

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)

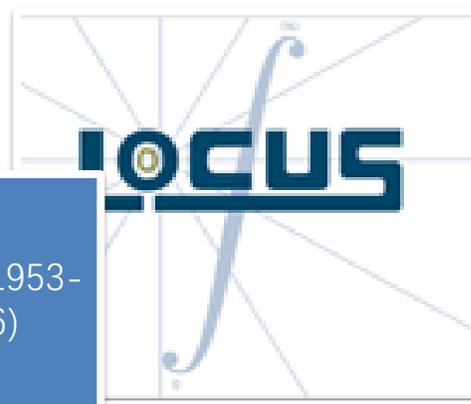
- 工业和应用数学学会 (SIAM) 于二十世纪五十年代前期在美国成立，是一个以促进**应用和计算数学**的研究、发展、应用为目的的协会。
- SIAM拥有14,000+个人会员，由来自世界各国的应用和计算数学家、计算机科学家、工程师、统计学家和数学教育者组成。
- SIAM拥有500多个机构会员，由大学，公司和研究机构组成。
- SIAM以出版高水准和颇具声誉的期刊而自豪。是公认的数学专业领域里最可靠的知识来源。

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

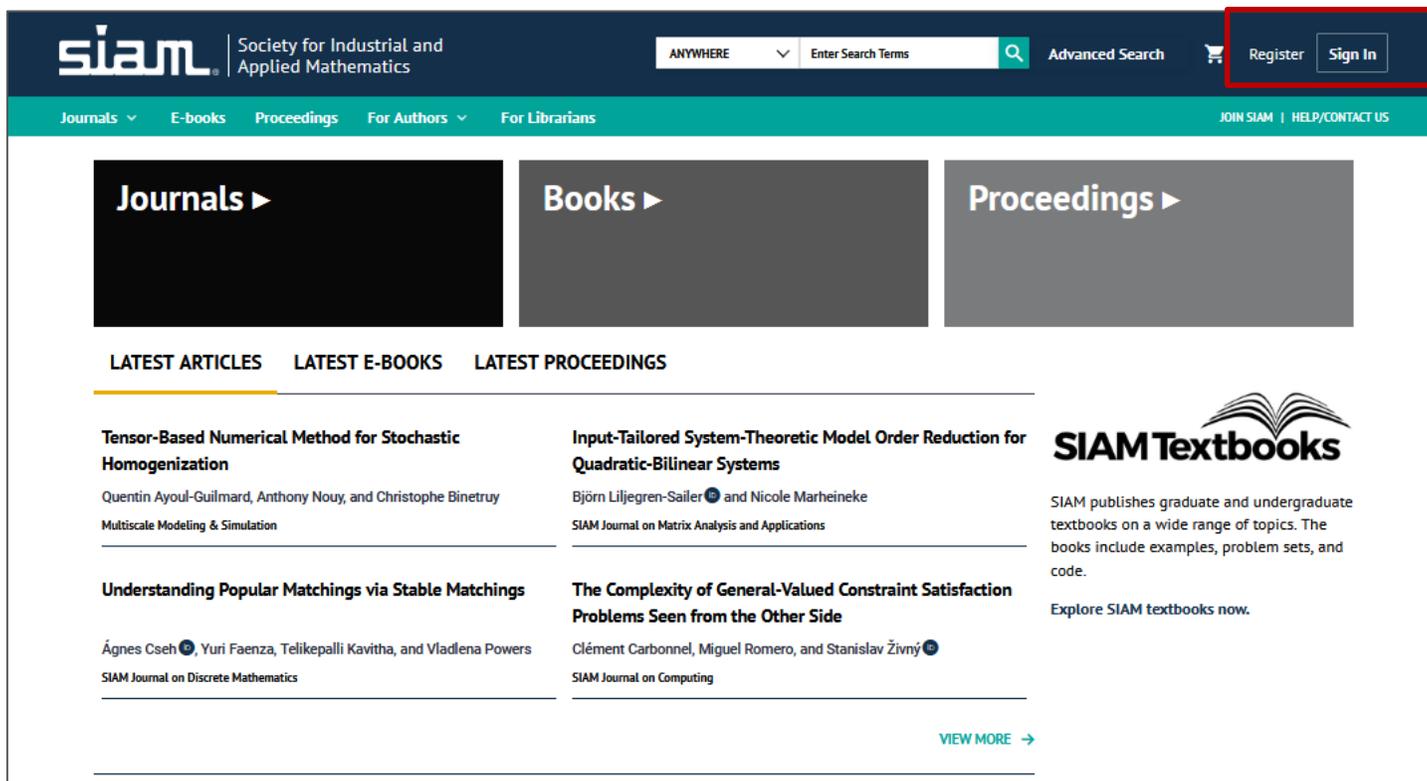
- SIAM出版的18本期刊，均是同行评审期刊，全部期刊均被 JCR收录；
- **SIAM Review** 在“应用数学”领域被JCR收录的期刊中连续数年排名第一；



