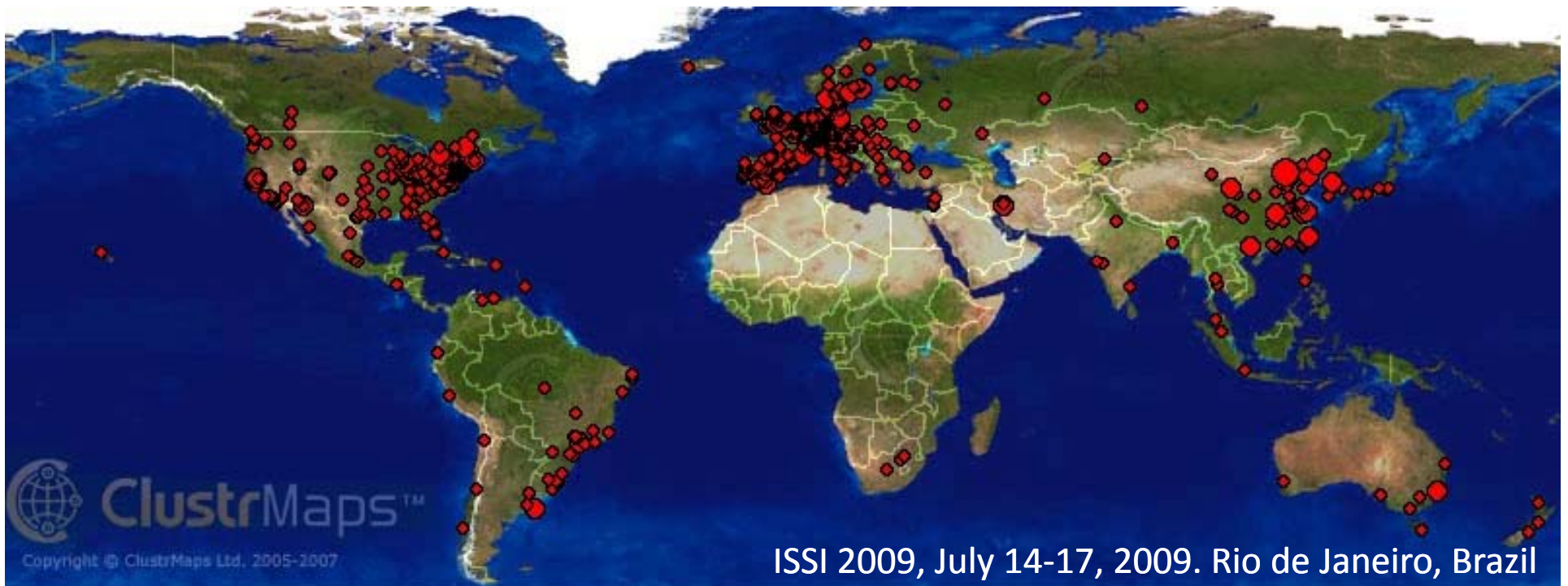


Workshop 2 Visualizing and Analyzing Scientific Literature with *CiteSpace*

1

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**SEI: Coordinated Visualization and
Analysis of Sky Survey Data and
Astronomical Literature**



**North-East Visualization
and Analytics Center**

www.geovista.psu.edu/NEVAC



**中国长江学者计划 (Chang Jiang Scholar
Visiting Professor)**

大连理工大学, WISELAB, Dalian, China

Outline

09:00-09:30

Introduction
Basic Concepts
Collecting Data

09:30-10:30

Getting Started
Generating Visualizations
Interactive with Visualizations
Questions and Discussions

10:30-11:00

Coffee Break

11:00-12:00

Configuring CiteSpace
Time Slicing
Network Modeling and Pruning
Test Drive
Questions and Discussions

12:00-13:00

Advanced Topics
Extracting Noun Phrases
Clustering and Labeling
Working with Pubmed
Generating Google Earth Overlays
Using the Built-in Database

Questions and Discussions
What's Next
Conclusion

About Me

● Associate Professor
iSchool, Drexel University, Philadelphia
Homepage: <http://www.pages.drexel.edu/~cc345/>

