

On Becoming an Expert...

Rutger de Jong, Subject Librarian Science | BSc MI

05-02-2020



**Universiteit
Leiden**
The Netherlands

Discover the world at Leiden University

Program

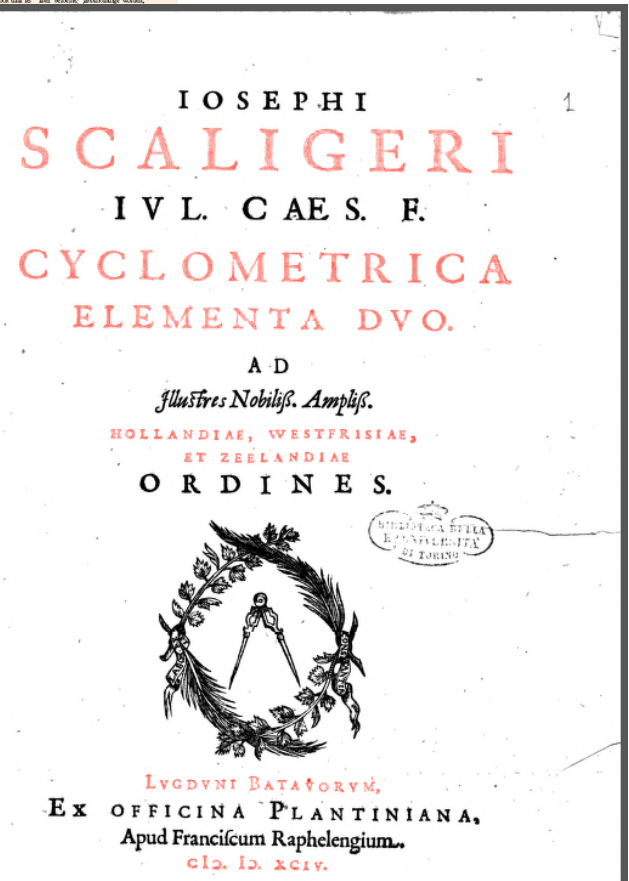
- Introduction
- Scholarly communication
- Searching information in 5 steps
- Referencing



The University Library by Numbers

- Over 7 locations, desks in Jakarta and Rabat
- 120 fte
- Circa 2 million ebooks
- Over 5 million printed books
- Over 40.000 e-journals
- Over 600 databases
- Large collection of historically important materials

Scaliger, J., Raphelengius, Franciscus, & Plantiniana, officina. (1594). Iosephi Scaligeri Ivl. Cæs. f. Cyclometrica elementa dvo : Ad illustres nobiliss, ampliss. Hollandiae, Westfrisiae, et Zeelandiae ordines. Lvgdvni Batavorvm: Ex officina Plantiniana, apud Franciscum Raphelengium.



Science & communication

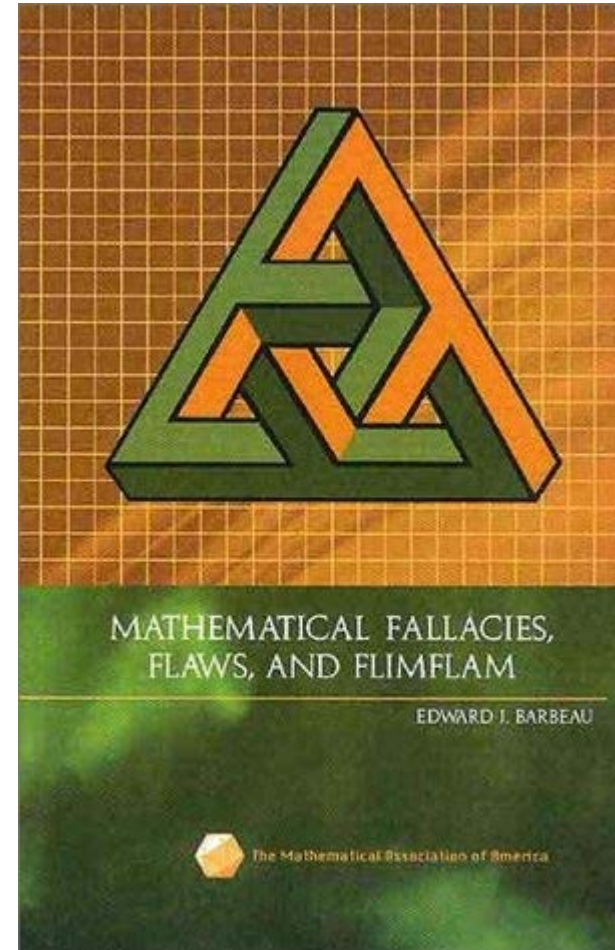
Non-scientific

- Magazines: popular/trade (Plus Magazine, Mathematics Magazine)
- Websites
- Encyclopedia
- Books

Scientific

- Conference proceedings
- Journal articles (peer-reviewed)
- Books
- Datasets

Wikipedia?



Is any source good for Science?

Why (not) Wikipedia?

Use Wikipedia for:

- General knowledge
- Getting ideas for search terms
- Pointers to relevant literature

Not for:

- Scientific reference

Also of interest:

<https://www.encyclopediaofmath.org>

The screenshot shows the Wikipedia page for 'Wikipedia:WikiProject Mathematics'. At the top, it says 'Project page' with tabs for 'Talk', 'Read', 'Edit', and 'View history'. A search bar is on the right. The main heading is 'Wikipedia:WikiProject Mathematics' with the subtext 'From Wikipedia, the free encyclopedia'. Below this is a table with two columns. The left column contains the text 'Elementgermanium (T C)' and 'D.Lazard (T C)'. The right column contains the text 'Anything math-related except calculus, geometry and advanced algebra.' and 'Emeritus professor in mathematics and computer science'. A text box is overlaid on the right side of the table, containing the text: 'I am 9, i am in 6th grade because i skipped 2 grades due to my math skills. Awesome at math, especially in inventing names for HUGE numbers. ever heard of the googolunvigintilplex? i invented the name! someone might have come up with it before me but i thought of it on my own.' Below the table, there are 'Tools' links: 'What links here', 'Related changes', 'Upload file', and 'Special pages'. At the bottom, there are links for 'Download as PDF', 'Printable version', 'Some issues to think about', and 'Conventions'. On the right side, there is a section for 'The tesseract, the four-dimensional analog of the cube.' with a link to 'see an animated version, click here.' and a 'Resources' section with a link to 'Mathematics portal'.

Anyone can edit!

How Publishing Works

I send in my paper and then...

Journal	First decision submission to first decision in weeks	Review speed submission to final decision in weeks	First online acceptance to citable online in weeks
Applied and Computational Harmonic Analysis ↗	15.70	20.83	1.02
Applied Mathematical Modelling ↗	25.30	33.15	2.73
Applied Mathematics and Computation ↗	28.08	30.86	4.42
Applied Mathematics Letters ↗	1.30	1.59	1.95
Applied Numerical Mathematics ↗	20.62	29.27	4.57
Computational Statistics and Data Analysis ↗	9.34	14.35	1.69
Computers and Mathematics with Applications ↗	6.06	7.83	3.74
Differential Geometry and its Applications ↗	16.09	17.70	3.26
Discrete Applied Mathematics ↗	25.32	32.67	3.58
Discrete Optimization ↗	14.35	26.19	3.88
Finite Fields and Their Applications ↗	15.55	21.62	4.96

Reasons for Delay: Peer Review

THE ROYAL SOCIETY PUBLISHING | All Journals v | Brought to you by LACDR | Sign in | Search

Home | Content v | Information for v | About us v | Sign up v | Submit

ROYAL SOCIETY OPEN SCIENCE

Open Access | Check for updates | View PDF | Tools | Share | Cite this article v | Section | Abstract | 1. Introduction | 2. Methods

Research article

Not Normal: the uncertainties of scientific measurements

David C. Bailey

Published: 01 January 2017 | <https://doi.org/10.1098/rsos.160600> | Review history

Abstract

Judging the significance and reproducibility of quantitative research requires a good understanding of relevant uncertainties, but it is often unclear how well these have been evaluated and what they imply. Reported scientific uncertainties were studied by analysing 41000 measurements of 3200 quantities from medicine, nuclear and particle

This Issue

ROYAL SOCIETY OPEN SCIENCE

1 January 2017
Volume 4, Issue 1

Review form: Reviewer 2

Is the manuscript scientifically sound in its present form?

Yes

Are the interpretations and conclusions justified by the results?

Yes

Is the language acceptable?

Yes

Is it clear how to access all supporting data?

It is clear.

Do you have any ethical concerns with this paper?

No

Have you any concerns about statistical analyses in this paper?

I do not feel qualified to assess the statistics

Recommendation?

