A response to the blog by Igor Pak on
"How NOT to reference papers"
http://igorpak.wordpress.com/2014/09/12/how-not-to-reference-papers/
Original posting: https://archive.today/IXYfZ
Last accessed September 16, 2014

In this post, Professor Pak reports on a disagreement with other mathematical colleagues. He states "*I am going to tell a story of one paper and its authors which misrepresented my paper and refused to acknowledge the fact. Its also a story about the section editor of Journal of Algebra which published that paper and then ignored my complaints.*"

He makes various claims about the behaviour, ethics, and motives of the authors and also about those of Professor Gerhard Hiss, the Editor-in-Chief of the *J. Algebra* (Computational Section).

Professor Pak quotes on occasion extracts from emails exchanged with some of the authors, and with Editors of *J. Algebra* over the period Jan - June 2014. The extracts are often selective and devoid of context[1].

I believe that the matter under discussion can best be understood and assessed by others by making the entire content of the email exchange available publicly. I was on the public cc-list of all of the emails listed.

I also comment below on the accuracy of certain claims made in the blog. My focus is on Professor Pak's allegations of unprofessional conduct by Professor Hiss.

Disclaimer:
I am an editor of the "J. Algebra (Computational Section)" since 2005. I have one published research paper (1995) with Alice Niemeyer and was one of her PhD advisors at the Australian National University in the early 1990s [Australian, not American, use]. I was host for Dr Sebastian Jambor, as a Alexander von Humboldt Post-Doctoral Fellow from January 2013-June 2014. I have worked and published extensively over many years with Charles Leedham-Green, one of the authors mentioned. I know personally all of the mathematicians involved.

[1]EOB: Perhaps the most striking example is Pak's comment that "In my complaint to Michel Broué, he responded that Gerhard Hiss is a 'respectable man'": see p. 16 for the correct comment and its context.

Why have I have not simply posted my response to the blog?

I posted the following comment on Professor Pak's blog on September 17:

A comprehensive record of the related interchange between Professor Pak and (i) Professor Niemeyer and (ii) Editors of the Journal of Algebra, together with a brief commentary by me on claims made here, is available at www.math.auckland.ac.nz/˜obrien/response.pdf

I received the following response on September 17 from Professor Pak.

I saw your comment, but did not allow it. My blog post became outrageously popular with thousands of people reading it, and dozens commenting on it. Since some of the comments are rather ridiculous (some giving thumbs up, welcoming me to some anti-establishment crowd, while some claiming libel, chauvinism, etc.) I prohibited all of them on the blog.

Eamonn O'Brien
Professor of Mathematics
University of Auckland
Auckland; September 17, 2014

Comment on specific statements in the blog post

Professor Pak states the following:
In 2005, JOA added a section Computational Algebra and installed Hiss as its editor. Niemeyer had zero paper in JOA prior to 2005 and 7 since 2005. This makes exactly 1/3 of her papers in the JOA, of those published over the past 10 ears, an astonishing percentage for a leading research journal. Remember, as section editor Hiss had to sign off on all these papers.

I note the following:

- Every paper published in the journal lists a Communicating Editor on its first page. I am the Editor who handled five of these papers. Derek Holt handled the 2013 paper by Leuner et al. The seventh was handled by Andrew Mathas and Jean Michel.

- The last claim *"Remember, as section editor Hiss had to sign off on all of these papers"* is inaccurate. No such policy applies. Instead, the policy is the following: The Communicating Editor makes a recommendation to the entire Editorial Board of the journal, and it is rejected or accepted. Hiss played precisely the same role in handling the seven papers as all other members, apart from the Communicating Editor. The Board currently has 37 members.

- The *J. Algebra* 2013 paper by Leuner et al. was originally submitted to me on Friday, December 21, 2012. Since I was the "mentor" for Jambor's postdoc position commencing in Auckland on Jan 1, 2013, I perceived a conflict of interest. Hence I did not handle the paper but instead referred it to Derek Holt on January 7, 2013.

