



MDS <maxieds@gmail.com>

JNT-D-19-00190: Exact Formulas for the Generalized Sum-of-Divisors Functions

34 messages

Steven J Miller <sjm1@williams.edu>
 To: maxieds@gmail.com

Wed, Feb 27, 2019 at 9:02 AM

Greetings. I'm pasting your text below, trying to follow what happened.

1. You submitted an earlier version to JNT, we refereed and either rejected or gave you a revise.
2. You sent a new version to JIS, it was recommended but then something happened and the referee's suggestion was not followed (this is NOT unusual, often journals have more papers than they can publish).
3. You sent to Discrete Math, they liked the paper but said they were the wrong outlet.
4. You sent it back here, including the referee report from JIS.

If this is correct, to expedite the review process we would like to reach out to the referees from JIS and Discrete Math; can you provide the contact information for your editors there? As you mention there was a dispute with JIS and I'll be contacting them, is there anything you can share so I know what is the situation? Thanks

=====

I have previously submitted a substantially different, and less developed, revision of an article with this same title to the JNT before to a rejection. I feel that the reviewers comments on the material then did not adequately address the significance and implications of the new exact formulas proved there compared to the ordinary divisor sum expressions for the generalized sum-of-divisors functions. In particular, the reviewer's only brief comments at that point were that these formulas did not encode significantly more information than the sum over divisors which defines $\sigma_{\alpha}(x) := \sum_{d|x} d^{\alpha}$. Since then (almost a year and a half ago), I have rewritten and reorganized the article contents which makes it much more readable, easy to parse, and emphasizes the significance of these results more concretely up front in the abstract by pointing out the obvious new relations of these functions to partial sums of the Riemann zeta function and the distribution of the primes. The current version of this manuscript which I am submitting today also features completely new applications which extend and make use of the primary new results I have proved here.

I recently received a rejection of this article from Discrete Mathematics. The only complaint on the article was that the material was much better suited towards a number theory journal. I am therefore submitting my manuscript to JNT. The article in more or less (modified abstract and extended conclusions section only) current formula was successfully reviewed and accepted at the Journal of Integer Sequences in 2018 before the Discrete Math submission (refer to: <https://arxiv.org/abs/1705.03488>). Unfortunately, an editorial dispute with Jeffrey Shallit at the JIS journal resulted in my needing to find a new outlet for this article. A copy of the reviewer's complimentary comments on the article is contained with this submission for reference. I am more than confident that this article belongs in a quality journal like JNT!

Maxie Schmidt <maxieds@gmail.com>
 To: Steven J Miller <sjm1@williams.edu>

Fri, Mar 1, 2019 at 2:46 PM

Steven,

Yes, please let me clarify along each point. Sorry for the hard to follow submission notes.

1. You submitted an earlier version to JNT, we refereed and either rejected or gave you a revise.

I submitted a *much earlier* (and much harder to follow) revision of the article to JNT over a year and a half ago. The advice from the initially reviewer was to reject. The summary of their comments was that my formulas did not add any context of information to our knowledge of these sum-of-divisor functions beyond which the standard divisor sum definitions, e.g., $\sum_{d|x} d^{\alpha}$, already give us. I do not feel that this preliminary judgement was a good or fair one. So I am asking for the substantially modified manuscript to be re-reviewed in its current form.

2. You sent a new version to JIS, it was recommended but then something happened and the referee's suggestion was not followed (this is NOT unusual, often journals have more papers than they can publish).

I sent a version of the manuscript which is almost identical (save for the slightly newer abstract and the corrections post review) to the Journal of Integer Sequences JIS last year. It was accepted with complimentary reviewer comments which I submitted along with this manuscript to JNT. I made all required edits suggested by the reviewer and tried to appease Jeff Shallit (editor and chief at JIS) and his wishes that I find the most up-to-date reference for the tightest known big-O bound for $\sum_{n \leq x} \sigma(n)$ which are now included as reference #'s [7,1,6] per Shallit's authoritative requirement. The disagreement that ended in my paper ultimately being dismissed from the JIS queue without publication was over Dr. Shallit's displeasure with my ability to find a better reference than he had for the tightest bound (which I believe after asking on an online forum for input is due to Walfisz, though not much progress has been made recently to get a better bound to this often overlooked one). In particular, Shallit determined in his best judgement that I has not tried hard enough to obtain this reference, which also was a requirement stipulated by him, *not* the referee, prior to the manuscript being deemed publishable. Therefore, he declared authoritatively at the time, my paper should be rejected without the possibility for revision here and ever after...

