

Deliang Chen

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Personal information

Sex	Male	Date of Birth	July 21, 1961
Place of Birth	Jiangsu, China	Citizenship	Swedish
ResearcherID	A-5107-2013	Scopus Author ID	8284622100
Personal homepage	http://rcg.gvc.gu.se/dc	Research group's homepage	http://rcg.gvc.gu.se/
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Education

1989-1992: PH.D., Johannes Gutenberg University of Mainz

Major: Geosciences; Minors: Theoretical Meteorology (Dynamics) and Applied Mathematics (numerical methods for differential equations). Supervisors of the three subjects are Prof. P. J. Crutzen (Nobel Laureate) and Prof. M. Domrös, Prof. W. Zdunkowski, and Prof. W. Börsch-Supan respectively.

Title of the Ph.D. thesis: 'Development of a Two-Dimensional Model of Global Climate-Transport'. Degree earned on 27 February 1992.

1989-1992: B.SC., Department of Meteorology, Nanjing University, Nanjing, China
Majoried in Climatology

Main work experience

2012-2018 **Assistant Dean** for Research of the Faculty of Science, University of Gothenburg

2009-2012 **Executive Director** of the International Council for Science (ICSU)

2007- The **August Röhss Chair** in Physical Geography at University of Gothenburg

2006-2007 **Director** for 'Gothenburg Atmospheric Science Centre'

1993 Senior Lecturer (**Lektor**) in Physical Meteorology at Department of Earth Sciences, University of Gothenburg, Sweden in July 1993. Promoted to Associate Professor (**Docent**) in 1996. Became **Full Professor** of Physical Meteorology in 2000. His research interests include Earth System science, Global Change and regional climate change with a focus on water cycle, environmental change over the Third Pole. In 1995 Deliang Chen funded the Regional Climate Group (RCG: <http://rcg.gvc.gu.se>) who is specialized in past and future regional climate changes using instrumental and proxy data, as well as advanced statistical techniques and numerical climate models. Recent studies additionally include the impact of climate change on water resources, air quality, and agriculture.

1992-1993 **Post-doctoral Research Assistant** focusing on developing simple atmosphere model for studying air-sea interactions, at the Department of Physics II, Alfred-Wegener-Institute for Polar and Marine Research, Bremerhaven, Germany

- 1992 **Post-doctoral Research Assistant** focusing on using regional air quality model to study dry deposition, at the Institute of Geophysics and Meteorology, University of Cologne, Cologne, Germany
- 1988-1992 **Ph.D. student** working on developing two dimensional climate model for air chemistry studies under the guidance of Prof. Paul J. Crutzen at Max-Planck-Institute for Chemistry, Mainz, Germany
- 1983-1988 **Researcher and Personal Assistant** to the Director and Research Assistant at Institute of Geography, CAS, Beijing, China. Research works concerns climate productivity of crops and water balances for the northern China during 1984 and 1985, crop water requirements and evapotranspiration during 1985 and 1986, and land surface process modeling in global climate model during 1987 and 1988.

Membership in professional Society

- 2018 - Life member of the American Geophysical Union (AGU)
- 2019 - Life member of the European Geophysical Union (EGU)