On December 21, 2012, Lehrsthul D für Mathematik, RWTH Aachen, celebrated its Annual Christmas party. I understand Professors Hiss and Niemeyer attended this party. This is presented by Professor Pak as further compelling evidence of their lack of integrity:
If this is not convincing enough, let me note that [4] was submitted to JOA three days before Christmas 2012, which apparently Hiss and Niemeyer celebrated together.

The complete email record

Below find the complete email exchange related to the matter. The emails are unedited and complete, other than the following:

1. I have usually omitted the entire list of recipients; the correspondent and principal recipients are clearly identified.
2. I have added a small number of LaTeX formatting commands to allow them to be read easily in pdf.
3. I have added some clarifying footnotes.
4. Where necessary, I have added my mailbox date of receipt.
5. Since Professor Pak asserts copyright of "A Modern Fable", it is not included as an addition to the email from him dated May 8.

Original source (apart from copyright material) is available on request from me.

Dear Alice and Cheryl, I was reading your recent "Estimation Problems and Randomised Group Algorithms". To my surprise, I discovered that you mention only one algorithm for finding long cycles in symmetric groups [9] of which you are coauthors, but never mention the Bratus-Pak paper which gives a polynomial time algorithm first (see section 2.2.8). In fact, the Bratus-Pak paper was published in January 2000, before Beals et al paper [9] was submitted in September 2000, so there is no chance of an independent discovery. In fact, your paper [9] does cite our paper as well. Can you please explain your choice to omit mentioning our paper?

Thank you very much. – Igor Pak January 8, 2014

Dear Igor,

first of all, we would like to apologise to you and Sergey for not citing your paper in the chapter. This is really a terrible oversight. It came about as follows:

The chapter was written under great time pressure as a record of our short joint lecture course in Galway - we are sorry there was no chance to get advice on it by sending it out before refereeing. I tried to survey the results on proportions of permutations that are known and just wanted to motivate why and how that particular proportion turned out to be important algorithmically for us. It was not meant to imply anything about the algorithm - least of all priority. But of course your algorithm should have been mentioned, even if you do not require that particular proportion of elements. That is a terrible oversight and of course it looks deliberate, even though that honestly was never the intention. I am very sorry I have not been more careful at that point - I have tried so very, very hard to locate every single reference relevant to proportions and was so focussed on proportions - and missed your algorithm, even though I should have known about it.

We would also like to take this opportunity to mention how we came about our algorithm. Charles Leedham-Green was visiting UWA in 1996 and he worked with us on a first version of the algorithm. I talked about that in Oberwolfach in mid 1997 (abstract on OW Web site). Our use of long cycles and pre-transpositions (as we called them) goes back to this time. After Oberwolfach we collaborated with Akos and Bob Beals, who were sure we could improve the complexity. We worked with them on two papers simultaneously - the one about proportions and the algorithm paper and submitted both in 2000. So our work was independent of yours. We are more than happy to acknowledge that you and Sergey were the first to come up with a polynomial time algorithm to solve the problem and usually when we write about algorithms for BB recognition of An/Sn we cite both algorithms and let the publication dates speak for themselves (see your list of citations 6 out of the 11 citations of the paper involve one of Akos, Cheryl or Alice). In this particular instance that got missed since we were writing about proportions.

We are dreadfully sorry and embarrassed for not citing your paper I hope you and Sergey will accept our apologies.

All the best Alice and Cheryl.

January 9, 2014

Dear Alice,

Thank you for your email. I am glad you apologized, this is very helpful.

Unfortunately, I am sorry to report this happens over and over again to that paper. To illustrate this, let me take up your recent paper "Fast recognition of alternating groups of unknown degree" already published in Journal of Algebra. You write there:

"We present a constructive recognition algorithm to decide whether a given black-box group is isomorphic to an alternating or a symmetric group without prior knowledge of the degree. This eliminates the major gap in known algorithms, as they require the degree as additional input. [..] the present black-box algorithms [3] and [4] can only test whether a given black-box group is isomorphic to an alternating or a symmetric group of a particular degree, provided as additional input to the algorithm. Therefore deciding whether a given black-box group is isomorphic to an alternating group may require to run the algorithm once for each possible degree."

