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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 Dmitrii Mironov
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** *Invited speaker* Gianpaolo Balsamo (ECMWF, UK) This presentation is broadcasted by internet with Elluminate
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** *Invited speaker* 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**

	Session: External Parameters and Data for Initialisation, Assimilation and Evaluation Chaired by Kalle Eerola
14:10-14:50	**Global Lake Database for the parameterization of lakes in NWP and Climate Modelling** *Invited speaker* Ekatherina Kourzeneva (RSHU, Russia) This presentation is broadcasted by internet with Elluminate
14:50-15:15	**External Parameters for FLAKE in the numerical weather prediction models COSMO and ICON** *Invited speaker* 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	**Solar radiation and albedo regime in ice-covered lakes: Probable use and misuse of observational data in numerical modeling** *Invited speaker* 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) This presentation is broadcasted by internet with Elluminate
17:40-18:00	**Initial discussion on External Parameters and Data for Initialisation, Assimilation and Evaluation**

	Thursday September 16 Session: LakeMIP and Lake Physical Processes Chaired by Ekatherina Kourzeneva and Patrick Samuelsson
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** *Invited speaker* Dmitrii Mironov (Deutscher Wetterdienst, Germany) This presentation is broadcasted by internet with Elluminate
12:15-12:40	**Lakes in wintertime HIRLAM** Laura Rontu (FMI, Finland)
12:40-13:40	**Lunch**
13:40-14:05	**Thermodynamic modelling of snow and ice for in-land water bodies** Bin Cheng (FMI, Finland)
14:05-14:30	**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)
14:30-14:55	**A thermodynamic model of Finish lake ice** Yu Yang (Department of Physics, University of Helsinki, Finland)
14:55-15:15	**Coffee**
15:15-16:00	**Discussion on LakeMIP and Lake Physical Processes**
17:00	**Bus leaves for excursion and Workshop dinner**

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	Friday September 17 Session: Processes in fresh-water bodies beyond lake physics Chaired by Arkady Terzhevik
09:00-09:25	**Response of shallow lakes ecosystems to climate variations: Hind- and forecast** *Invited speaker* 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) Arkady Terzhevik
10:15-10:45	**Coffee**
10:45-11:00	**Derive lake characteristics and initial fields for FLAKE for American continent from climatology data** Yihua Wu (NOAA/NCEP/EMC, USA)
11:00-11:20	**Discussion on Processes in fresh-water bodies beyond lake physics**
11:20-12:30	**Closing up discussion**
12:30	**Lunch**