Awards and distinctions

- 2023 Elected ISC (International Science Council) Fellow. The Fellowship is the highest honor awarded by ISC to those championing science in and for society.
- 2023 Clarivate™ Highly Cited Researchers™
- 2021 Awarded the Synergy Prize by the Science Faculty of the University of Gothenburg
- 2021 Listed by Göteborgs-Posten as No. 2 of the 100 most influential persons in west Sweden
- 2021 Elected Awarded the Synergy Prize by the Science Faculty of the University of Gothenburg
- 2021 Awarded the H. M. The King's Medal in the 8th size with the Order of the Seraphim ribbon for outstanding contributions to Swedish and international climate research
- 2021 Listed in the @Reuters Hot List of 1,000 top climate scientists in the world
- 2019 Awarded the title of an Honorary Professor of Nanjing University
- 2018 Elected member of the European Academy of Sciences and Arts
- 2018 Winner of the 2017 International Science and Technology Cooperation Award of the People's Republic of China
- 2018 Elected Foreign Member of the Norwegian Academy of Science and Letters
- 2017 Winner of the 2016 Award for International Scientific Cooperation of CAS
- 2017 Elected Foreign Member of CAS
- 2015 Elected Fellow of the World Academy of Sciences (TWAS)
- 2014 Awarded *Pro Arte et Scientia* Medal by the University of Gothenburg
- 2013 Elected Member of the Royal Society of Arts and Sciences in Gothenburg
- 2012 Awarded the title of an Honorary Professor of Institute of Tibetan Plateau Research, CAS
- 2010 Elected Member of the Royal Swedish Academy of Sciences

Selected commissions of trust

- 2023-2024 Member of the Membership Advisory Committees of TWAS.
- 2023-2027 Member of the Advisory Board of “National Science Review (NSR)”.
- 2021- Elected member of the Future Earth Governing Council.

2021, 2023	Member of the Editorial Board of the “10 New Insights in Climate Science 2021” led by Future Earth, The Earth League and WCRP.
2020-2024	Board member of The Future Earth Sweden Foundation.
2019-	Chair of the Alumni Strategic Advisory Committee, School of Atmospheric Science, Nanjing University, China.
2018-2023	Mentor for Wallenberg Academy Fellows’ mentorship programme supported by the Wallenberg Foundation and the Royal Swedish Academy of Sciences.
2018-2021	Coordinating Lead Author of the sixth Assessment Report (AR6) of IPCC (International Panel of Climate Change) Working Group I.
2018-	International expert for CAS’ pilot project “Big data for Earth Science”.
2018-	Chair of the Class for Geosciences of the Royal Swedish Academy of Sciences.
2017-2021	Member of the Editorial Board of "Big Earth Data".
2017-	Member of the International Jury for the TWAS-Lenovo Science Prize in Geological Sciences.
2017-2019	Member of External Science Advisory Group (ESAG) of the Bolin Centre for Climate Research at Stockholm University.
2016-	Chair of the Nomination Committee of the Stockholm Water Prize.
2016-	Member of Science Steering Committee of the Future Earth Core Project Integrated Risk Governance (IRG).
2016-	Member of the Advisory Board for Penn State’s Advanced Data Assimilation and Predictability Techniques (ADAPT) Center.
2015-2017	Member of the Baltic Earth Senior Advisory Board
2015-2017	Chief Editor of the Oxford Research Encyclopedia “Regional climate and climate change in the region of Tibet”
2014-2016	Associate Editor-in-Chief of “Journal of Geographical Sciences”.
2014-	Associate Editor-in-Chief of “Advances in Climate Change Research”.
2014-2017	Member of the Advisory Committee for the International Research Prize in Science, Mathematics and Medicine and Support for the Nordic Research Projects for the Olav Thon Foundation.
2014-	Member of the International Science Advisory Council of Stockholm Resilience Centre
2013-2022	Member of the Editorial Board of “National Science Review (NSR)”.
2013-2019	Member of the Science Committee for the VOLVO Environment Prize.
2013-2015	Member of the Project Evaluation Committee, Research Institute for Humanity and Nature (RIHN), Japan.
2012-2017	Member of the Swedish National Committee for Global Environmental Change, Royal Swedish Academy of Sciences.
2012, 2008	Jury member for the Sixten Heyman Prize.
2011-	Co-chair of the Executive Board of the Third Pole Environment (TPE).
2011-2016	Chair of the Scientific Advisory Committee for ECDS (Environment Climate Data Sweden: http://www.smhi.se/ecds).
2011-2013	Member of the French ANR (the French National Research Agency) Scientific Steering Committee on Earth System Science.
2011-2013	Member of the Advisory Group for the OECD Programme on Innovation, Higher Education and Research for Development.
2011-2017	Member of the Editorial Board for ‘Environmental Development’.