Accept as is

Comments to the Author(s)

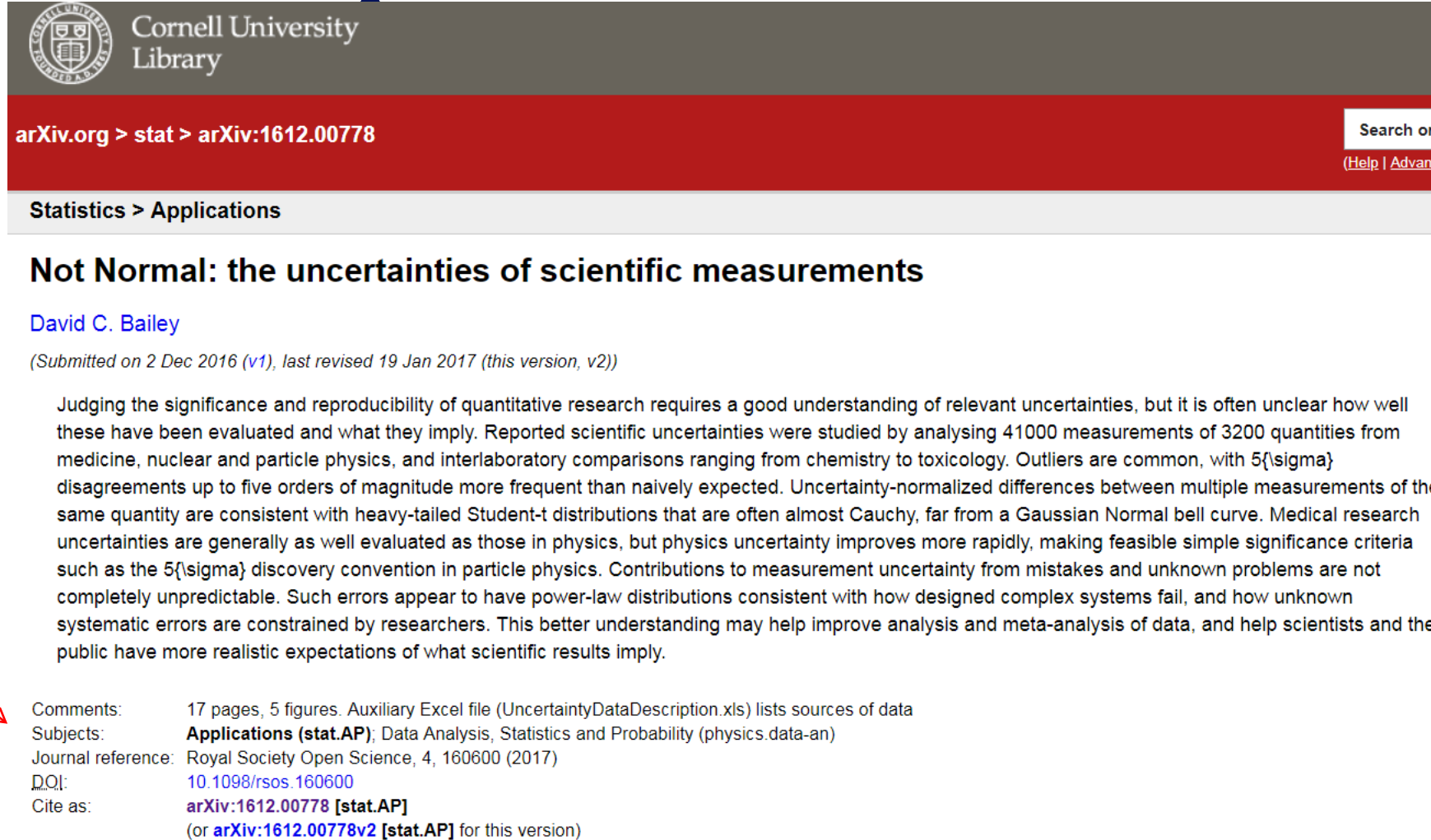
Having read and re-read the manuscript I am unable to find fault with this it. The results are clear and fairly presented. The writing is solid, for the most part, concise.

I have not checked the calculations in section (d) of the discussion and section (e) comes across a bit speculative (or at least the connection is not made a concrete as this reviewer my like), but these are minor concerns.

I Just Can't Wait: Preprints

www.Arxiv.org

- Rough author's version
 - Pre-print: before peer-review
 - Post-print: after peer-review
- Follow trends
- Receive comments to incorporate in final manuscript
- Should mention if accepted/published
- If we do not have a subscription to an article, this will be a place to find a readable version



Cornell University Library

arXiv.org > stat > arXiv:1612.00778

Search on (Help | Advan

Statistics > Applications

Not Normal: the uncertainties of scientific measurements

David C. Bailey

(Submitted on 2 Dec 2016 (v1), last revised 19 Jan 2017 (this version, v2))

Judging the significance and reproducibility of quantitative research requires a good understanding of relevant uncertainties, but it is often unclear how well these have been evaluated and what they imply. Reported scientific uncertainties were studied by analysing 41000 measurements of 3200 quantities from medicine, nuclear and particle physics, and interlaboratory comparisons ranging from chemistry to toxicology. Outliers are common, with 5σ disagreements up to five orders of magnitude more frequent than naively expected. Uncertainty-normalized differences between multiple measurements of the same quantity are consistent with heavy-tailed Student-t distributions that are often almost Cauchy, far from a Gaussian Normal bell curve. Medical research uncertainties are generally as well evaluated as those in physics, but physics uncertainty improves more rapidly, making feasible simple significance criteria such as the 5σ discovery convention in particle physics. Contributions to measurement uncertainty from mistakes and unknown problems are not completely unpredictable. Such errors appear to have power-law distributions consistent with how designed complex systems fail, and how unknown systematic errors are constrained by researchers. This better understanding may help improve analysis and meta-analysis of data, and help scientists and the public have more realistic expectations of what scientific results imply.

Comments: 17 pages, 5 figures. Auxiliary Excel file (UncertaintyDataDescription.xls) lists sources of data

Subjects: **Applications (stat.AP)**; Data Analysis, Statistics and Probability (physics.data-an)

Journal reference: Royal Society Open Science, 4, 160600 (2017)

DOI: [10.1098/rsos.160600](https://doi.org/10.1098/rsos.160600)

Cite as: **arXiv:1612.00778 [stat.AP]**
(or **arXiv:1612.00778v2 [stat.AP]** for this version)

Once I Get Published: Findability

- It may take >2 months before it appears in databases such as Web of Science or Google Scholar
- Send press releases, update profile
- Databases add value
 - Provide keywords
 - Classify in research field
 - Quality control (journal level)
 - Indexes references and citations
 - Add reviews (in mathematics)

Not Normal: the uncertainties of scientific measurements

By: Bailey, DC (Bailey, David C.)^[1]

ROYAL SOCIETY OPEN SCIENCE

Volume: 4 Issue: 1

Article Number: 160600

DOI: 10.1098/rsos.160600

Published: JAN 2017

[View Journal Impact](#)

Abstract

Judging the significance and reproducibility of quantitative research requires a good understanding of relevant uncertainties, but it is often unclear how well these have been evaluated and what they imply. Reported scientific uncertainties were studied by analysing 41 000 measurements of 3200 quantities from medicine, nuclear and particle physics, and interlaboratory comparisons ranging from chemistry to toxicology. Outliers are common, with 5s disagreements up to five orders of magnitude more frequent than naively expected. Uncertainty-normalized differences between multiple measurements of the same quantity are consistent with heavy-tailed Student's t-distributions that are often almost Cauchy, far from a Gaussian Normal bell curve. Medical research uncertainties are generally as well evaluated as those in physics, but physics uncertainty improves more rapidly, making feasible simple significance criteria such as the 5s discovery convention in particle physics. Contributions to measurement uncertainty from mistakes and unknown problems are not completely unpredictable. Such errors appear to have power-law distributions consistent with how designed complex systems fail, and how unknown systematic errors are constrained by researchers. This better understanding may help improve analysis and meta-analysis of data, and help scientists and the public have more realistic expectations of what scientific results imply.

Keywords

Author Keywords: measurement uncertainty; research reproducibility; systematic errors; complex systems; meta-analysis; metrology

KeyWords Plus: POWER-LAW; AVOGADRO CONSTANT; PARTICLE PHYSICS; MOLAR VOLUME; DISTRIBUTIONS; ERROR; STATISTICS; SYSTEMS; REPRODUCIBILITY; STANDARDS

Citation Network

In Web of Science Core Collection

2

Times Cited

[Create Citation Alert](#)

All Times Cited Counts

2 in All Databases

[See more counts](#)

103

Cited References

[View Related Records](#)

Most recently cited by:

Camarillo, Tia; Mathur, Varun; Mitchell, Tyler, et al
Median Statistics Estimate of the Distance to the Galactic Center
PUBLICATIONS OF THE
ASTRONOMICAL SOCIETY OF THE

[Home](#) [Preferences](#) [Free Tools](#) [Help](#) [Support Mail](#) [Terms of Use](#) [Blog](#)

AMERICAN MATHEMATICAL SOCIETY
MathSciNet
Mathematical Reviews

ISSN 2167-5163

University of Leiden



[Previous](#) [Up](#) [Next](#)

Select alternative format ▾

Publications results for "Items authored by Bailey, David C."

