

SIAM 数据库使用指南

iGroup China



siam®

1. 关于SIAM 出版社

SIAM (Society for Industry and Applied Mathematics)

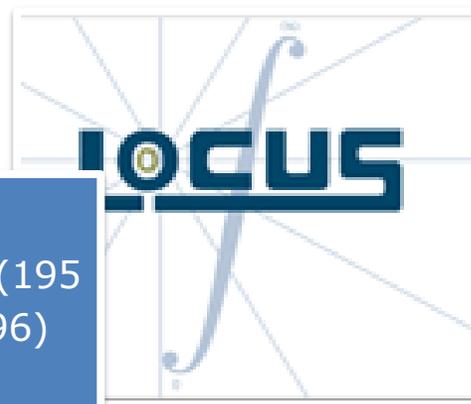
- 工业和应用数学学会 (SIAM) 于二十世纪五十年代前期在美国成立，是一个以促进**应用和计算数学**的研究、发展、应用为目的的协会。
- SIAM拥有14,000+个人会员，由来自世界各国的应用和计算数学家、计算机科学家、工程师、统计学家和数学教育者组成。
- SIAM拥有500多个机构会员，由大学，公司和研究机构组成。
- SIAM以出版高水准和颇具声誉的期刊而自豪。是公认的数学专业领域里最可靠的知识来源。

2/1. SIAM数据库出版物总览

期刊18种
(1997-至今)



LOCUS(1953-1996)



SIAM
Proceeding



SIAM电子图书



2/2. SIAM 期刊品质

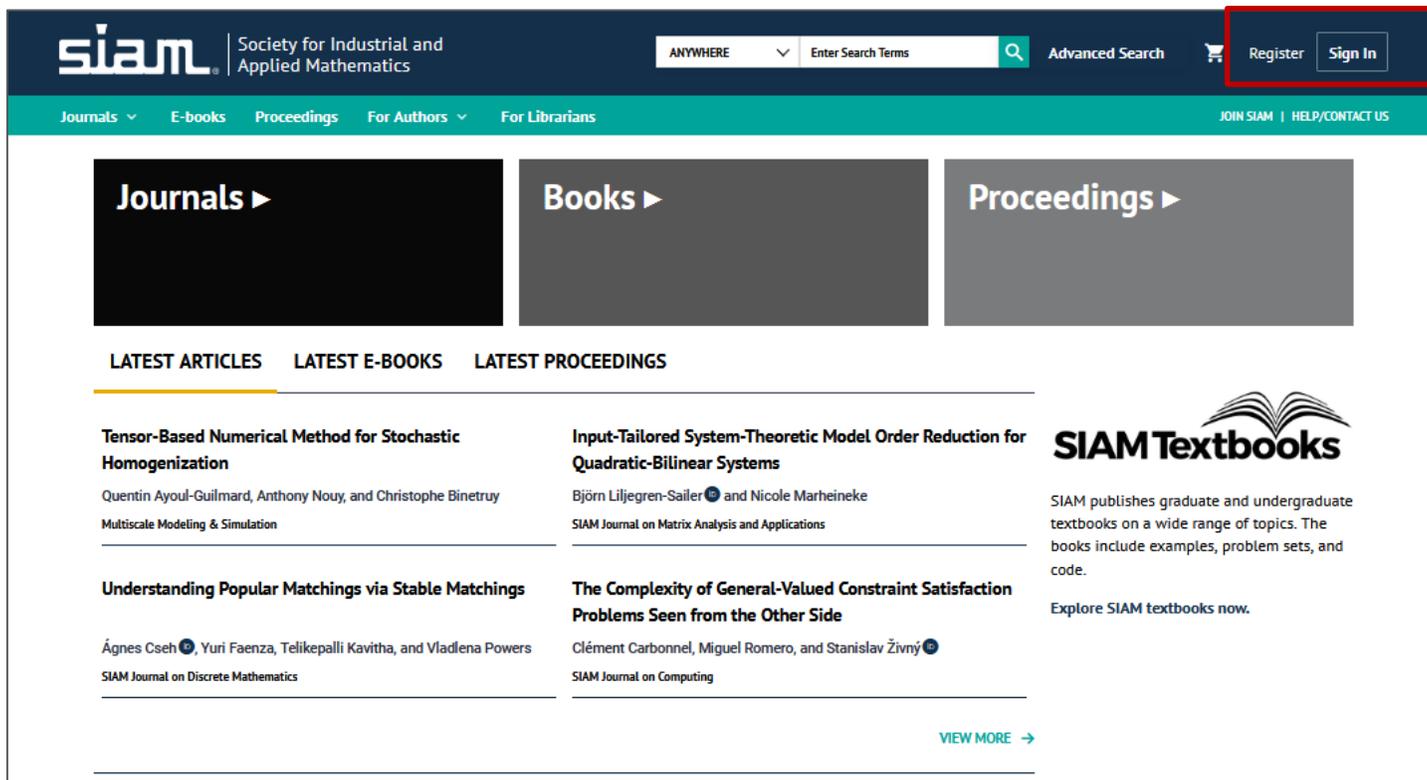
- SIAM出版的18本期刊，均是同行评审期刊，除了2019新刊外，其他期刊均被 JCR收录
- **SIAM Review** 在“应用数学”领域265种被JCR收录的期刊中连续5年排名第一



