

## Curriculum Vitae



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### Education

#### **1993 - 1996 Geophysics Department in Peking University, Beijing**

Major: Dynamical Climatology

Adviser: Prof. Shaowu WANG

Thesis: "The Variability of Monthly Circulation in Northern Hemisphere and Diagnostic Study of Climate Predictability"

Graduation: July 1996

Degree: Ph.D (Meteorology)

Other research: Anomaly Climate Model, which is a simplified GCM.

#### **1985 - 1988 Geography Department in Beijing Normal University, Beijing.**

Major: Climatology

Adviser: Prof. Shangwen SHI and Prof. Ruyi ZHANG

Thesis: "The interaction between circulation over East Asia, polar-ice in Northern Hemisphere and the sea surface temperature on Northern Pacific Ocean"

Graduation: July 1988

Degree: M.S.(Climatology)

Other study: many statistical methods such as EOF, cross correlation analysis, spectral analysis etc.

#### **1981 - 1985 Geography Department in Henan University, Kaifeng City**

Major: Geography

Study courses included: meteorology, hydrology, soil science, plant science and geology etc.

Graduation: July 1985

Degree: B.S.(geography)

## **Work Experience**

### **Sep 2004 – Present: Max-Planck-Institute for Biogeochemistry (Jena, Germany)**

Position: Project central database manager  
Subject: European Carbon Cycle (CarboEurope-IP)  
Cooperator: Prof. Martin Heimann and Dr. Galina Churkina  
Responsibilities included: Manage the whole project central database together with Mr. Reiner Krause (computer scientist); Supply meteorological data for ecosystem modeling from ECMWF and NCEP/NOAA archived dataset as well as REMO model; Develop climate scenario and reproduce multiple realization of meteorology data as forcing for ecosystem models.

### **Jun 2003 – Aug 2004: Oceanography Department of Gothenburg University (Gothenburg, Sweden)**

Position: PostDoc Research  
Subject: Climate change and its impact on Baltic Sea  
Cooperator: Prof. Anders Omstedet  
Responsible for retrieving reanalysis data from ECMWF's Meteorological Archival and Retrieval System (MARS), developing statistical models linking atmospheric circulation to ice area, sea level change etc. in the area of the Baltic Sea, reconstructing the daily forcing data for ocean model modeling with auto-regression and stochastic methods.

### **Jun 2001 – May 2003: Potsdam Institute for Climate Impact Research (Potsdam, Germany)**

Position: German Research Foundation project  
Subject: Expanded Downscaling and HBV hydrological model  
Cooperator: Prof. Axel Bronstert and Dr. Gerd Buerger  
Responsible for making core module for expanded downscaling (EDS) with GAMS (General Algebraic Modeling System; [www.gams.com](http://www.gams.com)), improving EDS model software, Applying EDS result to HBV hydrological model and validate all the simulation results, defining watershed with Arcview and Arc/info for hydrological model.

### **Mar 2000 - May 2001 Chinese Academy of Agricultural Sciences,**

Position: Research Scientist  
Subject: weather generator

Cooperator: Prof. Erda Lin

Responsibilities were: Design of weather generator with Visual Basic programming language, Research on climate change and its impact on agriculture in China

**Sep 1998 – Mar 2000 Geography Department of Gothenburg University (Gothenburg, Sweden)**

Position: Visiting Scholar

Subject: Statistical downscaling

Cooperator: Prof. Deliang Chen

Responsibilities included: developing statistical downscaling model with stepwise regression methods and CCA methods, Research on climate variability about Sweden and China, data processing for other research subject.

**Jul 1996 – Aug 1998 Chinese Academy of Agricultural Sciences**

Position: Research Scientist

Subject: weather generator

Cooperator: Prof. Erda Lin

Responsibilities included: Design of weather generator with Visual Basic programming language, Research on climate change and its impact on agriculture in China.

**Jul 1988 – Sep 1993 Yantai Teacher's University**

Position: lecturer

Responsibilities included: Teaching the undergraduate with courses such as Meteorology and Climatology, Urban Climatology, meteorology observation, and Research on soil erosion on Yellow Plateau in China.

**International experiences**

1997.10-1997.12: Tel Aviv, Israel for the Courses on Hydrometeorology

1998.9-2000.3: Gothenburg University in Sweden for PostDoc Research

1999.4.19-23: The Haag, The Netherland for International conference of EGS

2000.5.29-31: Tarragona, Spain for International Meeting on Detection and Modelling of Climate Change and its effects on a regional scale.

2001.2.26-3.4: New York, USA for the 97th Association of American Geographer annual meeting

2001.3.12-17: Lueneburg, Germany for the 8th International Meeting of Statistical Climatology.

2001.6-2003.5 Potsdam Institute for Climate Impact Research, Potsdam Germany for PostDoc

2002.4.21-27: Nice, France for International conference of EGS

2002.8.26-9.20: [Helmholtz Institute](#), Postdam for 2002 Summer School on Scientific Supercomputing in Climate Research

2003.6-2004.8: PostDoc Research in Gothenburg University, Sweden

2003.9.14-9.27: participating AVEC international summer school: integrated assessment of vulnerable ecosystems under global change, Peyresq, Alpes de Haute-Provence, France.

