ELECTRONIC RESOURCES FOR MATHEMATICS AT BYU

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1. Finding about articles

   • Search at http://arXiv.org/find/math or http://front.math.davis.edu
   • Also use CiteBase (follow the links from the abstract of an article on arXiv)

1.2. Google. Sometimes plain Google is better, and sometimes Google Scholar is better.

1.3. BYU paid databases. These are usually best accessed directly—not through the library’s search engine.
   • MathSciNet
     – On campus: www.ams.org/mathscinet/search
     – Off Campus: follow links from HBLL math resources or go directly to Here
   • Web O’ Science (Science Citation Index):
     – On Campus: isiknowledge.com
     – Off Campus: follow links from HBLL math resources or go directly to Here

1.4. Other databases.
   • Zentralblatt für Mathematik
   • Subject specific databases:
     – SLAC SPIRES High Energy Physics

2. Accessing electronic articles (full text)

2.1. Instantly available, searchable text.
   • arXiv.org
   • Authors’ personal web pages
   • BYU electronic journals (search under “find books” for the journal title and follow the links)
   • Other collections:
     – JStor.org
     – EMANI: Electronic Mathematical Archiving Network Initiative
     – Numdam: Digitized versions of many older French journals and other sources.
     – Göttingener DigitalisierungsZentrum: Digitized versions of many older German journals and monographs, including classics like Gauss’ Disquisitiones arithmeticae

2.2. Scanned. These are not searchable and are much larger files than the others, but they are still better than paper in many cases.
   • BYU FDDS (via ILL) available at https://illiad.lib.byu.edu/illiad/ The turnaround time is usually 1 day for articles in the HBLL, and about 3 days for inter-library loan. WARNING: For chapters in books and such, be sure to specify that you want it delivered electronically.
   • KEK preprint service. These articles are instantly available, but scanned. Mostly high energy physics, and mostly older preprints.

3. Disseminating your research

• arXiv.org
• Personal web page:

The International Mathematical Union strongly encourages all mathematicians to put copies of all papers on a personal webpage, including scans of older papers when source code is not available.
4. Keeping up to date

4.1. Notification Services.
   - arXiv.org daily subject mailings.
   - Subscribe to notification service for top journals

4.2. Subject specific blogs and newsletters.
   - This Week’s Finds in Mathematical Physics
   - Number Theory Web

4.3. Watch, listen to, or read talks online. Many places have streaming video or sound files to let you watch/hear talks that you couldn’t visit in person.
   - MSRI
   - KITP
   - ICTP (lecture notes only).

4.4. Other ways to stay up to date:
   - Peruse TOC of major journals
   - Attend conferences and workshops

5. Other tools:
   - Online Encyclopedia of Integer Sequences
   - Wikipedia, Planet Math, and MathWorld

An html version of this document can be found at [http://math.byu.edu/~jarvis/ElectronicResources.html](http://math.byu.edu/~jarvis/ElectronicResources.html)