

The Future of Scholarly Publication: Key Issues Facing Computing Research

Joseph A. Konstan, Moderator
University of Minnesota
konstan@umn.edu

Topics

- You will decide which/how much time on each ...
- Publishing “Culture”
 - Journals, Conferences, Workshops
 - Quantity, Quality, Impact
- Beyond the PDF (even beyond the .tex)
 - Publishing and archiving data, code, interaction
- Open Access Regulations and Policies
 - What does a department head or dean need to know?



Non-Goals ...

- Reprising the Open Access Debate
 - We all know that people prefer:
 - Free to publish
 - Free to access
 - Quality reviewing / refereeing
 - Well-managed and robust permanent archives
- Another dissection of costs-of-publishing ...

Our Panelists

- Jack Davidson, University of Virginia
 - co-Chair of ACM Publications Board



- Todd Green, Elsevier
 - Publisher, Computing and Digital Security



- Margo Seltzer, Harvard University
 - Past-President, USENIX



OK, Time to Choose

- Publishing “Culture”
 - Journals, Conferences, Workshops
 - Quantity, Quality, Impact
- Beyond the PDF (even beyond the .tex)
 - Publishing and archiving data, code, interaction
- Open Access Regulations and Policies
 - What does a department head or dean need to know?



Computer Science Publishing Culture

...

We Want You to Get Credit for Participating ...

- Questions on this topic should be anonymously submitted to three referees
 - Those selected for oral presentation may be listed on your c.v. as “other peer-reviewed works”

Yesterday's Panel

- Lamented the lack of complete scholarship and the overemphasis on quantity over quality and impact.
- Suggested shifting the focus in hiring and tenure to reading and assessing impact of a few most important papers (over lists of papers / venue prestige)
- Also suggested removing artificial constraints on paper length, particularly for methods, context, data, etc.
- And suggested reviving venues for presenting early-stage work (workshops without proceedings)



That, and More Too ...

- No shortage of interest in those concepts, but also ...
- Extensive experiments with journal/conference hybrid publishing models (including conference-to-journal, journal-first, journal-backup).



Journal-First Publication Model



- Some research communities are adopting a “hybrid” model of publication that moves away from deadline-driven, single-review cycle that is typical of conference publishing to a model that:
 - Provides open-ended review cycles (i.e., the possibility of major revision)
 - Is not strictly deadline driven
 - Allows opportunity to describe the work before one’s peers at a public presentation
- Proceedings of the VLDB, SIGGRAPH, and TACO

Proceedings of the VLDB



- Allows continuous submission throughout the year
- Accepted papers published and authors offered presentation slot at next available VLDB conference
- Large editorial board (200 or so)
- Short papers (no more than 12 pages)
- Papers reviewed by 3 editorial board members
- Major revision and follow-up review by same reviewers
- Rejected papers are barred from resubmission for one year

“PVLDB is designed to replace the traditional conference publishing for VLDB, with a much more flexible and better scalable submission process and a journal-style reviewing process with better quality assurance.”

SIGGRAPH/Transactions on Graphics



- SIGGRAPH
 - 5 reviewers (two senior—primary and secondary, and 3 other experts—tertiary reviewers)
 - Rebuttal period for addressing factual errors in reviews
 - Full TPC determines action
 - Conditionally accept for presentation at next SIGGRAPH (aka minor revision)
 - Conditionally accept for publication in TOG (aka major revision). Paper published in TOG and may be presented at a later SIGGRAPH conference
 - Conditionally rejected from TOG. Enough merit that the reviewers encourage submitting a revision to either TOG or SIGGRAPH. Authors can request “reviewer continuity.”
 - Rejected

SIGGRAPH/Transactions on Graphics



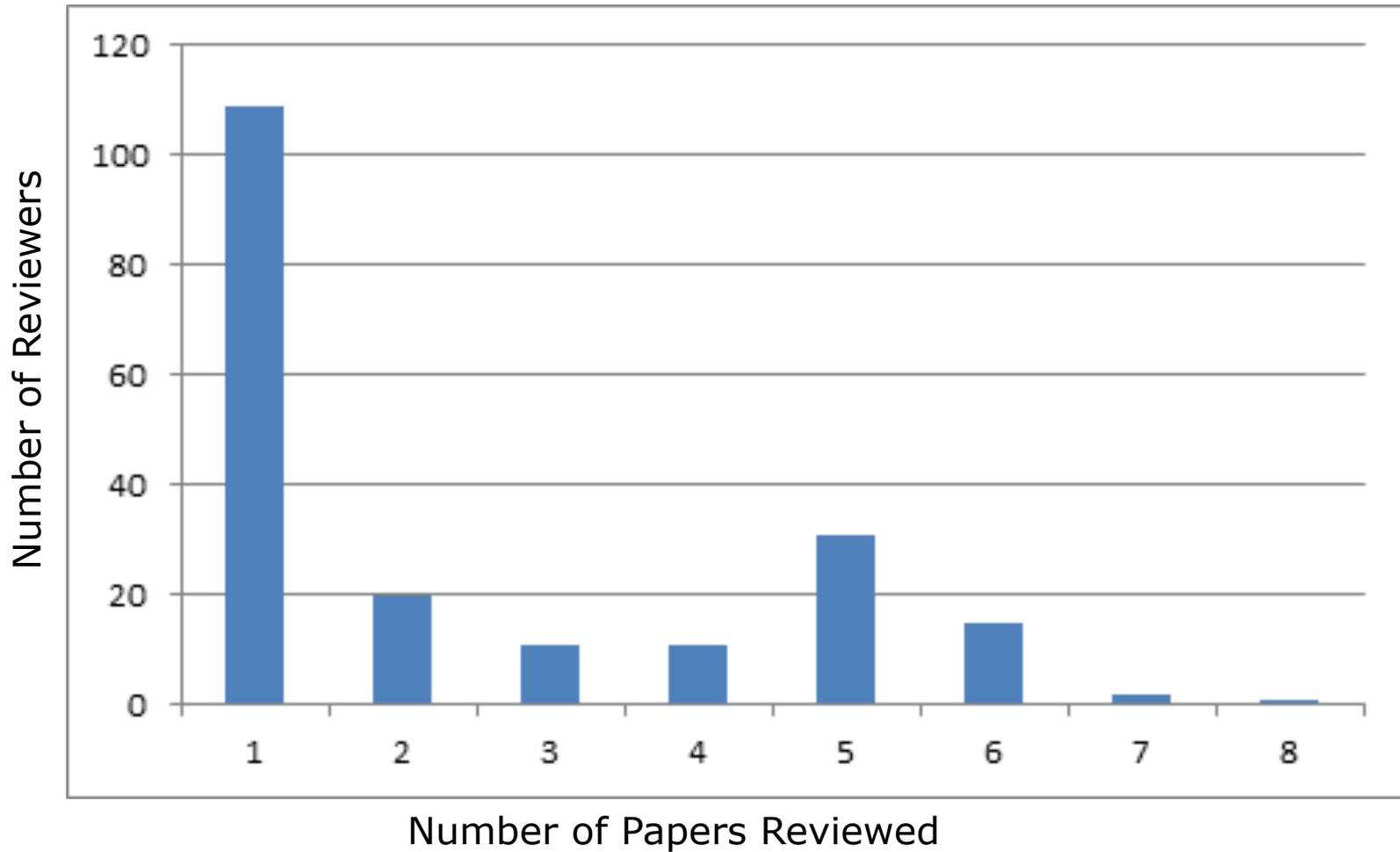
- Transactions on Graphics has 3 submission categories
 - Previously unpublished research paper
 - SIGGRAPH accept with major revision
 - Resubmission of SIGGRAPH paper requesting reviewer continuity.