Now, please take a look at our (Bratus-Pak) paper [4] which you say you know and read. Specifically, read Theorem 2 and Section 9. See the case of unknown n there? Here is a link for your convenience:
http://www.math.ucla.edu/~pak/papers/recfin.pdf

It may seem that the algorithm requires Goldbach Conjecture, but as Theorem 3 makes clear, one can make the algorithm to be conjecture-free by using 3 primes in place of two (Vinogradov Theorem stated in our Section 5; this recently further extended by Helfgott to include all odd integers).

So here is my question to you. Was that paper also "written under great time pressure"? Or is it really "independent" if you have seen and referenced our paper over 10 years ago AND in this paper?

Sorry to begin the new year on such a combative note.

Best, – Igor

Jan 9, 2014

Dear Igor (and everyone else),

I am sorry if the sentence we wrote about your algorithm is confusing.

However, if I understand your paper correctly, then for a true Black Box group (which is what our paper deals with - we assume *no* order oracle) you claim that the cost of a black box order computation is $\nu = O(\mu n \log\log(n)/\log(n))$ in Section 6, where μ is the cost of a bb operation. This brings the cost mentioned in Theorem 1 of your paper to $O(\rho n \log^2(n) + \mu * n^2 \log(n) \log\log(n))$ and this is not nearly linear in n.

Also I am not quite sure about how you go about making the n unknown case truely black box, and I interpret it as saying you have to find the Goldbach pairs for the possible values of n up to M, which seems to agree with the statement we wrote. Please let me know if this interpretation is incorrect.

In any case the two algorithms "A melange of black-box algorithms for recognising finite symmetric and alternating groups" and "Fast recognition of alternating groups of unknown degree" are nearly linear in n or the upper bound M of the input length, respectively, and do not use an order oracle.

All the best, Alice.

January 12, 2014

Dear Alice,

> I am sorry if the sentence we wrote about your algorithm is confusing.

The word "if" implies doubt. Are you in doubt whether you are sorry or not? In fact, your sentence is not confusing at all, but rather very clear. You say without a doubt "[3, 4] can only test whether a given black-box group is isomorphic to an alternating or a symmetric group of a particular degree". Here [3]=Beals et al paper, [4]=Bratus-Pak paper. This sentence is incorrect as written and it states unambiguously to other people that we did not consider the case of unknown n, which [4] does.

The next sentence "deciding whether a given black-box group is isomorphic to an alternating group may require to run the algorithm once for each possible degree." That's also false, as we are explicitly doing something much faster than that.

In your email you are arguing that your results are stronger and not covered by ours. Sure. We agree. We were two graduate students 15 years ago, who added one page to cover the case of unknown n, and the only reason we did that because an anonymous referee asked us to work out that case. There are four of you who wrote 30+ pages; it would be surprising if you weren't cleverer.

If your paper carefully compared what you did and what we did, similar but with more details to what you do in your email, that would be fine. The reader would be aware of both results and how they stand against each other. What you did is ignored our paper, the same way as you did in the paper with Praeger. You spent half of page 3 comparing your results to [3], but at no point to [4].

I really do not want an apology. It's too late for that, as your papers are already published. I want you to update your arXiv version of "Fast recognition of alternating groups of unknown degree" by adding a subsection comparing the papers. I want to make sure you put in the "comments" section of the arXiv page a sentence saying that the difference between these arXiv versions are that subsection comparing the results with our paper. Please let me know if you intend to do that.

I also want you to submit an erratum to Journal of Algebra with that subsection. If you need to see how this is done, you can search MathSciNet for "Erratum" or "Acknowledgment of Priority" and you will find many such examples. Please let me know asap if you intend to do that as otherwise I would have to contact the editors of Journal of Algebra directly.

Finally, please try to be very careful in referencing papers, especially by other people. The lax attitude comes off everywhere, including your last email. As far as I can tell, there is no such paper "A melange of black-box

algorithms..." MathSciNet does not find it, nor does arXiv or GoogleScholar. So I really wouldn't know anything about possibly beautiful mathematics in that paper.

