For assistance searching the Library’s databases, please contact

Bette Finn, Subject Librarian
Georgia Tech Library
Email: bette.finn@library.gatech.edu
Phone: 404-894-1790

PMASE Research Guide
http://libguides.gatech.edu/PMASE
Contents

- Literature review process
- Home page
- PMASE Research Guide (all subjects)
- ILLiad. Interlibrary loan and document delivery
- Handbook databases
- Library Catalog
- Management and business databases
- Database search hints
- Patent databases
- ProQuest databases (theses, reports, etc.)
- Inspec and Compendex, check both database boxes (all areas of engineering)
- Web of Science
- Cited reference databases
Literature Search

- The literature search needs to be comprehensive to avoid publishing something already reported, or slighting people who have made similar advances.
- When looking for citations, do not use indirection, but when coming across an interesting reference, go back to the original source of the reference for a citation.
- Be careful to only use original references. The Wikipedia is generally not considered a reliable source.
- Added bonus: sometimes a literature search can be expanded to a paper in its own right, e.g. a survey of the state-of-the-art.

Courtesy of Brian Berenbach (GTPE-PE Programs), taken from his presentation “To Write a Conference Paper” presented at the 25th Anniversary Annual INCOSE International Symposium, Seattle, WA, July 13-16, 2015. His slides discussing necessary steps and what to avoid are in the SMARTech Repository at http://hdl.handle.net/1853/58782
Acknowledgement: *Writing Literature Reviews* is based on slides provided by William Baer
A literature review is “the process of reading, analyzing, evaluating, and summarizing scholarly materials about a specific topic.”


Acknowledgement: Writing Literature Reviews is based on slides provided by William Baer
A literature review will:

- Demonstrate that you **understand** the topic
- Add **credibility**
- Explain how your research **relates** to the field
- Shows **why** your research is needed
Remember that a literature review is more than a summary and/or list of the relevant literature

A literature review will:

• Include your expertise
• Analyze the literature
• Compare and contrast the works of others
Writing Literature Reviews

1. Topic
   → Research & Collect Information
   → Distilling the Information
   ↓
   Keep Track of Citations
   → Write/Review Paper

Acknowledgement: Writing Literature Reviews is based on slides provided by William Baer
Writing Literature Reviews

Find the appropriate balance between selective and exhaustive

Acknowledgement: Writing Literature Reviews is based on slides provided by William Baer
Boolean Operators

**AND**

Use between concepts to **narrow** the search and **eliminate** unwanted hits.

**OR**

Use within a concept to **broaden** a search to **include other relevant** articles.

Acknowledgement: Writing Literature Reviews is based on slides provided by William Baer
Research Question: What effect does violence in the media have on the home?

One possible search string:

violence AND (media OR television OR movies) AND (home OR families)
Where do I start looking?

- If you know some **seminal** works on the subject, start there.

- Find resources using the appropriate **Research Guide** obtained from the [library’s home page](#), starting with the [PMASE Research Guide](#).
Some tips on finding additional articles:

- Use **bibliographies and Library databases**
- **Revise** searches based on what you learn
- Use citation (**cited reference**) searching, such as [Web of Science](http://wos.com)
Writing Literature Reviews

Compare and contrast the works of others. Use a variety of sources to support your concepts.

Concept 1

Concept 2

Concept 3

Acknowledgement: Writing Literature Reviews is based on slides provided by William Boer
Keep track of citations

Use EndNote (GT subscription) or other citation software such as Zotero

Take notes. Don’t just highlight

Choose how to organize your literature review

Acknowledgement: Writing Literature Reviews is based on slides provided by William Baer
Writing Literature Reviews

This is not a linear process

You can repeat steps

Acknowledgement: Writing Literature Reviews is based on slides provided by William Baer
Writing Literature Reviews

Literature Review Process

Topic → Research & Collect Information → Distilling the Information

Keep Track of Citations → Write Paper

**Topic:** Spend time to carefully select and analyze your topic. What is the scope of your project? How selective can you be? By taking the time to understand what you are really researching you will save yourself time in the long run.

**Research & Collect Information:** Organize your search with Boolean logic to enable you to sift through irrelevant articles to find the best literature. Use the Library’s Research Guides to find databases; start with the PSME Guide.

**Distilling the Information:** Read the articles and take notes. Remember to describe, summarize, compare and contrast, analyze, and organize. As a graduate student you are becoming an expert in your discipline. Formulate educated opinions and use them to make your literature review better.

**Keep Track of Citations:** Use EndNote or some other bibliographic software.

**Write Paper:** Remember you can revisit previous steps if a section of your paper is weak.

Don’t be afraid to get help!

Acknowledgement: Writing Literature Reviews is based on slides provided by William Baer
Research LibGuides

• Citation Styles, Tutorials, and Tools
  http://libguides.gatech.edu/citationtools

• EndNote (software for managing bibliographic citations)
  http://libguides.gatech.edu/EndNote
  Other research management tools

• Research Process: A Step-by-Step Guide
  http://libguides.gatech.edu/researchprocess

• Research/ Writing/ Citing Sources
  http://libguides.gatech.edu/research
Library Home Page [https://www.library.gatech.edu/](https://www.library.gatech.edu/)

**Find, Borrow, Request**

- Library Catalog, Databases
- Interlibrary Loan (ILLiad)
Library Home Page [https://www.library.gatech.edu/](https://www.library.gatech.edu/)

**Research, Help, Support**

**Research Guides**
PMASE Research Guide

• **PMASE Research Guide** – find books, articles and other materials on your topic
  
  [http://libguides.gatech.edu/ PMASE](http://libguides.gatech.edu/ PMASE)

• Access the PMASE Research Guide through the Library home page at [http://www.library.gatech.edu](http://www.library.gatech.edu)
  
  ➢ “Research Guides” [http://libguides.gatech.edu](http://libguides.gatech.edu)
  
  "Research, Help, Support" - "Research Guides"
  
  ▪ "All Guides"
  
  Professional Master's in Applied Systems Engineering (PMASE) program
  
  ▪ "Search” **PMASE**
  
  ▪ By Type
  
  **Course Guide**
This presentation

Major databases

PMASE ASE 6001 GT Library Presentation
Databases, Alphabetical

http://libguides.gatech.edu/PMASE/Databases

Professional Masters in Applied Systems Engineering (PMASE) program:

Databases

Georgia Tech Library resources for the Professional Masters in Applied Systems Engineering (PMASE) program

Home  Databases  Books  Other Resources

PMASE databases listed by topic

- PMASE databases organized by research topic, with detailed descriptions
- ILLiad Interlibrary loan request form, for distance "Material Delivery" (register. Status" -- "Distance Ed" and also "Department" -- "Distance Other")
- Search hints. Database comparison chart: Advanced and Basic

Databases, Alphabetical (Primary and Related)

Primary Databases

- Catalog (Georgia Tech Library)
  GT Library Catalog contains books, journals, conference proceedings, maps, and other materials owned by the Georgia Tech Library. Search hints: http://www.prism.gatech.edu/~bw21/2gil.pdf or http://www.prism.gatech.edu/~bw21/gil1.htm
- Inspec. Check both database boxes - Compendex and Inspec (only 20% overlap)
  Inspec 1896+ Over 3,500 scientific and technical journals and some 1,500 conference proceedings, as well as selected books, reports and dissertations in the areas of electrical engineering, computer engineering, physics, electronics, communications, computers and control, mechanical and production engineering, and information technology in business. Check both database boxes - Compendex and Inspec (only 20% overlap).
- Compendex. Check both database boxes - Compendex and Inspec (only 20% overlap)
  Compendex 1884+ Contains almost 7.5 million records referencing 5,000 major engineering journals and major engineering conference materials. Check both database boxes - Compendex and Inspec (20% overlap). Compendex on Engineering Village also indexes standards, including standards subscribed by the Georgia Tech Library (IEEE, ASTM, and ASCE).

