



3<sup>rd</sup> International Lund Regional-Scale Climate Modelling Workshop  
**21<sup>st</sup> Century Challenges in Regional Climate Modelling**  
Lund, Sweden, 16-19 June 2014

## Programme and Participant List





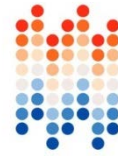
## Workshop Organizers and Sponsors



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## Associated Organisations



**Baltic Earth**  
Earth System Science for the Baltic Sea Region



### Scientific Workshop Committee

- Babatunde Abiodun (South Africa)
- Raymond Arritt (U.S.A.)
- Lars Bärring (Sweden)
- Michel Déqué (France)
- Jason Evans (Australia)
- Jens Hesselbjerg Christensen (Denmark)
- Elizabeth Kendon (U.K.)
- Rupa Kumar Kolli (Switzerland)
- René Laprise (Canada)
- Ruby Leung (U.S.A)
- Markku Rummukainen (Sweden)
- Burkhardt Rockel (Germany)
- Silvina Solman (Argentina)
- Izuru Takayabu (Japan)
- Shuyu Wang (China)

### Organizing Committee

- Markku Rummukainen (Sweden)
- Lars Bärring (Sweden)
- Marcus Reckermann (Germany)
- Burkhardt Rockel (Germany)
- Jens Hesselbjerg Christensen (Denmark)

**3<sup>rd</sup> Lund Regional-scale Climate Modelling Workshop  
21<sup>st</sup> Century Challenges in Regional Climate Modelling Lund, Sweden, 16 - 19 June 2014  
Programme Overview**

Sunday	Monday	Tuesday	Wednesday	Thursday
	Registration 8:30 - 9:50	Begin: 9:00	Begin: individually	Begin: 9:00
	Opening Ceremony and Welcome Addresses	Topic 2	Breakout Meetings	Topic 4
	Topic 1	Break		Break
	Lunch	Topic 2	Open Discussion	Topic 4
	Topic 1 Poster Presentations	Open Discussion		Open Discussion
	Lunch	Lunch	Lunch	Final Workshop Discussion
	Topic 1 Poster Presentations	Topic 2 Poster Presentations	Topic 3 Poster Presentations	Closing 13:00
	Topic 1	Topic 3	Topic 3	
	Break	Break	Break	
	Topic 1	Topic 3	Topic 3	
	Open Discussion	Topic 3	Open Discussion	
	Topic 1 Poster Presentations	Topic 3 Poster Presentation	Topic 4	Afternoon: Excursion
	End: 18:30	End: 19:00	End: 19:00	
Registration 16:00 to 18:00	Ice Breaker 19:00	Workshop Dinner 19:30	Guided City Walk 19:00	

Sessions

Topic 1: Regional Climate and Earth System Models

Topic 2: Very-high-resolution RCMs

Topic 3: Challenges for RCM evaluation and application

Topic 4: RCM Ensembles



**3<sup>rd</sup> Lund Regional-scale  
Climate Modelling Workshop**

**21<sup>st</sup> Century Challenges  
in Regional Climate Modelling**

**Lund, Sweden, 16 - 19 June 2014**

**Workshop Programme**

**SUNDAY, 15 June 2014**

**16:00-18:00** Registration at the Conference Venue

**MONDAY, 16 June 2014**

**08:30-09:50** Registration at the Conference Venue

**10:00** **Opening Ceremony**  
*Chair: Burkhardt Rockel*

***Welcome Addresses***

- **Prof. Per Eriksson**  
Vice Chancellor of Lund University
- **Prof. Markku Rummukainen**  
Coordinator of the Strategic Research Area MERGE

## Topic 1: Regional Climate and Earth System Models

*Chair: Raymond Arritt*

- 10:30**      **Keynote 1.1**  
**Regional Climate and Earth System Models – Added Value Revisited**  
Jens Hesselbjerg Christensen
- 11:00**      **Modeling Arctic Climate with a Regional Arctic System Model (RASM)**  
John Cassano, DuVivier, A., Hughes, M., Roberts, A., Brunke, M., Craig, A., Fisel, B., Gutowski, W., Maslowski, W., Nijssen, B., Osinski, R., Zeng, X.
- 11:15**      **Arctic climate variability and change in the regional models RCA and RCAO**  
Torben Koenigk, Berg, P., Döscher, R.
- 11:30**      **Coupled regional climate and hydrology modelling at the catchment scale**  
Morten Andreas Dahl Larsen, Drews, M., Refsgaard, J.C., Jensen, K.H., Butts, M.B., Christensen, J.H., Christensen, O.B.
- 11:45**      **Impacts of different coupling methods on regional atmosphere - ocean simulations**  
Ha Ho Hagemann, Rockel, B., Kapitza, H., Behrens, J.
- 12:00**      **Lunch**
- 13:00**      **Topic 1 Poster presentations (authors attending) 30 min**  
  