2010	Member of the Science Committee for the '3rd Nobel Laureate Symposium on Global Sustainability' organized by the Royal Swedish Academy of Sciences.
2010-2013	Lead Author of Chapter 1 'Introduction' in the IPCC (International Panel of Climate Change) Working Group I (AR5).
2009-2012	Member of the Steering Committee for the World Science Forum.
2008-2015	Member of the Environment Committee of the Royal Swedish Academy of Sciences.
2008-	Member of the Editorial Board for 'Chinese Geographical Science'.
2008-	Member of the Editorial Committee for 'Journal of Earth Environment'.
2007	Guest Editor for 'Atmospheric Chemistry and Physics'.
2006-2007	Member of the Swedish National Committee for Geophysics (SNG) under Royal Swedish Academy of Sciences.
2006	Guest Editor for 'Geografiska Annaler'.
2004-2005	Member of the National Swedish Committee for IGCP (International Geoscience Programme of the United Nations).
2004-2008	Member of the Royal Swedish Academy of Sciences' Committee for IGBP/WCRP (International Geosphere-Biosphere Programme/World Climate Research Programme).
2004-2015	Editor for 'Acta Meteorologica Sinica' (both English and Chinese).
2002-	Member of the Editorial Board of 'Advances in Geographical Science' (in Chinese).
2000-2003	Member in the Atmospheric Sciences Committee of the National Swedish Space Agency.
2000	Reviewer for Norwegian Natural Science Research Council.
2000-2001	Visiting Professor at the University of Cologne, Germany.
1999-2003	International expert for the German Ministry of Education and Research (BMBF).
1999	Contributing Author of Chapter 10 'Regional Climate Simulation -- Evaluation and Projections' in the IPCC Working Group I (AR3).
1998-2002	Member of the Reviewing Committee member in Geosciences at Swedish Natural Science Research Council.

Research interests

- Earth System Science and global environmental change
- Climate dynamics and modeling
- Atmospheric circulation and water balance in the Third Pole Region
- Recent and future regional climate changes and their impacts on water, ecosystem, environment, and agriculture with a focus on Sweden and China.

Teaching experience

Undergraduate courses	Climate system, Micro-climatology, Applied climatology, Climate variability and change, Integrated assessment of climate change and its impact, Synoptic climatology; Earth System Science, Climate modeling, Fundamental Meteorology, Atmospheric Science, Introduction to GIS, Climate change in an Earth System perspective, Climate and society, Global change - problem, analysis, measures, Climate change from a geographical perspective, Climate and society.
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Postgraduate courses	Computerized Environmental Modeling, Modeling in Physical Geography, Climate dynamics, Meteorology today for scientists and engineers, Environmental Statistics, Boundary Layer Meteorology, Climate modeling, Geostatistics, GIS.
Summer school	“Climate model simulations”, July 2017 in Lanzhou, June 2018 in Beijing, China; “The Eleventh International Seminar on Climate System and Climate Change”, 14-25 July 2014, Beijing, China; “the downscaling summer course” at Lodz University in Poland, 18-22 June 2007; “First ECCE Summer School for Advanced Study in Climate and Earth Environment: Modeling of the Climate System”, July 30 - August 12, 2006, Beijing, China.