MR3621394 Indexed

Bailey, David C.(3-TRNT-P)

Not normal: the uncertainties of scientific measurements. (English summary)

R. Soc. Open Sci. 4 (2017), no. 1, January, 160600, 19 pp.

62A99

[Review PDF](#) | [Clipboard](#) | [Journal](#) | [Article](#) | [Make Link](#)

Citations

From References: 0

From Reviews: 0

[Previous](#) [Up](#) [Next](#)

AMS
AMERICAN
MATHEMATICAL
SOCIETY

© Copyright 2018, American Mathematical Society
[Privacy Statement](#)

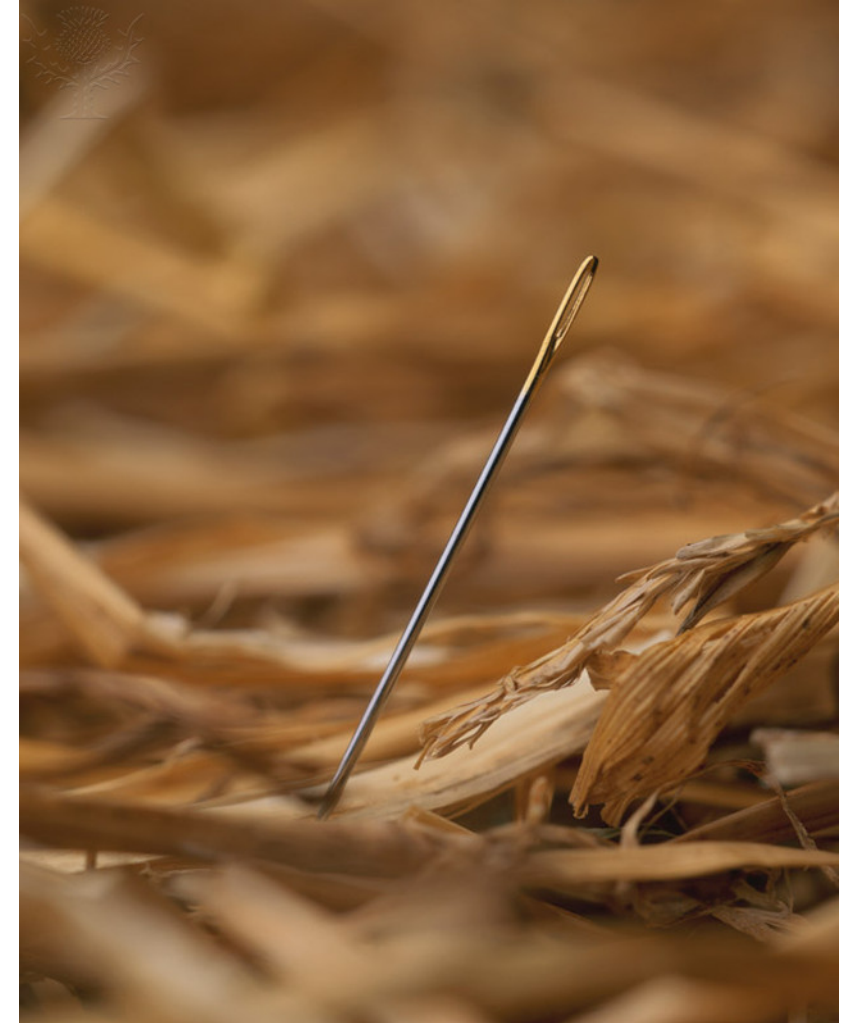
Why Did My Publication Get Through QC

Criteria	
Intended audience	Scientists
Objectivity	Yes
Author and affiliation	Expert in the field
Recent publication	Yes
Publisher / Journal	Academic / high impact
References	Yes
Peer-reviewed	Yes
Primary or secondary research	First hand (p)

These criteria help you recognize scholarly articles/ and books

Finding information in 5 steps

- What information do I need?
- What information resources are available?
- How do I build a solid search strategy?
- How do I evaluate the results?
- How do I use the information in my research?



REX A.BUTCHER / SEBUN PHOTO / amanaimages / Universal Images Group


Step 1: Information Needs

- Do a broad search to get acquainted with the topic
- Decide what material is appropriate:
 - Books
 - Journal articles
 - Data

18.

“If we all go for the blonde and block each other, not a single one of us is going to get her. So then we go for her friends, but they will all give us the cold shoulder because no one likes to be second choice. But what if none of us goes for the blonde? We won't get in each other's way and we won't insult the other girls. It's the only way to win. It's the only way we all get laid.”

Identify the famous mathematician who describes one of the most revolutionary mathematical principles in the above speech. He's the subject of a very famous Hollywood movie released back in 2001.



Nash equilibria

Step 2: Information Resources

UB Catalogue (books, databases)

Mathematical databases

MathSciNet
ZentralBlatt MATH

Project Euclid

When: looking for
mathematical publications

Scientific databases

Arxiv.org (pre-print physics,
mathematics and computer
sciences)

Eric (education)

Google Scholar (general)

Web of Science (general)

When: looking for articles
on mathematics and its
applications

Collections/vendors

ACM

AMS

Ebsco

IEEE Computer Society

Digital Library

SIAM

SpringerLink e-books

Turpion

Wiley

Etc.

When: looking for a specific
book/book collection

Step 2: Information Resources

- Use the [Catalogue](#) as starting point
- Always 'Sign In' with ULCN account
- Books: 'Leiden Collections'
- Find Databases (Web of Science, Google Scholar, etc.)
- Find e-Journals
- Do the [Catalogue Tutorial](#) to get started

The screenshot shows the library website for Universiteit Leiden. At the top, there is a navigation bar with links for 'University', 'Current students', 'Alumni', and 'Staff members'. Below this is a search bar with a dropdown menu set to 'All' and a search icon. The main navigation bar includes 'Using the Library', 'Search tools', 'Training', 'Research & publishing', 'Special Collections', 'About us', and 'Support us'. The 'Search tools' section is highlighted, showing a list of options: 'The Catalogue', 'Databases', 'Digital Special Collections', 'Leiden Repository', 'Google Scholar', 'Web of Science', and 'WorldCat & Picarta'. A large banner image shows a magnifying glass over a keyboard. To the right, there is a 'Search the Library' box with a search input field and a 'My Library account' button. Below the banner, a 'Search tools' section explains that the library is a portal to scientific information and lists available tools like catalogues, bibliographies, and databases. It also mentions subject guides. At the bottom of the search tools section, there are logos for 'articles', 'WEB OF SCIENCE', and 'WorldCat'.

The screenshot shows the main navigation bar and search bar of the library website. The navigation bar includes the Universiteit Leiden logo, the word 'Catalogue', and several menu items: 'NEW SEARCH', 'FIND DATABASES', 'FIND E-JOURNALS', 'LIBRARY HOME', 'ACQUISITIONS', 'ASK A LIBRARIAN', and a three-dot menu. There are also 'Sign in' and 'Menu' buttons. Below the navigation bar is a large search bar with the placeholder text 'Search...'. To the right of the search bar is a dropdown menu set to 'All Content' and a search icon. Further right is the text 'ADVANCED SEARCH'. At the bottom right, there is a link for 'SEARCH OTHER LIBRARIES'.

Step 2: Catalogue

<http://catalogue.leidenuniv.nl>

Step 2: Information Resources - Books

- Snellius: always use the lending form
- Fill in:
 - Student number
 - Barcode
 - Spine/body number (MSC + book number)
 - Etc.



Leiden University Mathematics and Natural Sciences Libraries

Barcode (inside front cover):	Lent to:
Subject heading & booknr. (spine of the book):	Page nr. LU-card, Choose s / m / g
Author:	8 figures: No library pass or student card? Please fill in ↓ (Working)address & phone number:
Title:
Volume/year:.....

The undersigned declares to have borrowed the abovementioned book on .. / .. / 20 ..
for the duration of **21 days**, under the conditions for borrowing as stated by the Leiden University Libraries.

Signature:

<http://www.library.leiden.edu/mathematics-natural-sciences>
<http://bibliotheek.leidenuniv.nl/wiskunde-natuurwetenschappen/>

071 - 5274366 / 4367
science@library.leidenuniv.nl

2003
Universiteit Leiden
1 481 457 3
EK
LABORATORIA
DEN
7 43 66 / 67

Peculiarities of Mathematical Databases

	MathSciNet	Web of Science
Review	Usually a comment or short abstract of the publication	Overview of current research on a specific research subject. In mathematics look for books to get more similar content.
Classification	Mathematical Subject Classification	Broad subject areas such as statistics or applied mathematics
Impact	MCQ – based upon citations from mathematical journals only	Impact Factor – based upon all citations. For example also from applied fields such as chemistry.
Material	Many books, check catalogue as well as GetIt@Leiden	Mostly points to papers
Language	English, French, German, etc.	Abstract and title usually translated to English!