- 在“应用数学”领域265种期刊的影响因子排名中，SIAM的期刊占据了前50名中的8席
- 在“应用数学”领域里的SIAM期刊，其文章被引用量高达97,000多次；

3. SIAM数据库使用平台

➤ 访问网址：<https://epubs.siam.org>

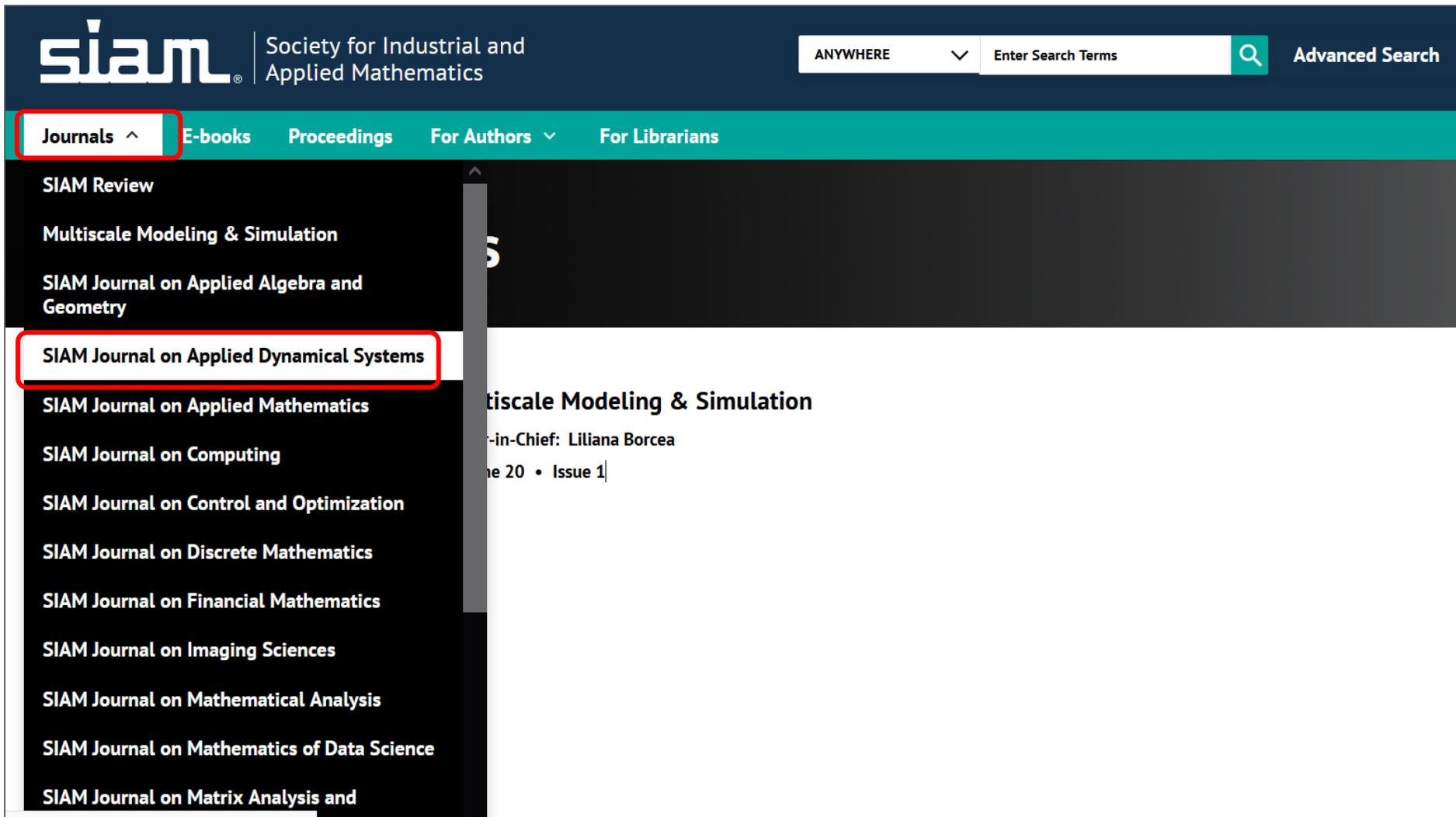


The screenshot shows the SIAM website homepage. At the top, there is a dark blue navigation bar with the SIAM logo on the left, a search bar in the center, and 'Register' and 'Sign In' buttons on the right. Below the navigation bar is a teal bar with links for 'Journals', 'E-books', 'Proceedings', 'For Authors', and 'For Librarians'. The main content area is divided into three columns: 'Journals', 'Books', and 'Proceedings'. Below these are sections for 'LATEST ARTICLES', 'LATEST E-BOOKS', and 'LATEST PROCEEDINGS'. The 'LATEST ARTICLES' section features two article listings with titles, authors, and journal names. The 'SIAM Textbooks' section is on the right, with a logo and a brief description of the books available.

