

Susy
Suhendra

Asian-Pacific Productivity Conference

APPC 2008

Host

INSTITUTE OF ECONOMICS, ACADEMIA SINICA
TAIPEI, TAIWAN

Venue

July 16, 2008: Department of Agricultural Economics,
National Taiwan University

July 17, 2008: Building for Humanities and Social Sciences and Center of Academic Activities,
Academia Sinica

July 18-19, 2008: Center of Academic Activities,
Academia Sinica

2008 Asia-Pacific Productivity Conference

July 17-19, 2008

Host:

Institute of Economics, Academia Sinica

Organizers:

Department of Economics, National Taiwan University

Department of Agricultural Economics, National Taiwan University

Institute for Advanced Studies in Humanities and Social Sciences, National Taiwan University

College of Management, National Dong Hwa University

Institute of Business and Management, National Chiao Tung University

Graduate Institution of Industrial Economics, National Central University

School of Business, Soochow University

School of Commerce, Kainan University

School of Management, Ming Chuan University

Department of Finance, Ling Tung University

National Science Council

Council for Economic Planning and Development

Directorate-General of Budget, Accounting and Statistics

Taiwan Economic Association

Venue:

July 17

Building For Humanities and Social Sciences, Academia Sinica

Center of Academic Activities, Academia Sinica

July 18-19

Center of Academic Activities, Academia Sinica

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Program Committee Members

Local Organizing Committee

Coordinators: Tsu-Tan Fu, Academia Sinica

Ching-Cheng Chang, Academia Sinica

Hung-Jen Wang, National Taiwan University

Members: Ching-Cheng Chang, Academia Sinica

Jong-Rong Chen, National Central University

Yung-Ho Chiu, Soochow University

Tsu-Tan Fu, Academia Sinica

Shih-Hsun Hsu, National Taiwan University

Jin-Li Hu, National Chiao Tung University

Shiuh-Nan Hwang, Ming Chuan University

Wen-Fu Lee, Kainan University

Chien Fu Jeff Lin, National Taiwan University

Jin-Tan Liu, National Taiwan University

Hung-Jen Wang, National Taiwan University

Chung-Shu Wu, National Dong Hwa University

Yung-Lieh Yang, Ling Tung University

Steering committee

Tim Coelli, University of Queensland

Tsu-Tan Fu, Academia Sinica

Cliff Huang, Vanderbilt University

Jeon-Dong Lee, Seoul National University

Knox C.A. Lovell, University of Queensland

Shin-Kun Peng, Academia Sinica

Keynote & Invited Speakers

Keynote Speakers

Chiang Kao, National Cheng Kung University

Chiang Kao is a chair professor of the Department of Industrial and Information Management at National Cheng-Kung University. Previously he was the President of National Cheng-Kung University. His expertise is with operation research, system simulation, mathematical programming and probability models.

D.S. Prasada Rao, University of Queensland

D.S. Prasada Rao is a professor of the School of Economics and Director of the Centre for Efficiency and Productivity Analysis at the University of Queensland. He is also the associate editor of the Journal of Productivity Analysis, editorial board member of the Review of Income and Wealth, and member of the Technical Advisory Group for the International Comparison Program and the Poverty Advisory Group at the World Bank. His expertise is with the measurement of efficiency and productivity, index number methods for spatial and temporal comparisons, purchasing power parities, and measurement of inequality, poverty, health and morality.

Emmanuel Thanassoulis, University of Aston

Emmanuel Thanassoulis is a professor of the Operations and Information Management Group at the University of Aston, Birmingham. His research interests lie in the broad area of performance measurement with special emphasis on the theory and application of data envelopment analysis. His most recent academic projects in this area concern identifying good practice in UK university administration and on assessing cost efficiencies in education.

Invited Speakers

Tim Coelli, University of Queensland

Rolf Färe, Oregon State University

Finn Førsund, University of Oslo

William Greene, Henry Kaufman Management Center

Shawna Grosskopf, Oregon State University

Cliff J. Huang, Vanderbilt University

Jeon-Dong Lee, Seoul National University

C.A. Knox Lovell, University of Queensland

Shunsuke Managi, Yokohama National University

Hak K. Pyo, Seoul National University

Peter Schmidt, Michigan State University

Robin Sickles, Rice University

Kaoru Tone, National Graduate Institute for Policy Studies

Yanrui Wu, The University of Western Australia

Quick Program Overview

Wednesday July 16	Thursday July 17	Friday July 18	Saturday July 19	Sunday July 20
Pre-Conference Workshop at National Taiwan University	Registration 9:30~10:30	Parallel Session 2 Session 2A Session 2B Session 2C Session 2D	Parallel Session 5 Session 5A Session 5B Session 5C Session 5D	One-Day Taipei City Tour 9:00 17:00
	Opening Remark	Coffee Break	Coffee Break	
	Keynote Session 1	Keynote Session 2	Keynote Session 3	
	Coffee Break	Coffee Break	Coffee Break	
	Plenary Session 1	Plenary Session 3	Plenary Session 5	
	Lunch	Lunch	Lunch	
	Policy Forum — Education Efficiency	Parallel Session 3 Session 3A Session 3B Session 3C Session 3D	Parallel Session 6 Session 6A Session 6B Session 6C Session 6D	
	Coffee Break	Coffee Break	Coffee Break	
	Plenary Session 2	Plenary Session 4	Parallel Session 7 Session 7A Session 7B Session 7C Session 7D	
	Coffee Break	Coffee Break	Coffee Break	
	Parallel Session 1 Session 1A Session 1B Session 1C Session 1D	Parallel Session 4 Session 4A Session 4B Session 4C Session 4D	Closing Remark 16:30-17:30	
Conference Reception	Conference Dinner	Farewell Dinner		

Keynote Session 1-3: 50 min (40 min speech and 10 min Q&A)

Plenary Session

- i. **1,3,5:** 50 min (2 papers, 20 min/paper, 10 min Q&A)
- ii. **2,4:** 70 min (3 papers, 20 min/paper, 10 min Q&A)

Policy Forum: 70 min (30 min invited speech, 30 min commentary discussion, 10 min floor Q&A)

Parallel Session 1-7:

- i. **2,5,6:** 60 min (3 papers, 15 min/paper, 15 min Q&A)
- ii. **1,3,4,7:** 70 min (3-4 papers, 15-20min/paper, 10 min Q&A)