3. You sent to Discrete Math, they liked the paper but said they were the wrong outlet.

Yes. This is correct.

4. You sent it back here, including the referee report from JIS.

Yes. I uploaded the complimentary JIS review of the article which called one of my proofs in the article "elegant" to supplement your editorial process at JIS.

If this is correct, to expedite the review process we would like to reach out to the referees from JIS and Discrete Math; can you provide the contact information for your editors there? As you mention there was a dispute with JIS and I'll be contacting them, is there anything you can share so I know what is the situation? Thanks

My contact point at Discrete Mathematics is Ae Ja Yee. The decision letter I received from her is attached (in PDF format). I will abbreviate the JIS conversation. My contact point at that journal is the ubiquitous Jeffrey Shallit (). I am also attaching the relevant portions of the review process of my article with them for your convenience. Feel free to contact both editors with my consent to figure out who in the blind (to me) review process has communicated their opinions to these two journal outlets.

Please let me know if there is anything else I can do to make your life easier while editorially reviewing my manuscript.

Maxie

2 attachments



Gmail - DM 25743.pdf

75K



Gmail - Submission to the Journal of Integer Sequences.pdf

171K

Maxie Schmidt <maxieds@gmail.com>
To: Steven J Miller <sjm1@williams.edu>

Fri, Mar 1, 2019 at 2:48 PM

Steven,

My apologies. I meant to include the plaintext copies of the prior editor's email addresses:

1. Shallit: shallit@uwaterloo.ca
2. Yee: yee@psu.edu (from the best I can tell from her personal PSU webpage).

Maxie

[Quoted text hidden]

Steven J Miller <sjm1@williams.edu>
To: Maxie Schmidt <maxieds@gmail.com>

Fri, Mar 1, 2019 at 4:04 PM

ok

this helps

you may not have meant it to seem rude, but it is readable as rude

On Fri, 1 Mar 2019, Maxie Schmidt wrote:

Steven,

My apologies. I meant to include the plaintext copies of the prior editor's email addresses:

1. Shallit: shallit@uwaterloo.ca
2. Yee: yee@psu.edu (from the best I can tell from her personal PSU webpage).

[Quoted text hidden]

Maxie Schmidt <maxieds@gmail.com>
To: Steven J Miller <sjm1@williams.edu>

Fri, Mar 1, 2019 at 5:05 PM

I didn't realize and hadn't re-read through it for content since it was rejected by him. Thanks for pointing this out. After he did that (and possibly in what I wrote privately to you in the previous message) I might have conveyed that I have a little bit of current attitude with Shallit for his editorial decision, which I definitely do since he rejected it for a "stupid" and "petty" reason which was beyond any referee's suggestion. This actually isn't the first time I've had some email discourse with him about editorial policy. Maybe that comes across as well.

Maxie

[Quoted text hidden]

Steven Miller <sjm1@williams.edu>
To: Maxie Schmidt <maxieds@gmail.com>, Steve Miller <sjm1@williams.edu>

Fri, Mar 1, 2019 at 5:09 PM

It did. As you are really in your career, I will give you some advice. You want to be very careful how you email and interact with senior people.

You had a paper which was basically excepted, and as a young graduate student that is very important, unless I am forgetting your status. He correctly pointed out that you did not have the correct references. In a case like that you make damn sure that you have things fixed before sending back. If he is able to quickly do a web search and find better results, it makes it look like you were not taking the suggestion seriously. Once that happens, he might wonder if there is sloppiness elsewhere.

Again, different people will react to the same statement in different ways.

I have forwarded all of this to the other managing editor's, and we are discussing whether or not the paper is appropriate. One thing worth noting is that you want to be very careful and send good products. This is especially true when you post on the arXiv.

Sent from my iPad

[Quoted text hidden]

Maxie Schmidt <maxieds@gmail.com>
To: Steven Miller <sjm1@williams.edu>

Fri, Mar 1, 2019 at 9:09 PM

Steve,

Thank you for the advice as usual. I do appreciate the thoughtfulness and tips you provide.

I have 16 publications so far, so when my adviser learned that Dr. Shallit had rejected my paper based on a non-central reference, he suggested I look for better outlets than that "rag". This might have colored my attitude today. For this, I apologize sincerely.

