

## SIAM Journals



对外经济贸易大学  
University of International Business and Economics

# SIAM（工业和应用数学学会）产品培训

2024年4月

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## 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目前有1,4000多名会员，由各个国家的应用数学家、计算机科学家、统计学家、数学教育家组成。
- SIAM拥有500多个机构会员，由大学，公司和研究机构组成。
- SIAM以出版高水准的同行评议期刊而在学术界享有盛誉。是公认的数学专业领域里最可靠的知识来源。

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 **iGroup**  
For all your information needs

## 2/1 SIAM 出版的现刊



- 18 种同行评审现刊
- 1997年至今出版的文章
- 超过 30,000 篇全文
- 12本print 版本



- SIAM出版的18本期刊，均是同行评审期刊，所有期刊均被 JCR收录
- SIAM Review 在“应用数学”领域260种被JCR收录的期刊中连续10年排名第一



- 在“应用数学和”领域267种期刊，SIAM期刊占据了Q1分区的8席；
- SIAM期刊中的文章在过去两年内被引用量高达11万次；

数据来源：2022JCR

## 2/2 SIAM Proceedings

主题:

算法工程与实验 (ALENEX)

解析算法与组合数学

(ANALCO)




组合科学计算 (CSC)

控制及其应用

数据挖掘

离散算法 (SODA)

工业数学

 <b>ALENEX06</b> Workshop on Algorithm Engineering & Experiments RADISSON HOTEL MIAMI MIAMI, FLORIDA January 21, 2006	<p>2006 Proceedings of the Eighth Workshop on Algorithm Engineering and Experiments (ALENEX) Editor(s): Rajeev Raman and Matthias F. Stallmann Published: 2006 Pages: 3-182 eISBN: 978-1-61197-286-3 Book Code: PR123</p>
 <b>ANALCO06</b> Workshop on Analytic Algorithmics & Combinatorics January 21, 2006 Radisson Hotel Miami Miami, Florida	<p>2006 Proceedings of the Third Workshop on Analytic Algorithmics and Combinatorics (ANALCO) Editor(s): Robert Sedgewick Published: 2006 Pages: 185-279 eISBN: 978-1-61197-296-2 Book Code: PR123</p>
 <b>ANALCO07</b> Workshop on Analytic Algorithmics & Combinatorics January 8, 2007 Mar Creeks Inn New Orleans, Louisiana	<p>2007 Proceedings of the Fourth Workshop on Analytic Algorithmics and Combinatorics (ANALCO) Editor(s): Daniel Panario and Robert Sedgewick Published: 2007 Pages: 169-285 eISBN: 978-1-61197-297-9 Book Code: PR126</p>
 <b>ALENEX07</b> Workshop on Algorithm Engineering & Experiments Astor Crowne Plaza New Orleans, Louisiana January 6, 2007	<p>2007 Proceedings of the Ninth Workshop on Algorithm Engineering and Experiments (ALENEX) Editor(s): David Applegate and Gerth Stølting Brodal Published: 2007 Pages: 3-165 eISBN: 978-1-61197-287-0 Book Code: PR126</p>
 <b>ANALCO08</b> Workshop on Analytic Algorithmics & Combinatorics January 8, 2008 Mar Creeks Inn New Orleans, Louisiana	<p>2008 Proceedings of the Fifth Workshop on Analytic Algorithmics and Combinatorics (ANALCO)</p>

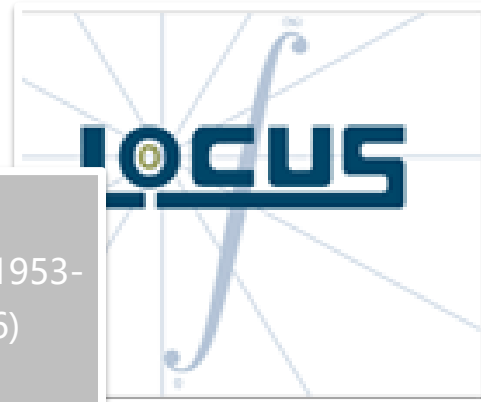
\*70多种会议集结的600多卷会议录, 目前免费获取

## 2/3 SIAM 平台涵盖出版物总览

期刊18种  
(1997-至今)