Session Overview

PRE-CONFERENCE WORKSHOP-WEDNESDAY, JULY 16

Department of Agricultural Economics, National Taiwan University

8:30 ~ 9:00	Registration	
9:00 ~ 10:30	<i>Shawna Grosskopf</i> Oregon State University	Directional DEA
10:50 ~ 12:20	<i>Robin Sickles</i> Rice University	Recent Methodological Developments in Stochastic Frontier and Data Envelopment Analysis: Where Will They Take Us?
12:20 ~ 13:30	Lunch	
13:30 ~ 15:00	<i>Emmanuel Thanassoulis</i> University of Aston	Recent Developments in the Measurement of Productivity Change: Theory and Applications
15:20 ~ 16:50	<i>Tim Coelli</i> University of Queensland	The Use of Performance Measurement in Monopoly Regulation

DAY 1 – THURSDAY, JULY 17

Building For Humanities and Social Science
Center of Academic Activities

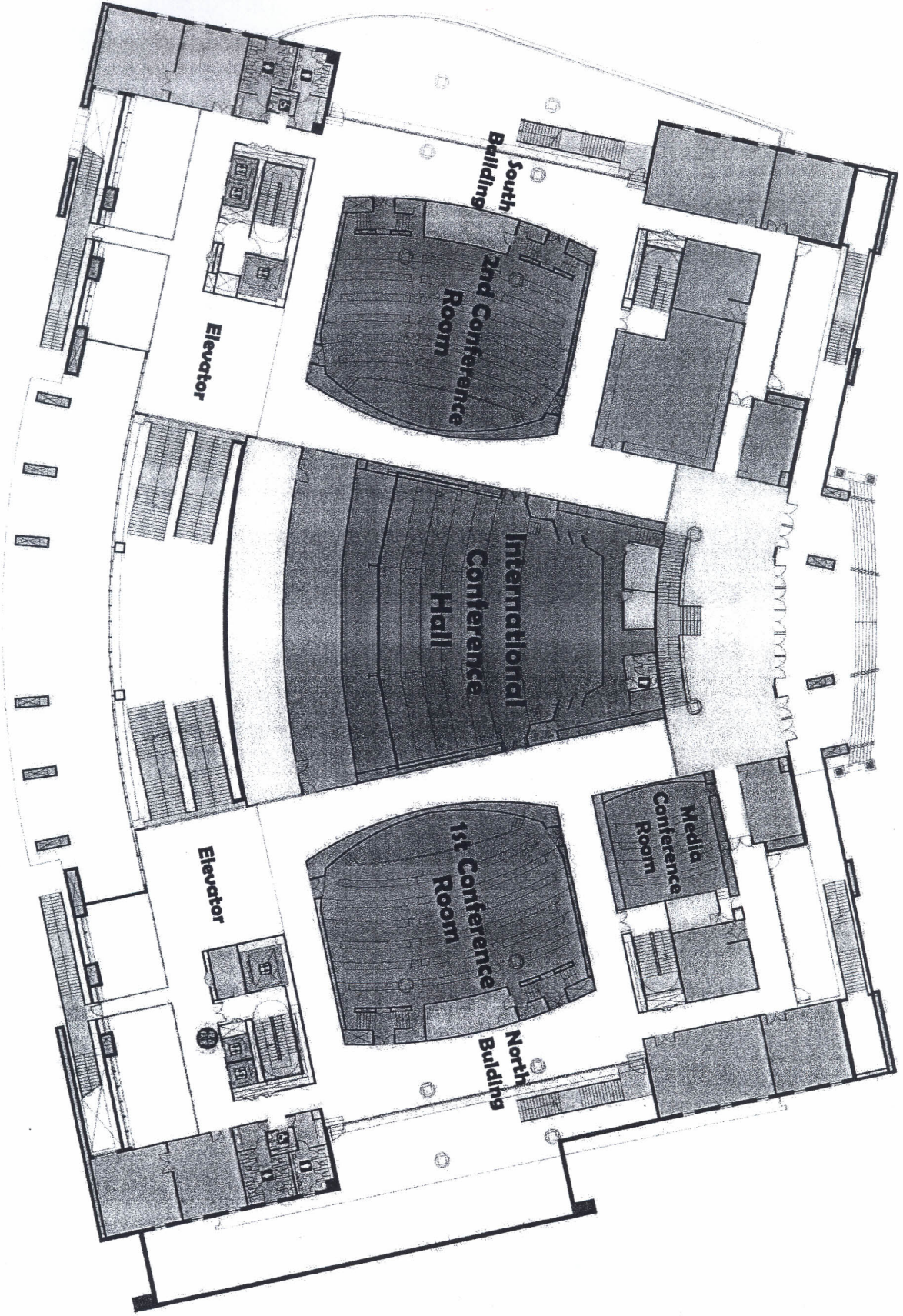
	International Conference Hall				
10:30~10:40	Opening Remark <i>Shin-Kun Peng</i>				
10:40~11:30	Keynote Session 1 <i>Emmanuel Thanassoulis</i>				
11:40~12:30	Plenary Session 1 <i>Peter Schmidt</i> <i>William Greene</i>				
12:30~13:30	Lunch (Recreation Hall, 4 th Floor, Building For Humanities and Social Science)				
13:30~14:40	Policy Forum on Education Efficiency <i>Chiang Kao</i>				
15:00~16:10	Plenary Session 2 <i>Cliff Huang</i> <i>Rolf Färe</i> <i>Robin Sickles</i>				
16:10~16:40	All sessions moved to the 2 nd Floor, Center of Academic Activities (next building)				
16:40~17:50		Conference Room 1	Conference Room 2	Conference Room 3	Conference Room 4
		Parallel Session 1A Agriculture Stochastic Frontier	Parallel Session 1B Manufacturing Productivity	Parallel Session 1C Banking Productivity	Parallel Session 1D Education DEA, Productivity
18:30~20:30	Conference Reception (Recreation Hall, 4 th Floor, Building For Humanities and Social Science)				