Also, there is a minor clarification, which is that Dr. Shallit did not reject the paper based on my not finding an alternate reference. Indeed I had found one by Google search as you suggested. His conclusion was that the reference he mined was to a tighter result. Therefore I had not tried hard enough to secure a solid reference in his eyes and so rejected it. Probably (most likely) for the indicated rudeness as you noted more than anything.

I do believe that the paper is good and worth the time of the JNT to review in its current form. Thank you again for the thoughtful and candid advice and consideration of my manuscript.

Maxie

[Quoted text hidden]

Maxie Schmidt <maxieds@gmail.com>
To: Steven Miller <sjm1@williams.edu>

Fri, Mar 1, 2019 at 11:08 PM

Steve,

Please also note a feature of the current manuscript that was not properly noted in the first submitted to JNT over a year ago. In particular, the connection of the (in some sense) remainder terms, τ_{α} , described in Proposition 2.3 (on page 8 of my working draft) to Ramanujan sums is now made explicit. This is important because these are well-studied objects and so now my formulas connect the generalized SOD functions to harmonic numbers (sometimes as partial sums of the Riemann zeta function, depending on which version of the formulas you refer to; cf. Section 1.5 remarks), sums of known explicit terms over the primes $p \leq x$, and Ramanujan sums. I have also included some newer applications in this updated revision (as in Section 3.3 and some conjectured formulas in Remark 2.6 before Section 3).

Also, since you mentioned to me that JNT is interested in computationally motivated works at the Integers conference, I am attaching a copy of the Mathematica notebook which can be forwarded to reviewers. An online Google Drive link to this notebook file is also given at the end of the conclusions section. The reviewer for JIS requested this as a primary aid for he/she to review and computationally verify these unique formulas for basic copy editing purposes.

Thanks again for your feedback earlier today. I apologize for the attitude where it has been misplaced.

Maxie

[Quoted text hidden]

 **sod-formulas.nb**
629K

Steven J Miller <sjm1@williams.edu>
To: Maxie Schmidt <maxieds@gmail.com>

Sat, Mar 2, 2019 at 5:13 AM

Thanks. I have sent to the other managing editors and it could be a few days before everyone reads it and joins in with comments.

[Quoted text hidden]

Steven J Miller <sjm1@williams.edu>
To: Maxie Schmidt <maxieds@gmail.com>

Sat, Mar 2, 2019 at 5:16 AM

is this notebook and link to it mentioned in the paper you sent me?

[Quoted text hidden]

Maxie Schmidt <maxieds@gmail.com>
To: Steven J Miller <sjm1@williams.edu>

Sat, Mar 2, 2019 at 5:17 AM

Yes, it is. It's linked on Google Drive in the last section.

Maxie

[Quoted text hidden]

Steven J Miller <sjm1@williams.edu>
To: Maxie Schmidt <maxieds@gmail.com>

Sat, Mar 2, 2019 at 5:20 AM

ok, just making sure no need to send anything further to my colleagues

thnx /s

[Quoted text hidden]

Steven J Miller <sjm1@williams.edu>
To: Maxie Schmidt <maxieds@gmail.com>

Wed, Mar 6, 2019 at 6:13 AM

did you get my email about next steps?

Maxie Schmidt <maxieds@gmail.com>
To: Steven J Miller <sjm1@williams.edu>

Wed, Mar 6, 2019 at 8:56 AM

Yes, I did. I didn't however completely understand which sections you are suggesting I edit and how. Can you please explain this in more detail?

Maxie

[Quoted text hidden]

Steven J Miller <sjm1@williams.edu>
To: Maxie Schmidt <maxieds@gmail.com>
Cc: SJMiller <sjm1@williams.edu>

Wed, Mar 6, 2019 at 9:14 AM

I'll share some free advice, for what it is worth

It's not good that I had to follow up with you on this. You should respond to all emails within a day, even if it is just to say "I am busy but received your message, will reply in detail later". otherwise things fall thru the cracks. as you are a young author I made a note to myself to check up on you, but I should not have to do that. if you are going to be more than a day from responding to messages, I suggest a vacation message.

As editors we are extremely busy; we've already had well over 200 papers submitted this year, and it's early march.

thus if you want to look at your paper again and think about computational parts that could be expanded and emphasized that's great. you can send us a brief note (to myself and lejla, her address is in the earlier email), and we can go from there.

[Quoted text hidden]

Steven J Miller <sjm1@williams.edu>
To: Maxie Schmidt <maxieds@gmail.com>

Wed, Mar 6, 2019 at 9:15 AM

email crashed as the message was being sent, making sure it makes it to you --s

[Quoted text hidden]

Maxie Schmidt <maxieds@gmail.com>
To: Steven J Miller <sjm1@williams.edu>

Wed, Mar 6, 2019 at 9:32 AM

Yes, I got it. Thank you.

