
To: Jianqing Fan, President, Institute of Mathematical Statistics

From: Uwe Einmahl, Chair, IMS Committee on Fellows

Re: Final report of the Committee

The 2008 IMS Fellows Committee received nominations for 47 candidates in early February. We have completed our review. Here is my final report.

We had three rounds of votes and discussions and came up with 17 elected fellows. These 17 names were finally voted as a group and I have received unanimous support from the members of the committee. Here are the names:

Agresti, Alan
Arcones, Miguel
Bayarri, María-Jésus
Bolthausen, Erwin
Chen, Xia
James, Lancelot
Jiang, Jimin
Kaspi, Haya
Koenker, Roger
Krieger, Abba
Le Gall, Francois
Lin, Zhenyang
Mallick, Bani K.
Massam, Hélène
Nobel, Andrew
Peres, Yuval
Van Keilegom, Ingrid

After preparing a first file with citations which was based on the material submitted by the nominators, I sent it to the other committee members and asked for comments and suggestions. There was some discussion on that and there seemed to be a consensus that we should tone down the wording for the research part. Some nominators wrote "fundamental", "significant" and "important" and it is difficult to tell which of these qualifiers means more and which less. So after our discussion I prepared a second file without these qualifiers with the understanding that it should be clear from the fact that these persons are elected fellows that their research is important and significant. This is certainly a slight change from the previous years, but we felt that we should have a somewhat uniform style for the 17 citations. (This year we had quite a variety of styles for the suggested citations.) If you find that the style is too different from the previous years or some extra editing is necessary, please let me know and I will try to do another rewriting. Citations as approved by Council.

In general, I think that everything went very smoothly and in my opinion the system as it is now, is very good. Of course, sometimes the chances of a candidate depend on the expertise on the committee, but having 12 members on the committee makes it possible to cover many areas of probability and statistics. One should also keep in mind that a candidate who did not succeed (also sometimes due to being in a research area not well represented on the committee) can be nominated in subsequent years again.

Finally, I would like to make the following small proposal: There is a rule that members of the committee are not allowed to nominate any candidate and I would add a second rule that they should not write any support letters during their tenure on this committee. There were some cases of that type during the last three years

which did not lead to any problem at all, but it might be also helpful for the committee members to have an "excuse" if they are approached by some nominators. Working on this committee is certainly a rewarding assignment as one can support other people who perform well, but it requires also much work and this might help to keep the work load of the committee members at a reasonable level. (As everybody in our "business" knows, composing a good recommendation letter requires also a lot of time).

Overall, I think we have elected a very strong group of fellows for the year 2008.

IMS Finance Committee Annual Report

Annual audit. The Audit Subcommittee reviewed the annual audit in a conference call with the auditors from the Bregante Company. One issue of continuing concern is that the lean, distributed nature of the organization makes maintaining strong internal financial controls a challenge. Distribution of responsibilities is maintained by the requirement that checks must be prepared by the Executive Director and signed by the Treasurer; however, the volunteer Treasurer does not have time to check all the accompanying documentation. Former Treasurer, Jiayang Sun, has suggested providing the Treasurer with a part-time assistant to enable the detailed, routine checks, while the Treasurer serves as an overall/final examiner of all checks and all the monthly statements with an option of sampling the detailed documents.

Annual review of IMS investments. The IMS Investment Policy requires that “The distribution of funds should be reviewed annually and should be rebalanced if the actual allocations differ from the targets given here by more than 5%.” This review was initially carried out in May, and the Committee decided to wait until the July quarterly investment report was received from Vanguard before rebalancing. That report is now under discussion.

Report of the Memorials Committee

This is the first committee report to the Council in at least five years.

A reconstituted committee now consists of Cindy Christiansen, Geoffrey Grimmett, John Hartigan, George Styan, and Don Ylvisaker.

The committee has gone back over the members who have passed away over the past few years, discussed appropriate remembrances that go beyond a Bulletin notice, and to this point has forwarded two matters to the Council for action.

