

End-of-Year Summary 2022

Activities

- Monthly online Management Committee (MC) meetings of the Modelling and Integrated Assessment Specialist Group (MIA SG) with active participation of most of the seniors and young water professionals (YWPs) MC members.
- Welcoming the new MIA SG MC members: Juan Baeza, Sina Borzooei, Timothy Holloway, Ahmed Ashaqfa (YWP), Tri Le (YWP), and Fabio Polesel (YWP).
- Expressing appreciation to MIA SG MC members who have stepped down from their positions: Domenico Santoro, Cristina Martin, Patrick Adadzi, Xueming Chen (YWP), Jing Chris Sun (YWP), and En Shi (YWP).
- Organization of four webinars (not via IWA Learn): (1) State-of-the-art modelling on anaerobic mixed-culture fermentation (March), (2) The incorporation of risk and uncertainty in mathematical models to aid the design and operations of WRRFs (June), (3) Modelling the process emissions from urban wastewater system: State-of-the-art knowledge and beyond (November), and (4) Modelling of phototrophic systems for resource recovery from wastewater (December).
- Maintaining the contents of the [MIA website](#) and [IWA Connect](#) page up to date.
- Keeping active the MIA SG social media accounts in [LinkedIn](#), [Twitter](#), and [IWA Connect](#).
- Updating MIA's [YouTube](#) channel with the latest hosted MIA webinars/events.
- Sending out three MIA SG newsletters (in February, May, and November).
- Participating in the IWA Digital Water Programme, through membership in the Steering Committee of MIA MC member Saba Daneshgar.
- Regular updates of the status reports of Task Groups (TGs) and Working Groups (WGs) under the umbrella of MIA SG and keeping track of their activities through the liaison officers.
- The WG on Hybrid Modelling in Water and Wastewater Treatment, under the MIA umbrella, was formed. The group is chaired by MIA MC member Sina Borzooei.
- The TG on Design and Operations Uncertainty, one of the TGs hosted by MIA, published their Scientific and Technical Report (STR) last year. This year, the STR is made open access by IWA Publishing. Link: <https://iwaponline.com/ebooks/book/838/Uncertainty-in-Wastewater-Treatment-Design-and>
- The TG on Use of Modelling for Minimizing Greenhouse Gas Emissions from Wastewater Systems, another TG hosted by MIA, published their STR open access. Link: <https://iwaponline.com/ebooks/book/844/Quantification-and-Modelling-of-Fugitive>
- The TG on Physicochemical Modelling, yet another TG under MIA, published their open-access STR. Link: <https://iwaponline.com/ebooks/book/865/Generalised-Physicochemical-Model-PCM-for>
- The WG on Computational Fluid Dynamics, also a WG under MIA, published their STR. Link: <https://iwaponline.com/ebooks/book/853/CFD-Modelling-for-Wastewater-Treatment>



Specialist Group on **MODELLING & INTEGRATED ASSESSMENT (MIA)**

- MIA SG Open Group meeting was held during the IWA World Water Congress & Exhibition 2022 in Copenhagen, Denmark on Tuesday September 13. Recording available at IWA Connect.
- A number of the MIA Management Committee members also teamed up and published articles on topics of [digital twins](#), [hybrid modelling](#), and [mainstream shortcut nitrogen removal modelling](#).
- Supporting the organization of the [8th IWA Water Resource Recovery Modelling Seminar \(WRRmod2022+\)](#).