*Chair: Shuyu Wang*
- 13:30**      **Keynote 1.2**  
**Land-cover dynamics and feedbacks in RCMs: State-of-the-art, outlook, and lessons learned**  
Benjamin Smith
- 14:00**      **Improvement of simulated monsoon precipitation over South-Asia with a regionally coupled model ROM**  
Pankaj Kumar, Sein, D., Cabos, W., Jacob, D.
- 14:15**      **Contribution of anthropogenic aerosols to the Euro-Mediterranean climate trends since 1980 using a regional coupled modelling approach**  
Pierre Nabat, Somot, S., Mallet, M., Sanchez-Lorenzo, A., Wild, M.



- 14:30**      **Impacts of aerosols in the CORDEX-Europe domain using the regional aerosol-climate model REMO-HAM**  
 Armelle Reca C, Remedio, Teichmann, C., Pietikäinen, J.-P., Sudarchikova, N., Jacob, D., Brasseur, G.
- 14:45**      **On the importance of inclusion of air-sea interactions in the simulation of austral summer precipitation over southern Africa using a regional model**  
 Venkata Ratnam Jayanthi, Morioka, Y., Behera, S.K., Yamagata, T.
- 15:00**      **Break**
- Chair: Markku Rummukainen*
- 15:30**      **Keynote 1.3**  
**Challenges in regional climate system modeling for the Baltic Sea and North Sea regions**  
 H.E. Markus Meier and members of the Baltic Earth Working Group on Regional Climate System Modelling
- 16:00**      **Comparison of air-sea momentum parameterizations in atmosphere-wave coupled system: storm cases study**  
 Lichuan Wu, Rutgersson, A., Sproson, D., Sahlée, E.
- 16:15**      **Med-CORDEX: a first coordinated inter-comparison of fully-coupled regional climate system models (RCSM) for the Mediterranean**  
 Samuel Somot, Ruti, P., Med-CORDEX Group
- 16:30**      **Development and evaluation of a new regional coupled atmosphere-ocean model in the North Sea and the Baltic Sea**  
 Shiyu Wang, Dieterich, C., Döscher, R., Höglund, A., Hordoir, R., Meier, H.E.M., Samuelsson, P., Schimanke, S.
- 16:45**      **Future climate change RCP4.5 and RCP8.5 scenarios downscaling for the Northern Europe with the focus on the North and Baltic Seas**  
 Dmitry Sein, Cabos, W., Jacob, D.
- 17:00**      **Open Discussion on Topic 1**  
*Chair: Jens Hesselbjerg Christensen; Rapporteur: Burkhardt Rockel*
- 17:30**      **Topic 1 Poster presentations (authors attending) 60 min**
- 19:00**      **Ice Breaker**

## TUESDAY, 17 June 2014

### Topic 2: Very-high-resolution RCMs

*Chair: Izuru Takayabu*

- 09:00**      **Keynote 2.1:**  
**A Review of Very High Resolution Climate Modeling**  
L. Ruby Leung
- 09:30**      **Amplified climate change signal due to urban expansion at local scales from a regional climate model**  
Daniel Argüeso, Evans, J.P., Fita, L., Pitman, A.J., Di Luca, A.
- 09:45**      **Ensuring a robust regional model experimental design for future projection of extreme weather during the North American monsoon in the Southwest U.S.**  
Christopher L. Castro, Chang, H.-I., Luong, T., Jares, M., Lahmers, T., Carrillo, C.
- 10:00**      **Keynote 2.2:**  
**Very high resolution regional climate modeling – Benefits and future prospects**  
Elizabeth J. Kendon
- 10:30**      **Break**
- Chair: Elizabeth J. Kendon*
- 11:00**      **Feasibility Study of Very High Resolution Regional Climate Modelling Through Grid Telescoping Applied to the Canadian Regional Climate Model (CRCM5)**  
MéLissa Cholette, Laprise, R.
- 11:15**      **Climate change signal of convective precipitation through convection permitting climate model simulations**  
Giorgia Fosser, Khodayar, S., Berg, P.
- 11:30**      **Keynote 2.3:**  
**Usage of high-resolution dynamical downscaling around East and South-East Asia**  
Izuru Takayabu

**12:00**      **Application of High-resolution RCM to Climate Change Projection and Urban Climatology Research**  
Nobuyuki Kayaba, Harada, M., Yamada, T., Murai, H., Hagiya, S., Oikawa, Y.

