Global Storm-Resolving Modeling Mini Workshop

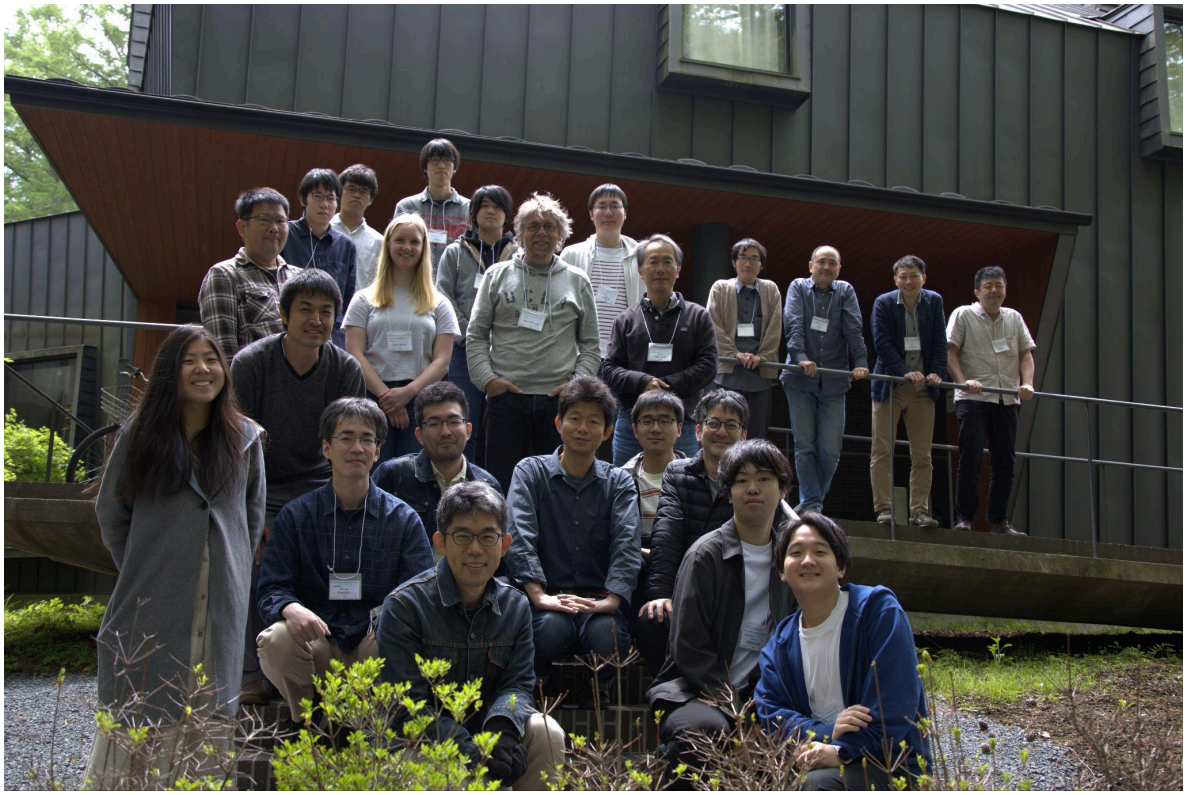
(Yamanaka ICCP-GSRA mini-workshop 2023:
https://dpo.aori.u-tokyo.ac.jp/dmmg/ICCP-GSRA/index.html)

11 (Thu)-12 (Fri) May 2023

The University of Tokyo, Yamanaka RYO, Naito Seminar House

http://www.abreuvoir.co.jp/yamanaka/

Link to markdown notepad: https://pad.gwdg.de/qPzK8EHJSRCENS2Zyy8b2g



11 May: 13:00-21:30 (Session 1: 13:30-17:30; Session 2: 19:00-21:30) 7.5h

12 May: 9:00-15:00 (Session 3: 9:00-12:00; Session 4: 13:00-15:00) 5h

Each talk 20m + Q&A 10m

Each participant to write down one or two sentences for the topic of the discussion in the session. These should be written before we meet.

Topics of discussion: Please enter any items

- Review of the present status of GSRMs and near future perspective of the development with HPC evolution [MS]
- Possible use of AI [MS]
- Alternative dynamical cores or what kind of development is required for DC [MS]
- Options of cloud microphysics schemes, minimum or variety from simple to complicates? [MS]
- How to tune the coupled models? [MS]
- How to initialize the coupled models [RM]
- Cloud feedback (net zero!?) [AN]
- Choice of PBL schemes [MS]
- How to represent shallow clouds? [MS]
- Common biases across GSRMs [MS]
- The Best way of data handling [SM]
- Minor-Looking Treatments in Global Storm-Resolving Models [SM]
- How to evaluate a global storm resolving modeling using observation data? [WR]
- The available observation data for the evaluations [WR]
- Energy balance [BS's talk]
- Double ITCZ [BS's talk]
- Refactoring [BS's talk]
- What is the ideal resolution for storm-resolving [HY's talk]
- What are useful ways of assimilation such as to quantifying model bias? [HY's talk]
- Propose a set of standard test cases for the development of the new DC, moist global LES. [YK's talk]
- How to use observation data to guide GSRMs to be correct [WR's talk]

