REVAMP REU
Library Information Session
Literature Review
June 16, 2016

This handout is available online at
http://libguides.gatech.edu/REVAMP_REU
(guide box -- top, left column)
Library Assistance

• **Bette Finn**, Subject Librarian, Georgia Tech Library
  
  Email: bette.finn@library.gatech.edu
  
  Phone: 404-894-1790
  
  Assistance searching the Library databases. By e-mail or in-person by appointment
Library Assistance

• **Expert Consultation Center (ECC)**
  The ECC has been **suspended for summer semester 2016**, but **will resume** at the beginning of **fall semester 2016**.

  Beginning this fall semester 2016, Librarians will be available for quick reference assistance on a drop-in basis. Location: Library 1st floor west, nearby the Clough building entrance. Hours: Monday-Friday noon to 4pm (when GT classes are being held)

• **Library Services Desk**
  Library associates provide book check-out assistance. Location: 1st floor west (long counter, near the Library Rotunda entrance). Phone: 404-894-4530
The Research Process
A Step-by-Step Guide
http://libguides.gatech.edu/researchprocess


Get Started
Step 1: Develop a Topic
Step 2: Locate Information
Step 3: Evaluate
Step 4: Write
Step 5: Cite

Related Information
- GT Communications Center
  Help for effective writing and other types of communication.

Recommended E-Book

Research Process Overview

Step 1. Develop a topic
Select a Topic | Develop Research Questions | Identify Keywords | Find Background Information | Refine a Topic

Step 2. Locate information
Books & E-Books | Videos & Images | Articles | Websites | Grey Literature | Search Strategies

Step 3. Evaluate and analyze information
Evaluate Sources | Primary vs Secondary | Types of Periodicals

Step 4. Write, organize, and communicate information
Take Notes | Outline the Paper | Incorporate Source Material | Annotated Bibliographies | Lit Reviews

Step 5. Cite sources
Avoid Plagiarism | How to Read a Citation | APA Style | Chicago/Turabian Style | MLA Citation Style | Other Citation Styles

Thanks to Lori Micho of Johnson and Wales University for permission to use their guide as a template for this one
The Research Process
A Step-by-Step Guide
http://libguides.gatech.edu/researchprocess

• Step 1. Develop a topic
  – Select a Topic | Develop Research Questions | Identify Keywords | Find Background Information | Refine a Topic

• Step 2. Locate information
  – Books & E-Books | Videos & Images | Articles | Websites | Grey Literature | Search Strategies
• **Step 3. Evaluate and analyze information**
  – Evaluate Sources | Primary vs Secondary | Types of Periodicals

• **Step 4. Write, organize, and communicate information**
  – Take Notes | Outline the Paper | Incorporate Source Material | Annotated Bibliographies | Lit Reviews

• **Step 5. Cite sources**
  – Avoid Plagiarism | How to Read a Citation | APA Style | Chicago/Turabian Style | MLA Citation Style | Other Citation Styles
Writing Literature Reviews
Where Research Starts

http://www.prism.gatech.edu/~bw21/Writing_Lit_Rev.pdf

Acknowledgement:
Writing Literature Reviews slides are provided by William Baer
A literature review is “the process of reading, analyzing, evaluating, and summarizing scholarly materials about a specific topic.”

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.

- It needs to include your expertise.
- Analyze the literature.
- Compare and contrast the works of others.
Writing Literature Reviews

Topic → Research & Collect Information → Distilling the Information

Keep Track of Citations → Write Review/Paper
Find the appropriate balance between selective and exhaustive.
Writing Literature Reviews

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.
Research Question: What effect does violence in the media have on the home?

Possible Search String:

violence AND (media OR television OR movies) AND (home OR families)
Writing Literature Reviews

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 webpage**, starting with the **REVAMP REU** Research Guide.
Some tips on finding additional articles:

- Use bibliographies

- Revise searches based on what you learn

- Use citation searching (such as Web of Science)
When have I found enough articles?