Transactions on Architecture and Code Optimization/HiPEAC

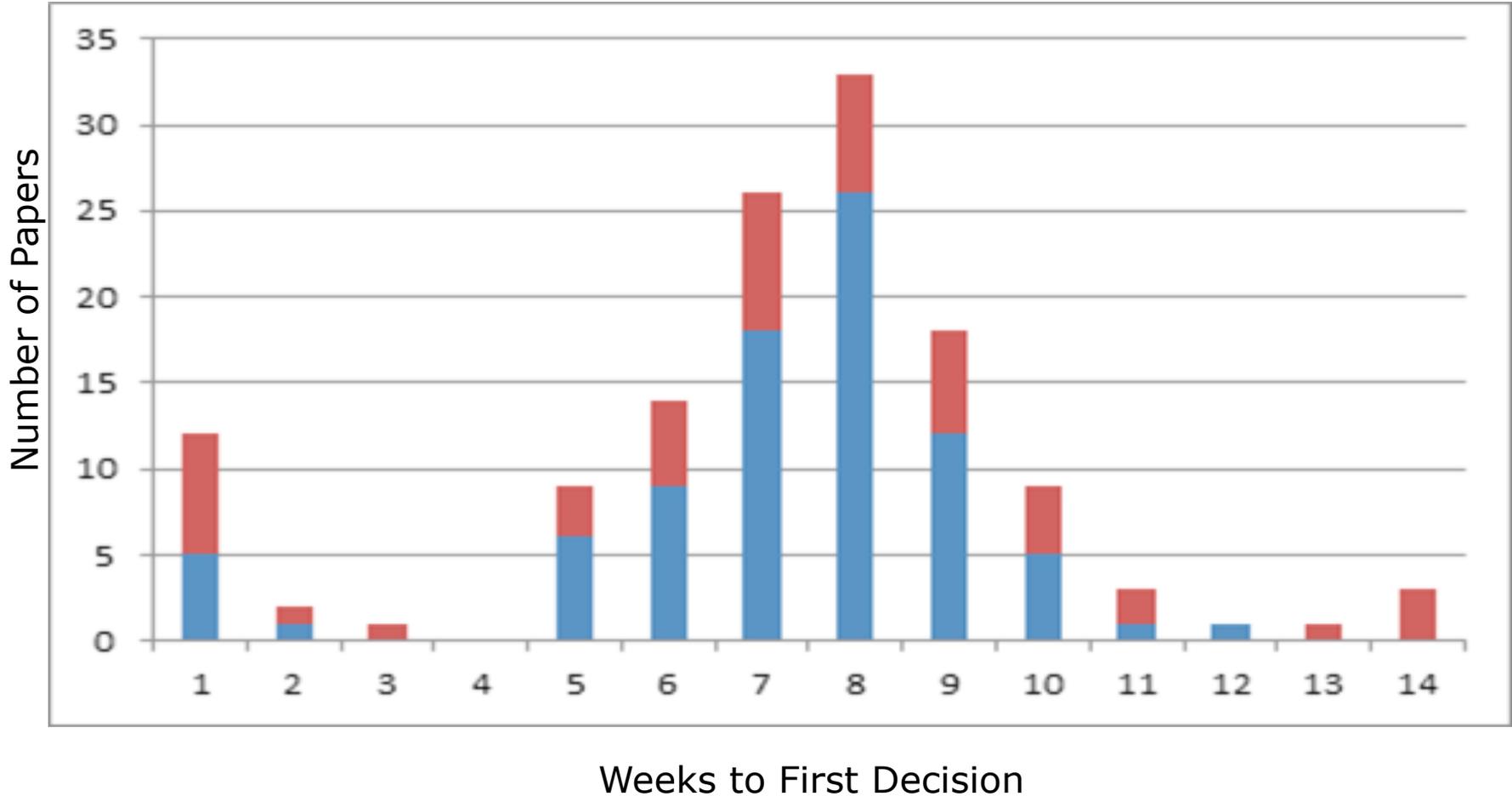


- Papers submitted in June (in response to HiPEAC CFP) are guaranteed two rounds of review before the HiPEAC cutoff of November 15th
- Review process
 - [Distinguished reviewers](#) (currently about 100)
 - Distinguished reviewers promise to do 4 or 5 reviews in 4 weeks; and then follow up reviews on any revisions
 - Website helps AEs assign papers to distinguished reviewers
 - Also seek other expert reviews
- Papers accepted to TACO (excluding conference paper extensions) are invited to present at HiPEAC