LOCUS(1953-1996)



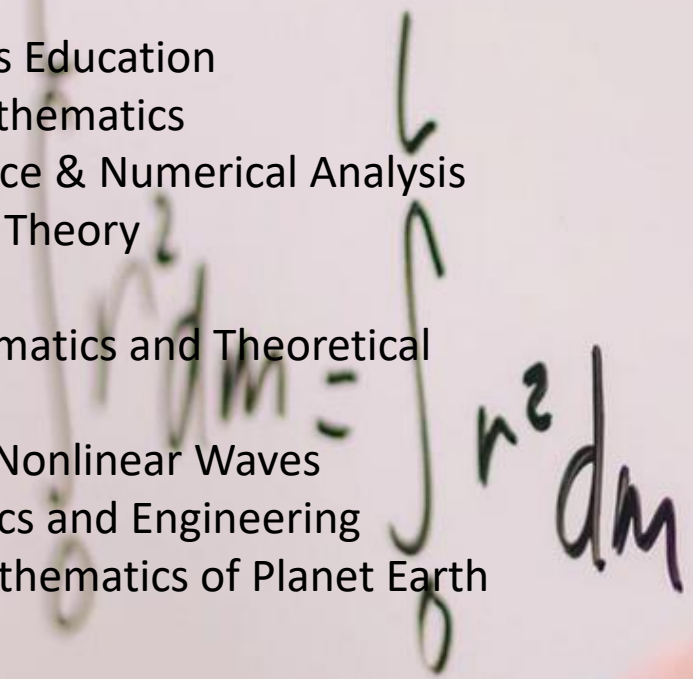
SIAM  
Proceeding



SIAM电子图书

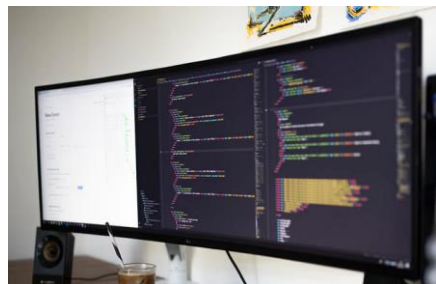
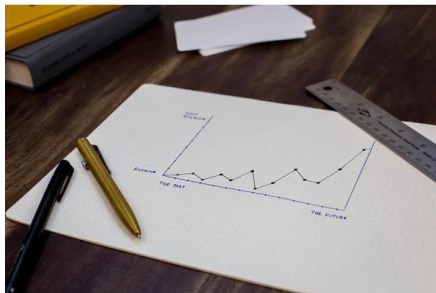


## 2/4 SIAM出版物涵盖数学细分领域

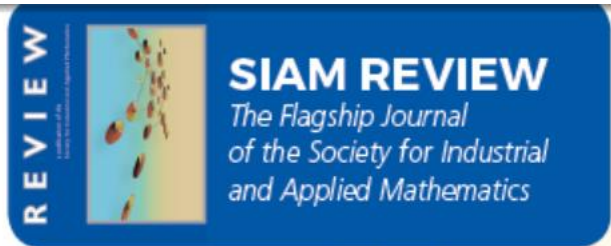
- Analysis and Partial Differential Equations
  - Applied Geometry
  - Applied Mathematics Education
  - Classical Applied Mathematics
  - Computational Science & Numerical Analysis
  - Control and Systems Theory
  - Data Science
    - Discrete Mathematics and Theoretical Computing
  - Dynamical Systems, Nonlinear Waves
  - Financial Mathematics and Engineering
  - Geosciences and Mathematics of Planet Earth
  - Imaging Science
  - Life Sciences
  - Linear Algebra
  - Mathematical Aspects of Materials Science
  - **Optimization**
  - Uncertainty Quantification
- 
- 分析与偏微分方程
  - 应用几何
  - 应用数学教育
  - 古典应用数学
  - 计算科学与数值分析
  - 控制与系统理论
  - 数据科学
  - 离散数学与理论计算
  - 动力系统, 非线性波
  - 金融数学与工程
  - 地球科学与地球数学
  - 影像学
  - 生命科学
  - 线性代数
  - 材料科学的数学方面
  - 优化
  - 不确定性的量化
  - .....



