

Pre-installment meeting of *The Proof Society* held
10-11-2017 in Oberwolfach

JjJ

November 19, 2017

About the meeting

The meeting was held on Friday afternoon, November 10, 2017 on the last day of the Workshop on *Mathematical Logic: Proof Theory, Constructive Mathematics* held in Oberwolfach. A substantial number of workshop attendants also attended the pre-installment meeting. The goal of the pre-installment meeting was to seek from those present a mandate for a small installment committee to set up the structure of the society to be founded. Further, expressions of interest to subscribe to such a society were collected.

Agenda

Arnold Beckmann took chair and presented an agenda for the meeting consisting of the following points:

1. Confirmation of previous minutes
2. Matters arising
3. Seek mandate to form a society / association on Proofs
4. Decide on membership of an Implementation Group.

Tentative implementation group: Bahareh Afshari, Matthias Baaz, Arnold Beckmann, Lev Beklemishev, Rosalie Iemhoff, Joost Joosten, Peter Schuster, Andreas Weiermann, plus ???

5. Proposed General Action for the Implementation Group:

Formulate a constitution which nails down the aim of this association, based on the following proposal:

To support the notion of proof in its broadest sense, through a series of suitable activities; to be therefore inclusive in reaching out to all scientific areas which consider proof as an object in their studies; to enable the community to shape its future by identifying, formulating and communicating its most important goals; to actively promote proof to increase its visibility and representation.

6. Proposed specific actions for the Implementation Group:

- (a) decide on a name
- (b) set up a webpage
- (c) set up a membership system
- (d) set up a mailing list
- (e) organise an annual summer school + linked workshop, starting from Summer 2019.

Minutes of a previous meeting in 2014 at MFO

Andreas Weiermann went briefly through the minutes of a previous meeting held on November 22, 2014 at MFO on a similar topic. For self-containedness we summarize here the most important points and refer to the minutes of the 2014 meeting for further details.

Summary of minutes of meeting from November 21, 2014

1. **Network** The idea is to have a network for Proof theory and related topics very much in the spirit of the succesful computability network CiE.
2. **Summer School** The network could organize summer schools where the basics can be taught to young students or scientists outside the field.
3. **Funding** The network could sustain/embed funding schemes.
4. **PhDs/PostDocs** It is nowadays hard to allocate PhD students and Postdocs and the network could facilitate here.
5. **Information hub** Via a webpage and mailinglist relevant information can be gathered and shared.
6. **Folklore** Various results in the old literature are referred to as folklore. They were folklore at the time but no longer are and the thoughts/observations/theorems need somehow be organized/sustained and archived.
7. **Books** A special book series can be thought of.

Open discussion

After Andreas Weiermann presented the 2014 minutes, Arnold Beckmann opened the floor for a general discussion. The most salient contributions are summarized below.

- Mathias Baaz opened the discussion by emphasizing that after waiting for three years the important thing is to get really started. It is important to have a visible activity. It seems that most attendants agreed that a summerschool is most convenient to start with. Mathias insisted that we should start 2018. Andreas Weiermann expressed willingness to look into organising a summer school in Ghent in 2018.
- Ulrich Kohlenbach stressed that the actions should be balanced and in coordination with other events. As examples he mentioned the summerschool *Types, Sets, Constructions* in Bonn 2018 and the *Hilbert-Bernays Summer School on Logic and Computation* in Göttingen 2015 – 2018.
- Sara Negri mentioned the Scandinavian *Nordic Logic Summerschool*.

- Anton Freund mentioned the Oberwolfach seminars, to which Michael Rathjen remarked that these are by invitation only.
- Michael Rathjen suggested that we could focus on a Autumn school since summers tend to be packed by other meetings and conferences. Lev Beklemishev ventured to talk about a winterschool as to avoid clashes.
- Mathias Baaz remarked that clashes are inevitable but also do not form a real problem: attendants do not go to all. As example, he mentioned a rather hastily organized summerschool in MADEIRA???? NO, THAT WAS NOT IT BUT SOME OTHER EXOTIC PLACE which was a great success. Basically, he remarked, only the speakers should be there and the rest will follow.
- Nicola Gambino mentioned the *Young Set Theory Workshops* containing tutorials which are actually organized by the students which are a great success.
- Stefano Berardi observed that this is linked to the original questions of the goals of the society to be formed.
- Mathias Baaz concluded some general remarks on this stating that indeed a broad, open and more senior platform is what seems most suitable.
- Antonina Kolokolova wondered if there are some existing structures/events that could be embedded into the society to be. No such things could be thought of, but Mathias mentioned that, for example, a European Training Network could naturally be embedded or at least associated to the society.
- Anton Freund wondered if it could also be an option for the society to be involved in divulgation and exhibitions. It was generally agreed that it can be a good idea.
- Sara Negri mentioned that there is also a need for interdisciplinary activities like providing elementary courses for professionals from other specialties. As an example she mentioned a *Logic and Legal Reasoning workshop* in Italy and/or France.
- Joost Joosten mentioned that a main function of the society could be to provide a portal or hub for the interested specialists where even interaction with industry can be channeled through.
- Arnold Beckmann confirmed the need of better communication and sees an important role for webpage and mailinglist here. As an example he referred to the aforementioned workshops that not all were actually aware of.
- Antonia Kolokolova wondered if a preprint series is desirable and or feasible. It was generally agreed that this could be a very good idea and Henry Towsner mentioned that Model Theorists do have such a database.