DAY 2 – FRIDAY, JULY 18
Center of Academic Activities

	Conference Room 1	Conference Room 2	Conference Room 3	Conference Room 4
10:00-10:30	Parallel Session 2A Public Sector DEA and Productivity	Parallel Session 2B Methodology in Stochastic Frontier	Parallel Session 2C Agriculture and SME DEA	Parallel Session 2D Financial Sector Stochastic Frontier
10:50-11:40	Keynote Session 2 <i>Prasada Rao</i>			
11:50-12:40	Plenary Session 3 <i>Kaoru Tone</i> <i>Shawna Grosskopf</i>			
12:40-13:40	Lunch (Lecture Hall, 2th Floor, Center of Academic Activities)			
13:40-14:50	Parallel Session 3A Environment Productivity	Parallel Session 3B Economic Growth Productivity	Parallel Session 3C Financial Sector DEA	Parallel Session 3D Corporate Management and Quality
15:10-16:20	Plenary Session 4 <i>Hak K. Pyo</i> <i>C.A. Knox Lovell</i> <i>Jeon-Dong Lee</i>			
16:40-17:50	Parallel Session 4A Agriculture Stochastic Frontier	Parallel Session 4B Manufacturing Productivity	Parallel Session 4C Public Sector Efficiency/Productivity	Parallel Session 4D Education DEA and Productivity
18:20-21:00	Conference Dinner (Yangtse River, Dragon Hall, 3rd Floor, Howard Plaza Hotel)			

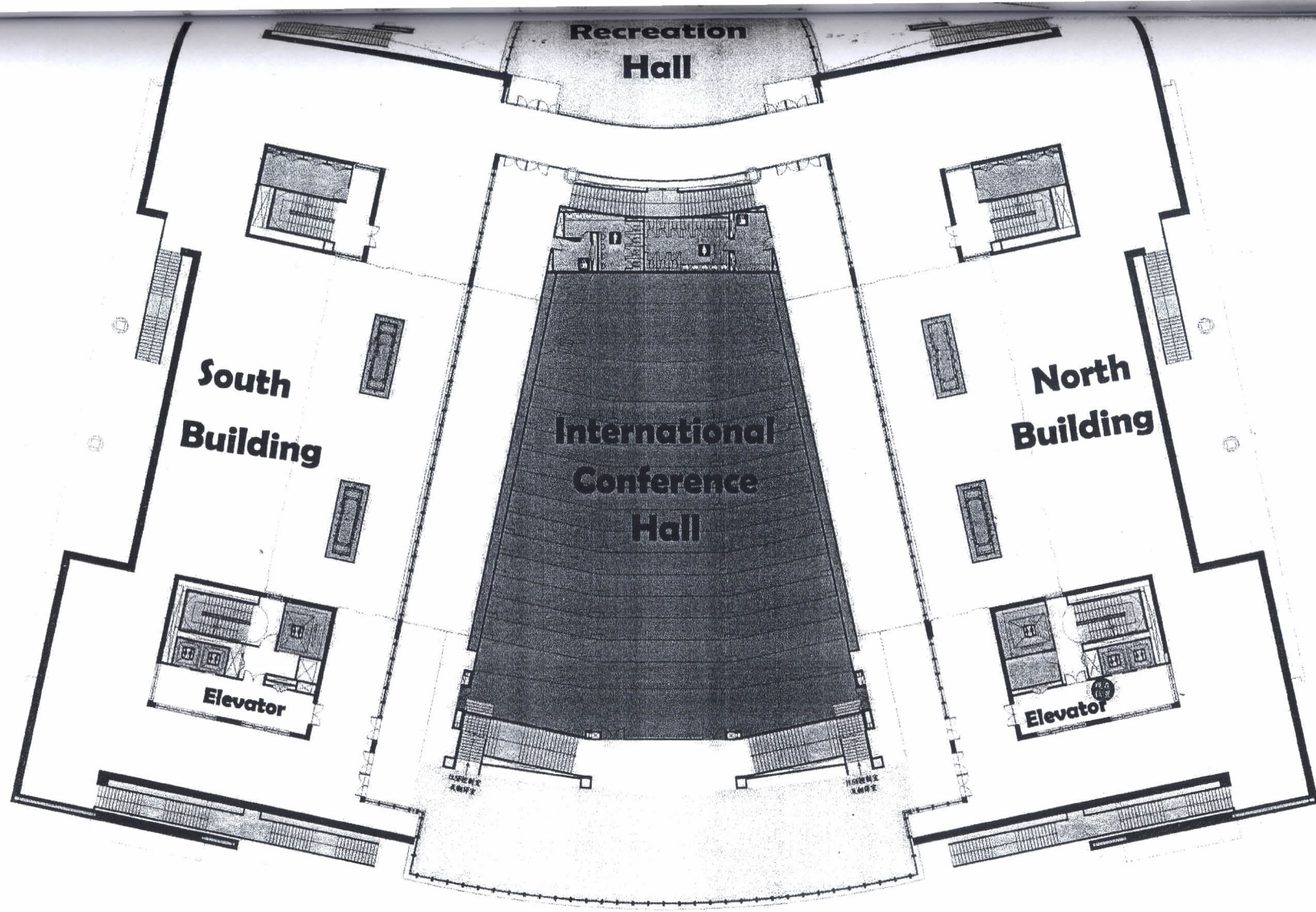
DAY 3 – SATURDAY, JULY 19
Center of Academic Activities

	Conference Room 1	Conference Room 2	Conference Room 3	Conference Room 4
10:00-10:30	Parallel Session 5A Transportation/Utility DEA	Parallel Session 5B Methodology in DEA, Stochastic Frontier	Parallel Session 5C Industrial Sector DEA	Parallel Session 5D Manufacturing Productivity
10:50-11:40	Keynote Session 3 <i>Chiang Kao</i>			
11:50-12:40	Plenary Session 5 <i>Tim Coelli</i> <i>Finn Førsund</i>			
12:40-13:40	Lunch (Lecture Hall, 2th Floor, Center of Academic Activities)			
13:40-14:40	Parallel Session 6A Environment Productivity	Parallel Session 6B Manufacturing Stochastic Frontier	Parallel Session 6C Banking Stochastic Frontier	Parallel Session 6D Health DEA and Productivity
15:00-16:10	Parallel Session 7A Energy/Environment Productivity	Parallel Session 7B Macroeconomics Productivity	Parallel Session 7C Banking DEA	Parallel Session 7D Manufacturing Productivity in China
16:40-17:30	Closing Remark <i>C.A. Knox Lovell</i> <i>Cliff J. Huang</i>			
18:00-20:30	Farewell Dinner (North Cloud Café, 1st Floor, Center of Academic Activities)			