**12:15**      **Convection permitting climate simulations (CPCS) – Lessons learned at the Wegener Center**  
Heimo Truhetz, Prein, A., Gobiet, A.

**12:30**      **Open Discussion on Topic 2**  
*Chair: Ruby Leung; Rapporteur: Faye Cruz*

**13:00**      **Lunch**

**14:00**      **Topic 2 Poster presentations (authors attending) 60 min**

### **Topic 3: Challenges for RCM evaluation and application**

*Chair: Michel Déqué*

**15:00**      **Keynote 3.1**  
Bruce Hewitson

**15:30**      **Creating a model consistent reference data set for bias correction applications**  
Peter Berg, Bosshard, T., Yang, W.

**15:45**      **Quantifying uncertainty in observed rainfall datasets across Africa: A probabilistic history**  
Chris Lennard, Dosio, A., Nikulin, G.

**16:00**      **Evaluating temperature distributions in a high-resolution RCM at 6 km horizontal resolution over Europe**  
Erik Kjellström, Lind, P., Lindstedt, D., Landelius, T.

**16:15**      **Break**

*Chair: René Laprise*

**16:45**      **Keynote 3.2**  
**Strategies and measures for determining the skill of dynamical downscaling**  
Hans von Storch

- 17:15**      **Is it possible to separate model calibration and evaluation? A multi-physics study with modern radiation and soil datasets**  
Markel Garcia-Diez, Fernandez, J., Vautard, R.
- 17:30**      **Spatially explicit climate model evaluation with complex networks**  
Stefan Lange, Feldhoff, J.H., Donges, J.F., Volkholz, J., Kurths, J.
- 17:45**      **A framework to study the potential benefits of using high-resolution regional climate model simulations**  
Alejandro Di Luca, De Elia, R., Laprise, R.
- 18:00**      **Topics 3 Poster presentations (authors attending) 60 min**
- 19:30**      **Workshop Dinner**

**WEDNESDAY, 18 June 2014**

**08:00 – 12:00 Breakout Meetings**

**12:00**      **Lunch**

**Topic 3: Challenges for RCM evaluation and application *continued***

**13:00**      **Topic 3 Poster presentations (authors attending) 30 min**

*Chair: Lai-Yund Leung*

**13:30**      **Keynote 3.3**  
**Challenges for RCM evaluation and application when moving to high resolutions**  
Hayley J Fowler, Elizabeth J. Kendon, Stephen Blenkinsop, Steven C. Chan, Nigel Roberts, Christopher A. T. Ferro

**14:00**      **Some sources of bias in the Eurocordex historical runs**  
Michel Déqué, Alias, A., Dubois, C., Somot, S.

**14:15**      **Large Scale Meteorological Patterns Associated with Temperature Extremes in the North American Regional Climate Change Assessment Program Hindcast Experiment**  
Paul C. Loikith, Waliser, D.E., Kim, J., Lee, H., Neelin, J.D., McGinnis, S., Lintner, B., Mattmann, C., Mearns, L.O.

**14:30**      **Systematic temperature and precipitation biases in the CLARIS-LPB ensemble simulations over South America and possible implications for climate change projections**  
Silvina Solman

*Chair: Babatunde Abiodun*

**14:45**      **Keynote 3.4**  
**Climate information for decision making – The challenge of responding to user needs**  
Diane Chaumont, Isabelle Charron, David Huard

**15:15**      **Evaluating teleconnection responses of the CORDEX models: A case study over Eastern Africa**  
Hussen Seid, Lennard, C., Hewitson, B.

**15:30**      **Break**

**16:00**      **Simulation Strategies for Optimal Detection of Regional Climate Model Response to Parameter Modifications**  
Leo Separovich, De Elia, R., Laprise, R.

**16:15**      **Studies of scale interaction in a two-way nesting climate model**  
Laurent Li, Li, S., Le Treut, H.

**16:30**      **Open Discussion on Topic 3**  
*Chair: René Laprise; Rapporteur: Alejandro di Luca*

#### **Topic 4: RCM Ensembles**

*Chair: Lars Barring*

**17:00**      **Keynote 4.1**  
**Seasonal-to-decadal prediction and opportunities for downscaling**  
Noel Keenlyside

**17:30**      **Seasonal forecasting: Opportunities and challenges for use of regional climate models**  
Raymond Arritt W., Castro, C.L.

