

SIAM[®] ACTIVITY GROUP

Financial Mathematics and Engineering

NEWSLETTER | Fall 2022

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CHAIR'S MESSAGE

With the holiday season approaching fast, we would like to reflect on some past and future events.

SIAG/FME had a busy summer, participating with a series of mini-symposia at the [2022 SIAM Annual Meeting](#) (AN22; Pittsburg, US), as well as at the [2022 AMS-SMF-EMS Joint International Meeting](#) (Grenoble, France). Additionally, the members of SIAG/FME successfully ran the prestigious [Gene Golub SIAM Summer School \(G2S3\)](#), focused on topics from modern financial mathematics, held in L'Aquila, Italy. We thank the organizers of these events for promoting our research field and keeping our community united.

We continue running the [SIAG/FME virtual seminars series](#), in the same virtual format, once a month, on the second Thursday, featuring talks by leading experts in the field.

We are excited to host next summer the [SIAM Conference on Financial Mathematics and Engineering \(FM23\)](#), June 6-9, 2023, in Philadelphia, Pennsylvania, US. After the long pandemic break, FM23 will be the first fully in person major meeting for our community, and we are looking forward to seeing you among the participants of this important event and scientific forum for the financial engineering community. Thanks to the Organizing Committee, we have an outstanding lineup of [plenary speakers](#) (see p.2). Additionally, FM23 will feature [two mini-tutorials](#) on hot topics: MT1 - Decentralized Finance and Blockchain Technology, led by Emmanuel Gobet (Ecole Polytechnique, France) and Anastasia Melachrinou (Kaiko, France), and MT2 - Signature Methods in Finance, led by David Prömel (University of Mannheim, Germany). FM23 is the event of our community, and its overall success and the strength of the program relies significantly on the involvement of the members of the society. I would like to encourage you to consider contributing to the scientific program by organizing a mini-symposium on a topic of your expertise, or submitting a contributed talk featuring your latest results. [The submission deadlines are December 5, 2022.](#)

Please consider nominating a student or postdoc for [SIAG/FME Conference Paper Prize](#); self-nominations are welcome. For the past winners and more details about the prize see [LINK](#). Nomination deadline is February 15, 2023.

Finally, we are planning to host the [2nd Financial Mathematics & Engineering Student Programming Competition](#), with the finalist featured during FM23. Stay tuned for more details, and we count on your support in encouraging your students to team up and participate in this competition.

Happy Holiday Season, Igor Cialenco
Chair SIAG/FME

FM23

From June 6-9, 2023, the SIAG/FME will be hosting the [SIAM Conference on Financial Mathematics and Engineering \(FM23\)](#) in Philadelphia, Pennsylvania, US.

The conference will cover the full range of research in financial mathematics and engineering, with mini-tutorials on DeFi and Signature methods, a range of minisymposia, and plenary lectures from Bruno Dupire (Bloomberg), Matheus Grasselli (McMaster), Paolo Guasoni (Dublin City University and Università di Bologna), Caroline Hillairet (ENSAE-Paris), Martin Larsson (Carnegie Mellon), Marcel Nutz (Columbia), Ludovic Tangpi (Princeton) and Manuela Veloso (J.P. Morgan). Sponsors include G-Research and Kaiko.

[Submissions of Minisymposium proposals](#), contributed lectures and poster presentations are open until December 5, 2022. FM23 will also feature a student programming competition, with more details coming soon.

The prestigious SIAG/FME Early Career Prize will be announced during FM23. Additionally, the finalist of the Conference Paper Prize will present their work, with the winner selected and announced at the conference. [Applications for Conference Paper Prize](#) are accepted until February 15, 2023.

Travel fund applications (SIAM Student Travel Awards and Early Career Travel Awards) are open until 7 March, 2023. Details of registration fees, childcare support grants, student hotel rates, etc... will be listed on the webpage in the coming month.

ICAM2023

Next Summer, the international applied mathematical community will be gathering at the [10th International Congress on Industrial and Applied Mathematics \(ICAM2023\)](#), Waseda University, Tokyo, Japan, August 20-25, 2023. Similar to previous ICAMs, the meeting will feature invited talks by the prominent researchers, host mini-symposia covering all modern topics of applied mathematics, as well as numerous networking events. The executive officers of the SIAG/FME and [Bachelor Finance Society](#) teamed up to streamline a series of mini-symposia at this premier event. [Submission deadlines](#) for mini-symposia proposals and contribute talks is December 23, 2022.

CONFERENCE REPORTS

SIAM AN22

The mathematical finance community was well represented at the largest SIAM conference - the SIAM Annual meeting AN22, held in hybrid mode, in Pittsburgh, Pennsylvania, between July 11-15, 2022. The SIAG/FME organized eight minisymposia covering a wide range of topics in modern quantitative finance. A good number of participants attended the meeting in person, who enthusiastically used the time outside of the formal sessions to discuss and share research ideas and latest results.

