

Workshop Program

2nd Workshop on Parameterization of Lakes in Numerical Weather Prediction and Climate Modelling

SMHI, Norrköping, September 15-17 2010

Wednesday September 15 Session: Lake Atmosphere Coupling Chaired by	
09:00-09:15	Welcome
09:15-09:40	Impact of lakes in the ECMWF Integrated Forecasting System: Preliminary results and roadmap to an operational implementation <i>Invited speaker</i> Gianpaolo Balsamo (ECMWF, UK)
09:40-10:05	Interactive Lakes in the Canadian Regional Climate Model, version 5: the Role of Lakes in the Regional Climate of North America Andrey Martynov (Centre ESCER, Canada)
10:05-10:30	Interfacing Flake with the Met Office Unified Model Gabriel Rooney (UK Met Office)
10:30-11:00	Coffee
11:00-11:25	Developing a new lake model in CCSM: Model Development, Sensitivity, and Effects on Regional and Global Climate Zachary Subin (Lawrence Berkeley National Lab, USA)
11:25-11:50	Can the Baltic Sea be modelled as a fresh or salt water lake? Frederik Schenk (GKSS Research Center Geesthacht, Germany)
11:50-12:15	Modelling the Thau lagoon in southern France, with FLake model: first results <i>Invited speaker</i> Patrick Le Moigne (Météo-France)
12:15-12:40	Long-term energy flux measurements over a small boreal lake Annika Nordbo (University of Helsinki, Finland)
12:40-13:40	Lunch
13:40-14:10	Discussion on Lake Atmosphere Coupling <i>Discussion leader</i>

Session: External Parameters and Data for Initialisation, Assimilation and Evaluation Chaired by	
14:10-14:50	Global Lake Database for the parameterization of lakes in NWP and Climate Modelling <i>Invited speaker</i> Ekatherina Kourzeneva (RSHU, Russia)
14:50-15:15	External Parameters for FLAKE in the numerical weather prediction models COSMO and ICON <i>Invited speaker</i> Hermann Asensio (Deutscher Wetterdienst, Germany)
15:15-15:40	Lake parameters climatology for cold start runs (lake initialization) in the ECMWF forecast system Rui Salgado (Universidade de Évora, Portugal)
15:40-16:10	Coffee
16:10-16:35	Effects of LST initialisation in long-term simulations with COSMO-CLM performed with and without Flake Burkhardt Rockel (GKSS Forschungszentrum Geesthacht, Germany)
16:35-17:00	Observational data: Use and misuse <i>Invited speaker</i> Arkady Terzhevik (Northern Water Problems Institute, Russia)
17:00-17:40	Exploitation of EO-Based Technology for Improving the Characterization of Lake and River Ice Dynamics in Weather Forecasting, Climate and Hydrologic Models – ESA's STSE "North Hydrology" Project Claude R. Duguay (IC ³ , University of Waterloo, Canada)
17:40-18:00	Initial discussion on External Parameters and Data for Initialisation, Assimilation and Evaluation <i>Discussion leader</i>
Thursday September 16 Session: LakeMIP and Lake Physical Processes Chaired by	
09:00-09:30	Comments and discussion on yesterday's subjects
09:30-10:10	The Lake Model Intercomparison Project (LakeMIP): present state and perspectives Andrey Martynov (Centre ESCER, Canada)
10:10-10:35	LakeMIP: the effects of mixing parameterizations and interaction with bottom sediments in a shallow lake Victor Stepanenko (Moscow State University, Russia)
10:35-11:00	Coffee

11:00-11:25	On the sensitivity of the lake thermal profiles to the vertical resolution in numerical models: investigation with SIMSTRAT and FIZC for deep Lake Geneva, Switzerland Stéphane Goyette (C3i, University of Geneva, Switzerland)
11:25-11:50	Treatment of the density stratification in the FLake model Georgiy Kirillin (Leibniz-Institute of Freshwater Ecology, Germany)
11:50-12:15	Parameterisation of lake and sea ice in the NWP models of the German Weather Service <i>Invited speaker</i> Dmitrii Mironov (Deutscher Wetterdienst, Germany)
12:15-12:40	Lakes in wintertime HIRLAM Laura Rontu (FMI, Finland)
12:40-13:50	Lunch
13:50-14:15	Thermodynamic modelling of snow and ice for in-land water bodies Bin Cheng (FMI, Finland)
14:15-14:40	Simulation of surface water temperature and ice phenology from 1-D lake models: A comparison with in situ and satellite observations, Great Slave Lake, Canada Homa Kheyrollahpour (IC ³ , University of Waterloo, Canada)
14:40-15:05	A thermodynamic model of Finish lake ice Yu Yang (Department of Physics, University of Helsinki, Finland)
15:05-16:00	Discussion on LakeMIP and Lake Physical Processes <i>Discussion leader</i>
17:00	Bus leaves for excursion and Workshop dinner

Friday June 17 Session: Processes in fresh-water bodies beyond lake physics Chaired by	
09:00-09:25	Response of shallow lakes ecosystems to climate variations: Hind- and forecast <i>Invited speaker</i> Sergei Golosov (Institute of Limnology, Russian Academy of Science)
09:25-09:50	Study of the water quality using satellite data Miguel Potes (Evora Geophysics Centre, Portugal)
09:50-10:15	The model for methane emissions from lakes in the permafrost zone Victor Stepanenko (Moscow State University, Russia)
10:15-10:45	Coffee
10:45-11:15	Discussion on Processes in fresh-water bodies beyond lake physics <i>Discussion leader</i>
11:15-12:30	Closing up discussion
12:30	Lunch