- SIAM的14种期刊收录于“应用数学”学科，其中9本刊位于Q1分区，有6本刊位于前50名；
- SIAM期刊中的文章在过去两年内被引用量高达105,224次；

3. SIAM数据库使用平台

➤ 访问网址: <https://epubs.siam.org>

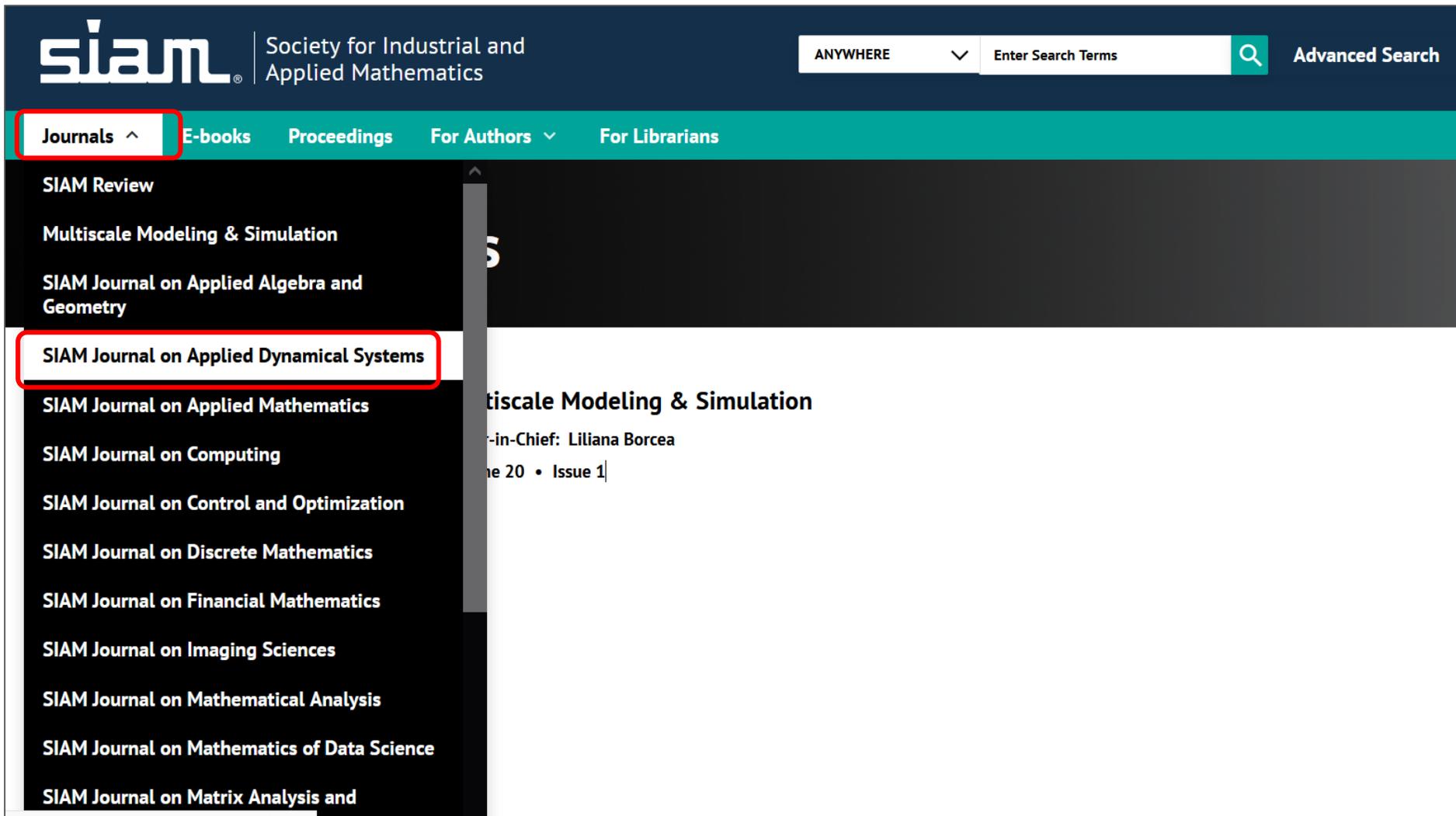


The screenshot shows the SIAM website interface. At the top, there is a dark blue header with the SIAM logo and 'Society for Industrial and Applied Mathematics'. A search bar is present with a dropdown menu set to 'ANYWHERE'. To the right of the search bar are 'Advanced Search', a shopping cart icon, and 'Register' and 'Sign In' buttons. Below the header is a teal navigation 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'. Each section contains article titles, authors, and journal names. A 'SIAM Textbooks' section is also present, featuring a logo and a brief description of the textbooks available.