Other cases are being considered for special attention, and we note that this past year has taken another heavy toll among prominent members of the IMS. We welcome input on possible memorials, and on individuals, as this process goes forward.

Don Ylvisaker

Chair

PUBLICATION COMMITTEE REPORT – 2008.

There are essentially only two projects to report on this year.

1: Ad hoc committee on textbooks. A committee comprised of Robert Adler (Chair), Peter Bickel, George Casella, Anthony Davison, Elyse Gustafson, Jim Pitman and Sid Resnick were charged with investigating possibilities that the IMS enter into an agreement with an established publisher for the publication of one or more book series. Three possible series were considered,

- (i) IMS Lecture Notes, to replace the Lecture Notes and Monographs part of the Lecture Notes-Monograph Series.
- (ii) IMS Collections, to publish conference proceedings, festschrifts etc, which actually make up the majority of recent volumes in the current LNMS.
- (iii) A new venture, IMS Textbooks.

Of these three series, the first two involve no significant change in IMS activities, beyond making some current, purely IMS activities, joint. Entering the textbook market would be, however, be a completely new venture for the IMS.

There was a long and very lively discussion within the committee on this third issue, with the final recommendation, more or less, being that entering the graduate textbook market was a good idea, but entering the undergraduate market was something that the IMS was not suited for.

There was a strong minority view (championed by Sid Resnick) of “if it ain’t broke, don’t fix it, and if it is, then do”. The implications of this view, applied to textbooks, was that the graduate textbook market was functioning quite well, and there was little IMS could add to this other than perhaps making a little money out of it by acting as a middle man between authors and publishers. (It was, admittedly, never clear where this money might be coming from, whether out of the authors’ royalties, the commercial publisher’s profits (unlikely) or the consumer.)

On the other hand, the undergraduate textbook market is obviously “broken”, in the sense that prices are exorbitant, with new editions coming out regularly to maintain profits for publishers and, to a lesser extent, authors.

However, the overall feeling was that, even given the above, the IMS is simply not set up to impact on this market.

Nevertheless, there might be some point into joining with other organisations, such as the ASA, to investigate this issue in the future.

2: Impact factors

In early in 2006 a committee (Robert Adler, Terry Speed, Andy Stevens and Marc Yor) was set up to investigate the (ab)use of impact factors, citation counts, etc, within areas of IMS

interest. This group was effectively replaced by a joint committee of IMS, AMS and ICIAM, under IMU auspices, with the same goals but with its charge broadened to cover the general mathematical sciences.

John Ewing (AMS) chaired this committee, the other two members being Peter Taylor (ICIAM) and myself for IMS.

The committee has recently completed its report, which was adopted by all three participating organisations, and it is posted at <http://www.mathunion.org/Publications/Report/CitationStatistics>.

The bottom line of the report is that while there is obviously useful information in bibliometric data, this data is often misunderstood and misused by university administrations and, more seriously, by government funding agencies looking for a “quick and easy” way to evaluate research. I recommend the report to all, although I doubt that all will agree with all of its details.

In particular, there seems to be a very interesting difference of views between the (pure) mathematical and (applied) statistical community in terms of belief in the value of bibliometric data. Pure mathematicians, with traditionally low citation counts, are very suspicious of using bibliometric data in any serious decision making process. Applied statisticians, whose citation counts are much closer (although they rarely actually reach) the disciplines in which they work, feel far more positively about bibliometry.

For what it is worth, my guess is that the difference in attitude lies not in the obvious self-interest of these stands, but rather is more likely due to a sample size effect. In mathematics, where absolute numbers of citations are generally low, it is hard to use them as differentiating tools. This is less so in areas where these numbers are higher.

In any case, I strongly encourage all to read the actual report.

2008 Special Lectures Committee Report

May 30, 2008

The 2008 Special Lectures Committee was tasked with the selection of:

1. one Wald Lecturer (for 2009)
2. one Le Cam Lecturer (for 2009), and
3. eight Medallion Lecturers (for 2010).

