



# 使用手冊

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# 出版簡介：

Society for Industrial and Applied Mathematics (SIAM) 創立於 1952 年，其總部設於美國費城(Philadelphia, PA)，是一個致力於工業和數學應用發展的學術組織。提升數學和計算機學的理論與技術，其研究活動活躍於科學界、工程界及工業界，冀望提供數學家、工程師和科學家一個資訊與想法交流的媒介。

SIAM 擁有超過全球 10,000 個個人會員，大多是數學家、電腦科學家、數值分析家、工程家、統計學家、從事數學教育工作者、學生，他們皆來自於不同的工作領域；另外，SIAM 也擁有超過 500 個機構會員 - 大學、企業、研究組織等。

# 收錄內容：

至 2006 年有 323 titles，回溯年份從 1971 年至今，預估每年會增加 20-25 titles。

# 收錄主題：

涵蓋數學相關領域

- ◎ 應用數學研究
- ◎ 探索數學新領域
- ◎ CBMS-NSF - 應用數學
- ◎ 數學模組與計算
- ◎ 演算法原理
- ◎ 應用數學
- ◎ 古典應用數學
- ◎ 其他應用數學 titles
- ◎ 計算機科學與工程學
- ◎ 應用數學會議論文
- ◎ 設計與控制的發展
- ◎ ASA-SIAM series 統計與應用或然性
- ◎ 離散數學及應用
- ◎ 軟體、環境和工具

# 使用方式

## 首頁

在首頁提供六個選項功能：

1. Search
2. Browse Catalogue
3. Search History
4. Bookmarks
5. User Guide
6. Logout

**SIAM Reference Collection** powered by 

Search | Browse Catalogue | Search History | Bookmarks | User Guide | Logout

---

Total: 355 Books

## Search

Please describe what are you looking for...

**In field**

Title       Author  
 Contents       Chapter Name       All fields

### Topics

- Studies in Applied Mathematics
- CBMS-NSF Regional Conference Series in Applied Mathematics
- Classics in Applied Mathematics
- Computational Science and Engineering
- Advances in Design and Control
- Discrete Mathematics and Applications
- Fundamentals of Algorithms
- Frontiers in Applied Mathematics
- Mathematical Modeling and Computation
- MPS/SIAM Series on Optimization
- Other Titles in Applied Mathematics
- Proceedings in Applied Mathematics

[download MARC records for this collection]

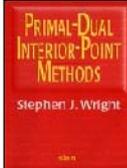
---



**COMPLEXITY CLASSIFICATIONS OF BOOLEAN CONSTRAINT SATISFACTION PROBLEMS**  
Nadia Creignou\Sanjeev Khanna\Madhu Sudan



**Introduction to Shape Optimization Theory, Approximation, and Computation**  
J. Haslinger\R.A. E. Makinen



**PRIMAL-DUAL INTERIOR-POINT METHODS**  
Stephen J. Wright



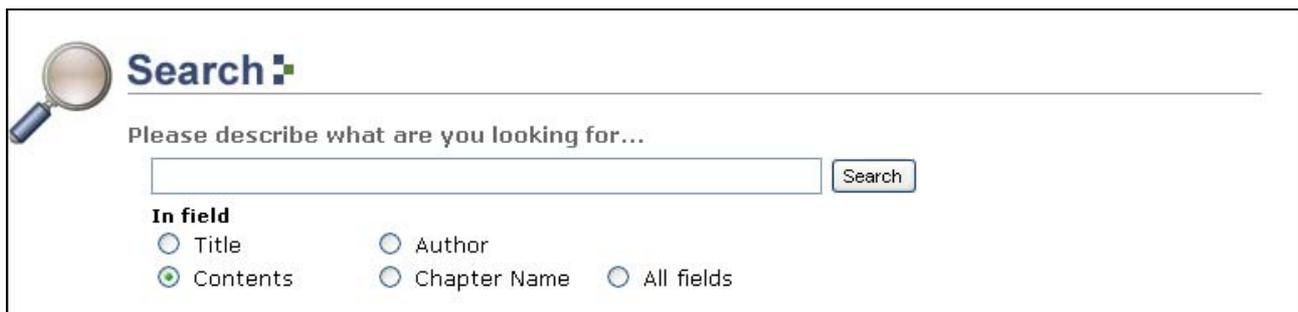
**The Total Least Squares Problem Computational Aspects and Analysis**  
Sabine Van Huffel\Joos Vandewalle

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首頁的上方提供六個功能選項。依照不同的 Collection，有些 Collection 在首頁右方呈現以主題選單方式瀏覽。

### 一、 Search

使用者可以欲輸入的關鍵字詞。並且加上欲選擇的檢索欄位，SIAM 提供了標題、作者、內容、章節名稱、所有欄位的查詢。預設檢索欄位為內容欄位。



**Search**

Please describe what are you looking for...