## 2/5 SIAM资源助力的专业和行业



- 业务分析 - 如图像分析、**数据挖掘**、运营研究
- **数学金融**——如算法交易、精算风险评估
- 系统生物学——如分子动力学、全病人模型
- **石油发现和开采**——包括盆地建模，最大化产量
- 制造应用 - 包括虚拟样机、分子动力学、多学科设计优化、计算机辅助设计和绘图 (CADD)、机器人技术、供应链管理 (生物技术行业、汽车行业)
- 通信和运输-包括物流、**云计算**
- **复杂系统建模**——如气候变化、粘性流体流动、城市交通管理、公共安全、水、电和医疗系统。
- **计算机系统、软件、信息技术和研发**



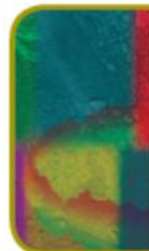
**EDITOR-IN-CHIEF**  
**DESMOND HIGHAM**  
UNIVERSITY OF STRATHCLYDE

Consists of five sections, all containing articles of broad interest. **Survey and Review** features papers with a deliberately integrative and up-to-date perspective on a major topic in applied or computational mathematics or scientific computing. **Research Spotlights** publishes research or software papers in applied and computational mathematics that will appeal to *SIAM Review's* diverse audience. An article could take a non-traditional form such as a mini-survey or timely communication. **SIGEST** highlights a recent paper from one of SIAM's specialized research journals, chosen on the basis of exceptional interest to the entire SIAM community and revised and condensed as needed for greater accessibility. **Education** consists primarily of individual modules that are self-contained presentations of specific topics in applied mathematics, scientific computation, or their applications; each module provides the primary material needed to teach a given topic as well as supplementary material. The **Book Reviews** section contains a featured review that provides an overview of several books in a subject area. Shorter reviews of individual books are also included.

## 3/1 旗舰刊 《SIAM Review》

### 《SIAM期刊之评论》

- 《SIAM Review》是SIAM的**旗舰期刊**，创刊于1959年，每年出版4期
- 根据最新 2022JCR报告，在应用数学领域排名第1
- 《SIAM Review》，其收录的文章内容涉及广泛，连续10年排名第1，是公认的数学专业领域里最权威的评论期刊之一。
- **研究主题领域**：面向普通大众读者的应用数学和计算数学，以及教学模块



## SIAM Journal on **IMAGING SCIENCES**

*Mathematical and Computational  
Imaging Science*



**EDITOR-IN-CHIEF**  
**MICHAEL ELAD**  
TECHNION-ISRAEL INSTITUTE OF TECHNOLOGY

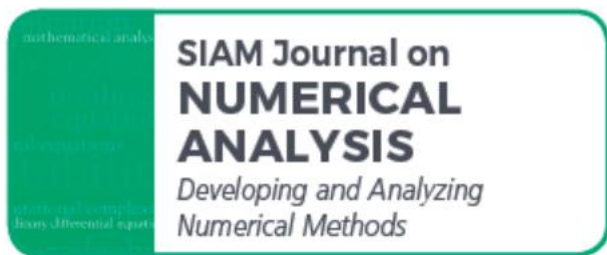
Covers all areas of imaging sciences, broadly interpreted. Manuscripts published in SIIMS include formal approaches, at the level of mathematics and/or computations, as well as state-of-the-art practical results. SIIMS provides a broad authoritative source for fundamental results in imaging sciences, with a unique combination of mathematics and applications. This all-electronic journal is mathematically and computationally based, and offers a unique forum to highlight the commonality of methodology, models, and algorithms among diverse application areas of imaging sciences.