Mathematical Databases - MSC

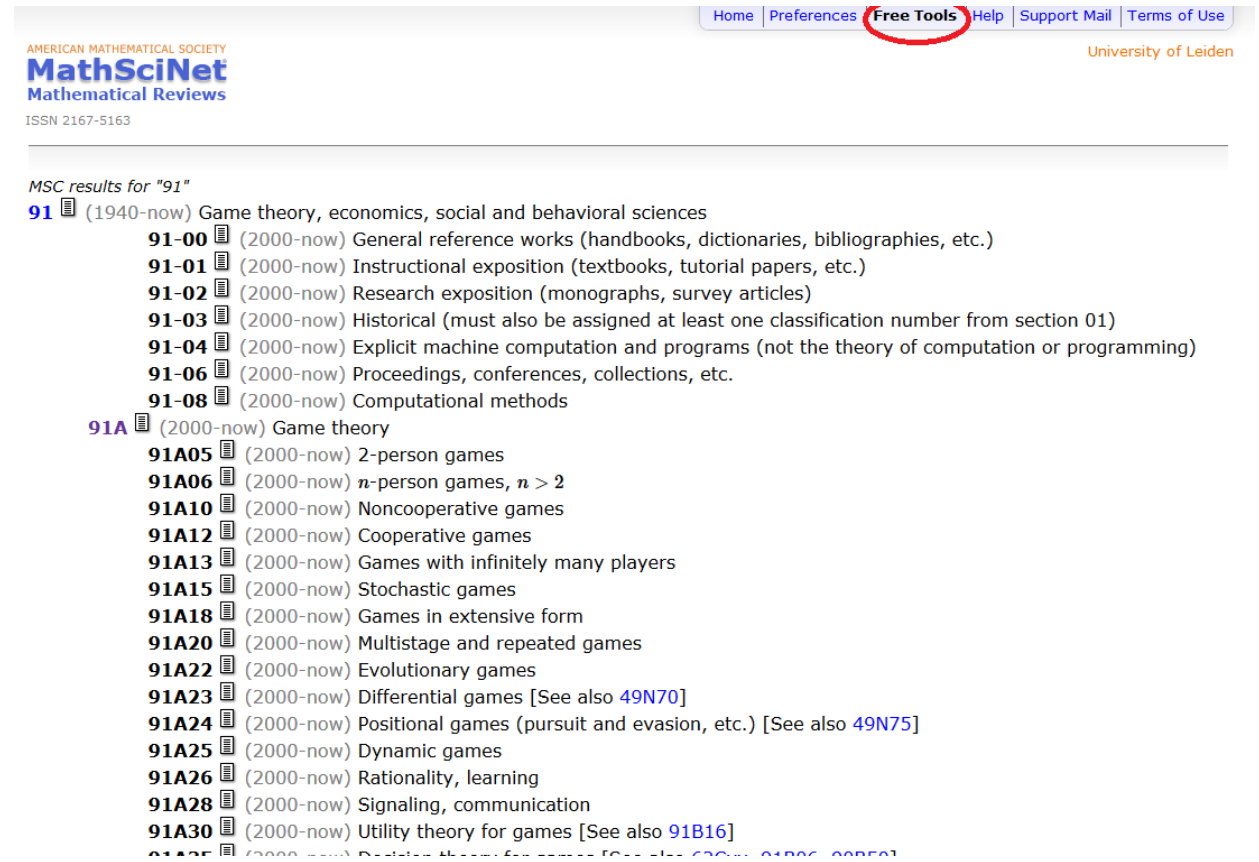
MSC: Mathematics Subject Classification

Classification in MathSciNet, Zentralblatt MATH, Arxiv and Snellius library!

- MathSciNet: Free Tools
- <http://www.ams.org/msc>

Tips:

- Use hierarchy
- Check the date!



The screenshot shows the MathSciNet website interface. At the top, there is a navigation bar with links for Home, Preferences, Free Tools (highlighted with a red circle), Help, Support Mail, and Terms of Use. The MathSciNet logo and "Mathematical Reviews" text are visible, along with the ISSN 2167-5163. The main content area displays the MSC results for "91", starting with "91 (1940-now) Game theory, economics, social and behavioral sciences". Below this, a list of sub-classifications is shown, including "91-00" through "91-08" and "91A" through "91A30". Each entry includes a brief description and a date range in parentheses.

AMERICAN MATHEMATICAL SOCIETY
MathSciNet
Mathematical Reviews
ISSN 2167-5163

Home | Preferences | **Free Tools** | Help | Support Mail | Terms of Use
University of Leiden

MSC results for "91"

91 (1940-now) Game theory, economics, social and behavioral sciences

- 91-00** (2000-now) General reference works (handbooks, dictionaries, bibliographies, etc.)
- 91-01** (2000-now) Instructional exposition (textbooks, tutorial papers, etc.)
- 91-02** (2000-now) Research exposition (monographs, survey articles)
- 91-03** (2000-now) Historical (must also be assigned at least one classification number from section 01)
- 91-04** (2000-now) Explicit machine computation and programs (not the theory of computation or programming)
- 91-06** (2000-now) Proceedings, conferences, collections, etc.
- 91-08** (2000-now) Computational methods

91A (2000-now) Game theory

- 91A05** (2000-now) 2-person games
- 91A06** (2000-now) n -person games, $n > 2$
- 91A10** (2000-now) Noncooperative games
- 91A12** (2000-now) Cooperative games
- 91A13** (2000-now) Games with infinitely many players
- 91A15** (2000-now) Stochastic games
- 91A18** (2000-now) Games in extensive form
- 91A20** (2000-now) Multistage and repeated games
- 91A22** (2000-now) Evolutionary games
- 91A23** (2000-now) Differential games [See also 49N70]
- 91A24** (2000-now) Positional games (pursuit and evasion, etc.) [See also 49N75]
- 91A25** (2000-now) Dynamic games
- 91A26** (2000-now) Rationality, learning
- 91A28** (2000-now) Signaling, communication
- 91A30** (2000-now) Utility theory for games [See also 91B16]

Not Found => Check Catalogue



Select alternative format

Publications results for "MR Number=(2464053)"

MR2464053 (2009k:51001) Reviewed

Haga, Kazuo(J-TSUKS)

Origamics.

Mathematical explorations through paper folding. Edited and translated by Josefina C. Fonacier and Masami Isoda. *World Scientific Publishing Co. Pte. Ltd., Hackensack, NJ*, 2008. xviii+134 pp. ISBN: 978-981-283-490-4; 981-283-490-7

51-01 (52-01) [Review PDF](#) | [Clipboard](#) | [Series](#) | [Book](#) | [Make Link](#)

Kazuo Haga, a retired professor of biology from the University of Tsukuba, Japan, might seem an unlikely person to become an internationally-known advocate for discovery-based geometry education via origami (paper folding). Yet for several decades Haga has been preaching the virtues of paper folding as a mathematical laboratory from which the process of experimentation, conjecture, and proof can be taught to students of all levels. *Origamics* is the first book-length translation of his work to appear in English. (The only other effort is his article [in *Origami*³ (*Asilomar, CA*, 2001), 307–328, A K Peters, Natick, MA, 2002; see [MR1955754](#)].)

Haga's approach is to focus on intrinsic properties of folding paper to discover surprisingly original results that are so simple that they could be discovered by middle- or high-school students. Such examples of paper folding that produce geometric insight (instead of producing animals) are what Haga refers to as "origamics". For example:

Citations
From References: 1
From Reviews: 0

Related
Fonacier, Josefina C.
Isoda, Masami

Get it @Leiden

Searching eBook Collection (EBSCOhost) | Choose Databases

AN 521237

Basic Search | Advanced Search | Search History

Detailed Record

PDF Full Text

Download

Related Information

Table of Contents

Find Similar Results using SmartText Searching

Result List Refine Search 1 of 1

Origamics: Mathematical Explorations Through Paper Folding

Authors: Haga, Kazuo; Fonacier, Josefina; Isoda, Masami

Publication Information: Singapore : World Scientific: 2008

Resource Type: eBook

Description: The art of origami, or paper folding, is carried out using a square piece of paper to obtain attractive figures of animals, flowers or other familiar figures. It is easy to see that origami has links with geometry. Creases and edges represent lines, intersecting creases and edges make angles, while the intersections themselves represent points. Because of its manipulative and experiential nature, origami could become an effective context for the learning and teaching of geometry. In this unique and original book, origami is an object of mathematical exploration. The activities in this book differ from ordinary origami in that no figures of objects result. Rather, they lead the reader to study the effects of the folding and seek patterns. The

World Scientific Connecting Great Minds

Search Citation DOI / ISSN / ISBN Advanced Search

Home Books Journals Resources About Us Publish with Us Open Access

Home > All Publications > All Books > Origamics

All Subjects > Mathematics

This Book

ORIGAMICS

52pp Sep 2008

ISBN: 978-981-283-489-8 (hardcover) **GBP61.00** [Buy Now](#)

ISBN: 978-981-283-490-4 (softcover) **GBP36.00** [Buy Now](#)

ISBN: 978-981-4469-84-5 (ebook) **GBP28.00** [Buy Now](#)

Origamics
Mathematical Explorations Through Paper Folding
By (author): **Kazuo Haga** (University of Tsukuba, Japan)
Edited by: **Josefina C Fonacier** (University of Philippines, Philippines), **Masami Isoda** (University of Tsukuba, Japan)

About This Book | E-Book | Reviews | Supplementary

The art of origami, or paper folding, is carried out using a square piece of paper to obtain attractive figures of animals, flowers or other familiar figures. It is easy to see that origami has links with geometry. Creases and edges represent lines, intersecting creases and edges make angles, while the intersections themselves represent points. Because of its manipulative and experiential nature, origami could become an effective context for the learning and teaching of geometry.

