### Poster Discussions

### Monday, 4 May 2009, 15:20 –16:50

### Session 1: Dynamical Downscaling

Poster S1-081

A comparison of RCM performance for the eastern Baltic region and the application of the histogram equalisation method for RCM outputs

Uldis Bethers, Juris Sennikovs and Andrejs Timuhins

Poster S1-157

Improvement of long-term integrations by increasing RCM domain size

Sin Chan Chou, André Lyra, José Pesquero, Lincoln Alves, Gustavo Sueiro, Diego Chagas, José Marengo and Vladimir Djurdjevic

Poster S1-060

Sensitivity study of CRCM-simulated climate change projections

Ramón De Elía and Hélène Côté

Poster S1-152

Regional precipitation anomalies in the eastern Amazon as depicted by observations and REGCM3 simulations

Everaldo B. De Souza, Marcio N. G. Lopes and Alan C. Cunha

Poster S1-058

Assessment of precipitation as simulated by an RCM and its driving data

Alejandro Di Luca, Ramón de Elía and René Laprise

Poster S1-019

The Asian summer monsoon in ERA40 driven CLM simulations

Andreas Dobler and Bodo Ahrens

Poster S1-030

Sensitivity of CRCM basin annual runoff to driving data update frequency

Anne Frigon and Michel Slivitzky

Poster S1-125

Climate change projections for the XXI century over the Iberian peninsula using dynamic downscaling

Juan José Gómez-Navarro, J.P. Montávez, S. Jerez and P. Jiménez-Guerrero

Poster S1-143

Regional climate change scenarios – benefits of modelling in high resolution for Central and eastern Europe in the project CECILIA

Tomas Halenka, Michal Belda and Jiri Miksovsky

Poster S1-040

Climatological feature and heating mechanism of the Foehn phenomena over the north of the central mountain range in Japan by using non-hydrostatic RCM

Noriko Ishizaki and Izuru Takayabu

Poster S1-004

Study of climate change over the Caspian Sea basin using the climate model PRECIS at 2071-2100

Maryam Karimian, Iman Babaeien and Rahele Modirian

Poster S1-057

Performance of pattern scaling in estimating local changes for untried GCM-RCM pairs: Implications for ensemble design

Elizabeth Kendon

Poster S1-139

Evaluation of the analyzed large-scale features in a global data assimilation system due to different convective parameterisation schemes and their impact on downscaled climatology using a RCM

Jung-Eun Kim and Song-You Hong

Poster S1-036

Sensitivity studies with a statistical downscaling method, the role of the driving large scale model

Frank Kreienkamp, Arne Spekat and Wolfgang Enke

Poster S1-102

MPI regional climate model REMO simulations over South Asia

Pankaj Kumar, Ralf Podzun and Daniela Jacob

Poster S1-141

Evaluation of dynamical downscaling of the East Asian regional climate using the HadGEM3-RA: Summer monsoon of 1997 and 1998

Johan Lee, Suhee Park, Wilfran Moufouma-Okia, David Hassell, Richard Jones, Hyun-Suk Kang, Young-Hwa Byun and Won-Tae Kwon

Poster S1-166

Interpolating temperature fields using static and dynamic lapse rates

Chris Lennard

Poster S1-077

Regional modelling of climate and extremes in southeast China

Laurent Li, Weilin Chen and Zhihong Jiang

Poster S1-147

Investigation of regional climate models' internal variability with a ten-member ensemble of ten-year simulations over a large domain

Philippe Lucas-Picher, Daniel Caya, Ramón de Elía, Sébastien Biner and René Laprise

Poster S1-061

### Selected examples of the added value of regional climate models

H. E. Markus Meier, Lars Bärring, Ole Bössing Christensen, Erik Kjellström, Philip Lorenz, Burkhardt Rockel and Eduardo Zorita

Poster S1-039

Climate change in Europe simulated by the regional climate model COSMO-CLM Kai S. Radtke and Klaus Keuler

