



Literature Management Targets, Tools, & Tips

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CONTENTS

- 1 Databases (数据库)
- 2 Backtracking (回溯)
- 3 Collecting literature on specific purpose
- 4 Keeping yourself up to date
- 5 Citations (引用文献)

Databases (数据库)

China Knowledge Resource Integrated Database
www.cnki.net

Thomson Reuters, Web of Science (SCI collection)
apps.webofknowledge.com

ELSEVIER, ScienceDirect (SCI except those of ASME)
www.sciencedirect.com

ASME Digital Collection (Journals & Conference Proceedings)
asmedigitalcollection.asme.org

Google Scholar (literature aggregation 文献聚合)
scholar.google.com

Springer, Taylor & Francis, Wiley Online Library, NASA Scientific and Technical Information Program

Notes:

- Some databases may require the client to use academic IP addresses.
- Sometimes you have to find a way to bypass the GFW.



Databases (数据库)

Tips:

- Create user accounts for databases (创建用户)
 - Save your search history
 - Reminder service
- Use advanced/expert search (使用高级/专家搜索)
 - Quickly narrow down the number of search results
 - Search with complex logic
- Focus on literature with higher number of “times cited” (尽量关注高引用率文献)

Databases (数据库)

Web of Science™ InCites™ Journal Citation Reports® Essential Science Indicators™ EndNote™ 耀钰 Help English

WEB OF SCIENCE™ THOMSON REUTERS™

Search All Databases My Tools Search History Marked List

Welcome to the new Web of Science! View a brief tutorial.

Advanced Search

Use field tags, Boolean operators, parentheses, and query sets to create your query. Results will appear in the Search History table at the bottom of the page. (Learn more about Advanced Search)

Example: TS=(nanotub* AND carbon) NOT AU=Smalley RE #1 NOT #2 more examples | view the tutorial

Search

Booleans: AND, OR, NOT, SAME, NEAR

Field Tags:

TS= Topic	SO= Publication Name [Index]
TI= Title	DO= DOI
AU= Author [Index]	PY= Year Published
AI= Author Identifiers	AD= Address
GP= Group Author [Index]	SU= Research Area
ED= Editor	IS= ISSN/ISBN

Databases (数据库)

ScienceDirect

Search all fields Author name Journal or book title Volume Iss

All Journals Books Reference Works Images **Advanced search** | Expert search

? Search tips

Search for

in All Fields

AND

in All Fields

Refine your search

- Journals
- Books
- All
- My Favorites
- Subscribed publications
- Open Access articles

- All Sciences -
Agricultural and Biological Sciences
Arts and Humanities
Biochemistry, Genetics and Molecular Biology

Hold down the Ctrl key (or Apple Key) to select multiple entries.

All Years 2007 to: Present

Search

ScienceDirect

Search all fields Author name Journal or book title Volume

All **Journals** Books Reference Works Images **Advanced search** | Expert search

? Search tips

Search for (Enter terms using Boolean connectors e.g. "heart attack" AND stress)

Title-Abstr-Key("SST") AND Abstract("wall") AND Abstract("treatment")

Refine your search

- All
- My Favorites
- Subscribed journals
- Open Access articles

- All Sciences -
Agricultural and Biological Sciences
Arts and Humanities
Biochemistry, Genetics and Molecular Biology

Hold down the Ctrl key (or Apple Key) to select multiple entries.

- Article
- Review Article
- Short Communication
- Correspondence, Letter
- Book Review
- Product Review
- Publisher's Note
- Erratum



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Backtracking (回溯)

Once you determined your research field or specific research subject, it's time to massively collect relating literature to quickly get a sense of:

- The basic definitions, concepts, fundamental theories (assumptions and limitations), general models, methods of prediction and common results.
- The research tools available, including general and specific purpose software, numerical methods and associated open-source codes, lower-level theoretical models or approximations, experiment methodologies and instrumentations, online databases.
- People. Who at what time proposed what kind of theory/approximation/simulation/experiment which has great significance.
- Organizations, institutions, laboratories, research groups, websites
- Relating domestic researchers. Relating people in YOUR INSTITUTION!

