

Curriculum Vitae

May 16, 2023

YODEN Shigeo

Personal Data:

Born in Hyogo Prefecture, Japan, in July 1954

Married, 1989, two children

Address:

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Kyoto University,

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Education:

March 1977 B.Sc., Kyoto University

March 1979 M.Sc., Kyoto University

March 1983 D.Sc., Kyoto University

Professional Experience:

July 1982 - July 1983 Research Fellow, Japan Society for the Promotion of Science (JSPS)

Aug. 1983 - Sep. 1987 Research Associate, Kyoto University

Oct. 1987 - Mar. 2002 Associate Professor, Kyoto University

Apr. 2002 – Mar. 2020 Professor of Meteorology, Kyoto University

Apr. 2020 – present Professor Emeritus of Kyoto University

Apr. 2020 – present Vice Director/Program-Specific Professor, Institute for Liberal Arts and Sciences (ILAS), Kyoto University

(in addition)

Oct. 1985 - Sep. 1987 JSPS Fellow for Research Abroad, University of Washington (J.R. Holton)

Oct. 1994 - July 1995 Fellow for Research Abroad of Ministry of Education, Japan, University of Washington (J.R. Holton)

Apr. 2007 - Mar. 2010 Senior Program Officer, Research Center for Science Systems, JSPS

Mar. 2010 - Mar. 2012 Director, Center for the Promotion of Interdisciplinary Education and Research (C-PIER), Kyoto University

Apr. 2011 - Mar. 2012 Chair, Department of Geophysics, Faculty of Science, Kyoto University

Apr. 2012 - Mar. 2013 Chair, Division of Earth and Planetary Sciences, Graduate School of

Science, Kyoto University

Apr. 2015 – Mar. 2017 Vice-Dean, Graduate School of Science, Kyoto University

Apr. 2018 - Mar. 2019 Chair, Department of Geophysics, Faculty of Science, Kyoto University

Honors and Awards:

May 1992 Award of Meteorological Society of Japan

“Study on the general circulation of the atmosphere with idealized nonlinear models”

July 2004 The 1st Asia Oceania Geosciences Society (AOGS) Public Lecture in Singapore

“Active Geosphere: A New Interdisciplinary Approach to Earth Science from Asia and Oceania”

Nov 2013 The JMSJ (Journal of the Meteorological Society of Japan) Award

Hiroki YAMAMOTO, Shigeo YODEN: “Theoretical Estimation of the Superrotation Strength in an Idealized Quasi-Axisymmetric Model of Planetary Atmospheres.” *J. Meteor. Soc. Japan*, Vol. 91, No. 2, 119-141 (2013). <http://dx.doi.org/10.2151/jmsj.2013-203>

May 2022 Fujiwhara Award (Meteorological Society of Japan)

“Research on the Stratosphere-Troposphere Coupled Variations, Promotion of International Research Collaborations, and Human Resource Developments”

August 2023 Asia Oceania Geosciences Society Wing Ip Medal Award

“Stratosphere-Troposphere Dynamical Coupling”

Professional Associations, Learned and Technical Societies:

Memberships and Offices:

Member, Meteorological Society of Japan, 1977 - present

Trustee, Meteorological Society of Japan, 2006 - 2020

Member, American Meteorological Society, 1979 - present

Member, Japan Society of Fluid Mechanics, 1979 - present

Member, Japan Society for Industrial and Applied Mathematics, 1991 - 2020

Member, Royal Meteorological Society, 2000 - present

Member, WCRP/SPARC Scientific Steering Group, 1999 - 2005

Theme Leader, “Stratosphere-Troposphere Dynamical Coupling” in SPARC SSG, 2005 - 2015

Activity Leader, “Stratospheric And Tropospheric Influences On Tropical Convective Systems (SATIO-TCS)” in SPARC SSG, 2016 - 2023

Member, WWRP/WGNE International Science Working Group for THORPEX, 2000 - 2003

Member, IUGG/IAMAS/ International Commission on the Middle Atmosphere, 2003 - 2007

President, IUGG/IAMAS/ International Commission on the Middle Atmosphere, 2007 - 2011

Past President, IUGG/IAMAS/ International Commission on the Middle Atmosphere, 2011 -2015

Services:

Editor, Journal of the Meteorological Society of Japan, 1988 - 1994

Associate Editor, Journal of the Atmospheric Sciences (American Meteorological Society), 2001 - 2008

