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Mathematics Library News

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1. Mathematics digitization projects at LSU Libraries

LSU Library publishes mathematics through LSU Digital Commons, including:

- [Journal of Stochastic Analysis](#), edited by LSU Professor Hui-Hsiung Kuo, an open-access journal with a world-wide editorial board and equally global range of authors. Indexed by MathSciNet and Scopus.
- [Modern Algebra and Discrete Structures](#), LSU Professor Robert F. Lax’s undergraduate textbook.
- [Seminar on Continuity in Semilattices](#), a collection of memos exchanged among over 25 mathematicians in the United States and Europe, 1976-1986, initiated by LSU Professor Jimmie Lawson. Many results from this correspondence were later published in two monographs, *A Compendium of Continuous Lattices* (1980) and *Continuous Lattices and Domains* (2003).

2. Update your ORCID account

If you want help updating your ORCID record, log into ORCID, then click your name and choose "Trusted parties" from the drop-down menu. Then, scroll down and type in my ORCID - 0000-0002-6944-5833 - into the search bar for searching for trusted individuals, and add me, Aaron Lercher, as a trusted individual.

3. Sage Research Methods

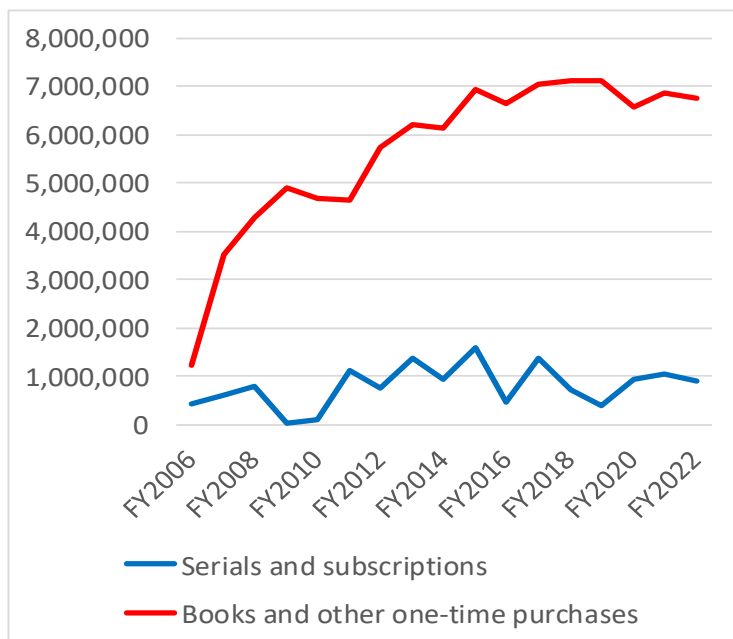
LSU Library acquired access to [Sage Research Methods](#), which digitizes the little green books and much else. My librarian colleague, Andrea Hebert championed this for social science, education, psychology departments.

4. Never-ending journal cost increases

Now for bad news. The chart at right compares LSU Library’s increasing costs for serials subscriptions versus costs for print and ebook and other one-time purchases. Severe cuts to Elsevier subscriptions in 2020 kept costs level temporarily.

Some history: [Mathematics Library News 21](#) (December 2020): Elsevier journal cuts, subscriptions retained to *Advances in Mathematics*, *Journal of Functional Analysis*, and *Journal of Combinatorial Theory, Series B*.

[Mathematics Library News 22](#) (April 2021): Journals cited in LSU-coauthored articles in Web of Science in WoS subjects: Probability and Statistics, Applied Mathematics and Not (Pure) Mathematics, (Pure) Mathematics.



5. Collection processes and practices: Automatic purchases of essential book series

Each fiscal year LSU Library runs out of money for book purchases a few months into that fiscal year. This has resulted in gaps in automatic purchases for essential book series, listed below. So, we are currently waiting for the start of the 2024 fiscal year in July 2023 in order to catch up on books published in 2022. For 2024, automatic purchases will be halted. So, I shall buy books in these series one at a time.

