2nd GEWEX
Convection-Permitting
Climate Modeling Workshop

Housekeeping and Scope

Andreas F. Prein (prein@ucar.edu)

NCAR, Boulder, CO, Sept. 4-6, 2018
Connecting to Wi-Fi (Visitors and Guests)

Connect to the SSID

"UCAR Visitor"

An authentication dialog will prompt for your name and email address for 4-hour short-term access. Go to your email to set up 90-day access.

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Connecting to Wi-Fi (Staff and Emeritus)

See Garth or Tim with your personal device and we can set it up for 1 year of access via the "eduroam" SSID. This also enables your device to work at CU and some other educational and research institutions.
Hotel Shuttle

Direction from Best Western Plus Boulder Inn, 770 28th St, Boulder, CO 80303
to
NCAR Mesa Laboratory, 1850 Table Mesa Dr, Boulder, CO 80305

Tuesday, Sept. 4th, 2018

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>From</th>
<th>To</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tue. Sept. 4</td>
<td>12:00 pm</td>
<td>Best Western Plus</td>
<td>NCAR Mesa Lab</td>
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<td>Tue. Sept. 4</td>
<td>6:50 pm</td>
<td>NCAE Mesa Lab</td>
<td>Best Western Plus</td>
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<tr>
<td>Wed. Sept. 5</td>
<td>8:00 am</td>
<td>Best Western Plus</td>
<td>NCAR Mesa Lab</td>
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<td>Wed. Sept. 5</td>
<td>6:50 pm</td>
<td>NCAR Mesa Lab</td>
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</tr>
<tr>
<td>Thu. Sept. 6</td>
<td>8:00 am</td>
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<td>NCAR Mesa Lab</td>
</tr>
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<td>Thu. Sept. 6</td>
<td>5:15 pm</td>
<td>NCAR Mesa Lab</td>
<td>Best Western Plus</td>
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Oral and Poster Presentations

Oral Sessions

• Please upload your slides latest in the break before your session
• Keynote talks are 30 min. | regular talks are 20 min.
• You will get a 5 min. and a 2 min. signal
• Please allow time for questions

Poster Sessions

• Session 1
  Tues. 5:15-6:15 pm
• Session 2
  Wed. 5:00-6:00 pm

Please remove your poster after the poster session
Side Events

• Tuesday, 7 p.m.  
  Dinner at Under the Sun  
  627 South Broadway Street, Boulder, CO 80305 (cash or check only)

• Thursday, 6 p.m.  
  Dinner at Dushanbe teahouse  
  1770 13th St, Boulder, CO 80302

• Friday, 8:30 a.m. – 5:00 p.m.  
  Trip to Rocky Mountain National Park
GEWEX Convection-Permitting Modeling
2016 to 2018
Google Scholar search for convection permitting/resolving climate modeling
• 6–8 September 2016
• 70 scientists from 13 countries
Workshop website:  
https://ral.ucar.edu/events/2016/gewex-convection-permitting-climate-modeling-workshop

Video recordings and slides of most presentations and posters are archived

- We aim to make the slides, posters and recorded presentations available on the workshop website

- Please let us know if you do not want your presentation to be recorded or your slides to be shared
Special Issue

- 34 manuscripts have been submitted
- 13 articles are already published online (status July 2018)

<table>
<thead>
<tr>
<th>Author Family Name</th>
<th>Author Given Name</th>
<th>Article Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hughes</td>
<td>Mimi</td>
<td>Dynamical downscaling improves upon gridded precipitation products in the Sierra Nevada, California</td>
</tr>
<tr>
<td>Dai</td>
<td>Aiguo</td>
<td>A new mechanism for warm-season precipitation response to global warming based on convection-permitting simulations</td>
</tr>
<tr>
<td>Prein</td>
<td>Andreas</td>
<td>Simulating North American mesoscale convective systems with a convection-permitting climate model</td>
</tr>
<tr>
<td>Rasmussen</td>
<td>K.</td>
<td>Changes in the convective population and thermodynamic environments in convection-permitting regional climate simulations over the United States</td>
</tr>
<tr>
<td>Berthou</td>
<td>Ségolène</td>
<td>Pan-European climate at convection-permitting scale: a model intercomparison study</td>
</tr>
<tr>
<td>Knist</td>
<td>Sebastian</td>
<td>Evaluation and projected changes of precipitation statistics in convection-permitting WRF climate simulations over Central Europe</td>
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<tr>
<td>Matsui</td>
<td>Toshi</td>
<td>Impact of radiation frequency, precipitation radiative forcing, and radiation column aggregation on convection-permitting West African monsoon simulations</td>
</tr>
<tr>
<td>Panosetti</td>
<td>Davide</td>
<td>Convergence behavior of idealized convection-resolving simulations of summertime deep moist convection over land</td>
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<tr>
<td>Tan</td>
<td>Haochen</td>
<td>Role of topography on the MJO in the maritime continent: a numerical case study</td>
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<tr>
<td>Moyer</td>
<td>Elisabeth</td>
<td>Diagnosing added value of convection-permitting regional models using precipitation event identification and tracking</td>
</tr>
<tr>
<td>Kouadio</td>
<td>Kouakou</td>
<td>Does convection-permitting simulate better rainfall distribution and extreme over Guinean coast and surroundings?</td>
</tr>
<tr>
<td>Ban</td>
<td>Nikolina</td>
<td>Analysis of Alpine precipitation extremes using generalized extreme value theory in convection-resolving climate simulations</td>
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<tr>
<td>Zhou</td>
<td>Tianjun</td>
<td>The diurnal cycle of East Asian summer monsoon precipitation simulated by the Met Office Unified Model at convection-permitting scales</td>
</tr>
</tbody>
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The aim of the CPCM mailing list is to enable efficient communication within the CPCM community. Community relevant information such as conference session announcements, relevant job offers, or questions of general concern are shared here. Please do not use this mailing list for lengthy discussions or personal topics.
Sessions at international conferences

- AGU 2016, 2017, and 2018
- Dinners at AGU meetings
- 8th GEWEX Open Science Conference 2018
Challenges

1. The large demand of computational resources
2. Big model output data volume
   online evaluation, cloud-based platforms, analyzing data at central computational systems
3. Assessing uncertainties in CPM simulations
4. Missing high-resolution, high-quality observational datasets
5. The relevance of CPMs in areas beyond precipitation
6. The model physics such as turbulence, radiation, microphysics, and land surface processes are adopted from LSMs and have to be reassessed
60 submitted abstracts
  • 7 keynote presentations
  • 8 oral sessions
  • 2 poster sessions

2 breakout sessions

Student presentation award

Lots of breaks and side events