

## Workshop on SWAT+ and SWAT-CUP

### Organised by:

**The Sydney Institute of Agriculture, The University of Sydney: A/Prof Willem Vervoort, A/Prof Thomas Bishop, Dr Floris van Ogtrop, A/Prof Tiho Ancev**

#### Description of the workshop:

This workshop aims to introduce new developments in the SWAT model framework and highlight experiences with the SWAT model in Australia. It consists of three parts:

1) An introduction into SWAT+ (<https://swat.tamu.edu>) and QSWAT+, the new QGIS based SWAT model framework (November 18-19); 2) A workshop with presentations highlighting the use of SWAT in Australia (November 20); and 3) An introduction into calibration and uncertainty process of SWAT using SWAT-CUP (November 21-22). The presenters at the workshop are from the SWAT development group from the USDA at Temple, Texas and Texas A&M University. The SWAT+ framework is a completely revised version of the SWAT model. SWAT+ provides a more flexible spatial representation of interactions and processes within a watershed.

Over the past 25 years, the Soil and Water Assessment Tool (SWAT) has become widely used across the globe. The large numbers of applications across the globe have also revealed limitations and identified model development needs. Numerous additions and modifications of the model and its individual components have made the code increasingly difficult to manage and maintain. In order to face present and future challenges in water resources modelling SWAT code has undergone major modifications over the past few years, resulting in SWAT+, a completely revised version of the model. Even though the basic algorithms used to calculate the processes in the model have not changed, the structure and organization of both the code (object based) and the input files (relational based) have undergone considerable modification. This is expected to facilitate model maintenance, future code modifications, and foster collaboration with other researchers to integrate new science into SWAT modules. SWAT+ provides a more flexible spatial representation of interactions and processes within a watershed.

#### Who this workshop is for:

Academics, Post-graduate students, government agencies, research and consulting professionals interested in spatial modelling of hydrological processes and links to land use management and change. Fields of Engineering, Agriculture, Geography and Resource Economics.

#### Location and time:

18-20 November: Room 1170, Abercrombie Building, Corner Abercrombie Street and Codrington Street, Darlington Campus: <https://goo.gl/maps/wqQZmUR8QS5eQBD86>

21-22 November: Institute Lecture Room 2, Institute building, City Rd, Darlington Campus: <https://goo.gl/maps/kyRiwq7s4wfBFx4E8>

#### Cost and registration:

SWAT+ only, day 1 & 2 (November 18 & 19): \$350  
SWAT-Cup for SWAT+ only, Day 4 & 5 (November 21 & 22): \$350  
Conference Day 3 (November 20): \$90  
Full week: \$500  
Please register at:  
<https://sydney.onestopsecure.com/onestopweb/swat>

#### What to bring:

Please bring a laptop with SWAT+/QSWAT+ (<https://swat.tamu.edu/software/plus/>), SWAT-CUP (<https://swat.tamu.edu/software/swat-cup/>) for SWAT+ installed for the respective workshop.

You are encouraged to bring your own data/project developed through ArcSWAT/QSWAT to gain more experience with SWAT-CUP, however, an example dataset will be provided for the workshop.