Agenda

11 May: Status, Challenges and Opportunities

13:00 Masaki Satoh: Logistics & overview of Global Storm-Resolving Modeling Mini Workshop
13:30 Bjorn Stevens (MPI-M): ICON and EU activities
14:00 Hisashi Yashiro (NIES): Overall development of NICAM and Fugaku
14:30 Discussion

15:00 break

15:30 Tomoki Miyakawa (AORI) & Yohey Yamada (JAMSTEC): Outcomes of Fugaku, large ensemble
16:00 Daisuke Takasuka (AORI): Climate simulations
16:30 Ryusuke Masunaga (JAMSTEC): NICOCO
17:00 Discussion

18:00 dinner

19:30 Tatsuya Seiki (JAMSTEC): Cloud microphysics
20:00 Akira Noda (JAMSTEC): Climate sensitivity
20:30 Discussion

21:30 End of day 1

12 May: New developments

7:30 Breakfast
until 9:00 Checkout

09:00 Yuta Kawai (RIKEN): A new DG dynamical core, dynamical core accuracy
09:30 Shin-ichiro Shima (University of Hyogo) Recent progress of the super-droplet method (and a perspective to use SDM with ICON (by Clara Bayley))
10:00 Discussion

10:30 Break

11:00 Shuhei Matsugishi (AORI) : GLES
11:30 Woosub Roh (AORI): Observation and modeling collaboration

12:00 Lunch

13:30 Masuo Nakano (JAMSTEC): AI collaboration
14:00 Discussion
15:00 End of day 2

Rootmap

https://world.jorudan.co.jp/mln/en/?p=0&xpd=1&from=Busta+Shinjuku%7BHighway+Express+Bus%7D&to=Yamanakako+Asahigaoka%7BHighway+Express+Bus%7D&date=05%2F11%2F2023&time=12%3A37&ft=1&ic=0&us=0&up=0&ut=0&nzm=0&sub_lang=nosub&estf=Busta+Shinjuku%7BHighway+Express+Bus%7D&estt=Yamanakako+Asahigaoka%7BHighway+Express+Bus%7D

Transportation

https://bus.fujikyu.co.jp/highway/detail/id/1

Please take a bus arriving at Yamanakako Asahigaoka before 12:30 May 11, and departing after 15:30 May 12.

Suggested example

10:15 Busta Shinjuku{Highway Express Bus}

Ticket / 2,600 yen (For Yamanakako Asahigaoka{Highway Express Bus})

Highway Express Bus

Chuo Highway Bus Fujigoko Line No.1103(For Yamanakako Hirano)

12:37 Yamanakako Asahigaoka{Highway Express Bus}

Participants

松岸　修平 Shuhei Matsugishi (AORI)

清木達也 Tatsuya Seiki (JAMSTEC)

河合 佑太 Yuta Kawai (RIKEN)

八代尚 Hisashi Yashiro (NIES)

野田暁 Akita T. Noda (JAMSTEC)

高須賀 大輔 Daisuke Takasuka (AORI)

升永竜介 Ryusuke Masunaga (JAMSTEC)

中野満寿男 Masuo Nakano (JAMSTEC)

山田洋平 Yohei Yamada (JAMSTEC)

Woosub Roh (AORI)

島 伸一郎 Shin-ichiro Shima (Univ. of Hyogo)

佐藤正樹 Masaki Satoh (AORI)

宮川 知己 Tomoki Miyakawa (AORI)

Satoh labo

前田 優樹 Yuki Maeda (AORI)

村田博 Hiroshi Murata (AORI)

Miyakawa labo

中井舜乃祐 Shunnosuke Nakai (AORI)

近藤和貴 Kazuki Kondo (AORI)

山本　福田　光　ヴィヴィアン Yamamoto Fukuda Hikari Viviane (AORI)

齋藤成利 Shigenori Saito (AORI)

韮澤雄太朗 Yutaro NIRASAWA (AORI)

宮地洋輔 Yosuke Miyachi (AORI)

Bjorn Stevens (MPI-M)

Andrea Stevens

Clara Bayley (MPI-M)

Registration

https://docs.google.com/forms/d/e/1FAIpQLSdJlflIThnjmE2CPzKAnEdAdvTCjK3jKutF-0QpiJLs_MN7vg/viewform

Sponsors

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Project ICCP-GSRA:

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