Related Databases (Alphabetical)
Books

http://libguides.gatech.edu/PMASE/Books

Professional Master's in Applied Systems Engineering (PMASE) program: Books

Georgia Tech Library resources for the Professional Master's in Applied Systems Engineering (PMASE) program

- Book loans and PDFs: Distance Learning - "Material Delivery"

Other Distance Learners:

The Document Delivery service delivers books (to US locations only) and copies of articles from the Georgia Tech Library's collection. Books are sent directly to the requester by UPS and should be returned by UPS or a similar service. Copies are sent directly to the requester's ILLiad account. There is no charge for this service.

Interlibrary Loan service obtains materials not owned by the Georgia Tech Library from other libraries or commercial suppliers. Books are sent directly to the requester (to U.S. locations only) by UPS and should be returned by UPS or a similar service (NOTE: Students are responsible for their own return shipping fees for books, which must be returned via trackable means). Copies of articles are sent directly to the requester's ILLiad account. The Library subsidizes ILL requests up to $25.00 per item. You will be notified prior to ordering if charges exceed that amount.

All requests should be input using the ILLiad online interlibrary loan system. When you register with ILLiad, you must specify your STATUS as Distance Ed.

Interlibrary loan questions? Contact, customersupport@library.gatech.edu or 404-387-0427. Hours: 8am-4pm, Monday-Friday.

- GT Library Catalog, Georgia Tech Library's online catalog

Catalog contains books, journals, conference proceedings, maps, and other materials owned by the Georgia Tech Library. Georgia Tech Library.

- List of electronic books: handbooks, reference books, etc. in the Catalog or in the Databases list. Includes GT subscriptions to Knovel Library, AccessEngineering, Taylor & Francis Engineering, and Technology Collection and large numbers of electronic and print books in the Catalog.

- ILLiad request form

When registering, choose "Status" — "Distance Ed" and also "Department" — "Distance Other". Distance learning - request form for book loans and PDFs of articles. Other Distance Learners:

https://www.library.gatech.edu/distance-learners "Material Delivery"

- WorldCat (OCLC)

World's most comprehensive collection of bibliographic records from library catalogs worldwide, containing over 52 million records cataloged by OCLC member libraries. Includes books, manuscripts, websites and internet resources, newspapers, journals and magazines (not articles), etc. Includes records representing 400 languages. approx. 1000 A.D. to present

- Recall of check-out books

Recalls are possible for checked-out books. All items can be subject to recall; the borrower is guaranteed 21 total days with items. Recalled items which are needed for Course Reserves must be returned immediately. For circulation and check-out questions, contact the Library Store (circulation, public services) at 404-894-4530 (toll free 1-866-225-7804).

- Course Reserves

Instructors can place materials on Course Reserves, to make them available to all students in their classes.
PMASE Research Guide

“Other Resources” (tab, top row)

http://libguides.gatech.edu/PMASE/Other_Resources

Professional Master's in Applied Systems Engineering

Other Resources

Georgia Tech Library resources for the Professional Master's in Applied Systems Engineering (PMASE) program.

- Home
- Databases
- Books
- Other Resources

Other Resources

- Citation Styles, Tutorials, and Tools
- The Research Process
- Technical Reports
- Patents
- Dissertations and Theses
- Standards and Specifications
- Scholarly Communication and Digital Curation
- Research Data Management, Data Management Plan, Access policies, SNPM
- Scholarly Communication Guide (P. Kenly)
- Electronic Handbooks
- ILLiad request form
- Electronic Handbooks and Reference Books
- Dissertations and Theses
- Technical Reports
- Patents
- Standards and Specifications
- Databases
Find, Borrow, Request
Borrow & Request
Interlibrary Loan (ILLiad request form)
The Georgia Tech Library delivers **PDFs** (of journal & conference papers and brief book chapters) to **all** distance learning locations (both inside and outside of the U.S.)

- PDF copies of *interlibrary loan articles*
- PDF copies of *Georgia Tech Library print articles*

Copies (PDFs) are sent directly to the requester’s **ILLiad account**.
Other Distance Learners:

• The Document Delivery service delivers books (to United States locations only) and copies of articles from the Georgia Tech Library's collection.

• Books are sent directly to the requester by UPS and should be returned by UPS or a similar service.

• There is no charge for this service (Georgia Tech Library owned books)
Other Distance Learners (Continued):

- **Interlibrary Loan** service obtains materials **not owned** by the Georgia Tech Library from other libraries or other suppliers.
- Books are sent directly to the requester (to U. S. locations only) by **UPS** and should be returned by UPS or a similar service.
- **NOTE:** Students are **responsible for their own return shipping fees for books**, which must be returned **via trackable** means.
Other Distance Learners (Continued):

- The Library subsidizes ILL requests up to $25.00 per item. You will be notified prior to ordering if charges exceed that amount.
- All requests should be input using the ILLiad online interlibrary loan system.
- When you register with ILLiad, you must specify your STATUS as Distance Ed.
• Fill out an ILLiad request form for each separate item (book loans and article PDFs)
• Interlibrary loan requests may take 1-3 weeks turn around time (depends upon the lending library)
• Interlibrary Loan services are available to all current Georgia Tech students, faculty and staff
The first time you try to use the **ILLiad** system, you will be asked to fill out a **one-time new user registration form**.

When **registering** the **first time** with **ILLiad**, choose

- "**Status**" -- "**Distance Ed**" (distance education) and also
- "**Department**" -- "**Distance Other**" etc.
ILLiad request form
https://illiad.library.gatech.edu/

ILLiad FAQ
https://library.gatech.edu/ill-faq
Additional Notes

Put any information in the “Additional Notes” field that may help us find the item, as well as any other pertinent information.