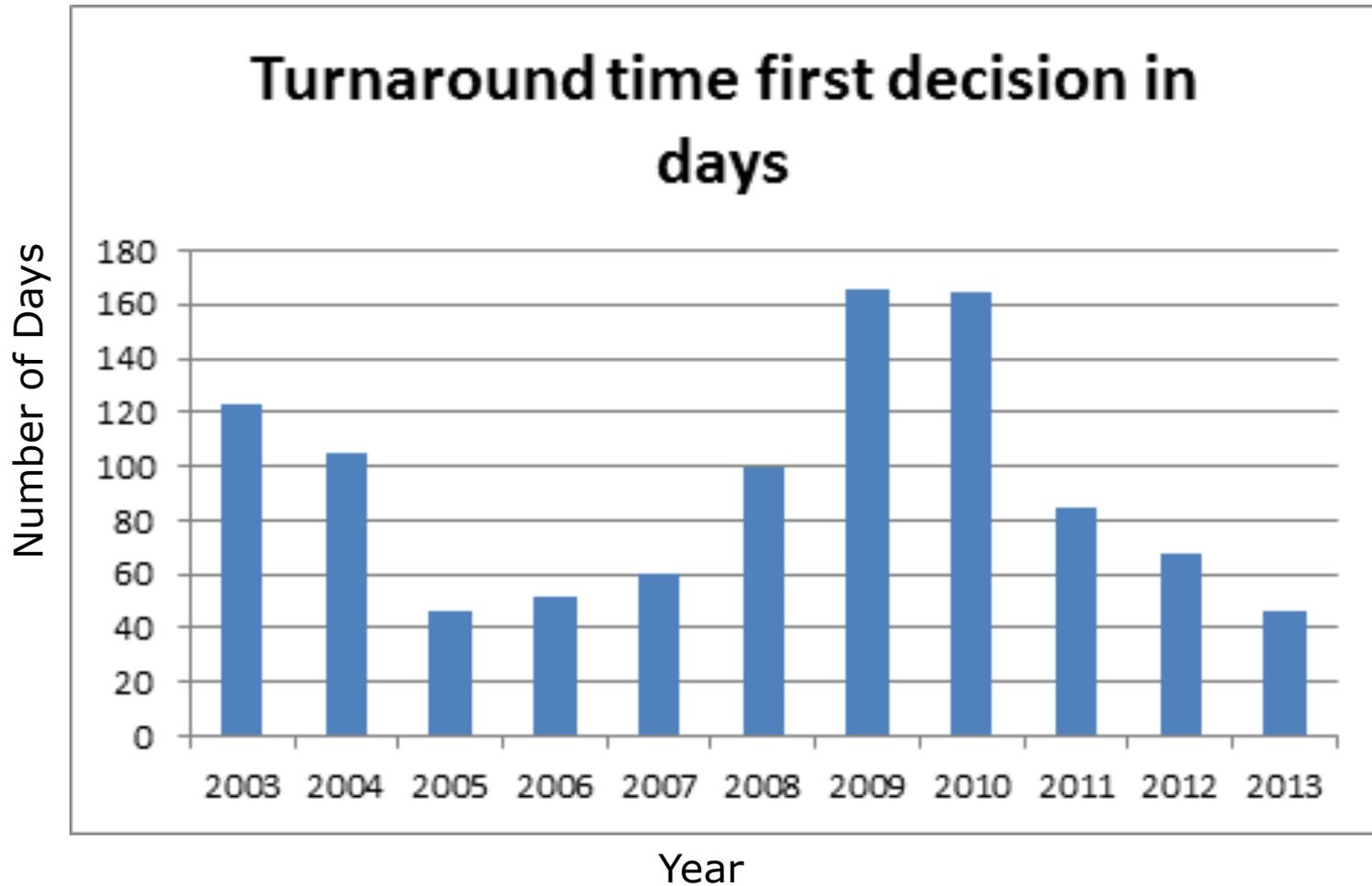
Distinguished Reviewer Paper Load Histogram



TACO Time to First Decision



TACO Time to First Decision



Summary



- Journal-first model offers numerous benefits
 - Engages community
 - Shifts publications from conference articles to journal articles
 - Conference becomes networking event
 - Less deadline-driven research/publication
 - No citation count dilution
 - Faster processes help all papers move through faster
 - Overall higher quality output and consistency (better review processes)
- Problems
 - How to scale to thousand submissions
 - Higher publication costs
 - Requires significant infrastructure support
 - Community buy-in



Multi-Stage Conference Review Experiment



- The CSCW Conference (Computer Supported Cooperative Work and Social Computing) is in the third year of a multi-stage conference review experiment ...
 - All papers get initial review cycle (two external reviewers, one PC member; meta-review by second PC member)
 - Three possible outcomes:
 - Fast-track (accept / accept with minor revisions) -- ~5%
 - Major Revisions -- ~35-55%
 - Reject – 40-60%
 - Second review cycle (same reviewers, additional if needed)
 - Accept or Reject
- Strong community support despite higher workload ...