**In field**

Title       Author  
 Contents       Chapter Name       All fields

### 二、 Browse Catalogue

使用者可以瀏覽 Collection 內所有的書籍。在 Browse Catalogue 頁面，每本書會呈現書籍的封面、書名、作者、出版社、出版年和 ISBN 碼。點選書名，使用者可以開啓該本書和瀏覽書籍章節目次或是一頁一頁瀏覽書籍。書籍可以依照書名的字母順序來點選瀏覽。使用者也可以點選 [ALL] 瀏覽整個 Collection 中的書籍。如需要 MARC 記錄則可以點選 Download Marc Records for this collection 即可。

**siam** Reference Collection powered by **iG**

Search | Browse Catalogue | Search History | Bookmarks | User Guide | Logout

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**Browse Catalogue**

| [A](#) | [B](#) | [C](#) | [D](#) | [E](#) | [F](#) | [G](#) | [H](#) | [I](#) | [J](#) | [K](#) | [L](#) | [M](#) | [N](#) | [O](#) | [P](#) | [Q](#) | [R](#) | [S](#) | [T](#) | [U](#) | [V](#) | [W](#) | [X](#) | [Y](#) | [Z](#) | [Others](#) | [ALL](#) | [Download Marc Records for this collection](#)

|  |   |
|--|---|
|  <p><b>A Course in Mathematical Biology Quantitative Modeling with Mathematical and Computational Methods</b><br/>by Gerda de Vries\Thomas Hillen\Mark Lewis\Johannes Miller\Birgitt Schonfisch<br/>The Society for Industrial and Applied Mathematics., 2006<br/>ISBN:0-89871-612-8 (pbk.)</p> |  <p><b>A MATHEMATICAL VIEW OF INTERIOR-POINT METHODS IN CONVEX OPTIMIZATION</b><br/>by James Renegar<br/>Society for Industrial and Applied Mathematics., 2001<br/>ISBN:0-89871-502-4 (pbk.)</p>                                 |
|  <p><b>A Multigrid Tutorial Second Edition</b><br/>by William L. Briggs\Van Ernden Henson\Steve F. McCormick<br/>Society for Industrial and Applied Mathematics, 2000<br/>ISBN:0-89871-462-1 (pbk.)</p>   |  <p><b>A Primer for Sampling Solids, Liquids, and Gases: Based on the Seven Sampling</b><br/>by Patricia L. Smith<br/>American Statistical Association and the Society for, 2001<br/>ISBN:0-89871-473-7</p>                      |
|  <p><b>A PRIMER ON INTEGRAL EQUATIONS OF THE FIRST KIND: THE PROBLEM OF DECONVOLUTION AND UNFOLDING</b><br/>by G. MILTON WING\JOHN D. ZAHRT<br/>Society for Industrial and Applied Mathematics, 1991<br/>ISBN:0-89871-263-7</p>   |  <p><b>A Survey of Lie Groups and Lie Algebras with Applications and Computational Methods</b><br/>by Johan G. F. Belinfante\Bernard Kolman<br/>Society for Industrial and Applied Mathematics., 1972<br/>ISBN:0-89871-243-2</p> |
|  <p><b>A THEORY OF INDEXING</b><br/>by GERARD SALTON<br/>Society for Industrial and Applied Mathematics, 1975<br/>ISBN:0-89871-015-4</p>  |  <p><b>A Tutorial on Elliptic PDE Solvers and Their Parallelization</b><br/>by Craig C. Douglas\Gundolf Haase\Ulrich Langer<br/>Society for Industrial and Applied Mathematics, 2003<br/>ISBN:0-89871-541-5 (pbk.)</p>           |