Copy and paste complete bibliographic information from your Library database record into ILLiad fields. Include other relevant information in the “Additional Notes” field.

http://illiad.library.gatech.edu/
Interlibrary Loan
https://illiad.library.gatech.edu/

- Check the Georgia Tech Library (electronic) Journals list and Library Catalog for Georgia Tech Library electronic and print journal subscriptions.
- Most (but not all) interlibrary loan requests will be free to you (lending libraries usually charge less than the $25 subsidy).
- For questions regarding your ILLiad requests contact:
  - Phone: 404-367-0427 (or toll free 1-888-225-7804; ask to be transferred to interlibrary loan/ILLiad)
  - Email: customersupport@library.gatech.edu
- ILLiad and interlibrary loan FAQ is at https://library.gatech.edu/ill-faq
- Over 95 percent of Georgia Tech’s physical collection has been moved to the Library Service Center (remote warehouse).
Off-campus access
Begin at Library home page

• If you are **off-campus** (and cannot link to a library resource using VPN) you must **begin** at the **Library’s home page** at [https://www.library.gatech.edu/](https://www.library.gatech.edu/) (Catalog, Databases, electronic Journals, Research Guides)

• Remote access to campus resources via [Virtual Private Network](https://www.library.gatech.edu/) (VPN). In-depth VPN. [Cisco AnyConnect](https://www.library.gatech.edu/)
OpenAthens Database Authentication

Issues trying to access databases through the Georgia Tech Library website may be due to our recent change to OpenAthens IP Authentication. If you have any access questions or database access problems, please contact ept@library.gatech.edu. This will allow us to establish an issues log and address the access issues systemically. Learn more about this OpenAthens Authentication service at http://weblog.library.gatech.edu/news, including changing permanently linked information ("Recent News" - right column: OpenAthens; Experiencing Issues with databases, etc.).

While accessing e-resources off-campus, you may notice an OpenAthens login screen. The OpenAthens screen will ask you to identify your home. Use the "Login via your institution: Other Institution Login" (box, right column of screen) then "Find your organization" to search for Georgia (Georgia Institute of Technology or Georgia Tech). See example. From there, use the Georgia Tech login service and you will be given access to the resource.

A list of all databases is at http://libguides.gatech.edu/az.php ("Find, Borrow, Request" (top row) "Find Materials" "Databases"). Check this list if your URL does not work properly (by database name in the search box, or alphabetically, or by subject).

For one-on-one quick and in-depth database search assistance: contact Bette Finn at bette.finn@library.gatech.edu
Primo “Everything” or “Articles” does **not** search all of our databases.

Some databases are right on target, whereas other very **relevant databases** have **not been searched** and **relevant** records will be **missed**.

Search the **vendor database** platforms **separately** such as combined **Inspec/ Compendex**, ProQuest databases, and Web of Science.
Lynda [http://lynda.gatech.edu/](http://lynda.gatech.edu/)

Lynda teaches the latest software tools and skills through instructional videos taught by experts.

**Georgia Tech** provides unlimited access to lynda.com for all employees and students.
Selected Handbook Databases
http://libguides.gatech.edu/PMASE

- **Knovel** Library (science and engineering handbook database)
- **ENGnetBASE** now Taylor & Francis Engineering and Technology Collection -- engineering handbooks (formerly CRCnetBASE)
- **AccessEngineering** McGraw-Hill engineering handbooks
- GT Library **Catalog** -- records for print and electronic handbooks, guides, encyclopedias, and other reference materials
Georgia Tech Library Catalog

Search in the Library Catalog for print and electronic books, GT theses, journal/conference TITLES, and other materials in the Library collection

Left column of home page
“Find, Borrow, Request”
“Find Materials”
“Library Catalog”
Find, Borrow, Request
Find Materials
Library Catalog

http://search.library.gatech.edu/

Library Catalog
Electronic journals
My Library Account

Here you can save results to My Favorites, create alerts for saved searches, and renew items.

Library Catalog

Search Tips:

In a **Simple Search** you'll receive results that contain all of your search terms. These may match keywords in a title, author names, subjects, abstract, or other descriptions.

Use the **Advanced Search** instead to pre-limit to search only in specific fields, material types, and publication dates.

**Use the Filters to limit** to items available online or physically available in library. You can also include or exclude particular resource types, dates, authors, or subjects.

The asterisk (*) character can be used as a wildcard in place of one or more characters. Examples: *recycl*, *organiz*, *hymn*

Enclosing your search in quotes "" will only return results with an exact match. Examples: "global warming", "Affordable Care Act", "mutual funds"

Searches can also be nested in (), combined with "" and Boolean operators AND, OR, NOT. Example: ""World War II"" AND (sites OR battles) NOT (Normandy OR Pearl Harbor)
Library Catalog – **Advanced Search**

“Search Scope” (left, row) – drop down menu – “Library Catalog”

**GT Theses & Dissertations** are also linked in Library Catalog records to SMARTech full text PDFs.
Library Catalog
To limit to only full text electronic items, click on “Full Text Online” (under Availability).
To limit to print – “Available in Print”

• Conduct a search, limiting to only “Library Catalog”
• Availability (right column)
  ➢ “Full Text Online” (full text electronic)
  ➢ “Available in Print”
    ➢ Physical items (usually print - hard copy) located in one of the GT Library’s locations
Search Tips:

• The **asterisk** (*) character can be used as a **wildcard** in place of one or more characters. Examples: recycl*, organiz*, hymn*

• Enclosing your search in **quotes** (" ") will only return results with an **exact** match. Examples: "signal processing" "Affordable Care Act"

• Searches can also be **nested in** (parenthesis), combined with "quotes" and **Boolean operators** **AND, OR, NOT**.

  Boolean operators are in **capital letters**.

  Example: ("World War II" **AND** (sites **OR** battles))
Limit by **Field** (left column):

Title, Author, Subject

ISSN

Search Scope: Library Catalog

- **Title** contains (handbook*) OR (guide*) OR (introdut*)
- **AND**
- **Subject** contains semiconductor*
Right column “Tweak my results”
“Sort by”
Relevance, **Date-newest**, Author, Title
• Details
• Explore – Browse Shelf
• Call Number
“View It” or “view full text” or “Full text available at:” or “View Online” or “online access” (electronic full text)
Library Catalog
Advanced Search
Drop-down menus

• “Search Scope” (top left)
  ➢ “Library Catalog” or
  ➢ “GT Theses & Dissertations”

• “Material Type” for Library Catalog (top right)
  ➢ “Books”
  ➢ “All Items”
  ➢ Limit to “Journals” (restrict to only journals)
Catalog Advanced Search
Drop-down menus

• “Search Scope” for “Everything” or for “Articles” searches full text. Use this sparingly. Relevant items can be missed. Many Library databases are NOT searched.

• Right column
  ➢ Publication Date
  ➢ Material Type – Journals
  ➢ Tweak my results (Sort by; Availability; …)
Catalog – Print vs. Online

• Books and journals
  ➢ Can have **both online** ("View It" or "View Online") and **print** holdings within the **same** record
  or
  ➢ The Catalog may contain **separate records** for the print and electronic formats
Catalog – Journals

• To restrict your Catalog search to only journals (not books), limit a search to Journals ("Material Type") and to "Library Catalog" ("Search Scope")
• Each time a journal changes its name, there may be a separate record for each title change.
• Each "title change" record will have its own holdings information (years/volumes)
• Electronic journals can be searched by title or ISSN using the (electronic) "Journals" webpage (left, top row "Find, Borrow, Request“ -- “Find Materials”)

Catalog – Journals

- Note the journal **holdings** information (year and/or volume) for **both** the print record ("Get It") and the electronic record ("View").

