打造中国标准名称标识符
建立学者知识服务体系

CEET 中国工程科技专家库
China Engineering Expert Tank

刘翔@杭州 2019年10月17日

浙江理工大学

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缘起背景

CEET 中国工程科技专家库 China Engineering Expert Tank

http://expert.ckcest.cn

缘起背景

中国工程科技专家库（CEET）http://expert.ckcest.cn

资源类型	数量（条）	收录时间范围	简介
中文期刊	82220391	1915 - 2019	国内29435种中文期刊的期刊论文元数据。 收录中文期刊名录下载
学位论文	2269640	2002 - 2015	国内博士、硕士研究生论文元数据。
项目数据	359670	1993 - 2017	国家级、省市级已经结题的项目元数据。
成果奖励数据	802781	1978 - 2014	科技成果及国家级科技奖励、计划、鉴定项目元数据，涉及自然科学的各个学科领域。
专利数据	11869232	1985 - 2018	中国专利元数据。
SCI收录	2920968	1901 - 2018	43528种期刊中来自中国机构的SCI收录论文元数据。 收录SCI名录下载
EI收录	885140	1884 - 2018	5114种期刊中来自中国机构的EI收录的论文元数据。 收录EI名录下载
SCOPUS收录	19735659	1815 - 2017	132372种期刊来自中国机构的SCOPUS收录的论文元数据。
会议论文	1709782	1953 - 2015	中外会议论文元数据。
图书	2977689	1809 - 2016	中文图书元数据。
中国专家	14331548	1915 - 2018	由中文期刊清洗得到。

