Urban Water Interfaces (UWI)

The DFG Research Training Group on Urban Water Interfaces (UWI) invites to a guest lecture by

Prof. Dr. Wolf Mooij, Netherlands Institute of Ecology, Wageningen

Tuesday, 16th May 2017, 1:15 pm, IGB Berlin, Müggelseedamm 310, 12587 Berlin, Lecture hall

Lecture title: *Spatio-temporal modelling of aquatic ecosystems*

Abstract
Ecosystems are known - and admired - for their complexity. This complexity creates a real challenge for capturing the essential dynamics of ecosystems in mathematical models. Such models are considered to be an important tool for understanding ecological complexity and predicting the feasibility and effectiveness of ecological management strategies. A central question I would like to address in this lecture is the question whether the aim of scientific understanding necessarily leads to simpler models and the aim of applicability leads to more complex models with little use for models of intermediate complexity. Or alternatively, that ecological models of intermediate complexity can provide a meeting ground for a healthy exchange of insights and applications between theoretical and applied ecology. In this presentation I will use the established ecosystem model for shallow lakes PCLake as the focal model and show excursions from that model towards simpler and more complex models. A key message will be that there is much to learn from the concurrent use of models that differ in complexity.

About the speaker
Wolf Mooij graduated from the University of Amsterdam in 1983. During his Ph.D. project on fish recruitment in eutrophic lakes he became interested in modeling animal communities. During a two-years stay at Delft Hydraulics Prof. Mooij was involved in developing and applying large-scale eutrophication models. Since 1992, when he joined the Department of Food Web Studies as a senior scientist, he focuses on modeling trophic interactions within freshwater communities from an individual perspective. For this purpose he developed a modeling framework work for individual-based simulations, OSIRIS, which is now applied in many NIOO-KNAW research projects. These OSIRIS applications range from abstract evolutionary prey-predator models to management-oriented bio-conservation studies. A common theme in the work of Prof. Mooij is the link between species- and ecosystem-level processes.

Further information about Prof. Mooij can be found on the following website:
https://nioo.knaw.nl/nl/employees/wolf-mooij

How to find the IGB:
http://www.igb-berlin.de/standorteanfahrt