- For example, we may own volumes 1-30 in print, but not begin our electronic subscription until volume 31.

- The (electronic) Journals list and the Catalog’s e-journal records contain **aggregator** e-journals with possible **selective coverage and embargo date** restrictions (EBSCOhost, ProQuest, GaleGroup, Factiva, Lexis Nexis, etc.). If available, use the Library subscription choice.
Recall a checked-out book

• **Borrowing Policies:**
  - All items are subject to Recall
  - The borrower is **guaranteed 21 total days** with items (unless needed for Course Reserves)

• You can “**Recall**” any **checked-out book.** Contact an associate in the public services area (Crosland Tower Ground Floor Grove Level, Library Store) or phone **404-894-4530**
Requesting a “Recall” on a checked-out book prevents the student from keeping the book for the entire semester.
Georgia Tech Dissertations & Theses

- **Georgia Tech** doctoral and masters theses
  The **Library Catalog** provides **links to full text** Dissertation & Theses **SMARTech repository** records

- **Search the “Library Catalog”** (GT author, title, keywords, advisor, etc.) – bibliographic records
Primo “Everything” or “Articles” – Warning: Primo only searches “selected” Library databases. Many relevant records will be missed

• Search individual **native interface databases** when you want specialized resources with more search options, and more powerful search engines than Primo Everything/Articles

• **Relevant records** will be missed in Primo Everything/Articles (not all Library databases are searched)

• **Articles+:** Searches for **selected** journal and newspaper articles, conference proceedings, etc. available to GT students, faculty, and staff

• **Everything:** Searches for a broad range of print and online books, articles, and other materials available to GT students, faculty & staff. Only **selected** databases are searched
Start from the Library home page to **initiate** database, e-journal and e-book OpenAthens **authentication**

For example, an IEEE Xplore record may require a fee to view the document.

**Begin** at the **Library home page**, at the Library Catalog or at (electronic) **Journal or at Databases**, to access the Library’s IEEE Xplore database **subscription** (at no charge to you)
DOI # (from full format records and references)
Use Citation Linker to retrieve full text PDFs
Management and Business

- Management and business Research Guides
  - Management & business, Company, Industry, Georgia, International business
  - See the tabs at the top of the screen (rows):
    - Company Profiles
    - Industry Profiles
    - Market Share
    - Business Rankings
    - Company directories
Database Search Hints
http://www.prism.gatech.edu/~bw21/databases-guides.htm

• Databases such as **Compendex/ Inspec**, **ProQuest databases**, and **Web of Science** databases provide powerful search engine software:

  - Complex searches using nested **Boolean** operators (**AND OR NOT**)
  - **Combine multiple search statements**, such as **Search history** (top row “**Results**” – “**View all results**”) and **Recent searches**. Recombine search statements with statement numbers and keywords
  - **Multiple databases** can be searched together at the same time, removing duplicate records
Database Search Hints
http://www.prism.gatech.edu/~bw21/databases-guides.htm

• Powerful search engines – such as Compendex/Inspec, ProQuest databases, and Web of Science databases (continued):
  
  ➢ **Proximity operators**, such as **NEAR/ #** (within # words) or **quotes** (“industrial engineering”)
  
  ➢ **Truncation** (often asterisk *), wildcards
  
  ➢ **Limit to field**: Title, Subject headings fields, Author, etc.
  
  ➢ **Avoid searching full text** fields (ProQuest – use “NOFT” to search no full text)

• Most database vendors have tutorials or search hints. Look for Help, (?), Support, hints, training, guides, etc.
### Database Commands Comparison Chart

**[http://www.prism.gatech.edu/~bw21/chart.htm](http://www.prism.gatech.edu/~bw21/chart.htm)**

<table>
<thead>
<tr>
<th>Search Options</th>
<th>First Search, Galileo [WorldCat]</th>
<th>ProQuest [NTIS (reports), Advanced...Aerospace, Materials, ProQuest Dissertations and more]</th>
<th>Inspek and Compendex [Ei Village]</th>
<th>Web of Science [Web of Science Core Collection, Medline, BIOSIS, Derwent Innovations (patents), and more] Clarivate Analytics (formerly Thomson Reuters)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operators</td>
<td>and or not</td>
<td>and or not</td>
<td>and or not</td>
<td>and or not</td>
</tr>
<tr>
<td>Adjacent Words</td>
<td>sound W system</td>
<td>&quot;sound system&quot; (quotations)</td>
<td>Quotes or brackets for exact phrase &quot;sound system&quot; with no truncation</td>
<td></td>
</tr>
<tr>
<td>Words in Set Proximity</td>
<td>freedom W2 press</td>
<td>((&quot;micro electro&quot;) near/1 mechanical) or (&quot;microelectromechanical&quot;)</td>
<td>Quotes. &quot;.&quot; Exact phrase. No truncation. {block and tackle} &quot;block and tackle&quot; [near earth objects]</td>
<td></td>
</tr>
<tr>
<td>Set Proximity, Any Order</td>
<td>ink N2 removal</td>
<td>near/# -- two search terms, in any order, within &quot;#&quot; number of words apart. (nursing NEAR/3 education) -- 3 means within 3 words. NOFT(radar NEAR/3 &quot;signal processing&quot;) ; (radar or antenna*) near/2 (infrared). pre/# -- one search term that appears within &quot;]#&quot; number of words before a second term. nursing PRE/4 education -- first term precedes the second term by 4 or fewer words.</td>
<td>The NEAR/# and ONEAR/# commands do not work with truncation, wildcards, parenthesis, quotes or braces. Within 0-# terms in any order: laser NEAR/4 diode. Within 0-# terms and in the order entered: laser ONEAR/5 diode. NEAR = NEAR/4</td>
<td></td>
</tr>
<tr>
<td>Wild Cards</td>
<td>wom#n colo?r after the 3rd character</td>
<td>Truncation is * asterisk. nurse* colo*r finds colour color; <em>engineer</em> (use left-hand * sparingly); ? for a single character; two ?? - exactly two characters; three ??? - exactly three characters; wom?n finds woman ? women; fib?? finds fiber or fibre.</td>
<td>Truncation is asterisk <em>. Comput</em> returns computerized. <em>sorption returns adsorption. t??th finds tooth. h</em>emoglobin finds haemoglobin.</td>
<td></td>
</tr>
<tr>
<td>Alternate Endings</td>
<td>psychi* (limit of 50 index entries). Use – for plurals. Do not use * (modeling or modelling or modeled or modelled)</td>
<td>patent*. Truncation is asterisk *</td>
<td>Truncation is asterisk (<em>) comput</em> ; Truncation and wild cards cannot be used within &quot;.&quot; quotation marks or braces or used with NEAR/# or ONEAR/#.</td>
<td></td>
</tr>
</tbody>
</table>

---

Proximity operator is NEAR/# operator; terms occur within a specified number of words within the same field. If no number is specified, the system defaults to 15. (child* NEAR/3 obes*) ; (radar or antenna*) NEAR/2 (infrared). For Web of Science Core Collection, SAME is used only in the address field; terms must occur within the same address: yale SAME hosp. To search an exact phrase, use quotation marks; example: "signal processing"
## Database Commands Comparison Chart