In this unique and original book, origami is an object of mathematical exploration. The activities in this book differ from ordinary

About Contact General Help FAQ Reviewer Service Subscription Preferences Remote

zbMATH Documents Authors Journals Classification Software Formules

Structured Search

"Origamics mathematical explorations through paper folding" Fields Operators Help

The square as reference point is replaced by a square whose side, and height in comparison to the side are pronounced. Figure 20 presents foldings such that a rectangular sheet of paper (here again an A4 paper) is divided (only by folding! without ruler or anything else) into a grid of horizontally and vertically equal number of parts, not only in 2, 4, 8, ... parts, but also in 3, 7, ..., 11, ..., 17 parts. Summarizing this, an exciting and surprising book is presented, quite different from classical geometry. The readers are invited by the author (as he did with his students) to be explorers for new experiments (and the referee invites the reader to find some of the several misprints). The book is highly recommended to mathematics teachers to give them an alternative approach to high school geometry and (from the introduction) "provoking more enthusiasm for mathematics study".

Reviewer: Gertraud Ehrig (Berlin)

MSC:

- 51M15 Geometric constructions
- 51M04 Elementary problems in Euclidean geometries
- 51-01 Textbooks (geometry)
- 00A08 Mathematical recreation
- 97A20 Recreational mathematics, games (education)

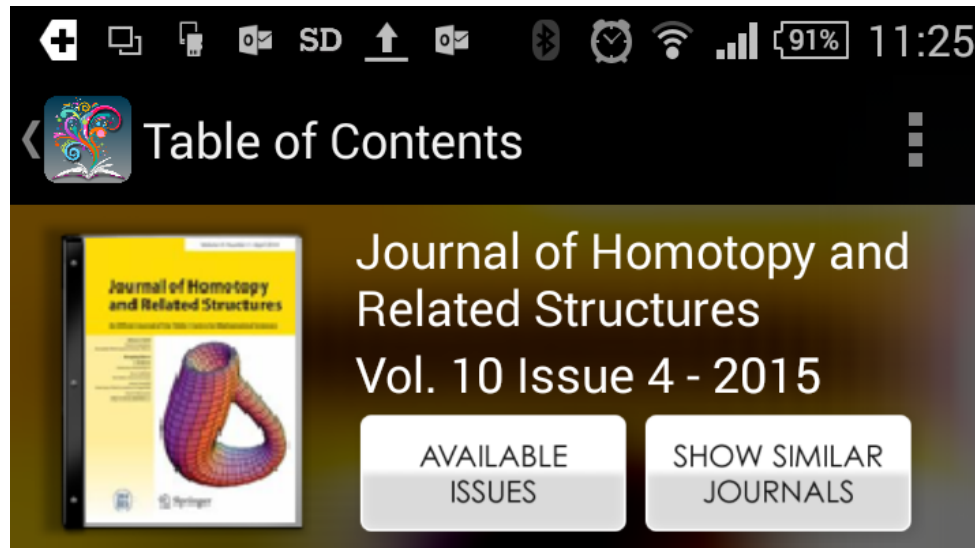
Keywords:
Pythagorean triangle

[PDF](#) [BibTeX](#) [JML](#) [Cite](#)

Get it @Leiden

Step 2: Information Resources - Journals

Keep up with the latest trends on your topic by following specific journals.
 Download Browzine on iOS or Android, login with your ULCN-account.

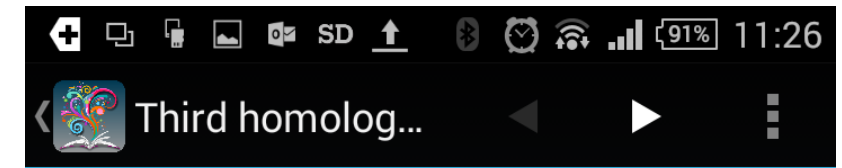


Third homology of
 SL_2 and the indecomposable
 K_3

pp. 673



Mirzaii, Behrooz



J. Homotopy Relat. Struct. (2015) 10:673–683
 DOI 10.1007/s40062-014-0080-9



Third homology of SL_2 and the indecomposable K_3

Behrooz Mirzaii

Received: 18 February 2014 / Accepted: 8 April 2014 / Published online: 25 April 2014
 © Tbilisi Centre for Mathematical Sciences 2014

Abstract It is known that, for an infinite field F , the indecomposable part of $K_3(F)$ and the third homology of $\mathrm{SL}_2(F)$ are closely related. In fact, there is a canonical map $\alpha : H_3(\mathrm{SL}_2(F), \mathbb{Z})_{F^*} \rightarrow K_3(F)^{\mathrm{ind}}$. Suslin has raised the question: Is α an isomorphism? Recently Hutchinson and Tao have shown that this map is surjective. In this article, we show that α is bijective if and only if the natural maps $H_3(\mathrm{GL}_2(F), \mathbb{Z}) \rightarrow H_3(\mathrm{GL}_3(F), \mathbb{Z})$ and $H_3(\mathrm{SL}_2(F), \mathbb{Z})_{F^*} \rightarrow H_3(\mathrm{GL}_2(F), \mathbb{Z})$ are injective.

1 Introduction

For an infinite field F , Suslin has proved that the Hurewicz homomorphism

$$h_3 : K_3(F) = \pi_3(\mathrm{BSL}(F)^+) \longrightarrow H_3(\mathrm{BSL}(F)^+, \mathbb{Z}) \simeq H_3(\mathrm{SL}(F), \mathbb{Z})$$

is surjective with 2-torsion kernel. In fact, he has shown that h_3 sits in the exact sequence

$$K_2(F) \xrightarrow{I(-1)} K_3(F) \longrightarrow H_3(\mathrm{SL}(F), \mathbb{Z}) \longrightarrow 0,$$

where the homomorphism $I(-1) : K_2(F) \rightarrow K_3(F)$ coincides with multiplication by $I(-1) \in K_1(\mathbb{Z})$ [10, Lemma 5.2, Corollary 5.2]. Let

Communicated by Hvedri Inassaridze.

B. Mirzaii (✉)

Step 3: Search Strategy

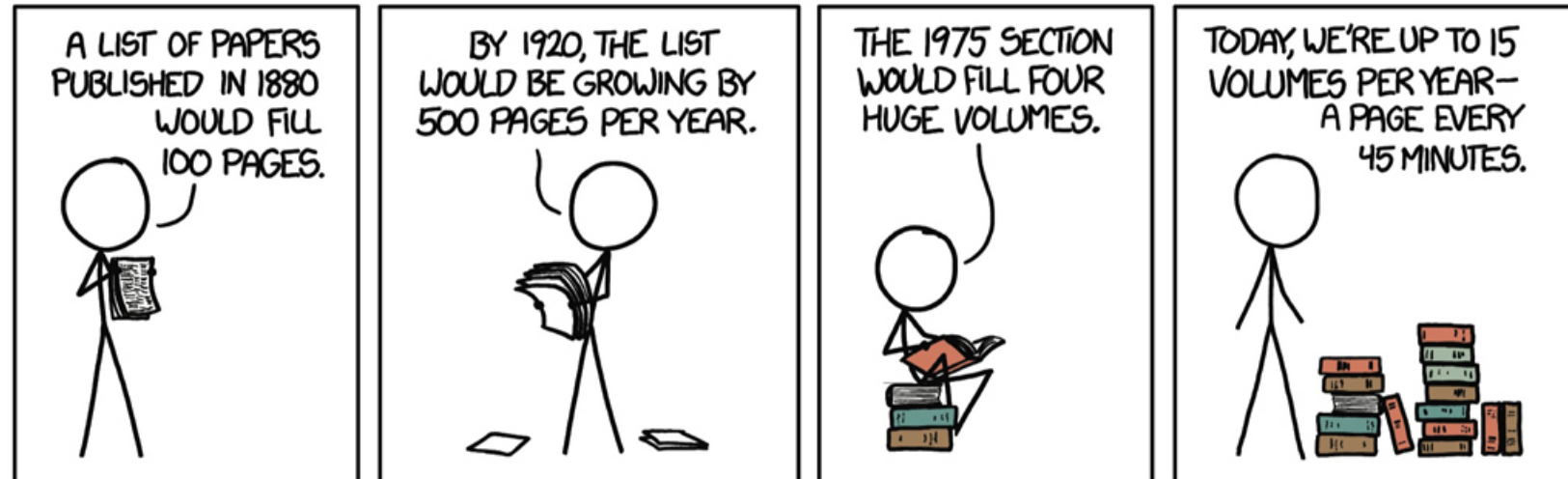
Original Research is:

1. Go where no one has gone before
2. Builds upon existing scientific foundations

ReSearch

Information overload

1. Strategy: define what you are looking for
2. Search efficiently and effectively



Step 3: Search Strategy – Snowball/Citations

Starting point:

- Excellent article
- Book

Search engines:

- Google Scholar
- Web of Science
- MathSciNet
- Zentralblatt MATH



Science and Society Museum/ Universal Images Group

Step 3: Search Strategy – MathSciNet

- Citation Database
- American Mathematical Society
- 3 million+ references
- Reviews
- Search within references
- Filter on
 - MSC
 - Publication type
 - Author

The screenshot shows the MathSciNet interface. At the top, there is a navigation bar with links for Home, Preferences, Free Tools, Help, Support Mail, and Terms of Use. The American Mathematical Society logo is on the left, and the University of Leiden logo is on the right. The main content area displays search results for "Citations of 2349551". A dropdown menu for "Select alternative format" is visible. The primary result is for MR3161382, reviewed by Inci Ege, titled "Probabilistic proofs of Euler identities." The abstract text states: "In this paper, the author gives an alternative proof for Euler's exact sum for the Basel problem. Also the author proves Euler's infinite product formula for the sine using the hyperbolic secant distribution." Below the abstract, there is a "References" section with a list of 8 references, including works by Baten, Bourgade, Bradley, Chapman, Dunham, Feller, Gordon, and Harkness.