Backtracking (回溯)

Key
literature

Keywords &
People

Backtrack

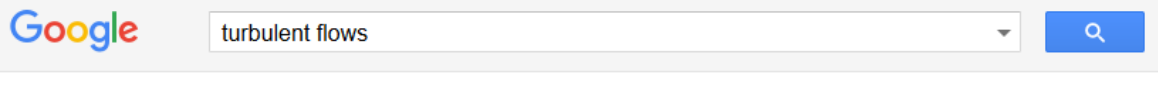
Summarize

Keywords &
People

Backtracking (回溯)

How to find key literature?

- From the references of average-level articles.
- From the references of famous or average-level text books.
- Only the number of “citation times” matters.



学术搜索 找到约 1,940,000 条结果 (用时0.06秒)

小提示: 只搜索中文(简体)结果, 可在 学术搜索设置 指定搜索语言

文章

我的图书馆

时间不限

2017以来

2016以来

2013以来

自定义范围...

按相关性排序

按日期排序

不限语言

中文网页

简体中文网页

Turbulent flows
SB Pope - 2001 - iopscience.iop.org
Professor Pope has based his book on graduate level lecture courses on turbulence that he has presented at MIT and at Cornell University. It is intended for students in engineering, applied mathematics, oceanography and atmospheric sciences, as well as researchers and practising engineers. **被引用次数: 9696** 相关文章 所有 22 个版本 引用 保存 更多

The numerical computation of turbulent flows
BE Launder, DB Spalding - Computer methods in applied mechanics and ..., 1974 - Elsevier
Abstract The paper reviews the problem of making numerical predictions of turbulent flow. It advocates that computational economy, range of applicability and physical realism are best served at present by turbulence models in which the magnitudes of two turbulence parameters are determined from the magnitudes of two length scales and the mean velocity gradient. **被引用次数: 12268** 相关文章 所有 10 个版本 引用 保存 更多

A new k-ε eddy viscosity model for high reynolds number turbulent flows
TH Shih, WW Liou, A Shabir, Z Yang, J Zhu - Computers & Fluids, 1995 - Elsevier
A new k-ε eddy viscosity model, which consists of a new model dissipation rate equation and a new realizable eddy viscosity formulation, is proposed in this paper. The new model dissipation rate equation is based on the dynamic equation of the mean-square vorticity. **被引用次数: 3480** 相关文章 所有 12 个版本 引用 保存

WEB OF SCIENCE™ THOMSON REUTERS™

Search

My Tools Search History Marked List

Sort by: Times Cited -- highest to lowest

Page 1 of 263

Results: 2,629 (from All Databases)

You searched for: TI=("turbulent flows") ...More

Refine Results

Search within results for...

Databases

Research Domains

- SCIENCE TECHNOLOGY (2,582)
- SOCIAL SCIENCES (127)

1. **The numerical computation of turbulent flows**
By: Launder, B.E.; Spalding, D.B.
Computer Methods in Applied Mechanics and Engineering Volume: 3 Issue: 2 Pages: 269-89 Published: March 1974
Full Text from Publisher View Abstract

2. **CRITERIA FOR THE SELECTION OF STOCHASTIC-MODELS OF PARTICLE TRAJECTORIES IN TURBULENT FLOWS**
By: THOMSON, DJ
JOURNAL OF FLUID MECHANICS Volume: 180 Pages: 529-556 Published: JUL 1987
Full Text from Publisher

Analyze Results
Create Citation Report
Times Cited: 5,329 (from All Databases)
Usage Count

Times Cited: 813 (from All Databases)
Usage Count



Backtracking (回溯)