注：统计时间截至2019-10-13

国内外研究现状

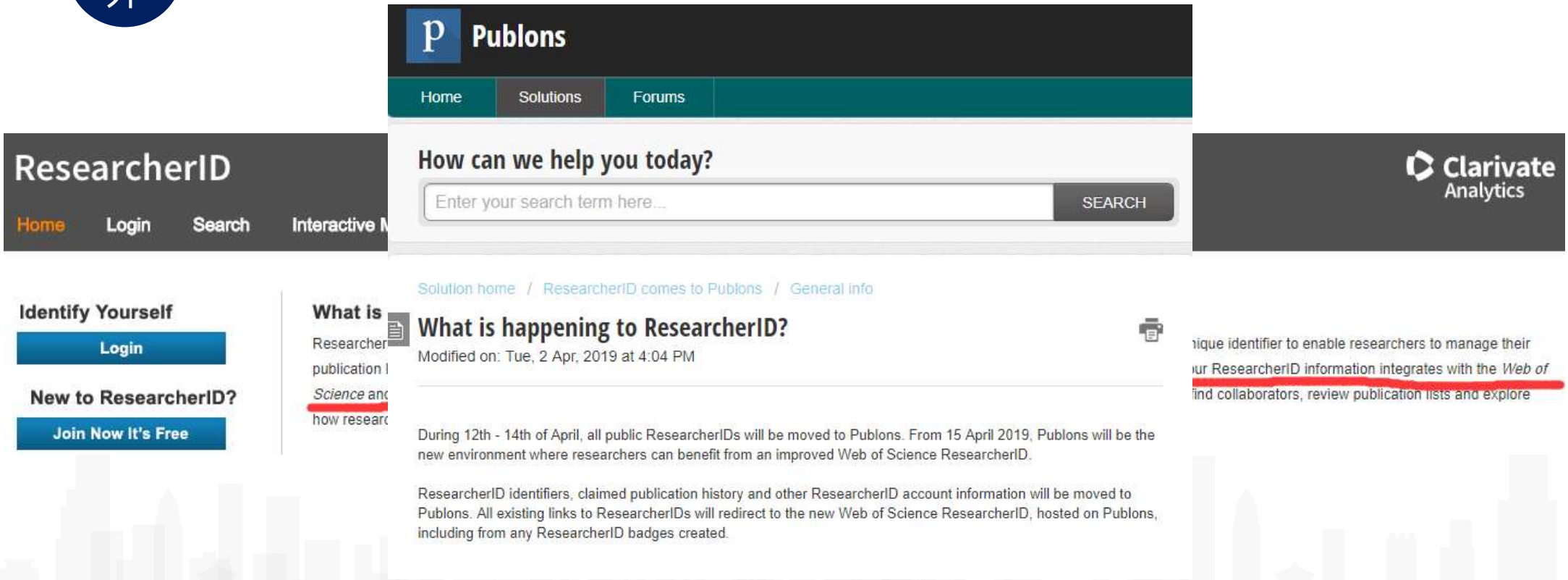
国内

ScholarID： 百度学术的ScholarID。

国内外研究现状

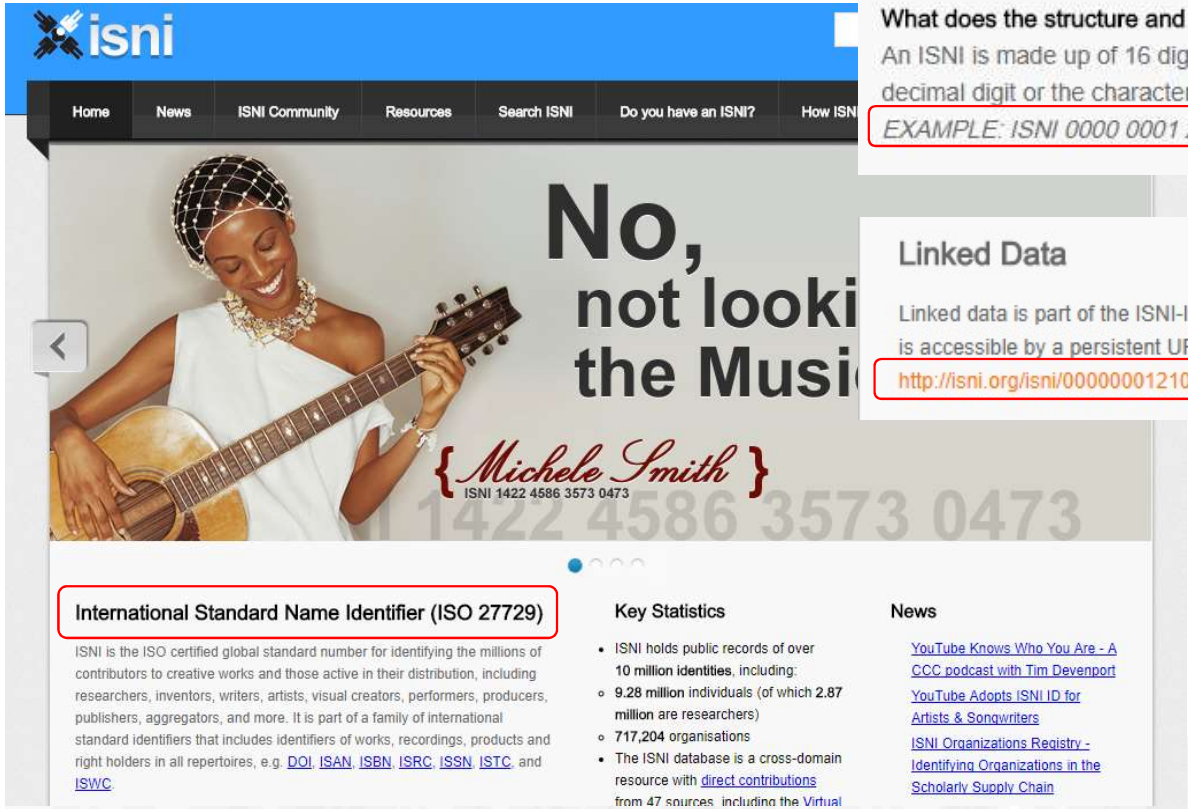
国外

ResearcherID



国内外研究现状

ISNI



What does the structure and syntax of an ISNI look like?

An ISNI is made up of 16 digits, the last character being a check character. The check character may be either a decimal digit or the character "X".There are therefore one hundred thousand billion possible combinations.

EXAMPLE: ISNI 0000 0001 2103 2683

Linked Data

Linked data is part of the ISNI-IA's strategy to make ISNIs freely available and widely diffused. Each assigned ISNI is accessible by a persistent URI in the form **http://isni.org/isni/[isni]** for example:

http://isni.org/isni/0000000121032683. ISNI core metadata is available in html and xml.

Key Statistics

- ISNI holds public records of over **10.7 million identities**, including:
  - **9.81 million** individuals (of which **2.89 million** are researchers)
  - **894,541** organisations
- The ISNI database is a cross-domain resource with direct contributions from 52 sources, including the Virtual International Authority File (VIAF), an aggregation of data from major national and research libraries.

国内外研究现状

国外

ISBN
ISSN
DOI
ISRC
ISNI

ISNI:国际标准名称识别码（International Standard Name Identifier)

INTERNATIONAL STANDARD

Information and documentation — International standard name identifier (ISNI)

Information et documentation — Code international normalisée pour l'identification des noms (ISNI)

1 Scope

This International Standard specifies the International Standard name public identities of parties, i.e. the identities used publicly by parties industries in the creation, production, management and content distribu

The ISNI system uniquely identifies public identities across multiple fi tool for disambiguating public identities that might otherwise be confuse

The ISNI is not intended to provide direct access to comprehensive inf provide links to other systems where such information is held.

2 Normative references

The following referenced documents are indispensable for the app references, only the edition cited applies. For undated references, document (including any amendments) applies.

ISO/IEC 7064, *Information technology — Security techniques — Check*

3 Terms and definitions

For the purposes of this document, the following terms and definitions a

3.1
party
natural person or legal person, whether or not incorporated, or a group

3.2
registrant
party (3.1) that requests an ISNI from the Registration Authority

3.3
public identity
identity of a **party** (3.1) or a fictional character that is or was presented

3.4
name
character string by which a **public identity** (3.3) is or was commonly re

A.1 General

The purpose of the check character is to guard against errors caused by the incorrect transcription of an ISNI.