Database Commands Comparison (Continued)

<table>
<thead>
<tr>
<th>Search Options</th>
<th>First Search, Galileo [WorldCat]</th>
<th>ProQuest [NTIS (reports), Aerospace, Materials, ProQuest Dissertations and more]</th>
<th>Inspec and Compendex [EI Village]</th>
<th>Web of Science [Web of Science Core Collection, Medline, BIOSIS, Derwent Innovations (patents), and more] Clarivate Analytics (formerly Thomson Reuters)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plurals</td>
<td>wx+ mammal+ (for sons or es)</td>
<td>patent* Truncation is asterisk *</td>
<td>Truncation is * asterisk. Automatically stemmed in &quot;Quick Search.&quot; Smanagement returns managing. Turn Autostemming on.</td>
<td>patent* Truncation is asterisk *</td>
</tr>
<tr>
<td>Words in Specific Fields</td>
<td>au: drucker, sh: rats, ti: polymers, de: (doppler n radar), su: (engineering), mh: (models w theoretical)</td>
<td>TI(cryptolog* and VLSI) and AU(sherman) SU(thesaurus subject) AU(author) AB(abstract) YR(2005-2009) TILSU(model* or simul*) Multiple fields, separated by a comma.</td>
<td>(seatbelts OR (&quot;seat belts&quot;)) wn TI. Controlled terms (thesaurus) and Uncontrolled subject terms can be different for each database. Publication year coverage for controlled terms can differ.</td>
<td>TS=(nanotub* near/5 carbo) NOT (AU=Smalley R*); TI=(engineer*); Web of Science Core Collection: AD=((georgia or GA) SAME tech*)</td>
</tr>
<tr>
<td>Specific Fields, Exactly</td>
<td>au: &quot;clough wayne&quot; (use Browse Index)</td>
<td>Browse differs by database. Thesaurus (subject). Thesaurus browse -- Broader Terms, Related Terms. &quot;Look up Subjects&quot; &quot;Look up Authors&quot; su.exact(&quot;higher education&quot;)</td>
<td>Browse by Author name (note initials, first names, spaces, commas, etc. after surname). Broader, narrower, related thesaurus terms.</td>
<td>Browse by first cited author's name to find variants - author index icon (full first name, initials, space or no space) - Browse publication name for variations. Search databases separately when needing the customized functions such as MESH headings in Medline, browsing or searching cited reference fields, or inventor name browse search in Derwent, etc.</td>
</tr>
<tr>
<td>Searching Defaults</td>
<td>Assumes &quot;and&quot; between words and</td>
<td>and</td>
<td>and</td>
<td>and</td>
</tr>
<tr>
<td>Combine Searches; Alerts</td>
<td>&quot;Previous Searches&quot; and or not “Advanced Search” -- &quot;Recent searches&quot; - &quot;Combine searches&quot; (1 and 2) and (optic* or electrooptic*). Alerts, My Research.</td>
<td>Alerts. (Top row &quot;Results&quot; - &quot;View all results&quot;) &quot;Search history&quot; &quot;Combine searches&quot; (#2 AND (microelec* wn TI)) NOT #1</td>
<td>Alerts. &quot;Search History&quot; &quot;Advanced Search&quot; &quot;Combine Sets&quot; (#2 AND #3) NOT #1</td>
<td></td>
</tr>
<tr>
<td>Search multiple databases at the same time</td>
<td>Search multiple databases at one time, removing duplicate records. Row at the top of the screen; click on Databases. Check only relevant databases, such as NTIS, Aerospace, Materials, ProQuest Dissertations and Theses, etc. Click on &quot;Use selected databases&quot;.</td>
<td>&quot;DATABASE&quot; - check relevant database boxes (check both Compendex and Inspec database boxes). Conduct search, click on &quot;Remove Duplicates&quot; (left side) then &quot;Database Preference&quot; (Inspec or Compendex)</td>
<td>To search all Clarivate Analytics databases, select &quot;All Databases&quot; from the drop down menu. To search selected Web of Science Core Collection databases: &quot;MORE SETTINGS&quot;.</td>
<td></td>
</tr>
</tbody>
</table>
Search Example:

1. model* OR simulat* OR algorithm*
2. bioengineer* OR biotech* OR ((biolog* or biomed*) and engineer*)
3. micromechan* OR nanoelectr* or (micro mechan*) or (nano electr*)
4. ((bioeng* OR ("biomedical engineering")) wn TI)
5. ((bioeng OR biomed*) wn CV) or ((bioeng OR biomed*) wn FL)
6. (#1 and #2 and #3) or ((#4 or #5) and #3 and #1)

(A1 or A2) AND (B1 or B2)
"OR" Boolean operator: "A1 or A2" - - Keywords/phrases -- at least one of them must be in the record
[see also ProQuest definition of Boolean]
Database Commands Comparison Chart
http://www.prism.gatech.edu/~bw21/chart.htm

Narrow and Broaden Search Strategy

- If you retrieve **too many records**, narrow your search by
  - Creating an additional set  
    (A1 or A2) AND (B1 or B2) AND (C1 or C2)
  - Restricting keywords to
    - **Title Field**, using title field codes such as TI=, wn TI, TI:
    - **Subject Headings (Thesaurus and Identifier Fields)**, such as Controlled Terms, Uncontrolled Terms, wn CV, wn FL, DE=, SU=, ID=, MH, TI:
      - Use of **Proximity Operators** for adjacency, same field, within the same subfield, phrase searching, etc., such as quotes " ", SAME, NEAR/#, n2, w3, etc.

- If you retrieve **too few records**
  - Check for **similar** concepts in the **title**, **abstract** and **subject heading** fields (synonyms, etc.)
  - Look for concepts which have **equal importance**  
    (A1 or A2) AND (B1 or B2 or D1 or D2)

- **Spell out acronyms and abbreviations.**
- Include **alternative spellings** such as modeled or modelling, fiber or fibre (British and American)
- Ask for help with **author names** (spaces, commas and format/variant differences).
- Check for **truncation** symbols (* ? +) and proximity operators
- Check for the ability to **manipulate previous search statements** or search history, such as (#7 or (#8 and engineer*)) not #6. Some systems allow combinations of search statement numbers and keywords.
- To **broaden** a search, combine terms using **OR** (results contain any specified term). To **narrow** the scope of a search, combine terms using **AND** (results contain all specified terms). To eliminate **previous** search statement numbers from a search, use the **NOT** operator. You can use parentheses to specify the order of operation. Terms and operations within the parenthesis are executed before terms and operations outside the parenthesis.
- Watch for truncation overflows.
Full text

• "Find It @ GT" and "Get fulltext copy" often will NOT work properly for conference/proceedings papers and for technical reports (in databases such as Inspec/Compendex, NTIS, Advanced Technologies & Aerospace, etc.)