Poster S1-120

### Simulation of South Asian summer monsoon dynamics using REMO

Fahad Saeed, Stefan Hagemann and Daniela Jacob

Poster S1-045

# Analysis of precipitation changes in central Europe within the next decades based on simulations with a high resolution RCM ensemble

Gerd Schädler, Hendrik Feldmann and Hans-Jürgen Panitz

Poster S1-091

### Sensitivity studies of model setup in the alpine region using MM5 and RegCM

Irene Schicker, Imran Nadeem and Herbert Formayer

Poster S1-132

### Parameter perturbation study with the GEM-LAM: The issue of domain size

Leo Separovic, Ramon de Elia and René Laprise

Poster S1-047

#### Modelling climate over Russian regions: RCM validation and projections

Igor Shkolnik, S. Efimov, T. Pavlova and E. Nadyozhina

Poster S1-128

# Is the position of the model domain over the target area related to the results of a regional climate model?

Kevin Sieck, Philip Lorenz and Daniela Jacob

Poster S1-165

### Estimating the Mediterranean Sea water budget: Impact of the design of the RCM

Samuel Somot, Nellie Elguindi, Emilia Sanchez-Gomez, Marine Herrmann and Michel Déqué

Poster S1-053

### Comparison of climate change over Europe based on global and regional model

Lidija Srnec, Mirta Patarčić and Čedo Branković

Poster S1-068

#### A general approach for smoothing on a variable grid

Dorina Surcel and René Laprise

Poster S1-044

# What details can the regional climate models add to the global projections in the Carpathian Basin?

Gabriella Szépszó, Gabriella Csima and András Horányi

Poster S1-069

# Investigation of precipitation over contiguous China using the Weather Research and Forecasting (WRF) model

Jian Tang and Jianping Tang

Poster S1-104

## Extremes and predictability in the European pre-industrial climate of a regional climate model

Lorenzo Tomassini, Ch. Moseley, A. Haumann, R. Podzun, and D. Jacob

Poster S1-111

# Does dynamical downscaling with regional atmospheric models add value to surface marine wind speed from re-analyses?

Jörg Winterfeldt and Ralf Weisse

Poster S1-100

# Present climate simulations (1982-2003) of precipitation and surface temperature using the RegCM3, RSM and WRF

Yoo-Bin Yhang, Kyo-Sun Lim, E-Hyung Park and Song-You Hong

### Wednesday, 6 May 2009, 15:30 –16:50

### Session 2: New Developments in Numerics and Physical Parameterisations

Poster S2-063

# Examining the relative roles of precipitation and cloud material feedback generated by convective parameterisation

Christopher J. Anderson

Poster S2-136

# Dynamical coupling of the HIRHAM regional climate model and the MIKE SHE hydrological model

Martin Drews, Søren H. Rasmussen, Jens Hesselbjerg Christensen, Michael B. Butts, Jesper Overgaard, Sara Maria Lerer and Jens Christian Refsgaard

Poster S2-130

### Stratospheric variability and its impact on surface climate

Andreas Marc Fischer, Isla Simpson, Stefan Brönnimann, Eugene Rozanov and Martin Schraner

Poster S2-001

Study of the capability of the RegCM3 in the simulation of precipitation and temperature over the Khorasan Razavi province, case study: Winters of 1991-2000 Maryam Karimian, Iman Babeiean and Rahele Modirian

Poster S2-002

# Simulation of precipitation and temperature over the Khorasan province using Reg CM3, case study: Autumns 1991-2000

Rahele Modirian, Iman Babaeian and Maryam Karimian

Poster S2-107

### Diffusion impact on atmospheric moisture transport

Christopher Moseley, J. Haerter, H. Göttel, G. Zängl, S. Hagemann and D. Jacob

Poster S2-009

# Climate simulations over North America with the Canadian Regional Climate Model (CRCM): From operational Version 4 to developmental Version 5