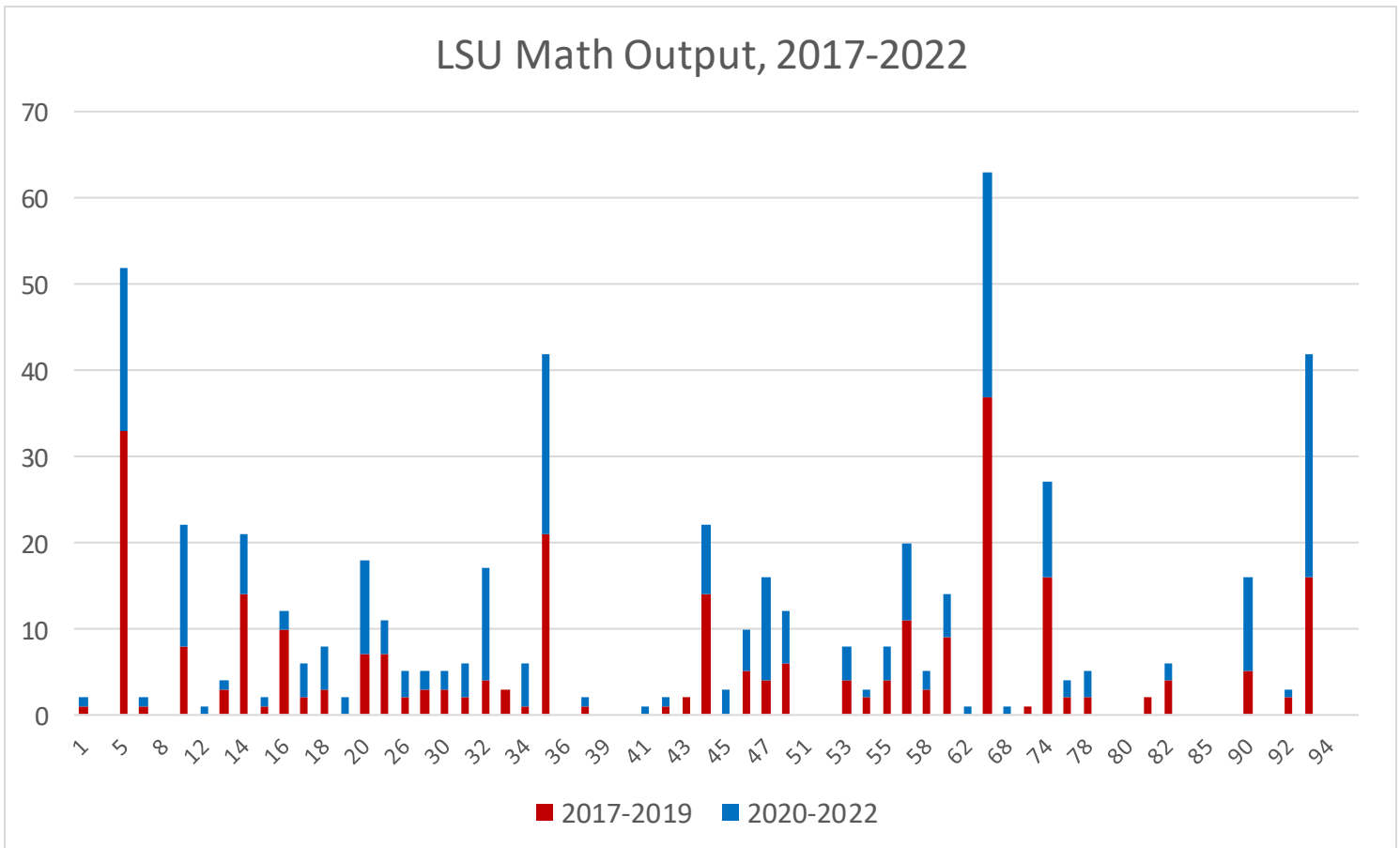
Following a meeting with Oliver Dasbach and Daniel Sage, I shall add the AMS series, Graduate Studies in Mathematics, to the series to be collected.

Purchases of ebook packages, especially the Springer package of 7500+ ebooks (about 450 of which are categorized as Mathematics or Statistics) require a more expensive up-front commitment than purchasing books one at a time. The annual cost for the Springer package has risen to nearly \$200,000. Librarianship research suggests, however, that ebook packages are the most efficient in terms of cost per use (<https://doi.org/10.5860/lrts.59n3.102>). But for comparison, the cost per interlibrary loan request is roughly \$30.

	2019	2020	2021	2022
Graduate Texts in Math (Springer)	4 purchased of 4 published	8 purchased of 8 published	5 purchased of 5 published	0 purchased of 2 published
Lecture Notes in Math (Springer)	20 of 20	26 of 26	19 of 19	0 of 26
Math Surveys and Monographs (AMS)	9 of 9	6 of 6	8 of 14	4 of 7
Colloquium Publications (AMS)	1 of 1	0 of 1	0 of 0	0 of 0
CBMS Regional Conference Series (AMS)	5 of 5	1 of 2	0 of 0	0 of 0
Proceedings in Symp in Applied Math (AMS)	0 of 0	2 of 2	1 of 1	0 of 0
Student Math Library (AMS)	0 of 0	0 of 0	0 of 0	1 of 4
University Lecture Series (AMS)	2 of 2	1 of 2	1 of 2	0 of 0
Wiley Series in Probability and Statistics	7 of 8	3 of 3	3 of 6	1 of 5
SIAM book in all series	13 of 15	3 of 15	2 of 16	2 of 21

6. LSU Mathematics Department Research Output in MathSciNet

Mathematics Subject Classifications in which members of the LSU Mathematics Department publish guide decisions for LSU Library collection development. Any money left in my budget after your requests for purchase, and after the essential series listed the previous page, is allocated roughly according to this research output. Books are purchased in ebook formats when possible.



