

<b>Time</b>	<b>16 December 2010 (Thursday)</b>					
08:30 – 09:00	<b>Registration</b> [Outside N002]					
09:00 – 09:30	<b>Opening Ceremony</b> [N003]					
09:30 – 10:00	Featured Presentation [N003]					
10:00 – 11:00	2 Talks (Stream 1) [M110]	1 Talk (Stream 2) [M111]	2 Talks (Stream 3) [N002]	2 Talks (Stream 4) Common Session with IRF [N003]	-	2 Talks (Stream 6) Common Session with IRF [N001]
11:00 – 11:30	<b>Coffee Break</b>					
11:30 – 13:00	2 Talks (Stream 1) [M110]	2 Talks (Stream 2) [M111]	3 Talks (Stream 3) [N002]	2 Talks (Stream 4) Common Session with IRF [N003]	3 Talks (Stream 5) [M104]	4 Talks (Stream 6) Common Session with IRF [N001]
13:00 – 14:00	<b>Lunch</b> [Staff Restaurant (Chinese Restaurant), 4/F., Communal Building]					
14:00 – 14:30	<b>Group Photo Session</b> [Outside N001 Stair]					
14:30 – 16:00	2 Talks (Stream 1) [M110]	2 Talks (Stream 2) [M111]	3 Talks (Stream 3) [M108]	2 Talks (Stream 4) Common Session with IRF [N003]	3 Talks (Stream 5) Common Session with IRF [N002]	2 Talks (Stream 6) [N001]
16:00 – 16:30	<b>Coffee Break</b>					
16:30 – 18:00	2 Talks (Stream 1) [M110]	2 Talks (Stream 2) [M111]	3 Talks (Stream 3) [M108]	2 Talks (Stream 4) Common Session with IRF [N003]	3 Talks (Stream 5) Common Session with IRF [N002]	2 Talks (Stream 6) [N001]
18:30 – 21:00	<b>Dinner</b> [Staff Restaurant (Chinese Restaurant), 4/F., Communal Building]					

<b>Time</b>	<b>17 December 2010 (Friday)</b>					
08:30 – 09:00	<b>Registration</b> [M103]					
09:00 – 11:00	2 Talks (Stream 1) [M110]	2 Talks (Stream 2) [M111]	3 Talks (Stream 3) Common Session with IRF [N003]	2 Talks (Stream 4) [M109]	4 Talks (Stream 5) [M104]	4 Talks (Stream 6) Common Session with IRF [N001]
11:00 – 11:30	<b>Coffee Break</b>					
11:30 – 13:00	2 Talks (Stream 1) [M110]	2 Talks (Stream 2) [M111]	3 Talks (Stream 3) Common Session with IRF [N003]	3 Talks (Stream 4) [M109]	3 Talks (Stream 5) [M104]	2 Talks (Stream 6) Common Session with IRF [N001]
13:00 – 14:00	<b>Lunch</b> [Staff Restaurant (Chinese Restaurant), 4/F., Communal Building]					
14:00 – 15:30	2 Talks (Stream 1) [M110]	2 Talks (Stream 2) [M111]	3 Talks (Stream 3) [M108]	2 Talks (Stream 4) Common Session with IRF [N003]	2 Talks (Stream 5) [M104]	2 Talks (Stream 6) [N001]
15:30 – 16:00	<b>Coffee Break</b>					
16:00 – 18:00	1 Talk (Stream 1) [M110]	2 Talks (Stream 2) [M111]	4 Talks (Stream 3) [M108]	4 Talks (Stream 4) Common Session with IRF [N003]	3 Talks (Stream 5) [M104]	4 Talks (Stream 6) [N001]
19:00 – 21:30	<b>Banquet</b> [Metropolis Harbour View Chinese Cuisine, Level 8, Harbour Plaza Metropolis Hotel]					

<b>Time</b>	<b>18 December 2010 (Saturday)</b>					
09:00 – 11:00	6 Talks (Stream 1) [M110]	6 Talks (Stream 2) [M111]	7 Talks (Stream 3) [M108]	6 Talks (Stream 4) [M109]	6 Talks (Stream 5) [M104]	5 Talks (Stream 6) [N001]
11:00 – 11:30	<b>Coffee Break</b>					

## **Stream 1: Industrial Statistics**

**Organizers: Jeff WU, William LI**

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### *Invited Speakers:*

Stefano BARONE, Chalmers University of Technology and University of Palermo  
Derek BINGHAM, Simon Fraser University  
Dae-Heung JANG, Pukyong National University  
Youngil KIM, ChungAng University  
William LI, University of Minnesota  
Dennis LIN, The Pennsylvania State University  
Christopher NACHTSHEIM, University of Minnesota  
Shane REESE, Brigham Young University  
Thomas SANTNER, Ohio State University  
Jun SHAO, University of Wisconsin  
Kwok L. TSUI, Georgia Institute of Technology  
Fugee TSUNG, The Hong Kong University of Science and Technology  
Runchu ZHANG, Nankai University and Northeast Normal University  
Ji ZHU, University of Michigan

### *Contributed Speakers:*

Eisa BOZORGZADEH, Iran Water and Power Resources Development Co.  
Jerome COLLET, EDF R&D division  
Ahmet GONCU, Shandong University  
Alex LUM, Singapore Polytechnic  
Frederick PHOA, Institute of Statistical Science, Academia Sinica  
Homayoon SHALCHIAN, Laurentian University  
Teh Sin YIN, Universiti Sains Malaysia