• Find It @ GT usually (but not always) works properly for journal articles
# Databases organized by Subject

http://www.prism.gatech.edu/~bw21/databases.htm

## Georgia Tech Library Databases

http://www.prism.gatech.edu/~bw21/databases.htm

<table>
<thead>
<tr>
<th>Photocopies of articles and interlibrary loan</th>
<th>Aerospace</th>
<th>Agriculture</th>
<th>Automotive</th>
<th>Associations and Research Centers</th>
<th>Bioengineering, Medicine, Biology, Health</th>
<th>Books</th>
<th>Chemistry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Citation Indexes (Cited References)</td>
<td>Company, Product, and Industry Information, Business, Management</td>
<td>Computers, Controls, Automation, Modeling</td>
<td>Contract Awards and Solicitations, Funding Opportunities</td>
<td>Copyright, Fair Use, Repository, Open Access</td>
<td>Dissertations and Theses</td>
<td>Education</td>
<td>Electrical and Computer Engineering, Controls, Automation</td>
</tr>
<tr>
<td>Energy</td>
<td>Engineering</td>
<td>Environment and Pollution</td>
<td>Geophysics and Geoscience</td>
<td>Government Information</td>
<td>Handbooks</td>
<td>Industrial Engineering</td>
<td>Linking to Library Resources</td>
</tr>
<tr>
<td>Materials and Metals</td>
<td>Mathematics</td>
<td>Mechanical Engineering</td>
<td>Medicine, Health Physics</td>
<td>Nuclear Engineering</td>
<td>Paper Science</td>
<td>Patents</td>
<td>Physics &amp; Optics</td>
</tr>
<tr>
<td>Psychology</td>
<td>Public Policy and other Social Sciences</td>
<td>The Research Process; Citation Styles, Tutorials, and Tools; Writing Literature Reviews; Research Tools; EndNote</td>
<td>Standards</td>
<td>Systems Engineering</td>
<td>Technical Research Reports</td>
<td>Transportation</td>
<td>Water</td>
</tr>
<tr>
<td>Proxy Server and GT Account ID</td>
<td>Current Awareness Alerts</td>
<td>All Databases (all topics)</td>
<td>All Research Guides (all topics)</td>
<td>One-on-one database assistance and group instruction</td>
<td>Services for students (Interlibrary Loan, etc.)</td>
<td>Scholarly Communication, Digital Curation, Data Management, Access Policies, SMARTech</td>
<td></td>
</tr>
</tbody>
</table>

## Sample topics:

- “Systems Engineering”
- “Books”
- “Citation Indexes” (cited references)
Selected **Patent** Databases

- **InnovationQ** Search for Patents and Applications, Non-Patent Literature, and Licensable Technology. Visualize research results and identify innovation trends and market potentials. Powered by IEEE and IP.COM. GT subscription. Number of users: 10

- **Derwent Innovations Index** 1963+ worldwide patents index. Includes value-added abstracts and titles
Selected **Patents** Databases

- **Patent Research Guide** ([USPTO](https://www.uspto.gov), [Espacenet](https://www.espacenet.com), etc.). **Full text** PDFs for all **U.S.** patents (1790+). Selective full text PDFs for patents of other countries.
- **USPTO Patent Database** Full Page Images 1790 to present. Full text is searchable back to 1976; granted patents and patent applications.
- **Espacenet. European Patent Office** (patents)
ProQuest databases
http://libguides.gatech.edu/PMASE

- **ProQuest** databases (multiple databases can be combined together). Use “NOFT” when searching ProQuest databases (to avoid searching full text), or narrow to specific field -- TI for title, SU for subject, AU for author, such as ti,su,ab(robot* AND model*) AND au(smith)
  - **ABI/Inform** -- Management science and business
  - **ProQuest Dissertations & Theses** (many full text)
  - Other ProQuest databases, such as Advanced Technologies and Aerospace, Materials, Military, general interest, etc.
Do **NOT** check these two boxes for databases with **no** full text and/or **no** peer reviewed.

ProQuest – ABI/Inform (about half full text), NTIS, Advanced Technologies & Aerospace, Materials, ProQuest Dissertations, etc.

**Warning!**

• Do **NOT** “Limit to:” Full text or Peer reviewed for databases such as **NTIS** (technical reports, **no** full text and **no** peer reviewed), ProQuest **Dissertations** (**no** peer reviewed), Advanced Technologies & **Aerospace** (technical reports are not peer reviewed, etc.)
• “Databases” -- (top row) – combine multiple databases – check relevant boxes
• **NOFT** – **No** Full Text. Search “Anywhere except full text”
• “**Recent searches**” – combine previous search statement lines
• **Field**, such as **ti,su** for title/subject fields
• **near/#** (within # words, any order)
• **pre/#** (within # words, in this order)
• **Sort** results by **“Most recent first”**
• Items **per page** - **100**
Selected Library Databases
http://libguides.gatech.edu/PMASE

• **MathSciNet** 1940+ MathSci contains evaluative reviews and abstracts of the international research literature in *mathematics*, computer science, statistics, simulation, modelling, econometrics, and applications

• **Applied Science and Technology** database 1913+ index to **core** applied (trade) and scholarly journals
Inspec and Compendex databases

- **Inspec** 1896+ and **Compendex** 1884+ (Engineering Village, Elsevier). Excellent databases for systems engineering!
  - Combine both databases together into one search (check BOTH boxes Inspec and Compendex – under Databases, top left)
  - Compendex – all areas of engineering
  - Inspec covers (1) physics, (2) electrical engineering and electronics, (3) computers and control, (4) information technology for business, and (5) mechanical and production engineering
  - Scholarly and applied journals, and conference papers
Inspec and Compendex: Indexes to conference and journal papers (check both boxes – Inspec and Compendex)

- **Inspec** -- physics, electrical engineering, systems engineering, computer engineering, communications, optics, photonics, electronics, computers and control, simulation and modeling, biomedical technology, radar, electrical power, robotics, telecommunications, radio, mechanical and production engineering, and information technology for business

- **Compendex** – All areas of engineering

- **20% overlap** between Inspec and Compendex

- Combine Inspec and Compendex (check both boxes)

---

**PaperChem**: Pulp & paper index with chemical emphasis.
Fast Searches in Inspec & Compendex
Quickly browse for only a few papers on a topic

• Limit by (drop down menus, below search box)
  ➢ “Journal article” (Document Type)
    ▪ Find It @ GT works properly for most (but not all) journal papers, but seldom works for conference papers
  ➢ “English” (Language)
  ➢ Date (recent range of years, or sort by Date Newest)

• To add synonyms to your search strategy, check:
  ➢ Title, Abstract, Subject heading fields
  ➢ Thesauri (online)
  ➢ Bibliographies/references and footnotes in similar papers

• Sample quick review keywords

If Autostemming is ON, controllers searches control, controlling, controlled, controllers…
Inspec 1896+ and Compendex 1884+

- **Autostemming - Turn ON.** Autostems (automatic plurals...) all key words except for Author names and words in quotations and/or braces.

- Be sure that **Autostemming is turned ON after every search,** such as after “Search history” is used (“Results”).

- Always check that Autostemming is turned ON when using “Expert Search”.