Dominique Paquin, René Laprise, Katja Winger, Ramon de Elia, Ayrton Zadra and Bernard Dugas

Poster S2-029

# Soil organic layer: Implications for Arctic present-day climate and future climate changes

Annette Rinke, Peter Kuhry and Klaus Dethloff

Poster S2-156

# Sensitivity of a regional climate model to physics parameterisations: Simulation of summer precipitation over East Asia using MM5

Shi Song and Jian-ping Tang

Poster S2-020

# **Evaluation of the Rossby Centre Regional Climate model (RCA) using satellite cloud and radiation products**

Ulrika Willen

Poster S2-028

#### Simulating aerosols in the regional climate model CCLM

Elias Zubler, Ulrike Lohmann, Daniel Lüthi, Andreas Mühlbauer and Christoph Schär

#### Session 3: From Weather to Climate

Poster S3-181

# Moisture availability and the relationship between daily precipitation intensity and surface temperature

Peter Berg, Jan Haerter, Peter Thejll, Claudio Piani, Stefan Hagemann and Jens Hesselbjerg Christensen

Poster S3-180

### Temperature and precipitation scenarios for the Caribbean from the PRECIS regional climate model

Jayaka Campbell, M. A. Taylor, T. S. Stephenson, F. S. Whyte and R. Watson

Poster S3-094

## Use of the Weather Research and Forecasting Model (WRF): Towards improving warm season climate forecasts in North America

Christopher L. Castro and Francina Dominguez

Poster S3-119

### Modelling of the Atlantic tropical cyclone activity with the RegCM3

Daniela Cruz-Pastrana, Ernesto Caetano and Rosmeri Porfírio da Rocha

Poster S3-129

# Regional modelling of recent changes in the climate of Svalbard and the Nordic Arctic (1979-2001): Comparing RCM output to meteorological station data

Jonathan Day, Jonathan Bamber, Paul Valdes and Jack Kohler

Poster S3-072

### Effects of variations in climate parameters on evapotranspiration in the arid and semiarid regions

Saeid Eslamian, Mohammad Javad Khordadi, Arezou Baba Ahmadi and Jahangir Abedi Koupai

Poster S3-127

## Regional climate change projections using a physics ensemble over the Iberian Peninsula

Pedro Jiménez Guerrero, S. Jerez, J.P. Montavez, J.J. Gomez-Navarro, J.A. García-Valero and J.F. Gonzalez-Rouco

Poster S3-092

Detailed assessment of climate variability of the Baltic Sea for the period 1950/70-2008 Andreas Lehmann, Klaus Getzlaff, Jan Harlass and Karl Bumke

Poster S3-048

## Diurnal variation of precipitation over central eastern China simulated by a regional climate model (CREM)

Jian Li, Rucong Yu, Tianjun Zhou, Wei Huang and Hongbo Shi

Poster S3-085

### $\label{lem:eq:cm3} Evaluation of seasonal forecasts over the northeast of Brazil using the RegCM3$

Rubinei Dorneles Machado and Rosmeri Porfirio da Rocha

Poster S3-012

### An evaluation of surface radiation budget over North America in a suite of regional climate models

Marko Markovic, C.G. Jones, P. Vaillancourt, K. Winger and D. Paquin

Poster S3-003

# Climate change assessment over Iran during future decades by using the MAGICC-SCENGEN model

Majid Habibi Nokhandan, Fatemeh Abassi, Azade Goli Mokhtari and Iman Babaeian

### Session 4: Regional Observational Data and Reanalysis

Poster S4-173

# High-resolution simulation of a windstorm event to assess sampling characteristics of windstorm measures based on observations

Lars Bärring, Włodzimierz Pawlak, Krzysztof Fortuniak and Ulf Andrae

Poster S4-109

#### MesoClim – A mesoscale alpine climatology using VERA-reanalyses

Benedikt Bica, Stefan Sperka and Reinhold Steinacker

Poster S4-101

### Observed and modeled extremes indices in the CECILIA project

Ole B. Christensen, Fredrik Boberg, Martin Hirschi, Sonia Seneviratne, and Petr Stepanek