Editor, Journal of the Atmospheric Sciences (American Meteorological Society), 2009 - 2011

Convener, 5th Scientific Assembly of the IAMAP Symposium, “Atmospheric Predictability”, Yokohama, Japan, 1993

Convener, 2nd SPARC General Assembly, Session 3 “Modelling and Diagnosis of Stratospheric Effects on Climate”, Mar del Plata, Argentina, 2000

Convener, JSPS/NSF Japan-U.S. Seminar, “Coupling of the Troposphere and Stratosphere by Dynamical, Radiative and Chemical Processes”, Kyoto, Japan, 2001

Convener, International Symposium on “Stratospheric Variations and Climate”, Fukuoka, Japan, 2002

Local Organizer, 10th Session of SPARC SSG, Kyoto, Japan, 2002

Convener, 1st AOGS annual meeting, “Active Geosphere: A New Interdisciplinary Approach to Earth Science”, Singapore, Singapore, 2004

Convener, KAGI21 International Symposium Series from 2003 to 2007 (03: Kyoto, 04: Beppu, 05: Wuhan, China, 06: Kyoto, 07: Bandung, Indonesia)

Principal Organizer, KAGI21 International Summer/Spring School from 2004 to 2018 (04, 05, 06, and 07: Bandung, Indonesia, 09, 11, 13, 15, 18: Kyoto Japan)

Convener, AGU Chapman Conference on “Jets and Annular Structures in Geophysical Fluids”, Savannah, USA, 2006

Convener, KAGI21 International Workshop on “Regional Models for the Prediction of Tropical Weather and Climate”, Bandung, Indonesia, 2006

Convener, 3rd AOGS annual meeting, “Applied Mesoscale Numerical Weather Prediction in Southeast Asia”, Singapore, Singapore, 2006

Convener, 5th AOGS annual meeting, “Numerical Weather Prediction and Data Assimilation in Southeast Asia”, Busan, Korea, 2008

Convener, 5th AOGS annual meeting, “Middle Atmosphere Science”, Busan, Korea, 2008

Principal Organizer, First International Workshop on “Prevention and Mitigation of Meteorological Disasters in Southeast Asia”, Kyoto, Japan, 2008

Organizer, IUTAM symposium on “Rotating Stratified Turbulence and Turbulence in the Atmosphere and Oceans”, Cambridge, UK, 2008

Principal Organizer, Second International Workshop on “Prevention and Mitigation of Meteorological Disasters in Southeast Asia”, Bandung, Indonesia, 2009

Convener, MOCA-09 (IAMAS-IAPSO-IACS Joint Assembly 2009), “Middle Atmosphere Science”, Montreal, Canada, 2009

Convener, 6th AOGS annual meeting, “Middle Atmosphere Science”, Singapore, Singapore, 2009

Principal Organizer, Third International Workshop on “Prevention and Mitigation of Meteorological Disasters in Southeast Asia” & Open Symposium on “Meteorological Disasters and

Adaptable Society in the Asia-Pacific Region”, Beppu, Japan, 2010

Convener, 7th AOGS annual meeting, “Middle Atmosphere Science”, Hyderabad, India, 2010

Convener, 7th AOGS annual meeting, “Numerical Modelling and Data Assimilation of Mesoscale Tropical Weather”, Hyderabad, India, 2010

Principal Organizer, International workshop on “Developing Climate-Change Prepared and Resilient Society from Weather and Climate Information to Decision Making”, Jakarta, Indonesia, 2010

Convener, 8th AOGS annual meeting, “Middle Atmosphere Science”, Taipei, 2011

Convener, 25th IUGG General Assembly, “Recent advances in middle atmosphere science”, Melbourne, Australia, 2011

Convener, WCRP Open Science Conference, “Session C8: Atmospheric Dynamics and Climate”, Denver, USA, 2011

Principal Organizer, International workshop on “Stratospheric Sudden Warming and its Role in Weather and Climate Variations”, Kyoto, Japan, 2012

Convener, 9th AOGS annual meeting, “Middle Atmosphere Science”, Singapore, Singapore, 2012

Convener, 9th AOGS annual meeting, “Numerical Modelling of Weather and Regional Climate in the Tropics”, Singapore, Singapore, 2012

Principal Organizer, WCRP Regional Workshop on “Stratosphere-Troposphere Processes and their Role in Climate”, Kyoto, Japan, 2013