● Chang Jiang Scholar
WISELAB, Dalian University of Technology, China

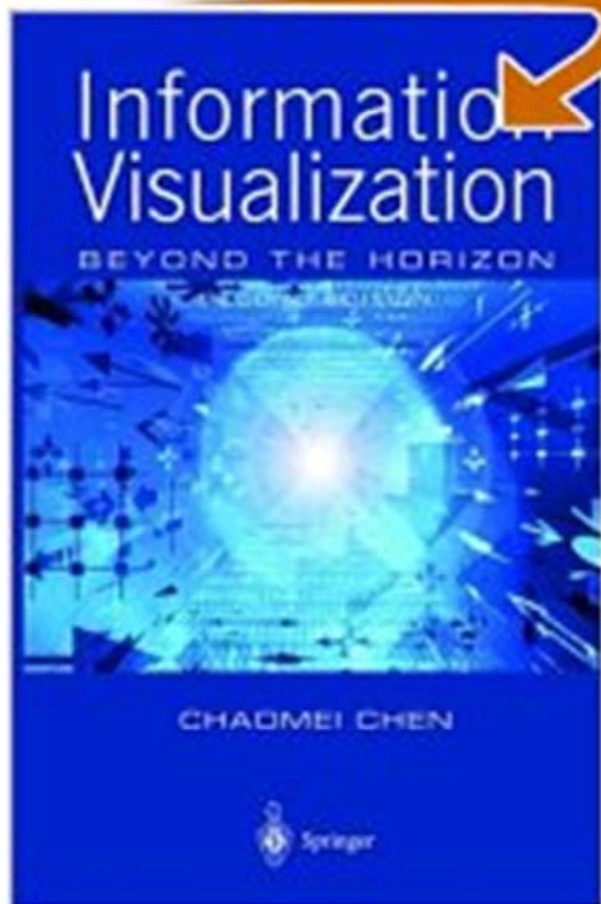
● Editor in Chief
Information Visualization

● Author
Information Visualization: Beyond the Horizon
Mapping Scientific Fronteris: The Quest for Knowledge Visualization