2004.2.23-2.27: Participating Computer User Training Course, held at ECMWF, Reading, UK.

...and more to be omitted.

## **Qualifications**

(1) Being familiar to ECMWF's Meteorological Archival and Retrieval System (MARS), including retrieving and extracting grib-format data.

(2) Expanded downscaling with GAMS ([www.gams.com](http://www.gams.com)) programming and HBV hydrological model

(3) Statistical Downscaling Models such as Multi-Regression, Auto-Regression, EOF, REOF, CCA, SVD and Power Spectral Analysis (I made most of these Fortran programs myself such as stepwise regression, EOF, CCA, power spectral analysis etc.).

(4) Dynamical Climate Model with the simplified 'GCM' called Anomaly Climate Model

(5) Stochastic Downscaling Model (Weather Generator with Visual Basic programming, as well as random number generator)

(6) Others: be skilled in Kriging, GAMS ([www.gams.com](http://www.gams.com)), UNIX shell script, Fortran, Matlab, IDL, Arcview, Arc/info, Visual Basic, Surfer,

Grapher, Origin etc., and also familiar to reading grib and netCDF format data.

### **Additional Information**

#### **Languages:**

English - Fluent written and spoken  
German - Can simply read and listen  
Chinese - Mother tongue

### **PUBLICATIONS**

- Kern, S., I. Harms, S. Bakan, Y. Chen, 2005: A comprehensive view of Kara Sea polynya dynamics, sea-ice compactness and export from model and remote sensing data, Geophysical research letters. 32 (2005) 1-4.
- Omstedt, A., Y. Chen and K. Wesslander, 2005: A comparison between the ERA40 and the SMHI gridded meteorological databases as applied to Baltic Sea modeling, Nordic Hydrology. 36 (2005) 369-380.
- Rutgersson, A., A. Omstedt and Y. Chen, 2005: Evaluation of the heat balance components over the Baltic Sea using four gridded meteorological databases and direct observations, Nordic Hydrology. 36 (2005) 381-396.
- Buerger, G. and Y. Chen, 2005: Regression-based downscaling of spatial variability for hydrologic applications, Journal of Hydrology. 311 (2005) 299-317.
- Chen, Y. and G. Buerger, 2002: Precipitation downscaling with Expanded Downscaling Methods in the Ruhr catchment in Germany, Abstract for EGS conference held in Nice, France during April 21-27, 2002.
- Chen, D. and Y. Chen, 2002: Association between winter temperature in China and upper air circulation over East Asia revealed by Canonical Correlation Analysis, Global and Planetary Change. 768(2002) 1-11.
- Chen, Y and Erda Lin, 2001: A General Study of Assessment Model about Impact of Climate Anomaly on Agricultural Production (in Chinese), Journal of Chinese Agricultural Sciences
- Xie, Yun, James R. Kiniry, Jimmy R. Williams, Y. Chen, Erda Lin, 2001: Sensitivity Analysis of The ALMANAC Model's Input Variables (in Chinese), Journal of Chinese Agricultural Sciences
- Chen, Y. 2000: The impacts of El Nino and its countermeasure (in Chinese), One chapter of a book "Climate Change and Sustaining

- Development of Agriculture". Edited by Lin Erda. Beijing press, 2001.
- Chen, Y. 2000: The changing tendency of climate variability and meteorological disaster in China (In Chinese), A selection of meeting papers for development of Western China in Xi'an, China, 14-16 September.
- Chen, Y. and D. Chen, 2000: Experiment of statistical downscaling model for winter temperature of China. Abstract for International Meeting on Detection and Modelling of Climate Change and its effects on a regional scale in Tarragona, Spain, 29-31 May 2000.
- Chen, Y. and D. Chen, 1999: A multiple regression downscaling model for monthly temperature in Sweden, in 'Geophysical Research Abstracts' Volume 1, Number 2, 1999, p552.
- Chen, D. and Y. Chen, 1999: Development and verification of a multiple regression downscaling model for monthly temperature in Sweden, in 'Preliminary analysis and statistical downscaling of monthly temperature in Sweden', Chen et al., Report C16, Earth Sciences Centre, University of Gothenburg, Sweden, 41-55.
- Chen, Y., R. Zhang and S. Shi, 1998: A Study on Diagnostic relationship Between Monthly Mean Circulation over 500hPa and the Temperature on the Ground"(in Chinese), in Journal of Beijing Normal University.
- Chen, Y. and S. Wang, 1996: A Diagnostic Study on the Predictability of Climate(in Chinese) in a Selection of Short Climate Prediction, Edited by Wang Shao-wu, Meteorology Press.
- Chen, Y. and Q. Wang, 1992: The Change of the Precipitation on the Agriculture-animal husbandry Ecotone Area of the Yellow-Plateau and its Counter-measure(in Chinese) in Journal of Yantai Teacher's University, No.2.

## **REFERENCES**

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