

SIAG/IS 16 Business Meeting Minutes

Tuesday, May 24th, 2016 6:45PM-7:30PM

Estimated Attendance: ~50 attendees

Prepared by: Julianne Chung, SIAG/IS Secretary

- I. **Thank you** to outgoing SIAG/IS Officers (*Naoki Saitom, Peter Kuchment, Rebecca Willett, and Marcelo Bertalmio*) and **introduce** the new officers (*Eric Miller, Gitta Kutyniok, Omar Ghattas, and Julianne Chung*)
 - a. Thank you to previous officers for pushing the early career award
- II. **Announcements**
 - a. SIAG/IS has an electronic mailing list siam-IS@siam.org for job postings or conference/workshop announcements
 - b. Previous postings can be found on the SIAG/IS archive
 - c. SIAM News & SIAM Blogs
 - i. They are looking for stories, information, interesting articles, etc.
 - ii. Send Eric an email if you have ideas. The more publicity we can get, the better, so we should try to raise awareness.
 - iii. Social media: SIAM has a blog and there is a twitter feed for this conference. The hashtag is #SIAMIS16
- III. **Recognition of new SIAG/IS Fellows**
 - a. 2015 fellow *Charles Elliott* and 2016 fellows *Michael Hintermüller, Bo Kågström, Andrew Knyazev, and James Nagy*
 - b. It's great to recognize members of our community, and we hope to continue the momentum in coming years.
- IV. **SIAG/IS Conference History**
 - a. Conference has been running every 2 years since 2002 (Boston), and we have had good growth in attendance.
 - b. The IS16 conference has the 2nd highest attendance (after the 2014 Hong Kong conference).
 - c. Thanks to *Stefano Soatto, Rebecca Willett* and the organizing committee for their hard work.
 - d. IS16 was held in cooperation with the IEEE Signal Processing Society (SPS), the American Statistical Association (ASA), and the SPS Computational Imaging Special Interest Group. We are interested in how these groups can mutually benefit (e.g., the group on computational imaging has a journal on computational imaging).
- V. **Proposal for IS18 from University of Bologna** (presentation by *Fiorella Sgallari*)
 - a. Proposed location and dates: University of Bologna, **June 5-8, 2018**
 - b. This is a European proposal (with EU supporters from Austria, Denmark, Finland, France, Germany, Portugal, Spain, and UK)

- c. Univ of Bologna is a multi-campus, public university (it's a historical campus) with 33 departments, 11 schools and many museums (sometimes lessons are taught among frescos). The campus has 84K students and a budget over 610.9 million euros.
- d. Bologna is a small, walking city, with a historical path that goes through the city and most things are within 30 minutes. The university is very close to downtown with many hotels/restaurants nearby.
 - i. Bologna has a small, but efficient airport with connections to every capital in Europe and sometimes summer flights to New York
 - ii. There is excellent Italian food
 - iii. Nearby cities with fast train connections include Venice (1.5 hrs), Florence (25min), Rome (2 hrs), Milan (1 hr)
- e. Conference Issues:
 - i. A new building (Belmeloro) has been chosen for the conference center. It is close to the math department and has a nearby garden. The biggest hall holds 432, but there are also nearby buildings to handle a larger meeting. The opening session can be in the Aula Magna (10 minutes away, holding up to 1000 people)
 - ii. The selected dates are ideal since there will be no classes that week and it is before exams
 - iii. The department of math has accepted financial responsibility and has formed a committee to handle financial matters
 - iv. Accommodations range from 45 euros per day at the university to 3-5 star hotels with negotiated rates at approximately 90euros per day for a single room
- f. Feedback from participants:
 - i. The alternative is to have it in the states (SIAM would take care)
 - ii. A potential concern about having the conference at a university is that people may come sporadically, but this may not be an issue.
 - iii. This will be the first time SIAM IS is held in Europe, attracting interest from other European groups such as GAAM.
 - iv. Applied Linear Algebra was in Germany and will be in Hong Kong. Participation has been great overseas.

VI. Other Conferences

- a. SIAM AN16 (July 11-15, 2016 in Boston) with SIAM-NSF Workshop on Optics and Photonics
- b. Gene Golub SIAM Summer School on Data Sparse Approximations and Algorithms – application site opens Fall 2016

VII. SIAG/IS Membership Report

- a. SIAG/IS has good membership, with about 500 members
- b. If not a member, join SIAM (many benefits)

VIII. Other Business: New officers joined in January and brought up some issues.

a. Updating web presence

Goal: Currently we have a wiki and listserve, but it's not user friendly. We want to develop a webpage that includes a list of open positions (e.g., for students, postdocs, industry and internships), upcoming workshops and conferences, links to the SIIMS, etc.

