

On line seminars by Prof. David Hamilton

Deputy Director, Australian Rivers Institute, Griffith University, Nathan QLD



Short bio: Prof. Hamilton is the Deputy Director and a Professor at the Australian Rivers Institute, Griffith University. He has held positions in Environmental Engineering at the University of Western Australia and Biological Sciences at the University of Waikato in New Zealand. His research has involved testing and modelling of lake restoration actions and, more generally, documenting the trajectory of recovery of freshwater ecosystems.

" Coupling physical and biogeochemical processes in streams and lakes "

Friday 03/06/2022 10:00 – 12:00 –TA room

(link on Teams: https://teams.microsoft.com/l/meetup-join/19%3ameeting_NmE5MGI2MmYtMmU2Ny00ZTBjLTg0YzktZjMwZjE2ZjhINDdl%40thread.v2/0?context=%7b%22Tid%22%3a%22d5c8af23-527d-498f-94b5-f9745fee3afc%22%2c%22Oid%22%3a%22ca1b2b3-7620-4bf5-8d75-62b7400f1155%22%7d)

" Modelling biogeochemical processes in streams and lakes"

Thursday 09/06/2022 10:00 – 12:00 – B2.8 room

link on Teams: https://teams.microsoft.com/l/meetup-join/19%3ameeting_NWNmMTk4ODUtZDZjZC00NTM2LTgyZDktYWwMxNjNjMDNhMjFm%40thread.v2/0?context=%7b%22Tid%22%3a%22d5c8af23-527d-498f-94b5-f9745fee3afc%22%2c%22Oid%22%3a%22ca1b2b3-7620-4bf5-8d75-62b7400f1155%22%7d)

Abstract of the seminars: Biogeochemical processes are closely related to physical processes in streams, wetlands and lakes. In the first seminar, the feedbacks between biological and physical processes will be presented. Cyanobacteria will be used as a case study to provide evidence on how they entrain and disentrain from the main turbulent processes in the water column and on the important role played by water residence time. This coupling comes into play when trying to model these complex aquatic environments. The second seminar will examine the mathematical equations used in water quality models to represent the major biogeochemical processes in streams and lakes and the importance of the calibration of model parameters such as reaction rates, half-saturation constants and temperature multipliers, to represent a natural system in the most suitable way possible.

Organizer: Prof. Giulia Valerio giulia.valerio@unibs.it