注册或登录账户，获取个性化服务：

- ✓ 访问数据库全文（订购机构的用户）
- ✓ 保存检索式
- ✓ 添加文章到个人文件夹
- ✓ 设置新文章提醒功能

3/1. 期刊浏览



The screenshot shows the SIAM website's navigation menu. The "Journals" menu item is highlighted with a red box. Below it, a list of journals is displayed, with "SIAM Journal on Applied Dynamical Systems" also highlighted with a red box. The background shows a partial view of the "Multiscale Modeling & Simulation" journal page.

siam | Society for Industrial and Applied Mathematics

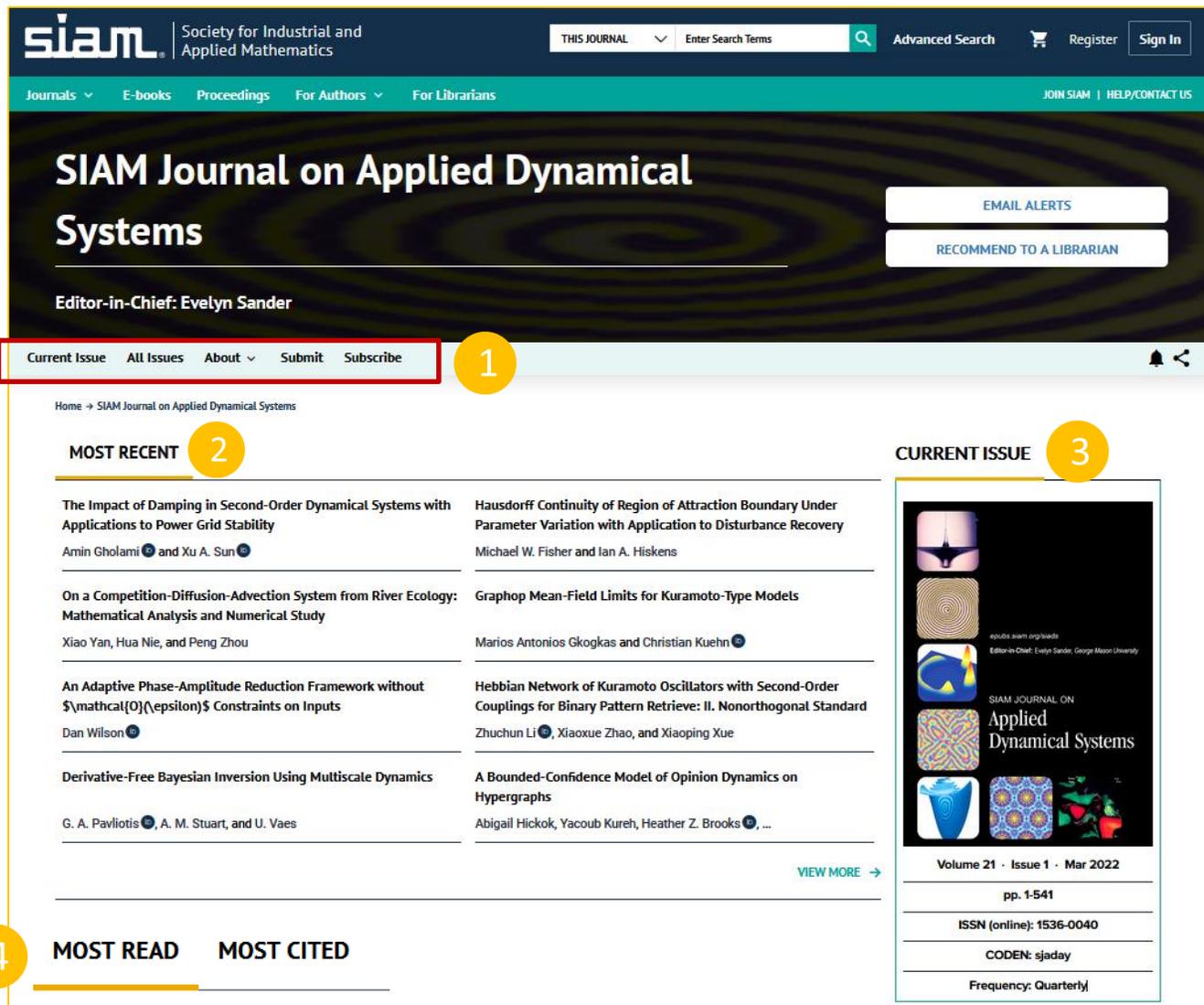
ANYWHERE

Journals [^] E-books Proceedings For Authors [^] For Librarians

- SIAM Review
- Multiscale Modeling & Simulation
- SIAM Journal on Applied Algebra and Geometry
- SIAM Journal on Applied Dynamical Systems**
- SIAM Journal on Applied Mathematics
- SIAM Journal on Computing
- SIAM Journal on Control and Optimization
- SIAM Journal on Discrete Mathematics
- SIAM Journal on Financial Mathematics
- SIAM Journal on Imaging Sciences
- SIAM Journal on Mathematical Analysis
- SIAM Journal on Mathematics of Data Science
- SIAM Journal on Matrix Analysis and

Multiscale Modeling & Simulation
Editor-in-Chief: Liliana Borcea
Volume 20 • Issue 1

3/2. SIAM期刊主页



The screenshot shows the homepage of the SIAM Journal on Applied Dynamical Systems. The page features a navigation bar with links for Journals, E-books, Proceedings, For Authors, and For Librarians. The main header includes the journal title, Editor-in-Chief Evelyn Sander, and buttons for Email Alerts and Recommend to a Librarian. A navigation menu at the bottom left contains links for Current Issue, All Issues, About, Submit, and Subscribe, with a red box and callout '1' highlighting this menu. The 'MOST RECENT' section (callout '2') lists several articles with their titles and authors. The 'CURRENT ISSUE' section (callout '3') displays the cover of Volume 21, Issue 1, March 2022, along with page numbers (pp. 1-541), ISSN (1536-0040), CODEN (sjaday), and frequency (Quarterly). At the bottom left, a 'MOST READ' and 'MOST CITED' section is indicated by callout '4'.

