

Gowers's Weblog

Mathematics related discussions

A new journal in combinatorics

This post is to announce that a new journal, Advances in Combinatorics (<https://advances-in-combinatorics.scholasticahq.com/>), has just opened for submissions. I shall also say a little about the journal, about other new journals, about my own experiences of finding journals I am happy to submit to, and about whether we are any nearer a change to more sensible systems of dissemination and evaluation of scientific papers.

Advances in Combinatorics

Advances in Combinatorics is set up as a combinatorics journal for high-quality papers, principally in the less algebraic parts of combinatorics. It will be an arXiv overlay journal, so free to read, and it will not charge authors. Like its cousin Discrete Analysis (which has recently published its 50th paper) it will be run on the Scholastica platform (<https://scholasticahq.com/>). Its minimal costs are being paid for by the library at Queen's University in Ontario (<http://library.queensu.ca/>), which is also providing administrative support. The journal will start with a small editorial board. Apart from me, it will consist of Béla Bollobás, Reinhard Diestel, Dan Kral, Daniela Kühn, James Oxley, Bruce Reed, Gabor Sarkozy, Asaf Shapira and Robin Thomas. Initially, Dan Kral and I will be the managing editors, though I hope to find somebody to replace me in that role once the journal is established. While I am posting this, Dan is simultaneously announcing the journal at the SIAM conference in Discrete Mathematics, where he has just given a plenary lecture. The journal is also being announced by COAR, the Confederation of Open Access Repositories (<https://www.coar-repositories.org/>). This project aligned well with what they are trying to do, and it was their director, Kathleen Shearer, who put me in touch with the library at Queen's.

As with Discrete Analysis, all members of the editorial board will be expected to work: they won't just be lending their names to give the journal bogus prestige. Each paper will be handled by one of the editors, who, after obtaining external opinions (when the paper warrants them) will make a recommendation to the rest of the board. All decisions will be made collectively. The job of the managing editors will be to make sure that this process runs smoothly, but when it comes to decisions, they will have no more say than any other editor.

The rough level that the journal is aiming at is that of a top specialist journal such as *Combinatorica*. The reason for setting it up is that there is a gap in the market for an "ethical" combinatorics journal at that level — that is, one that is not published by one of the major commercial publishers, with all the well known problems that result. We are not trying to destroy the commercial combinatorial journals, but merely to give people the option of avoiding them if they would prefer to submit to a journal that is not complicit in a system that uses its monopoly power to ruthlessly squeeze library

budgets.

We are not the first ethical journal in combinatorics. Another example is The Electronic Journal of Combinatorics (<http://www.combinatorics.org/>), which was set up by Herb Wilf back in 1994. The main difference between EJC and Advances in Combinatorics is that we plan to set a higher bar for acceptance, even if it means that we accept only a small number of papers. (One of the great advantages of a fully electronic journal is that we do not have a fixed number of issues per year, so we will not have to change our standards artificially in order to fill issues or clear backlogs.) We thus hope that EJC and AIC will between them offer suitable potential homes for a wide range of combinatorics papers. And on the more algebraic side, one should also mention Algebraic Combinatorics (<https://alco.centre-mersenne.org/journals/ALCO>), which used to be the Springer journal The Journal of Algebraic Combinatorics (which officially continues with an entirely replaced editorial board — I don't know whether it's getting many submissions though), and also the Australasian Journal of Combinatorics (<http://ajc.maths.uq.edu.au/>).

So if you're a combinatorialist who is writing up a result that you think is pretty good, then please consider submitting it to us. What do we mean by "pretty good"? My personal view — that is, I am not speaking for the rest of the editorial board — is that the work in a good paper should have a clear reason for others to be interested in it (so not, for example, incremental progress in some pet project of the author) and should have something about it that makes it count as a significant achievement, such as solving a well-known problem, clearing a difficult technical hurdle, inventing a new and potentially useful technique, or giving a beautiful and memorable proof.

What other ethical journals are there?

Suppose that you want to submit an article to a journal that is free to read and does not charge authors. What are your options? I don't have a full answer to this question, so I would very much welcome feedback from other people, especially in areas of mathematics far from my own, about what the options are for them. But a good starting point is to consult the list of current member journals in the Free Journal Network (<https://freejournals.org/>), which Advances in Combinatorics hopes to join in due course.

Three notable journals not on that list are the following.