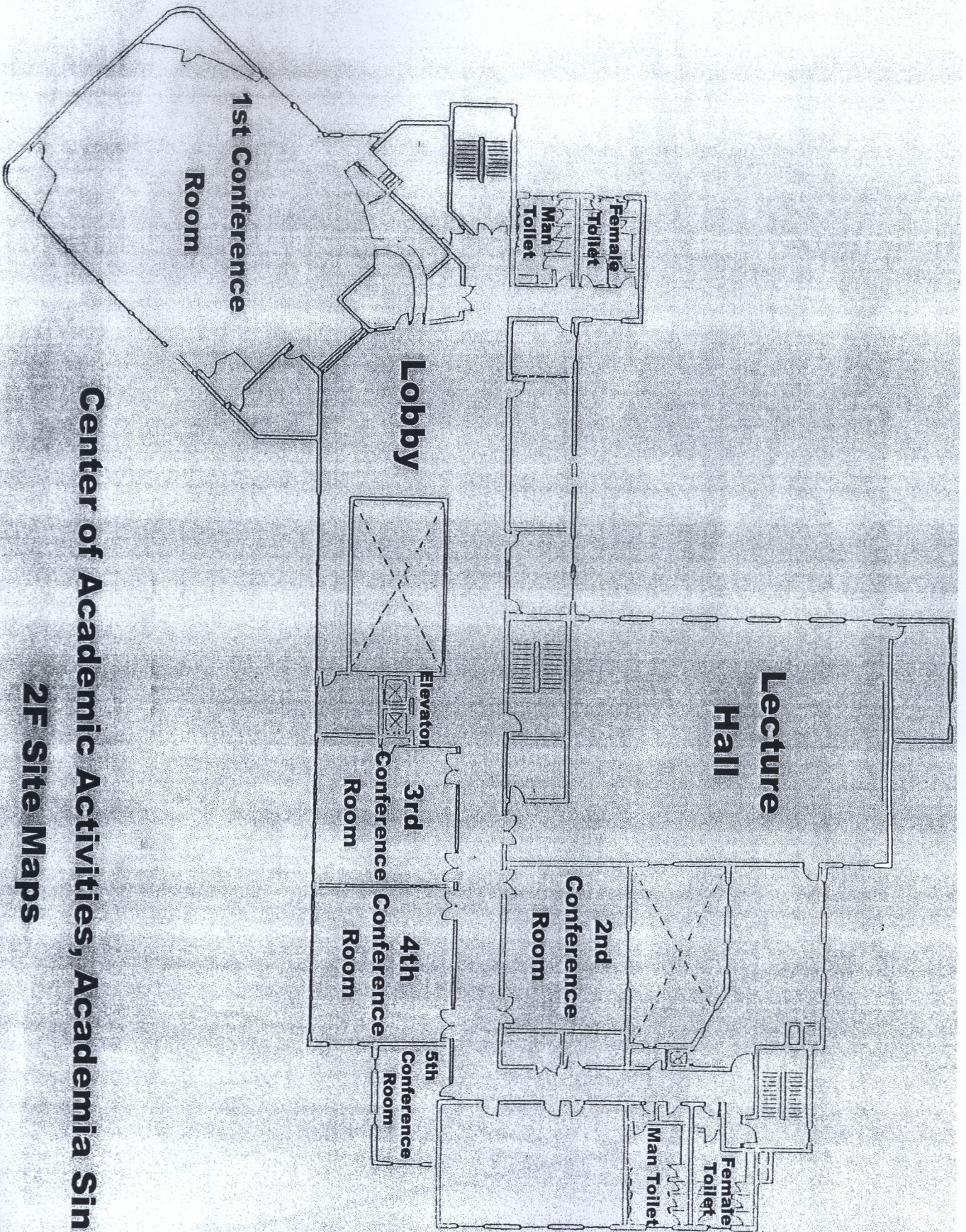


Building For Humanities and Social Sciences, Academia Sinica

3F Conference Site Maps



Building For Humanities and Social Sciences, Academia Sinica
4F Conference Site Maps