1 期刊独立导航栏

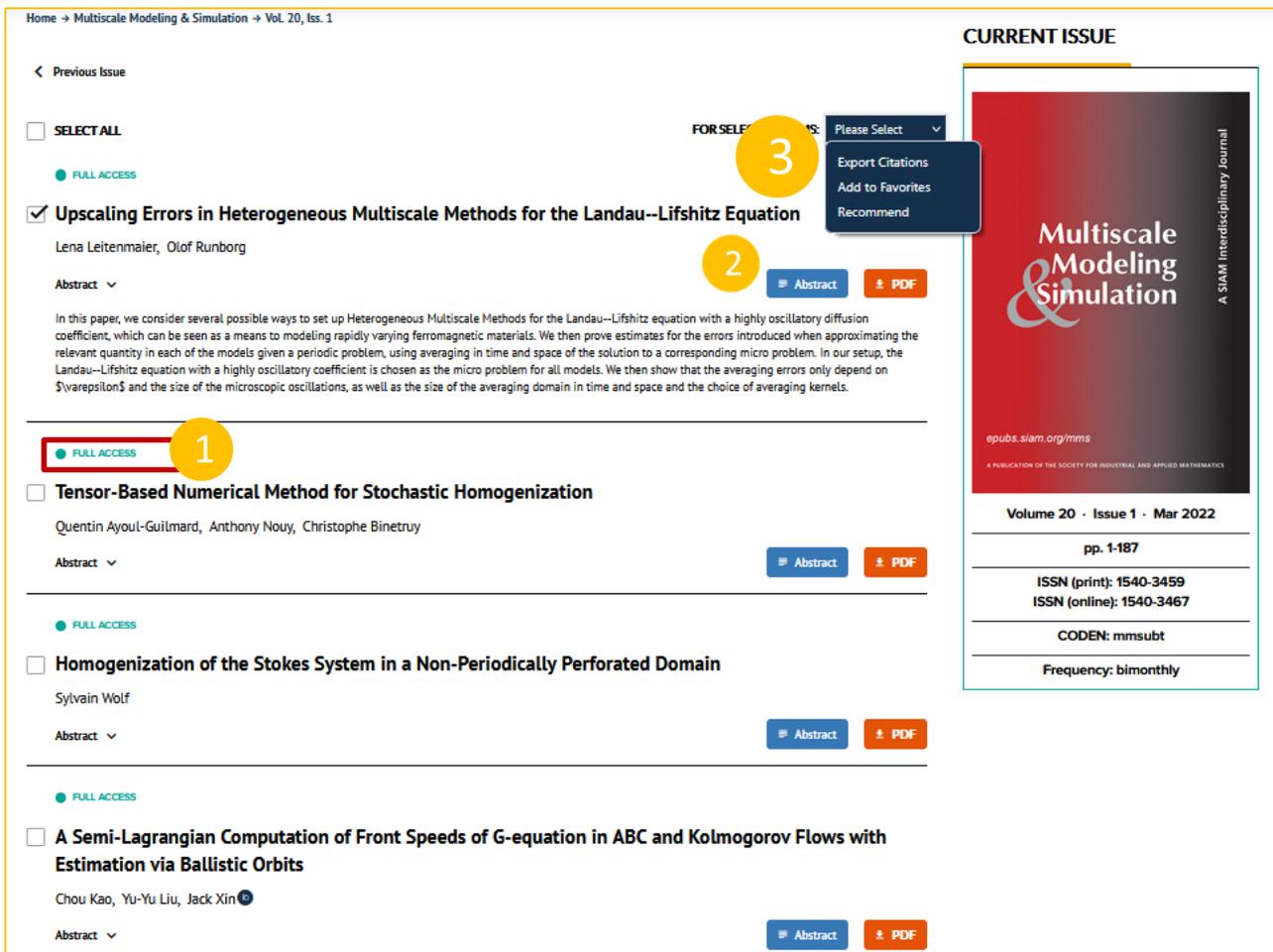
- 最新期次
- 所有期次
- 关于本刊
- 投稿
- 订购

2 最新发表的文章

3 最新期次概要

4 该刊阅读量、引用量最高的文章

3/3. SIAM期刊内文章列表



The screenshot shows the journal's article list interface. Annotations highlight key features:

- 1**: A red box highlights the 'FULL ACCESS' status indicator for the first article.
- 2**: A yellow circle highlights the 'Abstract' and 'PDF' buttons for the first article.
- 3**: A blue circle highlights a dropdown menu with options: 'Please Select', 'Export Citations', 'Add to Favorites', and 'Recommend'.

