Climate system models (CSMs) are essential tools for understanding the mechanisms of climate variability, and predicting and projecting future climate. Due to the complex topography and land-sea distribution, East Asia exhibits distinct climate characteristics, raising a great challenge to the present-day climate models. Most of the climate models still suffer from significant biases in simulating the climate of East Asia, which limits the utilization of these models in understanding the mechanisms of East Asian climate variability as well as in predicting its future changes. In recent years, to meet the demand for climate simulation and prediction in the East Asian region, the Chinese Academy of Meteorological Sciences (CAMS) has been devoted to developing a CSM. By surveying the performance of current CSMs, the CAMS-CSM was established, based on a number of state-of-the-art component models. Some unique features have been incorporated into the CAMS-CSM, such as the treatment of the East Asian topography, the water vapor transport scheme, and the cloud-radiation scheme. The CAMS-CSM has been officially planned to take part in the Coupled Model Intercomparison Project Phase 6 (CMIP6).

This special issue aims to systematically analyze and evaluate the performance of CAMS-CSM and related scientific experiments from different perspectives, and provide a demonstration from comprehensive assessment of the CAMS-CSM. In addition, this special issue will review the challenges of the CAMS-CSM in simulating the East Asian climate, and plan on the future development of this model. Papers for this special issue are solicited for, although not limited to, the following topics:

1. CAMS-CSM model evaluation
2. CAMS-CSM dynamical core and associated algorithms
3. Challenges in CAMS-CSM simulation of the East Asian climate
4. Future prospects of CAMS-CSM model development

In support of the publication of this special issue, publication charges of innovative, well-written papers will be waived, pending on the scores and comments of the handling Editor/reviewers and the Responsible Editors Team of this special issue; and three best papers will be awarded with certificates and cash prizes. Contributions from both Chinese and overseas authors are well encouraged.
Responsible Lead Editors for the Special Issue:

**Jian Li**, Chinese Academy of Meteorological Sciences, [li@cma.gov.cn](mailto:li@cma.gov.cn)

Dr Jian Li’s research focuses on features of precipitation, orographic effects on precipitation, and numerical simulation of East Asian climate. He has published more than 40 SCI papers, which have been cited over 1400 times. He is the “Leading Scientist of the China Meteorological Administration (CMA)” and the PI of the Key Program of the National Natural Science Foundation of China. He is now the Deputy Director of the Institute of Climate System, Chinese Academy of Meteorological Sciences, and serves as an editor of *J. Meteor. Res.*

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Dr. Tianjun Zhou’s research focuses on coupled atmosphere-ocean modeling, climate dynamics, climate change and variability, with emphasis on East Asia and the monsoons. He has published 218 papers in international SCI(E) journals. He was co-chair of the CLIVAR Asian-Australian Monsoon Panel (AAMP) from 2013 to 2014 and is currently a member of WCRP WGCM, a member of the GEWEX/CLIVAR Monsoons Panel, a member of CLIVAR/SPARC SSG. He also served as Lead Author of the IPCC WG1 AR5. He received AMS *Journal of Climate* Editors’ Award in 2012 and was on the list of “Elsevier most cited Chinese scholars” during 2014-2016.

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Dr. Duan Yihong’s research interests include numerical simulation of tropical cyclones and air-sea interaction. He has published more than 90 papers, including more than 30 SCI papers. He has authored/coauthored 5 books and has obtained 6 national or provincial science and technology progress awards. He is now the president of Chinese Academy of Meteorological Sciences, vice president of the Chinese Meteorological Society, and chair of the World Meteorological Organization (WMO)/World Weather Research Program (WGRP) Working Group on Tropical Meteorology Research Group (WGTMR).

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Prof. Dalin Zhang mainly engaged in the studies on development and improvement of numerical weather forecasting models, and the mechanism of catastrophic weather. He has published more than 170 papers in international SCI(E) journals, with more than 6300 cites. He received Clarence Leroy Meisinger Award of American Meteorological Society for young meteorologists and the NASA's collective achievement award from the United States. He was the co-chief editor of *Adv. Atmos. Sci.* and *J. Meteor. Res.* and the editor of WAF of the American Meteorological Society. He is now a tenured professor in the Department of Atmospheric Oceanography at the University of Maryland, a Fellow of the Royal Meteorological Society and the American Meteorological Society.

Important Dates

Submission open: January 1, 2018
Submission deadline: June 30, 2018
Publication time: As soon as the paper is accepted and edited. The Special Issue in virtual format will be compiled online and the Special Issue in print is available upon request.

Submission gateway: [https://mc03.manuscriptcentral.com/acta-e](https://mc03.manuscriptcentral.com/acta-e)
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