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- ✓ 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 displays the SIAM website's navigation menu. The "Journals" link is highlighted with a red box. A dropdown menu is open, listing various SIAM journals. The "SIAM Journal on Applied Dynamical Systems" is highlighted with a red box. The background shows the SIAM logo and the text "Society for Industrial and Applied Mathematics". A search bar is visible at the top right, and a navigation bar at the top contains links for "E-books", "Proceedings", "For Authors", and "For Librarians".

siam | Society for Industrial and Applied Mathematics

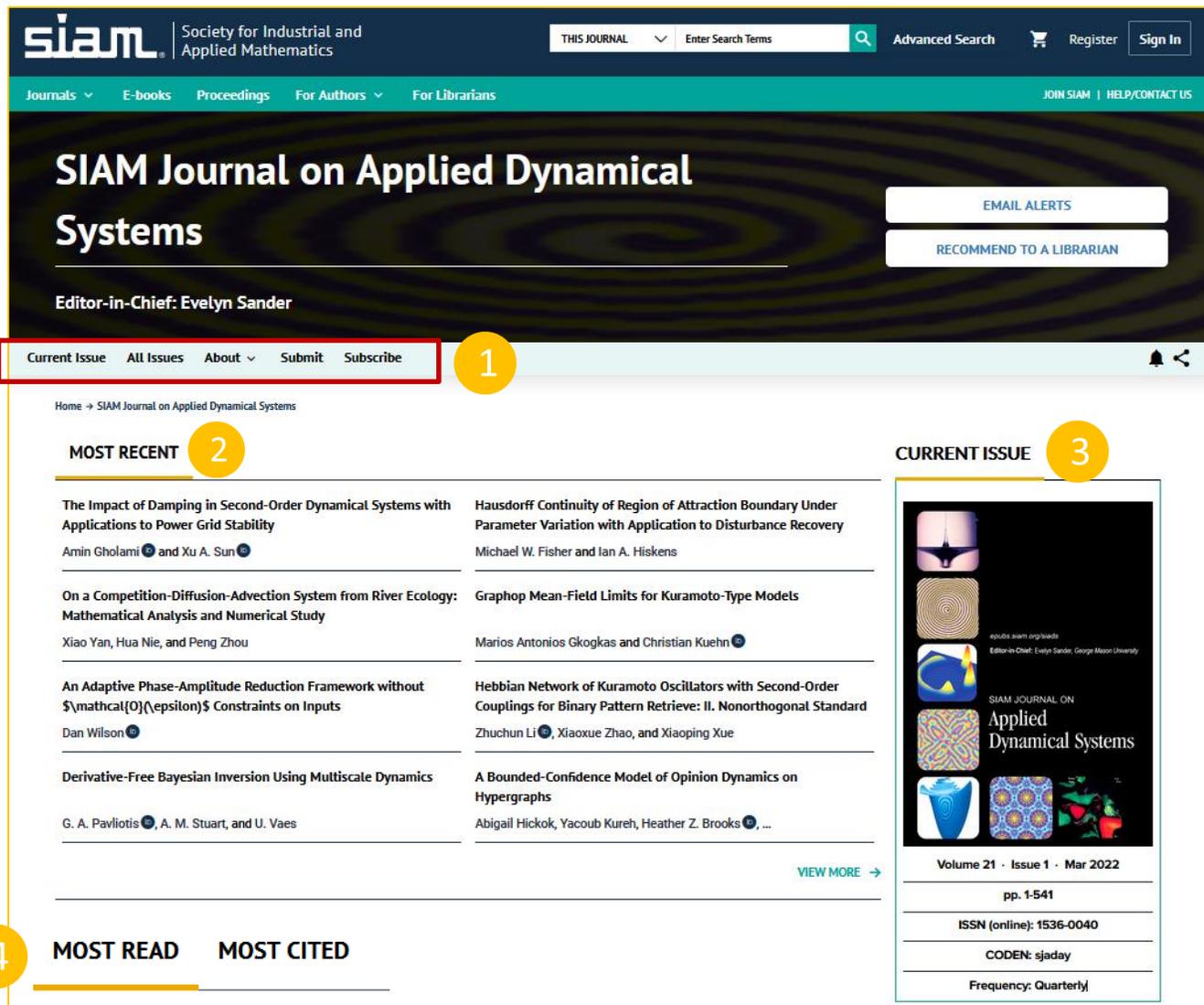
ANYWHERE | Enter Search Terms | Advanced Search

Journals ^ | E-books | Proceedings | For Authors v | 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 title is "SIAM Journal on Applied Dynamical Systems" with the Editor-in-Chief Evelyn Sander. A navigation menu at the bottom left includes "Current Issue", "All Issues", "About", "Submit", and "Subscribe".