1. Acta Mathematica (<https://intlpress.com/site/pub/pages/journals/items/acta/home/main/index.html>). This is one of a tiny handful of the very top journals in mathematics. Last year it became fully open access without charging author fees. So for a *really* good paper it is a great option.
2. Annales Henri Lebesgue (<https://Annales.lebesgue.fr/index.php/AHL/>). This is a new journal that has not yet published any articles, but is open for submissions. Like Acta Mathematica, it covers all of mathematics. It aims for a very high standard, but it is not yet clear what that means in practice: I cannot say that it will be roughly at the level of Journal X. But perhaps it will turn out to be suitable for a very good paper that is just short of the level of Annals, Acta, or JAMS.
3. Algebra and Number Theory (<https://msp.org/ant/2018/12-2/>). I am told that this is regarded as the top specialist journal in number theory. From a glance at the article titles, I don't see much analytic number theory, but there are notable analytic number theorists on the editorial board, so perhaps I have just not looked hard enough.

Added later: I learn from Benoît Kloeckner and Emmanuel Kowalski in the comments below that my information about Algebra and Number Theory was wrong, since articles in that journal are not free to read

until they are five years old. However, it is published by MSP (<https://msp.org/>), which is a nonprofit organization, so as subscription journals go it is at the ethical end of the spectrum.

In what areas are ethical journals most needed?

I would very much like to hear from people who would prefer to avoid the commercially published journals, but can't, because there are no ethical journals of a comparable standard in their area. I hope that combinatorialists will no longer have that problem. My impression is that there is a lack of suitable journals in analysis and I'm told that the same is true of logic. I'm not quite sure what the situation is in geometry or algebra. (In particular, I don't know whether Algebra and Number Theory is also considered as the top specialist journal for algebraists.) Perhaps in some areas there are satisfactory choices for papers of some standards but not of others: that too would be interesting to know. Where do you think the gaps are? Let me know in the comments below.

Starting a new journal.

I want to make one point loud and clear, which is that the mechanics of starting a new, academic-run journal are now very easy. Basically, the only significant obstacle is getting together an editorial board with the right combination of reputation in the field and willingness to work. What's more, unless the journal grows large, the work is quite manageable — all the more so if it is spread reasonably uniformly amongst the editorial board. Creating the journal itself can be done on one of a number of different platforms, either for no charge or for a very small charge. Some examples are the Mersenne platform (<https://www.centre-mersenne.org/>), which hosts the Annales Henri Lebesgue, the Episciences platform (<https://www.episciences.org/>), which hosts the Epijournal de Géométrie Algébrique (<https://epiga.episciences.org/>), and Scholastica, which, as I mentioned above, hosts Discrete Analysis and Advances in Combinatorics.

Of these, Scholastica charges a submission fee of \$10 per article and the other two are free. There are a few additional costs — for example, Discrete Analysis pays a subscription to CrossRef in order to give DOIs to articles — but the total cost of running a new journal that isn't too large is of the order of a few hundred dollars per year, as long as nobody is paid for what they do. (Discrete Analysis, like Advances in Combinatorics, gets very useful assistance from librarians, provided voluntarily, but even if they were paid the going rate, the total annual costs would be of the same order of magnitude as one "article processing charge" of the traditional publishers, which is typically around \$1500 per article.)

What's more, those few hundred dollars are not an obstacle either. For example, I know of a fund that is ready to support at least one other journal of a similar size to Discrete Analysis, there are almost certainly other libraries that would be interested in following the enlightened example of Queen's University Library and supporting a journal (if you are a librarian reading this, then I strongly recommend doing so, as it will be helping to weaken the hold of the system that is currently costing you orders of magnitude more money), and I know various people who know about other means of obtaining funding. So if you are interested in starting a journal and think you can put together a credible editorial board, then get in touch: I can offer advice, funding (if the proposal looks a good one), and contact with several other people who are knowledgeable and keen to help.

A few remarks about my own relationship with mathematical publishing.

My attitudes to journals and the journal system have evolved quite a lot in the last few years. The alert reader may have noticed that I've got a long way through this post before mentioning the E-word. I still think that Elsevier is the publisher that does most damage, and have stuck rigidly to my promise made over six years ago not to submit a paper to them or to do editorial or refereeing work. However, whereas then I thought of Springer as somehow more friendly to mathematics, thanks to its long tradition of publishing important textbooks and monographs, I now feel pretty uncomfortable about all the big four — Elsevier, Springer, Wiley, and Taylor and Francis — with Springer having got a whole lot worse after merging with Nature Macmillan. And in some respects Elsevier is better than Springer: for example, they make all mathematics papers over four years old freely available, while Springer refuses to do so. Admittedly this was basically a sop to mathematicians to keep us quiet, but as sops go it was a pretty good one, and I see now that Elsevier's open archive, as they call it, includes some serious non-mathematical journals such as Cell. (See [their list of participating journals \(https://www.elsevier.com/about/open-science/open-access/open-archive\)](https://www.elsevier.com/about/open-science/open-access/open-archive) for details.)

