June 16, 2022

Curriculum Vitae

Tomoro Yanase

Special Postdoctoral Researcher
Mathematical Climatology Laboratory, RIKEN Cluster for Pioneering Research
Computational Climate Science Research Team, RIKEN Center for Computational Science
Address: 7-1-26 Minatojima-minami-machi, Chuo-ku, Kobe, Hyogo 650-0047, Japan
TEL: +81-78-940-5555 FAX: +81-78-304-4956 E-mail: tomoro.yanase@riken.jp

Education

- April 2019–May 2022
  Division of Earth and Planetary Sciences,
  Graduate School of Science (Doctoral Course), Kyoto University
  Thesis title: Numerical study on the self-aggregation of moist convection in radiative-convective equilibrium
  Thesis advisor: Prof. Tetsuya Takemi
- April 2017–May 2019
  Division of Earth and Planetary Sciences,
  Graduate School of Science (Master's Course), Kyoto University
  Thesis title: Statistical Properties of Cumulus Ensembles in High-Resolution Radiative-Convective Equilibrium Simulations (in Japanese)
  Thesis advisor: Prof. Tetsuya Takemi
- April 2013–May 2017
  Faculty of Integrated Human Studies, Kyoto University
  Thesis title: The effect of buoyancy on the atmospheric turbulence near the surface: An experimental study of turbulent thermal convection (in Japanese)
  Thesis advisor: Prof. Satoshi Sakai

Career

- April 2022–present:
  Special Postdoctoral Researcher
  Mathematical Climatology Laboratory, RIKEN Cluster for Pioneering Research
- April 2019–May 2022:
  Junior Research Associate
  Computational Climate Science Research Team, RIKEN Center for Computational Science

Awards

5. Best Presentation Award, DPRI Annual Meeting 2022, Kyoto University

4. Matsuno Award, MSJ Autumn Meeting 2020, The Meteorological Society of Japan
3. Poster Prize in Mathematical Sciences, RIKEN Summer School 2019, RIKEN
2. Best Presentation Award, DPRI Annual Meeting 2019, Kyoto University
1. Master's Thesis Award, Graduate School of Science, Kyoto University

Fellowships

4. Special Postdoctoral Researchers Program, RIKEN (FY2022–present)
3. The fund of Graduate School of Science, Kyoto University (FY2021)
2. KU–DAAD Partnership Program (FY2020)
1. Junior Research Associate Program, RIKEN (FY2019–2021)

Professional Memberships

- American Geophysical Union
- Japan Geoscience Union
- Meteorological Society of Japan

Academic Activities

- Chair for Session "Tropical Atmosphere II" in MSJ Spring Meeting 2022
- Review activity for Journal of Geophysical Research (2)

Peer-reviewed papers

Yanase, T., Nishizawa, S., Miura, H., & Tomita, H. (2022b).
Characteristic form and distance in high-level hierarchical structure of self-aggregated clouds in radiative-convective equilibrium.
Geophysical Research Letters. (Under review) [Link]

Yanase, T., Nishizawa, S., Miura, H., Takemi, T., & Tomita, H. (2022a).
Low-level circulation and its coupling with free-tropospheric variability as a mechanism of spontaneous aggregation of moist convection.
Journal of the Atmospheric Sciences. (Under review)

2. **Yanase, T.**, Nishizawa, S., Miura, H., Takemi, T., & Tomita, H. (2020).
New critical length for the onset of self-aggregation of moist convection.
Geophysical Research Letters, **47**, e2020GL088763. doi:10.1029/2020GL088763. [Link]

1. **Yanase, T.**, & Takemi, T. (2018).
Diurnal variation of simulated cumulus convection in radiative-convective equilibrium.
SOLA, **14**, 116–120. doi:10.2151/sola.2018-020 [Link]

Presentations in International Conferences & Workshops

Megumi Okazaki, Satoru Oishi, Yasuhiro Awata, **Tomoro Yanase**, Tetsuya Takemi.

Bimodal Raindrop Size Distributions From Observational Analysis With a New Formula, AOGS 19th Annual Meeting, Virtual, Aug, 2022.

Tomoro Yanase, Seiya Nishizawa, Hiroaki Miura, Tetsuya Takemi, Hirofumi Tomita. A mechanism of convective self-aggregation: Coupling between low-level circulation and free-tropospheric variability, AOGS 19th Annual Meeting, Virtual, Aug, 2022.

11. **Tomoro Yanase**, Seiya Nishizawa, Hiroaki Miura, Tetsuya Takemi, Hirofumi Tomita. A mechanism of convective self-aggregation: Coupling between low-level circulation and free-tropospheric variability, JpGU Meeting 2022, Chiba, May, 2022.
10. **Tomoro Yanase**. On the resolution and domain size dependence of the onset of convective self-aggregation and the roles of low-level circulation and free-tropospheric variability, Workshop on the self-aggregation of clouds under the radiative-convective equilibrium, Virtual, Mar, 2022.
9. **Tomoro Yanase**, Seiya Nishizawa, Hiroaki Miura, Tetsuya Takemi, Hirofumi Tomita. New Critical Length for the Onset of Self-Aggregation of Moist Convection, The 4th R-CCS International Symposium, Virtual, Feb, 2022. (Poster)
8. **Tomoro Yanase**, Seiya Nishizawa, Hiroaki Miura, Tetsuya Takemi, Hirofumi Tomita. New Critical Length for the Onset of Self-Aggregation of Moist Convection, The Fifth Convection-Permitting Modeling Workshop 2021, Virtual, Sep, 2021. (Poster)
7. **Tomoro Yanase**, Seiya Nishizawa, Hiroaki Miura, Tetsuya Takemi, Hirofumi Tomita. New Critical Length for the Onset of Self-Aggregation of Moist Convection, AGU Fall Meeting 2020, Virtual, Dec, 2020.
6. Tamaki Suematsu, **Tomoro Yanase**, Hiroaki Miura, Masaki Satoh. A consecutive development of MJO events in the 2018-2019 winter season reproduced by a three-month SST-forced experiment with NICAM, AGU Fall Meeting 2020, Virtual, Dec, 2020.
5. **Tomoro Yanase**, Seiya Nishizawa, Hiroaki Miura, Tetsuya Takemi, Hirofumi Tomita. New Critical Length Scale for the Onset of Self-Aggregation of Moist Convection, JpGU - AGU Joint Meeting 2020, Virtual, Jul, 2020. (***Invited***)
4. Tamaki Suematsu, Chihiro Kodama, Hisashi Yashiro, **Tomoro Yanase**, Hiroaki Miura, Tomoki Miyakawa, Masaki Satoh. Dependence of the reproducibility of the MJO convection on differences in the surface flux conditions in NICAM, JpGU - AGU Joint Meeting 2020, Virtual, Jul, 2020.
3. **Tomoro Yanase**, Tetsuya Takemi. Statistical Properties of Cumulus Ensembles in High-Resolution Radiative-Convective Equilibrium Simulations, Wayne Schubert Symposium in AMS Annual Meeting 2020, Boston, Jan, 2020. (Poster)
2. **Tomoro Yanase**, Tetsuya Takemi. Statistical Properties of Cumulus Ensembles in High-Resolution Radiative-Convective Equilibrium Simulations, JpGU Meeting 2019, Chiba, May, 2019.

June 16, 2022

1. **Tomoro Yanase**, Tetsuya Takemi.
   Diurnal Variation of Simulated Cumulus Convection in Radiative-Convective Equilibrium, National Taiwan University–Kyoto University workshop on tropical meteorology and field-site visit and survey at Xitou, NTU Experiment Forest, Taipei, December 2018. (Poster)