Center of Academic Activities, Academia Sinica

2F Site Maps

Campus of Academia Sinica

1 Main Entrance

2 Institute of Biomedical Sciences

3 Wastewater Management Facilities

4 Institute of Cellular and Organismic Biology

4 The Research Museum in Research Center for Biodiversity

4 Research Center for Biodiversity

5 Institute of Molecular Biology

6 Institute of Biological Chemistry

6 Life Science Library

7 National Laboratory Animal Center, NARL

8 Kindergarten

9 Greenhouse

10 Central Office of Administration

11 Research Center for Biodiversity

11 The Research Museum in Research Center for Biodiversity

11 Herbarium, Research Center for Biodiversity

12 Institute of Plant and Microbial Biology

13 Institute of Mathematics

14 Tsai Yuan-Pei Memorial Hall

14 Center for Survey Research

15 Institute of Statistical Science

16 Post Office, Garage, and Grocery Store

17 Ecological Pond

18 Genomics Research Center

20 Center for Academic Activities (Auditorium, book shop, restaurants and guest rooms)

21 Institute of Chinese Literature and Philosophy

22 Institute of Earth Sciences

23 Gymnasium

24 Building for Humanities and Social Science (BHSS)

24 Research Center for Applied Sciences (BHSS, 11th Floor)

24 Research Center for Environmental Changes (BHSS, 11th Floor)

24 Institute of Sociology (BHSS, 8-10th Floor)

24 Institute of Taiwan History (BHSS, 7-8th Floor)

24 Institute of Linguistics (BHSS, 5-7th Floor)

24 Institute of Political Science (Preparatory Office) (BHSS, 5-6th Floor)

24 Institutum Iurisprudentiae (Preparatory Office) (BHSS, 9-10th Floor)

24 Joint Library of Humanities and Social Sciences (BHSS, 1st-2nd Floor)

25 Research Center for Environmental Changes (Laboratories)

30 Institute of Chemistry

30 Agricultural Biotechnology Research Center

31 Research Center for Humanities and Social Science

32 Institute of Information Science

33 Institute of Physics

33 Research Center for Applied Sciences (Laboratories)

34 Hu Shih Memorial Hall

35 Institute of Modern History

36 Institute of European and American Studies

37 Museum of the Institute of History and Philology

37 Institute of History and Philology

38 Fu Ssu-nien Library

39 Institute of Economics

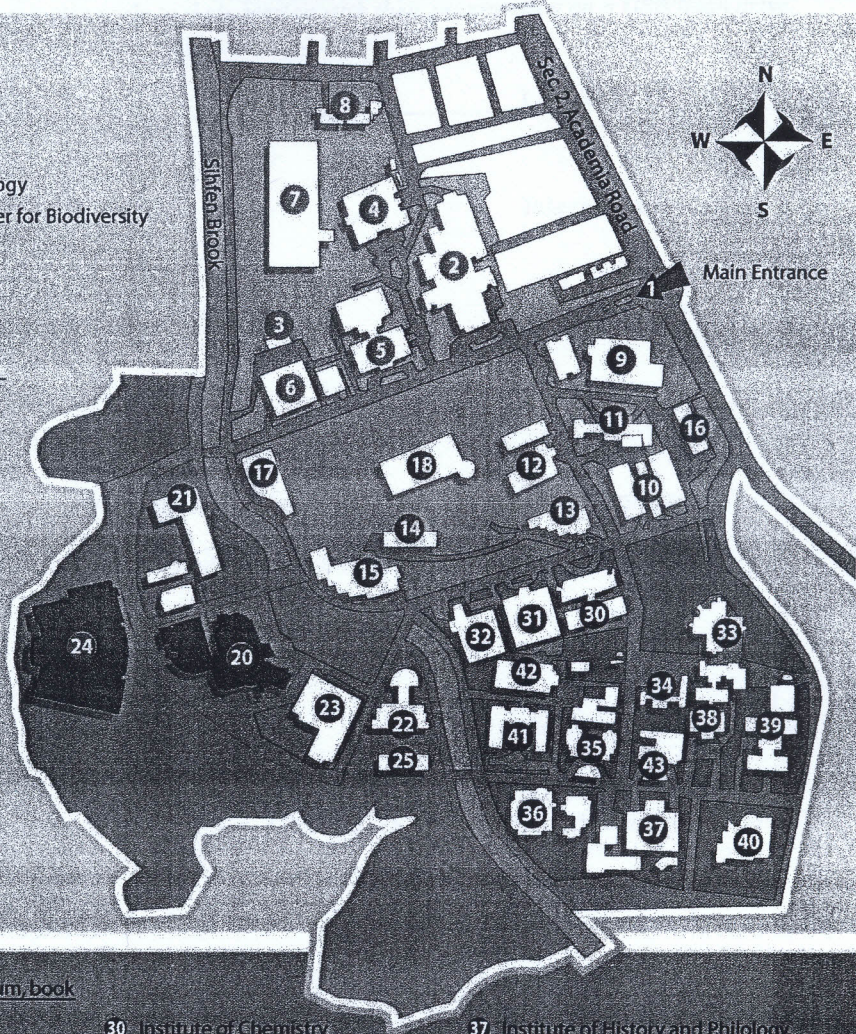
40 Institute of Ethnology

41 Lingnan Fine Arts Museum

42 Archive Building, Institute of Modern History

43 Building for Taiwan Archaeological Studies

Institute of Atomic and Molecular Sciences and Institute of Astronomy and Astrophysics (Preparatory Office) locate in the National Taiwan Univ. campus



DAY 1 — THURSDAY, JULY 17

*All presenters should arrive 10 minutes early to their session with their presentation on a USB/flash drive.
Presenters are denoted in bold.*

Time	Event	Location
09:30-10:30	Conference Registration	International Conference Hall
10:30-10:40	Opening Remarks Shin-Kun Peng (Academia Sinica, Taiwan)	International Conference Hall
10:40-11:30	Keynote Session 1 Chair: Sheng-Cheng Hu (Academia Sinica, Taiwan) - Efficiency and Productivity in Higher Education: An Assessment of Universities in The United Kingdom by Emmanuel Thanassoulis (Aston University, UK)	International Conference Hall
11:30-11:40	Coffee Break	
11:40-12:30	Plenary Session 1 Chair: Robin Sickles - On the Distribution of Estimated Technical Efficiency in Stochastic Frontier Models by Wei Siang Wang and Peter Schmidt - Sample Selection in a Stochastic Frontier Model by William H. Greene	International Conference Hall
12:30-13:30	Lunch	Recreation Hall
13:30-14:40	Policy Forum—Education Efficiency Chair: C.A. Knox Lovell Speaker: Chiang Kao Panel discussant: Emmanuel Thanassoulis Pao-Long Chang	International Conference Hall
14:40-15:00	Coffee Break	

- 15:00-16:10** **Plenary Session 2** **International Conference Hall**
 Chair: William H. Greene
- Likelihood Ratio Tests for Model Selection of Stochastic Frontier Models
 by Hung-Pin Lai and **Cliff J. Huang**
 - Generalized Quadratic Revenue Functions
 by R.G. Chambers, **R. Färe**, S. Grosskopf and M. Vardanyan
 - Krugman and Young Revisited: Sources of Productivity Growth in a World with Less Constraints
 by **Robin Sickles**
- 16:10-16:40** **Coffee Break**
- 16:40-17:50** **Parallel Session 1A** **Conference Room 1**
 Chair: Shih-Hsun Hsu
- Recent Evidence on Agricultural Efficiency and Productivity in China: A Metafrontier Approach
 by **Supawat Rungsuriyawiboon** and Xiaobing Wang
 - Agricultural Production Growth Assessment for Agro-economic Zones in Northern Thailand Using Statistical Data
 by **Aree Wiboonpongse** and Yaovarate Chaovanapoonphol
 - Production efficiency of self-selected Jasmine rice producers in northern and northeastern Thailand
 by **Sanzidur Rahman**, Aree Wiboonpongse, Songsak Sriboonchitta and Yaovarate Chaovanapoonphol
- 16:40-17:50** **Parallel Session 1B** **Conference Room 2**
 Chair: Jeon-Dong Lee
- The Impact of Technology Strategies On Manufacturing Performance: An Empirical Study in Indonesia
 by **Dharma Tintri Ediraras** and E. Sussy Suhendra
 - R&D and Productivity of Asian Biotech firms: Application of Quantile Regression
 by **Yang Li** and Hsiao-Mai Lin
 - Learning-by-exporting and Productivity: An Analysis of Turkish Manufacturing Industry
 by Yilmaz Kilicaslan and **Levent Erdogan** ✕
 - The Evolution of the Productivity Dispersion of Firms – A Reevaluation of Its Determinants in the Case of Japan
 by Keiko Ito and **Sébastien Lechevalier**

16:40-17:50

Parallel Session 1C

Conference Room 3

Chair: D.S. Prasada Rao

- Efficiency and Productivity of Microfinance: Incorporating the Role of Subsidies by **Ahmad Nawaz**
- Bootstrapping Efficiency and Malmquist Productivity Indices: An Application to Vietnamese Commercial Banks by **Nguyen Xuan Quang** and Bruno De Borger
- Deregulation and Productivity of the Vietnamese Non-Life Insurance Industry by **Pham Khac Dzung**
- The Productivity Growth of Chinese Banks: 1997-2006 by **Kent Matthews** and Nina Zhang