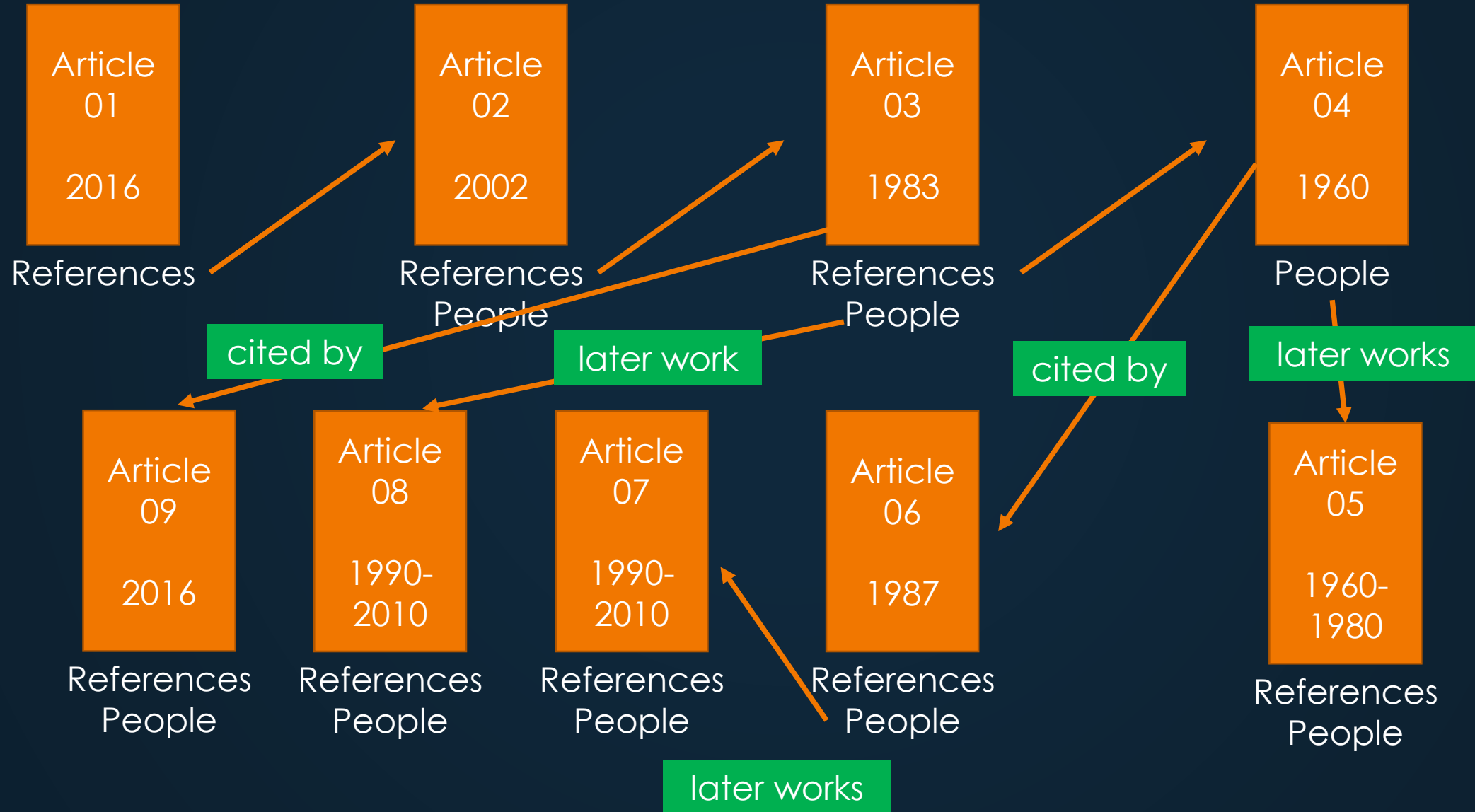
After the previous step, we (hopefully) obtained:
Important keywords, names of people, basic theories.