1 (Red box): Navigation menu containing "Current Issue", "All Issues", "About", "Submit", and "Subscribe".

2 (Yellow circle): "MOST RECENT" section listing recent articles such as "The Impact of Damping in Second-Order Dynamical Systems with Applications to Power Grid Stability" and "Hausdorff Continuity of Region of Attraction Boundary Under Parameter Variation with Application to Disturbance Recovery".

3 (Yellow circle): "CURRENT ISSUE" section featuring a cover image for Volume 21, Issue 1, Mar 2022, with page numbers pp. 1-541, ISSN (online): 1536-0040, CODEN: sjaday, and Frequency: Quarterly.

4 (Yellow circle): "MOST READ" and "MOST CITED" sections at the bottom left.

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

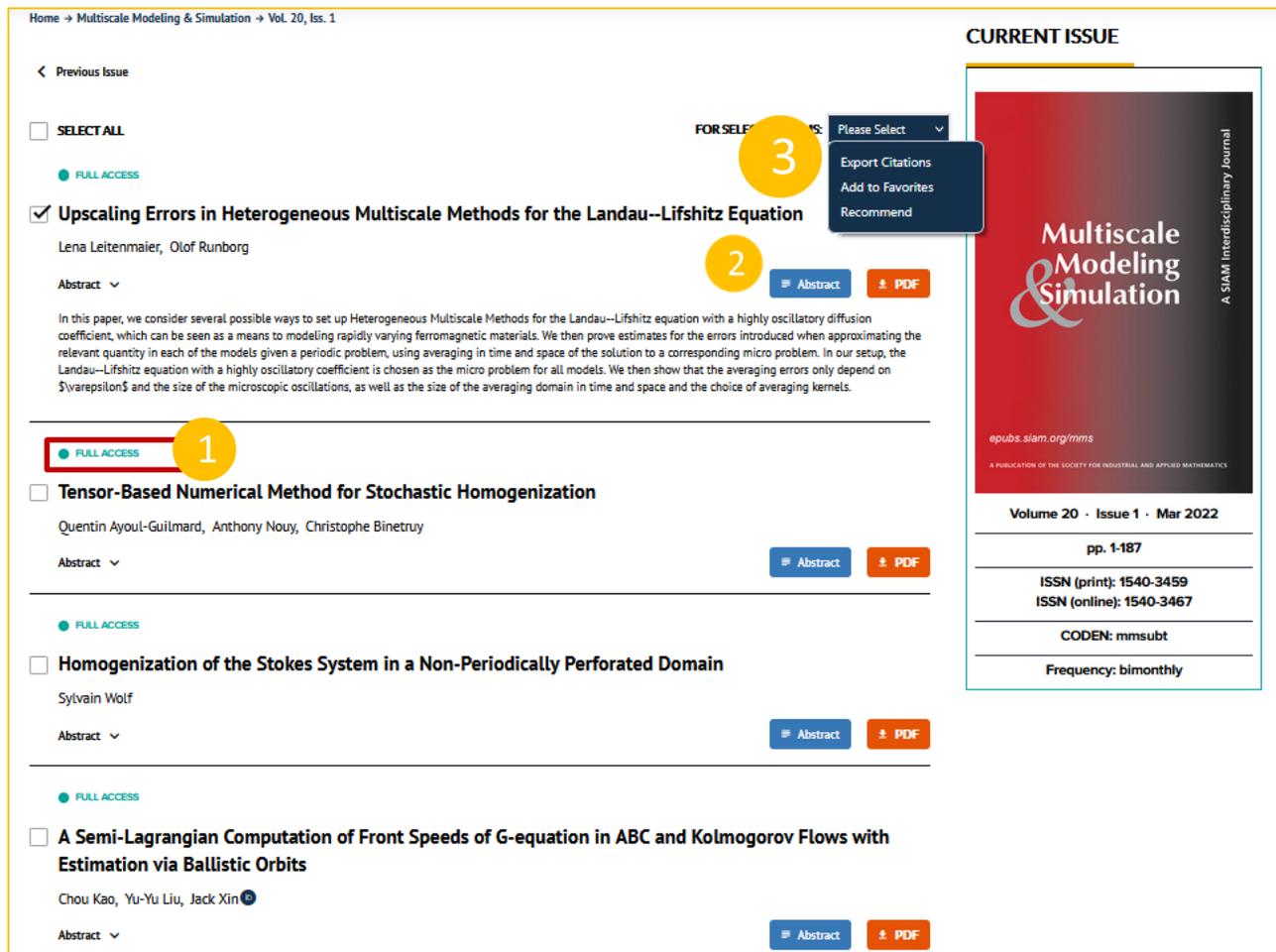
3

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



Home → Multiscale Modeling & Simulation → Vol. 20, Iss. 1

← Previous Issue

SELECT ALL

FULL ACCESS

Upscaling Errors in Heterogeneous Multiscale Methods for the Landau–Lifshitz Equation