- 17:45**      **Energy cycle associated with Inter-member Variability in a large ensemble of simulations of the Canadian RCM (CRCM5)**  
Oumarou Nikiéma, Laprise, R.
- 18:00**      **Topic 4 Poster presentations (authors attending) 60 min**
- 19:00**      **Guided City Walk**

## THURSDAY 19 June 2014

### Topic 4: RCM Ensembles *continued*

*Chair: Jason Evans*

- 09:00**      **Keynote 4.2**  
**Use of RCM ensembles to produce regional climate projections: Key issues and the CORDEX perspective**  
Filippo Giorgi
- 09:30**      **Precipitation in the EURO-CORDEX 0.11 ° and 0.44 simulations: High resolution, High benefits?**  
Andreas Prein, Gobiet, A., Truhetz, H., Keuler, K., Gørgen, K., Teichmann, C., Fox Maule, C., Van Meijgaard, E., Déqué, M., Grigory, N., Vautard, R., Kjellström, E., Colette, A.
- 09:45**      **Europe in a 6 Degrees Warmer Climate**  
Ole Bøssing Christensen, Yang, S., Boberg, F., Fox Maule, C., Olesen, M., Drews, M., Sørup, H.J.D., Christensen, J.H.

*Chair: Silvina Solman*

- 10:00**      **Keynote 4.3**  
**The design and interpretation of RCM ensembles: Lessons from GCM simulations in the Coupled Model Intercomparison Project**  
Jouni Räisänen and Jussi. S. Ylhäisi
- 10:30**      **Strategic sub-selection of CMIP5 GCMs for dynamical downscaling**  
Carol McSweeney, Jones, R.
- 10:45**      **Including model performance and independence in ensemble design**  
Jason Evans, Argüeso, D., Di Luca, A., Ison, R., Fita, L

**11:00**

**Break**

**11:30**

**Keynote 4.4**

**How to establish the value of multiple GCM-RCM simulation programs**

Linda O. Mearns, Francina Dominguez, Gregg Garfin, William Gutowski, Dorit Hammerling, Dennis Lettenmaier, Ruby Leung, Sarah Michaels, Sara Pryor, Stephan Sain

**12:00**

**Open Discussion on Topic 4**

*Chair: Jason Evans; Rapporteur: Marie Ekström*

**12:30**

**Final Workshop Discussion**

*Chair: Markku Rummukainen; Rapporteur: NN*

**13:00**

**Closing**

**Afternoon:**

**Excursions**





## Posters

### Topic 1: Regional Climate and Earth System Models

Poster T1-01

**Role of atmosphere-ocean coupling in the simulation of a polar low: a case study with the COAWST modeling system**

Muralidhar Adakudlu, Sobolowski, S.

Poster T1-02

**Medicanes in an ocean-atmosphere coupled regional climate model**

Naveed Akhtar, Brauch, J., Dobler, A., Béranger, K., Ahrens, B.

Poster T1-03

**Forcing a hydrological discharge model with RCM and GCM outputs in the Euphrates-Tigris Basin: Evaluation of the model performance and projected river discharges**

Deniz Bozkurt, Sen, O. L., Hagemann, S.

Poster T1-04

**Coupling of COSMO/CLM and NEMO in two regions**

Jennifer Brauch, Früh, B., Pham, T.V., Akhtar, N., Ahrens, B.

Poster T1-05

**Regional climate and streamflow projections in North America under IPCC CMIP5 scenarios**

Hsin-I Chang, Castro, C., Troch, P., Mukherjee, R.

Poster T1-06

**Surface Heat Budget over the North Sea in Climate Change Simulations**

Christian Dieterich, Wang, S., Schimanke, S., Gröger, M., Klein, B., Hordoir, R., Samuelsson, P., Liu, Y., Höglund, A., Meier, H.E.M.

Poster T1-07

**A new regional climate system model setup for the EuroCORDEX domain**

Alberto Elizalde, Mathis, M., Mikolajewicz, U.

Poster T1-08

**Towards a LMD regional Earth simulator with WRF**

Lluís Fita, Arsouze, T., Stéfanon, M., Berthou, S., Bastin, S., Polcher, J., Mailler, S., Drobinski, P., Hourdin, F., Fairhead, L.

Poster T1-09

**The study and modeling of rainfall spatial and temporal changes in East Azarbaijan, Iran**

Hojjatollah Fouladi Osgouei, Zarghami, M.

Poster T1-10

**Added value of interactive air-sea coupling assessed from hindcast simulations for the North and Baltic seas**

Matthias Gröger, Dieterich, C., Schimanke, S., Meier, H.E.M.

Poster T1-11

**Assessing environmental changes and risks using a regional coupled ocean – atmosphere – sediment model**

Alexandra Gronholz, Paul, A., Schulz, M.