Poster S4-079

### Dynamical downscaling of surface wind circulations over complex terrain

Pedro A. Jiménez, J. Fidel González-Rouco, Juan P. Montávez, E. García-Bustamante and J. Navarro

Poster S4-098

### JP10: 59-year 10 km dynamical downscaling of re-analysis over Japan

Hideki Kanamaru, Kei Yoshimura, Wataru Ohfuchi, Kozo Ninomiya, and Masao Kanamitsu

Poster S4-113

# Reflection of shifts in upper-air wind regime in surface meteorological parameters in Estonia during recent decades

Sirje Keevallik and Tarmo Soomere

Poster S4-010

## Regional features of recent climate change in Europe: The aggregated index approach Valeriy Khokhlov and Lyndmila G. Latysh

Poster S4-055

### Analysis of surface air temperatures over Ireland from reanalysis Data and observational Data

Priscilla A. Mooney, Frank J. Mulligan and Rowan Fealy

Poster S4-170

# **Environment database and the Geographic Information System for socio-economic planning**

Olakunle Francis Omidiora and Balogun Ahmed

Poster S4-145

#### Climate change and water pollution interactions in the Republic of Belarus

Veranika Selitskaya and Alena Kamarouskaya

Poster S4-096

### Current-climate downscaling of winds and precipitation for the Eastern Mediterranean

Scott Swerdlin, Thomas Warner, Andrea Hahmann, Dorita Rostkier-Edelstein and Yubao Liu

### Thursday 7 May 2009, 15:40-17:00

### Session 5: Results from Large Projects

Poster S5-112

# Verification of simulated near surface wind speeds by a multi model ensemble with focus on coastal regions

Ivonne Anders, Hans von Storch and Burkhardt Rockel

Poster S5-083

### MRED: Multi-RCM ensemble downscaling of global seasonal forecasts

Raymond W. Arritt

Poster S5-150

## An atmosphere-ocean regional climate model for the Mediterranean area: Present climate and XXI scenario simulations

V. Artale, S. Calmanti, A. Carillo, A. Dell'Aquila, M. Herrmann, G. Pisacane, PM Ruti, G. Sannino, MV Struglia, F. Giorgi, X. Bi, J.S. Pal and S. Rauscher

Poster S5-164

# Regional climate modelling in Morocco within the project IMPETUS Westafrica Kai Born, H. Paeth, K. Piecha, and A. H. Fink

Poster S5-038

### Arctic regional coupled downscaling of recent and possible future climates

Ralf Döscher, T. Königk, K. Wyser, H. E. Markus Meier and P. Pemberton

Poster S5-046

### An atmosphere-ocean coupled model for the Mediterranean climate simulation

Alberto Elizalde, Daniela Jacob and Uwe Mikolajewicz

Poster S5-179

#### From droughts to floods: A statistical assessment from RCM

Sandra G. Garcia and J.D. Giraldo

Poster S5-144

#### On the validation of RCMs in terms of reproducing the annual cycle

Tomas Halenka, Petr Skalak and Michal Belda

Poster S5-097

## Projection of the changes in the future extremes over Japan using a cloud-resolving model (JMA-NHM): Change in heavy precipitation

Sachie Kanada, M. Nakano, M. Nakamura, S. Hayashi, T. Kato, H. Sasaki, T. Uchiyama, K. Aranami, Y. Honda, K. Kurihara and A. Kitoh

Poster S5-178

#### Predicting water resources in West Africa for 2050

Harouna Karambiri, S. Garcia, H. Adamou, L. Decroix, A. Mariko, S. Sambou and E. Vissin