A.2 Calculation of the check character

The check character shall be calculated in accordance with ISO/IEC 7064, MOD 11-2. The check character shall always be located in the extreme right (low order) position.

Multiply the character values by their weights, then add the products. Strings including the check character are valid if the sum of these products is congruent to 1 (mod 11).

Table A.1 — Method for calculating the check character of 1422 4586 3573 047

Step	Procedure	Result														
1	Take the weighting factors associated with each digit position as defined in Table A.2. The check digit has position 1 and is not included at this stage.	10	5	8	4	2	1	6	3	7	9	10	5	8	4	2
2	Take the first fifteen digits of the ISNI. The check character will be the sixteenth and last character.	1	4	2	2	4	5	8	6	3	5	7	3	0	4	7
3	Multiply each digit in turn by its weighting factor.	10	20	16	8	8	5	48	18	21	45	70	15	0	16	14
4	Add these numbers together.	10 + 20 + 16 + 8 + 8 + 5 + 48 + 18 + 21 + 45 + 70 + 15 + 0 + 16 + 14 = 314														
5	Select a number such as its sum with the previous result is congruent to 1 (mod 11). If the above number is 10 then replace it by an "X".	314 + **6** = 320 and 320 + 11 = 29 remainder 1														
6	Append the result of step 5, which is the check character, to the extreme right (low order) position of the base number of the ISNI.	1422 4586 3573 047**6**														
NOTE	A number is congruent to 1 (mod 11) when the division of this number by 11 yields a remainder of 1.															

浙江理工大学专用

国内外研究现状

国外

ORCID iDs 开放学术出版物及学术产出的作者ID (Open Research and Contributor ID)

- Julie Balter, Secretary (ex officio), ORCID (US)
- Andrew Cormack (2017-2019) Jisc (UK)
- Richard de Grijs (2017-2019) Researcher member (AU)
- Laurel L. Haak (ex officio) ORCID (US)
- Daniel Hook (2017-2019) Digital Science (UK)
- Richard Ikeda (2019-2021, second term) US National Institutes of Health (US)
- Veronique Kiermer, *Chair* (2019-2021, second term) PLOS (US)
- Robert Kiley (2019-2021, second term) Wellcome Trust (UK)
- Salvatore Mele (2018-2020, second term) CERN (CH)
- Alison Mitchell (2018-2020) Springer Nature (UK)
- Linda O'Brien (2017-2019) Griffith University (AU)
- Ed Pentz (2018-2020, second term) Crossref (UK)
- Daisy Selematsela (2018-2020) UNISA (ZA)
- Chris Shillum (2017-2019, second term) Elsevier (US)
- Simeon Warner (2018-2020, second term) Cornell University (US)
- Karin Wulf (2018-2020) Researcher member (US)
- Shouguang Xie (2019-2021) Social Sciences Academic Press (China)

ISNI and ORCID sign Memo of Understanding

2014-01

Signed in January 2014, this MOU between ISNI and ORCID specifies that the two organisations will dialogue further on technical interoperability, as well as coordinating external communications.

ORCID and ISNI: Strategic Partner MOU

Persistent identifiers for researchers and scholars are essential for supporting the connection between researchers and their contributions, improving discoverability, and ensuring interoperability between research systems.

Both the ISNI International Agency and ORCID are not-for-profit, international organizations engaged in assigning unique identifiers to individuals. The ISNI International Agency, under contract to ISO, is charged with continuously administering, governing and developing the ISNI database and services in response to the needs and requirements of all ISNI stakeholders.

The ISNI identifier is a global standard for identifying the millions of contributors to creative works and those active in their distribution, including writers, artists, creators, performers, researchers, producers, publishers, aggregators, and more across the global information supply chain. It is part of a family of international standard identifiers that includes identifiers of works, recordings, products and right holders in all repertoires, e.g. DOI, ISAN, ISBN, ISRC, ISSN, ISTC, and ISWC.

ORCID is an open and interdisciplinary community-based effort to provide a self-claim registry of unique researcher identifiers. To ensure the identifier links researchers with their works, ORCID works with the research community to embed these identifiers in workflows, such as manuscript submission, grant application, and dataset deposition. ORCID is unique because of its direct relationship with researchers and with organizations throughout the research community.

ORCID and ISNI are separate, independent organizations that assign identifiers to individuals and are using the same identifier format. As announced in our joint statement on interoperation, ORCID and ISNI are agreed on the need to aim for interoperation through linking identifiers and sharing public data between the two systems. As a first step in responsible collaboration the two organizations agreed to allocate to ORCID an exclusive block of 16 digit identifiers which will not be used by the ISNI assignment system. This will prevent the same 16 digit number being assigned to different people. In addition, ORCID and ISNI are committed to investigate the feasibility of a shared identifier scheme for a single identifier to represent an individual in both the ORCID and ISNI databases.