Poster T1-12

**The impact of two land-surface schemes on the characteristics of summer precipitation over East Asia from the RegCM4 simulations**

Suchul Kang, Im, E.-S., Ahn, J.-B.

Poster T1-13

**Sea Salt Generation Function in the Baltic Sea region as the important component to regional atmospheric model**

Piotr Markuszewski, Petelski, T., Piskozub, J., Jakacki, J.

Poster T1-14 (will be presented in T4 session)

**Regional Arctic Climate System Model (RASM): An overview and selected results on sea ice sensitivity to variable parameter space**

Wieslaw Maslowski, Osinski, R., Roberts, A., Kinney, J.-C., Cassano, J.

Poster T1-15

**Sea state projections for the North Sea: Impact of climate change on very high waves?**

Jens Möller, Groll, N., Heinrich, H.

Poster T1-16

**The potential impacts of forestation in mitigating climate change over Southern Africa**

Myra Naik, Abiodun, B.J.

Poster T1-17

**Simulation of snowbands on the Baltic Sea with coupled model COSMO-CLM/NEMO**

Trang Van Pham, Brauch, J., Früh, B., Ahrens, B.

Poster T1-18

**Analysis of nucleation events in the European boundary layer using the regional aerosol-climate model REMO-HAM**

Joni-Pekka Pietikäinen, Mikkonen, S., Hamed, A., Hienola, A.I., Birmili, W., Kulmala, M., Laaksonen, A.

Poster T1-19

**Air-Sea Interactions in a Coupled Atmosphere-Ocean Model for the Baltic Sea**

Thomas Raub, Lehmann, A., Jacob, D.

Poster T1-20

**Simulated canopy vegetation effects on snow conditions for a forest site using the Multi-Energy Balance option in SURFEX**

Patrick Samuelsson, Boone, A., Gollvik, S.

Poster T1-21

**The sensitivity of major Baltic inflows simulated with the RCM NEMO-Nordic**

Semjon Schimanke, Dieterich, C., Gröger, M., Meier, H.E.M.

Poster T1-22

**Regionally coupled modelling of the Tropical Atlantic**

Dmitry Sein, Cabos, W., Jacob, D.

Poster T1-23

**Recent development in regional earth system modelling**

Jun She, Tian, T., Madsen, K.C., Poulsen, J.W., Berg, P., Jonasson, L.

Poster T1-24

**Soil moisture interaction with surface climate for different vegetation types in the La Plata Basin**

Anna Sörensson, Berbery, H.

Poster T1-25

**Coupled atmosphere – wave simulations of high-impact weather systems in the North-Atlantic and Baltic Region**

David Sproson, Sahlée, E., Wu, L., Rutgersson, A.

Poster T1-26

**Testing coupling techniques for a regional climate model : What are the advantages?**

Marc Stéfanon, Polcher, J.

Poster T1-27

**Ocean feedback mechanism in a coupled atmosphere-ocean model system for the North Sea**

Jian Su, Moseley, C., Elizalde, A., Sein, D., Mayer, B., Pohlmann, T.

Poster T1-28

**An impact of historical land-cover conversion on regional climate change during winter in Hokkaido Island, Japan**

Shiori Sugimoto, Sato, T., Sasaki, T.

Poster T1-30

**Simulation of the surface mass balance of the ice caps in Arctic Canada and Patagonia with the Regional Atmospheric Climate Model RACMO2**

Willem Jan Van de Berg, Lenaerts, J., Van Meijgaard, E., Van den Broeke, M.

Poster T1-31

**Potential mechanism of vegetation-induced reduction in tropical rainfall in Africa: analysis based on regional Earth system model simulations**

Minchao Wu, Smith, B., Schurgers, G., Siltberg, J., Rummukainen, M., Samuelsson, P. Jansson, C.

Poster T1-32

**Severity of climate change dictates the direction of biophysical feedbacks of vegetation change to Arctic climate - results from the coupled regional climate-vegetation model CMIP5 simulations**

Wenxin Zhang, Jansson, C., Miller, P. A., Smith, B., Samuelsson, P.

Poster T1-33

**Dynamical downscaling with RIEMS over East Asia**

Deming Zhao, Fu, C., Yan, X.

## **Topic 2: Very-high-resolution RCMs**

Poster T2-01

**Using High Resolution climate Modelling to Study the Effect of Climate Change on Lylan Valley Ground Water Characteristic in Kirkuk City in Iraq**

Sameer S. Al-Juboori, Omer, F.M.

Poster T2-02

**Cloud-resolving regional climate modeling approach in decade-long simulations**

Nikolina Ban, Schmidli, J., Schär, C.

