窗体顶端



**Spatial econometrics**



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| Nationality： | United States  |
| Academic Title： | Associate Professor |
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本科生    硕士生    博士生

Undergraduate    Master    Doctoral student



English



Econometrics



Teaching, data and software manipulation, article reading.



(1) 出勤考核与课堂参与占 30%； Presence and participation 30%
(2a) 若选课人数少于15人，则期末考试以学生报告研究论文的形式进行 占70%。If < 15 students in class: Research paper presentation 70%
(2b) 若选课人数超过15人，则期末考试以传统的笔试的形式进行 占70%。If > 15 students in class: Final exam 70%



2 credits



2015- Onwards Associate Professor, Dept. of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign
2015－至今   副教授   农业与应用经济系  伊利诺伊大学香槟分校
2015- Onwards Associate Director, Regional Economics Applications Laboratory (REAL), University of Illinois at Urbana-Champaign, http://www.real.illinois.edu
2015－至今   副主任  区域经济学应用实验室 伊利诺伊大学香槟分校

2011- 2015 Associate Professor, School of Geography and Development, University of Arizona.
2011－2015   副教授  地理与发展学院 亚利桑那大学

2006- 2011 Assistant Professor, School of Geography and Development, University of Arizona.
2006－2011   助理教授  地理与发展学院 亚利桑那大学

2007- 2015 Core Faculty member, Graduate Interdisciplinary Program (GIDP) in Statistics, University of Arizona.
2007－2015   核心教员 跨学科研究生项目（统计学） 亚利桑那大学

2005-2006 Postdoctoral Visiting-Scholar at the Department of Spatial Economics, Free University of Amsterdam, the Netherlands.
2005－2006        博士后访问学者  空间经济学系 荷兰阿姆斯特丹自由大学

2004-2005 Postdoctoral Visiting-Scholar at REAL, University of Illinois at Urbana-Champaign.
2004－2005    博士后访问学者  区域经济学应用实验室
伊利诺伊大学香槟分校

2004  PhD thesis (with distinction) in Economics, University of Pau, France. Title: European Regional Development Policies in the Light of Recent Regional Science Tools.
2004    获法国波城大学经济学博士学位 （优秀毕业论文）
     毕业论文：欧洲区域发展政策－最新区域科学工具的应用



This course provides the statistical and econometric techniques required for the analysis and appropriate modeling of cross-sectional (and panel) datasets. While spatial statistics allow the students to identify the two spatial effects commonly found in geocoded samples (spatial autocorrelation and spatial heterogeneity), spatial econometrics is especially geared towards including these effects in a regression model.
Students will be asked to find their own sample and dataset and use the techniques taught in the class to uncover the spatial effects present in their data. Common applications of spatial techniques in the social sciences cover fields as broad as crime, voting patterns, pollution, housing market, spread of diseases, regional development, etc… An important aspect of the course is to gain hands-on experience in applying the appropriate techniques and using state-of-the-art software (GeoDa as well as the spatial econometric toolboxes available in R).



1. Mapping and geovisualization,
绘图与地理可视化
2. Data Analysis,
数据分析
3. Spatial weight matrices,
空间权重矩阵
4. Indicators of global spatial autocorrelation,
全局空间自相关的指标
5. Indicators of local spatial autocorrelation,
局部空间自相关的指标
6. Spatial heterogeneity
空间异质性
7. Global and local spatial models,
全局空间模型
8. Diagnostic Tests,
诊断测试
9. Model simulations,
模型模拟



本课程没有指定的教科书，阅读材料会由教师提供。有兴趣的学生可以参考以下两本空间计量经济学的主流教科书：
Anselin L (1988) Spatial econometrics: Methods and models. Kluwer Academic Publishers, Dordrecht.
Le Sage J. and Pace K. (2009) Introduction to Spatial Econometrics, Taylor and Francis/CRC.



Dall’erba S. (2005), Distribution of Regional Income and Regional Funds in Europe 1989-1999: an Exploratory Spatial Data Analysis, The Annals of Regional Science, 39(1), 121-148.
Dall’erba S. and Le Gallo J. (2008), Regional Convergence and the Impact of European Structural Funds over 1989-1999: a Spatial Econometric Analysis, Papers in Regional Science, 87(2), 219-244.
Dall’erba S. and Llamosas-Rosas I. (2015), The Impact of Private, Public and Human Capital on the US States Economies: Theory, Extensions and Evidence, in: Karlsson C., Andersson M., Norman T. (Eds.), Handbook of Research Methods and Applications in Economic Geography, Edward Elgar, 436-467.
Kang D. and Dall’erba S. (2015) The Role of Federal Funding and Interregional Patent Citation on Knowledge Production across U.S. Counties, International Regional Science Review, forthcoming.

窗体底端