KID

http://kid.ckcest.cn

一、可以区分相同参与者的不同身份，解决Who is who的问题

学者是学术研究的主体，全面准确地追踪学者的学术产出对洞悉学术影响力、学术生产力，促进科研合作及知识传播乃至抑制学术不端都有着重大意义。

因“学者姓名拼写歧义”导致人们很难明确、准确、高效地定位并追踪学者的学术产出，更无法追踪学者的学术影响力。

二、促进知识传播，服务于学术研究

实现学者学术身份的识别与认证，消解学术共同体的学术交流障碍，从而更好服务于学术研究，促进知识传播。

三、避免学者ID的大量重复建设

目前，为了管理学者学术产物，国内已经建设了不少学者ID体系；各个行业均在考虑进行学者库、专家库和智库建设，为避免重复建设，学者ID亟需从国家层面统一。

KID

http://kid.ckcest.cn

KID

http://kid.ckcest.cn

ISNI Registration Agencies

A registration agency provides the interface between ISNI applicants and the ISNI Assignment Agency. Registration agencies are appointed by the ISNI International Agency and provide ISNI related services to all users.

List of Registration Agencies

- Biblioteca Nacional de España (BNE)
- Bibliothèque et Archives nationales du Québec (BAnQ)
- Bibliothèque nationale de France (BnF) - primarily (though not exclusively) registers names of individuals and publishing organizations in France
- Bibliothèque nationale de Luxembourg
- British Library
- BTLF (Société de gestion de la Banque de Titres de Langue Française)
- Casalini Libri
- China Knowledge Centre for Engineering Sciences and Technology (CKCEST)
- CI
- Electre
- Iconoclaste
- Identification Agency (IDA)
- Koninklijke Bibliotheek
- Kültür ve Turizm Bakanliği
- National Assembly Library of Korea
- National Library of Korea
- National Library of Poland
- Numerical Gurus
- Program for Cooperative Cataloging (PCC)
- Ringgold - registers organization names
- Rakuten Kobo
- SoundExchange Inc.
- Soundways
- YouTube

应用情况介绍

学术社交

网络接入认证

Cernet-Carsi

学术期刊

知识服务

/02

应用情况介绍 —— 学术社交

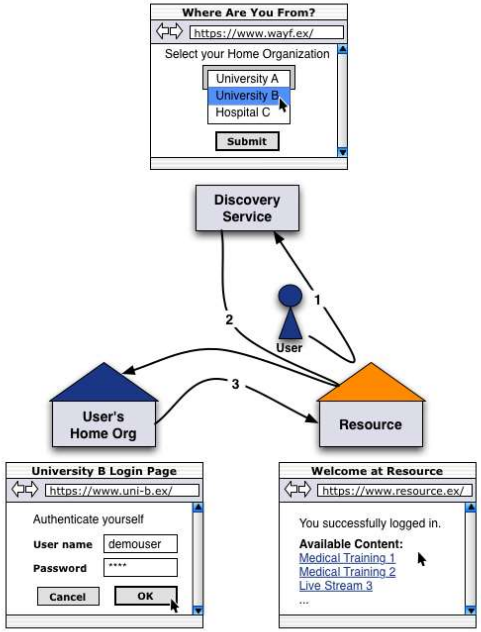
名片创建与更改

名片导出与分享

应用情况介绍——网络接入认证

应用情况介绍——Cernet-Carsi

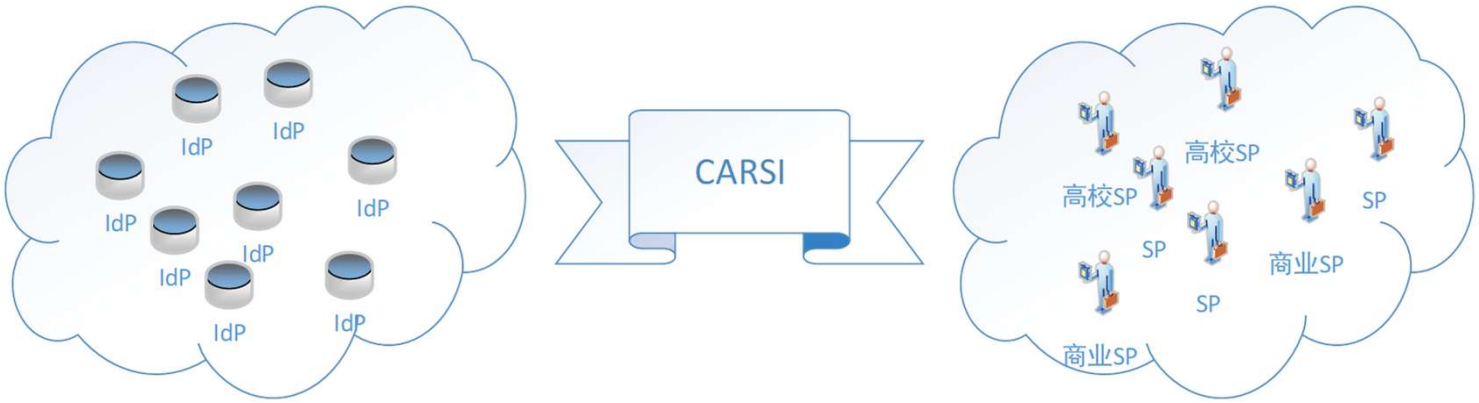
CERNET Authentication and Resource Sharing Infrastructure
跨校身份认证（联合认证）资源共享基础设施