Supervision of graduated Ph.D. students

Gerrit Lohmann	1995	Stability of the thermohaline circulation in analytical and numerical models
Lars Lindkvist	1997	Investigations of local climate variability in a mountainous area--including case studies on air, soil and soil surface properties in complex terrain
Katarina Borne	1998	Observational study of sea and land breeze on the Swedish west coast with focus on an archipelago
Barbro Johansson	2002	Estimation of areal precipitation for hydrological modelling in Sweden
Maj-Lena Linderson	2002	The Spatial Distribution of Precipitation in Scania, Southern Sweden: Observations, model simulations and statistical downscaling
Cecilia Hellström	2003	Regional climate and climate variability of Sweden
Christine Achberger	2004	Recent and Future regional climate change variations in Sweden in relation to large-scale climate
Fredrik Wetterhall (Co-supervisor)	2005	Statistical downscaling and hydrological modelling for climate impact assessment in northern Europe
Lijun Fan	2006	Statistical downscaling in China
Junfeng Miao	2006	Meteorological modelling in coastal areas - local climate and air quality
Yanling Song	2007	Impact of climate change on agriculture in China
Elisabeth Simelton	2007	Climate and human impacts on wheat production and land use in the loess plateau region, China
Shuiqing Yin	2008	Characterization and Simulation of Sub-daily Scale Precipitation for China
Lin Tang	2009	Regional and Local Surface Ozone Variations in Relation to Meteorological Conditions in Sweden
Cecilia Bennet	2009	The Tropospheric Aerosol - Measurements and Modelling. Case studies in Tanzania and Southeast Asia and development of models for size resolved aerosol simulations on the regional scale
Matilda Palm	2009	Land Use in Climate Policy - Forest Based Options at Local Level with Cases from India
Christin Eriksson (Co-supervisor)	2009	Characterizing and reconstructing 500 years of climate in the Baltic Sea Basin
Ge Gao	2010	Changes of evapotranspiration and water cycle in China during past decades
Jenny Sundberg (Co-supervisor)	2011	Impact of ozone on ecosystems under climate change
Ida Westerberg (Co-supervisor)	2011	Observational Uncertainties in water-resources modelling in Central America
Sihong Wu (Co-supervisor)	2011	Impact of cold climate on boreal ecosystem processes-exploring data and model uncertainties

Lars Zetterberg	2011	Instruments for reaching climate objectives -focusing on the time aspects of bioenergy and allocation rules in the European Union's emissions trading system
Yaoming Liao	2012	Study and application of stochastic weather generator BCC/RCG-WG
Alexander Walther	2012	Simulated and observed change of precipitation and temperature in Europe with focus on the Greater Baltic Area
Tinghai Ou	2013	Observed and simulated changes in extreme precipitation and cold surges in China: 1961-2005.
Peng Zhang	2015	Summer Climate Variability during the Past 1200 Years in Central Scandinavia: A Tree-Ring Perspective.
Xiaowen Zhang	2018	Contribution of changes in atmospheric circulation patterns to regional temperature and precipitation variation.
Aifang Chen	2020	Tropical cyclone induced extreme wind, rainfall, and floods in the Mekong River Basin.
Gangfeng Zhang (Co-supervisor)	2020	Change of wind speed over North China: process, mechanism and assessment of environment effects.
Lorenzo Minola	2020	Changes in near-surface winds across Sweden over the past decades - Observations and simulations.
Bo Su	2022	Changes in the Provisioning Function and Services of Glacier Water Recourses across the Globe with a focus on China
Julia Kukulies	2023	Observing and Modeling Precipitation in the Tibetan Plateau region -From large-scale processes to convective storms.
Hui-Wen Lai	2023	Towards an improved understanding of precipitation variations over the Tibetan Plateau.