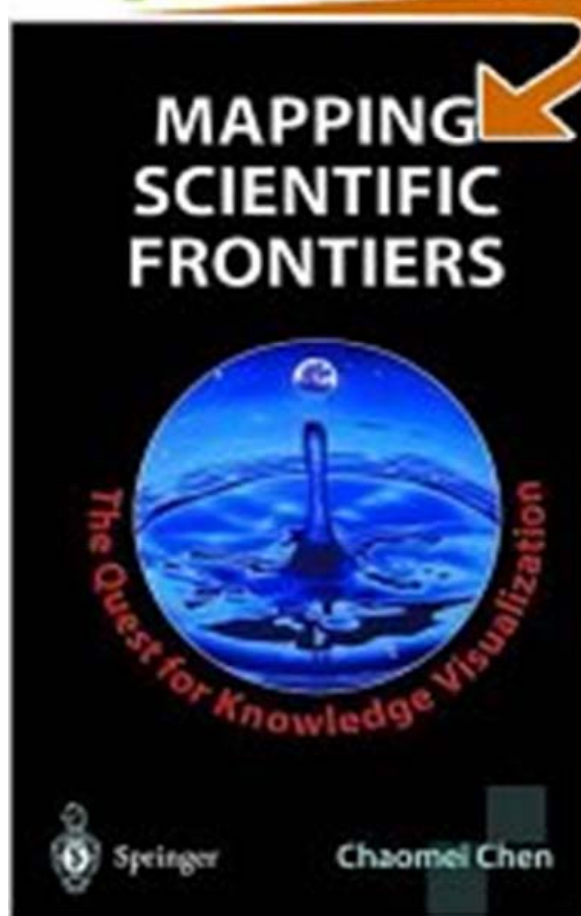
● CiteSpace



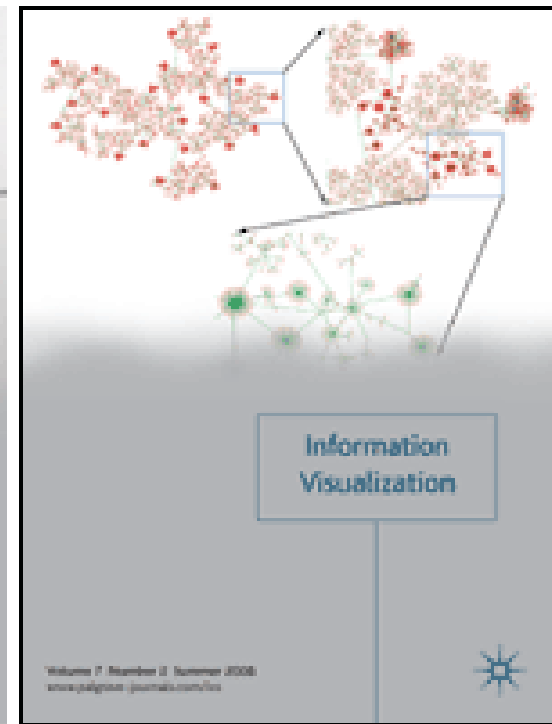
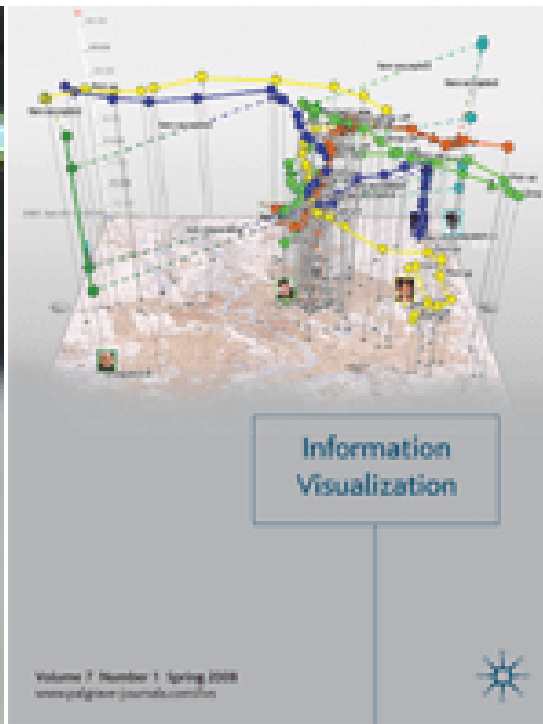
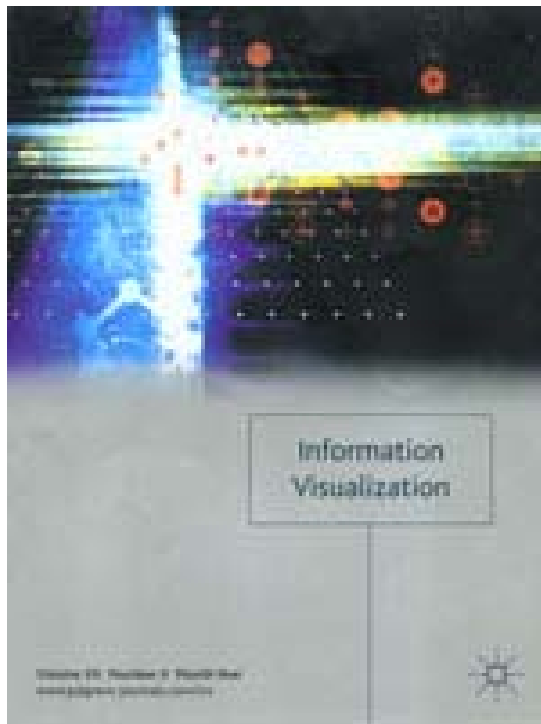
SEARCH INSIDE!™



SEARCH INSIDE!™



Information Visualization (IVS)



Introduction

- About You
 - Where are you from?
 - What do you do?
 - Have you used CiteSpace?
 - What questions do you want to address?

Who is using CiteSpace?