- 核心组件——身份提供者IdP
  - 身份认证
  - 身份属性发放
- 核心组件——服务提供者SP
  - 基于用户属性的授权
- 辅助组件——目录服务DS

CARSI的技术基础——saml/shibboleth

应用情况介绍——Cernet-Carsi



实现了服务共享，突破了地理位置限制和应用限制，任何人、任何时间、任何地点可以访问线下已经获取权限的应用系统/服务

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应用情况介绍——Cernet-Carsi

- 高校网络中心IdP
  - 本校师生使用校园网身份可以访问更多的国内外教育科研资源，不用建立单独的身份
  - 支持本校师生随时随地访问学校采购的商业资源，方式更灵活，访问更可控
  - 高校国际化程度的重要体现
- 高校应用系统SP
  - 让更多学校的师生了解并有控制地使用本校的特色资源
- 商业应用系统SP
  - 精准定位应用访问群体，用户身份更真实
- CARSI
  - 为学校和应用系统之间架起一座桥梁，用户身份更可信，资源访问更可管，争取实现应用场景创新

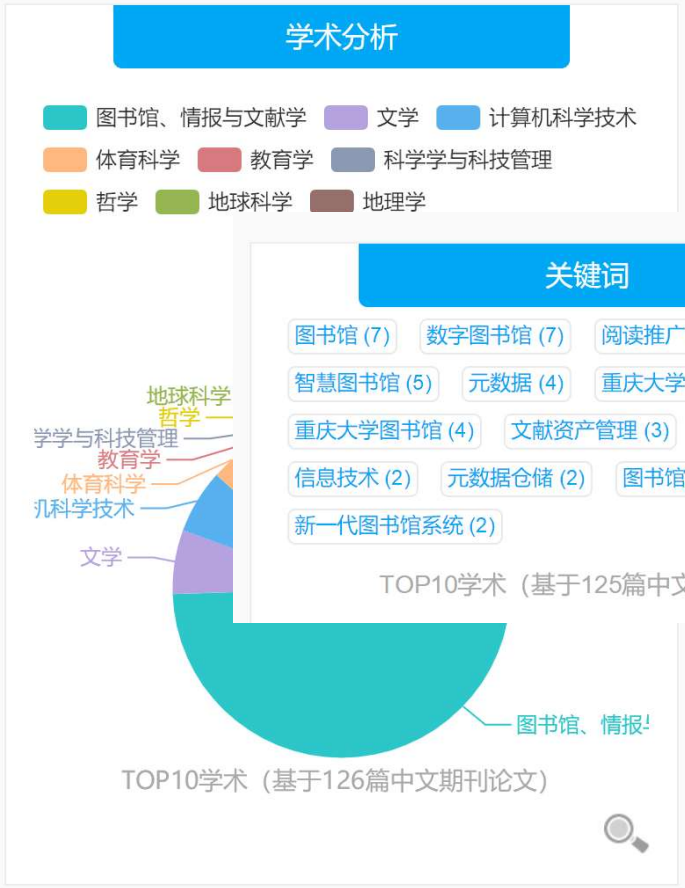
应用情况介绍——Cernet-Carsi

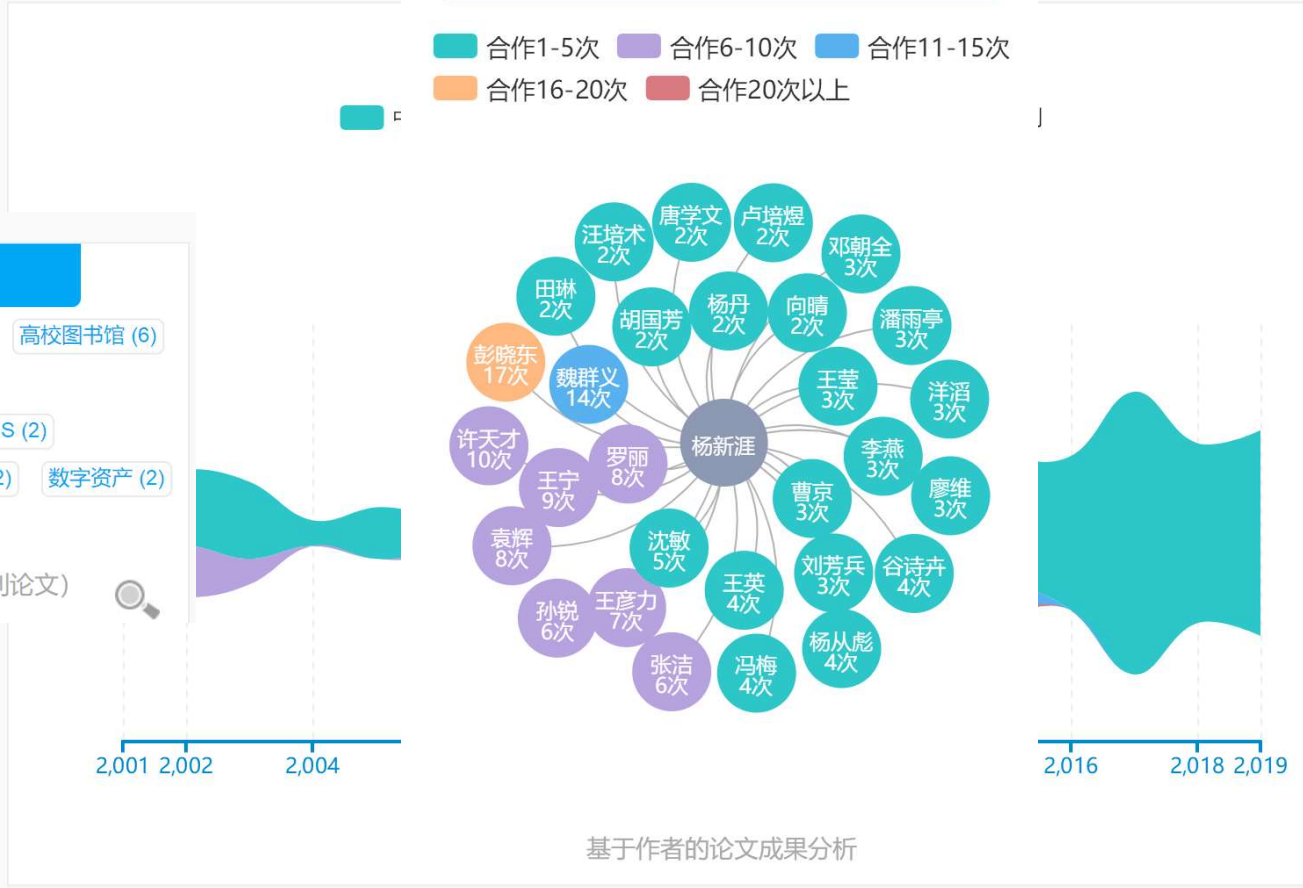
- 2007年，北京大学内部试验
- 2008年：CNGI项目支持，将规模扩大到30个CERNET2核心节点
- 2011年：和CALIS合作，进一步扩大规模先后，70+学校加入，7个国外大数据库商60+服务。
- 2017年11月，被列入教育网基础服务
- 2019年5月，成功加入eduGAIN。

应用情况介绍——学术期刊

Engineering
August 2019
Intelligent Manufacturing
Pages 624–701
Additive Manufacturing
Pages 702–754
Physical Systems
Physical Systems
AI
Cyber
Physical Systems
Human

应用情况介绍——知识服务


学术分析
图书馆、情报与文献学
文学
计算机科学技术
体育科学
教育学
科学学与科技管理
哲学
地球科学
地理学
关键词
图书馆 (7)
数字图书馆 (7)
阅读推广 (6)
高校图书馆 (6)
智慧图书馆 (5)
元数据 (4)
重庆大学 (4)
重庆大学图书馆 (4)
文献资产管理 (3)
SNS (2)
信息技术 (2)
元数据仓储 (2)
图书馆2.0 (2)
数字资产 (2)
新一代图书馆系统 (2)
TOP10学术（基于125篇中文期刊论文）
地球科学
哲学
学学与科技管理
教育学
体育科学
文学
图书馆、情报
TOP10学术（基于126篇中文期刊论文）