When you can intelligently and completely answer the research question.

When your advisor says you’re done.
Writing Literature Reviews. Compare and contrast the works of others. Use a variety of sources to support your concepts
Keep track of **citations**.
Use [EndNote](https://www.endnote.com) or other citation software.
Take **notes**. Don’t just highlight.
Choose how to **organize** your literature review.

This is not a linear process.
You can repeat steps.
Research/Writing/Citing Sources
http://libguides.gatech.edu/research

- How to Do Research
- Writing & Grammar
Citation Styles, Tutorials, and Tools

http://libguides.gatech.edu/citationtools

**Citation Styles, Tutorials, and Tools: How to Read a Citation**

**The Elements of a Citation**

*Here is the information you typically need in order to cite the following types of sources. We also have some tips to help you decipher being cited. This can help you locate useful sources that you might find in bibliographies or lists of references in your reading.*

**Book**


<table>
<thead>
<tr>
<th>Title</th>
<th>Freakonomics: a rogue economist explores the hidden side of everything</th>
</tr>
</thead>
<tbody>
<tr>
<td>Author(s)</td>
<td>Steven D. Levitt and Stephen J. Dubner</td>
</tr>
<tr>
<td>Place of publication</td>
<td>New York</td>
</tr>
<tr>
<td>Publisher</td>
<td>William Morrow</td>
</tr>
<tr>
<td>Copyright/Publication date</td>
<td>2005</td>
</tr>
</tbody>
</table>

**Clues that this is a book:**
Off-campus: Need the proxy server

• **Start at the Library home page**
  (http://www.library.gatech.edu). The Georgia Tech Library proxy server will be automatically initiated if you begin at the Library home page (Catalog, Databases, etc.)

• **Linking** to Library Resources
  [http://www.library.gatech.edu/services/linking.php](http://www.library.gatech.edu/services/linking.php)
  - Add GT Proxy Bookmark
  - LinkMaker
Research Tools

http://www.library.gatech.edu/search/index.php

- Archives
- Articles
- Bestsellers, DVDs, Newspapers & Magazines
- Books
  - Library Catalog
  - GIL Universal Catalog
  - WorldCAT
  - Popular Materials
  - eBooks
- Citation Linker
- Citation Style Guides
- Conference Proceedings
- Course Reserves
- Databases
- DVDs, Videos, Feature Films
- eBooks
- eResource Policies

- GALILEO
  - Get GALILEO Password
- Government Information
- Institutional Repository
  - SMARTech Repository
- Journals
- Maps
- Patents & Trademarks
- Research Guides
- Science Fiction Collection
- Standards & Codes
- Technical Papers & Reports
  - Government Funded Technical Reports
- Theses & Dissertations
  - GT Authors
  - Other Authors
- Tutorials
“Research Guides” are organized
By Subject, By Type, All Guides
http://libguides.gatech.edu/
Research Guides
By Type -- Topic Guide -- REVAMP REU
“Research Tools” -- “Research Guides”
http://libguides.gatech.edu/

BY SUBJECT

About the Library
Aerospace Engineering
Applied Physiology
Architecture and Fine Arts
Archives and Records Management
Biology
Biomedical Engineering
**Business and Management**
Chemical and Biomolecular Engineering
Chemistry and Biochemistry

