

SIAM Activity Group on Imaging Science (SIAG/IS) 2020 Business Meeting Minutes

The meeting was held via Zoom on July 13, 2020 as part of the virtual 2020 SIAM Conference on Imaging Science (IS20). Approximately 10-15 participants were online throughout the call.

Welcome

Carola-Bibiane Schönlieb (CBS), SIAG/IS Chair, led the business meeting. She began by welcoming the attendees and then introduced each of the new officers who began service in 2020: Vice Chair Hongkai Zhao (HZ), Program Director Gabriele Steidl (GS), and Secretary Michael Wakin (MW).

Communications

MW gave an overview of the forms of communication used by the SIAG: listserv, SIAM website, and SIAG wiki. These are to be subsumed into the new SIAM community website which will be deployed soon. The community website will be a more actively curated site where members can post information, respond with comments, receive email digests, and search a member database. It will allow us to pull content from SIAM News and other sources. MW thanked the SIAG members who will help with testing the website and asked all members to consider contributing content when it is deployed.

MW also reminded the members about the SIAM News website and Twitter account, and that SIAM News is always looking for new contributions.

Membership

CBS gave a summary of membership/attendance numbers in the SIAG. SIAM IS Conference enrollment has risen steadily, to 802 in 2018. Stacey Levine (SL) noted that IS20 enrollment is over 3000, thanks to the virtual format and free registration.

The SIAG had 571 members at the end of 2019. The SIAG membership is about 50% students. Student members have a higher percentage of female members. A majority of SIAG members are in academia, a majority are in the US, and a majority are in the field of Mathematics (with Engineering second).

HZ suggested emailing the IS20 attendees to try to recruit new members. MW noted that this could help bring a more diverse group of members, although CBS noted that the cost to join SIAM could still be a barrier.

Data Science

Naoki Saito (NS) asked about the recent trend in Data Science and possible connections to the SIAG. CBS explained that the SIAG on Data Mining and Analytics is currently regrouping into a SIAG on Data Science (DATA). The SIAG/IS has entered into discussions with SIAG/DATA on links and collaborations.

To strengthen connections, NS suggested occasionally hosting the IS conference jointly with the Mathematics of Data Science (MDS) conference. An attendee with username Alpay noted overlap between the topics of IS and MDS conferences. HZ suggested possible MDS submeetings/sessions which could focus on imaging themes. GS noted that it is difficult to decide between attending the MDS or IS conference. SL noted that the idea of a joint MDS/IS conferences has come up in the past and she is in

favor. While 2022 may be too soon, it could be worth trying to make this happen in the near future. Alpay noted that having a virtual option can also increase access to these conferences.

Benchmarking

HZ discussed the ever-growing need and interest for data driven and enabled approaches for science and engineering problems for which there are good physical and mathematical models. He proposed that the SIAG help in developing a process for generating high-quality, well-documented, user-friendly data to help with validating research. Such an idea goes beyond a standard dataset and would include a forward solver for generating data as well as a framework for evaluating results.

CBS noted that the SIAG is looking for volunteers to form a working group, which HZ can help coordinate. It may make sense for this working group to reach out to other SIAGs and expand the scope of this effort in the future. Alpay suggested looking at the Human Connectome and the Cancer Imaging Archive as being relevant. Anyone with other suggestions or who has an interest in volunteering are encouraged to contact HZ.

Prizes

The SIAG sponsors two prizes (Early Career and Best Paper). Recently the 2020 awardees were honored as part of IS20: The 2020 Early Career prize was awarded to Yaniv Romano. The 2020 Best Paper prize was awarded to Suhas Sreehari, S. V. Venkatakrisnan, Brendt Wohlberg, Gregory T. Buzzard, Lawrence F. Drummy, Jeffrey P. Simmons, and Charles A. Bouman for their work on plug-and-play priors for bright field electron tomography and sparse interpolation.

No SIAG/IS awards were made in 2018 due to a lack of nominations.

CBS encourages members to nominate people for future awards, as SIAM requires at least 3 nominations in order to make an award announcement. NS noted that our typical advertising strategies are insufficient. It was suggested to contact SIIMS journal editors and AEs to ask for suggestions, and it is similarly possible to contact editors from the IEEE Transactions on Image Processing.

SIAM IS22

GS discussed the 2022 SIAM Conference on Imaging Science (IS22) which is proposed to be held in Berlin, Germany from March 23-26, 2022. The conference will be held at the Technische Universität Berlin (TU Berlin) and will be co-organized by the Humboldt Universität zu Berlin and the Weierstrass Institute for Applied Analysis and Stochastics (WIAS). TU Berlin is in the historic+modern center of Berlin and the venue has a nice area for a poster session and reception, in addition to being near the Math building. Contracts with SIAM should be finalized soon, after which the Program Committee will be established and advertising will begin.