- Using truncation or wildcards will turn off the autostemming feature.
Inspec 1896+ and Compendex 1884+

- **Truncation** is asterisk (*). Model*.
- Note: use left truncation with care
  (*sorption returns absorption)
- **Exact phrase** within quotes (" ")
- Select **both boxes**, Inspec 1896+ and Compendex 1884+ (20% overlap)
- "**Search**" drop down menu (top row)
  - “Quick Search” or
  - “Expert Search”
• **Proximity**

  - **Near/ #** - keywords are **within** zero to # terms of each other, in **any order**. Example: laser NEAR/4 diode
  - **Onear/ #** - within zero to # terms, in the **order entered**
  - **NEAR** and **ONEAR** can **not** be used with truncation, wildcards, parenthesis, braces or quotation marks
  - **Exact phrase**: use **quotes** “signal processing”
• **Databases** – check both boxes Compendex and Inspec

• **Sort by**
  - **Date (Newest)**
  - **Relevance**

• **Date**
  - **Published _ year to _ year**

• **Document type**
  - **Journal article**
  - **Conference article**

• **Browse indexes** (brings up pop-up screen)
  - **Author** (note author name variations)

• **Only Inspec “Treatment” types are current**
Inspec 1896+ and Compendex 1884+

- **Results**
  - Default is “Citation” (brief info.)
  - Use “**Detailed**” or “**Abstract**” (for email, print, download - after “Select range” -- “Choose format”)

- **Remove Duplicates**
  - Choose a “**Database Preference**” -- Inspec or Compendex
  - Duplicate records will be removed from the first **1000** records in the result set

- **Display:** **100** results per page
Author Names

• Author formats differ in each database
• **INSPEC** - Only author **initials**
• **Compendex** - Author names are as written in paper (initials or first names)
• Use “**Browse** indexes” “**Author**”
  - Browse using **both spaces** and **commas** after surnames
  - Browse **with and without middle initial**
  - Browse with **full first** name
"Search"
- Quick
- Expert
- Thesaurus
“Browse indexes” (note author name variations)
• “Results” (top row)
• “View all results” - lower right corner
• “Search history” (recombine previous search statement lines)
• “Combine searches”
- Results - View all Results
- Search history
- Combine searches
  (#1 AND #2 AND #3) AND (radar)

Turn Autostemming ON

- **Actions**: Create Alert; Save search; Edit this search; Delete search from search history
Turn **Autostemming ON**

- Default for “Expert Search” and “Search history” is off
- Be sure “Autostemming” and turn **ON** before every search
- **Autostemming** can be used with **proximity operators** (NEAR/#  ONEAR/#) since all of the terms are automatically stemmed.

*Do **NOT** check this box*
Search History (top row, “Results” – “View all results”)

- “Combine previous searches” in the **same databases**
- Manipulate **previous search statement** numbers with **Boolean operators** and **keywords**
- Can add keywords. **“Search History” example:**
  #1 and #2 and (laser* wn ti)
- Open a **Word document** and keep track of search statement **line numbers**
- **Alerts** and **Save Search** – **one line only**
- **Combined** search set is only one search statement line - one long string of keywords used in previous statements
- Example. “Combine” -- when combining search statements, the earlier search statement numbers are lost.
  #4 displays as a **string of keywords, not as** (#1 and #2 and #3)
Combine searches can also include **keywords**. Example: 
**#1 AND #2 AND #3 AND ((Ehrfeld OR Borenstein) wn au)**
• Combined (#4) does not say #1 and #2 and #3. It only gives keyword result (after Combined)

• Open a **Word file** and copy and paste statement lines

• **Email Alert** and **Save Search** both save only **one line**

• Session expires after 30 minutes of inactivity. Register for extra time.
• “Remove Duplicates” (from first 1000 records)
• Choose “No field preference” (there is no full text)

Do **NOT** choose “Has Full Text” – these databases have **no** full text (under “No field preference”)
- Create **alert**
- **Save** Search
- **Display:** 100
- **Email** selections
- **Print** selections
- **Download**

**Sort on:** Date (Newest)
• Session may expire after 30 minutes of inactivity
• Select all boxes on one screen or check specific boxes
• **Output**: Choose **“Detailed” or Abstract** (not “Citation”). DOI # is only in “Detailed” record format
• E-mail or Print or Download records to avoid being **timed out**
• **Download** Format – EndNote, CSV, Excel, RTF, etc.
Modern spectral analysis techniques for blood flow velocity and spectral measurement with pulsed Doppler ultrasound

Authors: David, J.-Y.; Jones, S.A.; Giddens, D.P.

Author affiliation: Georgia Inst. of Technol., Atlanta, GA, USA

Source title: IEEE Transactions on Biomedical Engineering


Volume: 38

Issue: 6

Publication date: June 1991

Pages: 589-96

Language: English

ISSN: 0018-9294

CODEN: IEBeAX

Document type: Journal article (JA)

Country of publication: USA

Abstract: Four spectral analysis techniques were applied to pulsed Doppler ultrasonic quadrature to compare the relative merits of each technique for estimation of flow velocity and Doppler angle. The four techniques were (1) the fast Fourier transform method, (2) the maximum likelihood method, (3) the Burg autoregressive algorithm, and (4) the modified covariance approach to autoregressive modeling. Both simulated signals and signals obtained from an in vitro flow system were used. Optimal parameter values (e.g. model orders) were determined for each method, and the signal-to-noise ratio and signal bandwidth were investigated. The modern spectral analysis techniques were shown to be superior to Fourier techniques in most circumstances, particularly when large Doppler shifts were present.
four techniques were (1) the fast Fourier transform method, (2) the maximum likelihood method, (3) the Burg autoregressive algorithm, and (4) the modified covariance approach to autoregressive modeling. Both simulated signals and signals obtained from an in vitro flow system were studied. Optimal parameter values (e.g. model orders) were determined for each method, and the effects of signal-to-noise ratio and signal bandwidth were investigated. The modern spectral analysis techniques were shown to be superior to Fourier techniques in most circumstances, provided the model order was chosen appropriately. Robustness considerations tended to recommend the maximum likelihood method for both velocity and spectral estimation. Despite the restrictions of steady laminar flow, the results provide important basic information concerning the applicability of modern spectral analysis techniques to Doppler ultrasonic evaluation of arterial disease

Number of references: 19

INSPEC controlled terms: biomedical ultrasonics | Doppler effect | haemodynamics | spectral analysis

Uncontrolled terms: optimal parameter values | spectral analysis techniques | blood flow velocity | spectral measurements | pulsed Doppler ultrasound | quadrature signals | maximum likelihood method | Burg autoregressive algorithm | simulated signals | in vitro flow system | model orders | signal-to-noise ratio | signal bandwidth | Fourier techniques | steady laminar flow | arterial disease

INSPEC classification codes: A8708 Sonics and ultrasonic radiation (medical uses) | A8770E Patient diagnostic methods and instrumentation | A8745H Haemodynamics, pneumodynamics

Treatment: Theoretical (THR); Experimental (EXP)

Discipline: Physics (A)

Database: INSPEC

Copyright 2003, IEE

- **Controlled** terms CV (Inspec thesaurus terms)
- **Uncontrolled** terms FL
Modern Spectral Analysis Techniques for Blood Flow Velocity and Spectral Measurements with Pulsed Doppler Ultrasound