- Lev Beklemishev proposed to just get started. He remarked that the tentative board of organizers did, for example, not include representatives from the USA and that such omissions should be considered. He proposed a paper to go round for those interested to sign up to stay in the loop.
- The papers went round and the interested attendants signed up.
- Paulo Oliva mentioned that actually, there was something called the *Maps Group* which stands for *Mathematics and Proofs* but Thierry Coquand mentioned that there were issues with the mailinglist. Further, it was mentioned that the reference to *Mathematics* seems too narrow the scope suggesting a second rank position for, e.g., Computer Science.
- Peter Aczel found the tentative name *Proof* confusing: mathematics itself is all about that. Matthias disagreed and found a catchy name more important than a fully descriptive one.
- Martin Hyland suggested to use the catchy name in conjunction with the main aim ‘proof as an object of study’. The attendants all agreed to this.
- Rosalie Iemhoff suggested the current work title *The Proof Society* which was met by approval.
- Arnold Beckmann declared the inauguration of *The Proof Society*, to which the attendants responded with applause.

Arnold Beckmann closed the meeting and thanked all attendants for their participation.

Tasks and Action Points concluded in the meeting

The following summarises the mandate which the meeting has given to the Initiating Committee:

1. Finalise the membership of the Initiating Committee, taking the comments made in the meeting in terms of balance of representation into account.
The initial membership of the IC consists of Bahareh Afshari, Matthias Baaz, Arnold Beckmann, Lev Beklemishev, Rosalie Iemhoff, Joost Joosten, Peter Schuster, and Andreas Weiermann.
2. set up a web-page
3. set up a mailing list
4. set up a membership system
5. Andreas will look if Ghent can host the first summer school in 2018.

Current list of interested members resulting from this meeting

Aczel, Peter (Manchester (GB))
Afshari, Bahareh (Gteborg (SE))
Arai, Toshiyasu (Chiba (JP))
Artemov, Sergei N. (New York (US))
Baaz, Matthias (Wien (AT))
Beckmann, Arnold (Swansea (GB))
Beklemishev, Lev D. (Moscow (RU))
Berardi, Stefano (Torino (IT))
Buchholtz, Ulrik Torben (Darmstadt)
Buss, Samuel R. (La Jolla (US))
Coquand, Thierry (Gteborg (SE))
Ferreira, Fernando (Lisboa (PT))
Freund, Anton (Leeds (GB))
Gambino, Nicola (Leeds (GB))
Grabmayr, Balthasar (Berlin)
Hetzl, Stefan (Wien (AT))
Hyland, J. Martin E. (Cambridge (GB))
Iemhoff, Rosalie (Utrecht (NL))
Ishihara, Hajime (Ishikawa (JP))
Joosten, Joost (Barcelona (ES))
Kohlenbach, Ulrich (Darmstadt)
Kolodziejczyk, Leszek (Warszawa (PL))
Kolokolova, Antonina (St. John's (CA))
Leigh, Graham E. (Gteborg (SE))
Leustean, Laurentiu (Bucureti (RO))
Negri, Sara (Helsinki (FI))
Oliva, Paulo (London (GB))
Pakhomov, Fedor (Moscow (RU))
Powell, Thomas (Darmstadt)
Rathjen, Michael (Leeds (GB))
Sanders, Sam (Mnchen)
Schuster, Peter M. (Verona (IT))
Schwichtenberg, Helmut (Mnchen)
Sipos, Andrei (Bucureti (RO))
Streicher, Thomas (Darmstadt)
Thapen, Neil (Praha (CZ))
Towsner, Henry (Philadelphia (US))
Weiermann, Andreas (Gent (BE))
Yokoyama, Keita (Ishikawa (JP))