



## Optimization and Control of Integrated Water Systems

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### Message from the Guest Editors

In the current market-driven industrial field, complex plants that deal with material recycling and heat integration are increasingly appearing, motivated by the considerable improvement of economic efficiency. This Special Issue will bring together methodologies for the optimization, supervision, and control of integrated water systems using advanced operational strategies.

Topics include but are not limited to the following:

- Theoretical and practical advances in modeling, simulation, and control of integrated water systems
- Hybrid systems and mixed-logical dynamical modeling for control of IWS
- Decentralized and agent-based modeling of IWS
- Optimization of IWS and their components
- Environmental and economic distributed MPC control of IWS
- Decentralized, cooperative, and coordinated distributed MPC control of IWS
- Networked systems and sectorization methodologies
- Weather forecasting disturbance inclusion in control algorithms applied to integrated water systems
- Learning Strategies for multi-agent systems
- Data-driven fault detection, diagnosis, and prognosis solutions for integrated water systems
- Life cycle assessment of integrated water systems