We should be able to / are going to describe:

- How did the basic theories and approximation methods come into being?
How did these theories evolve in time?
- How many numerical methods are there? What the time sequences of those methods? How many software we can use?
- What kind of experiments people have the ability to conduct at different time.
- As for numerical simulations and experiments, what kinds of physical/statistical properties are important? On what kinds of things/aspects that people would like or tends to investigate?
- What are the pros and cons of each theory, numerical method, software, experiment technique. What are the most suitable tasks of the above. What are their assumptions and limitations. What are the trends and frontiers (前沿).
- Who (people/organizations) are the most important, famous, productive?

Backtracking (回溯)

With relatively higher number of cited times!



Backtracking (回溯)

Google Scholar

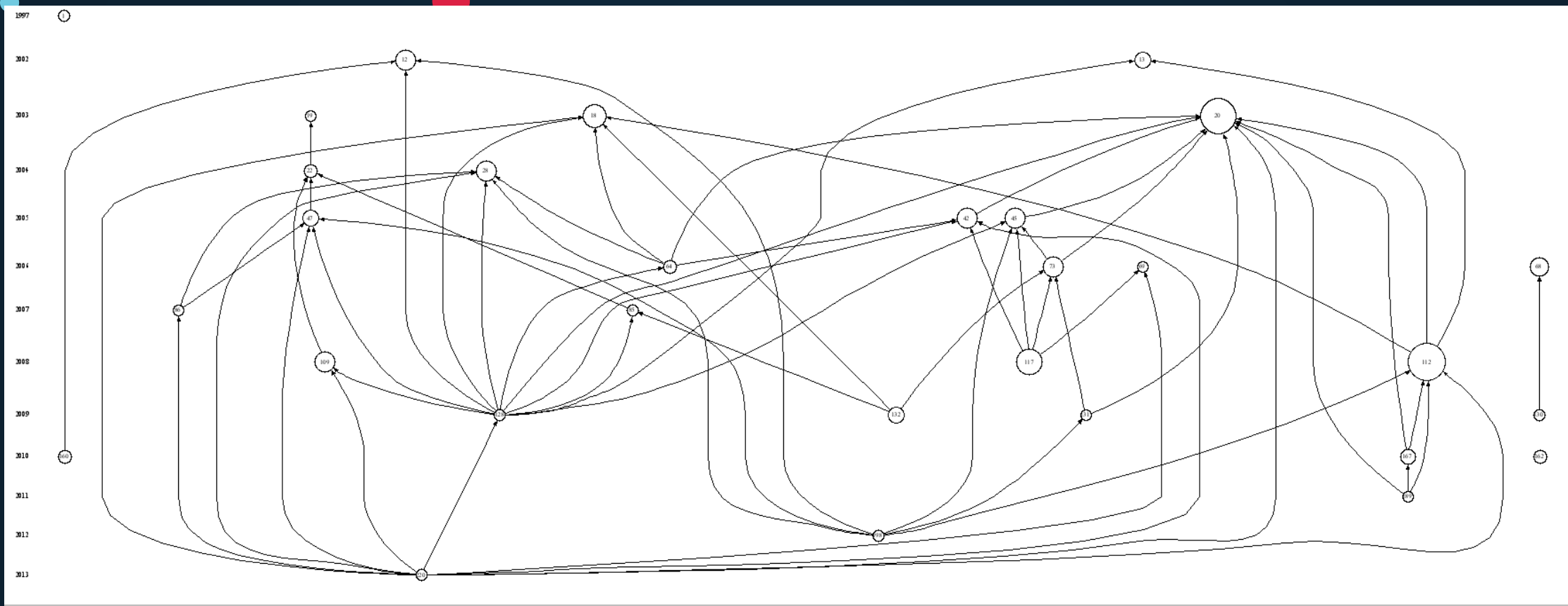
Google search for "turbulent flows" showing approximately 1,940,000 results. The first result is "Turbulent flows" by SB Pope (2001), with a citation count of 9696 circled in red. Other results include "The numerical computation of turbulent flows" and "A new k-ε eddy viscosity model for high reynolds number turbulent flows".