## **Stream 2: Biostatistics**

**Organizers: Jianguo SUN, Xingqiu ZHAO**

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### *Invited Speakers:*

N. BALAKRISHNAN, McMaster University  
Luc DUCHATEAU, Ghent University  
Jason FINE, University of North Carolina - Chapel Hill  
Nancy FLOURNOY, University of Missouri - Columbia  
Leonard B. HEARNE, University of Missouri - Columbia  
X. Joan HU, Simon Fraser University  
Nicholas P. JEWELL, University of California - Berkely  
Mi-Ok KIM, Cincinnati Children's Hospital Medical Center and  
University of Cincinnati College of Medicine  
Chun-Ling LIU, The Hong Kong Polytechnic University  
Jianguo SUN, University of Missouri - Columbia  
Yanqing SUN, University of North Carolina - Charlotte  
Guo-Liang TIAN, The University of Hong Kong  
Christ J. WILD, University of Auckland  
Guosheng YIN, The University of Hong Kong  
Xingqiu ZHAO, The Hong Kong Polytechnic University &  
Zhongnan University of Economics and Law

### *Contributed Speakers:*

Yuan-Chin Ivan CHANG, Institute of Statistical Science, Academia Sinica  
Ali Reza FOTOUHI, University of the Fraser Valley  
Qinying HE, Southwestern University of Finance and Economics  
Yuanyuan LIN, The Hong Kong University of Science and Technology  
Shalabh, Indian Institute of Technology Kanpur  
Haitian WANG, The Hong Kong University of Science and Technology

**Stream 3: Financial Statistics****Organizers: Heung WONG, Cedric YIU**

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*Invited Speakers:*

Dong-Hyun AHN, Young-Min CHOI, Young-Sik KIM & Won-Suk LIU, Seoul National University  
 Ngai-Hang CHAN, The Chinese University of Hong Kong  
 Tim CHAU, Census and Statistics Department, Hong Kong, China  
 Nan CHEN, The Chinese University of Hong Kong  
 Wai-Ki CHING, The University of Hong Kong  
 Olivier GUEANT, Université Paris-Diderot  
 Monique JEANBLANC, Evry University  
 Bing-Yi JING, The Hong Kong University of Science and Technology  
 Hyeng Keun KOO & Chong Seok HYUN, Ajou University  
 Lu LIN, Shandong University  
 Shiqing LING, The Hong Kong University of Science and Technology  
 Nicolas PRIVAULT, Nanyang Technological University  
 Mike K.P. SO, The Hong Kong University of Science and Technology  
 Srdjan STOJANOVIC, Suzhou University & University of Cincinnati  
 Denis TALAY, INRIA Centre de Sophia Antipolis  
 Yiu-Kuen TSE, Singapore Management University  
 Pierre VALLOIS, University of Nancy  
 Dong Chul WON, Ajou University  
 Philip YU, The University of Hong Kong  
 Jinwen ZHAO, Dongbei University of Finance and Economics

*Contributed Speakers:*

Zainudin ARSAD, Universiti Sains Malaysia  
 Hui-Chih CHAI, Chung Yuan Christian University  
 Raymond Ka-Shing CHAN, The Hong Kong University of Science and Technology  
 Siu-Wa CHUNG, The Hong Kong University of Science and Technology  
 Jyh-Bang JOU, Massey University  
 David ONG, Peking University  
 Diego RONCHETTI, University of Lugano  
 Mahendran SHITAN, University Putra Malaysia

Carisa K. W. YU, Hang Seng Management College  
Guojing WANG, Suzhou University  
Sherry Z. F. ZHOU, City University of Hong Kong

## Stream 4: Probability Theory with Applications

### Organizers: Zhiming MA, Phillip YAM

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#### *Invited Speakers:*

Xue CHENG, Peking University

Sung-Nok CHIU, Hong Kong Baptist University

Rama CONT, Columbia University - New York

Stephen FIGLEWSKI, New York University

Yacov Y. HAIMES, University of Virginia

Yat-Fai LAM, CT Risk Solutions Limited

Chenghu MA, Fudan University

Phil MAYMIN, Polytechnic Institute of New York University & Gregg S. FISHER, Gerstein Fisher