Poster T2-03

**Downscaling of precipitation for the Himalayas using WRF model**

Bhuwan Chandra Bhatt

Poster T2-04

**Precipitation intensity and return level change projections by a convective-permitting regional climate model**

Steven C. Chan, Kendon, E.J., Fowler, H.J., Roberts, N.M., Blenkinsop, S.

Poster T2-05

**Land surface feedbacks on spring precipitation in the Netherlands**

Emma Daniels, Lenderink, G., Hutjes, R.W.A., Ronda, R. Holtslag, A.A.M.

Poster T2-06

**High-resolution sensitivity studies over Crete with the non-hydrostatic regional climate model REMO-NH**

Bastian Eggert, Marien, L., Jacob, D.

Poster T2-07

**Pursuing high resolution downscaling for hydrological applications in the Victorian Climate Initiative (VicCI)**

Marie Ekström

Poster T2-08

**Impact of using the surface scheme SURFEX within ALARO-0 for the ERA-Interim high-resolution dynamical downscaling over Belgium**

Oliver Giot, De Troch, R., Hamdi, R., Deckmyn, A., Termonia, P.

Poster T2-09

**Implementation and initial results from convection-resolving Pan-European TerrSysMP and WRF simulations**

Klaus Goergen, Keune, J., Gasper, F., Shrestha, P., Sulis, M., Knist, S., Ohlwein, C., Kollet, S., Simmer, C., Vereecken, H.

Poster T2-10

**Simulating historical wind storms in Switzerland with WRF: identification of the optimal setup and its performance in high-resolution simulations**

Juan Jose Gomez-Navarro, Messmer, M., Raible, C.

Poster T2-11

**Impact of the horizontal resolution on extremes investigated with convection-resolving COSMO-CLM simulations**

Oliver Gutjahr, Heinemann, G., Schefczyk, L.

Poster T2-12

**Precipitation in complex orography simulated by the regional climate model RCA3**

Ivan Güttler, Stepanov, I., Nikulin, G., Jones, C., Branković, Č.

Poster T2-13

**Air quality and climate interaction within urban environment**

Tomas Halenka, Huszar, P., Belda, M., Zemankova, K.

Poster T2-14

**Assessment of three dynamical urban climate downscaling methods: application for Brussels and Paris**

Rafiq Hamdi

Poster T2-15

**Implementation of the tidal forces into the models of the selected Svalbard fjords**

Jaromir Jakacki, Przyborska, A., Kosecki, S.

Poster T2-16

**Climate change projections for the North Sea from three coupled high-resolution models**

Birgit Klein, Bülow, K., Dieterich, C., Heinrich, H. Hüttl-Kabus, S., Mayer, B., Meier, H.E.M., Mikolajewicz, U., Narayan, N., Pohlmann, T., Rosenhagen, G., Sein, D., Su, J.

Poster T2-17

**Urban Climate Projection in Tokyo for the 2050's August: Impact of Urban Planning Scenarios and RCMs**

Hiroyuki Kusaka, Suzuki-Parker, A., Aoyagi, T., Adachi, S.A., Yamagata, Y.

Poster T2-18

**Response of hourly precipitation extremes to temperature and moisture perturbations: results from a mesoscale model**

Geert Lenderink, Attema, J., Loriaux, J., Van Meijgaard, E.

Poster T2-19

**Simulating extreme precipitation in the island of Crete with non-hydrostatic high-resolution RCMs**

Petter Lind, Lindstedt, D., Jones, C., Kjellström, E.

Poster T2-20

**A new regional climate model operating at the meso-gamma scale performance over Europe**

David Lindstedt, Lind, P., Jones, C., Kjellström, E.

Poster T2-21

**Convection permitting regional climate simulations of precipitation over a southwestern region of Japan**

Akihiko Murata, Sasaki, H., Hanafusa, M., Nosaka, M.

Poster T2-22

**Evaluation of the coupling between NWP and LES-based CFD models for simulating urban boundary layer flows**

Hiromasa Nakayama, Takemi, T., Nagai, H.

Poster T2-23

**The GAME project: challenges in modeling circulation of Svalbard fjords**

Jacek Piskozub, Jakacki, J., Kosecki, S., Przyborska, A.

Poster T2-24

**Simulation of salty bottom water penetration in a Deep**

Nadezda Podrezova, Tsarev, V.

Poster T2-25

**Projection of Future Climate Change around Japan in a Non-hydrostatic Regional Climate Model**

Hidetaka Sasaki, Murata, A., Oh'izumi, M., Kurihara, K.