Best wishes, – Igor Pak

P.S. Dear Martin, Sebastian and Wilhelm - please help Alice make the right decision.

January 12, 2014

Dear Editors Michel Broué and Gerhard Hiss,

I would like to bring your attention to the paper "Fast recognition of alternating groups of unknown degree" by Sebastian Jambo, Martin Leuner, Alice Niemeyer and Wilhelm Plesken, recently published in Journal of Algebra.

http://www.sciencedirect.com/science/article/pii/S0021869313003190

In that paper, the authors mention in passing our paper [4], see below. The authors claim we do not consider the case of an unknown degree (see their quote below). This is not correct. Not only we consider the case of unknown degree in our Theorem 2, we devote to this case the whole Section 9, titled "What to do If n is not known?"

When I brought this deficiency of attribution to authors' attention, I received a reply from Alice Niemeyer claiming that while our results are correct, they are weaker than that in their paper. Be it as it may, we do not believe this is a good reason to disregard our work. When I subsequently emailed the authors asking for an erratum or some kind or an official "acknowledgement of attribution", they did not respond.

Thus, I would like to ask for your help in this unfortunate matter. Please let me know what can be done by the JOA to mitigate this situation. Best,

– Igor Pak 18 Jan 2014

Dear Professor Pak,

your issue has now been discussed among the editors of the Computational Section of the Journal of Algebra, and the Editor handling the paper[2] by Niemeyer et al. has prepared a careful response.

Let me quote from this reponse:

(Begin of quote) *"The authors of the paper 'Fast recognition of alternating groups of unknown degree' under discussion wrote in the paper:*

The present black-box algorithm in [4] can only test whether a given black-box group is isomorphic to an alternating or a symmetric group of a particular degree, provided as additional input to the algorithm.

[4] Bratus, S., Pak, I., 2000. Fast constructive recognition of a black box group isomorphic to Sn or An using Goldbachs conjecture. J. Symbolic Comput. 29 (1), 3357.

This is misleading for two reasons. In one respect they give [4] too much credit and in another too little!

1. As [an editor] pointed out, all of the algorithms in [4] are "gray box", which is defined in [4] to mean black-box together with "order oracle" - i.e. it is assumed that a fast method is available for computing orders of elements of the groups.

The algorithms described in "Fast recognition of alternating groups of unknown degree" are superior, in the sense that they are genuinely black-box, and require no order oracle, although the authors did not draw attention to that point.

2. [4] does in fact contain a description of a Monte-Carlo algorithm for determining the degree n of a group known to be isomorphic to A_n or S_n for some unknown $n < N$, where the upper bound N is given as part of the input. Apart from the fact that it is gray-box rather than black-box, its specifications and complexity are very similar to the algorithms in "Fast recognition of alternating groups of unknown degree". (They are both "nearly linear".)

So the authors were indeed careless in this attribution.

In my opinion, the inaccuracies in the paper "Fast recognition of alternating groups of unknown degree" are not sufficiently serious to make it appropriate for the journal to publish a correction." (End of quote)

Thus, although there is some reason for you to be mildly aggrieved, the correction you ask for appears to be inappropriate. This is also the judgment of the other editors of the Computational Algebra Section, who have been

[2]EOB: This was Derek Holt, clearly identified on first page of published article

involved in this discussion.

I have talked to the authors of the paper Niemeyer et al. and they confirmed that the did not intend to disregard your contributions to the matter.

Thus I very much regret this unpleasent situation and I ask you, in particular with regard to the two young authors of the paper, to leave it at that.

Sincerely Yours,
Gerhard Hiss
February 5, 2014

Dear Editor[3]

This is in response to your email of Feb 5, 2014, included below. When deeply offended, I often like to delay my response to ensure it is measured. After re-reading your response, I (still) find it it intellectually offensive and borderline ridiculous. Few reasons:

1) Your handling editor admits our priority but claims the authors give us "too much credit" by quoting in passing and largely ignoring our results. This is the intellectually offensive part. On substance, to see whether we work with black box groups, read (aloud if it helps) the title of our paper "Fast constructive recognition of a black box group ..." To see whether we work with unknown size n, read the section title "What to do when n is not known".