Postdocs and visitors

Postdoc	Xiaoye Yang, Zhengyao Lu, Ruzhen Yao, Lorenzo Minola, Chunlue Zhou, Julia Curio, Kaiqiang Deng, Guojin Pang, Cesar Azorin-Molina, Xuejia Wang, Xiaorui Niu, Marston Johnston, Jianbin Huang, Changgui Lin, David Rayner, Wenbin Liu, Mousong Wu, Klaus Wyser, Jee-Hoon Jeong, Youmin Chen, Katarina Borne, Madelene Ostwald, Shuiqing Yin, Christine Achberger, Lijun Fan, Hans Linderholm
Visiting PhD	Shalenys Bedoya-Valestt, Haolin Luo, Jiayue Zhou, Lulei Bu, Xuan Liu, Junbin Wang, Bo Su, Gangfeng Zhang, Huiru Jiang, Myung-Il Jung, Lianyi Guo, Hongyu Xie, Yudan Wang, Yan Wang, Kaijun Wu, Ning Jiang, Xiuzhen Li, Weiwen Wang, Masoud Irannezhad, Yilai Peng, Cesar Azorin-Molina
Visiting researcher	Associate Professor Qin Wen from Nanjing Normal University, Prof. Chuixiang Yi from the City University of New York, Dr. Tat Fan (Fandy) Cheng from the Hong Kong University of Science and Technology, Prof. Wenhong Li from Duke University, Prof. Chris Folland from the Met Office UK, Prof. Fuqing Zhang from Penn State University, Prof. Xiuzhen Li from Sun Yat-Sen University, Prof. Kun Yang from Tsinghua University, Dr. Yufeng Dai from Institute of Tibetan Plateau Research, Chinese Academy of Sciences (CAS), Prof. Seok-Woo Son from Seoul National University in Korea, Prof. Fei Wang from Institute of Soil and Water Conservation, CAS,

Prof. Xuemei Wang from Jinan University,
 Dr. Aristita Busuoiu from National Meteorological Administration of Romania,
 Prof. Dr. Manuel Nunez from University of Tasmania,
 Prof. Xiaodong Li from Beijing University,
 Prof. Bin He and Yun Xie from Beijing Normal University,
 Prof. Yu Liu from Institute of Earth Environment of CAS,
 Prof. Tijian Wang from Nanjing University,
 Dr. Jiandong Liu from Chinese Academy of Meteorological Sciences,
 Prof. Xuejie Gao from Institute of Atmospheric Physics of CAS,
 Prof. Ying Xu, Dr. Yanling Song, and Dr. Huanping Wu from the National Climate Center of China Meteorological Administration,
 Dr. Yudong Tian from University of Maryland/NASA,
 Prof. Yanhong Gao from Cold and Arid Regions Environmental and Engineering Research Institute of CAS,
 Dr. Rasmus Benestad from the Norwegian Meteorological Institute,
 Dr. Keyan Fang from Fujian Normal University of China,
 Prof. Chang-Hoi Ho from Seoul National University in Korea,
 Prof. Weihong Qian from Peking University.

Faculty opponent for Ph.D. defenses at other universities

2022	Velia Bigi at Politecnico di Torino: "Understanding vulnerability to natural and quasi-natural hazards: the importance of a local scale perspective for the production of relevant information"
2022	Lianyu Yu at Universiteit Twente: "Coupled Water–Heat–Carbon Exchange Processes in Cold Environments: Observation and Numerical Modeling"
2021	Yiheng Du at Lund University: "Present and Future Precipitation Variations in the Source Region of the Yangtze River, China"
2019	Astrid Fremme at University of Bergen: "Moisture sources for East Asian monsoon precipitation"
2016	Patrick W. Keys at Stockholm University: "The Precipitationshed – Methods, Concepts, and Applications"
2015	Feifei Yuan at Lund University: "Impacts of climate change on surface hydrology in the source region of the Yellow River"
2015	Giulio N. Caroletti at University of Bergen: "A Linear Model for Orographic Precipitation in meteorological and climatological downscaling"
2008	Carin Nilsson at Lund University: "Windstorms in Sweden - variations and impacts"
2006	Christer Jansson at KTH Royal Institute of Technology: "Surface energy balance and small-scale climate within the urban environment"
2004	Tony Persson at Uppsala University: "Evaporation and Heat-flux Aggregation in Heterogeneous Boreal Landscapes".

Selected research grants (Since 2016)

1. Leading project "Impact of climate variation and change on offshore wind energy potential" supported by Swedish Formas (2023-01648), 2024-2027.
2. Participating in project "Investigation of the impact of technological developments in batteries on Swedish

future air transportation” supported by the Chalmers University of Technology and University of Gothenburg, 2024-2025.

