



## Faculty

- Full Time Faculty
- Adjunct Faculty
- Advisory Committee



## Department of risk management and insurance

▸ >Home> Department of risk management and insurance

CHEN Kai

2018-07-12

### Interview with students:

9:30-12:00am Thursday, 2017 Spring

### Job title:

Associate Professor

### Telephone:

(8610) 62757803

### E-mail:

chen.kai@pku.edu.cn

### Address:

Room 418, School of Economics, Peking University

### Education background:

09/2003-09/2007

University of Waterloo, School of Mathematics, Waterloo, ON, Canada

Doctor of Philosophy in Actuarial Science

-Dissertation: The Valuation and Risk Management of a DB Underpin Pension Plan, Advisor: Dr. Mary Hardy

-Research experience:

-Implemented different financial instruments to hedge pension liabilities from pension plan sponsors' perspective

-Pioneered one hedging strategy to manage pension funds for a defined benefit (DB) pension and authored new findings

-Provided quantitative costs analysis for pension designers and proposed costs reduction approaches

-Customized the Monte Carlo simulation to numerically solve PDEs and calculate pension hedging costs

09/1998- 09/2002

Peking University, School of Mathematical Sciences, Beijing, China

B.S. in Financial Mathematics, 2002

### Work experience:

09/2013-present

Associate Professor, Peking University, Beijing, China

-Teach four courses in actuarial science and risk management per year and mentored students in Insurance Major

-Director of the China Actuarial Science Development & Research Center at Peking University

-Courses: Principle of Actuarial Science (undergraduate), Enterprise Risk Management (undergraduate, in English), Risk Management Modeling and Applications (undergraduate), and Practices in Actuarial Science (graduate)

09/2009-09/2013

Assistant Professor, Peking University, Beijing, China

-Teach two courses in actuarial science and risk management per year and mentored students in Insurance Major

-Designed a risk management course in English and will offer this course in 2012 for all students at Peking

#### University

-Courses: Principle of Actuarial Science (undergraduate), Enterprise Risk Management (undergraduate, in English), Risk Management Modeling and Applications (undergraduate), and Advanced Actuarial Science (graduate)

09/2007-09/2009

Assistant Professor, Robert Morris University, Moon Twp, PA

-Taught three courses in mathematics and actuarial science per semester and mentored students in Actuarial Science Major

-Initiated a joint course with School of Business for the Society of Actuaries professional examinations

09/2002-09/2003

Research Assistant, United Security Company Financial Laboratory, Peking University, China

-Evaluated the portfolio strategies and developed a new efficient strategy to increase ROI with a low implied volatility

-Analyzed the performance of China Securities Market, constructed a benchmark to test the efficiency of the market

07/2001-09/2001

Summer Intern, Ping An Insurance Company of China, Shenzhen, China

-Analyzed the insurance policy historical data to evaluate the existing traditional fixed annuity products

-Participated in the design of new variable annuity products and the exploration of new market opportunities

#### \*OTHER RESEARCH EXPERIENCES

06/2011- present

Director, China Actuarial Science Development & Research Center, Peking University, Beijing, China

09/2009- present

Research Fellow

China Center for Insurance and Social Security Research, Peking University, Beijing, China

#### \*LEADERSHIP/ ASSOCIATION

09/2003-09/2004

Co-Organizer, University of Waterloo Actuarial Science Club, Waterloo, Canada

? Organized one and half hours lecture per week for club members pursuing the Associate of Society of Actuaries (ASA)

? Managed seminars on actuarial topics featuring notable managers from Canadian insurance companies

07/2000-08/2000

Organizer/Team Leader, School of Mathematical Sciences, Peking University, China

? Raised 12,000 RMB fund to support one 12-person team to Yunnan province to investigate the rich-poor gap in suburban

? Used spare time to teach ethnic minority children mathematics and Mandarin

#### Research interests:

Risk Management

Pension

Enterprise Risk Management

Monte Carlo Simulation

Financial Mathematics

#### Teaching:

Undergraduate Level: Principle of Actuarial Science, Enterprise Risk Management (in English), Risk Management Modeling and Applications

Graduate Level: Practices in Actuarial Science

#### Publications:

? Kai Chen\* and Chi Choi Wong (2017), The Decision-Making Actuarial Pricing Model Based on Expected Utility Theory and Prospect Theory, Insurance Studies, 2011(12)

? Yue Zhao, Saiang Gao, and Kai Chen\*(2015), Study on the model of Individual Pension Reserve, Finance Forum, 66-74, 2015(8)

? Kai Chen\* and Yu Duan(2014), Multi-supports for retirement and Household Saving Rate—Empirical Analysis on an Overlapping Generation Model, Journal of Technoeconomics & Management Research, 71-76, 2014(6)

? Wei Zheng, Shanjun Lin, and Kai Chen\*, Characteristics and Trend of Population Aging in China and Its Potential Impact on Economic Growth, The Journal of Quantitative & Technical Economics, 3-20, 2014(8)

? Kai Chen\* and Xiaojie Gong (2012), The Relationship between ERM and the Firm Value in Insurance Companies,

Journal of Technoeconomics & Management Research, 7-11, 2012(9)

? Kai Chen\* and Yu Duan (2012), A Study on the Inflation Risk of Individual Accounts of the Social Security Fund, Insurance Studies, 2012(4)

? Kai Chen (2012), The valuation and risk management of a DB underpin pension plan, Central Compilation and Translation Press

? Kai Chen\* and Yinshen He (2011), The Valuation of Hybrid Pension Plans and Risk Analysis, Insurance Studies, 2011(12)

? Kai Chen\* and Mary Hardy (2009), The DB underpin hybrid pension plan: fair valuation, North American Actuarial Journal, Volume 13, Number 4.

#### **Honors and Awards:**

##### **\*SCHOLARSHIPS/CERTIFICATES**

? 09/2006, Associate of the Society of Actuaries, Specialization: Risk Management, Finance, Pension

? 09/2006, SOA/CAS Ph.D. Grants, US \$10,000

? 01/2006, Empire Life Insurance Company Graduate Scholarship, CA \$10,000

? 01/2005, Dominion of Canada General Insurance Company Graduate Scholarship, CA \$10,000