2) You write "the correction you ask for appears to be inappropriate". This is the ridiculous part. I did not ask for a correction. At least not from Journal of Algebra. I did ask for it from the authors in a separate email. Should I assume you asked one of the authors to write the response on behalf of the handling editor?

3) You write " I ask you, in particular with regard to the two young authors of the paper, to leave it at that." This is both offensive and ridiculous. Are you saying that "young authors" are somehow less responsible for the content of the article? Or are you saying that it's ok for young people in general to commit academic transgressions? Or perhaps that's your way of saying "You are right, but we don't want to publicly admit it - how about you stop pressuring us for good cause?"

Given the anonymity of the handling editor[4] and the level of discussion, I will not pursue this case any further with Journal of Algebra. Instead, I intend to make every effort to publicize the story. I want to make sure that every time someone googles "Journal of Algebra", the names of the authors or the names of you (the editor), one becomes aware of this story. I enclose a draft below.[5]

Short message to Elsevier people copied on this email: The lax editorial attitude is unlikely to improve. You might want to consider making changes to the JOA Editorial Board.

[3]EOB: The "To" list included Broué, Hiss, Holt, Kantor, O'Brien, and the 4 authors of the paper by Leuner et al.

[4]EOB: the handling editor is listed on the front page of the published paper

[5]EOB: See overleaf for a report about this draft.

Best,
Professor Igor Pak
Department of Mathematics
UCLA
Los Angeles, CA 90095
http://www.math.ucla.edu/~pak May 8, 2014

EOB: In my original version of this response, I included the full content of the draft entitled "A Modern Fable" which was attached to Professor Pak's email of May 8.

Professor Pak requested the following to me in email dated September 17, 2014.

The portion of my email titled "A Modern Fable" is fully copyrighted as you can see from the copyright sign on the bottom of that literary work. You are NOT allowed to make copyrighted work by me or others publicly available. Please consider this email an official request to remove it at once.

I have acted upon this request.

Professor Pak,

Academic disagreements are usual. Sometimes they are even welcome: when they allow to clarify problems. Anger may accompany them; this may be understandable. You have a disagreement concerning a paper published by the Journal of Algebra, which, you think, has not correctly given you credit.

The Editor in Chief of the Computational Section of the Journal of Algebra, Gerhard Hiss, has answered you in a modest and polite manner, citing the handling editor's thoughtful and fair comments on these accusations. I know that you also recently had a discussion with the handling editor, Derek Holt.

If you still disagree with Hiss and Holt's scientific conclusions, you may appeal to COPE the Committee on Publications Ethics (http://publicationethics.org/), which will then independently review your allegations.[6]

But there was another aspect in the letter you recently sent around, "answering" Hiss. That letter was extremely offensive, far beyond a mere academic disagreement. In my eyes, some of its aspects are totally unacceptable to our community. With no legitimacy, without any shadow of a "proof", you linked your disagreement with the "nationality" of the authors and of the Editor in Chief of the Computational Section: they are "Germans". I completely reject the insinuation against Gerhard's professionalism.

On that aspect, I want to state a few things, once for all.

1) Do you realize that, by addressing your public letter to a man as respectable as Gerhard Hiss you are simply acting like those you claim fighting, since you characterize a human being's thoughts and actions from his "ethnic" origin or nationality?

2) Such a behavior is absolutely opposite to the very ethic of sciences and mathematics. I want you to know that I will never accept (and I am certain that the whole board of the Journal of Algebra shares that opinion) to label editors, authors, referees, with attributes such as gender, race, nationality, sexual preferences, etc.

Concerning that aspect of your letter, I have one, and only one wish: that you apologize to my colleague whom you have greatly offended.

Michel Broué, Editor-in-Chief of the Journal of Algebra.