Convener, 10th AOGS annual meeting, “Middle Atmosphere Science”, Brisbane, Australia, 2013

Symposium lead convener, DACA2013 (Davos Atmosphere and Cryosphere Assembly 2013; An IUGG - IAMAS & IACS Event), “Coupling processes in weather and climate”, Davos, Switzerland, 2013

Principal Organizer, KU RIMS International Conference on “Theoretical Aspects of Variability and Predictability in Weather and Climate Systems”, Kyoto, Japan, 2013

Convener, 11th AOGS annual meeting, “Middle Atmosphere Science”, Sapporo, Japan, 2014

Convener, 11th AOGS annual meeting, “Regional Modelling for Atmospheric Dynamics and Tropical Phenomena”, Sapporo, Japan, 2014

Session Coordinator, 2nd Kyoto University - National Taiwan University Symposium, “Session on Natural Hazard and Global Change”, Kyoto, Japan, 2014

Convener, 12th AOGS annual meeting, “Middle Atmosphere Science”, Singapore, Singapore, 2015

Convener, 12th AOGS annual meeting, “The Maritime Continent Monsoon”, Singapore, Singapore, 2015

Principal Organizer, International Workshop on “Stratosphere-Troposphere Dynamical Coupling in the Tropics”, Kyoto, Japan, 2015

Convener, 13th AOGS annual meeting, “Middle Atmosphere Science”, Beijing, China, 2016

Convener, 14th AOGS annual meeting, “Middle Atmosphere Science”, Singapore, Singapore, 2017

Advisory Board, International Symposium on Earth-Science Challenges 2017 -- The Fifth Summit between Kyoto University and the University of Oklahoma, Uji, Japan, 2017

Principal Organizer, Joint SPARC Dynamics & Observations Workshop -- QBOi, FISAPS & SATIO-TCS, Kyoto, Japan, 2017

Convener, 15th AOGS annual meeting, “Middle Atmosphere Science”, Honolulu, USA, 2018

Co-chair of LOC, 6th WCRP/SPARC General Assembly, Kyoto, Japan, 2018

Convener, 16th AOGS annual meeting, “Middle Atmosphere Science”, Singapore, Singapore, 2019

Principal Organizer, WCRP/SPARC SATIO-TCS joint workshop on Stratosphere-Troposphere Dynamical Coupling in the Tropics, Kyoto, Japan, 2020

Convener, 17th AOGS annual meeting, “Middle Atmosphere Science”, Hongcheon, Korea, 2020 (cancelled owing to COVID-19)

Convener, 18th AOGS annual meeting, “Middle Atmosphere Science”, Online (due to COVID-19), 2021

Convener, 19th AOGS annual meeting, “Middle Atmosphere Science”, Online (due to COVID-19), 2022

Convener, 20th AOGS annual meeting, “Middle Atmosphere”, Singapore, 2023

Science Teams (some major ones):

Program Leader, Kyoto University Active Geosphere Investigations for the 21st century COE program (KAGI21), 2003 - 2007

Principal Investigator, International Research for Prevention and Mitigation of Meteorological Disasters in Southeast Asia, under MEXT Special Coordination Funds for Promoting Science and Technology, 2007 - 2009

Educational Program Leader, Kyoto U. Global COE Program “Sustainability/Survivability Science for a Resilient Society Adaptable to Extreme Weather Conditions”, 2009 - 2013

Member of Steering Committee, Kyoto U. Inter-Graduate School Program for Sustainable Development and Survivable Societies, 2011 - 2020

Principal Investigator, Grant-in-Aid for Scientific Research (S) “Extreme Weather Variations in the Stratosphere-Troposphere Coupled System: Past, Present and Future”, 2012-2016

Principal Investigator, JSPS Core-to-Core Program (Type B: Asia-Africa Science Platforms) "International Research Collaborations and Networking on Extreme Weather in Changing Climate in the Maritime Continent", 2015-2017

Vice-Principal Investigator, Grant-in-Aid for Scientific Research on Innovative Areas “Solar-Terrestrial Environment Prediction as Science and Social Infrastructure”, also Principal Investigator of its Research Project A04 “Prediction and Understanding of Solar Cycle Activity and the Impact on Climate”, 2015-2020

Principal Investigator, JSPS-DG-RSTHE Joint Research Project "Scientific research on extreme weather in changing climate in the Maritime Continent and its societal application", 2018-2021

List of the Most Important Publications:

Stratospheric Dynamics:

Horinouchi, T. and S. Yoden, 1998: Wave-mean flow interaction associated with a QBO-like oscillation simulated in a simplified GCM. *J. Atmos. Sci.*, **55-4**, 502-526.

