton Morgan 206	**Moderator:** Hendrik Rathjens *Purdue University*
8:00 – 8:20 a.m.	Sagar Gautam	Climate model biases and statistical downscaling for application in hydrologic model
8:20 – 8:40 a.m.	Quang Phung	Evaluation of climate and land use changes on hydrologic processes in the Salt River Basin, Missouri, United States.
8:40 – 9:00 a.m.	Yu-Chen Wang	Quantifying Flood Risk and Sensitivity to Climate Change in the Huron River Watershed Using SWAT

8:00 – 9:10 a.m.	**SESSION H2: SEDIMENT, NUTRIENTS, AND CARBON** Room: Burton Morgan 121	**Moderator:** Katrin Bieger *Texas A&M AgriLife Research*
8:00 – 8:20 a.m.	M.G. Mostofa Amin	Closing the prediction gap between agricultural nutrient losses and riparian zone ecology
8:20 – 8:40 a.m.	Xiaolu Wei	Estimating Nitrate Transport in Surface-Subsurface Hydrologic Systems by the linked SWAT-MODFLOW-RT3D Model
8:40 – 9:00 a.m.	Zachary Easton	Improved simulation of edaphic and manure phosphorus loss in SWAT and TopoSWAT

8:00 – 9:10 a.m.	**SESSION H3: BMPS** Room: Burton Morgan 129		**Moderator:** Katie Merriman *USGS*
8:00 – 8:20 a.m.	Andi Hodaj	Evaluation of the two-stage ditch as a best management practice	
8:20 – 8:40 a.m.	Alexis Heim	Assessing the Impact of Alternative Management Strategies in a Dairy-dominated Agricultural Watershed Vulnerable to High Sediment and P Runoff	
8:40 – 9:00 a.m.	Nahal Hoghooghi	Multisite Sensitivity Analysis and Calibration of a SWAT Model on a Selected Urban Watershed in Metropolitan Atlanta, Georgia	
9:20 – 10:30 a.m.	**SESSION I1: EPIC/APEX MODELING SYSTEM** Room: Burton Morgan 121		**Moderator:** Tom Gerik *Texas A&M AgriLife Research*
9:20 – 9:40 a.m.	Anomaa Senaviratne	Is site-specific APEX calibration necessary for field scale BMP assessment?	
9:40 – 10:00 a.m.	Verel Benson	Future EPIC to SWAT Linkages	

9:20 – 10:30 a.m.	**SESSION I2: LANDSCAPE PROCESSES AND LANDSCAPE / RIVER CONTINUUM** Room: Burton Morgan 206	**Moderator:** Jim Almendinger *St. Croix Watershed Research Station*
9:20 – 9:40 a.m.	Jim Almendinger	Soft-Data Considerations in Modeling Watershed-Scale Phosphorus Loads in the St. Croix Basin, Minnesota and Wisconsin, USA
9:40 – 10:00 a.m.	Paul McGinley	Using SWAT to Understand Stream Phosphorus Concentrations and the Importance of External Inputs and Internal Reactions
10:00 – 10:20 a.m.	Ramesh Rudra	Assessing SWAT Model Capability in predicting the Areas Contributing Flow in an Agricultural Watershed

9:20 – 10:30 a.m.	**SESSION I3: LARGE SCALE APPLICATIONS** Room: Burton Morgan 129	**Moderator:** Nina Omani *Purdue University*
9:20 – 9:40 a.m.	Santhi Chinnasamy	Modeling Sediment and Nutrient Loads Input to the Chesapeake Bay and Effects of Conservation Practices on Water Quality
9:40 – 10:00 a.m.	Nina Omani	Assessing sensitivity of UMRB agriculture and water resources to past and current drought
10:00 – 10:20 a.m.	Shiv Prasher	Impact of Tile Drainage on Sediment Losses in an Agricultural Watershed using SWATDRAIN

10:30 – 11:00 a.m.	**COFFEE BREAK** Room: Burton Morgan 206	

11:00 – 12:30 p.m.	**SESSION J1: HYDROLOGY** Room: Burton Morgan 206		**Moderator:** Raghavan Srinivasan, *Texas A&M University*
11:00 – 11:20 a.m.	Tian Guo	Comparison of the tile drainage routine performance in SWAT 2009 and 2012 in the Little Vermillion River Watershed	
11:20 – 11:40 a.m.	Mohammad Adnan Rajib	Multi-objective calibration approach for SWAT by using spatially distributed remotely sensed/in-situ soil moisture data	
11:40 – 12:00 p.m.	Raghavan Srinivasan	Hydrologic Similarity Analysis by Unsupervised Classification of watershed's Soft Data Received from the SWAT Model.	