John MORIARTY, University of Manchester

Ali MOSLEH, University of Maryland

George PAPANICOLAOU, Stanford University

Elisabeth PATE-CORNELL, Stanford University

Ronnie SIRCAR, Princeton University

Jonathan TSAI, The University of Hong Kong

Limin WANG, University of Science and Technology Beijing

Wing-Keung WONG, Hong Kong Baptist University

Thaleia ZARIPHOULOU, The University of Texas

Xunyu ZHOU, University of Oxford

#### *Contributed Speakers:*

G. G. HAMEDANI, Marquette University

Zhiyuan LI, University of Science and Technology of China

Jin LIANG, Tongji University

John LOUSTAU, Hunter College of CUNY

Xiaosong QIAN, Yangzhou University

Anthony REVEILLAC, Humboldt-Universität zu Berlin

Jing XU, Chongqing University



**Stream 5: Actuarial Science / Insurance Mathematics**  
**Organizers: Elias SHIU, Ping-Kei LEUNG, Hailiang YANG**

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*Invited Speakers:*

Benjamin AVANZI, University of New South Wales  
 Ping CHEN, The University of Melbourne  
 Ka-Chun CHEUNG, The University of Hong Kong  
 Pak-Wing FONG, Hong Kong Monetary Authority  
 Xuemiao HAO, University of Manitoba  
 Joseph KIM, University of Waterloo  
 Yue-Kuen KWOK, The Hong Kong University of Science and Technology  
 John LIU, The Hong Kong Polytechnic University  
 Xiaoming LIU, The University of Western Ontario  
 Yaffa MACHNES, Bar Ilan University  
 Hal PEDERSEN, University of Manitoba  
 Sachi PURCAL, Macquarie University  
 Gyoocheol SHIM, Ajou University  
 Jaeyoung SUNG, Ajou University  
 Qihe TANG, The University of Iowa  
 Charles TAPIERO, Polytechnic Institute of NYU of New York  
 Serena TIONG  
 Bernard WONG, University of New South Wales  
 Hailiang YANG, The University of Hong Kong  
 Kam-Chuen YUEN, The University of Hong Kong  
 Jinxia ZHU, University of New South Wales

*Contributed Speakers:*

Efim BRONSHTEIN, Ufa State Aviation Technical University  
 Eric C.K. CHEUNG, The University of Hong Kong  
 Jingzhen LIU, The Hong Kong Polytechnic University  
 Norhana Abd. RAHIM, Universiti Teknologi MARA Malaysia  
 Jae-Kyung WOO, Concordia University  
 Jiashen YOU, University of California

**Stream 6: Financial Mathematics and Risk Management**  
**Organizers: Shige PENG, Cedric YIU, James HUANG, Xun LI**

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*Invited Speakers:*

Aurelién ALFONSI, Paris Est University  
 Vlad BALLY, Université Paris-Est  
 Nan CHEN, The Chinese University of Hong Kong  
 Zengjing CHEN, Shandong University  
 Hanqing JIN, University of Oxford  
 Leong-Kwan LI, The Hong Kong Polytechnic University  
 Juan LI, Shandong University  
 Zhen LIU, Missouri University of Science & Technology  
 Papa NDIAYE, Raise Partner Inc, New York  
 Shige PENG, Shandong University  
 Olivier PIRONNEAU, Université Pierre et Marie Curie-Paris 6, Laboratoire Jacques Louis Lions  
 Yufeng SHI, Shandong University  
 Agnes SULEM, INRIA Paris – Rocquencourt  
 Michael TAKSAR, University of Missouri College of Arts & Science  
 Shanjian TANG, Fudan University  
 Lan WU, Peking University  
 Lixin WU, The Hong Kong University of Science and Technology  
 Zhen WU, Shandong University  
 Weiqiang YANG, Shandong University  
 Jiongmin YONG, University of Central Florida  
 Antonino ZANETTE, University of Udine  
 Weidong ZHAO, Shandong University

*Contributed Speakers:*

Zhuming CHEN, Sun Yat-sen University  
 Chun-Sing LAU, The Chinese University of Hong Kong  
 Yi LIU, Tongji University  
 S. P. YUNG, The University of Hong Kong

# Stream 1: Industrial Statistics

Organizers : Jeff WU, William LI

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**16 December, Thursday**

**Chair :** Stefano BARONE

**[M110]**

10:00-10:45      **Christopher NACHTSHEIM** (University of Minnesota)  
*A Class of Three-Level Designs for Definitive Screening in the Presence of Second-Order Effects*

10:45-11:00      **Teh Sin YIN** (Universiti of Malaysia)  
*A Study on the Effects of Skewed Distributions on the Performances of the Max-EWMA and Max-GWMA Charts*

**Chair :** Derek BINGHAM

**[M110]**

11:30-12:15      **Thomas SANTNER** (Ohio State University)  
*Multiobjective Optimization of Expensive Black-Box Functions via Expected Maximin Improvement*

12:15-13:00      **Shane REESE** (Brigham Young University)  
*Posterior Exploration for Computationally Intensive Forward Models*

**Chair :** Youngil KIM

**[M110]**

14:30-15:15      **Runchu ZHANG** (Nankai University and Northeast Normal University)  
*A General Minimum Confounding Theory for Factorial Designs*

15:15-16:00      **William LI** (University of Minnesota)  
*Optimal Designs for Discrete Choice Experiments under Model Uncertainty*

**Chair :** Dennis LIN

**[M110]**

16:30-17:15      **Derek BINGHAM** (Simon Fraser University)  
*Compliance Testing for Random Effects Models with Joint Acceptance Criteria*

17:15-18:00      **Youngil KIM** (ChungAng University)  
*Graphical Method for Evaluating Supersaturated Design*

## STREAM 1

**17 December, Friday**

**Chair :** Christopher NACHTSHEIM

**[M110]**

09:00-09:45     **Dennis LIN** (The Pennsylvania State University)  
*Recent Advances in Computer Experiments*

09:45-10:30     **Jun SHAO** (University of Wisconsin)  
*Estimation in High-Dimensional Linear Models with Deterministic Designs*

**Chair :** Shane REESE

**[M110]**

11:30-12:15     **Stefano BARONE** (Chalmers University of Technology and University of Palermo)  
*A New Method for Marketing Research and Product Development based on Choice Modeling and Weighted Regression*