The Committee worked through e-mails and online discussions from April 11 to May 30, 2008, and selected the special lecturers sequentially following the order listed above. In the selection process, the Committee had considered research excellence of the candidates and also the diversity in gender, minority, geographical distribution, and research areas. All discussions throughout the selection process were archived in Basecamp.

The numbers of nominations under consideration are as follows:

- Wald Lecturer: 7 nominations (including 1 woman)
- Le Cam Lecturer: 6 nominations (including 1 woman)
- Medallion Lecturers: (including 2 woman and 1 African American)
Probability: 8 nominations; *Statistics*: 10 nominations; *Interdisciplinary*: 6 nominations

The following list of selected special lecturers is submitted to the IMS Council for approval:

1) **Wald Lecturer (2009)**: Jerome Friedman (Stanford University, USA)

2) **Le Cam Lecturer (2009)**: Aad van der Vaart (Vrije Universiteit, The Netherlands)

3) **Medallion Lecturers (2010)**:

(Within each category, alternatives are listed in the ranking order, according to the votes received.)

[S] STATISTICS

- Ed George, University of Pennsylvania, USA
- Xiao-Li Meng, Harvard University, USA
- Marie Davidian, North Carolina State University, USA

[P] PROBABILITY

- Marek Biskup, University of California, Los Angeles, USA
- Terence Lyons, University of Oxford, UK
- Jonathan Taylor, Stanford University, USA

[I] INTERDISCIPLINARY

- Hans Foellmer, Humboldt Universitat zu Berlin, Germany
- Laurens de Haan, Erasmus University, Rotterdam, The Netherlands

By matching research areas of the selected medallion lecturers with the potential participants in the five meetings, the Committee recommends the following allocation of the selected medallion lecturers:

1. IMS 2010 Annual Meeting: 3 session
(August 2010, exact dates TBA, Gothenburg, Sweden)
Laurens de Haan (I), Hans Foellmer (I), Marek Biskup (P)
2. JSM 2010: 2 sessions
(August 1 – 5, 2010, Vancouver, British Columbia, Canada)
Ed George (S), Xiao-Li Meng (S)
3. WNAR 2010: (TBA, end of June): 1 session
Jonathan Taylor (P)
4. ENAR 2010: (March 21-24, 2010, New Orleans, LA): 1 session
Marie Davidian (S)
5. SPA 2010 (Osaka, Japan, September 2010): 1 session
Terence Lyons (P)

Comments on voting and selecting procedures --

The problem of voting systems comes up on almost all IMS committees. Under the short time frame allowed, our committee was not able to devote sufficient time and effort to identify the best voting procedure before getting on with the assigned task. Many members support the alternative voting system for named lecturers (e.g. Wald, Le Cam Lecturers), in which one numbers candidates in order of preference until one has no further preference. The candidate(s) with the least first preferences is to be eliminated, and votes are redistributed until one candidate emerges as the absolute winner. A different procedure would be appropriate where, as in the selection of Medallion Lecturers, a group of fixed size is to be elected, possibly subject to constraints. Recognizing that voting systems is a science in itself, we believe that all IMS committees would be well served by sound voting procedures set down by the IMS Council and we wish to flag this up as an issue requiring urgent attention.

Comments on the categories of medallion lecturers --

Medallion Lectures are classified in three categories: statistics, probability, and in terdisciplinary. The first two categories are more or less self-explanatory, but the last is less obvious. Some members interpret “interdisciplinary” as work that reaches significantly outside the fields of probability and statistics, while others interpret it as relating to work in both probability and statistics. Clarification of the category “interdisciplinary” in Medallion Lectures is needed.