CURRENT ISSUE

Multiscale Modeling & Simulation
A SIAM Interdisciplinary Journal

epubs.siam.org/mms

Volume 20 · Issue 1 · Mar 2022

pp. 1-187

ISSN (print): 1540-3459
ISSN (online): 1540-3467

CODEN: mmsubt

Frequency: bimonthly

1

访问权限标志

2

文摘下载、全文PDF下载

3

导出引文、加入收藏夹，推荐

3/4. SIAM期刊内文章页面

Home → SIAM Review → Vol. 51, Iss. 3 → 10.1137/07070111X

< Previous Article

Tensor Decompositions and Applications

Tamara G. Kolda and Brett W. Bader

1 Search for more papers by this author

PDF BibTeX SECTIONS

2 Abstract

3

This survey provides an overview of higher-order tensor decompositions, their applications, and available software. A tensor is a multidimensional or N -way array. Decompositions of higher-order tensors (i.e., N -way arrays with $N \geq 3$) have applications in psycho-metrics, chemometrics, signal processing, numerical linear algebra, computer vision, numerical analysis, data mining, neuroscience, graph analysis, and elsewhere. Two particular tensor decompositions can be considered to be higher-order extensions of the matrix singular value decomposition: CANDECOMP/PARAFAC (CP) decomposes a tensor as a sum of rank-one tensors, and the Tucker decomposition is a higher-order form of principal component analysis. There are many other tensor decompositions, including INDSCAL, PARAFAC2, CANDELINC, DEDICOM, and PARATUCK2 as well as nonnegative variants of all of the above. The N -way Toolbox, Tensor Toolbox, and Multilinear Engine are examples of software packages for working with tensors.

4 Tools

5 Keywords

tensor decompositions, multiway arrays, multilinear algebra, parallel factors (PARAFAC), canonical decomposition (CANDECOMP), higher-order principal components analysis (Tucker), higher-order singular value decomposition (HOSVD)

Next Article >

Figures Related References Cited By Details

Tensor Train Construction From Tensor Actions, With Application to Compression of Large High Order Derivative Tensors
Nick Alger, Peng Chen, Omar Ghattas
Abstract +

Parallel Algorithms for Tensor Train Arithmetic
Hussam Al Daas, Grey Ballard, Peter Benner
Abstract +

Towards Compact Neural Networks via End-to-End Training: A Bayesian Tensor Approach with Automatic Rank Determination
Cole Hawkins, Xing Liu, Zheng Zhang
Abstract +

Tensor-Structured Sketching for Constrained Least Squares
Ke Chen, Ruhui Jin
Abstract +

