

PPNW - Solothurn, Switzerland - 20 - 24 August 2018

TUE, 21 Aug	Speaker	Lake response to climate change and other anthropogenic impacts
8:00-8:15	Dan McGinnis & Damien Bouffard	Opening Remarks
8:15-8:30	Solothurn City Services	City Overview
8:30-9:15	Adrian (Keynote)	Long-term change of lake ecosystems: Lessons learned from linking theory with empirical data
9:15-9:45	Toffolon	<i>When lakes warm the most: Considerations on the use of averaged indices for climate-change studies</i>
9:45-10:15	Vinnå	<i>Climate reaction of lakes affected by global and local anthropogenic influences</i>
10:15-10:45	Coffee Break	
10:45-11:15	López Moreira	<i>The impact of eutrophication and brownification on lake thermal dynamics: When should hydrodynamic modellers care?</i>
11:15-11:45	Wüest	<i>Why is deepwater oxygen depletion not decreasing despite reoligotrophication?</i>
11:45-12:15	Piccoloraz (presented by Amadori)	<i>Wind forcing and planetary rotation as key drivers of ventilation in deep elongated lakes: evidence from Lake Garda (Italy)</i>
12:15-12:45	Genseberger	<i>Towards an integrated hydrodynamic, water quality, and ecological modeling approach for Lake IJssel and Lake Marken in the Netherlands</i>
12:45-14:15	LUNCH (1.5 hrs)	
14:15-14:30	Sponsors (5m each) - Nortek, terra4, Rockland Scientific	
14:30-15:00	Schmid	<i>Will climate change enhance the effects of pumped-storage on the thermal properties of the connected waterbodies?</i>
15:00-15:30	Ramon	<i>Human-induced changes in lake forcing: the impact of the Kárahnjúkar hydroelectric scheme in the hydrodynamics of Lake Lagarfljót</i>
15:30-16:00	Coffee Break	
16:00-16:30	Robb	<i>Effects of hydropower operation on turbidity in a glacially-fed reservoir</i>
16:30-17:00	Lilover	<i>Impact of different dredging scenarios on circulation and environmental parameters in Lake Viljandi</i>
17:00-17:30	1 min Poster Teasers	
17:30-20:00	Apéro & Poster Session	

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WED, 22 Aug	Speaker	Running waters, Gas Exchange, and Bubbles
8:15-9:00	Ulseth (Keynote)	Two-state gas-exchange in streams and the implications of bubbles on scaling CO ₂ fluxes
9:00-9:30	Klaus	<i>Listening to air-water gas exchange in running waters</i>
9:30-10:00	Lorke	<i>Spatial and temporal scales of flow and morphological diversity in gravel bed streams</i>
10:00-10:30	Coffee Break	
10:30-11:15	Eugster (Keynote)	Direct gas flux measurements from surface waters
11:15-11:45	Verlet-Banide	<i>High-frequency water- and air-side methane measurements</i>
11:45-12:15	Winkler	<i>Semi-Continuous measurements of dissolved greenhouse gases with Cavity Ring-Down Spectrometers</i>
12:15-12:45	Provenzale	<i>High frequency productivity estimates for a lake from free-water CO₂ concentration measurements</i>
12:45-14:15	LUNCH (1.5 hrs)	
14:15-14:45	Tedford	<i>Methane bubbles in Base Mine Lake ice</i>
14:45-15:15	Liu	<i>The control of surface sediment gas accumulation on spatial distribution of ebullition in Lake Kinneret</i>
15:15-15:45	Coffee Break	
15:45-16:15	Langenegger	<i>What the CH₄ bubble knows: CH₄ fluxes revealed by sediment bubble gas composition</i>
16:15-16:45	Boehrer	<i>Oxygen ebullition from lakes</i>
16:45-17:30	break	
17:30-18:30	Walking City Tour	
18:30-19:00	break	
19:00-24:00	Conference Dinner @ Palais Benseval	

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THUR, 23 Aug	Speaker	Small to large-scale mixing: the role of internal waves and convection
8:15-9:00	Mashayek (Keynote)	<i>Turbulence induced by overturning breaking waves: from small scale mixing to large scale overturning circulation</i>
9:00-9:30	Rodrigues	<i>Stratification and mixing in the surface mixed layer of the Baltic Sea during a storm</i>
9:30-10:00	McInerney	<i>Seasonality of internal wave action in a large alpine lake</i>
10:00-10:30	Davies	<i>Experiments on shoaling Mode-2 internal solitary-like waves</i>
10:30-11:00	Coffee Break	
11:00-11:30	Ulloa	<i>Mechanical energy budget and mixing efficiency in an ice-covered and radiatively-forced freshwater basin</i>
11:30-12:00	Kirillin	<i>Extraordinary mixing conditions in ice-covered lakes of Tibetan Plateau</i>
12:00-12:30	Stepanenko	<i>Numerical simulation of stratification and ice regime of saline lakes</i>
12:30-14:00	LUNCH (1.5 hrs)	
14:00-14:30	Volkov	<i>Radiatively driven under-ice convection: the impact of lake depth</i>
14:30-15:00	Wang	<i>Modeling seasonal and interannual variability of Great Lakes ice cover using FVCOM+ice model</i>
15:00-15:30	break	
15:30 - 18:30	Boat Cruise	