City Planning
Civil Engineering
Computer Science
Conference Proceedings
Earth and Atmospheric Sciences
Economics
Education
**Electrical and Computer Engineering**
Government Information
GTRI
<table>
<thead>
<tr>
<th>History</th>
<th>Modern Languages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industrial and Systems</td>
<td>Music</td>
</tr>
<tr>
<td>Engineering</td>
<td>Patents &amp; Trademarks</td>
</tr>
<tr>
<td>Industrial Design</td>
<td>Physics</td>
</tr>
<tr>
<td>International Affairs</td>
<td>Psychology and Cognitive Sciences</td>
</tr>
<tr>
<td>Literature, Media and</td>
<td>Public Policy</td>
</tr>
<tr>
<td>Communication</td>
<td>Scholarly Communication &amp; Open Access</td>
</tr>
<tr>
<td>Maps and Geospatial Data</td>
<td>Sociology</td>
</tr>
<tr>
<td>Materials Science and</td>
<td>Standards (ASTM &amp; IEEE)</td>
</tr>
<tr>
<td>Engineering</td>
<td>Statistics</td>
</tr>
<tr>
<td>Mathematics</td>
<td>Technical Reports</td>
</tr>
<tr>
<td>Mechanical and Nuclear</td>
<td></td>
</tr>
<tr>
<td>Engineering</td>
<td></td>
</tr>
</tbody>
</table>

http://libguides.gatech.edu/
Before you start searching for literature, it is helpful to think about what type(s) of literature you need. That way you’ll look in the right places.

For general overview information books may be the place to go. Search the library catalog or one of the ebook collections. Use the links in the "Finding Books" box. Most of the ebooks are also listed in the library catalog.

To find published research look journal or conference articles, technical reports, or government documents. Use the links in the "Finding Journal and Conference Articles" and "Finding Technical Reports and Government Documents" boxes.

Tutorials are offered by many database producers. The "All" Databases list indicates the availability of many tutorials.

Other Research Guides for School of Mechanical Engineering Students

- Nuclear Engineering Research Guide
- GT Library Databases arranged by topic (handout for School of Mechanical Engineering library orientation class)
- Borrowing & Requesting from Other Libraries, Course Reserves, Book Recalls (right column)
- Selected Library services for GT students (handout for School of Mechanical Engineering library orientation)
- GT Library database search hints (handout for School of Mechanical Engineering library orientation class)
Library Catalog
Search for books/ e-books, theses, journal TITLES, media, archival materials, maps, and other material in the Library collection

Print and Electronic

“Research Tools”
“Library Catalog”

http://www.library.gatech.edu
Search Tips:

- For **phrases** use **quotation marks**: "global warming"
- For **truncated searches** use an **asterisk**: vaccinat* to find vaccination, vaccinate, etc.
- To **include any word or phrase** use **OR**: airplane OR helicopter
- To **group terms** (Boolean logic) use **brackets**: (airplane OR helicopter) NOT (jet) (electric* AND engineering AND handbook*)
- To search for the name (title) of a **journal** enter it into the search box and choose “Library Catalog” and “Journal”
- To exclude a term use **NOT**: cheese NOT cheddar
Library Catalog

- “Get It” – physical item (print book). “Sign In” and “Request” book to be delivered by choosing “Pickup Location”

- “View It” or “View Online” – view electronic full text

- A book or journal record can have both print and electronic full text formats:
  “Online access. The library also has physical copies.”

- The electronic full text and print formats of materials can have separate Catalog records

- Details – subject headings, table of contents (when available), etc.
SHOW ONLY; “Refined by” -- If you want only full text electronic items, you can limit to “Full Text Online” For only hard copy (print) books, limit to “Available in Print”

• Conduct a search, limiting to only “Library Catalog”
• “SHOW ONLY” (“Refined by”)
  – “Full Text Online”
    “Online access” or “View It” or “View Online”
  – “Available in Print”

Physical items (usually print - hard copy) located in one of the GT Library locations -- Main Library, Core Collection (in the Main Library), Architecture Library, Library Services Center (remote storage), Library Records Center (remote storage), Archives, …
“Simple Search”

“Advanced Search”
For drop-down menus

“Details” – this record has table of contents
Catalog – Advanced Search

- Simple search - robotics - 3,742 for Books
- **Advanced Search** – can limit by field (Title, Subject etc.), can limit to only electronic, can sort by Date-newest
- Below: searched for Books, using Robot* in Subject field and added Title field keywords: (handbook* OR guide* OR introduct* OR fundamental*)