Yoden, S., M. Taguchi and Y. Naito, 2002: Numerical studies on time variations of the troposphere-stratosphere coupled system. *J.Met.Soc.Japan*, **80-4B**, 811-830.

Hitchcock, P., T.G. Shepherd, and S. Yoden, 2010: On the approximation of local and linear radiative damping in the middle atmosphere. *J.Atmos.Sci.*, **67-6**, 2070-2085.

Tropospheric Dynamics:

Yoden, S., M. Shiotani and I. Hirota, 1987: Multiple planetary flow regimes in the Southern Hemisphere. *J.Met.Soc.Japan*, **65**, 571-586.

Akahori, K. and S. Yoden, 1997: Zonal flow vacillation and bimodality of baroclinic eddy life cycles in a simple global circulation model. *J.Atmos.Sci.*, **54-19**, 2349-2361.

Tropical Meteorology:

Trilaksono, N.J., S. Otsuka and S. Yoden, 2012: A time-lagged ensemble simulation on the modulation of precipitation over West Java in January-February 2007. *Mon. Wea. Rev.*, **140-2**, 601-616.

Yoden, S., H.-H. Bui and E. Nishimoto, 2014: A minimal model of QBO-like oscillation in a stratosphere-troposphere coupled system under a radiative-moist convective quasi-equilibrium state. *SOLA*, **10**, 112-116.

Nishimoto E. and S. Yoden, 2017: Influence of the stratospheric quasi-biennial oscillation on the Madden-Julian oscillation during austral summer. *J. Atmos. Sci.*, **74-4**, 1105-1125.

Climate Dynamics:

Yoden, S., 1987: Bifurcation properties of a stratospheric vacillation model. *J.Atmos.Sci.*, **44-13**, 1723-1733.

Yoden, S., 1997: Classification of simple low-order models in geophysical fluid dynamics and climate dynamics. *Nonlinear Analysis, Theory, Methods & Applications*, **30-7**, 4607-4618.

Randel, W.J., K.P. Shine, J. Austin, J. Barnett, C. Claud, N.P. Gillett, P. Keckhut, U. Langematz, R. Lin., C. Long, C. Mears, A. Miller, J. Nash, D.W.J. Thompson, F. Wu, and S. Yoden, 2009: An update of observed stratospheric temperature trends. *J.Geophys.Res.*, **114**, D02107, doi:10.1029/2008JD010421

Spiegel, T. C., S. Yoden, U. Langematz, T. Sato, R. Chhin, S. Noda, F. Miyake, K. Kusano, K. Schaar, and M. Kunze, 2022: Modeling the transport and deposition of ¹⁰Be produced by the strongest solar proton event during the Holocene. *J. Geophys. Res. Atmospheres*, **127**, DOI: 10.1029/2021JD035658

Geophysical Fluid Dynamics:

- Yoden, S. and M. Yamada, 1993: A numerical experiment on two-dimensional decaying turbulence on a rotating sphere. *J.Atmos.Sci.*, **50-4**, 631-643.
- Nozawa, T. and S. Yoden, 1997: Formation of zonal band structure in forced two-dimensional turbulence on a rotating sphere. *Phys. Fluids*, **9-7**, 2081-2093.
- Mizuta, R., and S. Yoden, 2001: Chaotic mixing and transport barriers in an idealized stratospheric polar vortex. *J. Atmos. Sci.*, **58-17**, 2616-2629.
- Yoden, S., Y.-Y. Hayashi, K. Ishioka, Y. Kitamura, S. Nishizawa, S. Takehiro, and M. Yamada, 2010: Jet formation in decaying two-dimensional turbulence on a rotating sphere. *IUTAM Symposium on Turbulence in the Atmosphere and Oceans*, (IUTAM Bookseries 28), Dritschel Ed., Doi: 10.1007/978-94-007-0360-5_21.

