

## 2005 "Herbert Simon 系列講座 " 之八

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主辦單位：政治大學 研究發展處（教學卓越計劃之延攬頂尖及傑出教師計劃）、  
政治大學社會科學學院、經濟系、暨人工智慧經濟學研究中心  
逢甲大學商學院、會計學系、電子商務研究中心  
協辦單位：中華民國人工智慧學會

各位先進：

"Herbert Simon 系列講座 " 乃為紀念 Herbert Simon 而設。Herbert Simon 為 1975 年電腦科學界中之殊榮 -- 杜林獎 (A. M. Turing Award) – 之得獎人暨 1978 年諾貝爾經濟學獎得主，並於 1993 年因對心理學的終生傑出貢獻而榮獲美國心理學會獎 (American Psychological Association's Award)，他率先於經濟學中建立「有限理性」的概念，並利用電腦演算來了解及測試「有限理性」的行為及決策模式，不但開啓了「行為經濟學」的大門，並為日後跨科際、跨學界的「計算智慧」奠定了先機。

2005 "Herbert Simon 系列講座 "(HSSS 2005, Series #8) 將於 12 月 21 日及 22 日於台中逢甲大學 舉行，由國際知名學者美國德州農工大學教授 Dr. David Bessler 主講！ 以下為本次活動簡介，期待您撥冗參加！

講座學者簡介：

Dr. Bessler 為美國德州農工大學，農業經濟系教授，他個人共發表了近百篇審稿期刊論文，而近五年亦發表了近 30 篇期刊論文，其中多數為 citation 期刊，包括 SSCI 的 CJAE, AJAE, Econometric Theory, Journal of the Futures Markets, Economic Inquiry, Applied Economics, Journal of Forecasting 等著名期刊。主要研究貢獻有：時間序列在農業市場之分析、Out-of-Sample Forecasting for Model Assessment and Policy 與導入 Directed Graphs 在經濟與財務領域之應用。Directed Graphs 計量經濟領域日趨重要，此次講座，將使國內有興趣利用 Computational Intelligence 與 Graph Theory 為主題之學者與研究生學習新領域，加速研究成果之發表。

講座議程：

主題: Applications of Directed Acyclic Graphs in Economics and  
Finance

場次	時間	地點	講題
1	12/21 ( 三) 14:00 – 16:00	逢甲大學 商學大樓 804 A	On Rejecting Causal Relationships with Observational Data
2	12/22 ( 四) 14:00 – 16:00	逢甲大學 商學大樓 804 A	Linkages Among Equity Markets Using Basket Currencies and Directed Acyclic Graphs

課程大綱：

Lecture 1 - On Rejecting Causal Relationships with Observational Data

On Rejecting Causal Relationships with Observational Data

David A. Bessler

Texas A&M University

Abstract

We investigate the use of causal inference methods for testing a specific hypothesized causal relation:  $H_0: A \text{ causes } B$ . We demonstrate the use of an instrument  $C$  can be helpful in rejecting the hypothesis using notions developed from the machine learning inference algorithms. Our main finding is that these algorithms allow researchers to qualify hypothesis rejections as either weak basis rejections or strong basis rejections. Weak basis rejections of the hypothesis follow from failure to reject the sharp hypothesis  $r(A,B) = 0$ . Strong basis rejections follow from rejection of the hypothesis  $r(A,B) = 0$ ,  $r(A,C) = 0$ , and failure to reject  $r(B,C)=0$ . Strong basis rejections are more reliable, reflecting more strenuous testing conditions.

This presentation is based on joint work with Henry Bryant and Michael Haigh which is offered in the unpublished paper: Bryant, H., D. Bessler and M. Haigh, "Disproving Causal Relationships Using Observational Data," Texas A&M University, December 2005.

Lecture 2 -Linkages among Equity Markets Using Basket Currencies and Directed Acyclic Graph

Linkages among Equity Markets Using  
Basket Currencies and Directed Acyclic Graphs

David A. Bessler

Texas A&M University

Abstract

This paper compares the stability of interrelationships among nine national equity markets by employing basket currencies versus individual base currencies to measure rates of return. We show that the average correlations of equity indexes based on basket currencies are much lower than the average correlations of equity indexes based on individual home base currencies. Additionally, empirical directed graph results using basket currencies are more consistent with each other than the results found using a single base currency – no matter which individual currency is selected as the base. We conclude that basket currencies provide more robust results for studying equity market co-movements than individual base currencies. By implication, studies on equity market interrelationships, including studies on potential financial contagion between equity markets, should use basket currencies to avoid currency dependent results.

This presentation is based on joint work with James Kolari and Thein Maung which is offered in the unpublished paper: Bessler, D.A., J. W. Kolari, and T. A. Maung “Dynamic Linkages Among Equity Markets Using Basket Currencies and Directed Acyclic Graphs” Texas A&M University, December 2005.

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HSSS2005 誠摯邀請各位先進與同學的參與。本次大會將不收取任何費用，但必須先向大會註冊，[註冊請email至hkyu@fcu.edu.tw](mailto:hkyu@fcu.edu.tw) 留下您的姓名、任職單位或就讀校系，以及聯絡方式，並註明參與的課程場次

## 至逢甲大學交通路線圖與導引

>>火車：台中火車站請搭西部幹線山線。火車站轉公車：從火車站轉車請搭仁友公車 22 號、25 號、45 號、125 號；台中客運公車 33 號、35 號。

>>客運：1.搭統聯客運巴士，請在統聯客運中港轉運站下車，換搭 79 線公車。  
2.搭其他客運巴士，請在台中市中港路朝馬站下車，可轉搭計程車約 5-10 分鐘至本校。

>>中山高速公路：

◎中港交流道：178.6K 處下(台中 | 沙鹿) 交流道，往台中市方向，進中港路，過黎明路橋，左轉進河南路，左轉進逢大路的「河南特約停車場」。再步行至逢甲大學東門。

◎大雅交流道：172.4K 處下(台中 | 大雅) 交流道，往台中市方向，進中清路，右轉進文心路三段，右轉進河南路，右轉進逢大路的「河南特約停車場」。再步行至逢甲大學東門。