I'm also not very comfortable with the society journals and university presses, since although they use their profits to benefit mathematics in various ways, they are fully complicit in the system of big deals, the harm of which outweighs those benefits.

The result is that if I have a paper to submit, I tend to have a lot of trouble finding a suitable home for it, and I end up having to compromise on my principles to some extent (particularly if, as happened recently, I have a young coauthor from a country that uses journal rankings to evaluate academics). An obvious place to submit to would be Discrete Analysis, but I feel uncomfortable about that for a different reason, especially now that I have discovered that the facility that enables all the discussion of a paper to be hidden from selected editors does not allow me, as administrator of the website, to hide a paper from myself. (I won't have this last problem with Advances in Combinatorics, since the librarians at Queens will have the administrator role on the system.)

So my personal options are somewhat limited, but getting better. If I have willing coauthors, then I would now consider (if I had a suitable paper), Acta Mathematica, Annales Henri Lebesgue, Journal de l'École Polytechnique, Discrete Analysis perhaps (but only if the other editors agreed to process my paper offline), Advances in Combinatorics, the Theory of Computing, Electronic Research Announcements in the Mathematical Sciences, the Electronic Journal of Combinatorics, and the Online Journal of Analytic Combinatorics. I also wouldn't rule out Forum of Mathematics. A couple of journals to which I have an emotional attachment even if I don't really approve of their practices are GAFA and Combinatorics, Probability and Computing. (The latter bothers me because it is a hybrid journal — that is, it charges subscriptions but also lets authors pay large APCs to make their articles open access, and I heard recently that if you choose the open access option, CUP retains copyright, so you're not getting that much for your money. But I think not many authors choose this option. The former is also a hybrid journal, and is published by Springer.) Annals of Mathematics, if I'm lucky enough to have an Annals-worthy paper (though I think now I'd try Acta first), is not too bad — although its articles aren't open access, their subscription costs are much more reasonable than most journals.

That's a list off the top of my head: if you think I've missed out a good option, then I'd be very happy to hear about it.

As an editor, I have recently made the decision that I want to devote all my energies to promoting journals and “post-journal” systems that I fully approve of. So in order to make time for the work that will be involved in establishing *Advances in Combinatorics*, I have given notice to *Forum of Mathematics* and *Mathematika*, the two journals that took up the most of my time, that I will leave their editorial boards at the end of 2018. I feel quite sad about *Forum of Mathematics*, since I was involved in it from the start, and I really like the way it runs, with proper discussions amongst all the editors about the decisions we make. Also, I am less hostile (for reasons I’ve given in the past) to its APC model than most mathematicians. However, although I am less hostile, I could never say that I have positively liked it, and I came to the conclusion quite a while ago that, as many others have also said, it simply can’t be made to work satisfactorily: it will lead to just as bad market abuses as there are with the subscription system. In the UK it has been a disaster — government open-access mandates have led to universities paying as much as ever for subscriptions and then a whole lot extra for APCs. And there is a real worry that subscription big deals will be replaced by APC big deals, where a country pays a huge amount up front to a publisher in return for people from that country being able to publish with them. This, for example, is what Germany is pushing for. Fortunately, for the moment (if I understand correctly, though I don’t have good insider information on this) they are asking for the average fee per article to be much lower than Elsevier is prepared to accept: long may that impasse continue.

So my leaving *Forum of Mathematics* is not a protest against it, but simply a practical step that will allow me to focus my energies where I think they can do the most good. I haven’t yet decided whether I ought to resign in protest from some other editorial boards of journals that don’t ask anything of me. Actually, even the practice of having a long list of names of editors, most of whom have zero involvement in the decisions of the journal, is one that bothers me. I recently heard of an Elsevier journal where almost all the editorial board would be happy to resign en masse and set up an ethical version, but the managing editor is strongly against. “But why don’t the rest of the board resign in that case?” I naively asked, to which the answer was, “Because he’s the one who does all the work!” From what I understood, this is literally true — the managing editor handles all the papers and makes all the decisions — but I’m not 100% sure about that.