Atmospheric Predictability:

- Kimoto, M., H. Mukougawa, and S. Yoden, 1992: Medium-range forecast skill variation and blocking transition: A case study. *Mon.Wea.Rev.*, **120-8**, 1616-1627.
- Yoden, S. and M. Nomura, 1993: Finite-time Lyapunov stability analysis and its application to atmospheric predictability. *J.Atmos.Sci.*, **50-11**, 1531-1543.
- Yoden, S., 2007: Atmospheric predictability. *J.Met.Soc.Japan*, **85B**, 77-102.

Recent Publications since 2010:

1. Yoden, S., V. Kumar, S. Dhaka, and M. Hitchman, 2023: Global monsoon systems and their modulation by the equatorial Quasi-Biennial Oscillation. *MAUSAM*, **74-2** (SPECIAL ISSUE IWM-7 2023), 239-252. <https://doi.org/10.54302/mausam.v74i2.5948>
2. Kumar, V., S. K. Dhaka, M. H. Hitchman, and S. Yoden, 2023: The influence of solar modulated regional circulations and galactic cosmic rays on global cloud distribution. *Sci. Rep.*, **13**, 3707, <https://doi.org/10.1038/s41598-023-30447-9>
3. Kumar, V., S. Yoden, and M. H. Hitchman, 2022: QBO and ENSO effects on the mean meridional circulation, polar vortex, subtropical westerly jets, and wave patterns during boreal winter. *J. Geophys. Res. Atmospheres*, **127**, DOI: 10.1029/2022JD036691
4. Spiegl, T. C., S. Yoden, U. Langematz, T. Sato, R. Chhin, S. Noda, F. Miyake, K. Kusano, K. Schaar, and M. Kunze, 2022: Modeling the transport and deposition of Be-10 produced by the strongest solar proton event during the Holocene. *J. Geophys. Res. Atmospheres*, **127**, DOI: 10.1029/2021JD035658
5. Chhin, R., S. Siev, and S. Yoden, 2021: Time-lagged correlations of pre-monsoon precipitation in the Indochina Peninsula confirmed in a large ensemble simulation dataset. *Int. J. Climatology*, **42(2)**, 1118–1135. <https://doi.org/10.1002/joc.7292>
6. Kusano, K., K. Ichimoto, M. Ishii, Y. Miyoshi, S. Yoden, H. Akiyoshi, A. Asai, Y. Ebihara, H. Fujiwara, T.-N. Goto, Y. Hanaoka, H. Hayakawa, K. Hosokawa, H. Hotta, K. Hozumi, S. Imada, K. Iwai, T. Iyemori, H. Jin, R. Kataoka, Y. Katoh, T. Kikuchi, Y. Kubo, S. Kurita, H. Matsumoto,