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FRI, 24 Aug	Speaker	Interactions between hydrodynamics and biology
8:15-9:00	Stocker (Keynote)	Plankton in Flow
9:00-9:30	Sepulveda-Steiner	<i>Day and night bio-convection in Lake Cadagno</i>
9:30-10:00	Suarez (presented by Ibelings)	<i>Diurnal variation in the convection-driven vertical distribution of phytoplankton under ice and after ice-off in the large Lake Onego (Russia)</i>
10:00-10:30	Sherman	<i>Phytoplankton response to hydrodynamically determined light and nutrient availability in a stratified reservoir</i>
10:30-11:00	Coffee Break	
11:00-11:30	Soler	<i>Effect of full and patched vegetated canopies on turbidity currents: hydrodynamics and sediment</i>
11:30-12:00	Rabe	<i>An applied physical oceanography study of Scottish coastal and fjordic waters with regard to sea lice dispersal between aquaculture farms</i>

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Presenter	Poster Session - 21 August 2018 - 17h - 20h
Ayala Zamora	<i>Simulation of the Effects of Climate Change on Lake Erken Thermal Structure. Simulation Methods and Initial Results</i>
Bärenbold	<i>On site analysis of gas concentrations in Lake Kivu, Central Africa</i>
Bogdanov (presented by Volkov)	<i>Turbulence parameters estimations via inter-beams ADCP correlations</i>
Cimoli	<i>Diapycnal leakage in the Atlantic Meridional Overturning Circulation</i>
Deepwell	<i>Multi-scale processes of rotation modified mode-2 internal waves</i>
Deering	<i>Stability of a tropical crater lake as a sentinel for climate change</i>
DelSontro	<i>GLEON MetOx Project - Methane in Oxidic Surface Waters</i>
Diakonov	<i>Impact of the Global Climate Shift of 1976 -1978 on the Caspian Sea Thermohaline Circulation</i>
Doda	<i>Buoyancy-driven cross-shore flows in lakes induced by night-time cooling: field observations</i>
Gros	<i>Simulating Panarea's offshore CO₂ seeps as a natural proxy for potential leakage from sub-seabed CO₂ storage</i>
Jansen	<i>Interactions between physical and biogeochemical controls on lake carbon gas emissions in spring</i>
Mesman	<i>A Review on the Consequences of changing Stratification Regimes with Climate Change on the Physics, Chemistry and Biology of Deep Lakes</i>
Moore	<i>Assessing the optimal input data frequency for the GOTM Lake Physical Model</i>
Moras	<i>Evaluation of historical patterns of thermal structure of Lake Erken using hydrodynamic model</i>
Olsthoorn	<i>Double-diffusion with a non-linear equation of state</i>
Ordóñez	<i>Multi-lake Swiss survey: hydrodynamic response to climate forcing</i>
Irani Rahaghi	<i>Effect of meso-scale surface water temperature heterogeneity on surface cooling estimates of a large lake: Airborne remote sensing results from Lake Geneva</i>
Reiß	<i>Differential cooling and near-shore density currents in a large lake (Lake Geneva)</i>
Rostovtseva (presented by Goncharenko)	<i>Optical characteristics of Aral Sea waters obtained by above water measurements with passive optical complex EMMA</i>
Serra (presented by Colomer)	<i>Local hydrodynamics in fragmented seagrass canopies</i>
Simoncelli	<i>Effect of temperature on zooplankton vertical migration</i>
Soulignac	<i>Spatio-temporal evolution of floc size distribution by following river induced suspended sediment plumes in a large and deep lake (Lake Geneva, France/Switzerland)</i>

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Spank	<i>Micrometeorological and hydro-chemical measurements of mass and energy exchange between atmosphere and water surfaces using a floating platform</i>
Tiessen	<i>Lake Kivu: Development of a 3D model to study stratification, methane entrapment and deep currents in a volcanic lake in the Great Rift Valley</i>
Ulloa	<i>Temporal variability in thermally-driven cross-shore exchange: The role of the M2 tide</i>
Yang	<i>Stable isotopes in water indicate sources of nutrients that drive algal blooms in the tributary bay of a subtropical reservoir</i>
Zhang	<i>Simulation of Lake Surface Temperature and Ice Cover with 1-D model</i>
Zimmermann	<i>Methane emissions during lake overturn: a tug-of-war between physical mixing and methanotrophs</i>