Is there any point in starting new journals?

Probably major change, if it happens, will be the result of decisions made by major players such as government agencies, national negotiators, and so on. Compared with big events like the Elsevier negotiations in Germany, founding a new journal is a very small step. And even if all mathematicians gave up using the commercial publishers (not something I expect to see any time soon), that would have almost no direct effect, since mathematics journals are bundled together with journals in other subjects, which would continue with the current system.

However, this is a familiar situation in politics. Big decisions are taken by people in positions of power, but what prompts them to make those decisions is often the result of changes in attitudes and behaviour of voters. And big behavioural changes do happen in academia. For example, as we all know, many people have got into the habit of posting all their work on the arXiv, and this accumulation of individual decisions has had the effect of completely changing the way dissemination works in some subjects, including mathematics, a change that has significantly weakened the hold that journals have — or would have if they weren’t bundled together with other journals. Who would ever subscribe at vast expense to a mathematics journal when almost all its content is available online in preprint form?

So I see *Advances in Combinatorics* as a small step certainly, but a step that needs to be taken. I hope

that it will demonstrate once again that starting a serious new journal is not that hard. I also hope that the current trickle of such journals will turn into a flood, that after the flood it will not be possible for people to argue that they are forced to submit articles to the commercial publishers, and that at some point, someone in a position of power will see what is going on, understand better the absurdities of the current system, and take a decision that benefits us all.

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23 Responses to “A new journal in combinatorics”

[Noah Snyder](#) Says:

[June 4, 2018 at 4:12 pm](#) | [Reply](#)

In several fields I think there are good options for the “top” journal in that field, but often these journals are quite selective (and increasingly so) and there’s not enough ethical option for the next tier of papers. For example, “Algebra and Number Theory” is a great ethical top-tier journal, but they just don’t publish enough pages to serve as a replacement for the “Journal of Algebra” for the huge number of papers a little below their standards.

I’d like there to be some ethical journals that set a moderate standard (basically a clearly respectable paper) and willing to grow as much to stop the standards from going up.

gowers Says:

June 4, 2018 at 5:10 pm

I think this is a very good point, but I don't see an easy way of meeting this need, because it's much easier to persuade people to do the work necessary to run a small-scale journal with high standards than a large-scale journal with medium standards: the latter is a lot more work and the rewards are less obvious.

An important question here is how many tiers one really wants to have in each field. Do we want top journals that publish genuinely exciting research, second-tier ones for good papers that aren't quite at that level, and moderate-level journals that publish anything that's serious and correct? Do we need the middle level there? Do we want four levels?

My own inclination would be to keep the number of levels down. But I'm not convinced that journals are what are needed for the lower tiers: I'd prefer to see websites designed so that people can (non-anonymously) vouch for the correctness of (all or part of) a paper.

It also seems to me that if the best journals are perceived to be the ethical ones, then it will be that much easier for libraries to stop subscribing to the unethical ones.

umtassio Says:

June 4, 2018 at 4:14 pm | [Reply](#)

This is great news!

Benoît R. Kloeckner Says:

June 4, 2018 at 4:37 pm | [Reply](#)

As far as I know, Algebra and Number Theory (though a great journal) is NOT free to read.

gowers Says:

June 4, 2018 at 4:57 pm

I don't seem to have any trouble reading it (even from home and in incognito mode).

gowers Says:

June 4, 2018 at 7:45 pm

Ah, I was misinformed, and Emmanuel Kowalski's comment below explains how even though I checked, I didn't manage to correct the misinformation.

nobody101 Says:

June 4, 2018 at 7:58 pm

Perhaps your IP address is recognised, I'm not in academia and just randomly clicked on a paper and got an "access denied" (the paper costs \$40 apparently).

gowers Says:

June 4, 2018 at 8:10 pm

It was simply that when I checked, I clicked on a fairly random article, but it was over five years old. The more recent ones I can't read.

Emmanuel Kowalski Says:

June 4, 2018 at 6:53 pm | [Reply](#)

As you certainly know, another recent development that might have a strong effect is that negotiations between France and Springer broke down recently (so that, in principle, French universities do not have access to new Springer articles). This is explained in the press release

<https://www.couperin.org/breves/1333-couperin-ne-renouvelle-pas-l-accord-national-passe-avec-springer>

And ANT's website states "All electronic content becomes free and open access 5 years after publication", so they are indeed not fully immediately freely readable.