### 三、 Search History

**siam** Reference Collection powered by **iG**

Search | Browse Catalogue | Search History | Bookmarks | User Guide | Logout

---

**There are 19 Queries found in Search History**

|    |   |      |
|----|---|------|
| 1  | (computer) in CONTENT   | 🗑️ ✕ |
| 2  | (0-89871-174-6) in CONTENT  | 🗑️ ✕ |
| 3  | (Mark J. Ablowitz and Harvey Segur) in AUTHOR   | 🗑️ ✕ |
| 4  | (Fourier Analysis of Numerical Approximations of Hyperbolic Equations) in TITLE   | 🗑️ ✕ |
| 5  | (Analytical and Numerical Methods for Volterra Equation) in TITLE   | 🗑️ ✕ |
| 6  | ((Analytical and Numerical Methods for Volterra Equation) in TITLE) AND ((Analytical and Numerical Methods for Volterra Equation) in TITLE)                       | 🗑️ ✕ |
| 7  | (Analytical and Numerical Methods for Volterra Equations) in TITLE  | 🗑️ ✕ |
| 8  | (Hyperbolic Systems of Conservation Laws and the Mathematical Theory of Shock Waves) in CONTENT   | 🗑️ ✕ |
| 9  | (Hyperbolic Systems of Conservation Laws Mathematical Theory) AND ((Hyperbolic Systems of Conservation Laws and the Mathematical Theory of Shock Waves) in TITLE) | 🗑️ ✕ |
| 10 | (Hyperbolic Systems of Conservation Laws Mathematical Shock Waves) in CONTENT   | 🗑️ ✕ |

**Total: 19 Queries Max: 30 Free: 11**

**Process History:**

Select

Combine term(s) with

---

**SearchBox:**

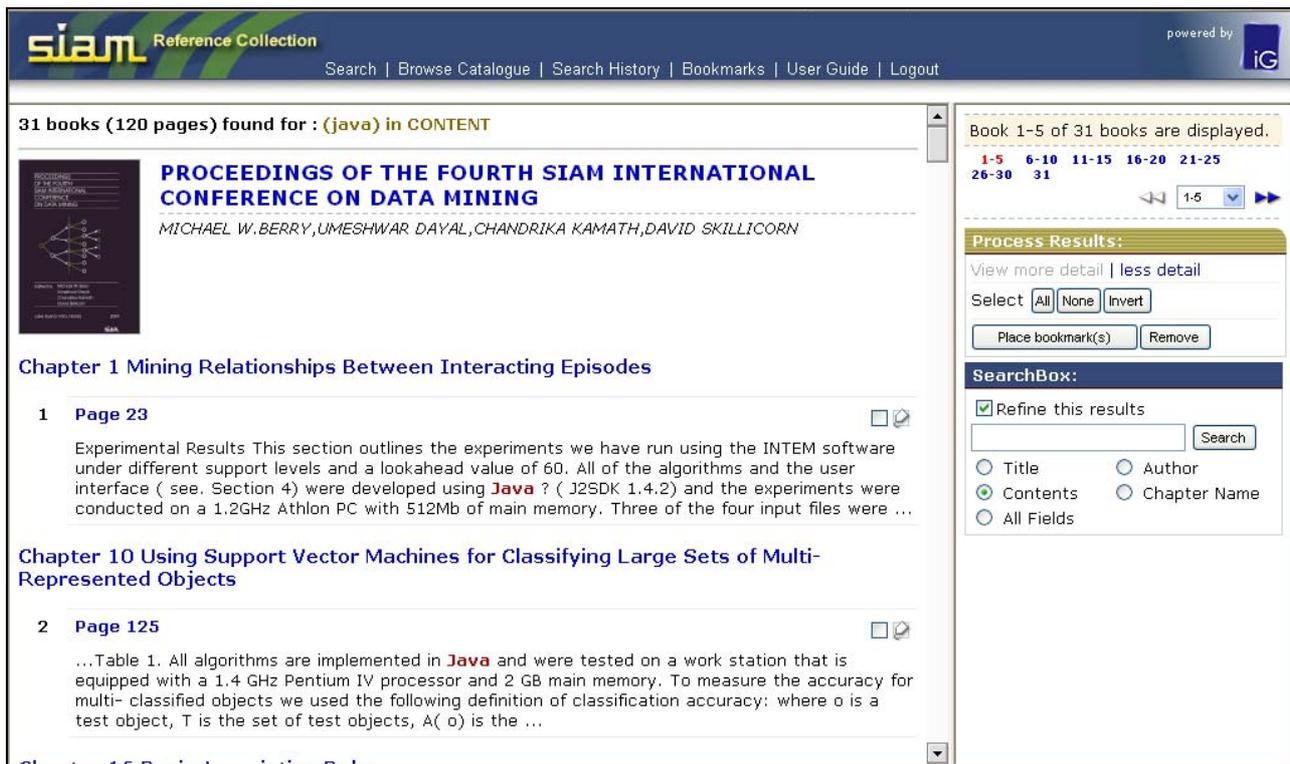
Combine with term(s)