3. Participating in project “Towards a sustainable and resilient water supply in Sweden: Holistic solutions to groundwater drought and water scarcity” supported by Swedish Formas (2023-00515), 2024-2027.
4. Participating in project “Co-Creating Better Blue – C2B2” supported by Swedish Mistra, 2023-2027.
5. Participating in project “PHOENIX: Human Mobility, Global Challenges and Resilience in an Age of Social Stress” supported by Belmont Forum via Swedish Research Council (VR: 2022-06011), 2022-2025.
6. Supervising EU project ”EXTREME: Robust attribution of human-induced thermodynamic and dynamic contributions in historical changes of regional heat and cold waves over Europe” under the MARIE SKŁODOWSKA-CURIE ACTIONS Individual Fellowships (IF) program, supported by the European Commission (101067046), 2022-2024.
7. Participating in the project “New Interdisciplinary Framework for Studying the Relation between Climate Change and Migration” supported by the Swedish Research Council (VR: 2021-02163), 2022-2027.
8. Participating in BECC (Swedish National Research Program on Biodiversity and Ecosystem services in a Changing Climate) project “The impact of warming-induced summer vegetation drought on the vegetation greening, tree growth and carbon fluxes in Sweden”, 2022-2023.
9. Participating in MERGE (Swedish National Research Program on Modelling the Regional and Global Earth system) and BECC project “Learning from a fire prone past for a fire prone future: Assessing the effect of forest fires (pilot project)”, 2021-2022.
10. Leading STINT project "Simulation study on influences of natural forcings on decadal change of the Third Pole-East Asia monsoon precipitation” (CH2020-8767), 2021-2023.
11. Leading the SNIC Large Compute project “High resolution climate modelling with a focus on convection and associated precipitation over the Third Pole region” (SNIC 2020/1-14) supported by Swedish National Infrastructure for Computing (SNIC) partially funded by the Swedish Research Council through grant agreement no. 2016-07213, 2020-2021.
12. Participating in STINT project "Climate change and its impacts on hydrology and water resources in the Yangtze and Mekong River basins” (CH2019-8377), 2020-2022.
13. Leading project “Linking accelerated warming over the Tibetan Plateau to the increased frequency of European summer heat waves” supported by Swedish Research Council (VR: 2019-03954), 2020-2022.
14. Participating in SSSTC project “Understanding snow, glacier and rivers response to climate in High Mountain Asia (ASCENT)” supported by SNSF and NSFC, 2020-2023.
15. Leading MERGE (Swedish National Research Program on Modelling the Regional and Global Earth system) project “Developing a modeling framework for regional land-atmosphere interaction studies: an application in the Third Pole”, 2020-2021.
16. Participating in MERGE (Swedish National Research Program on Modelling the Regional and Global Earth system) project “Towards improved understanding of albedo-climate interaction of common land uses across Sweden”, 2020-2021.
17. Participating in BECC (Swedish National Research Program on Biodiversity and Ecosystem services in a Changing Climate) project “Impacts of extreme drought on ecosystems in Eurasia and Sweden - the role of deep water reserves”, 2020-2021.
18. Leading project “Impacts of extremely high summer temperature and drought on forest over Eurasia with a focus on Sweden” supported by Swedish Formas (2018-02858), 2019-2021.
19. Leading project " Dynamics and importance of convection for precipitation in the Third Pole region: Satellite and ground-based observation versus model simulations" supported by Swedish National Space Agency (SNSA: 188/18), 2019-2021.
20. Participating in project “Safe and Sustainable groundwater-based water supply in Swedish cities and countryside” supported by Swedish Formas (2018- 00302), 2018-2019.
21. Participating in project “Variations of precipitation and transpiration on Tibetan Plateau in response to the warming since the Little Ice Age” supported by Swedish Formas (2017-1408), 2018-2020.
22. CI for project “Observed trends and future changes in the intensity, frequency, and duration of very hot weather in Hong Kong” supported by General Research Fund of Hong Kong (RGC Ref No. 11306417),

2018-2020.