16:40-17:50

Parallel Session 1D

Conference Room 4

Chair: Emmanuel Thanassoulis

- Using Data Envelopment Analysis (DEA) to Measure the Efficiency in University Departments by **Zalina Zahid**, Rasimah Aripin and Mohd. Nasir Taib
- Evaluation in Cost Efficiency in Thai Public Universities by **Songsak Sriboonchitta**
- Measuring The Relative Performance of College of Business in Taiwan Using AR/DEA Model by **Wei-Hsin Kong**, Tsu-Tan Fu and Mei-Ying Huang
- Technical Efficiency and Total Factor Productivity Growth in Chilean Higher Education by José F. Maripani, **Victor H. Moreira López** and Boris E. Bravo-Ureta

18:30-20:30

Conference Reception

Recreation Hall

(4th Floor, Building For Humanities and Social Science)

DAY 2 – FRIDAY, JULY 18

*All presenters should arrive 10 minutes early to their session with their presentation on a USB/flash drive.
Presenters are denoted in bold.*

Time	Event	Location
09:30-10:30	Parallel Session 2A Chair: Kaoru Tone	Conference Room 1
	<ul style="list-style-type: none">- Application of Cost- Benefit Analysis and Data Envelopment Analysis to Evaluate the Municipal Solid Waste Management Projects in Metro Manila by Ming-Lang Tseng, Chin-Huang Huang, Anthony SF Chiu and Yuan Hsu Lin- Government Administration Efficiency and Economic Efficiency for 23 Districts in Taiwan by Yung-Ho Chiu, Yu-Chuan Chen and Chin-Wei Huang- Liberalization Policy, Production and Cost Efficiency in Taiwan's Telecommunications Industry by Chao-Chung Kang	
09:30-10:30	Parallel Session 2B Chair: Cliff J. Huang	Conference Room 2
	<ul style="list-style-type: none">- Centered-Residuals-Based Moment Tests for Stochastic Frontier Models by Yi-Ting Chen and Hung-Jen Wang- Goodness of Fit Tests in Stochastic Frontier Models by Wei-Siang Wang, Christine Amsler and Peter Schmidt- Impact of Policy Shift on Productivity, Efficiency Change and Technical Progress in Indian Textile Industry by T.Linga Murugeswari and V.Anbumani	
09:30-10:30	Parallel Session 2C Chair: Jong-Rong Chen	Conference Room 3
	<ul style="list-style-type: none">- A New Approach to Measuring Productivity of Agricultural Insurance: The Case of Iran by Habibollah Salami and Marzieh Rostami- The Effect of Ability to Access Finance on Productivity and Performance of SMEs in Indonesia by Euphrasia Susy Suhendra and Dharma Tintri E. Sudarsono- Productivity Change and Policy Reform Effects in China's Agriculture Since 1979 by Yanjie Zhang and Bernhard Bruemmer	

09:30-10:30	Parallel Session 2D Chair: Tai-Hsin Huang	Conference Room 4
	<ul style="list-style-type: none"> - Benchmarking the Efficiency of Indonesian Cooperatives by Viverita and Sigit S. Wibowo - The Economic Gains of the Merger Cases in Taiwan's Financial Industry: Scope Economy Measurement of the Financial Holding Companies by Mei-Ying Huang and Yan-Wei Lu - Banking Risk and Efficiency: An Evidence from Commercial Banks of Pakistan by Shabbir Ahmad 	
10:30-10:50	Coffee Break	
10:50-11:40	Keynote Session 2 Chair: Tim Coelli (University of Queensland, Australia)	Conference Room 1
	<ul style="list-style-type: none"> - Comparisons of Real Income and Productivity Across Countries and Time – Meeting the Challenges by Prasada Rao (University of Queensland, Australia) 	
11:40-11:50	Coffee Break	
11:50-12:40	Plenary Session 3 Chair: Finn Førsund	Conference Room 1
	<ul style="list-style-type: none"> - Dynamic DEA: A Slacks-based Measure Approach by Kaoru Tone and Miki Tsutsui - Network DEA: Some Applications and Illustrations by Peter Bogetoft, Rolf Färe, Shawna Grosskopf, Kathy Hayes and Lori Taylor 	
12:40-13:40	Lunch	Lecture Hall

13:40-14:50

Parallel Session 3A

Conference Room 1

Chair: Diana H.A. Tsai

- Analysis of Regional Productivity Growth in China: A Generalized Metafrontier MPI Approach
by Ku-Hsieh Chen, Yi-Ju Huang and **Chih-Hai Yang**
- Development: the Empirical Studies of Taiwan Manufacturing Industries
by **Diana H.A. Tsai**
- What Determines the Opportunity Cost of Pollution Abatement? A Production Function Approach
by **Ronald J. Shadbegian** and Wayne B. Gray
- What is the Impact of Emissions Trading on Productivity and Technical Change?
by Cynthia Morgan, Carl A. Pasurka Jr., and **Ronald J. Shadbegian**

13:40-14:50

Parallel Session 3B

Conference Room 2

Chair: Chi-Yuan Liang

- Economic Stagnation and Productivity Slowdown in Japan
by **Jiro Nemoto** and Mika Goto
- Industrial Structure Changes and the Measurement of Total Factor Productivity Growth: The Krugman-Kim-Lau-Young Hypothesis Revisited
by **Chi-Yuan Liang**
- Economic Growth and disparity of Korean Regions: The Contribution of Technology, Capital accumulation and Human Capital
by **Keunjae Lee** and Sang-Mok Kang

13:40-14:50

Parallel Session 3C

Conference Room 3

Chair: Yung-Ho Chiu

- Using Data Envelopment Analysis to Formulate a Stock Trading Strategies in Taiwan
by **Shiuh-Nan Hwang** and Wang-Ching Chuang
- Fuzzy Efficiency in the Life Insurance Industry in Taiwan
by **Lishu Ouyang** and Hwey-Chyi Lee
- Factor Intensity and Supply Chain Efficiency: An Efficiency Game Model
by **Ming-Chung Chang** and Yung-Ho Chiu