Mark C. Wilson Says:

[June 4, 2018 at 7:29 pm](#) | [Reply](#)

Congratulations on this new journal, which will be considered for FJN membership for 2019. Please let me know if you need any help with anything.

New "Overlay" Journal in Mathematics Launches With Help from COAR and Queen's University Library | LJ infoDOCKET Says:

[June 4, 2018 at 8:29 pm](#) | [Reply](#)

[...] [Read Comments by Timothy Gowers, Journal Co-Founder](#) [...]

Colin Reid Says:

[June 4, 2018 at 10:12 pm](#) | [Reply](#)

For finding open access journals, there's also the Directory of Open Access Journals, which currently lists 216 journals in the 'Mathematics' category. Telling where they rank on the prestige scale is a different game, of course.

One journal I couldn't find on there, but seems to qualify otherwise, is the New York Journal of Mathematics (also one of the oldest electronic journals, with articles going back to 1994).

David Roberts Says:

[June 5, 2018 at 12:44 am](#)

New York J definitely is a quality outfit, a mid-tier, broad-spectrum journal. I don't quite know how the internals work, but when my paper there was handled by Mike Hopkins, he was definitely doing the work, not the EiC.

Mark C. Wilson Says:

[June 5, 2018 at 6:47 am](#)

One can also break down the search by APC (finding those with APC = \$0 is a good idea).

Colin Reid Says:

[June 5, 2018 at 7:28 am](#)

Apparently NYJM is experiencing some sort of crisis at the moment, so it's best not to send papers there right now. I had a good experience with the journal in the past, though.

David Roberts Says:

[June 5, 2018 at 7:52 am](#)

Ah, thanks for that info, Colin.

Mark C. Wilson Says:

[June 5, 2018 at 9:21 am](#)

There are plenty of good journals not in DOAJ. However for FJN we will likely require DOAJ membership in future. NYJM has been invited to FJN but never responded.

Alex Scorpan Says:

[June 4, 2018 at 10:13 pm](#) | [Reply](#)

Benoît and Emmanuel are correct: Algebra & Number Theory, like other MSP journals, is available by subscription (with access becoming free five years after publication). MSP was founded by mathematicians as a nonprofit alternative to the big commercial publishers. For what it's worth, our subscription prices are far below those of other publishers, but are still necessary to pay for our top-notch copyediting.

Rufus Andrew Says:

June 4, 2018 at 11:34 pm | [Reply](#)

I have to ask, how is this a question of ethics? The Simons Foundation (which supports arXiv) wouldn't have any funds if not for the huge profits generated by Renaissance Technologies. In addition, Jim Simons' hedge fund didn't make billions by investing in feel-good non-profits, they dodged paying \$6billion USD in taxes. He's pouring all this money into the math community and no one is asking where it even came from. I see no problem with arXiv accepting their money but I'm also not convinced using this platform to launch a journal is inherently more ethical than publishing with Elsevier.

Mark C. Wilson Says:

June 5, 2018 at 9:20 am

- 1) arXiv is funded by a lot more than just Simons
- 2) the assertions about Simons are certainly not what I would call common knowledge
- 3) community-run journals do not have to use arXiv at all if they don't want to – there are plenty of other preprint servers, and those are not required in any case
- 4) publishing with Elsevier clearly involves substantial ethical problems related to privatization of public goods and lack of transparency – it is at least arguable that this is worse than using arXiv!

A new ethical mathematics journal | theHigherGeometer Says:

June 5, 2018 at 12:38 am | [Reply](#)

[...] Gowers has posted about a new journal, Advances in Combinatorics, that is a) open access, b) free to publish in for [...]

David Roberts Says:

June 5, 2018 at 12:56 am | [Reply](#)

I'm afraid I must quibble a little bit with the wording at the 'For Authors' page, where it is written:

“Articles under consideration will already be in the public domain, since it is a requirement of the journal that they should be posted to arXiv.”

This is not strictly speaking correct, since 'public domain' is a legal term and something that may or may not apply to papers on the arXiv, since it is possible to grant a public domain Creative Commons license when submitting to the arXiv (like for example, this paper: <https://arxiv.org/abs/1411.5779>). I suggest something like “will already be public” (or similar) instead.

Mark C. Wilson Says:

June 6, 2018 at 6:54 am | [Reply](#)

I suggest that when expanding the editorial board, some community input be solicited. The model used by Quantum, where a steering committee makes a public call for nominations for editors, seems reasonable. Having community buy-in is important in getting the journal to work well. Obviously, editors already working for somewhere like JCTB may be interested.

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