WWTmod2012

3rd IWA/WEF Wastewater Treatment Modelling Seminar
Mont-Sainte-Anne, Quebec, Canada

Preliminary Program

Sunday, 26 February 2012

08:00 – 08:15 Welcome by Bruce Johnson (Chair Scientific Committee)
Word by Réseau Environnement and CAWQ

08:15 – 09:00 Opening Lecture by TBD
Title

Parallel full-day workshops:

1. **How do we make the best use of dynamic simulators to improve aeration system design?** (chair: Leiv Rieger)

2. **How should we be measuring and modelling nitrous oxide emissions from wastewater systems?** (chair: Jose Porro)

3. **What is the potential role for genome-scale metabolic modelling in the development of biological wastewater treatment processes?** (chair: Dominic Frigon)

4. **Are we about to reliably predict the fate of micropollutants through WWTP?** (chair: Ludiwine Clouzot)

5. **How can we evaluate and exploit the interactions of the WWTP with the whole urban water system?** (chair: Lorenzo Benedetti)

6. **Computational Fluid Dynamics (CFD): what is good CFD-modelling practice and what can be the added value of CFD models to WWTP modelling?** (chair: Ingmar Nopens)

09:00 – 12:00 Workshop session I (incl. coffee break)

12:00 – 13:30 Lunch

13:30 – 16:30 Workshop session II (incl. coffee break)

16:30 – 17:30 Report preparation (workshop chairs)

18:30 WELCOME RECEPTION and DINNER

Monday, 27 February 2012

08:15 – 08:30 Seminar information (Bruce Johnson)

Session 1 (Moderator: TBD)

08:30 – 10:00 Good Modelling Practice

Jean-Marc Choubert, L. Rieger, A. Shaw, J. Copp, M. Sperandio, K.H. Soerensen, S.G.E. Rönner-Holm, E. Morgenroth, H. Melcer and S. Gillot
  Rethinking wastewater characterization methods – A position paper

Benedek G. Plósz, I. Nopens, L. Rieger, A. Griborio, J. De Clercq, P.A. Vanrolleghem, G.T. Daigger, I. Takács, J. Wicks and G.A. Ekama
  A critical review of clarifier modelling: State-of-the-art and engineering practices

10:00 – 10:30 Coffee break

Session 2 (Moderator: TBD)

10:30 – 12:00 Chemistry (not for Dummies)

Pierrie J. Van Zyl, C.M. Lees, C.J. Brouckaert, G.A. Ekama, K.M. Foxon
  Dynamic modelling of anaerobic digestion of Fischer-Tropsch reaction water

IWA Task Group for a generalised physico-chemical modelling framework
  Generalised physico-chemical modelling framework: Approach

12:00 – 13:30 Lunch

Session 3 (Moderator: TBD)

13:30 – 15:00 New Model Concepts

Bing-Jie Ni, Z. Yuan, K. Chandran, P.A. Vanrolleghem, S. Murthy
  Evaluating mathematical models for N_2O production by ammonia-oxidising bacteria: Towards a unified model

Bernhard Wett, I. Takács, D. Batstone, C. Wilson and S. Murthy
  Anaerobic model for high-loaded or high-temperature digestion – additional pathway of acetate oxidation

15:00 – 15:30 Coffee break

Session 4 (Moderator: TBD)

15:30 – 17:00 Uncertainty Analysis in Practice

Leon Downing, M. Gerbitz and D. Doerr
  Assessing nutrient removal improvements: Accounting for variability and inconsistencies in operational data

Lorenzo Benedetti, E. Belia, K. Cierkens, T. Flameling, I. Nopens and S. Weijers
  The inclusion of variability and uncertainty evaluations in WWTP design by means of stochastic dynamic modelling: The case of Eindhoven

19:00 SURPRISE DINNER

Tuesday, 28 February 2012

Session 5 (Moderator: TBD)

08:00 – 08:15 Reports from YWP workshop

08:15 – 09:15 Reports from Sunday workshops and Discussion

09:15 – 09:30 Break

09:30 – 10:30 Reports from Sunday workshops and Discussion cont'd

10:30 – 11:00 Coffee break

Session 6 (Moderator: TBD)

11:00 – 12:30 Endogenous Processes

Mathieu Spérandio, M.-A. Labelle, A. Ramdani, E. Paul, Y. Comeau, P. Dold
   Modelling degradation of endogenous residue and inert suspended solids to predict sludge production

Adrienne Menniti, L. Rieger, J.P. Boltz, B. Johnson, G.T. Daigger, J. Habermacher, N. Derlon and E. Morgenroth
   Critical review on modelling of endogenous processes and the degradability of endogenous decay products

12:30 – 14:00 Lunch

Session 7 (Moderator: TBD)

14:00 – 15:30 Biofilm Modelling

Md. Salatul Islam Mozumder, C. Picioreanu, M.C.M. van Loosdrecht and E.I.P. Volcke
   Effect of heterotrophic growth on autotrophic nitrogen removal in a granular sludge reactor

Joshua P. Boltz, E. Morgenroth, D. Brockmann, G.T. Daigger, M. Henze, B. Rittmann, K.H. Sørensen, I. Takács, P.A. Vanrolleghem, M.C.M. van Loosdrecht
   Framework for biofilm model calibration protocol

15:30 – 16:00 Coffee break

Closing Session (Moderator: TBD)

16:00 – 17:15 Expert Panel –SUBJECT TBD

Panelist 1
Panelist 2
Panelist 3
Panelist 4
Panelist 5
Panelist 6

17:15 – 17:30 Summary of WWTmod2012 and outlook on WWTmod2014
   by Bruce Johnson (chair of WWTmod2012)

19:00 GALA DINNER

Posters

To be determined

Young Water Professionals Workshop

Saturday, 25 February 2012

The workshop is organized by the YWP committee:

Marc-André Labelle (Chair)	École Polytechnique, Canada
Pascal Boisson	Veolia, France
Katya Bilyk	Hazen and Sawyer, USA
Marie Sedran Burbano	CDM, USA

For questions please contact Marc-André Labelle: *marc-andre.labelle@polymtl.ca*