AMERICAN MATHEMATICAL SOCIETY
MathSciNet 75
Mathematical Reviews 1940-2015
ISSN 2167-5163

Home | Preferences | Free Tools | Help | Support Mail | Terms of Use

University of Leiden

Previous Up Next

Select alternative format

Publications results for "Citations of 2349551"

MR3161382 Reviewed

Holst, Lars(S-RIT)

Probabilistic proofs of Euler identities. (English summary)
J. Appl. Probab. 50 (2013), no. 4, 1206–1212.
11M06 (01A50 33B10 60E05)
PDF | Clipboard | Journal | Article | Make Link

Citations
From References: 1
From Reviews: 0

S·F·X

In this paper, the author gives an alternative proof for Euler's exact sum for the Basel problem. Also the author proves Euler's infinite product formula for the sine using the hyperbolic secant distribution.

Reviewed by [Inci Ege](#)

References

1. BATEN, W. D. (1934). The probability law for the sum of n independent variables, each subject to the law $(1/(2h))\operatorname{sech}(\pi x/(2h))$. *Bull. Amer. Math. Soc.* **40**, 284–290. [MR1562838](#)
2. BOURGADE, P., FUJITA, T. AND YOR, M. (2007). Euler's formulae for $\zeta(2n)$ and products of Cauchy variables. *Electron. Commun. Probab.* **12**, 73–80. [MR2300217](#)
3. BRADLEY, R. E., D'ANTONIO, L. A. AND SANDIFER, C. E. (eds) (2007). *Euler at 300. An Appreciation*. Mathematical Association of America, Washington, DC. [MR2349551](#)
4. CHAPMAN, R. (2003). Evaluating $\zeta(2)$. Preprint. Available at http://www.uam.es/personal_pdi/ciencias/cillerue/Curso/zeta2.pdf
5. DUNHAM, W. (1999). *Euler: The Master of Us All*. Mathematical Association of America, Washington, DC. [MR1669154](#)
6. FELLER, W. (1966). *An Introduction to Probability Theory and Its Applications*, Vol. 2. John Wiley, New York. [MR0210154](#)
7. GORDON, L. (1994). A stochastic approach to the gamma function. *Amer. Math. Monthly* **101**, 858–865. [MR1300491](#)
8. HARKNESS, W. L. AND HARKNESS, M. L. (1968). Generalized hyperbolic secant distributions. *J. Amer. Statist. Assoc.* **63**, 329–337.

MathSciNet

Google Scholar - citations

☰ Google Scholar Equilibrium Points in n-Person Games 🔍

📁 Articles

Any time

Since 2019

Since 2018

Since 2015

Custom range...

Sort by relevance

Sort by date

include patents

include citations

[\[PDF\] Equilibrium points in n-person games](#)

JF Nash - Proceedings of the national academy of sciences, 1950 - sscnet.ucla.edu

2 Whitehead, JHC, "Combinatorial Homotopy I and II," Bull. AMS, 55, 214-245 and 453-496 (1949). We refer to these papers as CH I and CH II, respectively. 3 By a complex we shall mean a connected CW complex, as defined in? 5 of CH I. We do not restrict ourselves to finite complexes. A fixed 0-cell $e_0 \in K$ will be the base point for all the homotopy groups in K .

☆ 📄 Cited by 7615 Related articles All 20 versions Web of Science: 2528 🔗

Showing the best result for this search. [See all results](#)

Step 3: Search Strategy – Formulating

- Be specific
- Ask questions:
 - What? – Nash Equilibria
 - Who? –
 - Why? – Want to discover how to make people spend in my supermarket
 - How? – By changing the pricing
 - When? – Not relevant
 - Where? – in the supermarket
- Formulate as topic or question

Example:

How can I maximize my supermarket profits using Nash equilibria?



OR



Step 3: Search Strategy – Search Tools

- First split up your question in concepts
- Use many synonyms (from broad searches, www.thesaurus.com, etc.)
- Use different languages! (tip: Wikipedia in different languages, database Van Dale)

How can I maximize my **supermarket profits using **Nash equilibria**?**

Concept	Synonym 1	Synonym 2
Nash equilibria	Équilibre de Nash	
Profit	Loss	
Supermarket		

Step 3: Search Strategy – Search Tools

Use wildcards. They are database specific. For Web of Science:

\$ = zero or one (colo\$r => colour, color)

? = one (m?n => man, men)

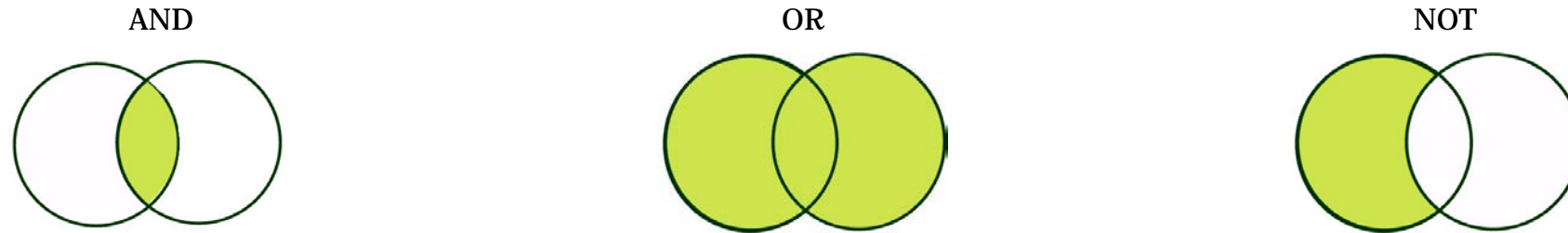
* = zero or more (carbon* => carbon, carbonate)

MathSciNet and Zentralblatt MATH just have * for all differences!

“Nash equilibri*” => “Nash equilibria” / “Nash equilibrium”

Step 3: Search Strategy – Search Tools

Couple your synonyms and concepts with booleans:



Concept	Synonym 1
Nash equilibria	OR
Profit	Discount
Supermarket	Retail

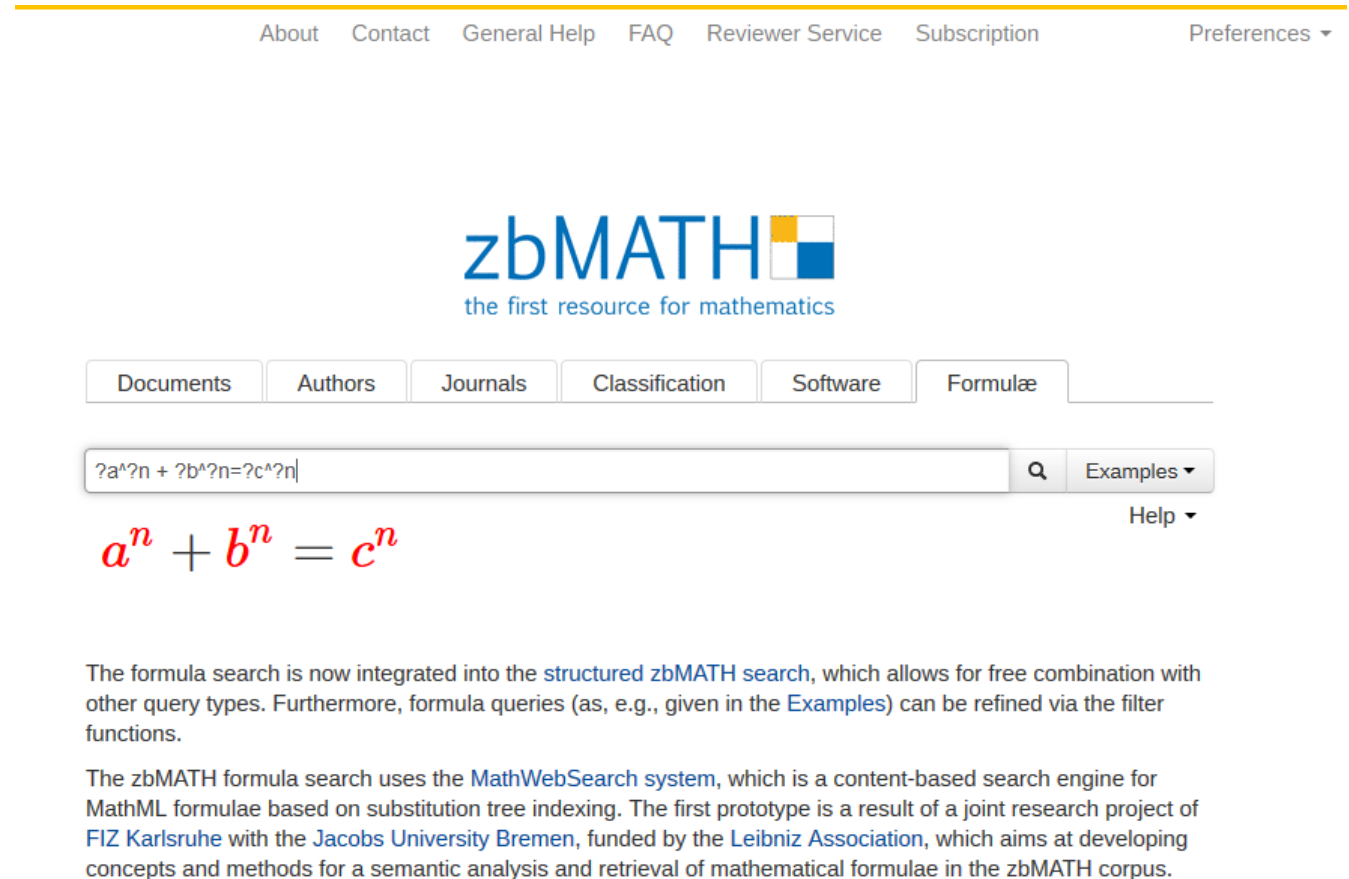
AND / NOT

“Nash equilibri*” AND (profit OR discount) AND (supermarket OR retail)