23. Participating in project “Detection and attribution of changes in extreme wind gusts over land” supported by Swedish Research Council (VR: 2017-03780), 2018-2021.
24. Participating in project “A novel framework to evaluate the impact of climate change on groundwater resources in Sweden” supported by Swedish Formas (2016-513), 2017-2019.
25. Participated in project "S-CMIP: Swedish climate research and contributions to the sixth International Coupled Model Intercomparison Project (CMIP6) - phase 3 (2017)" supported by the Swedish National Supercomputer Centre (SNIC: 2016/34-21:).
26. Led project "Impact of climate change on water balance on The Third Pole Region" supported by The Swedish Foundation for International Cooperation in Research and Higher Education (STINT: CH2015-6226), 2016-2018.
27. Supervised EU project ”STILLING: TowardS improved undersTandIng of the worLdwide decline of wind speed in a cLimate chaNGe scenario” under the MARIE SKŁODOWSKA-CURIE ACTIONS Individual Fellowships (IF) program, supported by the European Commission (703733), 2016-2018.
28. Participating in project “Northern Hemisphere warm-season jet stream variability and its links to climate extremes over the last millennium: JETCLIM” supported by Swedish Research Council (VR: 2015-04031), 2016-2019.

Selected invited lecturers and keynotes since 2014

- Keynote “Complex/Compound Disaster Risk under Climate Change” at the **International Conference on Climate Change and Disaster Risk**, organized by China-Pakistan Joint Research Center on Earth Sciences, International Association for Hydro-Environment Engineering and Research, Pakistan Academy of Sciences, and Quaid-i-Azam University, 25-27 October 2023 in Islamabad.
- Keynote “Changes in wind climate: observations, causes, and future projections” at **Climate, Weather and Water Forum (CW2F)**, organized by HKUST, 5-7 June 2023 in Hong Kong.
- Keynote “The importance of research across disciplines and national boundaries for global sustainability” at **PAIR Conference: Research Excellence for Societal Impacts**, organized by The PolyU Academy for Interdisciplinary Research (PAIR), 8-11 May 2023 in Hongkong.
- Keynote “Climate change impacts in the Third Pole” at **the Living Planet Symposium 2019**, organized by ESA, 13-17 May 2019 in Milan.
- Keynote “Observations, reanalysis, and modeling of the regional climate and water cycle at the Earth’s Third Pole” at **American Meteorological Society’s Third Symposium on Multi-scale Predictability: Data-model Integration and Uncertainty Quantification for Climate and Earth System Monitoring and Prediction**, organized by AMS, 7-11 January 2018, Austin, TX.
- Invited Lecture “Towards global sustainability: The role of research across disciplines and national boundaries” at **the Norwegian Academy of Science and letters** on 14 September 2017, Oslo.
- Keynote “Regional climate change in Tibet: past and future” at **Symposium on Advanced Assimilation and Uncertainty Quantification in Big Data Research for Weather, Climate and Earth System Monitoring and Prediction**, organized by Penn State’s Center on Advanced Data Assimilation and Predictability Techniques (ADAPT), May 23-24, 2016, College State.
- Keynote “Factors influencing variability of the Indian monsoon” at **International Workshop on Indian Monsoon and Earth System**, organized by Third Pole Environment (TPE), March 28-29, 2016, Kathmandu.
- Keynote “A Climate Scientist’s Reflection on Big Data” at **Workshop on Big Data for International Scientific Programmes: Challenges and Opportunities**, organized by CODATA, WDS, IRDR, Future Earth, GEO, RDA, ISDE, RADI, June 8-9, 2014, Beijing.

Summary: (co-)authored 500+ refereed articles in journals including 30+ articles in high-profile ones such as *Nature Climate Change/Communications/Geoscience/Energy/Reviews Earth & Environment, Science, Science Advances, National Science Review, and PNAS*; 7 refereed books or book chapters; and 200+ conference proceedings or reports. Total citations=43 684, H-index=90 (according to Google Scholar).

