

“Coupling of physical and biogeochemical processes in lakes and reservoirs”

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Physical processes (heat fluxes, wind, thermal stratification, water motions, storm inflows, etc) control chemical and biological regimes of lakes and reservoirs. Recent studies show great progress in understanding the key role of physical processes in controlling the spatial and temporal dynamics of nutrient loading, sedimentation, fluxes at the sediment-water interface, succession of planktonic organisms, and changes in trophic status. Rapid changes in climate, extent of eutrophication, and pollution require operative measures of ecosystem management, which are impossible without understanding basic processes and require the combined efforts of physical limnologists, ecologists, and biogeochemists. This session is aimed to bring together specialists from various disciplines, fill gaps in communication, stress the importance of interdisciplinary collaborations, and define key problems requiring immediate joint efforts.