合作者关系
合作1-5次
合作6-10次
合作11-15次
合作16-20次
合作20次以上
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汪培术 2次
唐学文 2次
卢培煜 2次
邓朝全 3次
田琳 2次
胡国芳 2次
杨丹 2次
向晴 2次
潘雨亭 3次
彭晓东 17次
魏群义 14次
王莹 3次
洋滔 3次
许天才 10次
罗丽 8次
王宁 9次
李燕 3次
曹京 3次
廖维 3次
袁辉 8次
沈敏 5次
刘芳兵 3次
谷诗卉 4次
王英 4次
孙锐 6次
王彦力 7次
杨从彪 4次
张洁 6次
冯梅 4次
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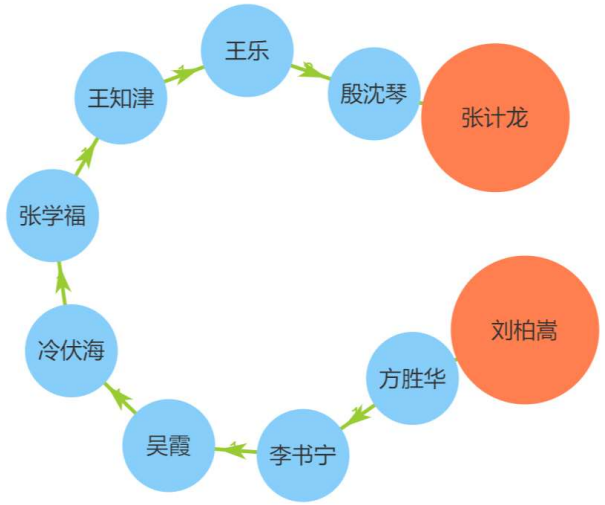
2,016 2,018 2,019
基于作者的论文成果分析

应用情况介绍——知识服务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冷伏海
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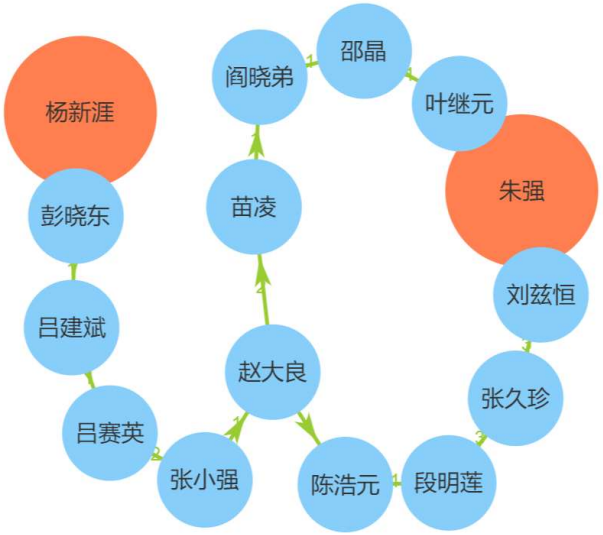
吴霞
李书宁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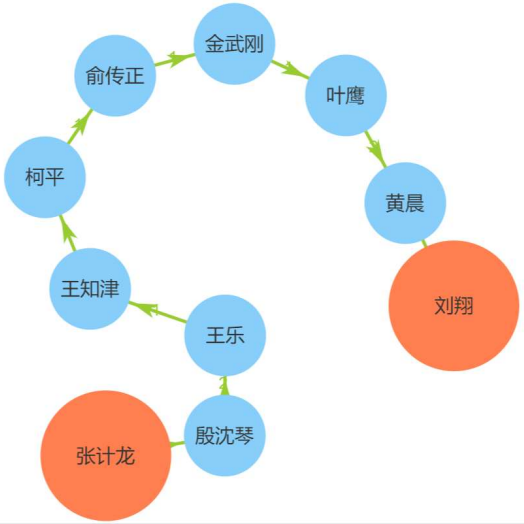
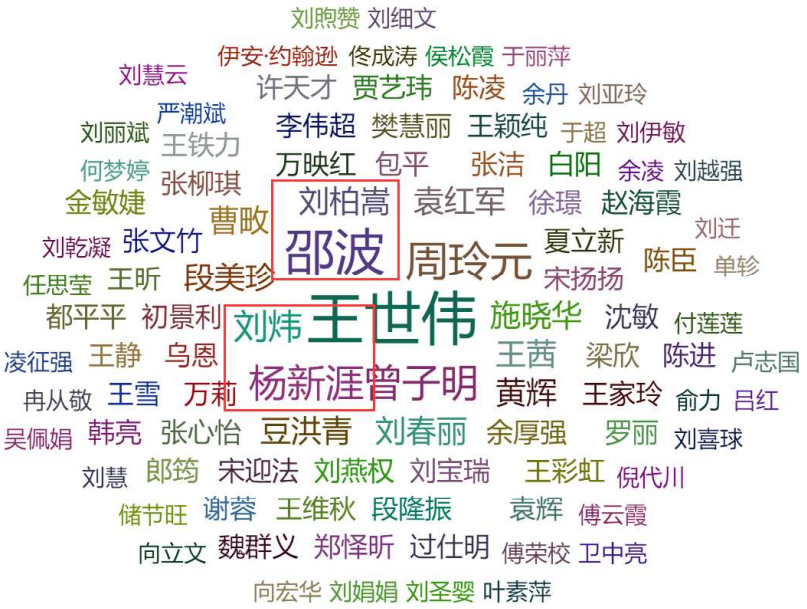
阎晓弟
叶继元
杨新涯
朱强
彭晓东
苗凌
刘兹恒
吕建斌
赵大良
张久珍
吕赛英
张小强
陈浩元
段明莲