119 books: 70 print and 54 electronic
“View It” or “View Online” (electronic full text)
“Open source in a new window”
Each GT school/unit selected 1000 print book titles for the “Core Collection”
After a broad **Catalog** search, click on “Core Collection” (left column – “Refine My Results”)

![Library Catalog search results](image)

- **Personalize your results**
- **SHOW ONLY**
  - Available in Print (1,637)
  - Full Text Online (4,830)
- **REFINE MY RESULTS**
  - Collection
    - Conference Proceedings (1,387)
    - Archives (123)
    - **Core Collection** (93)
  - Multiple versions found

**Results 1 - 10 of 93 for Books+**

- **Available in Print** (76)
- **Full Text Online** (15)
- **Refined by:** Collection: Core Collection

**Visual perception and robotic manipulation**
Geoffrey Taylor (Geoffrey Richard) Lindsay Kleeman
Multiple versions found
To view, click on the title or the link to the right

**Designing mobile autonomous robots**
“Get It” for print books

This print book is in the “Core Collection” 4th floor west, on-campus Main Library. Each GT School/unit selected 1000 print titles for the Core Collection.
You can ask an associate at the Library Service Desk (1st floor west counter, 404-894-4530) to Recall a checked out print book. A **checked-out book** is subject to **Recall** after 21 days.
This book is in the “Library Service Center” remote storage location. You can “Request” for “Pick-up” at the “Central Campus” “Main Library”.
“SORT” (Relevance, Date-newest)

“Actions” -- "Permalink" – url link to a Catalog record
"Sign-In" -- "My Account" "Personal Settings"  "Queries" "e-Shelf (basket)"

Change "Number of results per page" to 50 per page
Handbooks

• **Engineering Handbook databases** (many handbooks combined into one database):
  - Knovel ("My Subscription")
  - CRCNetBase

• Search the Georgia Tech Library **Catalog** for **both print and electronic** handbooks, guides, etc.
Photocopies of articles: ILLiad request form. Use the ILLiad form to request photocopies of individual papers in journals or conference proceedings (one request form for each article).
http://illiad.library.gatech.edu/

Printing (OIT clusters and CentralPS)

Scanning (free).

Commons and Multimedia Studio

Library Productivity Commons
“Research Tools” -- “Find Databases”

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

Find **individual** articles, conference papers, technical reports, patents, dissertations, and other research material on your topic
Find Databases
http://gtsearch.library.gatech.edu/search/

- **Databases A-Z:**
  Browse databases by name

- **Databases by Subject:**
  Search databases specific to your area of study for articles and more
Databases A-Z:

Browse databases by name.

Find Databases

WARNING: Certain types of use prohibited. Please see Policy for Use of Online Info.

Databases by Subject:

Search databases specific to your area of study for articles and more.

- Applied Physiology
- Architecture
- Biology
- Business and Management
- Chemistry and Biochemistry
- Computing
- Earth and Atmospheric Sciences
- Economics
- Education
- Engineering, Aerospace
- Engineering, Biomedical
- Engineering, Chemical and Biomolecular
- Engineering, Civil and Environmental
- Engineering, Electrical and Computer
- Engineering, Industrial and Systems
- Engineering, Materials Science
- Engineering, Mechanical and Nuclear
- Government Information
- History, Technology and Society
- International Affairs
- Literature, Media and Communication
- Mathematics
- Medicine/Health Sciences
- Modern Languages
- Music
- Physics
- Psychology
- Public Policy
### Primary Databases

- Compendex (Ei Village 2)
- Inspec (Ei Village 2)
- Web of Science Core Collection (Thomson Reuters)
- Patent and Trademark Office (US Patents)
- ScienceDirect (Elsevier)
- NTIS Database (National Technical Information Service)
- Applied Science & Technology Abstracts (EBSCO)
- PaperChem (Ei Village 2)