1 该文章作者，检索该作者其他文章

2 文章PDF下载

3 文章参考文献目录

4 工具箱

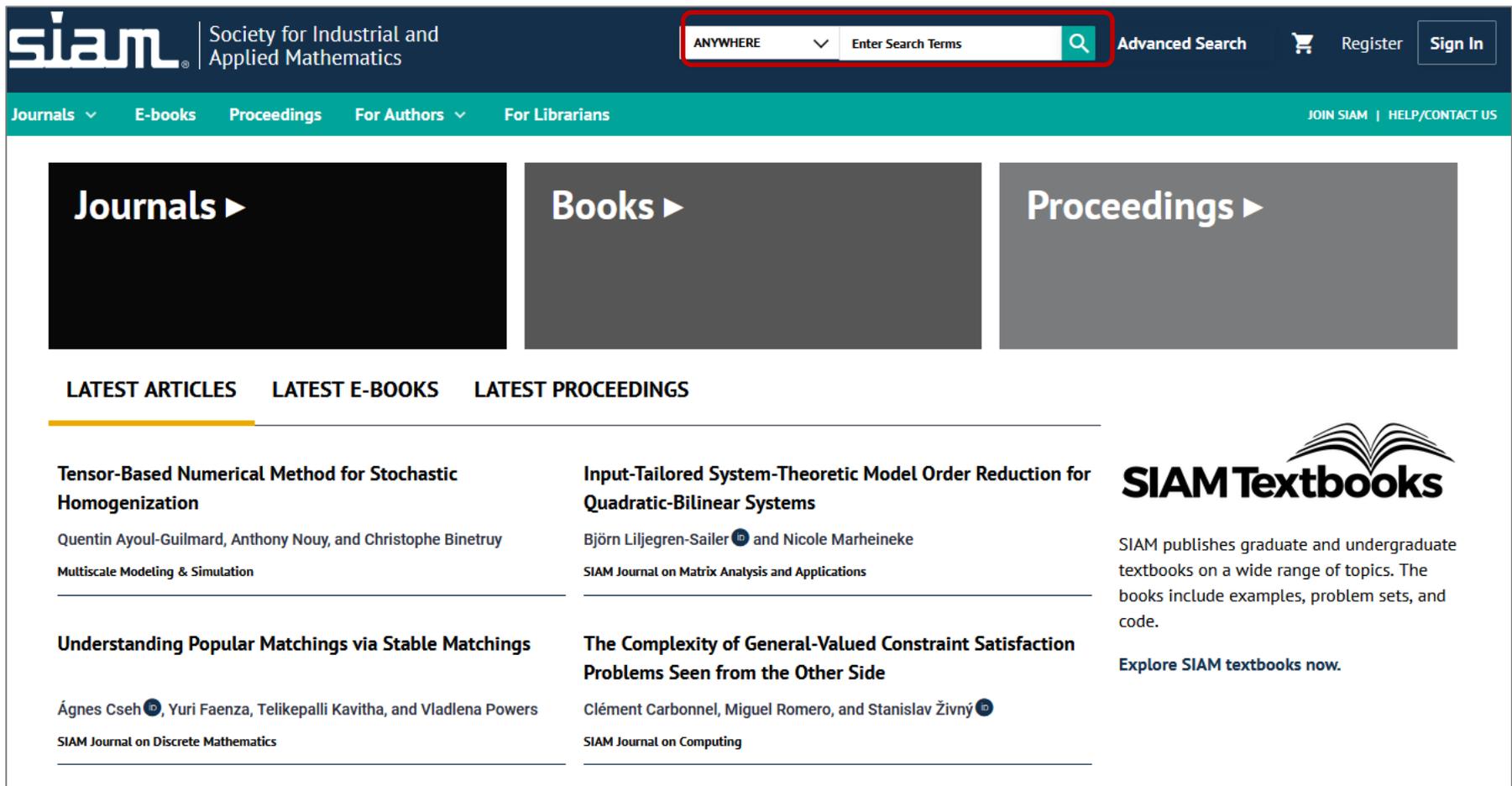
- 文章加入收藏夹
- 下载文章引用数据
- 引用追踪
- 推荐给图书馆

5 文章关键字

3/6. 检索功能

1

2



The screenshot shows the SIAM website interface. At the top, there is a search bar with a dropdown menu set to 'ANYWHERE' and a search input field containing 'Enter Search Terms'. To the right of the search bar are links for 'Advanced Search', 'Register', and 'Sign In'. Below the search bar is a navigation menu with categories: 'Journals', 'E-books', 'Proceedings', 'For Authors', and 'For Librarians'. The main content area features three large buttons for 'Journals', 'Books', and 'Proceedings'. Below these are sections for 'LATEST ARTICLES', 'LATEST E-BOOKS', and 'LATEST PROCEEDINGS'. The 'LATEST ARTICLES' section lists two articles with their titles, authors, and journal names. The 'SIAM Textbooks' section includes a logo and a brief description of the publishing service.