Poster S5-041

### Evaluation of European snow cover as simulated by an ensemble of regional climate models

Sven Kotlarski, Daniel Lüthi and Christoph Schär

Poster S5-013

# $\label{lem:continuous} Projections of the eastern Mediterranean climate change simulated in a transient RCM experiment with RegCM3$

Simon Krichak, Pinhas Alpert and Pavel Kunin

Poster S5-151

## Atmospheric river induced heavy precipitation and flooding in the NARCCAP simulations

Lai-Yung Ruby Leung and Yun Qian

Poster S5-050

## Intra-seasonal evolution of the West African monsoon: Results from multiple RCM simulations

Neil MacKellar, Philippe Lucas-Picher, Jens H. Christensen and Ole B. Christensen

Poster S5-169

## Influence of soil moisture initialisation on regional climate model simulations of the West African monsoon

Wilfran Moufouma-Okia and Dave Rowell

Poster S5-067

# Projection of the changes in the future extremes over Japan using a cloud-resolving model (JMA-NHM): Model verification and first results

Masuo Nakano, S. Kanada, M. Nakamura, S. Hayashi, T. Kato, H. Sasaki, T. Uchiyama, K. Aranami, Y. Honda, K. Kurihara and A. Kitoh

Poster S5-163

## **ENSEMBLES** regional climate model simulations for Western Africa (the "AMMA" region)

Markku Rummukainen, Filippo Giorgi and the ENSEMBLES RT3 participants

Poster S5-052

# Assessing the performance of seasonal snow in the NARCCAP RCMs – An analyses for the upper Colorado river basin

Nadine Salzmann and Linda Mearns

Poster S5-082

# Applying the Rossby Centre Regional Climate Model (RCA3.5) over the ENSEMBLES-AMMA region: Sensitivity studies and future scenarios

Patrick Samuelsson, Ulrika Willén, Erik Kjellström and Colin Jones

Poster S5-084

# Interactions between European shelves and the Atlantic simulated with a coupled regional atmosphere-ocean-biogeochemistry model

Dmitry V. Sein, Joachim Segschneider, Uwe Mikolajewicz and Ernst Maier-Reimer

Poster S5-089

# ALADIN-Climate/CZ simulation of the 21<sup>st</sup> century climate in the Czech Republic for the A1B emission scenario

Petr Skalak, Petr Stepanek and Ales Farda

Poster S5-035

#### Simulation of Asian monsoon climate by RMIP Models

Shuyu Wang, Jinming Feng, Zhe Xiong and Congbing Fu

### Session 6: The Future of RCMs

Poster S6-142

### Use of regional climate models in regional attribution studies

Christopher J. Anderson, William J. Gutowski, Jr., Martin P., Hoerling and Xiaowei Quan

Poster S6-133

#### Wave estimations using winds from RCA, the Rossby regional climate model

Barry Broman and Ekaterini E. Kriezi

Poster S6-074

### A regionally coupled atmosphere-ocean and sea ice model of the Arctic

Ksenia Glushak, Dmitry Sein and Uwe Mikolajewicz

Poster S6-075

## Convection-resolving regional climate modelling and extreme event statistics for recent and future summer climate

Christoph Knote, Günther Heinemann and Burkhardt Rockel

Poster S6-149

## The impact of atmospheric thermodynamics on local climate change predictability: A plea for very high resolution climate modelling

Geert Lenderink and E. van Meijgaard

Poster S6-135

#### Chances of the global-regional two-way nesting approach

Philip Lorenz and Daniela Jacob

Poster S6-148

### Very high-resolution regional climate simulations over Greenland with the HIRHAM model

Philippe Lucas-Picher, Jens H. Christensen, Martin Stendel and Gudfinna Aðalgeirsdóttir

Poster S6-124

# Time invariant input parameter processing for applications in the COSMO-CLM Model Gerhard Smiatek, Goran Georgievski and Hermann Asensio