### Related Databases

- Aerospace Database (ProQuest)
- Corrosion Abstracts (ProQuest)
- Derwent Innovations Index (Thomson Reuters)
- Engineered Materials Abstracts (ProQuest)
- Materials Research Database with METADEX (ProQuest)
- MEDLINE (ISI)
- SciFinder
- SciTech Connect

### Theses and Dissertations

- Georgia Tech Electronic Theses & Dissertations (ETD) Collection
- ProQuest Dissertations and Theses A&I (ProQuest)

### Reference Sources

- Knovel Library
- CRCnetBASE (formerly ENGnetBASE)
## Selected Library Databases by Topic

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, Data Management, Repository, Open Access, Scholarly Communication</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></td>
<td></td>
</tr>
</tbody>
</table>

*Database Tutorials* Guide. Most vendors will also offer search hints, tips, training, or help information for their databases
Examples of Databases

- **Compendex** and **Inspec** databases (check both boxes). Indexes individual journal articles and conference papers. Subject areas include all areas of engineering, physics, electronics, computers, manufacturing and more. Journals and conferences.

- **ProQuest databases** – combine multiple database together. “Change databases”
  - **NTIS** (ProQuest). Indexes technical research reports.
  - **Aerospace Database**. Journals, conferences, technical reports.
  - **Materials Research Database**
Examples of Databases

• **Web of Science**. Indexes major science journals and selected conferences. Access through standard access points and to **Cited References** (bibliographies, footnotes) published with a scholarly paper.

• **ABI/INFORM**. About half full text. Business and management science. ProQuest

• **Applied Science and Technology**. Scholarly and trade journals

• Many other databases, covering a wide variety of topics, such as **patents**, business & company/industry/product information, all engineering, biology, chemistry, medicine, physics, etc.
• **Inspec and Compendex**: Indexes to individual conference and journal papers (check both boxes)
  - **Inspec** -- physics; electrical engineering and electronics; computers and control; information technology for business; and mechanical and production engineering
  - **Compendex** – All areas of engineering
  - Search both Inspec and Compendex (check both boxes)
  - 20% overlap between Inspec and Compendex

**PaperChem**: Pulp & paper index with chemical emphasis
Fast Searches in *Inspec* and *Compendex*

Browsing for a few papers on a topic

- **Limit By** (Drop down menus)
  - “**Journal article**” (Document Type)
    - Find It @ GT works properly for most journal papers, but seldom works for conference papers
  - “**English**” (Language)
  - **Date** (recent range of years)

- Add synonyms to your search strategy. Check:
  - Title, Abstract, Subject heading fields
  - Thesauri (online)
  - Bibliographies/references and footnotes in similar papers

- Turn **Autostemming** **ON**
Inspec and Compendex (check both boxes)

• **Limit by field**: **Title**, Author, Controlled Term (different online thesaurus terms for Compendex and Inspec), “Subject/Title/Abstract” etc.

• **Proximity operators** *(near/x)*

• **Truncation** (* asterisk)*

• **Search History**. Manipulate previous search statements with Boolean logic operators and keywords.
  
  Example: #5 and ((simulat* or model*) wn TI)
  
  Example: (#1 or #3) not #2

  Open **Word** file and keep track of search **statement numbers**

• **Alerts** and **Save Search** – one line only
Inspec and Compendex (combined)

- **Sort** by date or relevance
- **Remove duplicate** records (approximate 20% overlap)
- Format of **author** names can differ from database to database (initials, full first name, spaces, periods)
- **Subject** headings – **different thesaurus** terms for Inspec and Compendex databases
  