13:40-14:50

Parallel Session 3D

Conference Room 4

Chair: Wen-Jen Tsay

- The Relationship between TQM Implementation and Corporate Competitiveness – An Empirical Industrial Level Study
by Hsu-Hua Lee, Simon Wang, Sophia S.-C. Wang, **Andrew C. -H. Lee**, Jacob Chen, Hank Lin and Ming-Tzong Wang
- A Preliminary Study on the Effects of ISO 9000 Implementation and Corporate Productivity and Efficiency
by Jacob Chen, Simon Wang, **Andrew C. -H. Lee**, Sophia S.-C. Wang, Hsu-Hua Lee, R. Y. Chen and Ming-Tzong Wang
- The Impacts of Quality Costs on Corporate Productivity and Efficiency – An Industrial Survey and an Empirical Case Study
by Ming-Tzong Wang, Simon Wang, **Jerry J.-C. Chen**, Sophia S.-C. Wang, Jacob Chen, Yun-Hsuan Kan and Andrew C. -H. Lee

14:50-15:10

Coffee Break

15:10-16:20

Plenary Session 4

Conference Room 1

Chair: Peter Schmidt

- The Estimation of Industry-level Capital Stock for Emerging-Market and Transition Economies
by **Hak K. Pyo**
- Productivity Accounting
by **C.A. Knox Lovell**
- Industry Dynamics and Productivity Research
by **Jeon-Dong Lee** ✓

16:20-16:40

Coffee Break

16:40-17:50

Parallel Session 4A

Conference Room 1

Chair: **Sanzidur Rahman**

- Measuring the Technical Efficiency of Indian Dairy Farms
by **V. Saravanakumar**, D.K.Jain and Smita Sirohi
- Determinants of Technical Efficiency of Organic Grassland Farming in Germany
by **Sebastian Lakner**, Bernhard Brümmer and Stephan Von Cramon-Taubadel
- Efficiency of Agriculture Sector in Asia: A Stochastic Frontier Analysis
by **Jovita Laura M. Abara** and Emilyn C. Cabanda
- Technical and Socio-economic Constraints to Duck Production in the Philippines: A Productivity Analysis
by **Hui-Shung (Christie) Chang** and Renato Villano

16:40-17:50

Parallel Session 4B

Chair: Hak K. Pyo

Conference Room 2

- Productivity Spillovers from Foreign Direct Investment in Indian Manufacturing Firms
by **Jong-Rong Chen**, V.Pradeep and Mita Bhattacharya
- Identifying and Estimating Sources of Total Factor Productivity Growth in Malaysian
Manufacturing Industries
by **Sangho Kim**
- Are Changes in a Thai Bank's Efficiency Reflected by Stock Price?
by **Nakhun Thoraneenitiyan**
- An Empirical Analysis of Growth of Korean Firms after the Asian Crisis: With a Focus on
Technological Development
by **Seok-Hyeon Kim**

16:40-17:50

Parallel Session 4C

Chair: Suthathip Yaisawarng

Conference Room 3

- Cost Efficiency of New York State Nursing Homes: A Frontier Analysis
by Harold O. Fried, Shelton S. Schmidt and **Suthathip Yaisawarng**
- Efficiency Analysis of Electric Cooperatives in the Philippines
by Helena Agnes S. Valderrama and **Carlos C. Bautista**
- The Effects of Competition Policy on TFP Growth: Some Evidence from the Malaysian
Electricity Supply Industry
by **Kok Fong See** and Tim Coelli

16:40-17:50

Parallel Session 4D

Chair: Jin-Li Hu

Conference Room 4

- FDI Horizontal and Vertical Effects on Local Firm Technical Efficiency
by **Chuc D. Nguyen**, Gary Simpson, David Saal, Anh N. Nguyen and Ngoc Q. Pham
- Impact of Technical Skill on Potato Production Efficiency in Thailand
by **Aree Wiboonpongse**, Songsak Sriboonchitta and Thanet Sriwichailumphun
- Analysis of Technical Efficiency and Strategic Alliances in Community-Based Enterprises
in Northern Thailand
by Phanin Nonthakot, **Renato Villano** and Euan Fleming

19:00-21:00

Conference Dinner

**Yangtse River, Dragon Hall
(3rd Floor, Howard Plaza Hotel Taipei)**

DAY 3 — SATURDAY, JULY 19

*All presenters should arrive 10 minutes early to their session with their presentation on a USB/flash drive.
Presenters are denoted in bold.*

Time	Event	Location
09:30-10:30	Parallel Session 5A Chair: Chun-Hsiung Liao	Conference Room 1
	<ul style="list-style-type: none">- Measuring Operational Efficiency of Mobile Operators in Japan and Korea by Chun-Hsiung Liao and Hsing-Yung Lin- Measuring Technical Efficiency and Input Congestion for Railway Transport Industry by Erwin T. J. Lin and Lawrence W. Lan- Multi-criteria Decision-making for Evaluating Electricity Efficiency in the Philippines by Ramon Posadas and Emilyn Cabanda	
09:30-10:30	Parallel Session 5B Chair: Deng-Shing Huang	Conference Room 2
	<ul style="list-style-type: none">- Methodological Comparison between DEA (Data Envelopment Analysis) and DEA-DA by Mika Goto and Toshiyuki Sueyoshi- Discriminating between DEA-efficient Units Using Bounded A&P Model and Bounded MAJ Model by Shinn Sun- Data Envelopment Analysis as Nonparametric Least Squares Regression by Timo Kuosmanen and Andrew L. Johnson	
09:30-10:30	Parallel Session 5C Chair: Cheng-Ping Cheng	Conference Room 3
	<ul style="list-style-type: none">- Performance Measurement of Broiler Farms in Thailand: A Non-Parametric Approach by Wirat Krasachat- Innovation Efficiency of Firms in China by Nan-Ting Chou and Renyong Chi- Evaluating Combat Capability Using DEA and PCA by Choon-Joo Lee and Chin Hui Park	
09:30-10:30	Parallel Session 5D Chair: Vei-Lin Chan	Conference Room 4
	<ul style="list-style-type: none">- Does Technological Diversification Improve a Firm's Productivity?: The Case of Korean Firms by Kineung Choo and Keun Lee- What are the Determinants on Survival?: Evidence from Mongolian Firms in 2003-2006 by Jeong-Sook Han and Jeong-Dong Lee	