12:15-13:00     **Ji ZHU** (University of Michigan)  
*Joint Estimation of Multiple Graphical Models*

**Chair :** Thomas SANTNER

**[M110]**

14:00-14:45     **Fugee TSUNG** (The Hong Kong University of Science and Technology)  
*Statistical Quality Techniques Applied to Service Industry*

14:45-15:30     **Dae-Heung JANG** (Pukyong National University)  
*Three-Dimensional Quantile Plots and Animated Quantile Plots of the Prediction Variance for Response Surface Designs*

**Chair :** Jun SHAO

**[M110]**

16:00-16:45     **Kwok L. TSUI** (Georgia Institute of Technology)  
*Recent Research on Healthcare and Public Health Surveillance*

**STREAM 1****18 December, Saturday****Chair : Ji ZHU****[M110]**

- 09:00-09:20      **Eisa BOZORGZADEH** (Iran Water and Power Resources Development Co.)  
*New Chaotic-based Statistical Method Applied in Hydrological Data Prediction*
- 09:20-09:40      **Jerome COLLET** (EDF R&D division)  
*Copula Goodness-of-Fit Testing Using Ranks and Subsampling*
- 09:40-10:00      **Ahmet GONCU** (Shandong University)  
*Pricing Weather Derivatives : An Example from China*
- 10:00-10:20      **Alex LUM** (Singapore Polytechnic)  
*Perceptions of Government-Linked Companies and Entrepreneurship in Singapore : A Probit Model Analysis of Occupational Choice*
- 10:20-10:40      **Frederick PHOA** (Institute of Statistical Science, Academia Sinica)  
*Some Recent Advances on Quaternary-Code designs*
- 10:40-11:00      **Homayoon SHALCHIAN** (Laurentian University)  
*Corporate Social Performance : A Burden or a Bonus for the Shareholder?*

## Stream 2: Biostatistics

Organizers : Jianguo SUN, Xingqiu ZHAO

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### 16 December, Thursday

**Chair :** Xingqiu ZHAO **[M111]**

10:00-10:45     **N. BALAKRISHNAN** (McMaster University)  
*A Random-Sum Wilcoxon Statistic and its Application to Analysis of ROC and LROC Data*

**Chair :** Yanqing SUN **[M111]**

11:30-12:15     **X. Joan HU** (Simon Fraser University)  
*Handling Incomplete Observations with Supplementary Information*

12:15-13:00     **Jianguo SUN** (University of Missouri-Columbia)  
*Analysis of Recurrent Event Studies with Incomplete Information and Complex Structure*

**Chair :** Guo-Liang TIAN **[M111]**

14:30-15:15     **Guosheng YIN** (The University of Hong Kong)  
*Phase II Trial Design with Bayesian Adaptive Randomization and Predictive Probability*

15:15-16:00     **Chun-Ling LIU** (The Hong Kong Polytechnic University)  
*A Min-Max Combination of Biomarkers to Improve Diagnostic Accuracy*

**Chair :** Guosheng YIN **[M111]**

16:30-17:15     **Guo-Liang TIAN** (The University of Hong Kong)  
*Recent Advances for Non-Randomized Response Techniques : The Parallel Model, A Variant and An Extension*

17:15-18:00     **Xingqiu ZHAO** (The Hong Kong Polytechnic University)  
*Nonparametric Tests for Panel Count Data*

**STREAM 2****17 December, Friday****Chair :** Jianguo SUN**[M111]**

09:00-09:45     **Nicholas P. JEWELL** (University of California-Berkely)  
*Cross-Sectional Observations of Simple Counting Processes*

09:45-10:30     **Luc DUCHATEAU** (Ghent University)  
*Frailties Share and Correlate, Copulas Divide and Unite*

**Chair :** X. Joan HU**[M111]**

11:30-12:15     **Jason FINE** (University of North Carolina-Chapel Hill)  
*Uncovering Symptom Progression History from Large Disease Registries, with Application to Young Cystic Fibrosis Patients*

12:15-13:00     **Yanqing SUN** (University of North Carolina-Charlotte)  
*Testing Independent Censoring for Longitudinal Data*

**Chair :** Mi-Ok KIM**[M111]**

14:00-14:45     **Nancy FLOURNOY** (University of Missouri-Columbia)  
*Information in Adaptive Optimal Design with Emphasis on the Two Stage Case*

14:45-15:30     **Chris J. WILD** (University of Auckland)  
*Efficient Estimation in Multi-phase Case-control Studies*

**Chair :** Jason FINE**[M111]**

16:00-16:45     **Mi-Ok KIM** (Cincinnati Children's Hospital Medical Center, University of Cincinnati College of Medicine)  
*A New Hybrid Estimation Method for Censored Quantile Regression*

16:45-17:30     **Leonard B. HEARNE** (University of Missouri-Columbia)  
*Multivariate Density Estimates Using Geometric Methods*

## STREAM 2

**18 December, Saturday**

**Chair :** Chun-Ling LIU

[M111]