Title       Author  
 Contents       Chapter Name  
 All Fields

之前的檢索策略可以在歷史記錄中查到，最多一次可以看到 30 個檢索策略。使用者可以將先前的檢索策略勾選並加上頁面右方 **combine with** 的下拉選單中的 **And, Or** 結合查詢。使用者也可以透過點選 圖示儲存特殊的檢索策略。當儲存完畢後，您還可以透過“Load Saved Query” 叫出先前儲存的檢索策略重新執行檢索。

## 四、 Bookmarks

使用者可以將感興趣的頁數透過點選  圖示將該頁加入到書籤中，之後再點選“我的書籤”即可看到加入到書籤的資料。



## 五、 User Guide

您可以點選使用說明觀看 SIAM 電子書資料庫的說明介紹。

## 六、 Logout

若您使用完 SIAM 電子書資料庫請點選 Logout 登出。

# 檢索結果頁面

當下了一個檢索關鍵字檢索後，在檢索結果頁面會呈現兩個框架。

左邊框架呈現：

1. 有多少筆書籍和頁數符合使用者所下的關鍵字
2. 使用者所下的關鍵字會被特別標注
3. 使用者可以點選  圖示將該頁加入到書籤中，或是勾選多筆頁數再點選  即可將多筆頁數加入到書籤中

右邊框架呈現：

4. 檢索結果頁面控制區，您可以從此區點選要看的頁面
5. 可透過 **more detail** 或是 **less detail** 控制左邊框架結果呈現方式
6. 透過勾選“由結果列表中檢索”可針對最新一次檢索結果進行二次檢索

powered by  Reference Collection

Search | Browse Catalogue | Search History | Bookmarks | User Guide | L

4. 檢索結果頁面控制區

31 books (120 pages) found for : (java) in CONTENT

Book 1-5 of 31 books are displayed.  
1-5 6-10 11-15 16-20 21-25  
26-30 31

1. 檢索結果符合筆數和檢索策略

PROCEEDINGS OF THE FOURTH SIAM INTERNATIONAL CONFERENCE ON DATA MINING  
MICHAEL W. BERRY, LIMEELAKAR DAYAL, CHANDRIKA KAMATH, DAVID SKILLICORN

5. 以 more detail 或是 less detail 瀏覽檢索結果

Process Results:  
View more detail | less detail  
Select  All  None  Invert  
Place bookmark(s) Remove

Chapter 1 Mining Relationships Between Interacting Episodes

1 Page 23  
Experimental Results This section outlines the experiments we have run using the INTEM software under different support levels and a lookahead value of 60. All of the algorithms and the user interface ( see. Section 4) were developed using **Java** ? ( J2SDK 1.4.2) and the experiments were conducted on a 1.2GHz Athlon PC with 512Mb of main memory. Three of the four input files were ...

2. 檢索關鍵字標注

Chapter 10 Using Support Vector Machines for Classifying Large Sets of Multi-Represented Objects

2 Page 125  
...Table 1. All algorithms are implemented in **Java** and were tested on a work station that is equipped with a 1.4 GHz Pentium IV processor and 2 GB main memory. To measure the accuracy for multi-classified objects we used the following definition of classification accuracy: where  $o$  is a test object,  $T$  is the set of test objects,  $A(o)$  is the ...

