

## Eawag Seminar Invitation

# Towards predictive ecotoxicology

**Speaker** **Dr. Roman Ashauer**  
*Eco-modelling lead at Syngenta Crop Protection AG, Product Safety, Basel, Switzerland & Honorary Fellow at the Environment Department, University of York, York, UK*

**When** **February 28, 11.00 – 12.00 a.m.**

**Where** **Forum Chriesbach, room C20, Eawag Dübendorf**

**Abstract** Transforming ecotoxicology into a truly predictive science can be achieved by a better theoretical foundation. I will highlight the importance, and the challenges, of characterising physiological modes of action within a bioenergetics model framework and explain how that could enable more powerful *in vitro* to *in vivo* toxicity extrapolation and *in silico* ecotoxicology. Further, I will illustrate how the same modelling framework can be used to predict the interaction of multiple stressors for example environmental factors and toxicants combined. Finally, I will show examples of work in progress to increase ecological realism in environmental risk assessments of chemicals and specifically pesticides