7. Springer ebook package cost-per-use and other LSU Library usage data

In 2020, the onset of the Covid-19 pandemic, deep cuts to Elsevier journal subscriptions, and a major change in the data standard for usage data all roughly coincided, making it difficult to interpret usage data. Moreover, LSU Library was forced to delay purchase of the 2021 Springer package until late 2022, and has not yet purchased the 2022 Springer package. Yet there has been substantial usage of ebooks in the 2022 package. (I hypothesize that this 2022 usage consists of direct-to-consumer sales.)

Usage statistics count “unique title requests” in which multiple downloads of several chapters in a single title in a single session are counted as one use. “Controlled” access is not open access. “Controlled” access can be by any way of paying at the point of access by a reader.

The new Counter 5 data standard generally meant an increase in search counts, a decrease in journal usage counts, and a sharp decrease in ebook usage counts in comparison to the earlier Counter 4 data standard.

<https://www.projectcounter.org/>

Table 1: SpringerNature Controlled Unique Title Requests of Ebooks by Publication Year

	2019 unique title requests, controlled	2020 unique title requests, controlled	2021 unique title requests, controlled	2022 unique title requests, controlled
2019 publication year \$165,677	64 requests 49 titles	1847 requests 1133 titles	2163 requests 1272 titles	3374 requests 1096 titles
2020 publication year \$173,961	13 requests 7 titles	108 requests 58 titles	1603 requests 1046 titles	2497 requests 1230 titles
2021 publication year \$182,659	1 request 1 title	1 request 1 title	130 requests 98 titles	492 requests 370 titles
2022 publication year \$190,000?	0 requests 0 titles	0 requests 0 titles	16 requests 10 titles	1719 requests 1056 titles

Table 2: Cumulative Cost per Use of SpringerNature Ebooks by Publication Year

	2019 unique title requests, controlled	2020 unique title requests, controlled	2021 unique title requests, controlled	2022 unique title requests, controlled
2019 publication year \$165,677	\$2589 CPU	\$86.7 CPU	\$40.7 CPU	\$22.2 CPU
2020 publication year \$173,961	\$13,382 CPU	\$1437.7 CPU	\$100.9 CPU	\$58.9 CPU
2021 publication year \$182,659			\$1383.8 CPU	\$292.7 CPU
2022 publication year \$190,000?			\$11,875 CPU?	\$109.5 CPU?

Table 3: Cumulative Share of Titles in Collection Used at Least Once for SpringerNature Ebooks by Copyright Year, 2013-2017, either Controlled or OA Gold

	Year of Use 2013	Year of Use 2014	Year of Use 2015	Year of Use 2016	Year of Use 2017
2013 copyright 6051 ebooks	24.9%	35.9%	43.9%	48.6%	52.7%
2014 copyright 6588 ebooks		17%	30.2%	37.2%	42.7%
2015 copyright 6843 ebooks			16.5%	25.9%	32.6%
2016 copyright 7346 ebooks				16.6%	39.9%
2017 copyright 7309 ebooks					18.4%

Table 4: Cumulative Share of Titles in Collection Used at Least Once for SpringerNature Ebooks by Copyright Year, 2019-2022, either Controlled or OA Gold Usage

	2019 cumulative titles used	2020 cumulative titles used	2021 cumulative titles used	2022 cumulative titles used
2019 copyright 7269 ebooks \$165,677	0.4%	15.3%	26.1%	33.6%
2020 copyright 8053 ebooks \$173,961	1.3%	3.0%	16.8%	27.7%
2021 copyright 7433 ebooks \$182,659	0%	0%	1.0%	5.4%
2022 copyright 7563 ebooks \$190,000?	0%	0%	0.1%	11.3%

Table 5: Total LSU Library database searches, electronic journals “unique item requests,” and ebook “unique title requests.”

Note that search counts increased with the new Counter 5 data standard in 2020. But journal and ebook usage decreased with the new Counter 5 data standard.

	2019	2020	2021	2022
Regular searches	1,459,079	2,836,790	2,321,524	2,087,567
Ebook unique title requests, controlled	537,068	137,497	84,088	133,773
Journal unique item requests, both controlled and not	1,784,515	1,327,572	1,439,366	1,537,713