- T. Mitani, H. Miyahara, Y. Miyoshi, T. Nagatsuma, A. Nakamizo, S. Nakamura, H. Nakata, N. Nishizuka, Y. Otsuka, S. Saito, S. Saito, T. Sakurai, T. Sato, T. Shimizu, H. Shinagawa, K. Shiokawa, D. Shiota, T. Takashima, C. Tao, S. Toriumi, S. Ueno, K. Watanabe, S. Watari, S. Yashiro, K. Yoshida, and A. Yoshikawa, 2021: PSTEP: project for solar–terrestrial environment prediction. *Earth Planets Space*, **73**, 159. <https://doi.org/10.1186/s40623-021-01486-1>
7. Martin, Z., S.-W. Son, A. Butler, H. Hendon, H. Kim, A. Sobel, S. Yoden, and C. Zhang, 2021: The influence of the quasi-biennial oscillation on the Madden-Julian oscillation. *Nat.Rev.Earth Environ.*, **2**, 477–489. <https://doi.org/10.1038/s43017-021-00173-9>, <https://rdcu.be/c19ah>.
 8. Haynes, P., P. Hitchcock, M. Hitchman, S. Yoden, H. Hendon, G. Kiladis, K. Kodera, and I. Simpson, 2021: The influence of the stratosphere on the tropical troposphere. *J.Meteor.Soc.Japan*, **99**, 803-845. <https://doi.org/10.2151/jmsj.2021-040>.
 9. Jain, S., R. Chhin, R. M. Doherty, S. K. Mishra, and S. Yoden, 2021: A new graphical method to diagnose the impacts of model changes on climate sensitivity. *J.Meteor.Soc.Japan*, **99**, 437-448. <https://doi.org/10.2151/jmsj.2021-021>.
 10. Hitchman, M. H., S. Yoden, P. H. Haynes, V. Kumar, and S. Tegtmeier, 2021: An observational history of the direct influence of the stratospheric Quasi-Biennial Oscillation on the tropical and subtropical upper troposphere and lower stratosphere. *J.Meteor.Soc.Japan*, **99**, 239-267. <https://doi.org/10.2151/jmsj.2021-012>.
 11. Yoden, S., H.-H. Bui, and E. Nishimoto, 2020: Minimal model studies of stratosphere-troposphere two-way dynamical coupling in the tropics through organizations of moist convective systems. *The Multi-Scale Global Monsoon System*, C.P. Chang et al., Eds., *World Scientific Series on Asia-Pacific Weather and Climate*, **11**, 209–218.
 12. Chhin, R., C. Oeurng, and S. Yoden, 2020: Drought projection in the Indochina Region based on the optimal ensemble subset of CMIP5 models. *Climatic Change*, **162**, 687–705, <https://doi.org/10.1007/s10584-020-02850-y>
 13. Chhin, R., M. M. Shwe, and S. Yoden, 2019: Time-lagged correlations associated with interannual variations of pre-monsoon and post-monsoon precipitation in Myanmar and the Indochina peninsula. *Int. J. Climatology*, 1–21, <https://doi.org/10.1002/joc.6428>
 14. Fajary, F. R., T. W. Hadi, and S. Yoden, 2019: Contributing factors to spatiotemporal variations of outgoing longwave radiation (OLR) in the tropics. *J. Climate*, **32**, 4621–4640, <https://doi.org/10.1175/JCLI-D-18-0350.1>
 15. Bui, H., S. Yoden, and E. Nishimoto, 2019: QBO-like oscillation in a three-dimensional minimal model framework of the stratosphere–troposphere coupled system. *SOLA*, **15**, 62–67, [doi:10.2151/sola.2019-013](https://doi.org/10.2151/sola.2019-013)
 16. Kumar, V., S. K. Dhaka, V. Panwar, N. Singh, A. S. Rao, S. Malik, and S. Yoden, 2018: Detection of solar cycle signal in the tropospheric temperature using COSMIC data. *Current Sci.*, **115-12**, 2232-2239, <https://www.currentscience.ac.in/Volumes/115/12/2232.pdf>
 17. Osprey, S., M. Geller, and S. Yoden, 2018: The stratosphere and its role in tropical teleconnections, *Eos*, **99**, <https://doi.org/10.1029/2018EO097387>.