- Modeling the Efficiency of Mobile Service Sector in the East Asia Tigers - a Data Envelopment Analysis Approach
by Chun-Hsiung Liao and Yu-Ting Lu
- 10:30-10:50 **Coffee Break**
- 10:50-11:40 **Keynote Session 3** **Conference Room 1**
Chair: Rolf Färe (Oregon State University, USA)
- Network Data Envelopment Analysis: Current Development and Future Research
by **Chiang Kao** (National Cheng Kung University, Taiwan)
- 11:40-11:50 **Coffee Break**
- 11:50-12:40 **Plenary Session 5** **Conference Room 1**
Chair: Shawna Grosskopf
- Social Protection Performance in the European Union: Comparison and Convergence
by **Tim Coelli**, Mathieu Lefèbvre and Pierre Pestieau
 - Productivity of Tax Offices in Norway
by **Finn Førsund**, Sverre A. C. Kittelsen and Frode Lindseth
- 12:40-13:40 **Lunch** **Lecture Hall**
- 13:40-14:40 **Parallel Session 6A** **Conference Room 1**
Chair: Wen-Fu Lee
- Economic Growth and Environment
by **Shunsuke Managi** ✓
 - Changes in Productivity at the SUMA Tax Offices
by **Ramón Fuentes**
 - Efficient Waste and Pollution Abatements for Regions in Japan
by **Satoshi Honma** and Jin-Li Hu
- 13:40-14:40 **Parallel Session 6B** **Conference Room 2**
Chair: Jiro Nemoto
- Marginal Effect of Determinants of Cost Efficiency of Micro – Enterprise Operators in Nigeria: A Stochastic Frontier Approach
by **Ogundari Kolawole**
 - Adjustment of Inputs and Measurement of Technical Efficiency: A Dynamic Panel Data Analysis
by **Aditi Bhattacharyya**

- Optimizing the Composition of Secondary Educational Stock: The Case of Taiwan
by **Yergali Dosmagambet**

13:40-14:40

Parallel Session 6C

Conference Room 3

Chair: Hung-Jen Wang

- Relative Efficiency of Money transfer Companies in the Philippines
by **Maria Socorro P. Calara**
- Bank Efficiency and the Market Structure: An Analysis for Turkey
by **Hasan Dudu and Ozan Eruygur**
- Decomposing the Potential Gains of FCU amalgamations in Taiwan: A Stochastic Cost Frontier Model
by **Cliff J. Huang, Tsu-Tan Fu, Mei-Ying Huang and Yun-Chi Chen**

13:40-14:40

Parallel Session 6D

Conference Room 4

Chair: Joan C. Lo

- The Productive Efficiency of the Health Care Sector of China: A Preliminary Analysis
by **Ying Chu NG** ✓
- Efficiency and Productivity of the Health Care System in Vietnam
by **Pinar Guven Uslu and Thuy Linh Pham**
- Allocative and Technical Inefficiency of Japanese Public Hospitals: An Input Distance System Approach
by **Atsushi Fujii**

14:40-15:00

Coffee Break

15:00-16:10

Parallel Session 7A

Conference Room 1

Chair: Shunsuke Managi

- Total-factor Energy Productivity of Regions in China
by **Jin-Li Hu and Tzu-Pu Chang**
- Environmental Productivity, Efficiency, and Shadow Price of the Manufacturing Sectors in Korea and China
by **Sang-Mok Kang, Moon-Hee Kim and Ju-Byung Lee**
- The Influence of Corporate Governance on Performance : An Empirical Study of China's Steel Industry
by **Xue-Jie Bai, Cheng-Ping Cheng, Dong-Wei Zhang and Yu-Fen Liu**

15:00-16:10

Parallel Session 7B

Conference Room 2

Chair: Russel Cooper

- Impact of Foreign Direct Investment on Malaysia's Productivity Growth
by **Elsadig Musa Ahmed**

- The Hidden Productivity of IT - Macroeconomic Evidence
by **Russel J Cooper**
- The Productivity Paradox : Evidence from Taiwan Service Economy Experience
by **Tzu-Min Kao**, Chih-Cheng Lin, Jin-Duan Lai and Hsing-Chun Lin
- Agricultural Productivity Growth; A Record from Traditional and Transitional Economies
in Asia
by Supawat Rungsuriyawiboon and **Xiaobing Wang**

15:00-16:10

Parallel Session 7C

Conference Room 3

Chair: Chung-Shu Wu

- Including Customer Satisfaction Measures in Bank Branch Performance Assessment
by **David Tripe**
- Study on Operational Efficiency of Bank under Taiwan Financial Holding Company and
Independent Banks
by **Wen-Rong Jerry Ho** and Wen-Fu Lee
- A DEA Approach to Explain Relative Productivity Performance of Indonesia's Rural
Development Bank
by **Viverita**

15:00-16:10

Parallel Session 7D

Conference Room 4

Chair: Yanrui Wu

- The Blind Men and the Elephant: A Review of TFP Growth Estimates for the Chinese
Economy
by **Yanrui Wu**
- Study on Innovation Performance in Chinese Manufacturing Industries
by **Ruizhi Pang**, Xuejie Bai and Yang Hui
- Technical Progress, Resource Reallocation and Productivity Growth: Evidence from China
Manufacturing with Firm-level Data
by Yuhong Li, **Hao Wang** and Yuxin Zheng

16:10-16:30

Coffee Break

16:30-17:30

Closing Remark

Conference Room 1

Chair: Chi Schive
C.A. Knox Lovell
Cliff J. Huang

18:00-20:30

Farewell Dinner

North Cloud Café
(1st Floor, Center of Academic Activities)

Day 1 (July 17, Thursday)

Parallel Session 1B 16:40 – 17:50
Center of Academic Activities
Conference Room 2

The Impact of Technology Strategies on Manufacturing Performance: An Empirical Study in Indonesia

Dharma Tintri Ediraras and E. Sussy Suhendra

Technological strategies (TS) have positive impacts on manufacturing performance and other competitive drivers. Many previous studies found that TS was directly related to the following competitive drivers, average change-over process, finished product defect rate, new product introduction lead time, on-time delivery, productivity and increased customer morale. Lower cost is achieved (i.e. total cost, material cost, labor cost, and overhead cost) when the firms use appropriate technology to its maximum potential. It can be concluded that TS was found to be generally a significant factor in explaining manufacturing performance in manufacturing companies.

Further, prior study also found that increased used of advanced manufacturing technologies and new management practices cannot be directly related to higher performance. Significant benefits can be reaped by firms that integrate technological and innovation considerations with corporate strategic development. Scholars argued that strategy must be viewed as a major variable and the success of business organization depends on the ability of new technologies to appropriately support the competitive strategy.

This study focused on the role of manufacturing strategy in moderating the impact of hard and soft technology on manufacturing performance. The alignment between technology and manufacturing strategy is necessary to ensure success of firms. Data were collected through mailed questionnaires to CEOs of medium and large manufacturing firms in Indonesia. This study finds that both hard and soft technologies have positive impact on manufacturing performance. Further, manufacturing strategy plays an important moderating role on the relationship between technologies have positive impact on manufacturing performance.