Beyond the PDF

(++.tex)

...

Beyond the PDF???

- CS research often involves artifacts that are not richly represented in current print-oriented technologies:
 - Datasets (along with metadata, accessors, descriptors)
 - Code
 - Interactive Experiences (graphics, simulations)
- How do we capture, preserve, disseminate these as part of publication?

A Few Thoughts

1. This is a much bigger problem than simply “capture presentation videos” or even “capture demo videos”.
2. Archival of working systems requires platforms that maintain their ability to run over a long period. Also need to address security and more!
3. Even just sharing and archiving datasets requires significant thought about rights, privacy, etc.



A Few Thoughts

4. How do we both minimize and incent the author's effort to publish/share these resources?
5. Should these resources be tied to published articles? Published separately?
6. One last thing ... do we *want* to maintain everything running forever?

Article of the Future | Presentation

The three-pane format



Fun with F1 - Article of the Future - Mozilla Firefox

www.articleofthefuture.com/50022314X08001856-2/

PDF (30 pages) E-mail Export More Display mode

Copyright © 2012 Elsevier B.V. All rights reserved. View other article Take our survey

Mathematics Department, Caltech, 1200 E. California Blvd., Pasadena, CA 91125, USA

Research highlights Abstract Video abstract

Outline Show thumbnails Article top

Research highlights

Abstract

1. Introduction

2. The abelian part of the BC system and its endomorphisms

2.1 Group theoretic description

2.2 The endomorphisms ρ_n from algebraic geometry

3. \mathbb{F}_{1^∞} and the abelian part of the BC-system

3.1 Affine varieties over \mathbb{F}_1

3.2 The varieties $\mu^{(k)}$

4. The integral BC-endomotive

4.1 \mathcal{C}^* -algebra description of the BC-system

4.2 The BC-algebra over \mathbb{Q}

4.3 The maps $\tilde{\rho}_n$

4.4 The BC-algebra over \mathbb{Z}

4.5 Relation with the integral Hecke algebra

5. The endomotive and algebra in characteristic p

5.1 The endomotive in characteristic p

5.2 The BC-algebra in characteristic p

5.3 The effect of reduction

5.4 Endomotives in the unreduced case

Video is also available at http://www.youtube.com/watch?v=az_0pxm1jr1E.

Video: Alain Connes explains his paper

1. Introduction

Starting with seminal observations of J. Tits on the classification of simple finite groups (cf. [18]), the a priori vague idea that a suitable analogue of the geometry over the finite fields \mathbb{F}_q should make sense in the limit case $q = 1$ has been taking more and more substance and has given rise to a number of different approaches (cf. [9], [10], [11], [12], [15], [16] and [19]). So far, the relation between these constructions and the Riemann zeta function has remained elusive, in spite of the hope of being able to consider the tensor product $\mathbb{Z} \otimes_{\mathbb{F}_1} \mathbb{Z}$ as a non-trivial analogue of the product of a curve by itself (see [12]).

It is known that the quantum statistical mechanical system of [1] (which we refer to as the BC-system) gives, after passing to the dual system, a spectral realization of the zeros of the Riemann zeta function, as well as a trace form

The main result in [4] applied the developed techniques

defined techniques

Desktop

Sidebar content: Theorems (1)

previous 1 of 1 (view all) next

View in article

Theorem 6.3 *The structure of the BC-endomotive corresponds to the structure of \mathbb{F}_{1^∞} over \mathbb{F}_1 as follows*

a) *The abelian part of the BC-endomotive over \mathbb{F}_1 corresponds to the inductive system of extensions \mathbb{F}_{1^n} .*

b) *The endomorphisms σ_n describe the Frobenius correspondence, in the sense that on the algebra $\mathbb{Z}[\mathbb{Q}/\mathbb{Z}] \otimes_{\mathbb{Z}} \mathbb{K}$, for \mathbb{K} a perfect field of characteristic $p > 0$, the endomorphisms σ_n , $n = p^\ell$ ($\ell \in \mathbb{N}$) coincide with the Frobenius correspondence described in Remark 5.2.*

previous 1 of 1 (view all) next

Left pane: efficient navigation & browsing

Center pane: "Traditional" full-text view, designed for optimal online reading experience

Right pane: Additional content & tools. Shown here: theorem browser

absolute magnitude of SAIC represents statistical significance because it is the difference of AICs between two models. If the AIC of the first model is smaller, the anomaly is not significant and SAIC is set as zero by the boxcar function in the equation.

While the number of background events was not determined in any stages of our analysis, the expectation of the number of background events could be estimated because we estimated the probability that a certain event was a background event. By plotting the cumulative expected number of events versus time, we could visualize the temporal rate change within a window period. This is similar to a generalization of the cumulative number plot of independent events obtained by the de-clustering algorithm that separates events. The probability that a certain event was a background event was estimated by maximizing the likelihood with the application of the EM algorithm (Dempster et al., 1977) to the ETAS model, as described in Appendix A.

3.4. Monte Carlo simulation

We conducted a Monte Carlo experiment to compare the observed catalog with a constant background seismicity model, to find out whether the observed catalog is regular or not. First, we simulated an earthquake using the extended ETAS model shown above.

The simulation was conducted in a circular area with a radius twice that of the sampling area. We did not simulate earthquakes over all the Japanese islands at once because doing so would require too much computational time. However, we carefully considered the effect from the limited size of the area. The radius had to be greater than the sampling radius because we needed to estimate the effect of earthquakes outside the sampling area. In this study, a hypocenter and an origin time of a simulated event were sampled from the catalog of Ogata (1998). His algorithm simulates earthquakes in a circular area with a radius R and a sampling radius r . The parameters of the model required to simulate the catalog are μ , K , c and b .