3. 加入書籤勾選框

Chapter 16 Basic Association Rules

3 Page 190  
4.1 Experimental Design The experimental environment was a PC with a 2.53 GHz Intel CPU, 512MB of RAM, and. Microsoft Windows XP. All algorithms were implemented in. Microsoft Visual **Java++**. The datasets used are listed in. Table 4.2. Synthetic datasets, T10I4D100K and T20I6D100K, were

6. 勾選”由結果列表中檢索”再針對此次檢索結果進行二次檢索

SearchBox:  
 Refine this results Search  
 Title  Author  
 Contents  Chapter Name  
 All Fields

# 詳細瀏覽頁面

當使用者點選檢索結果中的頁數或書名，以及透過 Browse Catalogue 方式點選書名即可進入到書籍的詳細瀏覽頁面。在書籍的詳細瀏覽頁面會呈現兩個框架。

The screenshot shows a digital library interface with the following callouts:

- 1. Table of Contents 頁面和標示當前頁
- 2. Details
- 3. Search Results
- 4. 加入我的書籤功能按鈕
- 5. 回到 Search Results 頁面
- 6. 開啓隱藏 TOC
- 7. 點選此按鈕可在頁面左下方開啓一個快速檢索視窗
- 8. 頁面控制
- 9. 檢索關鍵字

The interface displays a search result for "PROCEEDINGS OF THE FOURTH SIAM INTERNATIONAL CONFERENCE ON DATA MINING". The left sidebar shows a Table of Contents with "Page 23" highlighted. The main content area shows the start of a chapter with a table of experimental file specifications.

| File Name  | Size of Token Set | Number of Tokens |
|------------|-------------------|------------------|
| DAT7-200   | 28                | 199,384          |
| DAT15-650  | 28                | 650,918          |
| DAT16-1200 | 28                | 1,151,360        |
| GEN-1200   | 5                 | 1,178,371        |

Table 3: Experimental file specifications

左邊的框架呈現：

## 1. Table of Contents

這是預設的詳細瀏覽頁面，而且在書籍章節目次呈現頁面中，使用者會看到紅色小箭頭標示所在當前頁。Table of Contents 也會是當使用者查詢時檢索詞彙章節所在頁面或是書籍第一頁，這完全取決於使用者以何種方式進入 Table of Contents。

## 2. Details

當使用者點選此標籤，可以看到書籍的詳細資訊，包含書名、作者、出版社、出版年、ISBN 號碼和 MARC 記錄

Table of Contents Details Search Results



**PROCEEDINGS OF THE FOURTH SIAM INTERNATIONAL CONFERENCE ON DATA MINING**  
*MICHAEL W. BERRY; UMESHWAR DAYAL; CHANDRIKA KAMATH; DAVID SKILLICORN;*  
 ISBN: 0-89871-568-7  
[Download MARC record for this book](#)

### 3. Search Results

此功能呈現這本書的檢索結果資訊，而使用者所下的檢索關鍵字則會用紅色標注。(若要看完整的檢索結果，使用者可以點選右邊框架中的 **Back to Main Search Results** 按鈕即可回到檢索結果主頁面。

Table of Contents Details Search Results

**PROCEEDINGS OF THE FOURTH SIAM INTERNATIONAL CONFERENCE ON DATA MINING**  
*MICHAEL W. BERRY; UMESHWAR DAYAL; CHANDRIKA KAMATH; DAVID SKILLICORN;*

**8 chapters (9 pages) found for:**  
**(java):CONTENT**

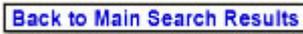
- Chapter 1 Mining Relationships Between Interacting Episodes**  
**Page 23**  
 4) were developed using **Java** ? ( J2SDK 1.4.2) and the experiments were conducted on a 1.2GHz Athlon PC ...
- Chapter 10 Using Support Vector Machines for Classifying Large Sets of Multi-Represented Objects**  
**Page 125**  
 ...Table 1. All algorithms are implemented in **Java** and were tested on ...
- Chapter 16 Basic Association Rules**  
**Page 190**  
 Microsoft Windows XP. All algorithms were implemented in. Microsoft Visual **Java++**. The datasets used are listed ...

右邊的框架呈現：

4. 書籤按鈕

使用者可以透過  按鈕將頁面加到 “我的書籤” 中

5. Back to Main Search Results

點選  可以回到檢索結果主頁面

6. TOC

點選  可以開啓或隱藏書籍目次

7. Search

點選  按鈕可以開啓快速檢索視窗

8. 頁面控制

使用者可以透過  控制要到上一頁還是下一頁

9. 使用者所下的檢索關鍵字在 PDF 頁面中會被標注起來讓讀者一目了然