This report is prepared by *2008 IMS Special Lectures Committee*:

Regina Liu (Chair), Mury Bramson, Tony Cai, Brad Efron, Irene Gijbels, Peter Hall, Steffen Lauritzen, Gregory Lawler, Jean-Francois Le Gall, David Madigan, Susan Murphy, Andrew Nobel, Marta Sanz-Sole, Bernard Silverman, Ed Waymire

Voting Systems for IMS Committees

This paper sets out voting systems for three different scenarios and also makes clear how the chair should act. It allows for multi-stage procedures where the committee can discuss the results between stages if it wishes. The amount of discussion between rounds of voting is up to the chair and the committee. This paper does not consider the question of how candidates for voting are obtained, only how votes should be conducted and counted when they actually take place. In every vote conducted, the chair votes along with the rest of the committee. Where there is no simple way of breaking ties, the chair has an additional casting vote as set out below.

A. Selection of a single individual (eg Wald Lecture)

Stage 1:

Each committee member ranks up to three candidates 1=first preference, 2=second preference, 3=third preference. If M preferences are used, then all the others are assigned rank $M+1$ when the votes are counted, so that if all 3 preferences are used then all the others are assigned rank 4. Within the M preferences expressed, equal ranks are not allowed. (So the voter may assign ranks 1-2-3-4-4-4-4-... or 1-2-3-3-3-3-3-3... or 1-2-2-2-2-2....)

The resulting ranks assigned by all voters are summed, and the two candidates with the smallest total rank are chosen to go on to the next stage.

If tie-breaking is needed, the number of first preference votes is used to break a tie (so among those with equal summed ranks, candidates with more first preferences are preferred). If this does not resolve the tie, there is a runoff vote between the tied candidates. In the runoff, each committee member including the chair has one vote. In the event of a tie in the runoff, the chair has the casting decision.

Stage 2:

The committee votes again (possibly after further discussion) between these two candidates to yield the winning candidate. The chair has an additional casting vote in case of a tie.

B. Selection of a slate of individuals of fixed size $N > 1$ (eg any Medallion Lecture field where more than one candidate has to be selected)

If there are segmented fields (e.g. a number for Probability and a number for Statistics) then the procedure operates separately for each field. In some cases these votes can be carried out concurrently, but in others they would have to be sequential (for instance if there is a "wild card" field.)

Stage 1:

If there are more than $N+2$ candidates, narrow down to $N+2$ using the same procedure as in Stage 1 of Scenario A. Each voter expresses up to three preferences with no ties within these preferences; if M preferences are expressed all others are given rank $M+1$; then the $N+2$ candidates with the lowest summed rank (and, within those of the same summed rank, the highest number of first preferences) are chosen to go on to the next stage.

Stage 2:

Possibly after further discussion, narrow down to the final N candidates using the same procedure as in Stage 1 for just these $N+2$ candidates. The N candidates with the lowest summed rank (and, within those of the same summed rank, the highest number of first preferences) are chosen to be the final selection.

In both cases the tie-breaking procedure, if needed, is as set out for Stage 1 of Scenario A.

C. Selection of a slate of individuals of indefinite size (eg Fellows)

Let M be the size of the committee and let K be the integer part of $(M+1)/2$. There are at most five rounds of voting. In each round proceed as follows:

Stage 1:

Each selection committee member, including the chair, votes for or against or abstain on each candidate still in consideration (ie who has not been finally rejected or selected; initially this is all the candidates). For each candidate the net score is the number for minus the number against.

In each round of voting, any candidate who achieves a net score of K or more is put on the final slate and is not voted on again. Those with a score less than Z are eliminated from further consideration, where $Z = -2$ in the first round of voting, 0 in rounds 2, 3 and 4, and K in round 5. Those with net scores between Z and $K-1$ inclusive are retained for future consideration and voting, unless the process is terminated by the vote taken as described in Stage 2 below.

Stage 2:

After the third and fourth round of voting, have a single vote on whether to approve the current slate of finally selected candidates or whether to continue voting. [*If there is a tie in the single vote, the committee moves to the next round and does not terminate the process.*] After the first two rounds voting is reopened automatically provided that there are still candidates who have not been finally selected or rejected. If the voting goes as far as five rounds, after the fifth round of voting all candidates who have not been finally selected are rejected and the resulting slate of selected candidates is automatically approved.