The set of parameters μ , K , c and b value of Gutenberg and Richter's magnitude frequency distribution were randomly selected from a set of parameters estimated in all the cases (all study areas and all models with constant or varying rate of background seismicity) with the observed catalog. The b value was not required in the background seismicity analysis, but it was necessary to produce the synthetic catalog and was determined by the maximum likelihood estimate ([Aki, 1965] and [Utsu, 1965]). After simulating all the events in the study period, we accepted synthetic catalogs that included more than 200 and less than 3000 events. Catalogs including more than 3000 events were discarded to save computational time. This procedure was repeated 1000 times.

Show information

Click citation

Bibliographic information +

Citing and related articles +

Applications and tools +

Workspace -

« previous reference next reference »

Y. Ogata
Space-time point-process model for earthquake occurrence
Ann. Inst. Stat. Math., 50 (2) (1998), pp. 379–402

Abstract

Several space-time statistical models are constructed based on both classical empirical studies of clustering and some more speculative hypotheses. Then we discuss the discrimination between models incorporating contrasting assumptions concerning the form of the space-time clusters. We also examine further practical extensions of the model to situations where the background seismicity is spatially non-homogeneous, and the clusters are non-isotropic. The goodness-of-fit of the models, as measured by AIC values, is discussed for two high quality data sets, in different tectonic regions. AIC also allows the details of the clustering structure in space to be clarified. A simulation algorithm for the models is provided, and used to confirm the numerical accuracy of the likelihood

Article of the Future | Presentation

Inline supplementary computer code



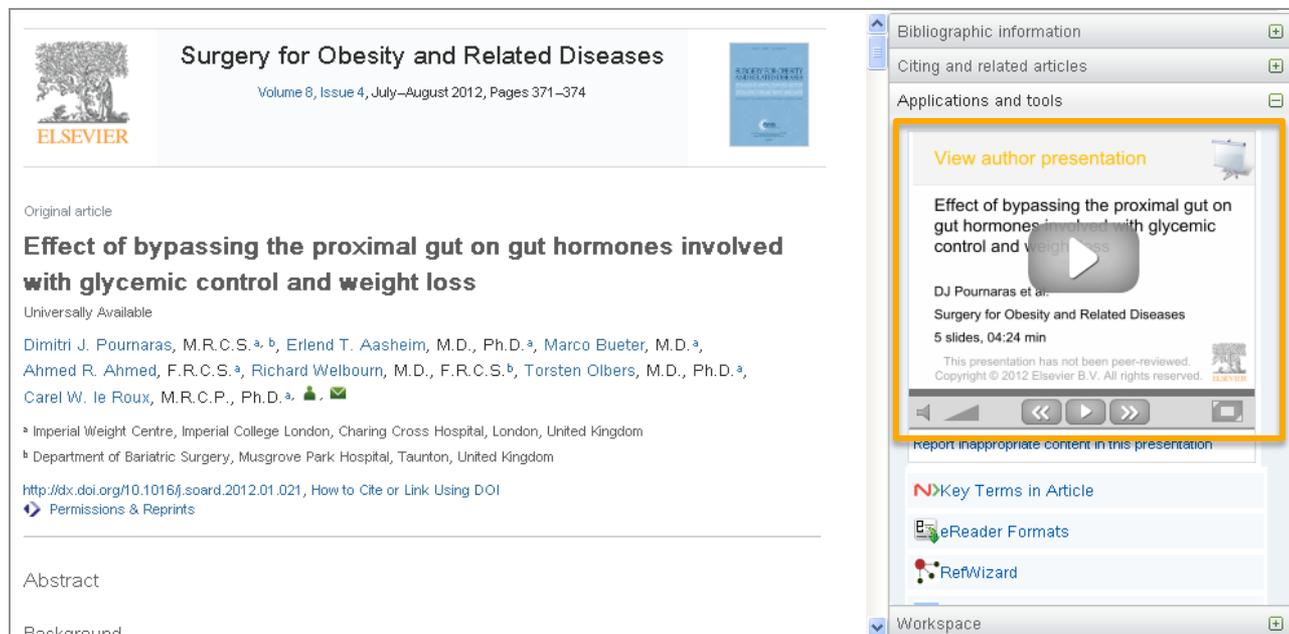
The screenshot displays a web interface for an article. On the left is a navigation sidebar with a table of contents. The main content area shows section 6, 'Sharing the goodness', with a paragraph of text. Below the text is an expandable box titled 'Inline Supplementary Computer Code 1' containing RDF export code for Asthma Trial Information. The code is as follows:

```
RDF Export of Asthma Trial Information.  
  
<owl:Thing rdf:about="http://trialx.com/#913"/>  
- <rdf:Description rdf:about="http://trialx.com/#Asthma">  
- <rdf:type>  
- <owl:Class rdf:about="http://trialx.com/#Title"></owl:Class>  
</rdf:type>  
<rdfs:label>Persistent Allergic Asthma Trial CIGE025AU933</rdfs:label>  
</rdf:Description>  
- <rdf:Description rdf:about="http://trialx.com/#CUI391267">  
- <rdf:type>  
- <owl:Class rdf:about="http://trialx.com/#Conditions"></owl:Class>  
</rdf:type>  
<rdfs:label>Persistent Asthma</rdfs:label>  
</rdf:Description>  
- <rdf:Description rdf:about="http://trialx.com/#NCTID193">  
- <rdf:type>  
- <owl:Class rdf:about="http://trialx.com/#ClinicalTrial"></owl:Class>  
</rdf:type>  
</rdf:Description>  
- <rdf:Description rdf:about="http://trialx.com/#site1524">  
- <rdf:type>  
- <owl:Class rdf:about="http://trialx.com/#SiteName"></owl:Class>  
</rdf:type>  
<rdfs:label>Bernstein Clinical Research Center, LLC</rdfs:label>  
</rdf:Description>
```

On the right side of the interface, there is a 'Bibliographic information' sidebar listing related articles such as 'SPI ISM testing 5' and 'RVT — ISM testing 1'. An orange callout box in the bottom right corner of the interface contains the text 'In pilot'.