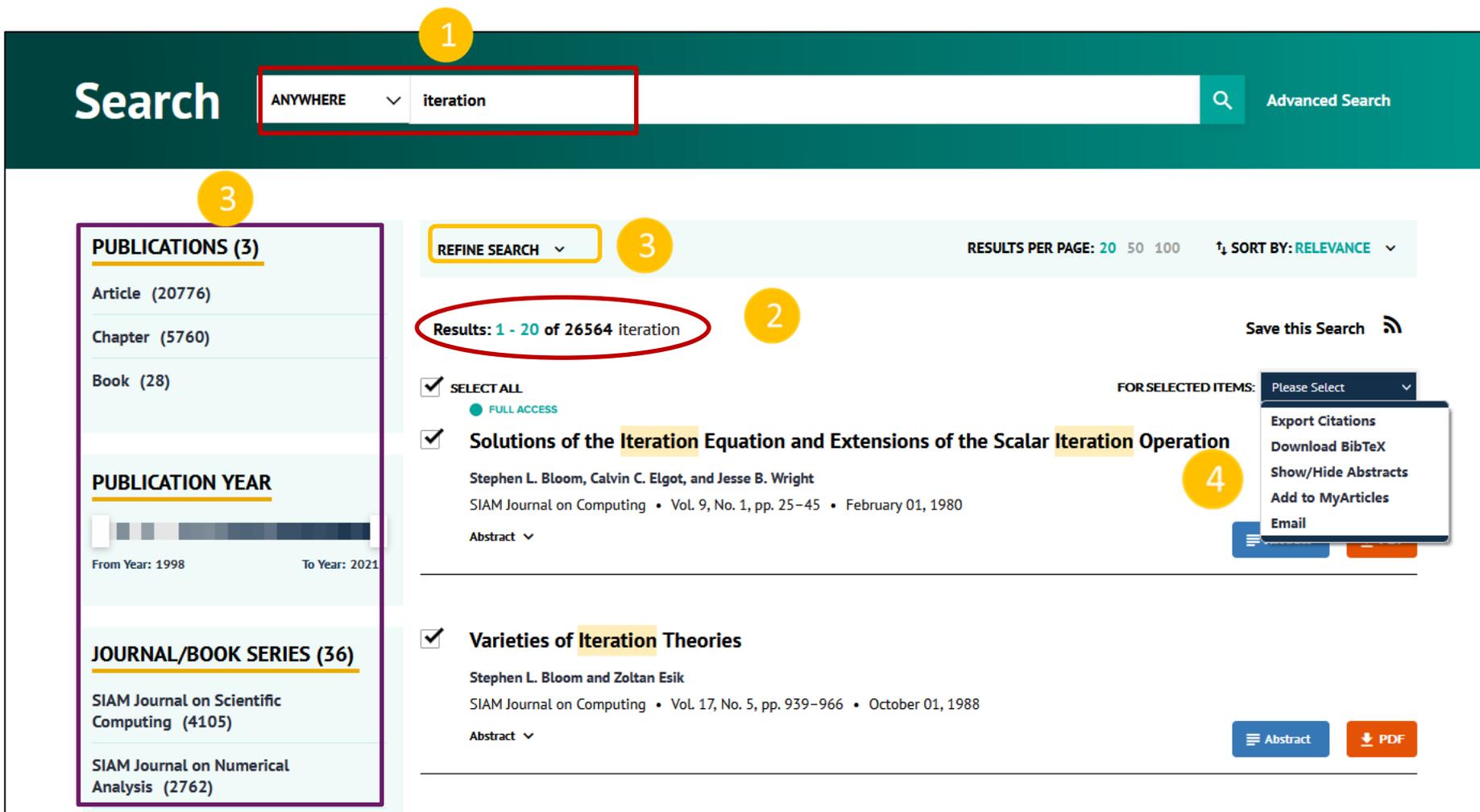
1

快速检索框

2

高级检索框

3/7. 快速检索



1 Search bar: ANYWHERE iteration

2 Results: 1 - 20 of 26564 iteration

3 Filter sidebar: PUBLICATIONS (3), PUBLICATION YEAR, JOURNAL/BOOK SERIES (36)

4 Action menu: Please Select, Export Citations, Download BibTeX, Show/Hide Abstracts, Add to MyArticles, Email

1 输入“iteration”,进行快速检索

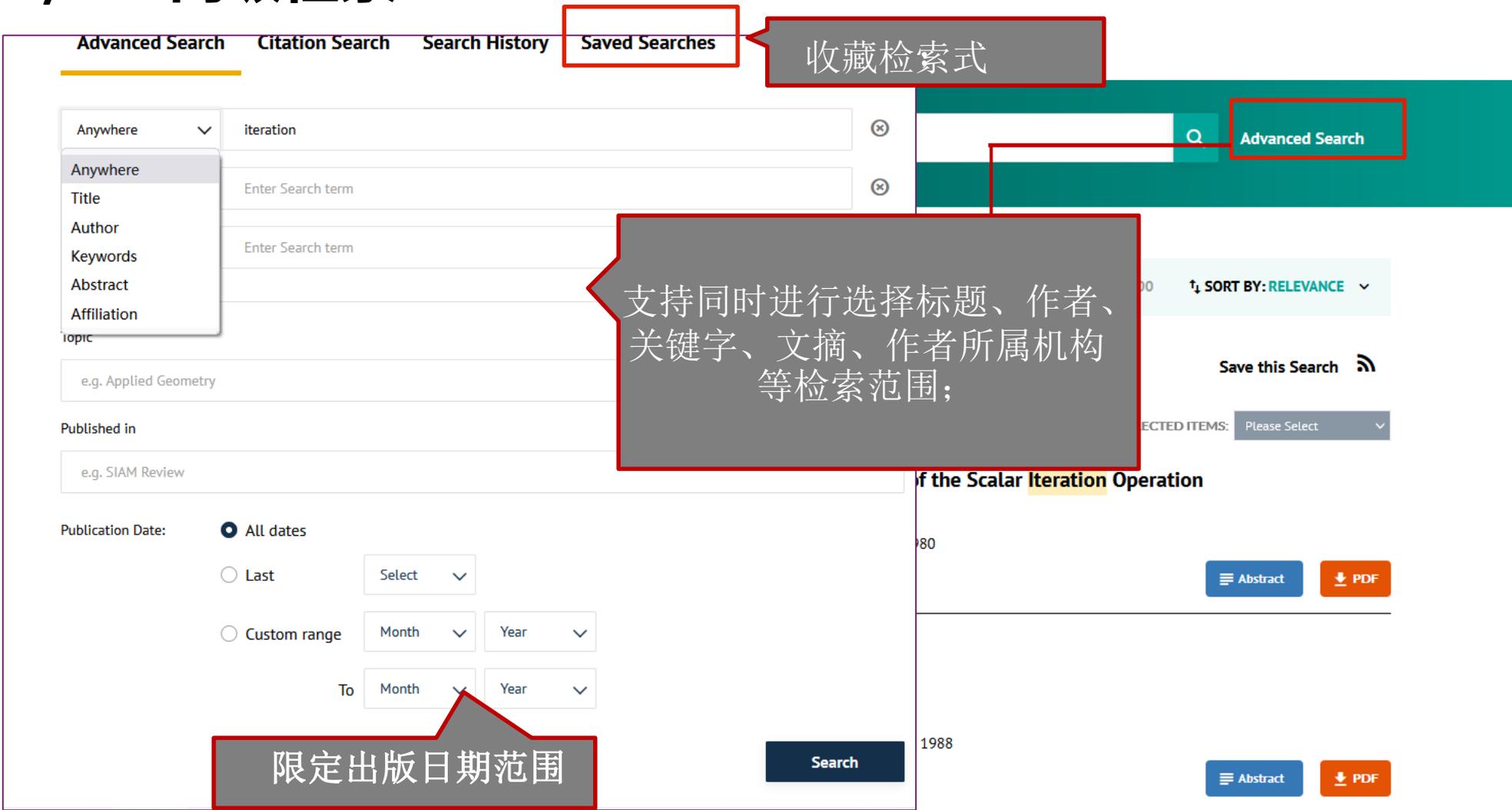
2 检索结果数量

3 精简检索结果
a. 高级检索
b. 聚类功能

- 文章类型
- 出版年份
- 作者
- 期刊、电子书
- 关键字

4 对选中的文章进行各项操作

3/8. 高级检索

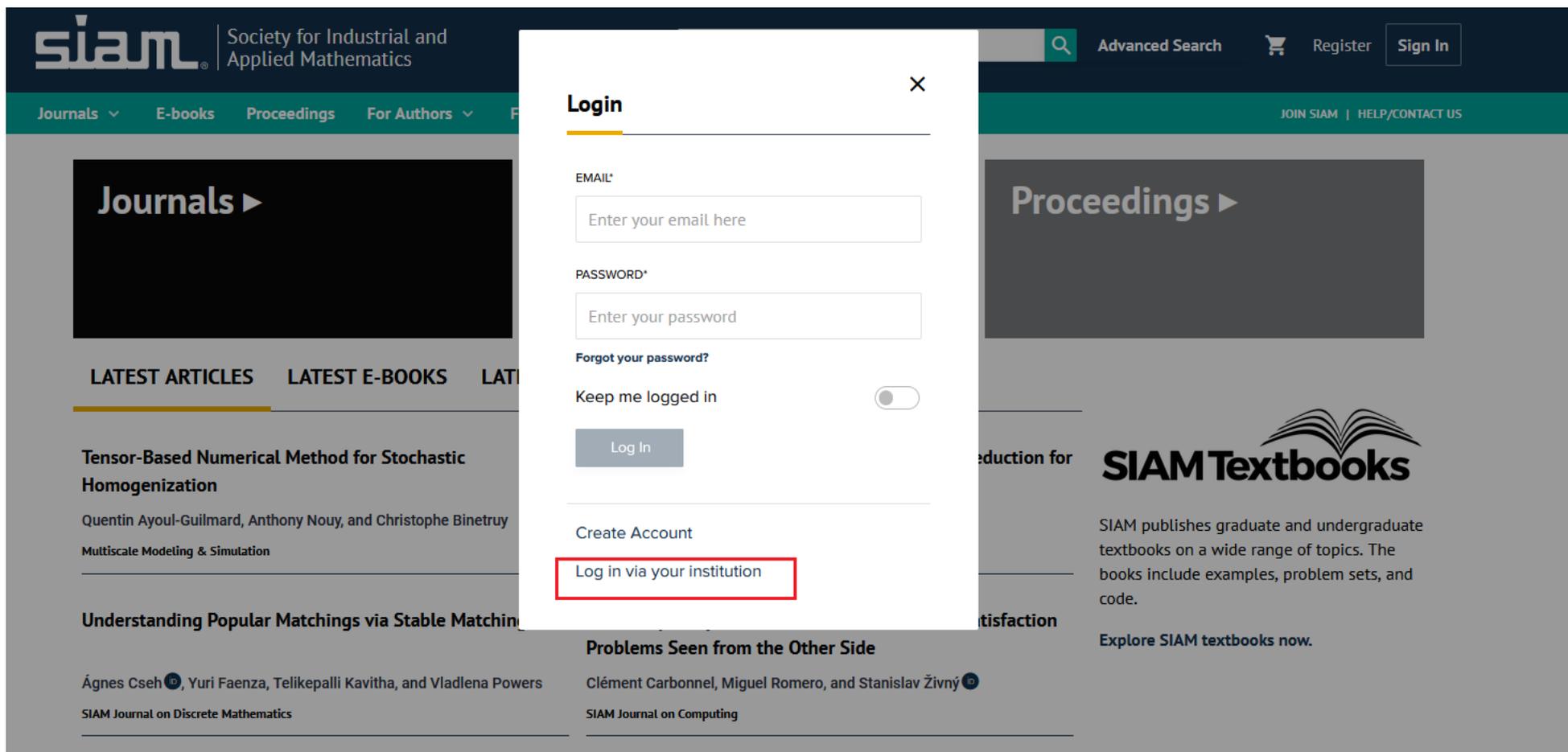


The screenshot shows an advanced search interface with several key features highlighted by red boxes and callouts:

- Advanced Search**: A red box highlights the search bar area, with a callout pointing to the search button labeled "Advanced Search".
- Saved Searches**: A red box highlights the "Saved Searches" tab in the top navigation bar, with a callout labeled "收藏检索式" (Save search formula).
- Search Fields**: A dropdown menu on the left lists search fields: Anywhere, Title, Author, Keywords, Abstract, and Affiliation. A callout box explains: "支持同时进行选择标题、作者、关键字、文摘、作者所属机构等检索范围;" (Supports simultaneous selection of search ranges for title, author, keywords, abstract, author's institution, etc.).
