

2022 SIAG/APDE

Virtual: SIAM Conference on Analysis Partial Differential Equations Analysis of Partial Differential Equations Business Meeting

Minutes

Date: March 16, 2022, 2:15 – 3:15 pm ET

Participants: Maria-Carme Calderer, Eva Donnelly, Mikaela Iacobelli, Richard Moore,
Michael I. Weinstein, Emil Wiedemann

SIAG/APDE Officers

Chair: Michael I. Weinstein

Vice Chair: Maria-Carme Calderer

Program Director: Siddhartha Mishra

Secretary: Mikaela Iacobelli

SIAG/APDE Announcements and Fellows

A slide with announcements such as SIAM Engage, SIAG/APDE Leadership suggestion form is shown.

The SIAG/APDE Fellows are:

- for the Class of 2020: Robert Lipton for the contributions to the mathematics of materials and their translation to engineering applications

- for the class of 2021: Anna Mazzucato for discerning analysis of fundamental problems in partial differential equations and mathematical fluid mechanics including boundary layers, transport, and mixing

and Eitan Tadmor for original, broad, and fundamental contributions to applied and computational mathematics, including conservation laws, kinetics, image processing, and social dynamics.

SIAG/APDE Webinar

The Seminar in the Analysis and Methods of PDE is an initiative of SIMA and SIAG/APDE. The Webinar series is held on the first of Thursday of the month at 11:30am ETH, except in August and January. The Founding organizing committee (SIMA-SIAG/APDE) consists of the following persons: Pierre-Emmanuel Jabin, Robert Lipton, Anthanos Tzavaris, Jim Nolen, Eitan Tadmor, David Ambrose, Jose Carillo, Charlie Doering, Cleopatra Christoforou and Irene Fonseca. The current organizing committee has the following members: Gui-Qiang Chen, Jonathan Mattingly, Anna Mazzucato, Felix Otto, Helena Nussenzweig Lopes (Chair), Catherine Sulem, Eitan Tadmor, Alexis Vasseur. The first lecture was on June 4, 2020 by Sir John Ball and the next speaker will be Martin Hairer on April 7, 2022.

SIAG/APDE Conference

SIAG/APDE Conference History is going back in 2006, when it was the last conference collocated with the annual SIAG meeting (1149 persons registered). For the virtual conference 2022 in Berlin there are 486 pre-registrations.

The organizing committee co-chairs for the conference 2022 are Siddhartha Mishra and Emil Wiedemann. The organizing committees consists of the following persons: Etienne Emmrich, Irene M. Gamba, Nassif Ghoussoub, Zaher Hani, Cory Hauck, Shi Jin, Dorothee Knees, Svitlana Mayboroda, Anna Mazzucato, Alexander Mielke, Zhifei Zhang

Two highlights of the conference:

1) SIAG/APDE Best Paper Prize, the lecture will be held on March 17, 2022 (Global Weak Solutions for Heat-Conducting Compressible Navier-Stokes equations with a Truncated Virial Pressure Law) by Didier Bresch and Pierre-Emmanuel Jabin.

2) The Early Career Prize will go to Giacomo Canevari (A Few Variational Approaches to the Description of Defects in Liquid Crystals), the lecture will take place on the same date.

SIAM 2022 annual Meeting

The SIAM 2022 annual meeting will take place July 11 – July 15, 2022 in Pittsburgh. There will be a collocation of various SIAM activity groups: SIAM Conference on Applied Mathematics Education, SIAM Conference on the Life Science and SIAM Conference on Mathematics of Planet Earth. Additionally, there will be tracks of sessions on Applied Linear Algebra and Materials Science.

Registration deadline is June 13th and there is also a travel fund application deadline on April 11, 2022.

The next SIAG/APDE Meeting

The Gene Golub SIAM Summer School on Financial Analytics: Networks, Learning, and High Performance Computing will take place August 1 – 12, 2022 in Italy. The next call for proposals will be in January 2023. More information can be found on the SIAM website.

There is a question of the timing of the next conference SIAG/APDE Meeting: should it be in 2024 or shall we return to odd years, as before of the pandemic. SIAG/APDE is due to either have a track at or co-location with SIAM 2024 annual Meeting (AN24 in Spokane, Washington in July 2024).

A track would mean: APDE would have a representative on the AN24 Organizing Committee, be able to nominate a AN24 invited speaker in APDE and hold at least 4 minisymposia, other sessions / contributed talks etc. labeled as SIAG/APDE.

There is a possibility that SIAG/Dynamical Systems will be running a track at AN24, an opportunity for synergies.

General information

Benefits of SIAM Memberships are shown in the slide. M. Weinstein emphasized the possibility of nominating SIAM Fellows and of nominating 2 students for free membership. Paid members may do it every year. Student members can join 2 SIAGS for free.

2022 SIAG/APDE Membership Report

Data as of December 31, 2021

Total number in our activity group is 848 with 492 (85%) student members and 356 (42%) nonstudent members. Peak membership was in 2020 with 1056 members with a decrease the following year. This is a pattern in other SIAGs, likely due to the pandemic. Another slide shows the memberships by geography: US 540 members (64%) and non-US 308 (36%) as well as the memberships by gender (based on self-reporting): nonstudents with 21.1% women, 75.3% men and students with 22.8% women, 71.1 men. Memberships by employer type are dominated by academia (90.6%), with a small representation of Industry (4.4%) and Laboratory (3.1%). Looking at the departments we are mostly mathematics (89%) and some engineering.

Other Business and Discussion

Emil Wiedemann (EW)

The most important open question is how and when the next SIAM PDE meeting will take place. There is the option to join the general SIAM Meeting and I see there are synergies that can be used. The track version would reduce the number of the PDE related talks.

Michael Weinstein (MW) A track option at the Annual meeting would not be in instead of a SIAG/APDE meeting. It would just mean significant presence at the AN.

EW

EW spoke to Marita Tomas, one of the Berlin Team for the original onsite plan at TU Berlin. The group is still very enthusiastic to hold the next conference in Berlin. It could also be in 2026 or later. I would like to support that.

Helena Nussenzveig Lopes (HNL)

I agree with what Emil was saying: it is not a good idea to have the APDE meeting together with the SIAM Meeting. The APDE meeting is very traditional and very big.

Michael Weinstein: If we decide to run a separate meeting, we could run a track at the annual meeting.

HNL: when you say co-located meeting you mean at the same location?

Richard Moore: a co-located meeting means at the same time. It is to take advantage of scale. Some events can be shared. Typically, registrations allow you access to both conferences when there is a co-location. The question is if you were happy with the experience in 2006, when PDE was last co-located with the annual meeting.

HNL: I was not happy with that.

MW: if you have particular comments to share that would be very useful. The decision will be made in the coming months.

HNL: The track of the annual meeting is a different story. When I was a chair we had a track at the end of the meeting, this was perfectly fine, that's like a special session.

MW: You feel that it is too much competition between the two meetings? I could think of one advantage for students could be that it is an efficient networking experiences to be in a larger group.

HNL: After the 2006 experience the community decided to not be a part of the annual meeting, as far as I know.

Maria-Carme Calderer (MCC)

About bringing the event outside of the US: one possible venue could be Bilbao or Barcelona. Let just keep this in mind. It could also be arranged. We had a virtual meeting last summer in Bilbao, it worked out very well. The government is in favor of holding these kinds of measures and was willing to give funding for the event.

MW: Thank you for your input, hope to see you in the next meeting.