- Present computer code in context in the main article
- In expandable box, user can open or close
- Code can be copied to the clipboard for validation & re-use

Authors explain their paper in their own words



The screenshot shows a ScienceDirect article page for "Surgery for Obesity and Related Diseases". The article title is "Effect of bypassing the proximal gut on gut hormones involved with glycemic control and weight loss". The authors listed are Dimitri J. Pourmaras, M.R.C.S., Erlend T. Aasheim, M.D., Ph.D., Marco Bueter, M.D., Ahmed R. Ahmed, F.R.C.S., Richard Welbourn, M.D., F.R.C.S., Torsten Olters, M.D., Ph.D., and Carel W. le Roux, M.R.C.P., Ph.D. The article is from Volume 8, Issue 4, July–August 2012, Pages 371–374. An AudioSlide player is overlaid on the right side of the page, showing a video player with a play button and a title: "View author presentation: Effect of bypassing the proximal gut on gut hormones involved with glycemic control and weight loss". The player indicates it is by DJ Pourmaras et al., 5 slides, 04:24 min. Below the player are options for "Report inappropriate content in this presentation", "Key Terms in Article", "eReader Formats", and "RefWizard".

Audio Slides

- 1212 published 2013
- Positive feedback
- Non-peer reviewed
- SD and YouTube Gallery

- Short (5 min) webinar-style presentation, slides + audio
- Shown next to the article on ScienceDirect
- Created by author using online tool developed by Elsevier

<http://www.elsevier.com/audioslides>

<http://www.elsevier.com/about/content-innovation/audioslides-author-presentations-for-journal-articles/audioslides-gallery>

Article of the Future: Graphical Abstracts



Graphical Abstracts

A single, concise, pictorial and visual summary of the main findings of the article. This could either be the concluding figure from the article or a figure that is specially designed for the purpose, which captures the content of the article for readers at a single glance

The screenshot shows a journal page for 'Volume 40, In Progress (May 2014)'. The left sidebar lists articles from Volume 1 (1975) to Volume 40 (2014). The main content area displays the first article: 'Parallel L-BFGS-B algorithm on GPU' by Yun Fei, Guodong Rong, Bin Wang, and Wenping Wang. The article is in the 'Technical Section' and is 9 pages long. A graphical abstract is provided, featuring a 2D grid of points, a histogram of 'Alpha Histogram' values, and a line graph comparing 'CPU L-BFGS-B' and 'GPU L-BFGS-B' performance. The graph shows that the GPU version is significantly faster, reaching 100 iterations in less than 10,000 steps, while the CPU version takes over 60,000 steps. The following table summarizes the performance metrics shown in the graphical abstract:

Metric	Value
Q_{min}	0.6383
Q_{avg}	0.9169
θ_{min}	36.6977
θ_{avg}	53.2486

The second article listed is 'Immersive full-surround multi-user system design' by JoAnn Kuchera-Morin, Matthew Wright, Graham Wakefield, Charles Roberts, Dennis Adderton, Behzad Sajadi, Tobias Höllerer, and Aditi Majumder. It is 21 pages long and includes a graphical abstract showing a 3D visualization of a multi-user system with various colored arrows and lines.

Article of the Future: Content Interactive MATLAB .FIG viewer



Making plots more valuable for research

The screenshot shows an Elsevier article page for "Computer Methods in Applied Mechanics and Engineering". The article title is "Design of multi-component systems using sensitivity analysis". The author is L. Xia. The abstract describes the integrated layout optimization of multi-component systems using a fixed mesh and the extended finite element method (XFEM). The level set method is used to represent components and is combined with the XFEM to describe material discontinuities across elements. Sensitivity analysis is proposed with respect to geometric variables of components and pseudo-densities of the basic structure. An analytical shape sensitivity analysis method is also mentioned.

The interactive viewer overlay on the right side of the article shows a 3D surface plot with a color gradient from blue to red. The viewer includes a "Supplementary MATLAB figures" section with a "Download figure" button and a "Workspace" section. A magnifying glass icon is positioned over the plot, indicating interactive capabilities.

Author submits .FIG file as supplementary data

Interactive viewer explore the plot from within the online article

- Explore figures interactively – zoom, rotate, etc.
- Download underlying data for validation & re-use
- Currently in pilot phase for 5 journals

Article of the Future: Content Executable Papers - interface



SciVerse ScienceDirect Hub ScienceDirect Scopus Applications Register Login Go to SolVal Suite

Home Publications Search My settings My alerts Shopping cart Help

Export citation PDF (3071 K) More options...

Show thumbnails in outline Highlights Abstract

Graphical abstract Keywords 1. Introduction 2. Related work 3. Data-aware 3D partitions 3.1. Interest point detection 3.1.1. Control of mesh resolution 3.2. Clusters of interest points 3.3. Partitioning and description

Computers & Graphics
Available online 1 May 2013
In Press, Corrected Proof — Note to users

Special Section on 3D Object Retrieval

Data-aware 3D partitioning for generic shape retrieval

Universally Available

Ivan Sipiran^a, Benjamin Bustos^a, Tobias Schreck^b

^a KDW+PRISMA Research Group, Department of Computer Science, University of Chile, Chile
^b Visual Analytics Group, Department of Computer and Information Science, University of Konstanz, Germany

<http://dx.doi.org/10.1016/j.cag.2013.04.002>, How to Cite or Link Using DOI
Permissions & Reprints

Highlights

- We propose a simple and effective partitioning algorithm for 3D meshes.
- The use of part descriptions enhances the use of global descriptors.
- We define a distance as an optimization problem, including both linear and quadratic constraints.
- Our experiments show that the partitioning algorithm has a great influence in the final effectiveness of retrieval tasks.