- 09:00-09:20      **Ali Reza FOTOUHI** (University of the Fraser Valley)  
*A Joint Model for Analysing Longitudinal Count Data and Event History Data with Application in Clinical Trials*
- 09:20-09:40      **Qinying HE** (Southwestern University of Finance and Economics)  
*Fisher Information in Type II Censored Samples from Two Bivariate Exponential Distributions and Applications*
- 09:40-10:00      **Yuanyuan LIN** (The Hong Kong University of Science and Technology)  
*Efficient Estimation of Censored Linear Regression Model*
- 10:00-10:20      **Shalabh** (Indian Institute of Technology Kanpur)  
*Instrumental Variable Estimation in Measurement Error Model under Exact Restrictions*
- 10:20-10:40      **Yuan-Chin Ivan CHANG** (Institute of Statistical Science, Academia Sinica)  
*Area under ROC Curve Type Measures without Binary Gold Standard*
- 10:40-11:00      **Haitian WANG** (The Hong Kong University of Science and Technology)  
*Classification of Exome-Scan Genotype Data by an Algorithm of Screening and Detecting Interactions Among Variables with Present of Rare Variant Effect*



## Stream 3: Financial Statistics

Organizers : Heung WONG, Cedric YIU

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**16 December, Thursday**

**Chair :** Monique JEANBLANC **[N002]**

10:00-10:30 **Monique JEANBLANC** (Evry University)  
*Models for Credit Risk*

10:30-11:00 **Dong-Hyun AHN, Young-Min CHOI, Young-Sik KIM & Won-Suk LIU**  
(Seoul National University)  
*Engineering for Whom? Evidence in Retail Structured Equity Products*

**Chair :** Monique JEANBLANC **[N002]**

11:30-12:00 **Nan CHEN** (The Chinese University of Hong Kong)  
*A Non-Zero-Sum Game Approach to Convertible Bonds : Tax Benefit, Bankrupt  
Cost and Early/Late Calls*

12:00-12:30 **Wai-Ki CHING** (The University of Hong Kong)  
*On Modeling Correlated Default Risk*

12:30-13:00 **Nicolas PRIVAULT** (Nanyang Technological University) &  
**Timothy Robin TENG** (University of Manila)  
*Forward Hedging of Swaptions and Related Derivatives in Bond Markets*

**Chair :** Heung WONG **[M108]**

14:30-15:00 **Yiu-Kuen TSE** (Singapore Management University)  
*Estimation of High-Frequency Volatility : An Autoregressive Conditional  
Duration Approach*

15:00-15:30 **Jinwen ZHAO** (Dongbei University of Finance and Economics)  
*Empirical Analysis on The Effect of Insurance Development on Economic Growth  
in China*

15:30-16:00 **Lu LIN** (Shandong University)  
*Statistical Inference for the FBSDE and Its Application in Finance*

### STREAM 3

**Chair :** Mike K.P. SO

[M108]

- 16:30-17:00     **Ngai-Hang CHAN** (The Chinese University of Hong Kong)  
*Shrinkage Method for Estimating the Optimal Expected Return of a Self-Financing Portfolio*
- 17:00-17:30     **Shiqing LING** (The Hong Kong University of Science and Technology)  
*On the Quasi-maximum Likelihood Estimation of a Threshold Double AR Model*
- 17:30-18:00     **Sherry Z.F. ZHOU** (City University of Hong Kong)  
*A Note on the Properties of Stein-Rule and Inequality Restricted Estimators when the Regression Model is Over-fitted*

### 17 December, Friday

**Chair :** Dennis TALAY

[N003]

- 09:00-09:40     **Denis TALAY** (INRIA Centre de Sophia Antipolis)  
*A Selection of Open Challenging Questions in Financial Mathematics*
- 09:40-10:20     **Olivier GUEANT** (Université Paris-Diderot)  
*Introduction to Mean Field Games and Numerical Recipes*
- 10:20-11:00     **Hyeng Keun KOO & Chong Seok HYUN** (Ajou University)  
*Liquidity, Market Microstructure, and Financial Crisis*

**Chair :** Dennis TALAY

[N003]

- 11:30-12:00     **Srdjan STOJANOVIC** (Suzhou University)  
*Any-utility Neutral and Indifference Pricing and Hedging*
- 12:00-12:30     **Pierre VALLOIS** (University of Nancy)  
*From Persistent Random Walk to the Telegraph Noise. Application to Insurance*
- 12:30-13:00     **Dong Chul WON** (Ajou University)  
*Survival in Equilibrium with Other-Than-Me Welfare Improvement*

**STREAM 3****Chair :** Philip YU**[M108]**

14:00-14:30     **Bing-Yi JING** (The Hong Kong University of Science and Technology)  
*Integrated Volatility Estimation with Multiple Transactions*

14:30-15:00     **Philip YU** (The University of Hong Kong)  
*Modeling Threshold Conditional Heteroscedasticity with Regime-dependent Skewness and Kurtosis*

15:00-15:30     **Mike K.P. SO** (The Hong Kong University of Science and Technology)  
*Stochastic Covariance Models*

**Chair :** Wai-Cheung IP**[M108]**

16:00-16:30     **Tim CHAU** (Census & Statistics Department, Hong Kong, China)  
*Hong Kong as a Financial Centre : Global, Regional and China Dimension*

16:30-17:00     **Carisa K.W. YU** (Hang Seng Management College)  
*Insight into the Application of Mathematical Models to Real Estate Investment*

17:00-17:30     **Jyh-Bang JOU** (Massey University)  
*Default Option and Optimal Capital Structure in Real Estate Investment*

17:30-18:00     **David ONG** (Peking University)  
*A Mechanism to Detect and Decrease Insider Trading*