金武刚
俞传正
叶鹰
柯平
黄晨
刘翔
王知津
王乐
张计龙
殷沈琴

应用情况介绍——知识服务

围绕此关键词的专家网图

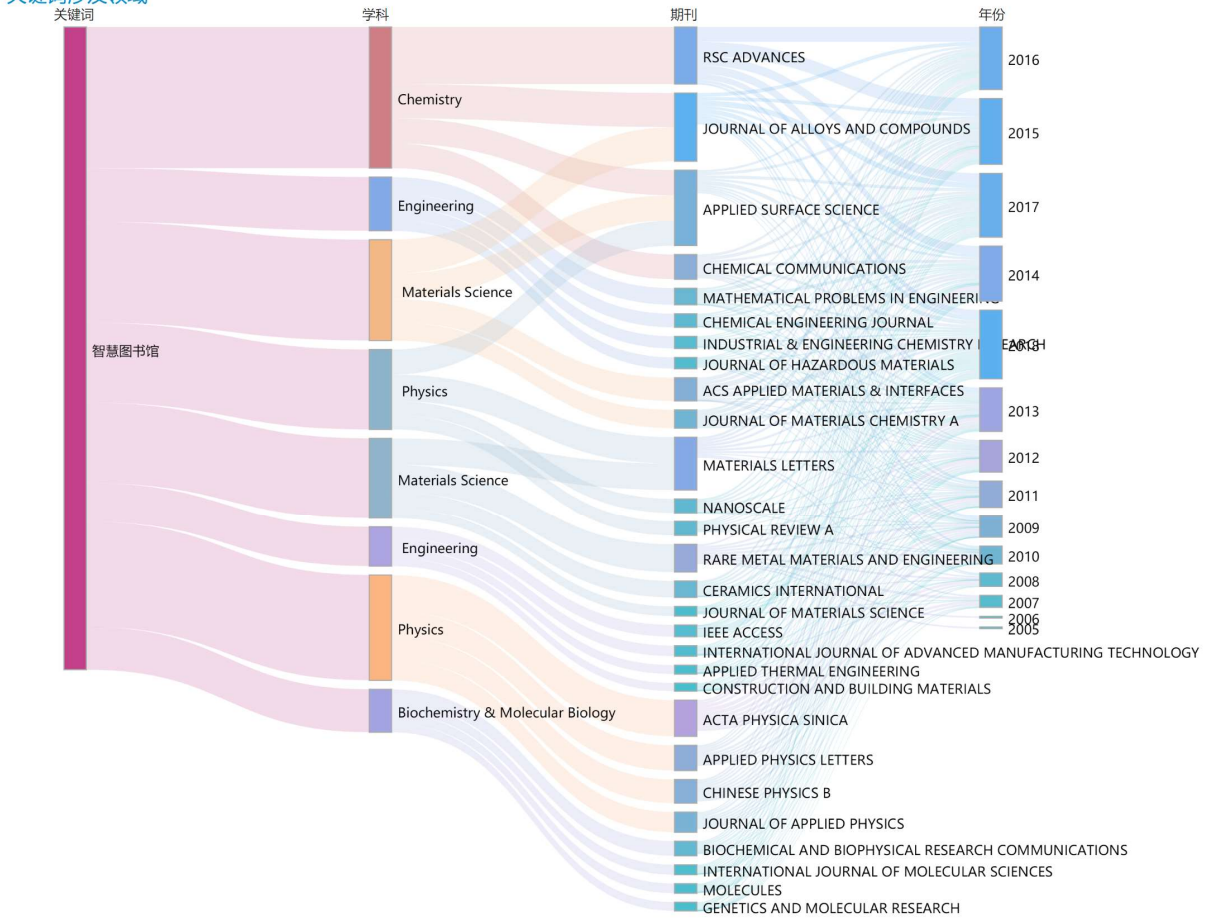


移动视觉搜索 重庆大学图书馆 Beacon

"互

此关键词涉及领域

关键词涉及领域



计划进展

/03

进展计划——中国标准名称标识符国标制定

主要原则

一、合法

凡人员身份、机构性质等方面内容，执行国家相关法律法规。

二、国际性

遵照国际标准基本原则，采用国际性编码体系，为世界范围内的信息共享做好准备。

三、兼容性

充分考虑标准的兼容性，在ISNI元数据部分充分兼容已有的行业规范。

四、广泛性

注重广泛性和普适性，可应用于新闻出版、互联网机构、学术机构、政府部门及新媒体等对学者标识有需求的行业。

五、关联性

注重发挥ISNI标识符的“桥梁”功能和作用，与国内现有的各行业的数据库关联，推动标准规范体系的应用。

标准技术内容-主要技术内容

编码体系

本标准规范了标准名称标识符的编码体系，用于标识符应用的功能组件（语法、描述和解析），以及对标识符进行注册和管理的一般原则。

标识范围

标准名称识符用来标识和识别学者，规范学者元数据著录项。

谢　谢