AMS-EMS-SMF Joint Meeting

From July 18 to July 22, 2022, Université Grenoble Alpes Campus hosted a joint meeting organized by the American Mathematical Society, the European Mathematical Society and the Société Mathématique de France, in the city of Grenoble, right in the heart of the beautiful French Alps. Thanks to Beatrice Acciaio (ETH), Carole Bernard (Grenoble Ecole de Management) and Stephan Sturm (Worcester Polytechnic Institute), the mathematical finance community was represented at this international meeting by 20+ researchers speaking about Mean Field Games in Mathematical Finance, Robust Finance and Machine Learning in Finance.

Eastern Conference on Mathematical Finance

The 6th edition of the ECMF was hosted by the Department of Mathematics, Rutgers University, on October 14-15, 2022. Thanks to the organisers Kim Weston and Kasper Larsen, the participants of ECMF6 enjoyed this scientific forum, during which researchers of all career stages presented and discussed their recent works. The ECMF torch was picked up by the North Carolina State University, who will host ECMF7 next fall.

ONGOING EVENTS

Ongoing events:

[SIAG-FME VIRTUAL SEMINARS](#), Virtual.

[BACHELIER FINANCE SOCIETY ONE WORLD SEMINARS](#), Virtual.

[MACHINE LEARNING IN FINANCE](#), Virtual.

UPCOMING EVENTS

SIAM FM23



Conference on
Financial Mathematics and
Engineering

[SIAM Financial Mathematics and Engineering \(FM23\)](#)

June 6-9, 2023

Double Tree by Hilton Philadelphia Center City | Philadelphia, Pennsylvania, USA

VWFM22

[Verona Workshop in Financial Mathematics 2022](#)

December 14, 2022, University of Verona, Italy

Winter School

[20th Winter School on Mathematical Finance](#)

January 23–25, 2023, Soesterberg, The Netherlands

GPSD 2023

[16th German Probability and Statistics Days \(GPSD 2023\)](#)

March 7–10, 2023, Essen, Germany

DYNSTOCH 2023

[DYNSTOCH 2023 - Workshop on Statistical Methods for Dynamical Stochastic Models](#)

March 27-29, 2023, Imperial College London, UK

AMaMeF

11th General [AMaMeF](#) Conference and summer school on "Risk and Uncertainty in Economics, Insurance and Finance" will take place from 26th to 30th June 2023 in Bielefeld (Germany). Following the conference, a summer school on "Risk and Uncertainty in Economics, Insurance and Finance" will take place in the week of July 3-7, 2023.

ICIAM

[10th International Congress on Industrial and Applied Mathematics](#)

August 20-25, 2023, Waseda University, Tokyo, Japan

OBITUARIES

Ole E. Barndorff-Nielsen (1935 – 2022)

Ole E. Barndorff-Nielsen passed away on 26th June 2022 at the age of 87. He was a Professor at Aarhus University in Denmark. Ole's world-leading scientific work spanned a broad range of topics in stochastics motivated by many applications, including turbulence and finance. In the mathematical finance and financial econometrics community, Ole is best known for the now widely adapted Barndorff-Nielsen-Shephard model and his highly influential work on realized variation measures, which are nowadays standard tools for estimating stochastic volatility in finance and beyond. Moreover, motivated by his interest in stochastic models for turbulence, Ole created and advanced the new field of ambit stochastics, which has broad applicability in many sciences. Ole was a great mentor, collaborator and friend for many researchers in Aarhus and beyond, and he will be dearly missed by all of us who had the privilege to have known him.

Almut Veraart



Photo: Thomas Steiner

Marco Avellaneda (1955-2022)

Our community sadly lost an important member, Marco Avellaneda, Professor at the Courant Institute of Mathematical Sciences at New York University on July 11, 2022. He began his academic career at NYU in 1985 and he was Director of the Division of Financial Mathematics. His research interests include applied mathematics, physics, data science, mathematical finance, econometrics of financial markets, derivative securities, portfolio theory and risk-management. He was recognized as Quant of the Year by Risk magazine in 2010 for his research on pricing options on hard-to-borrow securities. He was active not only in research and teaching but also in consulting as an expert in quantitative finance. His work was featured in several media including Forbes and Bloomberg.



Thomas Hurd (1956-2022)

We were heartbroken to hear this unexpected sad news: Tom Hurd, Professor in the Department of Mathematics and Statistics at McMaster University passed away on April 28, 2022. His research covered from Mathematical Physics in his early career research to Financial Mathematics, particularly, financial systemic risk in his most recent interest: His 2016 book *Contagion! Systemic Risk in Financial Networks* summarized the growing research results and provided a unified mathematical framework in timely manner. He was also a dedicated mentor, teacher and communicator until his last moment.



On behalf of the SIAM Activity Group on Financial Mathematics and Engineering,

Igor Cialenco (Chair), Luitgard A. M. Veraart (Vice-Chair),
Sam Cohen (Program Director) and Tomoyuki Ichiba (Secretary)