Poster T2-26

**Reproducibility of Regional difference of Altitudinal Dependence of Snow Depth using 1.5km High Resolution Experiments**

Fumichika Uno, Kawase, H., Ishizaki, N.N., Yoshikane, T., Hara, M., Kimura, F., Iyobe, T., Kawashima, K.

Poster T2-27

**Investigations of urban climate characteristics with SURFEX/TEB model: preliminary results for Budapest city**

Gabriella Zsebeházi, Krüzselyi, I., Szépszó, G.

### **Topic 3: Challenges for RCM evaluation and application**

Poster T3-01

**Objective type comparison and classification of precipitations variability over Ethiopia based on CORDEX simulations and GPCP datasets**

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Michal Belda, Halenka, T., Kalvova, J., Holtanova, E.

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Dario Conte, Lionello, P.

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**Challenges of tracking extratropical cyclones in regional climate models**

Hélène Côté, Grise, K.M., Son, S.-W., De Elia, R., Frigon, A.

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Koji Dairaku, Yamagata, Y., Hirano, J., Seya, H., Tsunematsu, N., Nakamichi, K.

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Koji Dairaku, Iizuka, S., Tsunematsu, N., Hirano, J., Sasaki, W., Pielke Sr., R.A.



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Alejandro Di Luca, Evans, J.P., Argüeso, D.

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**Evaluation of fifth-generation Canadian Regional Climate Model (CRCM5) simulations using Stage IV precipitation analyzes over the eastern United States**

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Anette Ganske, Rosenhagen, G., Heinrich, H.

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**Estimation of future temperature and sea ice extremes of the Baltic Sea**

Jari Haapala, An, B.W., Juva, K.

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Jina Hur, Ahn, J.-B., Shim, K.-M.

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Denise Keller, Fischer, A.M., Frei, C., Liniger, M.A., Appenzeller, C., Knutti, R.

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Erik Kjellström, Nikulin, G., Samuelsson, P., Kupiainen, M., Hansson, U., Jones, C.

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Noelia López-Franca, Sánchez, E., Domínguez, M., Losada, T., Romera, R.

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Philippe Lucas-Picher, Laprise, R., Winger, K.

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Stephanie Mayer, Fox Maule, C., Sobolowski, S., Christensen, O.B., Sørup, H.J.D., Pinya, M.A.S., Arnbjerg-Nielsen, K., Barstad, I.

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Arlindo Meque, Abiodun, B.J.

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Wilfran Moufouma-Okia, Jones, R.

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Gemma T. Narisma, Discar, A.

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Grigory Nikulin, Kjellström, E., Jones, C., Samuelsson, P., Kupiainen, M., Hansson, U., CORDEX Africa Team

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Tugba Ozturk, Türkes, M., Kurnaz, M.L.

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Dominique Paquin, De Elia, R., Frigon, A.

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Mirta Patarčić, Cindrić, K., Branković, Č.

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Grace Redmond, Hein, D., Hodges, H.

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Martin Haubjerg Rosgaard, Hahmann, A.N., Nielsen, T.S., Giebel, G., Sørensen, P.E., Madsen, H.

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Katrin Sedlmeier, Mieruch, S., Schädler, G.

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Sridhara Nayak, Dairaku, K.

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Nicole P.M. van Lipzig, Akkermans, T., Thiery, W., Moonen, P., Verbist, B., Muys, B.

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Ziqian Wang, Duan, A., Wu, G.

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Joanna Wibig, Jędruszkiewicz, J., Piotrowski, P.

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Zhixiang Xiao, Duan, A.

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**Dry spells: RCMs performance to simulate present climate and projections for future climate in South America**

Pablo Zaninelli, Carril, A.F., Menéndez, C.G., Sánchez, E.

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Xuezhen Zhang, Hu, Y.

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**WRF sensitivity to physics parameterizations over the MENA-CORDEX domain**

George Zittis, Hadjinicolaou, P., Lelieveld, J.

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**Parameter tuning and calibration of RegCM3 with MIT-Emanuel cumulus parameterization scheme over CORDEX East Asian domain**

Liwei Zou, Qian, Y., Zhou, T., Yang, B.

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Ivonne Anders, Rockel, B.

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### **Use of a multiple GCM and mixed physics ensemble of regional climate simulations to evaluate trends in extreme precipitation**

Raymond W. Arritt, Groisman, P.Y., Daniel, A.R.