- Publication Date**: A section for "Publication Date" includes radio buttons for "All dates", "Last", and "Custom range". The "Custom range" section has dropdowns for "Month" and "Year" for both "From" and "To" dates. A callout box labeled "限定出版日期范围" (Limit publication date range) points to these date selection controls.
- Search Results**: The bottom of the page shows a list of results, including "Analysis (2762)", "Proceedings (2731)", and "2. Conjugate Gradient Iteration".

4. SIAM数据库远程访问的实现

登录SIAM主页----点击sign in---选择“login via Your institution”



The screenshot shows the SIAM website interface. At the top, the SIAM logo and 'Society for Industrial and Applied Mathematics' are visible. A navigation bar includes 'Journals', 'E-books', 'Proceedings', and 'For Authors'. A 'Sign In' button is located in the top right corner. A 'Login' modal is centered on the screen, featuring input fields for 'EMAIL*' and 'PASSWORD*', a 'Log In' button, and a 'Log in via your institution' link highlighted with a red box. The background shows the 'Journals' and 'Proceedings' sections with article titles and authors.



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Journals ▾ E-books Proceedings For Authors ▾ For Librarians

Institutional Login



统一身份认证

用户名

请输入一卡通号 / 别名

密码

请输入密码

[忘记密码?](#)

登录

Select Your Institution

Select your institution

输入用户机构英文名称，如
“Southeast University”

Thank You

*SIAM 数据库在国内由iGroup中国独家代理



More info: angela@igroup.com.cn