Lena Leitenmaier, Olof Runborg

Abstract ▾

In this paper, we consider several possible ways to set up Heterogeneous Multiscale Methods for the Landau–Lifshitz equation with a highly oscillatory diffusion coefficient, which can be seen as a means to modeling rapidly varying ferromagnetic materials. We then prove estimates for the errors introduced when approximating the relevant quantity in each of the models given a periodic problem, using averaging in time and space of the solution to a corresponding micro problem. In our setup, the Landau–Lifshitz equation with a highly oscillatory coefficient is chosen as the micro problem for all models. We then show that the averaging errors only depend on ϵ and the size of the microscopic oscillations, as well as the size of the averaging domain in time and space and the choice of averaging kernels.

FULL ACCESS

Tensor-Based Numerical Method for Stochastic Homogenization

Quentin Ayoul-Guilhard, Anthony Nouy, Christophe Bintruy

Abstract ▾

FULL ACCESS

Homogenization of the Stokes System in a Non-Periodically Perforated Domain

Sylvain Wolf

Abstract ▾

FULL ACCESS

A Semi-Lagrangian Computation of Front Speeds of G-equation in ABC and Kolmogorov Flows with Estimation via Ballistic Orbits

Chou Kao, Yu-Yu Liu, Jack Xin

Abstract ▾

CURRENT ISSUE

Multiscale Modeling & Simulation

A SIAM Interdisciplinary Journal

epubs.siam.org/mms

A PUBLICATION OF THE SOCIETY FOR INDUSTRIAL AND APPLIED MATHEMATICS

Volume 20 · Issue 1 · Mar 2022

pp. 1-187

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

CODEN: mmsubt

Frequency: bimonthly

1

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2

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3

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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

2 PDF BibTex 3 SECTIONS

2 Abstract

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.

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 >

4 Tools

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

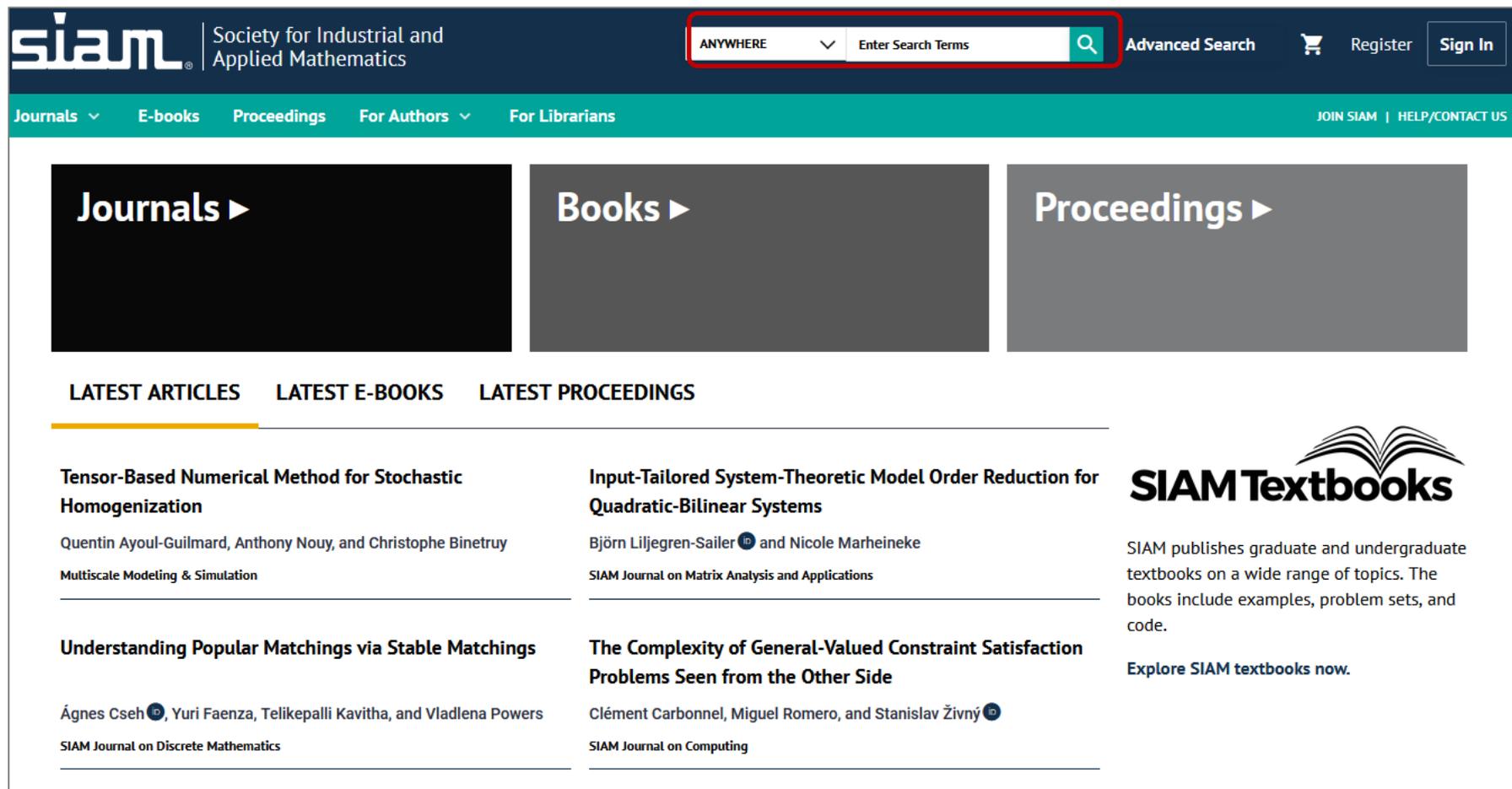
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- 引用追踪
- 推荐给图书馆