Jean-Yves David, Steven A. Jones,Member,IEEE, and Don P. Giddens

Abstract—Four spectral analysis techniques were applied to pulsed Doppler ultrasonic quadrature signals to compare the relative merits of each technique for estimation of flow velocity and Doppler spectra. The four techniques were 1) the fast Fourier transform method, 2) the maximum likelihood method, 3) the Burg autoregressive algorithm, and 4) the modified covar-
Compendex 1884+

Title: Numerical study of an asymmetrical stenosis
Authors: Jin, Suo; Giddens, Don P.
Author affiliation: Georgia Inst of Technology and Emory Univ Sch of Medicine, Atlanta, GA, USA
Source title: American Society of Mechanical Engineers, Bioengineering Division (Publication) BED
Monograph title: Advances in Bioengineering
Publication year: 1998
Pages: p 63-64
Language: English
CODEN: ASMBEP
Document type: Conference article (CA)
Conference name: Proceedings of the 1998 ASME International Mechanical Engineering Congress and Exposition
Conference date: Nov 15-20 1998
Conference location: Anaheim, CA, USA
Conference code: 49454
Sponsor: ASME
Publisher: ASME, Fairfield, NJ, USA

Conference article
Use several fields
• Serial/Source title:
• Conference name:
• Monograph title:
• Conference date:
• Conference location:
“Find It GT” works for most (but not all) journals, but often does not work for conference proceedings, rarely works for technical reports, and does not work for patents.
“Find It @ GT” Link directs to interlibrary loan, even though the conference listed is in the GT Library Catalog


Available at Main Library - 5th Floor East (R856 .A2 A44 1998 )

Get It  Details  Virtual Browse

Conference record is in GT Library Catalog
Records resulting from combined 
Compendex and Inspec database searches 
include “Cited by in Scopus”

Click on “41” to retrieve the 41 Scopus 
indexed articles that cite Burrow’s 
Inspec/Compendex indexed paper (Multi-
beam…)

Tools in Scopus

This article has been cited 41 times in Scopus since 1996.

Sapogova, N.; Bredikhin, V.; Bityurin, N.; Kamensky, V.; Zhigarev, V.; Yusupov, V.

Model for indirect laser surgery
(2017) Biomedical Optics Express


Angle-multiplexed optical printing of biomimetic hierarchical 3D textures
(2017) Laser and Photonics Reviews

Author details:
Burrow, G.M.
Gaylord, T.K.

Learn more about Scopus
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• “Find It @ GT” often does not work for conference papers, technical reports, patents, etc. Check the Catalog and ejournals list. Ask for help!

• “Find It @ GT” usually (but not always) works properly for journal articles

• You can request individual papers from journals and conferences and brief book chapters by filling out an ILLiad request form for each separate article/paper (https://illiad.library.gatech.edu/). PDFs will be sent to your ILLiad account. This applies to interlibrary loan articles (requested from other libraries) and to print journals/conferences owned by the GT Library

• Provide complete bibliographic information in your ILLiad request, using the “Additional Notes” field, if needed

• Interlibrary loan requests often take 1-3 weeks turn around time. Turn around time is much faster for GT owned materials
Inspec 1896+ and Compendex 1884+

Thesaurus

- “Search” (top row). Drop down menu

Thesaurus

Search each database **separately**

- Click on “Exact Term”
- Check **Scope Notes**
- **Controlled terms** (thesaurus terms)
  - Controlled terms can be **different** for each database and can have **restricted date** coverage
- **Uncontrolled terms** (identifiers – these are **not** thesaurus terms)
Scope Note:
MEMS
Introduced: October 2006

“Search” – Thesaurus
Search each database separately
For: Broader terms, Related terms, Narrower terms, Scope Note
Search for author name variations:

- “Browse indexes” (top row, right)
- Select “Author”

- Only check Compendex and Inspec

- Author surnames can be followed by a space or by a comma, before the author's first name. Try a space after the last name, and then try a comma after the last name.

- Search 1 and 2 initials and also full first name.

- Example: Clough G ... Clough, G ... Clough W ... Clough, W (for G. Wayne Clough)
Inspec does not use authors' first names, but only their initials.

Use of the Author Browse Index is strongly recommended for both Inspec and Compendex in order to make selections from all the possible variations on an author's name.

Compendex Author names can be truncated by using an asterisk (*) as the truncation symbol:

Smith, A* will retrieve

- Smith, A.
- Smith A.A.
- Smith A.B.
- Smith, A. Brandon
- Smith, Aaron
- Smith Aaron C. etc.
Standards

• Selected standards records are being added to Engineering Village (such as IEEE and ASTM) “Standard” or Std is usually mentioned in the database record, such as in the document type field or in a subject heading field.

• The Georgia Tech Library subscribes to IEEE, ASTM, ASCE, and selected other standards.

• Most other standards must be purchased through the standards society or through a third party standards vendor.

• See the Standards Research Guide at http://libguides.gatech.edu/standards
Web of Science -- All Databases

http://libguides.gatech.edu/PMASE

- **Web of Science “All Databases”**
  - Web of Science (1900+) can be combined (using “All Databases”) with other Clarivate Analytics databases, such as **Medline** (1950+biomedicine), **BIOSIS** (1926+biology), and **Derwent Innovations Index** (1963+ patents, with value added titles and abstracts)

- **All Databases** bottom left column **More settings** - can select which specific databases are searched, such as only Web of Science and Medline (check relevant database boxes)
Select a database: All Databases

More settings:
- Web of Science Core Collection
- BIOSIS Citation Index
- Current Contents Connect
- Data Citation Index
- Derwent Innovations Index
- KCI-Korean Journal Database
- MEDLINE®
- Russian Science Citation Index
- SciELO Citation Index
- Zoological Record

Timespan: All years (1864 - 2018)
Web of Science
http://libguides.gatech.edu/PMASE

• **Web of Science** 1900+ (Clarivate Analytics, formerly Thomson Reuters)
  - Indexes **major** science and technology journals
  - Provides access to scientific literature (in **biology**, **medicine**, **chemistry**, etc.)
    - through **standard access** points (**keywords** etc.)
    - and
    - **cited references** (from **bibliographies**, **references**, **footnotes**) published within a scholarly paper
Web of Science

• For cited references, search the first author named in the bibliography reference or footnote.

• Browse the author name ("Select from Index") to locate author name variations

• One or two initials, first name, etc.
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**Cited Reference Search**

Advanced Search  + More

Find the articles that cite a person's work.

**Step 1:** Enter information about the cited work. Fields are combined with the Boolean AND operator.

* Note: Entering the title, volume, issue, or page in combination with other fields may reduce the number of cited reference variants found.

**Example:** O'Brien C* OR OBrian C*

Select from Index

**Cited Author**

**Example:** J Comp* Appl* Math*

Select from Index

**Cited Work**

**Example:** 1943 or 1943-1945

Select from Index

**Cited Year(s)**

**Search**

**Timespan**

- All years
- From 1900 to 2017

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