11:00 – 12:30 p.m.	**SESSION J2: LARGE SCALE APPLICATIONS** Room: Burton Morgan 121		**Moderator:** Venkatesh Merwade, *Purdue University*
11:00 – 11:20 a.m.	Murli Dhar Singh	Recent Technological Advancement and Sustainable Solutions for Flood Issues in North Bihar	
11:20 – 11:40 a.m.	Liuying Du	Characterization of climate and land use change impacts on blue and green water dynamics over the Ohio River basin	
11:40 – 12:00 p.m.	Yingyuan Shi	Impact of non-point source pollution on water quality of Pengxi River using SWAT model after 175-meter water project operation of the Three Gorges Dam	
12:00 – 12:20 p.m.	Jing Wan	Research on watershed for non-point source pollution in the Three Gorges Reservoir based on SWAT	

11:00 – 12:30 p.m.	**SESSION J3: DATABASE AND GIS APPLICATION AND DEVELOPMENT** Room: Burton Morgan 129	**Moderator:** Bernie Engel *Purdue University*
11:00 – 11:20 a.m.	Jeffrey G. Arnold	A Geospatial Modeling Interface (GMI) for SWAT Model Deployment and Evaluation
11:20 – 11:40 a.m.	Theresa Nelson	Prioritizing Water Quality Improvement Efforts on Agricultural Lands Using Readily Available GIS Data
11:40 – 12:00 p.m.	Aleksey Sheshukov	Impacts of Input Datasets on SWAT Model Performance and Watershed Hydrology
12:00 – 12:20 p.m.	Gurdeep Singh	LUU_Checker: A Tool for Dynamically Incorporating New Land Uses in SWAT
12:30 – 1:30 p.m.	**LUNCH** Room: Burton Morgan 206	
1:30 – 3:00 p.m.	**SESSION K1: CLIMATE CHANGE APPLICATIONS** Room: Burton Morgan 206	**Moderator:** Indrajeet Chaubey, *Purdue University*
1:30 – 1:50 p.m.	Jungang Gao	Uncertainty Estimation of Hydrological Impacts of Bias-Corrected CMIP5 Climate Change Projections
1:50 – 2:10 p.m.	Yuri Kim	Hydrological change projection in the North Carolina Piedmont watershed by SWAT and bias corrected NARCCAP
2:10 – 2:30 p.m.	Glenn O'Neil	Mapping Ground Water Recharge Rates in Southwest Michigan under Multiple Future Climate Simulations
2:30 – 2:50 p.m.	Carlington Wallace	Quantifying the Effects of Climate Change on Runoff, Sediment and Chemical Losses for Different Watershed Sizes

1:30 – 3:00 p.m.	**SESSION K2: MODEL DEVELOPMENT** Room: Burton Morgan 121	**Moderator:** Cibin Raj *Purdue University*
1:30 – 1:50 p.m.	Garett Pignotti	Comparative Analysis of Spatial Resolution Effects on Standard and Grid-based SWAT Models
1:50 – 2:10 p.m.	Cibin Raj	Improved physical representation of vegetative filter strip in SWAT
2:10 – 2:30 p.m.	Zhonglong Zhang	Coupling aquatic nutrient simulation module (NSMI) and SWAT model
1:30 – 3:00 p.m.	**SESSION K3: SENSITIVITY CALIBRATION AND UNCERTAINTY** Room: Burton Morgan 129	**Moderator:** Nina Omani *Purdue University*
1:30 – 1:50 p.m.	Fariborz Daneshvar	Comparison of multiple point and single point calibration performance for the Saginaw River Watershed
2:10 – 2:30 p.m.	Kim Falinski	Evaluating weather observations and the Climate Forecast System Reanalysis as inputs for hydrologic modeling in the Hawaiian Islands
3:00 – 3:30 p.m.	**COFFEE BREAK** Room: Burton Morgan 206	
3:30 – 5:00 p.m.	**CLOSING DISCUSSIONS** Room: Burton Morgan 206	

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TEXAS A&M AGRILIFE RESEARCH

USDA ARS Agricultural Research Service