Google search for "Turbulent flows" showing approximately 9,696 results. The first result is "Convective transport in nanofluids" by J Buongiorno (2006), with a citation count of 2338. Other results include "[图书] Combustion" and "[PDF] Fire dynamics simulator (version 5), technical reference guide".

Backtracking (回溯)

HistCite Pro



Nodes: 30, Links: 60
LCS, top 30; Min: 4, Max: 42 (LCS scaled)

	LCS	GCS
1. 1 Rodi W, 1997, J WIND ENG IND AEROD, V71, P55	5	114
2. 12 Labourasse E, 2002, J COMPUT PHYS, V182, P301	14	42
3. 13 Quemere P, 2002, INT J NUMER METH FL, V40, P903	8	28
4. 18 Hamba F, 2003, THEOR COMP FLUID DYN, V16, P387	17	51
5. 19 Benhamadouche S, 2003, INT J HEAT FLUID FL, V24, P470	4	73
6. 20 Davidson L, 2003, INT J NUMER METH FL, V43, P1003	40	93
7. 22 Hanjalic K, 2004, ERCOFTAC SER, V9, P451	6	13
8. 28 Germano M, 2004, THEOR COMP FLUID DYN, V17, P225	13	27
9. 15 Hanjalic K, 2005, INT J HEAT FLUID FL, V26, P381	13	28

Backtracking (回溯)

Summarize the backtracking



Keywords
& People

Keywords
& People

Help your to do the backtracking.

Build up keywords and properties that are particularly important to your own research.

Not the general keywords!

建立起对自己将要进行的研究有意义的关键词和关键信息体系，这些关键词不同于文献中那些通用的关键词



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Collecting literature

Personal philosophy and methodologies.

I need a system which provides:

- Store literature on computers.
- Add specific self-defined **tag/keyword** to every single literature.
- Add specific self-defined **numerical attribute (属性)** to every single literature.
- Add specific self-defined **descriptive attribute** to every single literature.
- **Classification** and **sorting** with respect to the above tags/keywords, numerical and descriptive attributes.

It is actually a personal database!

From a software engineering point of view.



Collecting literature

An example of personal database.



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Up to date

- Some online databases provide the user with “alert” functionality.
- The user could create/register an alert with specific journals or search patterns. The system of the online database performs the search operation automatically and periodically. Generally the search result will be sent to the user by email.

WEB OF SCIENCE™

Search

Results: 59,201
(from Web of Science Core Collection)

You searched for: TOPIC: (seal)
...More

Create Alert

Refine Results

Search within results for...

Web of Science Categories

MATERIALS SCIENCE

ScienceDirect Journals Books Yaoyu Hu

Search all fields Author name Journal or book title Volume Issue Page Advanced search

Journal and book-series alerts Your alerts are sent to huyaoyu@sjtu.edu.cn. Visit your profile to edit your email.

INFO: We are currently making improvements to the Journal and book-series alerts. During this time, you will continue to receive your existing alerts and you can continue to set up new alerts. However, your journal and book-series alerts will not be displayed on the manage my alerts page in ScienceDirect.

To create new Journal and book-series alerts select the journal and books you are interested in.

Topic alerts Alerts are sent to huyaoyu@sjtu.edu.cn. Visit your profile to edit your email. Add a topic alert

You currently have no Topic alerts defined.
A Topic alert notifies you by email when new articles pertaining to a specific topic are available on ScienceDirect.

Select the topics you are interested in to create a Topic alert.

Search alerts Add a search alert

You currently have no Search alerts defined.
A Search alert notifies you by email when a stored search retrieves new results.

How to create a Search alert:
1 Define and run a Search.
2 Save the search as a Search alert.



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Citations

- We want:
 - Easy insertion and management when composing articles or dissertation.
 - Easy to migrate among various stylings (参考文献格式).
- Useful tools
 - EndNote
 - Zotero (Recommended)
 - Mendeley
 - BibTex



**Thank you for
your attention!**

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