Cc : The board of editors of the Journal of Algebra, Valerie Teng-Brou, Publisher, Elsevier. 22 May 2014

[6]EOB: To my knowledge, no appeal has been made to COPE.

Dear Editor Michel Broué,

Please excuse me for the belated reply - I like to take some time before replying to avoid the anger issues you correctly described. In the meantime, I discussed the matter with my UCLA colleague and JOA editor Paul Balmer and he encouraged me to be more constructive. I also discussed by email these issues with Laura Schmidt from Elsevier, also copied on this email. Let me first separate facts from fiction and proceed with my suggestions.

FICTION: the "offensive letter". This was a literary exercise which named no names and was fully copyrighted. It is a piece of fiction in form of a fairy tale and a genre of satire. Any resemblance to real events are coincidental and can be completely ignored – the story began with "A modern fable" and ended with "lived happily ever after" to underscore the fact this was a pure fiction. I do however agree that appending this story to my email was unhelpful and regret for any offense it has caused. I fully agree to not make it public.

FACT NUMBER 1: the JOA accepted and published a paper with erroneous claims of novelty and lack of appropriate attribution to my paper with Bratus. Not to rehash the discussion from my previous correspondence, let me quote from an email I received from Derek Holt (who allowed me to share this portion of it).

"I was the handling editor of the 4-author paper under discussion. Although I did not referee the paper myself, I did read through it, and I really should have spotted the completely false statement in the paper that you had not described any algorithm for determining the degree n of A_n or S_n in your paper with Bratus. So I would like to apologise now to you and Bratus for not spotting that."

FACT NUMBER 2: The journal's official decision Re Fact 1 was to do NOTHING: "not sufficiently serious to make it appropriate for the journal to publish a correction." Mind you, this is a correction I never requested. Then, the Editor of the Section, Gerhard Hiss, from a position of power explicitly asked me to drop my inquiries: "I ask you, in particular with regard to the two young authors of the paper, to leave it at that."

MY SUGGESTIONS:

(1) The JOA should officially ask the authors of the paper in question to apologize to both me and Sergey Bratus, my coauthor. This has yet to happen despite them being aware of the situation. The authors must update their arXiv posting and publicly make their own clarification on the issue of attribution.

(2) An independent editor (not from the Section on Computational Algebra) needs to conduct an inquiry how this could have happened. Specifically,

did the authors intentionally or unintentionally omitted/erred in attribution to our paper? Are the referees top experts in the field who are familiar with our paper? Why did the referees never mentioned the fact that this problem was already investigated by us, and if they did - why did the authors not attended to that? Do the referees have conflict of interest with the authors, such as collaborated or affiliated with them, currently or in recent past? Finally, had they known about our paper, would the paper in question be still acceptable to JOA, i.e. up to JOA high standards in views of the referees and handling editor Holt?

(3) Regardless of the outcome of (1), (2), but perhaps after the inquiry has been completed, the JOA Editorial Board might consider making some structural changes. It is clear to me that Computational Algebra is an important area with many excellent hardworking mathematicians. It is also well known that the area is plagued with groupthink (pun unintended) caused by the frequent collaboration (which is a good thing otherwise), and the lack of scholarship when it comes to referring to works by people outside a small circle of top experts. This phenomenon is rare in pure mathematics and can only be cured by extensive shaming or generation change. Unfortunately, I can only discuss my own papers on the subject as complaints by others who published in the field but then left it, were told to me in private.

If I may, I suggest keeping the whole editorial board intact but removing the division into two sections. Rightly or not, this division suggests two different standards for papers in JOA. Once all editors are equal and all papers are on equal footing, this would signal to authors in Computational Algebra that they must maintain the same high level of scholarship as other papers in the journal.

I do hope you find this criticism and suggestions to be constructive. Our common goal is to improve the JOA, one of the leading journals in the field. Unfortunately, I imagine very few people are courageous enough to complain in fear of retribution/ostracism by leaders of the field (some of whom are on the Editorial Board) or just in fear of seeming petty. However, the lack of such complaints is not a signs of things going well in the journal.

Best regards, – Igor Pak

June 20, 2014