SIIMS covers a broad range of areas, including but not limited to image formation, image processing, image analysis, computer graphics, computer vision, visualization, image understanding, pattern analysis, machine intelligence, remote sensing, geoscience, signal processing, medical and biomedical imaging, and seismic imaging.

## 3/2 SIAM Journal on Imaging Sciences

### 《SIAM期刊之成像科学》

- 《SIAM 期刊成像科学》是创刊于2008年，每年出版4期
- 探讨图像形成和处理、图像分析、图像解释和理解、计算机图形学和可视化技术应用到科学、医药和工程等领域的重要研究。
- 2022JCR报告，影响因子2.1



**EDITOR-IN-CHIEF**  
**ANGELA KUNOTH**  
**UNIVERSITÄT ZU KÖLN**

Publishes research articles on the development and analysis of numerical methods. Topics include the rigorous study of convergence of algorithms, their accuracy, their stability, and their computational complexity. Also included are results in mathematical analysis that contribute to algorithm analysis, and computational results that demonstrate algorithm behavior and applicability.

**SINUM is published article by article at [epubs.siam.org/sinum](http://epubs.siam.org/sinum)**



All volumes of *SIAM Journal on Numerical Analysis* up to five years from the present are available through JSTOR. These volumes can be accessed through participating libraries from the JSTOR website: [www.jstor.org/journals/00361429.html](http://www.jstor.org/journals/00361429.html).

## 3/3 SIAM Journal on Numerical Analysis (SINUM)

### 《SIAM期刊之数值分析》

- 《SIAM 期刊数值分析》是创刊于1964年，每年出版6期
- 主要刊载探讨数值方法的发展和 Analyzing 研究文章。
- 2022JCR报告，影响因子2.9，是应用数学排名前20位的具有影响力的期刊
- 主题研究领域：数值方法研究与分析的老牌知名期刊





**EDITOR-IN-CHIEF**  
**JEAN-PIERRE FOUQUE**  
**UNIVERSITY OF CALIFORNIA, SANTA BARBARA**

Brings together works on theoretical developments in financial mathematics as well as breakthroughs in the computational challenges they encompass. By publishing papers of high quality and originality, it serves as an essential resource for academic finance researchers and practitioners alike. The journal offers a conduit for the publication of articles in any of these branches of financial mathematics. It also provides a common platform for scholars interested in the mathematical theory of finance as well as practitioners interested in rigorous treatments of the scientific computational issues related to implementation.

## 3/4 SIAM Journal on Financial Mathematics (SIFIN)

### SIAM期刊之金融数学

- 《SIAM 期刊金融数学》是创刊于2008年，每年出版4期
- 本刊报道金融数学理论的发展及其相关计算问题的突破。
- 2022JCR报告，影响因子1



## 4. SIAM 数据库访问平台演示

访问入口演示：<https://epubs.siam.org/>

The screenshot shows the SIAM website homepage. At the top, there is a dark blue header with the SIAM logo and the text "Society for Industrial and Applied Mathematics". To the right of the logo is a search bar with the placeholder text "ANYWHERE" and "Enter Search Terms", and buttons for "Advanced Search", "Register", and "Sign In". Below the header is a teal navigation bar 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 three columns of "LATEST ARTICLES", "LATEST E-BOOKS", and "LATEST PROCEEDINGS". The "LATEST ARTICLES" column lists two articles: "Tensor-Based Numerical Method for Stochastic Homogenization" and "Understanding Popular Matchings via Stable Matchings". The "LATEST E-BOOKS" column lists two articles: "Input-Tailored System-Theoretic Model Order Reduction for Quadratic-Bilinear Systems" and "The Complexity of General-Valued Constraint Satisfaction Problems Seen from the Other Side". To the right of these columns is a section for "SIAM Textbooks" with a description and a "VIEW MORE" link.