  Each database has its **own thesaurus online**

- Display **100 records** at a time
- For downloading or saving, use **detailed** or **abstract format** (brief format has incomplete information)
- E-mail or Print or Download records to avoid being **timed out**, or **register** (free) to save search lines and records
“Find It @GT will often work properly for “journal” articles but will frequently not work for conference papers, technical reports or patents (even though the Library may own them, either in print or electronically, or both)
"Combine Searches" can also include keywords
Example:  #1 AND #2 AND #3 AND ((Ehrfeld OR Borenstein) wn au)

Save one line at a time (if register). Copy and paste search into Word file
Modern spectral analysis techniques for blood flow velocity and spectral measurement using 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 signals 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 examined. Optimal parameter values (e.g., model orders) were determined for each method, and the effect of noise, 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, providing more accurate and stable measurements.
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: A8760B Sonic 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
• “Find It @ GT” will work for most (but not all) journal articles.
• IEEE Xplore database: IEEE or IEE or IET journal & conference papers 1988 to present; selected papers before 1988. Look in Catalog for print volumes for joint conferences and for before 1988 (standing orders).
<table>
<thead>
<tr>
<th>Accession number</th>
<th>99014521998</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title</td>
<td>Numerical study of an asymmetrical stenosis</td>
</tr>
<tr>
<td>Authors</td>
<td>Jin, Suo; Giddens, Don P.</td>
</tr>
<tr>
<td>Author affiliation</td>
<td>Georgia Inst of Technology and Emory Univ Sch of Medicine, Atlanta, GA, USA</td>
</tr>
<tr>
<td>Source title</td>
<td>American Society of Mechanical Engineers, Bioengineering Division (Publication) BED</td>
</tr>
<tr>
<td>Abbreviated source title</td>
<td>ASME Bioeng Div Publ BED</td>
</tr>
<tr>
<td>Volume</td>
<td>v 39</td>
</tr>
<tr>
<td>Monograph title</td>
<td>Advances in Bioengineering</td>
</tr>
<tr>
<td>Publication year</td>
<td>1998</td>
</tr>
<tr>
<td>Pages</td>
<td>p 63-64</td>
</tr>
<tr>
<td>Language</td>
<td>English</td>
</tr>
<tr>
<td>CODEN</td>
<td>ASMBEP</td>
</tr>
<tr>
<td>Document type</td>
<td>Conference article (CA)</td>
</tr>
<tr>
<td>Conference name</td>
<td>Proceedings of the 1998 ASME International Mechanical Engineering Congress and Expo</td>
</tr>
<tr>
<td>Conference date</td>
<td>Nov 15-20 1998</td>
</tr>
<tr>
<td>Conference location</td>
<td>Anaheim, CA, USA</td>
</tr>
<tr>
<td>Conference code</td>
<td>49454</td>
</tr>
<tr>
<td>Sponsor</td>
<td>ASME</td>
</tr>
<tr>
<td>Publisher</td>
<td>ASME, Fairfield, NJ, USA</td>
</tr>
</tbody>
</table>

Download in **Detailed** or **Abstract** format in order to capture complete bibliographic information (conference series and conference information for that one year).
“Find It GT” works for most (but not all) journals, but often does **not** work for conference proceedings, technical reports, and patents. The Library **owns this conference paper**, even though the “Find It @ GT” does **not** find it.
Technical Research Reports

- **NTIS** (ProQuest) indexes technical reports (federal government sponsored research)
  - Can sort by date. Can limit by date, by field (title, subject etc.). Example: **TI,SU**(model* and simulat*). Combine multiple search lines. Do **NOT** check the box for “Peer reviewed” ProQuest -- use “**ALL**” to search (drop down)

- **Full text availability** Selected full text technical reports
  - Library’s large **microfiche** reports collection
  - **SciTech Connect**: Department of **Energy**. Full text energy technical reports from 1995+ (DE reports in NTIS)
  - **NASA**: Aerospace and aeronautics technical reports. Selected full text. “Advanced Search” - “Availability Type:” Drop down menu “Online Full-Text” (N reports in NTIS)
  - **DTIC**: Department of **Defense** public technical reports. Selected full text (AD or ADA reports in NTIS)
  - **NTRL** provides 10 free document downloads per session, for the U.S. Public NTRL. Selected technical reports can be downloaded immediately in PDF format without charge. Registration is required.