[Quoted text hidden]

Steven J Miller <sjm1@williams.edu>
To: Maxie Schmidt <maxieds@gmail.com>

Wed, Mar 6, 2019 at 9:54 AM

great //s

[Quoted text hidden]

Maxie Schmidt <maxieds@gmail.com>
To: Steven J Miller <sjm1@williams.edu>

Wed, Mar 6, 2019 at 9:56 AM

It's going to take me some time to formulate my thoughts on how best to computationally motivate what's already in the article. May I have a week or so to get this together so I can send the both of you a better manuscript?

Maxie

[Quoted text hidden]

Steven J Miller <sjm1@williams.edu>
To: Maxie Schmidt <maxieds@gmail.com>

Wed, Mar 6, 2019 at 9:57 AM

you have as long as you need

I think we returned the paper to you (rejected); if we revised then you're still in teh system and just can't send elsewhere.

[Quoted text hidden]

Maxie Schmidt <maxieds@gmail.com>
To: Steven J Miller <sjm1@williams.edu>

Wed, Mar 6, 2019 at 11:05 AM

Are you all willing to work with me on the length of the article? I'm having trouble shortening and discarding the previous points (more of reorganizing them so I can focus on computational aspects). What is a reasonable upper bound on the page count I should be shooting for with the end manuscript?

Maxie

[Quoted text hidden]

Steven J Miller <sjm1@williams.edu>

Wed, Mar 6, 2019 at 11:07 AM

To: Maxie Schmidt <maxieds@gmail.com>

take what length is needed

send a rough outline of what you would like to emphasize to myself and the point person for computational papers,
Lejla Smajlovic <lejla.krilic.smajlovic@gmail.com>

again, it is NOT clear that your paper will be a good fit for jnt's computational section. that's why we want you to think
a bit and see what you would emphasize and just send that

does that make sense?

[Quoted text hidden]

Maxie Schmidt <maxieds@gmail.com>
To: Steven J Miller <sjm1@williams.edu>

Wed, Mar 6, 2019 at 11:08 AM

Yes. That sounds good to me.

Maxie

[Quoted text hidden]

Steven J Miller <sjm1@williams.edu>
To: Maxie Schmidt <maxieds@gmail.com>

Wed, Mar 6, 2019 at 11:10 AM

excellent

again, take as long as you need

we want to provide feedback early so you don't spend too much time on something that is not a good fit for jnt

[Quoted text hidden]

Maxie Schmidt <maxieds@gmail.com>
To: Steven J Miller <sjm1@williams.edu>

Thu, Mar 7, 2019 at 4:44 AM

Steven,

Would you mind taking a once over of this outline draft to let me know if this is what you had in mind for emphasizing
the computational aspects of the paper? There are many directions to go in here and I do not think that just including
the Mathematica formulas that I used to check these expansions for errors in the paper text is enough to motivate
things computationally. Especially since that supplementary data is already available to readers online. At any rate, I
spent most of yesterday and today looking through the article, rearranging sections, and working with asymptotics of
my formulas. If you think this would be a good approach, then I will go ahead and formally resubmit the article to both
editors. Otherwise, any suggestions or feedback in the direction of making the paper a good fit for the computational
section of JNT are very much welcome here.

I will try to be on top of my email all day today. It might be a couple of days before you hear back from me over the
weekend.

Thanks for the input.

Maxie

[Quoted text hidden]


 **divisor-sigma-idents-2019.03.07-v1.pdf**
485K

Maxie Schmidt <maxieds@gmail.com>
To: Steven J Miller <sjm1@williams.edu>

Thu, Mar 7, 2019 at 4:45 AM

Sorry. I was in the wrong directory with similar filenames! This is the actual article I wanted you to look at.