Peer-reviewed articles

1. Bu, L., Z. Zuo, **D. Chen**, K. Zhang, L. Qiao, 2024: Upstream evaporation is the key to extreme summertime heat stress in North China. *Earth Systems and Environment*, In press.
2. Cai, Z., Q. You, H. W. Chen, R. Zhang, Z. Zuo, **D. Chen**, J. Cohen, J. A. Screen, 2024: Assessing arctic wetting: Performances of CMIP6 models and projections of precipitation changes. *Atmospheric Research*, 297: 107124. DOI: 10.1016/j.atmosres.2023.107124.
3. Chen, X., X. Xu, Y. Ma, G. Wang, **D. Chen**, D. Cao, X. Xu, Q. Zhang, L. Li, Y. Liu, L. Liu, M. Li, S. Luo, X. Wang, X. Hu, 2024: Investigation of precipitation process in the water vapor channel of the Yarlung Zsangbo Grand Canyon. *BAMS*. DOI 10.1175/BAMS-D-23-0120.1.
4. Deng, K., S. Yang, W. Liu, H. Li, **D. Chen**, T. Lian, G. Zhang, J. Zha, C. Shen, 2024: The offshore wind speed changes in China: an insight into CMIP6 model simulation and future projections. *Climate Dynamics*. DOI: 10.1007/s00382-023-07066-1.
5. Gao, Y., J. Liu, Q. Wen, **D. Chen**, W. Sun, L. Ning, M. Yan, 2024: The influence of increased CO₂ concentrations on AMOC interdecadal variability under LGM background. *Journal of Geophysical Research: Atmosphere* 129, e2023JD039976. <https://doi.org/10.1029/2023JD039976>.
6. Irannezhad, M., A. Sadeqi, J. Liu, **D. Chen**, 2024: Iran restores the Caspian Sea's Gorgan Bay. *Science*. In press.
7. Jiang, N., C. Zhu, Z.-Z. Hu, M. McPhaden, **D. Chen**, B. Liu, S. Ma, Y. Yan, T. Zhou, W. Qian, J.-J. Luo, X. Yang, F. Liu, Y. Zhu, 2024: Enhanced Risk of Record-Breaking Regional Temperatures During the 2023-24 El Niño. *Scientific Reports*. In press.
8. Lai, H.-W., **D. Chen**, and H. W. Chen, 2024: Precipitation variability related to atmospheric circulation patterns over the Tibetan Plateau. *International Journal of Climatology* 44, 1–17, DOI: 10.1002/joc.8317.
9. Li, J., Y. Zhao, **D. Chen**, P. Zhao, C. Zhang, Y. Wang, 2024: The quantitative role of moisture and vertical motion in shaping summer heavy rainfall over North China under two distinct large-scale weather patterns. *Journal of Climate*. In press.
10. Liang, L., A. D. Ziegler, **D. Chen**, P. Ciais, L. Z. X. Li, S. Liang, D. Wang, R. Xu, and Z. Zeng, 2024: Changing footprint of the Pacific Decadal Oscillation on global land surface air temperature. *Science Bulletin* 69, 445-448, DOI: 10.1016/j.scib.2023.12.004.
11. Liu, R., L. Wang, Z. Wang, X. Li, **D. Chen**, J. Zhou, J. Qi, Y. Wang, C. Chai, G. Wang, H. Xiao, 2024: Cryosphere-hydrometeorology observations for a water tower unit on the Tibetan Plateau using the BeiDou-3 navigation satellite system. *Bulletin of the American Meteorological Society*, DOI 10.1175/BAMS-D-23-0001.1.
12. Ren, Z., Y.-F. Sang, P. Cui, **D. Chen**, Y. Zhang, T. Gong, S. Sun, N. Mellouli, 2024: Temporal scaling characteristics of sub-daily precipitation in Qinghai-Tibet Plateau. *Earth's Future*. DOI: 10.1029/2024EF004417.
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