Abstract

In this paper, we present a new approach for generic 3D shape retrieval based on a mesh partitioning scheme. Our method combines a mesh global description and mesh partition descriptions to represent a 3D

Search ScienceDirect Search

Bibliographic information Citing and related articles Applications and tools Collage

More information on this application Explore executable code and data belonging to this article

Author's introduction: Experiments Data-Aware Partitioning

Code 1 (Bash): Retrieval demo (Code 1)

Working Copy	Requisites	Original	Output
<pre>Subject="000003" method="LPM" mu="0.9" descriptor="FANORAMA" numList="4" ./Experiment1/retrievalExperiment.sh Subject \$method \$mu \$descriptor \$numList</pre>			

Data 1: Query object
Data 2: First ranked model
Data 3: Second ranked model
Data 4: Third ranked model
Data 5: Fourth ranked model
Data 6: Fifth ranked model

Workspace

<http://www.sciencedirect.com/science/article/pii/S0097849313000484>

<http://www.elsevier.com/connect/executable-papers-in-computer-science-go-live-on-sciencedirect>

Article of the Future: Context Data-linking based on tagged Entities



Table 1.

6.2. Seasonality of ET cover performance

approximately 1.65 g/cm³. The CSC also contained a 15 cm layer of uncompacted topsoil overlaying the compacted layers to support growth of herbaceous vegetation and control erosion.

The ET cover design was based upon the results of an unpublished preliminary modeling study conducted by CH2MHill, a project consultant. The study's authors utilized the Simultaneous Heat and Water (SHAW) model (Flerchinger and Saxton, 1989) to demonstrate that an approximate 60 cm layer of vegetated forest soils would inhibit moisture at least as effectively as would a prescriptive CSC. Consequently, the second lysimeter was capped with a 60 cm ET cover consisting of minimally-compacted, organic-rich forest soils. The ET soils were classified as silts and silty sands (USCS-ML and USCS-SM), and placed using low ground pressure equipment at 80% to 90% of maximum proctor density as determined by ASTM ID: D698. The ET cover was placed in two 30 cm lifts. In addition, the ET lysimeter contained a root barrier 100 cm depth to discourage root penetration into the drainage system. Deep root penetration was not anticipated to be a problem in the CSC lysimeter, so a root barrier was not used on the CSC lysimeter. As the impregnated-fabric root barrier was permeable to moisture, the root barrier in the ET lysimeter was assumed not to impede moisture flow or impact drainage results.

- For entities (concepts) mentioned in an article – proteins, genes, standards planets, cities, etc. etc.
- Available for 10+ data repositories
- Author-tagged for precision

Other Languages

Login Home About ASTM Site Map Support Contact Web/IP Policies Copyright/Permissions

Search View Shopping Cart

Standards Worldwide - Home

Standards

Search Standards

Annual Book of Standards

Online Subscriptions

Collections on DVD

Compilations

By Category

Track Standards

Copyright/Permissions

Standards

Back to [Geotechnical Engineering Standards](#)

ASTM D698 - 07e1 ⓘ

ASTM D698 - 07e1 Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12 400 ft-lbf/ft³ (600 kN-m/m³))

Active Standard ASTM D698 Developed by Subcommittee: [D18.03](#) | [Book of Standards Volume: 04.08](#)

<http://www.elsevier.com/databaselinking>

Article of the Future: Context Data-linking in Astronomy



The screenshot shows the Elsevier article page for "2MASS observation of BL Lac objects II" by L.S. Mao. The article is from "New Astronomy", Volume 16, Issue 8, December 2011, Pages 603-629. The sidebar on the right, titled "Data for this article", lists data repositories: SIMBAD (2 objects) and NED (860 objects). It also mentions collaboration with NASA ADS, NED & SIMBAD. The sidebar includes a "Share" section and a "Workspace" section at the bottom.

New Astronomy
Volume 16, Issue 8, December 2011, Pages 603-629

2MASS observation of BL Lac objects II
L.S. Mao

National Astronomical Observatories/Yunnan Observatory, CAS, Kunming 650011, China
Graduate School of Chinese Academy of Sciences, Beijing 100039, China
Department of Physics, Yunnan Normal University, Kunming 650092, China

<http://dx.doi.org/10.1016/j.newast.2011.05.002>, [How to Cite or Link Using DOI](#)
[Permissions & Reprints](#)

Abstract

In this paper, we have searched for the Two Micron All Sky Survey (2MASS) counterparts of 1434 BL Lacs. Eight hundred and thirty-three of 1434 BL Lacs (~58%) have spatially coincident 2MASS counterparts. Fermi-detected BL Lacs (FBLs) have a much higher 2MASS detection rate than non-Fermi-detected BL Lacs (non-FBLs) (~95% vs 49%). We compare the near-infrared (NIR) apparent magnitudes, monochromatic luminosities and spectral indices of different subclasses of BL Lacs: (i) FBLs are significantly brighter and more luminous than non-FBLs; (ii) low-energy peaked BL Lacs (LBLs) are significantly more luminous than

Data for this article

More information on this application

Data for astronomical objects in this article is available at the following data repositories:

- SIMBAD (2 objects)
- NED (860 objects)

In collaboration with NASA ADS, NED & SIMBAD

Share

[Add apps](#) | [Help](#)

Workspace

- One-click access to relevant primary data
- Links to all data available at data repository for this specific article
- In collaboration with NASA ADS, SIMBAD & NED

Open Access Regulations and Policies: What you need to know

...