“Nash equilibri*” & (profit | discount) & (supermarket | retail)


Step 3: Search – Zentralblatt MATH

- Citation Database
- 3 million+ references
- Reviews (from Zentralblatt)
- European – oldest database
- Filter on
 - MSC
 - Publication type
 - Author
 - Formula!



The screenshot shows the zbMATH website interface. At the top, there is a navigation bar with links for About, Contact, General Help, FAQ, Reviewer Service, Subscription, and Preferences. The zbMATH logo is prominently displayed, with the tagline "the first resource for mathematics". Below the logo, there are several filter tabs: Documents, Authors, Journals, Classification, Software, and Formulæ. A search bar contains the query "?a^n + ?b^n = ?c^n" and has a search button (Q) and a dropdown menu for Examples. Below the search bar, the formula $a^n + b^n = c^n$ is displayed in red. A Help button is also visible. Below the search bar, there is a paragraph of text explaining the formula search integration and a paragraph about the MathWebSearch system.

About Contact General Help FAQ Reviewer Service Subscription Preferences ▾

zbMATH 
the first resource for mathematics

Documents Authors Journals Classification Software Formulæ

?aⁿ?n + ?bⁿ?n=?cⁿ?n Q Examples ▾
Help ▾

$a^n + b^n = c^n$

The formula search is now integrated into the [structured zbMATH search](#), which allows for free combination with other query types. Furthermore, formula queries (as, e.g., given in the [Examples](#)) can be refined via the filter functions.

The zbMATH formula search uses the [MathWebSearch](#) system, which is a content-based search engine for MathML formulae based on substitution tree indexing. The first prototype is a result of a joint research project of FIZ Karlsruhe with the [Jacobs University Bremen](#), funded by the [Leibniz Association](#), which aims at developing concepts and methods for a semantic analysis and retrieval of mathematical formulae in the zbMATH corpus.

Researchgate.net: Social for Scientists

- Follow a scientist's output
- Read publications
- Ask questions
- Get research job suggestions

The screenshot shows the ResearchGate profile of Marcel De Jeu. At the top, there is a navigation bar with the ResearchGate logo (R^G), links for Home, Questions, and Jobs, a search bar, and icons for notifications, messages, and a profile dropdown. A blue 'Add new' button is also present. Below the navigation bar, the profile header includes a placeholder for a profile picture, the name 'Marcel De Jeu', and a 'Follow' button. The profile is divided into several sections: 'Overview' (selected), 'Research', 'Info', and 'Scores'. The 'Overview' section contains an 'Introduction' field, a 'Skills and expertise (15)' section with tags for Mathematical Analysis, Pure Mathematics, Functional Analysis, Topology, Analysis, Real Analysis, Real and Complex Analysis, Algebra, Differential Geometry, and Matrix Theory, and a 'Stats overview' section showing 'Total Research Interest' at 395.1 and 'Citations' at 695. The right sidebar contains 'Current affiliation' (Leiden University, Leiden, Netherlands, Department: Mathematical Institute, Position: Associate Professor) and 'Network' (Following: 43).

MathOverFlow: Crowdsourced Answers

- Questions on mathematical topics
- Quality control: up and down voting
- Be nice: don't just ask, answer as well

Can't find the right reference for a theory, see the tag:

Reference-request

The screenshot shows the MathOverflow website interface. At the top, the logo "mathoverflow" is displayed in a stylized font. Navigation tabs include "Questions", "Tags", "Users", "Badges", "Unanswered", and "Ask Question". A central banner explains the site's purpose: "MathOverflow is a question and answer site for professional mathematicians. It's 100% free, no registration required." It includes a "Sign up" button and a section titled "Here's how it works:" with three icons: a question mark in a speech bubble ("Anybody can ask a question"), a speech bubble with an 'A' ("Anybody can answer"), and a speech bubble with an 'A' and a checkmark ("The best answers are voted up and rise to the top"). Below this is a section "Explore Our Questions" with filters for "active", "10 featured", "hot", "week", and "month". A list of tags is shown, including "ag.algebraic-geometry", "nt.number-theory", "reference-request", "co.combinatorics", "at.algebraic-topology", "gr.group-theory", "dg.differential-geometry", "pr.probability", "fa.functional-analysis", and "rt.representation-theory". Two question entries are visible: one with 1 vote, 1 answer, and 229 views titled "Elliptic regularity Schauder estimates with Dirichlet/Neumann boundary conditions", and another with 2 votes, 1 answer, and 863 views titled "For what nonnegative measures μ does $\mu * e^{-|\cdot|} \in L^{\infty}$?". A right sidebar shows "103 People Chatting" with a "Homotopy Theory" chat box and a "MathOverflow" chat box. At the bottom, a "Recent Tags" section lists "ag.algebraic-geometry" (88), "reference-request" (75), "nt.number-theory" (70), "dg.differential-geometry" (55), and "co.combinatorics" (41).

Step 4: Evaluating information

Read the abstracts and titles of the first pages

- Relevance to research question
- Age of the article
- Does it meet our quality criteria (peer review, references, etc)

Not relevant, too few or too many?

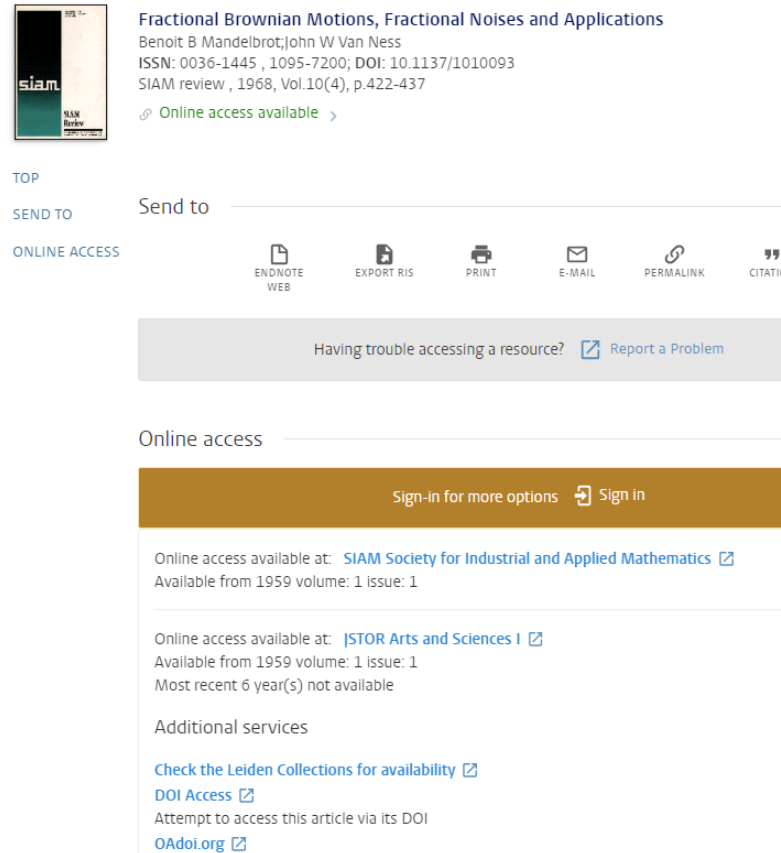
Adjust your search!

Step 5: Using Information - fulltext

- Download the articles via GetIt@Leiden / Full text
- Lookup the book in the [Library](#)
- Use our plugin or bookmarklet @home

UBL has no access?