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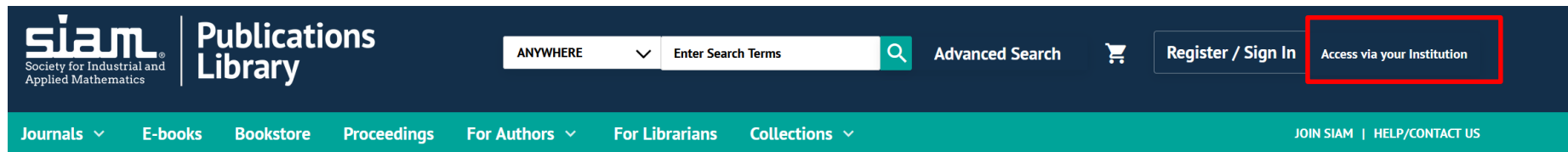
- ✓ 访问数据库全文（订购机构的用户）
- ✓ 保存检索式
- ✓ 添加文章到个人文件夹
- ✓ 设置新文章提醒功能

视频使用指南入口：

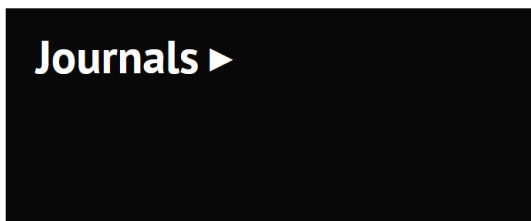
<https://workdrive.zoho.com.cn/file/o9yvm1745b9c2caa74a31b79b9d06da20c0d3>

## 5. SIAM数据库远程访问的实现

登录SIAM主页----选择“login via Your institution”



The header of the SIAM Publications Library website. It features the SIAM logo (Society for Industrial and Applied Mathematics) on the left. In the center is a search bar with a dropdown menu set to 'ANYWHERE' and a search button. To the right of the search bar are links for 'Advanced Search', a shopping cart icon, and a 'Register / Sign In' button. A red box highlights the 'Access via your Institution' link, which is the target for the tutorial. Below the search bar is a teal navigation bar with links for 'Journals', 'E-books', 'Bookstore', 'Proceedings', 'For Authors', 'For Librarians', and 'Collections'. On the far right of this bar are links for 'JOIN SIAM' and 'HELP/CONTACT US'.



A dark grey button with the text 'Journals' and a right-pointing arrow.



A dark grey button with the text 'Books' and a right-pointing arrow.



A dark grey button with the text 'Proceedings' and a right-pointing arrow.

LATEST ARTICLES   LATEST BOOKS   LATEST PROCEEDINGS

**Certifying Optimality of Bell Inequality Violations: Noncommutative Polynomial Optimization through Semidefinite Programming and Local Optimization**

Timotej Hrga , Igor Klep , and Janez Povh

SIAM Journal on Optimization

**Local Time Pushed Mixed Equilibrium Strategies for Time-Inconsistent Stopping Problems**

Andi Bodnariu, Sören Christensen , and Kristoffer Lindensjö 

SIAM Journal on Control and Optimization

**Generalized Power Cones: Optimal Error Bounds and Automorphisms**

**Rainbow Even Cycles**



A teal banner with white text: 'SIAM members receive 30% off all books.' A black mouse cursor arrow points to the text. Below the text is a link: 'Click here to learn more about joining SIAM' and the URL 'https://www.siam.org/membership/join-siam/individual-members'.



A teal banner with a red virus-like graphic on the left. The text reads 'SIAM Epidemiology Collection'.

**THANK YOU !  
AND QUESTIONS?**