Aren't Acknowledgments Hard Enough?

- A wide variety of requirements and regulations about open access to published work
 - Governmental (mostly national, funding agency)
 - University (policies on institutional repositories)
 - Other funders, other stakeholders
- What do you need to know here?

Three Thoughts

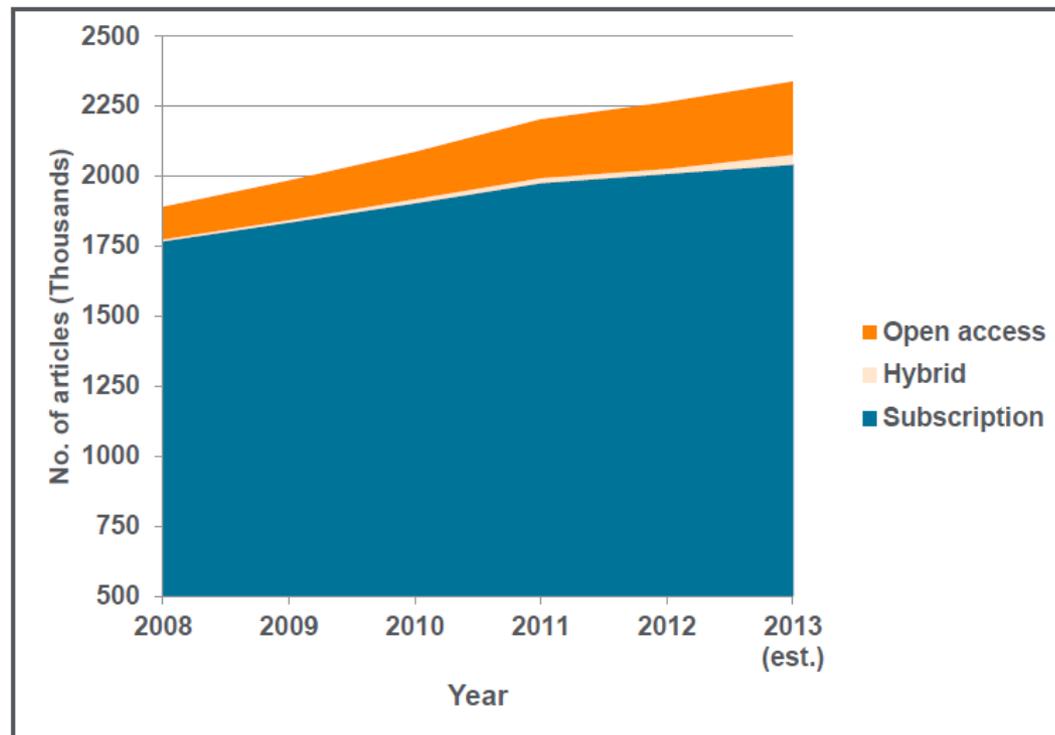
1. Some good news: publishers generally work well with government mandates (e.g., CHORUS).
2. University policies often require some specific action with relation to publishers.
3. Some faculty care a lot about these issues, but most just want to publish in venues they care about – compliance may require support!

Challenge: New business and funding models



Total article growth by journal business model

There were in 2013, estimated worldwide 2,041,106 published subscription and 297,596 published open access articles



Open access content:

- Currently growing at approx. 20% in 2013
- Amounts to a total article share (hybrid + "pure" Gold) of approx. 8.2% in 2013
- The total article share of all immediately accessible OA articles is 12.7% including subsidized open access
- Elsevier open access growth amounted to 3500 *extra* open access articles in 2013

Subscription content:

- Continues to grow year on year at approx. 3-4%
- Amounts to a total article share of approx. 87.3% in 2013
- Elsevier subscription growth amounted to 20,000 *extra* articles in 2013

Elsevier is encouraged by the OSTP memo and directives

- **It promotes gold open access funded through publishing charges and flexible embargo periods for green open access.**
- **It seeks to leverage publishing industry investments rather than duplicate efforts.**
- **It encourages collaboration.**

Elsevier and Open Access



Gold open access

Expanding our gold options:

- Launching new open access journals
- Rolled out gold options in our established journals (over 1600 hybrid titles)
- Waiving policy in place for authors

Improving our systems

- Making the author publishing experience easier
- Improving open access labelling
- Working with our society partners

Green open access

- Posting policy enables the option to self-archive in all of our journals
- Toward a new posting policy:
 - Permit immediate internal use in institutional repositories
 - Public access after embargo of typically 12 – 24 months
- Piloting ways to facilitate green open access:
 - CHORUS
 - Agreements with funders and institutions
 - New repository tools such as embed PDF and metadata pilots

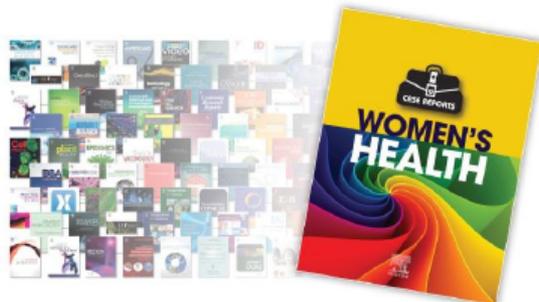


100
Open access journals

1600+
Offer gold open access options

3
Creative Commons licenses offered including CC BY

\$500- \$5000
(US Dollars)
Price range of our OA fees



CHORUS

Open Q&A
...

The Future of Scholarly Publication: Key Issues Facing Computing Research

Joseph A. Konstan, konstan@umn.edu

Jack Davidson, jwd@virginia.edu

Todd Green, To.Green@elsevier.com

Margo Seltzer, margo@eecs.harvard.edu