- Book: search on title in Catalogue
- Is a printed version available?
- Search for the article on [Google Scholar](#)
- Request from author
- Request a book or article we don't have: [Inter Library Loan](#)



Fractional Brownian Motions, Fractional Noises and Applications
Benoit B Mandelbrot; John W Van Ness
ISSN: 0036-1445, 1095-7200; DOI: 10.1137/1010093
SIAM review, 1968, Vol.10(4), p.422-437
[Online access available >](#)

TOP
SEND TO
ONLINE ACCESS

Send to

ENDNOTE WEB EXPORT RIS PRINT E-MAIL PERMALINK CITATION

Having trouble accessing a resource? [Report a Problem](#)

Online access

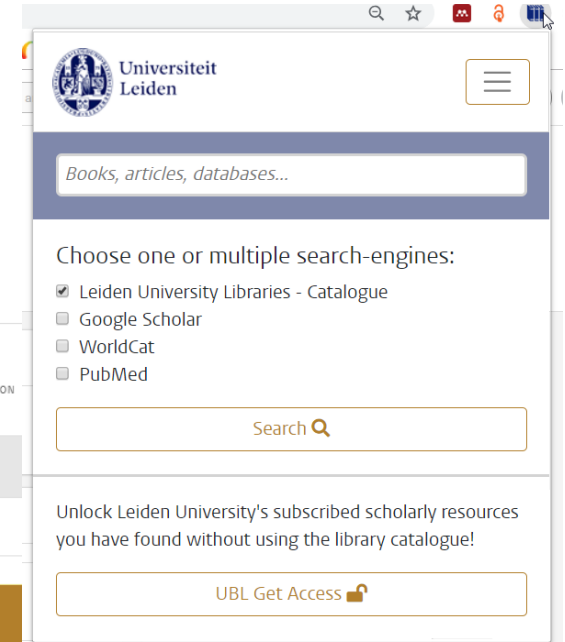
Sign-in for more options [Sign in](#)

Online access available at: [SIAM Society for Industrial and Applied Mathematics](#) [Check](#)
Available from 1959 volume: 1 issue: 1

Online access available at: [JSTOR Arts and Sciences I](#) [Check](#)
Available from 1959 volume: 1 issue: 1
Most recent 6 year(s) not available

Additional services

[Check the Leiden Collections for availability](#) [Check](#)
[DOI Access](#) [Check](#)
Attempt to access this article via its DOI
[OAdoi.org](#) [Check](#)




Universiteit Leiden


Books, articles, databases...

Choose one or multiple search-engines:

Leiden University Libraries - Catalogue
 Google Scholar
 WorldCat
 PubMed

Search 

Unlock Leiden University's subscribed scholarly resources you have found without using the library catalogue!

UBL Get Access 

Step 5: Using Information

When citing:

- Between quotes for literal citation
- Paraphrase – in your own words
- Always attribute
- Websites are no exception
- Turnitin software checks for plagiarism

Why?



Do your research

- Papers can be retracted if you did not do a proper literature search and gave due credits!
- Google couldn't find it is no excuse!

www.retractionwatch.com

AMERICAN MATHEMATICAL SOCIETY
MathSciNet
Mathematical Reviews
[Previous](#) | [Up](#) | [Next](#)

Citations
From References: 0
From Reviews: 0

MR2969055 (Review) 20M10

[Wu, Chong-Yih \(RC-NPIC-GED\)](#)

On right congruences of semigroups having no proper essential right congruences. (English summary)

Semigroup Forum 85 (2012), no. 2, 369–380.

A (right) congruence ρ on a semigroup S is essential if the intersection of ρ with any non-identity (right) congruence is not the identity congruence. The main result of this paper is the characterization of the semigroups, with an identity and without proper essential right congruences, whose lattice of right congruences is a distributive lattice. This result was previously published in a posthumous paper by R. H. Oehmke [*Hadronic J.* 27 (2004), no. 4, 459–471; [MR2123090 \(2005m:20147\)](#)] that appeared in a journal that is difficult to find and quite unusual for papers on semigroups. *Alessandra Cherubini*

References

1. Clifford, A.H., Preston, G.B.: *The Algebraic Theory of Semigroups* vol. 1. Am. Math. Soc., Providence (1961) [MR0132791 \(24 #A2627\)](#)
2. Dean, R.A., Oehmke, R.H.: Idempotent semigroups with distributive right congru-

Step 5: Using information: How to Find

Aust, & Buscher. (2012). Vertical cooperative advertising and pricing decisions in a manufacturer–retailer supply chain: A game-theoretic approach. *European Journal of Operational Research*, 223(2), 473-482. doi: 10.1016/j.ejor.2012.06.042

Step 5: Using Information - Referencing

Reference Management:

- Keep track
- Annotate legibly
- Insert citations in correct format
- Share literature

Managers:

- EndNote, [Mendeley](#), [Zotero](#)

Do the [tutorial](#) on citing

The screenshot displays the EndNote X6 interface. On the left, the 'My Library' pane shows 'All References (55)', 'Imported References (49)', 'Unfiled (55)', and 'Trash (63)'. The main pane shows a list of references with columns for Author, Year, and Title. The selected reference is: Mena-Bravo, A.; Luque de Castro, M. D. (2014) 'Sweat: A sample with limited present applications and promising future in metabolomics'. The right pane shows a preview of the article from the 'Journal of Pharmaceutical and Biomedical Analysis'. The article title is 'Sweat: A sample with limited present applications and promising future in metabolomics' by A. Mena-Bravo and M.D. Luque de Castro. The preview includes a table of contents and a small inset image showing a person sweating.

Assignments

- Do the exercises provided on the hand-out.

Questions?

R.m.de.jong@library.leidenuniv.nl



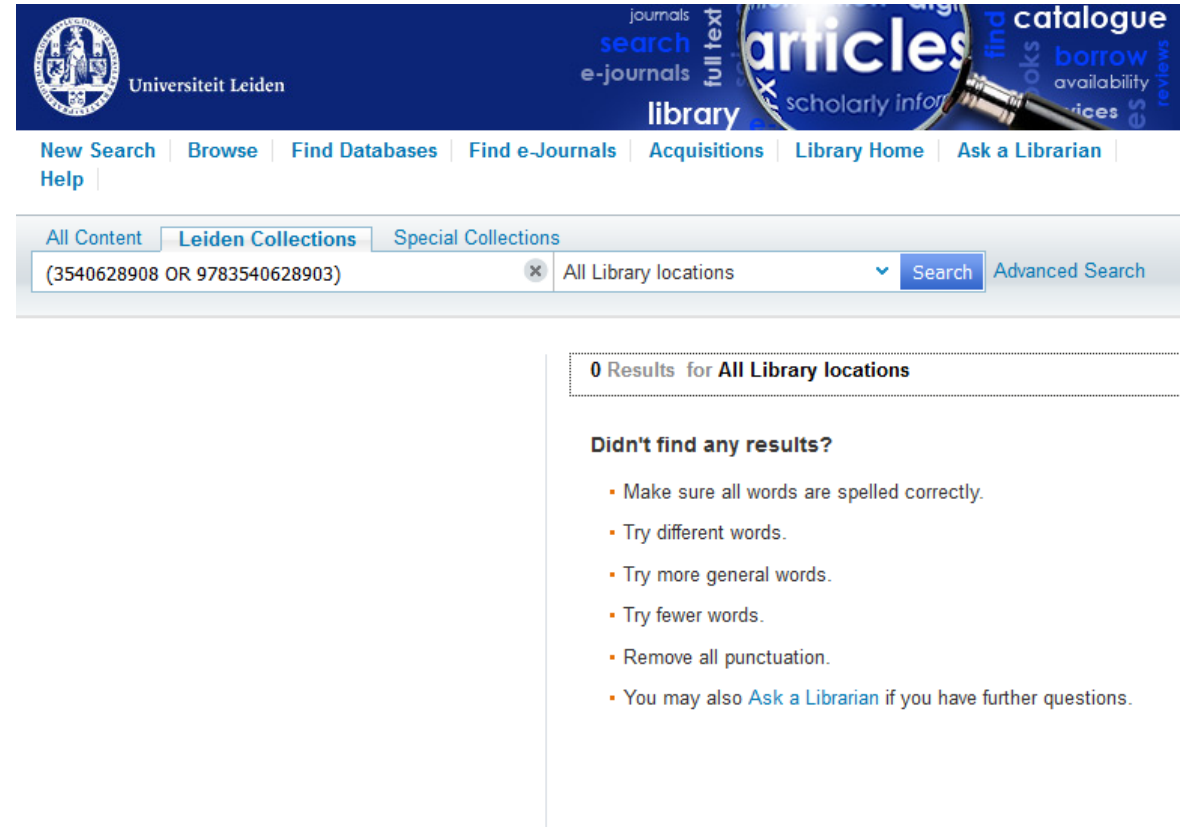
Universiteit
Leiden
The Netherlands

Discover the world at Leiden University

Step 5: Using Information - Problems

GetIt@Leiden for books in MathSciNet and Zentralblatt MATH:

- Based on isbn
- Try searching on **title** and **author** in catalogue
- Check Google Scholar / Google Books
- Try searching specific vendor database:
 - ACM
 - SpringerLink
 - SIAM



The screenshot shows the library search interface for Universiteit Leiden. The header includes the university logo and navigation links for 'New Search', 'Browse', 'Find Databases', 'Find e-Journals', 'Acquisitions', 'Library Home', and 'Ask a Librarian'. Below the header, there are tabs for 'All Content', 'Leiden Collections', and 'Special Collections'. The search input field contains the query '(3540628908 OR 9783540628903)'. The search results section displays '0 Results for All Library locations' and a 'Didn't find any results?' message with the following suggestions:

- Make sure all words are spelled correctly.
- Try different words.
- Try more general words.
- Try fewer words.
- Remove all punctuation.
- You may also [Ask a Librarian](#) if you have further questions.