Poster S6-103

# Impact of convective parameterisation on high resolution precipitation climatology using WRF for Indian summer monsoon

Sourav Taraphdar, P. Mukhopadhyay, B. N. Goswami and K. Krishnakumar

Poster S6-117

# Development of a regional ocean-atmosphere coupled model and its performance in simulating the western North Pacific Summer monsoon

Liwei Zou, Tianjun Zhou and Rucong Yu

### Friday, 8 May 2009, 09:40-11:40

### Session 7: Impact Studies

Poster S7-018

Regional climate change impact studies in the upper Danube and upper Brahmaputra river basin using CLM projections

Bodo Ahrens and Andreas Dobler

Poster S7-070

River runoff projection of future climate in Latvia

Elga Apsīte, Anda Bakute and Līga Kurpniece

Poster S7-026

Application of regional-scale climate modelling to account for climate change in the hydrological design for dam safety in Sweden

Sten Bergström, Johan Andréasson and L. Phil Graham

Poster S7-108

Local air mass dependence of extreme temperature minima in the Gstettneralm Sinkhole with regard to global climate change

Benedikt Bica and Reinhold Steinacker

Poster S7-024

Impact of vegetation on the simulation of seasonal Monsoon rainfall over the Indian region using a regional model

Surya Kanti Dutta, Someshwar Das, S.C. Kar, V.S. Prasad and Prasanta Mali

Poster S7-016

Climate change impacts on the water quality: A case study of the Rosetta Branch in the Nile Delta, Egypt

Alaa El-Sadek

Poster S7-033

Direct radiative forcing of various aerosol species over East Asia with a coupled regional climate/chemistry model

Zhiwei Han

Poster S7-160

Forest damage in a changing climate

Anna Maria Jönsson and Lars Bärring

Poster S7-146

Climate change and air pollution interactions in the Republic of Belarus

Alena Kamarouskaya and Aliksandr Behanski

Poster S7-177

## Linking climate factors and adaptation strategies in the rural Sahel-Sudan zone of West Africa

Ole Mertz, Cheikh Mbow , Jonas Ø. Nielsen, Abdou Maiga, Alioune KA, Rissa Diallo, Pierre Cissé, Drissa Coulibaly, Bruno Barbier, Dapola DA, Tanga Pierre Zoungrana, Ibrahim Bouzou Moussa, Waziri Mato Maman, Boureima Amadou, Addo Mahaman, Alio Mahaman, Amadou Oumarou, Daniel Dabi, Vincent Ihemegbulem, Awa Diouf, Malick Zoromé, Ibrahim Ouattara, Mamadou Kabré, Anette Reenberg, Kjeld Rasmussen and Inge Sandholt

Poster S7-014

## Winter storms with high loss potential in a changing climate from a regional point of view

Monika Rauthe, Michael Kunz and Susanna Mohr

Poster S7-043

Numerical investigations into the impact of urbanisation on tropical mesoscale events Himesh Shivappa, P. Goswami and B.S. Goud

Poster S7-137

# Observation and simulation with RegCM3 for the 2005-2006 rainy season over the southeast of Brazil

Maria Elisa Siqueira Silva and Diogo Ladvocat Negrão Couto

Poster S7-176

### **Coupling climate and crop models**

Benjamin Sultan, A. Alhassane, P. Oettli, S. Traoré, C. Baron, B. Muller, M. Dingkuhn

Poster S7-140

# Streamflow in the upper Mississippi river basin as simulated by SWAT driven by 20C results of NARCCAP regional climate models

Eugene S. Takle, M. Jha, E. Lu, R.W. Arritt, W. J. Gutowski, Jr and the NARCCAP Team

Poster S7-115

## Impact of megacities on the regional air quality: A South American case study Claas Teichmann and Daniela Jacob

Poster S7-090

#### Validation of RCM simulations using a conceptual runoff model

Claudia Teutschbein and Jan Seibert

Poster S7-022

# Impacts of vegetation on the global water and energy budget as represented by the Community Atmosphere Model (CAM3)

Zhongfeng Xu and Congbin Fu