## STREAM 3

**18 December, Saturday**

**Chair :** Chi-Tim NG

**[M108]**

- 09:00-09:20     **Diego RONCHETTI** (University of Lugano)  
*Semi-Parametric Estimation of American Option Prices*
- 09:20-09:40     **Mahendran SHITAN** (University Putra Malaysia)  
*A First-Order Spatial Integer-Valued Autoregressive SINAR(1, 1) Model*
- 09:40-10:00     **Siu-Wa CHUNG** (The Hong Kong University of Science and Technology)  
*Modeling Dynamic Seasonality in Quantile Regression*
- 10:00-10:20     **Raymond Ka-Shing CHAN** (The Hong Kong University of Science and Technology)  
*Forecasting Tail Risk in Financial Time Series Using a Mixture of Distribution Approach*
- 10:20-10:40     **Zainudin ARSAD** (Universiti Sains Malaysia)  
*Further Evidence of Turn-of-the-month Effect on Returns and Volatility in Asian Stock Indices*
- 10:40-11:00     **Guojing WANG** (Suzhou University)  
*On a Reduced Form Credit Risk Model with Thinning-Dependence Structure for Default Intensities*
- 11:00-11:20     **Hui-Chih CHAI** (Chung Yuan Christian University)  
*Minor Declines in Price as a Probable Precursor to Price-Drop Events : An Extension of the ACD Model*

# Stream 4: Probability Theory with Applications

Organizers : Zhiming Ma, Phillip Yam

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**16 December, Thursday**

**Chair :** Elisabeth PATÉ-CORNELL [N003]

10:00-10:30      **Elisabeth PATÉ-CORNELL** (Stanford University)  
*Taking, Avoiding and Managing Risks : An Engineering Perspective and a Few Lessons Learned*

10:30-11:00      **Yacov Y. HAIMES** (University of Virginia)  
*Modeling and Quantifying the Multiple Perspectives of Risk to Multi-Scale Complex Systems*

**Chair :** Elisabeth PATÉ-CORNELL [N003]

11:30-12:15      **Ali MOSLEH** (University of Maryland)

12:15-13:00      **Limin WANG, Suhuan LIAO & Wenchao HUANG**  
(University of Science and Technology Beijing)  
*The Liquidity Model in Financial Market with Reynolds Criterion*

**Chair :** George PAPANICOLAOU [N003]

14:30-15:15      **George PAPANICOLAOU** (Stanford University)  
*Influence of Trading Strategies on Market Prices*

15:15-16:00      **Rama CONT** (Columbia University-New York)  
*Modeling and Measuring Systemic Risk*

**Chair :** George PAPANICOLAOU [N003]

16:30-17:15      **Stephen FIGLEWSKI** (New York University)  
*Understanding Risk Neutral Option Pricing During Times of Market Stress*

17:15-18:00      **Ronnie SIRCAR** (Princeton University)  
*Dynamic Bertrand Oligopoly*  
*Games with Exhaustible Resources*  
*Bertrand and Cournot Competition under Asymmetric Costs: Number of Active Firms in Equilibrium*

## STREAM 4

**17 December, Friday**

**Chair :** Phillip YAM

[M109]

- 10:00-10:30     **John MORIARTY** (University of Manchester)  
*Hysteretic Regime Switching Diffusions, and Applications in the Theory of Real Options*
- 10:30-11:00    **G.G. HAMEDANI** (Marquette University)  
*Conditional Moments, Sub-Independence and Independence*

**Chair :** Phillip YAM

[M109]

- 11:30-12:00    **Sung Nok CHIU** (Hong Kong Baptist University)  
*On the Complete Monotonicity of the Compound Geometric Convolution with Applications in Risk Theory*
- 12:00-12:30    **Xue CHENG** (Peking University)  
*A New Look at the Lagrange Method for Continuous-Time Stochastic Optimization*
- 12:30-13:00    **Jonathan TSAI** (The University of Hong Kong)  
*The Scaling Limit of 2-d Myopic Random Walk*

**Chair :** Chenghu MA & Thaleia ZARIPHOULOU

[N003]

- 14:00-14:45    **Thaleia ZARIPHOULOU** (The University of Texas)  
*New Perspectives in Optimal Portfolio Choice*
- 14:45-15:30    **Xunyu ZHOU** (University of Oxford)  
*Mathematicalising Behavioural Finance*

**Chair :** Chenghu MA & Thaleia ZARIPHOULOU

[N003]

- 16:00-16:30    **Chenghu MA** (Fudan University)  
*Continuous-Time MV Analysis in Presence of Lévy Jumps*
- 16:30-17:00    **Phil MAYMIN** (Polytechnic Institute of New York University) &  
**Gregg S. FISHER** (Gerstein Fisher)  
*Preventing Emotional Investing : An Added Value of an Investment Advisor*
- 17:00-17:30    **Yat-Fai LAM** (CT Risk Solutions Limited)  
*Reform of Liquidity Risk Management after Global Financial Tsunami*
- 17:30-18:00    **Wing-Keung WONG** (Hong Kong Baptist University)  
*A New Pseudo Bayesian Model for Financial Crisis*