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', a shopping cart icon, 'Register', and 'Sign In'. Below the search bar is a navigation menu with links for '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 displays two article listings with titles, authors, and journal names. The 'SIAM Textbooks' section includes a logo and a description of the textbooks available.

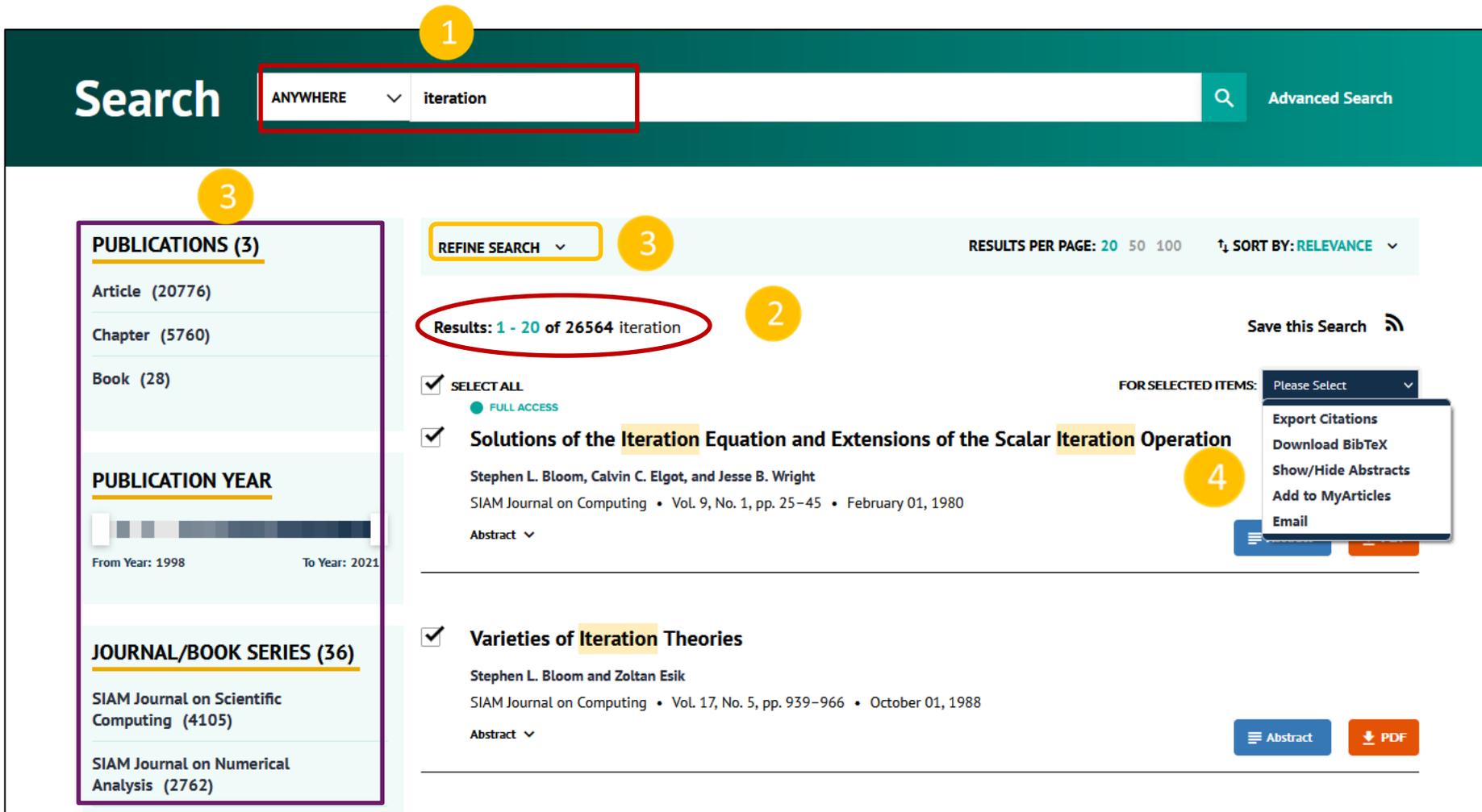
1

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

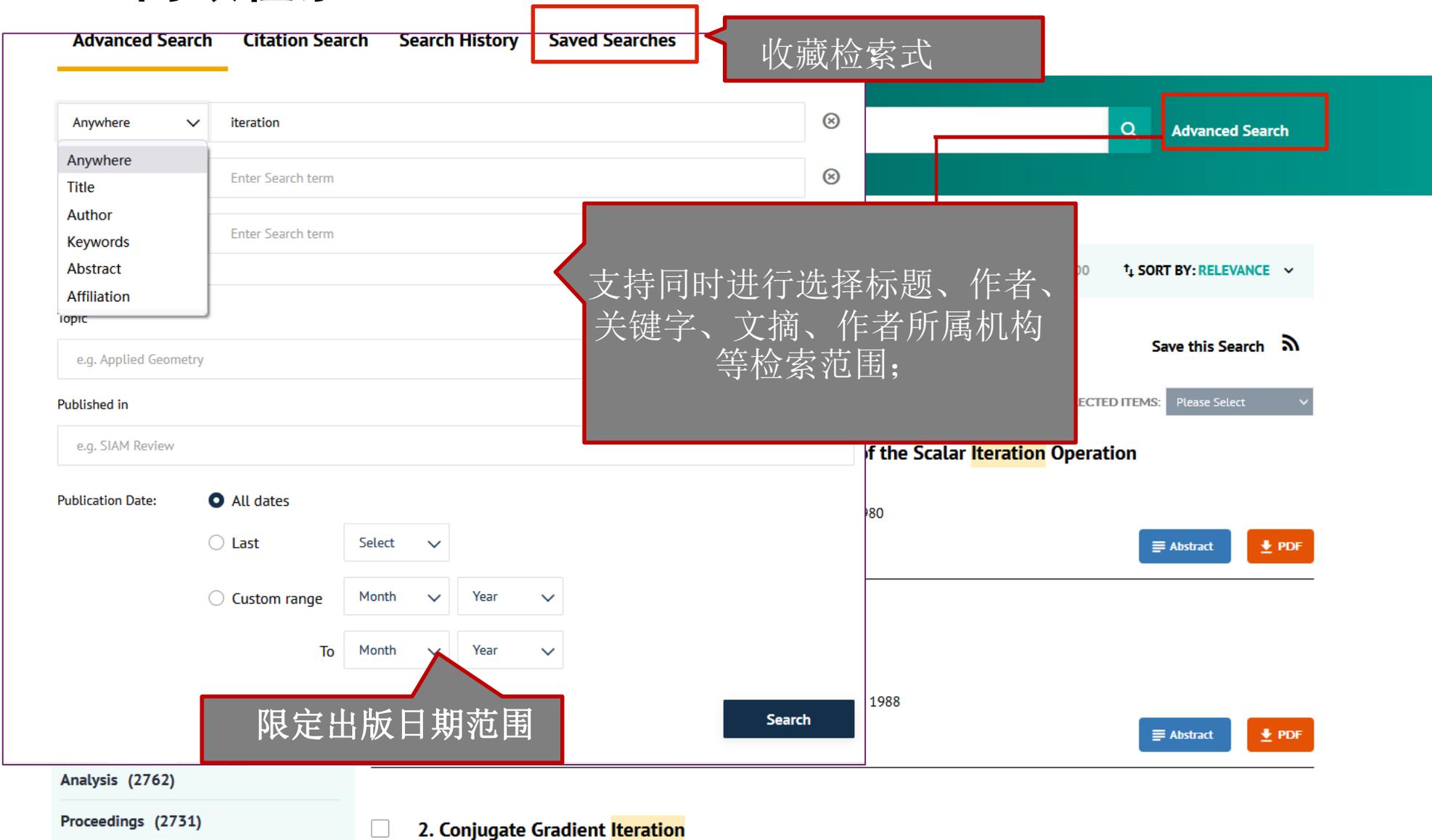
2 检索结果数量

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 "Advanced Search" button in the top right navigation bar.
- 收藏检索式**: A red box highlights the "Saved Searches" tab, with a callout box containing the text "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. The "Anywhere" field is currently selected.