18. Noda, S., K. Kodera, Y. Adachi, M. Deushi, A. Kitoh, R. Mizuta, S. Murakami, K. Yoshida, and S. Yoden, 2018: Mitigation of global cooling by stratospheric chemistry feedbacks in a simulation of the Last Glacial Maximum. *J. Geophys. Res. Atmospheres*, **123**, 9378–9390. <https://doi.org/10.1029/2017JD028017>
19. Chhin, R., and S. Yoden, 2018: Ranking CMIP5 GCMs for model ensemble selection on regional scale: Case study of the Indochina region. *J. Geophys. Res. Atmospheres*, **123**, 8949–8974. <https://doi.org/10.1029/2017JD028026>
20. Bui, H.-H., E. Nishimoto, and S. Yoden, 2017: Downward influence of QBO-like oscillation on moist convection in a two-dimensional minimal model framework. *J. Atmos. Sci.*, **74**, 3635–3655.
21. Nishimoto, E., and S. Yoden, 2017: Influence of the stratospheric Quasi-Biennial Oscillation on the Madden–Julian Oscillation during austral summer. *J. Atmos. Sci.*, **74**, 1105–1125.
22. Noda, S., K. Kodera, Y. Adachi, M. Deushi, A. Kitoh, R. Mizuta, S. Murakami, K. Yoshida, and S. Yoden, 2017: Impact of interactive chemistry of stratospheric ozone on Southern Hemisphere paleoclimate simulation, *J. Geophys. Res. Atmos.*, **122**, 878–895, doi:10.1002/2016JD025508.
23. Otsuka, S., N.J. Trilaksono, and S. Yoden, 2017: Comparing simulated size distributions of precipitation systems at different model resolution. *SOLA*, **13**, 130–134, doi:10.2151/sola.2017-024
24. Yoden, S., S. Otsuka, N.J., Trilaksono, and T. W. Hadi, 2017: Recent progress in research on the Maritime Continent monsoon. *The Global Monsoon System. III*, C.P. Chang et al., Eds., World Scientific Series on Asia-Pacific Weather and Climate, Vol.9, 63–77.
25. Nishimoto, E., S. Yoden, and H. Bui, 2016: Vertical momentum transports associated with moist convection and gravity waves in a minimal model of QBO-like oscillation. *J. Atmos. Sci.*, **73-7**, 2935–2957.
26. Dhaka, S.K., V. Kumar, R.K. Choudhary, Shu-Peng Ho, M. Takahashi and S. Yoden, 2015: Indications of a strong dynamical coupling between the polar and tropical regions during the sudden stratospheric warming event January 2009, based on COSMIC/FORMASAT-3 satellite temperature data. *Atmos. Res.*, **166**, 60–69.
27. Kashimura, H. and S. Yoden, 2015: Regime diagrams of solutions in an idealized quasi-axisymmetric model for superrotation of planetary atmospheres. *J. Meteor. Soc. Japan*, **93-2**, 309–326.
28. Yoden, S., K. Ishioka, D. Durran, T. Enomoto, Y.-Y. Hayashi, T. Miyoshi and M. Yamada, 2014: Theoretical aspects of variability and predictability in weather and climate systems. *Bull. Amer. Meteor. Soc.*, **95-7**, 1011–1014.
29. Kumar, V., S.K. Dhaka, R.K. Choudhary, S.P. Ho, S. Yoden and K.K. Reddy, 2014: On the occurrence of the coldest region in the stratosphere and tropical tropopause stability: A study using COSMIC/FORMOSAT-3 satellite measurements. *J. Atmos. Solar-Terr. Phys.*, **121**, 271–286.
30. Yoden, S., H.-H. Bui and E. Nishimoto, 2014: A minimal model of QBO-like oscillation in a stratosphere-troposphere coupled system under a radiative-moist convective quasi-equilibrium state. *SOLA*, **10**, 112–116.

31. Noguchi, S., H. Mukougawa, T. Hirooka, M. Taguchi and S. Yoden, 2014: Month-to-month predictability variations of the winter-time stratospheric polar vortex in an operational one-month ensemble prediction system. *J. Meteor. Soc. Japan*, **92-6**, 543-558.
32. Otsuka S., M. Takeshita and S. Yoden, 2014: A numerical experiment on the formation of the tropopause inversion layer associated with an explosive cyclogenesis: possible role of gravity waves. *Progress in Earth and Planetary Science*, **1**:19, doi:10.1186/s40645-014-0019-0
33. Yamamoto, H. and S. Yoden, 2013: Theoretical estimation of the superrotation strength in an idealized quasi-axisymmetric model of planetary atmospheres. *J. Meteor. Soc. Japan*, **91-2**, 119-141.
34. Charlton-Perez, A.J., M.P. Baldwin, T. Birner, R.X. Black, A.H. Butler, N. Calvo, N.A. Davis, E.P. Gerber, N. Gillett, S. Hardiman, J. Kim, K. Krüger, Y.-Y. Lee, E. Manzini, B.A. McDaniel, L. Polvani, T. Reichler, T.A. Shaw, M. Sigmond, S.-W. Son, M. Toohey, L. Wilcox, S. Yoden, B. Christiansen, F. Lott, D. Shindell, S. Yukimoto and S. Watanabe, 2013: On the lack of stratospheric dynamical variability in low-top versions of the CMIP5 models. *J. Geophys. Res.*, **118.6**, 2494-2505.
35. Hitchcock, P., T.G. Shepherd, M. Taguchi, S. Yoden and S. Noguchi, 2013: Lower-stratospheric radiative damping and polar-night jet oscillation events. *J. Atmos. Sci.*, **70-5**, 1391-1408.
36. Otsuka, S., S. Nishizawa, T. Horinouchi and S. Yoden, 2013: An experimental data handling system for ensemble numerical weather predictions using a web-based data server and analysis tool "Gfdnavi". *J. Disaster Res.*, **8-1**, 48-56.
37. Trilaksono, N.J., S. Otsuka and S. Yoden, 2012: A time-lagged ensemble simulation on the modulation of precipitation over West Java in January-February 2007. *Mon. Wea. Rev.*, **140-2**, 601-616.
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