**STREAM 4****18 December, Saturday****Chair :** James HUANG**[M109]**

- 09:00-09:20     **Jin LIANG** (Tongji University)  
*Valuation of Contingent Credit Interest Rate Swap*
- 09:20-09:40     **John LOUSTAU** (Hunter College of CUNY)  
*Collocation Method on Triangular Elements, Theory, Method and Examples from Financial Mathematics*
- 09:40-10:00     **Xiaosong QIAN** (Yangzhou University)  
*Explicit Formulas for Pricing of Callable Mortgage-Backed Securities in a Case of Prepayment Rate Negatively Correlated to Interest Rate*
- 10:00-10:20     **Anthony REVEILLAC** (Humboldt-Universität zu Berlin)  
*On the Orthogonal Component of BSDEs in a Markovian Setting*
- 10:20-10:40     **Jing XU** (Chongqing University)  
*A Girsanov Type Theorem under G Frame Work and its Application in Finance*
- 10:40-11:05     **Zhiyuan LI** (University of Science and Technology of China)  
*An Inverse Problem for a Quasilinear First Order Hyperbolic Equation*

# Stream 5: Actuarial Science / Insurance Mathematics

Organizers : Elias SHIU, Ping-Kei LEUNG, Hailiang YANG

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**16 December, Thursday**

**Chair :** Elias SHIU

**[M104]**

- 11:30-12:00     **Yue-Kuen KWOK** (The Hong Kong University of Science and Technology)  
*Guaranteed Minimum Withdrawal Benefit in Variable Annuities*
- 12:00-12:30     **Hal PEDERSEN** (University of Manitoba)  
*Corporate Bond Modelling for Insurance Applications*
- 12:30-13:00     **Pak-Wing FONG** (Hong Kong Monetary Authority)  
*Stress Testing Bank's Credit Risk Using Mixture Vector Autoregressive Models*

**Chair :** Charles TAPIERO

**[N002]**

- 14:30-15:00     **Charles TAPIERO** (Polytechnic Institute of NYU of New York)  
*The Demand for Insurance and its Market Price*
- 15:00-15:30     **John LIU** (The Hong Kong Polytechnic University)  
*Mutual Reserve as a Governance Structure : Optimization and Coordination*
- 15:30-16:00     **Yaffa MACHNES** (Bar Ilan University)  
*Market Versus Self Insurance of Longevity Risk*

**Chair :** Charles TAPIERO

**[N002]**

- 16:30-17:00     **Hailiang YANG** (The University of Hong Kong)  
*Insurance Risk Models: with and without Dividends*
- 17:00-17:30     **Gyoocheol SHIM** (Ajou University)  
*On the Design of Mutual Insurance Contracts*
- 17:30-18:00     **Jaeyoung SUNG** (Ajou University)  
*Executive Pay and Firm Size in the Presence of Career Concerns and Labor Market Competition*



**STREAM 5****17 December, Friday****Chair :** Hal PEDERSEN**[M104]**09:00-09:30 **Kam-Chuen YUEN** (The University of Hong Kong)*On a Discrete-time Risk Model with Delayed Claims and Dividends*09:30-10:00 **Xuemiao HAO** (University of Manitoba)*The Finite- and Infinite-Time Ruin Probabilities of a Bivariate Lévy-Driven Risk Process with Heavy Tails*10:00-10:30 **Qihe TANG** (The University of Iowa)*Extreme Value Theory in the Study of Ruin with Risky Investments*10:30-11:00 **Jinxia ZHU** (University of New South Wales)*Dividend Optimization in a General Risk Model***Chair :** Qihe TANG**[M104]**11:30-12:00 **Joseph KIM** (University of Waterloo)*Designing an Insurance Programme to Deal with Systemic Risk*12:00-12:30 **Ka-Chun CHEUNG** (The University of Hong Kong)*Conditional Comonotonicity and Its Applications*12:30-13:00 **Xiaoming LIU** (The University of Western Ontario)*Application of Comonotonicity Theory in Stochastic Life Annuity***Chair :** Hailiang YANG**[M104]**14:30-15:00 **Ping CHEN** (The University of Melbourne)*Markowitz's Mean-Variance Asset-Liability Management with Regime Switching : A Multi-Period Model*15:00-15:30 **Bernard WONG** (University of New South Wales)*A Benchmarking Approach to Optimal Asset Allocation for Insurers and Pension Funds*

## STREAM 5

**Chair :** Elias SHIU

[M104]

- 16:00-16:30      **Sachi PURCAL** (Macquarie University)  
*Life Insurance and Annuity Demand under Hyperbolic Discounting*
- 16:30-17:00      **Benjamin AVANZI** (University of New South Wales)  
*Claim Dependence Modelling with Lévy Copulas*
- 17:00-17:30      **Serena TIONG**  
*On Esscher Transforms : Theory and Financial Applications*

### 18 December, Saturday

**Chair :** Ping-Kei LEUNG

[M104]

- 09:00-09:20      **Eric C.K. CHEUNG** (The University of Hong Kong)  
*A Two-Dimensional Risk Model with Proportional Reinsurance*
- 09:20-09:40      **Efim BRONSHTEIN** (Ufa State Aviation Technical University)  
*Asymmetric Risk Measures*
- 09:40-10:00      **Jingzhen LIU** (The Hong Kong Polytechnic University)  
*Optimal Insurance with Investment and Consumption Using a Regime Switching Model*
- 10:00-10:20      **Norhana Abd. RAHIM** (Universiti Teknologi MARA Malaysia)  
*Credit Risk Charge Determination Using Default Probability*
- 10:20-10:40      **Jae-Kyung WOO** (Concordia University)  
*A Threshold-based Risk Process with a Waiting Period to Pay Dividends*
- 10:40-11:00      **Jiashen YOU** (University of California)  
*Bayesian Dynamic Modeling of Implied Default Correlation : An Empirical Study on Japan Credit Default Swap Market*