13,804 visits

1,969 cities

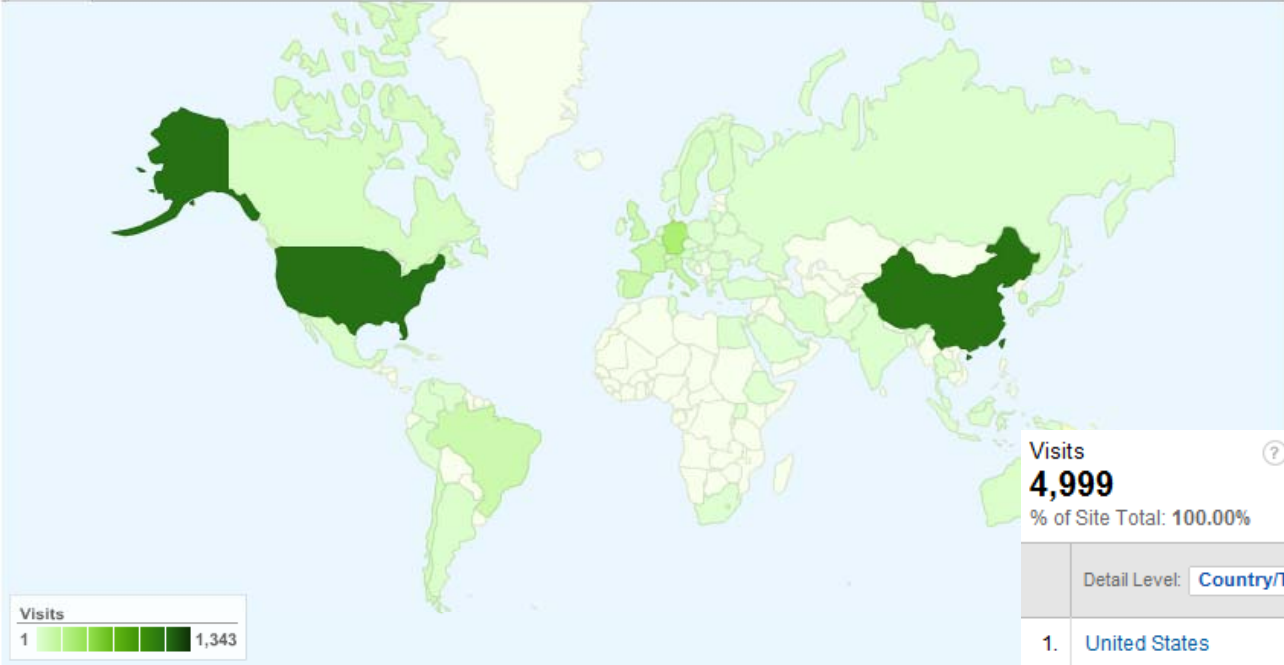
85 countries

since June 27, 2007 till July 10, 2009

Map Overlay

Jan 1, 2009 - Jul 10, 2009

Visits



Visits
4,999
% of Site Total: 100.00%

Pages/Visit
1.72
Site Avg: 1.72 (0.00%)

Avg. Time on Site
00:02:05
Site Avg: 00:02:05 (0.00%)

	Detail Level: Country/Territory	Visits ↓
1.	United States	1,343
2.	China	1,313
3.	Germany	392
4.	Italy	163
5.	France	162
6.	Spain	160
7.	Brazil	151
8.	Taiwan	148
9.	United Kingdom	141
10.	South Korea	125

4,999 visits came from 64 countries/territories

Detail Level: [City](#) | [Country/Territory](#) | [Sub Continent Region](#) | [Continent](#) Dimension: [None](#)

January 1 – July 10, 2009 vs. January 1 – July 10, 2008

	January 1 - July 10, 2009	January 1 - July 10, 2008	2009 / 2008
USA	1,343	1,722	77.99
China	1,313	815	161.10
Germany	392	228	171.93
Italy	163	20	815.00
France	162	132	122.73
Spain	160	208	76.92
Brazil	151	30	503.33
Taiwan	148	24	616.67
United Kingdom	141	144	97.92
South Korea	125	107	116.82

Map Overlay

Jan 1, 2009 - Jul 10, 2009
Comparing to: Jan 1, 2008 - Jul 10, 2008

Visits ▾



4,999 visits came from 1,506 cities

Key Publications on CiteSpace



137 •

Chen, C. (2006) [CiteSpace II: Detecting and visualizing emerging trends and transient patterns in scientific literature](#). *Journal of the American Society for Information Science and Technology*, **57**(3), 359-377.



100 •

Chen, C. (2004) [Searching for intellectual turning points: Progressive Knowledge Domain Visualization](#). *Proceedings of the National Academy of Sciences of the United States of America* (PNAS), **101** (Suppl. 1), 5303-5310.

- January 21, 2004: BioMedNet. Special Report: [Mapping intellectual milestones](#) by Helen Dell.

<http://cluster.cis.drexel.edu/~cchen/citespace/doc/biomednet.pdf>

- March 13, 2004: Science News Online. [Mapping Scientific Frontiers](#) by Ivars Peterson.

<http://cluster.cis.drexel.edu/~cchen/citespace/doc/mathtrek.pdf>

doi:10.3772/j.issn.1000-0135.2009.03.012

CiteSpace II :科学文献中新趋势与新动态的识别与可视化

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[编者按] 此文是国际著名信息可视化专家陈超美博士的代表作,该文系统阐述了他所研制的用于文献引文网络分析的 CiteSpace II 可视化软件的原理、特点及应用案例。它属于多元、分时、动态的第二代信息可视化技术。其独到的创新之处,在于用 CiteSpace II 绘制的一幅科学知识图谱上,能够显示一个学科或知识域在一定时期发展的趋势与动向,形成若干研究前沿领域的演进历程。如今,知识图谱和信息可视化在各国蓬勃兴起,但陈超美博士开发的历时性动态可视化技术迄今尚十分鲜见,被公认于居国际领先水平。目前已升级到可自动聚类与术语标识的 CiteSpace2-2 最新版本,但本文仍是这一技术的基础性文献。为在我国推广和普及作为科学计量学前沿的科学知识图谱与知识可视化方法,征得作者同意,特在本期全文发表此文的中译本。

Chinese
Translation