  *Georgia Tech users should use the subscription **NTIS (ProQuest)** database to search for technical reports, instead of NTRL*
Database Search Hints Chart
http://www.prism.gatech.edu/~bw21/chart.htm

- Native databases provide records of publications not available in Primo “Everything”/”Articles” searches (search box on Library home page)
- Native databases such as Engineering Village Compendex/Inspec, ProQuest databases (NTIS, Aerospace, etc.), and Web of Science (biology, chemistry, etc.) provide powerful search software:
  - Complex searches using nested Boolean operators (AND OR NOT)
  - Multiple search statements (Search history, Recent searches). Recombine with statement numbers and keywords
  - Proximity operators, such as NEAR/ # (within # words) or exact quotes (“exact phrase”)
  - Truncation (often *), wildcards
  - Limit to Title, Subject headings fields, Author, etc.
  - Avoid searching full text fields. ProQuest databases – use “ALL”
  - Combine multiple databases together into one search
  - Peer Reviewed or Full Text does not apply to databases with technical reports (NTIS, Aerospace Database, etc.) and other document types
- Most databases have tutorials, often vendor supplied
Search Example:

1. model* OR simulat* OR algorithm*
2. bioengineer* OR biotech* OR ((biolog* or biomed*) and engineer*)
3. micromechan* OR nanoelectron* or (micro mechanism*) or (nano electron*)
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)

(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
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/x, 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.
ABI/INFORM Collection (ProQuest; business and management science)

"Change databases" "Advanced Search"

Recent searches

((entrepreneur*) OR (business near/0 incubators) OR ("startups")) AND (additive near/1 manufacturing)

Publication date: after 1999

Note: Other ProQuest databases do not support "Limit to:" ["Full Text" or "Peer reviewed"]. Both are supported here in ABI/INFORM. Limiting to "Full text" will miss full text records retrieved by "Find IT@GT"

"Source type" -- "Scholarly Journals" & "Trade Journals" (or "Limit to:" "Peer reviewed")

Sort results by: Most recent first

Items per page: 100
Check relevant boxes
Can Email, Print, or Save records
Subjects: Manufacturing processes; Sustainability; Industrial Process Furnace and Oven Manufacturing; Instruments and Related Products Manufacturing for Measuring, Displaying, and Controlling Industrial Process Variables; Methodology – Evaluation; Haapala, Karl; Eastwood, Michael

5. Royal DSM Invests in Sustainable Manufacturing.
Subjects: Gums & resins; Surface coatings; Royal DSM (Company); Paint and Coating Manufacturing; Resin and synthetic rubber manufacturing; Plastics Material and Resin Manufacturing

6. ASTM eyes standard for sustainable manufacturing.
Subjects: ASTM International (Company); Witherell, Paul
Business and Management Research Guides

Industry, Company, and Product Information

• Research Guides: Business & Management; Company information; Georgia & Atlanta Business; Industry Information; International Business
  – See TABS at the top of the screen
    ➢ Company Profiles
    ➢ Industry Profiles
    ➢ Market Share
    ➢ Business Rankings
    ➢ Company directories

➢ Business and management databases
General Databases (all topics)

- **Research Library (ProQuest)**
  - "Advanced Search"
  - Limit records to "Peer reviewed"
  - Limit to “ALL” using the drop down menu (do not search full text fields – “Anywhere except full text” )
  - Limit to **English** language
  - **Sort** by “More Recent First” (date)
  - Can limit by **Date** and change **Items per Page**

- **Academic Search Complete (EBSCO)**

- Approximately half of the “journal” article records will already be **full text**, while full text of the other journal articles may be available by clicking on “**Find It@GT**”