- Search Term**: The search term "iteration" is entered in the top search box.
- Publication Date**: A callout box points to the "Publication Date" section, which includes options for "All dates", "Last", and "Custom range". The "Custom range" section has dropdowns for "Month" and "Year" for both "From" and "To" dates.
- 限定出版日期范围**: A red box highlights the "Custom range" section with the text "限定出版日期范围" (Limit publication date range).
- Search Results**: The results section shows a list of items, including "Analysis (2762)", "Proceedings (2731)", and "2. Conjugate Gradient Iteration". Each result has buttons for "Abstract" and "PDF".

4. SIAM数据库远程访问的实现

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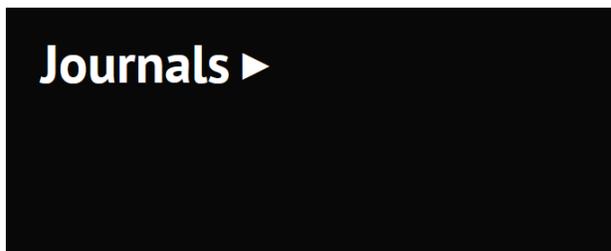

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LATEST ARTICLES LATEST BOOKS LATEST PROCEEDINGS

Ranking Edges by Their Impact on the Spectral Complexity of Information Diffusion over Networks

Jeremy Kazimer, Manlio De Domenico, Peter J. Mucha, and Dane Taylor

Multiscale Modeling & Simulation

Reaction-Diffusion Equations with Transport Noise and Critical Superlinear Diffusion: Global Well-Posedness of Weakly Dissipative Systems

Antonio Agresti  and Mark Veraar

SIAM Journal on Mathematical Analysis

Viscous Regularization of the MHD Equations

Linearized Optimal Transport on Manifolds

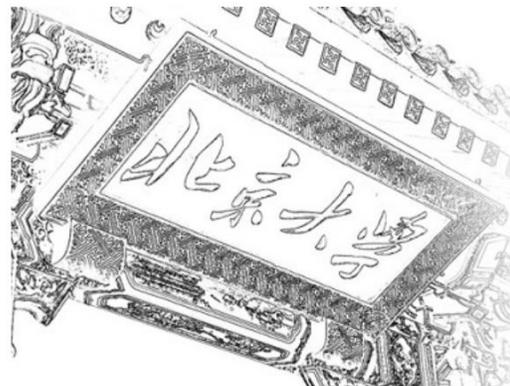
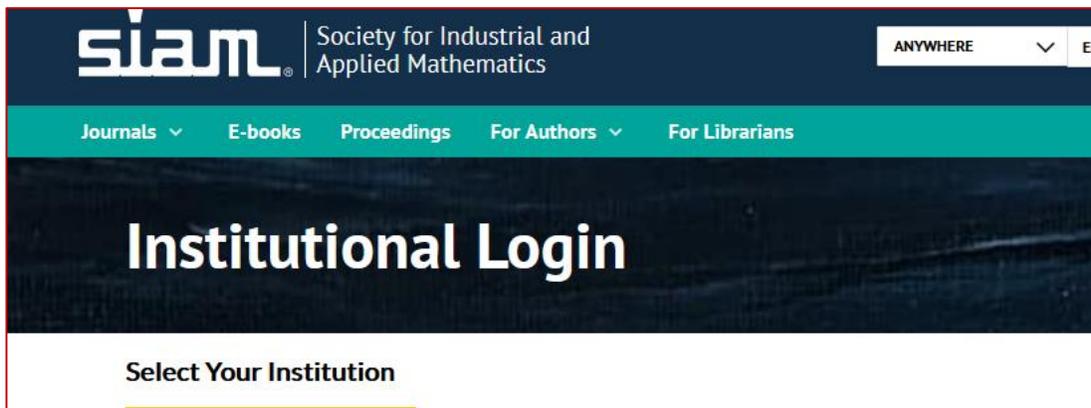


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