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### **Seasonal Ensemble Simulations in East Africa**

Shakeel Asharaf, Cheneka, R.B., Brienens, S., Fröhlich, B., Nikulin, G., Früh, B., and the EUPORIAS East Africa Team

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### **Availability of CORDEX output through the ESGF network**

Ole Bøssing Christensen

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### **Quantifying uncertainty in regional climate model projections over Western Canadian watersheds**

Charles L. Curry, Weaver A.J., Caya, D., Giguère, M., Wiebe, W.

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### **Global Warming Impacts on Great Lakes Basin Precipitation Extremes**

Marc d'Orgeville, Peltier, W.R., Erler, A.R.

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### **On Reliability of Regional Decadal Ensemble Prediction for Europe**

Fatemeh Davary Adalatpanah, Früh, B., Lenz, C.-J., Becker, P.

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### **Future snowfall in western and central Europe projected with a high-resolution regional climate model ensemble**

Hylke De Vries, Lenderink, G., Van Meijgaard, E.

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### **Weather Extremes in Regional Climate Ensembles**

James Done, Pai Mazumder, D.

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### **Selection of a best subset of GCM-RCMs from an ensemble for impact studies**

Cathrine Fox Maule, Christensen, O.B., Thejll, P.

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Miguel Ángel Gaertner, Domínguez, M., Romera, R., Gil, V., Sánchez, E., Gallardo, C., EURO-CORDEX and Med-CORDEX teams

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**Assessing the sensitivity in the ensemble building from RCMs for hydrological applications**

Sandra Galiano Garcia, Giménez, O., Giraldo Osorio, J.D.

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**COSMO-CLM and RCA4 Multimodel ensemble Projections for the West African Monsoon**

Emiola O. Gbobaniyi, Anders, I.

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**Exploring a three-stage dynamical downscaling with empirical correction of sea-surface temperature using CRCM5 over the CORDEX-Africa domain**

Leticia Hernández-Díaz, Laprise, R., Nikiéma, O., Winger, K.

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**Evaluation of the Performance of Regional Climate Models from CORDEX-East Asia**

Bo Huang, Polanski, S., Cubasch, U.

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**The Euro-CORDEX initiative: A new generation of regional climate scenarios for Europe**

Daniela Jacob, Gobiet, A., Teichmann, C., Truhetz, H.

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**The elevation dependency of 21st century European climate change in a multi-RCM ensemble**

Sven Kotlarski, Lüthi, D., Schär, C.

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**The European summer climate in a surrogate experiment**

Nico Kröner, Kotlarski, S., Fischer, E., Lüthi, D., Schär, C.

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**Investigating structural dependencies between AOGCM models and their impact on regional-scale climate-change projections**

Martin Leduc, Laprise, R., De Elia, R.

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**Bayesian model averaging to combine surface temperatures simulated in the North America Regional Climate Change Assessment Program**

Huikyo Lee, Braverman, A., Mattmann, C., Waliser, D., Loikith, P., Kim, J.



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**Regional climate modeling of Arctic temperature extremes and their variability**

Heidrun Matthes, Rinke, A., Königk, T., Scinocca, J., Dethloff, K.

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**Selecting climate simulations for impact studies based on multivariate patterns of climate change**

Thomas Mendlik, Gobiet, A.

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**South America regional temperature and precipitation projections for the end of XXIst century from CLARIS-LPB ensemble of RCMs**

Enrique Sánchez, Samuelsson, P., Da Rocha, R., Li, L., Marengo, J., Remedio, A., Berbery, H.

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**Using a Circulation Type Classification to Investigate the Internal Variability in Regional Climate Model Simulations over Europe**

Kevin Sieck, Jacob, D.

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**Improvement of Climate Projections and Reduction of their Uncertainties Using a Sequential Learning Algorithm**

Ehud Strobach, Bel G

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**An overview of the SOUSEI multi GCM/RCM dynamical downscaling ensemble**

Asuka Suzuki-Parker, Takayabu, I., Mizuta, R., Kusaka, H., Dairaku, S., Adachi, S.A., Ishizaki, N.N.

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Tamaki Y, Inatsu M, Nakano N, Kuno R

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Genta Ueno, Iba, Y., Dairaku, K., Takayabu, I.

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**Regional modeling approaches to study the recent shift in East African long rains**

Nicolas Vigaud, Robertson, A., Lyon, B.

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**A stochastic regional scale climate change projection experiment using incremental dynamical downscaling and analysis system**

Yasutaka Wakazuki, Hara, M., Kimura, F.

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**Reducing model ensemble size for climate change impact application – a case study**

Renate A.I. Wilcke, Barring, L., Mendlik, T.

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**Climate change scenarios over complex topography: assessing the added value of dynamical downscaling**

Elias Zubler, Fröb, F., Fischer, A.M., Liniger, M.A., Appenzeller, C.

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