Maxie
[Quoted text hidden]

 **divisor-sigma-formulas-2019.03.07-v2.pdf**
364K

Steven J Miller <sjm1@williams.edu>
To: Maxie Schmidt <maxieds@gmail.com>

Thu, Mar 7, 2019 at 6:20 AM

this seems very different....
[Quoted text hidden]

Steven J Miller <sjm1@williams.edu>
To: Maxie Schmidt <maxieds@gmail.com>

Thu, Mar 7, 2019 at 6:29 AM

I know it is a string of bad luck, but it is not good that you sent the wrong thing for me to view, when you tie that in with everything else

I think it is probably best to go to another journal

If you want to try JNT, sent a 1-2 page executive summary to both myself and Lejla, as I suggested.
[Quoted text hidden]

Maxie Schmidt <maxieds@gmail.com>
To: Steven J Miller <sjm1@williams.edu>

Thu, Mar 7, 2019 at 6:51 AM

I accidentally uploaded the wrong file. It was also related (starting from) a Lambert series expansion, but otherwise completely different. I apologise for the mix up. I sent you the correct version less than a minute later, which was early this morning and before any human would be checking email at a reasonable hour. Did you not receive the original?

Maxie
[Quoted text hidden]

Steven J Miller <sjm1@williams.edu>
To: Maxie Schmidt <maxieds@gmail.com>
Cc: SJMiller <sjm1@williams.edu>

Thu, Mar 7, 2019 at 6:56 AM

I did but I got the other one first

This isn't the first mistake you've made

I actually was up and working and saw the wrong one

You want to make sure you send the correct files; you should be very careful and double check. this is a life lesson-- when you apply for jobs you don't want to send the wrong file, or have the wrong school name in the application.

as there have been so many issues I am a bit concerned. I had also said to reach out to me and lejla, as she is the point person for computational submissions. you didn't include her; you weren't following what was suggested.

it's a lot of small mistakes, but it is enough to be a bit troubling.

if you want to try with JNT, I would write a short 1-2 page note summarizing the paper and the computational parts of it and send that and the paper to me and lejla.

[Quoted text hidden]

Maxie Schmidt <maxieds@gmail.com>
To: Steven J Miller <sjm1@williams.edu>

Thu, Mar 7, 2019 at 7:07 AM

Can you point me to the exact specs for what JNT is looking for in a computationally oriented number theory article? I was unable to locate the official specs on the authors guide on the journal website. I'm still unclear as to whether you are looking for software implementations of novel results here, or computation which backs up the math numerically. Please be more specific.

[Quoted text hidden]

Steven J Miller <sjm1@williams.edu>
To: Maxie Schmidt <maxieds@gmail.com>

Thu, Mar 7, 2019 at 7:09 AM

please just write an executive summary of your paper, the results and the computational parts of it. send to me and lejla and we will then read and assess if we think it could be appropriate for the computational part.

right now just worry about what you've done, just tell us what you've done. explicitly emphasize the computational aspects (formulas, code, ...)

we will then make an assessment on whether or not it's a good fit

[Quoted text hidden]

Maxie Schmidt <maxieds@gmail.com>
To: Steven J Miller <sjm1@williams.edu>

Thu, Mar 7, 2019 at 7:19 AM

Ok. I will do that. I will be next week.

With all due respect and gratitude for you reaching out to check on me, the most grievous offense I've really committed here is neglecting to check my email for three days. I'm currently on leave and just do not check my email as regularly as some do right now. I again apologize for sending you a draft of the wrong article, but perhaps you can forgive a tired human for this. The first 14 characters of the two file names were exactly the same and I was working in a crunched terminal window. Sometimes these things slip. If you use GMail or Windows or a phone, most emails automatically pop up on your desktop in real time as you receive them. The time difference was less than a minute and I couldn't have gotten through my own paper that quickly this early.

Maxie

[Quoted text hidden]

Steven Miller <sjm1@williams.edu>
To: Maxie Schmidt <maxieds@gmail.com>, Steve Miller <sjm1@williams.edu>

Thu, Mar 7, 2019 at 9:14 AM

But as I'm reading messages I see the first one, and start spending time on it. You want to check and make sure everything is correct. There are a lot of times where once you submit something you cannot change and you want to double check do I have the right file.

Also, while you did not respond within two days, I do not know how long it would have been before you responded. As you are a young scholar I tried to keep you on my radar screen so it doesn't slip through the cracks, but it is much easier for referees and editors to keep corresponding about a paper immediately, rather than waiting extended periods of time. The longer you wait, the more you forget. You didn't have to spend some time refreshing yourself as to what the paper is about. We have received well over 200 submissions already just for the journals number. Do you want to make it as easy as possible for people.

Finally, I told you you should send something to myself and Lejla, as she is the point person for the computational

section, not me. You didn't follow that.

Given that you had an issue with another journal, I wanted to take the time and let you know that many small things to add up. People are busy and you want to make it as easy as possible.

I am quickly writing this as I head to a conference. Have a good day.

Sent from my iPad

[Quoted text hidden]