Feedback from members:

- i. Listserv can have a spam feel, rather have a digest
- ii. On webpage, have links to recorded talks from IS Conferences
- iii. Start simple and then improve on it
- iv. Have a Facebook page for conference postings, pictures, etc. SIAM Student chapters already have a Facebook page for getting students involved – this is not for everyone
- v. Question to SIAM: Can we have a student representative on the SIAG board? If we want, we can propose it at the charter renewal.
- vi. Need to generate content on these pages to be useful. Ideas to engage students include an image of the month or a twitter competition. ISRM has an active twitter competition where the most tweets get recognized at the end of the conference.

b. Role of inverse problems in the SIAG

Proposed Idea: Bring inverse problems into the title of the SIAG. Imaging is a form of inverse problems. We already see a strong presence of inverse problems at the meeting and in SIIMS. There is a tight connection between the two (e.g., ideas start in imaging world and translate into inverse problems), so why should we put inverse problems in the title?

- Many people work in inverse problems and don't recognize/think of SIAM/IS as a go-to place for conferences. For example, many application researchers work on the complex physical model between the image and the observation, and these people don't consider themselves as part of the imaging science community.
- Inverse problems do not have a home in SIAM. Although internationally, the Applied Inverse Problems (AIP) conference has a conference every 2 years (alternating with SIAM IS) with an associated society, there is no conflict with having a home in SIAM. By having inverse problems in both conference names, we complement AIP.
- We can grow SIAG membership, especially with inverse problems' growing recognition in the world of big data.

Feedback from members:

- i. Fully support since SIAM looks for symmetry to benefit both fields. Putting it in the SIAG name will made the community far stronger by embracing the inverse problems community.

- ii. Many keywords are missing in the name of the conference- inverse problems is just one of them. Inverse problems already make up a major component (over 50%) of the conference and of SIIMS. However, "signal processing" is not included and should be, since we are avoiding participants that should be here.
- iii. There is another inverse problems conference "Inverse problems: Modelling and Simulation" which attracts many from the Russian inverse problems community. The inverse problems community is large, and if we define inverse problems as computational, then we exclude others who don't feel part of that community (e.g., abstract regularization theory). The SIAM UQ conference has a large number of talks on inverse problems. Rather than take it as a name, instead have plenary speakers from that field.
- iv. CSE has the largest number of minis on inverse problems, but many of them don't come here.
- v. The title is important. For example, Stanford university had a school of arts and sciences and changed it to the School of Earth, Energy and Environmental Sciences.
- vi. If we change the name, it is possible that attendance will drop. So we need quantitative evidence (e.g., to raise funds) for changing.
- vii. Inverse problems are driven by applications, so it is good to attract theoretical researchers to connect with applications. Also many theoretical techniques are not used in applications.
- viii. Some colleagues from China are not coming any more because it's getting too expensive. SIAM fees are still relatively low, compared to other conferences.
- ix. IP-net email list provides publication titles for Inverse Problems and Inverse Problems and Imaging. It would be good for SIIMS to send out a table of contents regularly to all of these email lists when each volume is printed.
- x. We should be vigilant about reaching a broader audience. Rather than changing the name of the journal/group, let's modify the subtitles to broaden the scope and see if the numbers grow because of that.

IX. Adjourn and final issues

- There was discussion at SIAG14 in Hong Kong about creating a minisymposium to link SIIMS with the conference. For the first time, 8 papers were selected from SIIMS and presented at IS16. Hopefully, someone will organize a similar session next time. This time the papers were selected with the help of the previous Editor-in-Chief, taking into account the number of downloads and citations. It's not clear if that was a good measure, since the 8 papers reflected a trend

(imaging related to optimization). We need an extra mechanism to select the representative papers so that other areas of imaging science get highlighted too. One idea is to go to the associate editors to nail down the papers.

- Aside from Hong Kong, this is biggest and longest IS conference yet (4 days vs 3 days previously). What should we do as we grow? Have more parallel sessions, higher rejection rate, longer conference? Thoughts from the audience include:
 - o Run the conference annually.
 - o Limit to one talk per speaker.
 - o CSE dealing with it too (over 300 minis), so encourage posters
 - o Increasing rejection rate is difficult because it's hard to judge abstracts
 - o Make posters more prominent (not second class and seniors should give posters), have 1-2 poster blitzes to give a mini-plenary experience
 - o AGU has over 20k and most of the interaction is at the posters
 - o Include proceedings to attract students
 - o SIAM doesn't like proceedings because of short shelf-life and mathematics fields put less emphasis on proceedings
 - o Like the low overhead of SIAM conferences, so hesitant to give up on that aspect of the culture
 - o Conferences with proceedings are collapsing, so we should keep the model we have
 - o We should have more extensive recording of minisymposiums and having slides posted online
 - o Conferences in CS do not have proceedings, but disseminates online
 - o Ideas for getting more students involved:
 - Thesis prize may bring students to the conference, but it requires volunteers, this would be different than the early career award
 - Imaging science based competition (a challenge problem)
 - Poster competitions and awards