# Stream 6: Financial Mathematics and Risk Management

Organizers : Shige PENG, Cedric YIU, James HUANG, Xun LI

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**16 December, Thursday**

**Chair :** Shige PENG

**[N001]**

10:00-10:30     **Shige PENG** (Shandong University)  
*Presentation on 973 Project : “The Quantitative Analysis and Computation in the Control of Financial Risks”*

10:30-11:00     **Zengjing CHEN** (Shandong University)  
*Strong Laws of Large Numbers for Sublinear Expectations*

**Chair :** Shige PENG

**[N001]**

11:30-11:50     **Shanjian TANG** (Fudan University)  
*Investment under Uncertainty with Switching Cost using Oblique Reflected BSDE*

11:50-12:10     **Weiqiang YANG** (Shandong University)  
*Credit Risk Management Featuring Chinese Commercial Banks*

12:10-12:30     **Lan WU** (Peking University)  
*Developments and Problems for Banking and Insurance in China*

12:30-12:50     **Weidong ZHAO** (Shandong University)  
*A New Numerical Scheme and Its Error Estimates for Backward Stochastic Differential Equations*

**Chair :** James HUANG

**[N001]**

14:30-15:15     **Jiongmin YONG** (University of Central Florida Orlando)  
*A Linear-Quadratic Time-Inconsistent Optimal Control Problem*

15:15-16:00     **Yufeng SHI** (Shandong University)  
*Optimal Control for Forward-Backward Doubly Stochastic Systems and Applications*

## STREAM 6

**Chair :** James HUANG

[N001]

- 16:30-17:15     **Michael TAKSAR** (University of Missouri College of Arts & Science)  
*Optimal Non-Proportional Reinsurance Control and Stochastic Differential Games*
- 17:15-18:00     **Zhen WU** (Shandong University)  
*Optimal Control Problem of Stochastic Delayed System and Applications*

### 17 December, Friday

**Chair :** Agnes SULEM

[N001]

- 09:00-09:30     **Agnes SULEM** (INRIA Paris - Rocquencourt)  
*Robust portfolio Optimization and Backward Stochastic Differential Equations Games*
- 09:30-10:00     **Aurelién ALFONSI** (Paris Est University)  
*Efficient Simulation Schemes for Some Multidimensional Stochastic Volatility Models*
- 10:00-10:30     **Vlad BALLY** (Université Paris-Est)  
*Some Estimates in Extended Stochastic Volatility Models of Heston Type*
- 10:30-11:00     **Papa NDIAYE** (Raise Partner Inc, New York)  
*Non Gaussian Optimization Model for Systematic Portfolio Allocation : How To Take Advantage of Market Turbulence?*

**Chair :** Agnes SULEM

[N001]

- 11:30-12:15     **Olivier PIRONNEAU** (Université Pierre et Marie Curie-Paris 6, Laboratoire Jacques Louis Lions)  
*Reduced Basis for Option Pricing with PDEs*
- 12:15-13:00     **Antonino ZANETTE** (University of Udine)  
*Premia : A Numerical Platform for Pricing Financial Derivatives*

**STREAM 6****Chair : Xun LI****[N001]**

14:00-14:45     **Nan CHEN** (The Chinese University of Hong Kong)  
*Monte Carlo Simulation on American Option Sensitivities*

14:45-15:30     **Lixin WU** (The Hong Kong University of Science and Technology)  
*Inflation Derivatives : From Market Model to Foreign Currency Analogy*

**Chair : Xun LI****[N001]**

16:00-16:45     **Zhen LIU** (Missouri University of Science & Technology)  
*Energy Portfolio Investment with Entry Decisions*

16:45-17:30     **Juan LI** (Shandong University)  
*Stochastic Representation for Solutions of Isaacs' Type Integral-Partial  
Differential Equations*

17:30-17:50     **Zhuming CHEN** (Sun Yat-sen University)  
*The Timing and Pricing for IPO Based on Motivation*

17:50-18:10     **Leong-Kwan LI** (The Hong Kong Polytechnic University)  
*A Fast Numerical Scheme for Discrete -Monitored Interest Rate Barrier options*

## STREAM 6

**18 December, Saturday**

**Chair :** Zuoquan XU

**[N001]**

- 09:00-09:20      **Chun-Sing LAU** (The Chinese University of Hong Kong)  
*Pricing Spread Options by Approximate Operator Splitting Method*
- 09:20-09:40      **Chun-Sing LAU** (The Chinese University of Hong Kong)  
*Valuation of CEV American Put Option with Time-Dependent Model Parameters*
- 09:40-10:00      **S. P. YUNG** (The University of Hong Kong)  
*Mean-Variance Portfolio Selection with a Benchmark Constraint*
- 10:00-10:20      **Yi LIU** (Tongji University)  
*Modeling Selection and Calculation of CVA*
- 10:20-11:05      **Hanqing JIN** (University of Oxford)  
*Optimal Stopping with Time Consistency*